

2/19/2012



THE SQUIRREL'S NEST 2011

Terrence McGarty

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THE SQUIRREL'S NEST

SUNDAY, DECEMBER 25, 2011

MERRY CHRISTMAS TO ALL

1. FACTUM EST AUTEM IN DIEBUS ILLIS EXIIT EDICTUM A CAESARE AUGUSTO UT DESCRIBERETUR UNIVERSUS ORBIS
2. HAEC DESCRIPTIO PRIMA FACTA EST PRAESIDE SYRIAE CYRINO
3. ET IBANT OMNES UT PROFITERENTUR SINGULI IN SUAM CIVITATEM
4. ASCENDIT AUTEM ET IOSEPH A GALILAEA DE CIVITATE NAZARETH IN IUDAEAM CIVITATEM DAVID QUAE VOCATUR BETHLEEM EO QUOD ESSET DE DOMO ET FAMILIA DAVID
5. UT PROFITERETUR CUM MARIA DESPONSATA SIBI UXORE PRAEGNATE
6. FACTUM EST AUTEM CUM ESSENT IBI IMPLETI SUNT DIES UT PARERET
7. ET PEPERIT FILIUM SUUM PRIMOGENITUM ET PANNIS EUM INVOLVIT ET RECLINAVIT EUM IN PRAESEPIO QUIA NON ERAT EIS LOCUS IN DIVERSORIO
8. ET PASTORES ERANT IN REGIONE EADEM VIGILANTES ET CUSTODIENTES VIGILIAS NOCTIS SUPRA GREGEM SUUM
9. ET ECCE ANGELUS DOMINI STETIT IUXTA ILLOS ET CLARITAS DEI CIRCUMFULSIT ILLOS ET TIMUERUNT TIMORE MAGNO
10. ET DIXIT ILLIS ANGELUS NOLITE TIMERE ECCE ENIM EVANGELIZO VOBIS GAUDIUM MAGNUM QUOD ERIT OMNI POPULO
11. QUIA NATUS EST VOBIS HODIE SALVATOR QUI EST CHRISTUS DOMINUS IN CIVITATE DAVID
12. ET HOC VOBIS SIGNUM INVENIETIS INFANTEM PANNIS INVOLUTUM ET POSITUM IN PRAESEPIO
13. ET SUBITO FACTA EST CUM ANGELO MULTITUDO MILITIAE CAELESTIS LAUDANTIUM DEUM ET DICENTIUM
14. GLORIA IN ALTISSIMIS DEO ET IN TERRA PAX IN HOMINIBUS BONAE VOLUNTATIS
15. ET FACTUM EST UT DISCESSERUNT AB EIS ANGELI IN CAELUM PASTORES LOQUEBANTUR AD INVICEM TRANSEAMUS USQUE BETHLEEM ET VIDEAMUS HOC VERBUM QUOD FACTUM EST QUOD FECIT DOMINUS ET OSTENDIT NOBIS
16. ET VENERUNT FESTINANTES ET INVENERUNT MARIAM ET IOSEPH ET INFANTEM POSITUM IN PRAESEPIO

17. VIDENTES AUTEM COGNOVERUNT DE VERBO QUOD DICTUM ERAT
ILLIS DE PUERO HOC

18. ET OMNES QUI AUDIERUNT MIRATI SUNT ET DE HIS QUAE DICTA
ERANT A PASTORIBUS AD IPSOS

19. MARIA AUTEM CONSERVABAT OMNIA VERBA HAEC CONFERENS IN
CORDE SUO

20. ET REVERSI SUNT PASTORES GLORIFICANTES ET LAUDANTES DEUM IN
OMNIBUS QUAE AUDIERANT ET VIDERANT SICUT DICTUM EST AD ILLOS

1 And it came to pass in those days *that* a decree went out from Caesar Augustus that all the world should be registered.

2 This census first took place while Quirinius was governing Syria.

3 So all went to be registered, everyone to his own city.

4 Joseph also went up from Galilee, out of the city of Nazareth, into Judea, to the city of David, which is called Bethlehem, because he was of the house and lineage of David,

5 to be registered with Mary, his betrothed wife, who was with child.

6 So it was, that while they were there, the days were completed for her to be delivered.

7 And she brought forth her firstborn Son, and wrapped Him in swaddling cloths, and laid Him in a manger, because there was no room for them in the inn.

8 Now there were in the same country shepherds living out in the fields, keeping watch over their flock by night.

9 And behold, an angel of the Lord stood before them, and the glory of the Lord shone around them, and they were greatly afraid.

10 Then the angel said to them, "Do not be afraid, for behold, I bring you good tidings of great joy which will be to all people.

11 For there is born to you this day in the city of David a Savior, who is Christ the Lord.

12 And this *will be* the sign to you: You will find a Babe wrapped in swaddling cloths, lying in a manger."

13 And suddenly there was with the angel a multitude of the heavenly host praising God and saying:

14 "Glory to God in the highest, And on earth peace, goodwill toward men!

15 So it was, when the angels had gone away from them into heaven, that the shepherds said to one another, "Let us now go to Bethlehem and see this thing that has come to pass, which the Lord has made known to us."

16 And they came with haste and found Mary and Joseph, and the Babe lying in a manger.

17 Now when they had seen *Him*, they made widely^[d] known the saying which was told them concerning this Child.

18 And all those who heard *it* marveled at those things which were told them by the shepherds.

19 But Mary kept all these things and pondered *them* in her heart.

20 Then the shepherds returned, glorifying and praising God for all the things that they had heard and seen, as it was told them.

Labels: [Commentary](#)

THURSDAY, DECEMBER 22, 2011

WEBER'S LAW

Weber's Law is an interesting Law" observed in various fields. It states that to observe some phenomenon in a background the ratio of the smallest perceptual change in a stimulus that can be observed is given by:

$$\Delta S = k S (\text{Background})$$

Namely that there exists some constant k for which one can observe a change from an average Background stimulus level.

For example we as humans if we are used to say 70F room temperature may be able to recognize a 3.5F change, so that k is 20. This "law" may extend over some region with the same k.

Now we can think of using Weber's Law in such diverse areas as Economics, namely what level of improvement in say unemployment would be perceived as good if the total were 10%. Does it hold at a background of 5%. In global warming what change in F would be ascertainable at a background of say 70F?

Apparently cells function this way at the gene product level as well. See the paper by [Ferrell](#). Worth a thought.

Labels: [Economics](#), [Economy](#), [Global Warming](#)

TUESDAY, DECEMBER 20, 2011

MICROARRAYS AND TOO MUCH DATA

In a recent article by [Spector at Stanford](#) the author tells how for little money one can develop their own tests for genetic markers. She states:

So it takes years of hard work and serious cash to create one of these "simple" tests, right? Not anymore. "All you really need is a computer browser and Excel," says computer scientist Purvesh Khatri, PhD, who, working with Atul Butte, MD, PhD, associate professor of systems medicine in pediatrics, identified telltale chemicals (aka biomarkers) for three types of cancer all in the span of one year. How was this possible? By analyzing some of the vast amount of genetic information from tumor cell samples that has been amassed over the past decade in free, publicly accessible databases, and by outsourcing the lab work. "We say 'outsource everything except the genius,'" says Butte. "You come up with the question and the target, and let everyone else do the work." As Khatri walked me through the discovery process, I learned there's a little more to it than that. Some work and cash is involved, not to mention high-school level biology. And basic statistics will be a big help. But with those tools, skills and about five days' work, plus \$4,000 to confirm through blood tests, you're on your way.

Yes, for just a few dollars and a few hours of time you too can develop a genetic profile. In contrast a set of papers by Detours and colleagues raises some doubts about this.

The problem is that it is all too easy to get correlations of almost anything with anything. They are not markers unless we have a system with verifiable causality. This was discussed in the work of [Dougherty](#). What Dougherty has observed is that one must have a system underlying the process, with causality, and that what one then looks for are the coefficients which define that system. From that we can ascertain if the result is true and consistent.

Recently Detours has addressed this issue in PLOS and he and his co-authors have demonstrated that the plethora of markers for say breast cancer can be shown to be nothing more than almost random choices, my words not theirs. Namely one may be able to find correlates almost anywhere.

From the [Detours note in The Scientist](#) we have:

Ethic guidelines drastically limit experiments on human subjects. Hence, the fundamental mechanisms of human diseases are mostly studied in vitro or in animal models. These are only substitutes for understanding human physiology and disease. Proving that a mechanism responsible for disease progression in a model system is also relevant to human diseases—not to mention then translating it into a new therapeutic—is a major bottleneck in biomedicine. In the end, only clinical interventions on human will bridge models and human disease.

One approach is to look for correlations. If you can show that patients with tumors expressing, for example, stem cell markers have a much worse prognosis than those without them, that would suggest that stem cells are involved in human disease progression. This line of thinking has long been popular in oncology because you need only access surgical specimens, some mRNA or protein marker, and a follow up of patients. And with the recent advent of efficient microarray screens, this approach has become all the rage, reducing the discovery of signatures, i.e. multi genes markers, to a nearly automatic procedure.

In their [PLOS paper Venet et al](#) state:

Hundreds of studies in oncology have suggested the biological relevance to human of putative cancer-driving mechanisms with the following three steps: 1) characterize the mechanism in a model system, 2) derive from the model system a marker whose expression changes when the mechanism is altered, and 3) show that marker expression correlates with disease outcome in patients—the last figure of such paper is typically a Kaplan-Meier plot illustrating this correlation.

Detours continues:

The signatures' prognostic potential can then be tested instantly in genome-wide compendia of expression profiles for hundreds of human tumors, all available for free in the public domain. Besides stem cells markers, signatures linked to all sorts of biological mechanisms or states have been shown to be associated with human cancer outcome. Indeed, several new signatures are published every month in prominent journals.

But such correlations are not all that they seem. The accumulation of signatures with all sorts of biological meaning, but nearly identical prognostic values, already looked suspicious to us and others back in 2007. It seemed that every newly discovered signature was prognostic. We collected from the literature some signatures with as little connection to cancer as possible. We found, for example, a signature of the blood cells of Japanese patients who were told jokes after lunch, and a signature derived from the microarray analysis of the brains from mice that suffered social defeat. Both of these signatures were associated with breast cancer outcome by any statistical standards.

In PLOS they state:

Our study questions the biological interpretation of the prognostic value of published breast cancer signatures, but has no bearing on their usefulness in the clinic: a marker may be accurate without yielding interesting biological insight regarding the mechanism of disease progression. Nevertheless, the prominence of proliferation should be taken into account in future clinical research. Are there transcriptional signals in breast cancer that are prognostic, but independent of proliferation?

And they conclude:

In conclusion, we have shown that 1) random single- and multiple-genes expression markers have a high probability to be associated with breast cancer outcome; 2) most published signatures are not significantly more associated with outcome than random predictors; 3) the meta-PCNA metagene integrates most of the outcome-related information contained in the breast cancer transcriptome; 4) this information is present in over 50% of the transcriptome and cannot be removed by purging known cell-cycle genes from a signature.

As Detours concludes in his short piece in The Scientist:

It took us four years and six rejections to get this work finally published in a computational biology journal (PLoS Comput Biol, 2011)—not the most efficient venue to reach the oncology community. Meanwhile, a steady stream of studies confounded by proliferation rates has appeared. This has to be said, one can no longer stay silent about the rather limited self-correction capability of the top tier publishing system (Cell, Nature Genetics, PNAS, etc.), which promoted these studies in the first place. The oncogenomic-based literature has forgotten the pitfalls of non-specific effects and the value of negative controls. It is not enough to show that a signature is prognostic; biological conclusions may be drawn only if its prognostic value is specifically driven by the mechanism/state under investigation. Importantly, we question prognostic signatures as specific research tools, not as clinical guides: smoke does not drive fire, yet it is powerful indicator of when and where a fire is burning.

His point is well taken. The challenge is to determine the intra-cellular and inter-cellular pathways as defined as dynamic distributed systems, and to do what Dougherty and others

suggest, namely understand what is happening and why and then seek to identify the system. Failure to have a viable a provable model of the system will lead to volumes of data which are far from prognostic. In fact they may be very well deadly to the patient.

Labels: [Cancer](#)

[INTELLIGENCE FAILURE?](#)



The [NY Times](#) has a piece saying that the failure to publicize the death of the North Korean Head of State was somehow an intelligence failure is rather off. As they state:

Asian and American intelligence services have failed before to pick up significant developments in North Korea. Pyongyang built a sprawling plant to enrich uranium that went undetected for about a year and a half until North Korean officials showed it off in late 2010 to an American nuclear scientist. The North also helped build a complete nuclear reactor in Syria without tipping off Western intelligence.

Now good intel is not shared. This is so for several reasons and let me list two:

First, by keeping intel secret one sees what the other side says and does. There is great value in that.

Second, by keeping it quiet one protects one's own sources. By revealing it one may reveal a source. That may result in compromising the source.

Simply good intel is never published. It sits quietly and is used accordingly. Perhaps the authors should consider that alternative as well.

Labels: [Commentary](#)

[MANDATORY HEALTH INSURANCE](#)

There is a continuing argument regarding mandatory universal health care. A recent posting in the [WSJ](#) makes a rather convolved argument for and against it ultimately suggesting some tax policy to make it work.

The author makes the following argument:

The most common case for an individual mandate is the free-rider argument. Imagine a community in which everyone dutifully pays monthly health-insurance premiums, except Joe. Then one day Joe gets sick and finds he cannot pay the full costs of his medical care. So the rest of us chip in and pay for the remainder of Joe's care. The upshot: When he was healthy, Joe got to consume all his income instead of paying premiums, and after he got sick he managed to "free ride" on everyone else's generosity.

Ethically, Joe is getting an undeserved benefit paid for by others, who bear an undeserved cost. Economically, he is imposing an external cost on others. If we let him get away with this, others might emulate his example and the cost for the rest of us could grow.

So is the solution to mandate that everyone have health insurance? On average, people without health insurance consume only about half as much health care as everyone else. Of the amount of care they consume, they pay for about half. Thus the "free ride" for the average uninsured person is about one-fourth of what everyone else spends on health care.

Forcing Joe to buy insurance that pays for the same amount of care everyone else gets would be neither fair nor equitable. To get Joe to pay his own way, we need to take from him an amount of money equal to about one-fourth of the average health-care spending of insured people and either distribute it to everyone else or put it in a fund to pay for the care eventually required by Joe and others like him.

It is worth reflecting again on some of the issues:

1. As a society we have gotten to the point that if someone is ill then we take care of them and if they do not have insurance they are "free riders" on the system, it is akin to the auto insurance issue of having an uninsured motorist pool. Namely we assume that there will always be some few individuals without auto insurance and that the risk of them getting in an accident is higher than most so we tax all law abiding folks for the risks presented by those not abiding by the law. In fact we generally do not even penalize those breaking the law.
2. As we have argued many times there is no reason the government should be in the middle of this in any way and that includes tax breaks. Frankly paying for anything should be without a tax advantage but at lower rates. One should pay for health care after tax to fully understand the costs. Costs are the modulator of demand. It is demand we want to modulate.
3. There are free riders who smoke and are obese, now amounting to some 60% of the population. They cost \$360B in 2011 and it grows at 40% per annum and yet we allow them the same rates, as we do with drug users, to some degree with smokers, and those with STDs.

4. Thus the "only" logical solution is that we should and "must" individually purchase health care, not through a company plan, but akin to auto and home insurance with no tax benefit. We get auto and property insurance by our lonesome and without any tax advantage. We can choose what plan we want.

5. If you do not buy health insurance, and there should be an opt out with a cost however, then when you become ill and if it costs the people one cent you are then penalized n cents for every cent of costs, then it becomes an immediate mandate. If however you can pay on your own then you have a free ride on your pennies

6. Mandated coverage should be at most catastrophic, like having liability only on a car, collision or comprehensive is not mandatory. The problem with the current Government Plan is that some obese GS 12 dictates what you should have and the result is a massive increase in costs! There should be at most a mandate for catastrophic coverage.

Yes, demand would decrease and costs would go down.

Labels: [Health Care](#)

[PIGOU AND POTATO CHIPS](#)



[Frances Woolley](#) has presented an interesting question which we have examined in depth before. She has presented an exam question regarding the externalities of obesity framed in terms of a potato chip tax.

Frances states:

"Pigouvian taxes" are imposed to make people take into account the full impacts of their actions. The classic example is a carbon tax. Whenever people produce or consume carbon-based fuels they harm other people, from those who breathe in exhaust fumes to future generations affected by climate change. A carbon tax makes people recognize the full cost of their consumption and production choices, thus creates incentives for people to change their behaviour.

The potato chip example, however, is different: the chip eater in the exam question isn't harming other people. The bad skin, weight gain, and depression is experienced by the chip eater himself. It is not obvious that a Pigouvian tax is needed to make chip eaters take into account the harms

that they causing - why not just tell people that potato chips cause bad skin, and if people think the chips are worth the zits, let them munch away? They're only harming themselves.

Now let me rephrase her issues a bit. Perhaps as in the US we may have a slightly different economic framework than Canada but I believe we have a parallel.

First, as [we have demonstrated many times](#), obesity in the US will cost us \$350B this year alone of our \$2.5T health care costs. How is this paid for, well Medicare, Medicaid, and insurance. Namely we are all taxed equally for the costs of a few.

Second, we have a country where over 60% have a BMI in excess of 25 and well over 40% are outright obese. Frankly I wonder who is "hungry" with all these fat people but I leave that question to the side.

Third, we know that obesity is the prime driver for Type 2 Diabetes, well in excess of 95% is a result of weight, and Type 2 Diabetes causes many sequellae from neuropathy, nephropathy, retinopathy, cardiomyopathy and the like. We can draw a straight line from caloric consumption to costs. This is unlike the carbon claim of Woolley where [I would argue the nexus is tenuous at best](#).

Thus as to her assumptions as above:

- 1) I disagree with the first regarding carbon. The line is broken by hypothesis and not fact connecting cause and effect.
- 2) The line between a calories and a cost is well established. We can actually say what every excess calorie costs. Not bad for an engineer! But that is nothing more than what Chem Es do for a living. We know what the cost of every 0.1 above 25.0 costs society. The issue then is do we tax the input or the output to cover their externalities, namely their added costs. Namely, do we tax the food or the person's weight?

I believe that Frances may have missed an interesting example if she had carried it a bit further. We have substantial data on disease incidence by BMI level and we have costs with each disease. I have [gone through this analysis a few years ago](#) in the large regarding health care costs. Perhaps the "devil is in the details" but that is where economists perhaps should seek truth if not just the facts.

Perhaps also this may just be one of my hot buttons. Frances has an interesting point but I believe that it requires more depth. This was a point which I had a strong disagreement with Greg Mankiw for he is a proponent of a Pigou tax on gasoline but opposes a Pigou tax on carbs. My opposition of the Pigou tax on gasoline is driven by the fact that demand is inelastic. Namely if workers have to drive to their place of employment the tax is not a disincentive but merely another way for the Government to take funds out of the economy. On the other hand a carb tax is used in a much more elastic environment, just look at cigarette taxes, and the funds become not only a disincentive but a cost balancing means.

Thus my argument with Frances is that this is an interesting but complex problem with the data available to actually perform a detailed analysis. In addition it is a pressing problem for many countries, for it is not just acne but the development of one of the most pandemic disease epidemics known. In fact the main problem with Type 2 Diabetes and the sequellae is that they can be managed for a long time per patient but at an ever growing cost per patient per year. In contrast lung cancer just kills you off before you become too much of a burden!

Labels: [Economics](#)

THIRD BIRTHDAY



It has been three years since I started this and about eight months since I counted countries. This Blog has managed to get 59% from the US and remainder from around the world, 101 countries since April alone. I want to thank the readers for dropping by and hope they have gained some insight. The last three years have been exciting and as many may have observed the Blog has been idiosyncratic, a bit of everything.

If anyone ever has any questions or issues please feel free to email me your concerns. I made the decision early on not to have comments and I am glad I have done so seeing other blogs.

The upcoming year should present a wealth of new thoughts. Merry Christmas and Happy New Year to all.

Labels: [Commentary](#)

SATURDAY, DECEMBER 17, 2011

HITCHENS: SOME THOUGHTS

On the death of Hitchens I am reminded of several facts. First many of my European friends ended early their lives as a result of self inflicted hard lives. Second when asked what his favorite poem was he remarked If by Kipling:

*If you can keep your head when all about you
Are losing theirs and blaming it on you;
If you can trust yourself when all men doubt you,
But make allowance for their doubting too;
If you can wait and not be tired by waiting,*

*Or being lied about, don't deal in lies,
Or being hated, don't give way to hating,
And yet don't look too good, nor talk too wise:*

*If you can dream -- and not make dreams your master;
If you can think -- and not make thoughts your aim;
If you can meet with Triumph and Disaster
And treat those two imposters just the same;
If you can bear to hear the truth you've spoken
Twisted by knaves to make a trap for fools,
Or watch the things you gave your life to, broken,
And stoop and build 'em up with worn-out tools;*

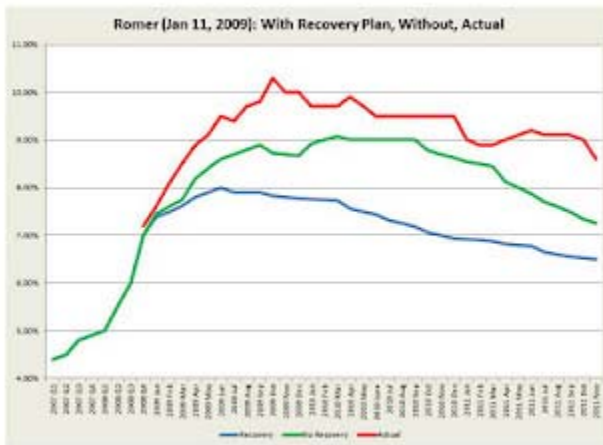
*If you can make one heap of all your winnings
And risk it on one turn of pitch-and-toss,
And lose, and start again at your beginnings
And never breathe a word about your loss;
If you can force your heart and nerve and sinew
To serve your turn long after they are gone,
And so hold on when there is nothing in you
Except the Will which says to them: "Hold on!"*

*If you can talk with crowds and keep your virtue,
Or walk with kings -- nor lose the common touch,
If neither foes nor loving friends can hurt you,
If all men count with you, but none too much;
If you can fill the unforgiving minute
With sixty seconds' worth of distance run --
Yours is the Earth and everything that's in it,
And -- which is more -- you'll be a Man, my son!*

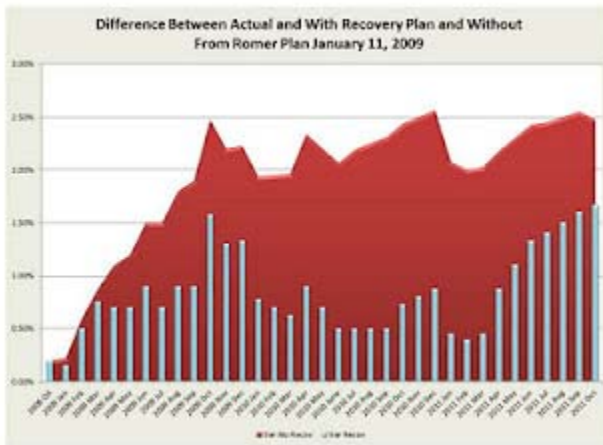
Labels: [Commentary](#)

THURSDAY, DECEMBER 15, 2011

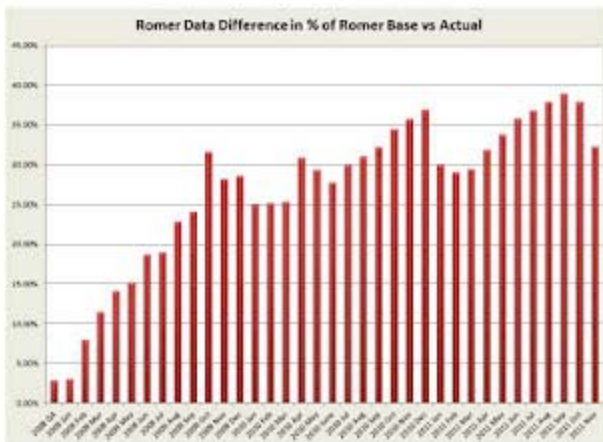
EMPLOYMENT FACTORS



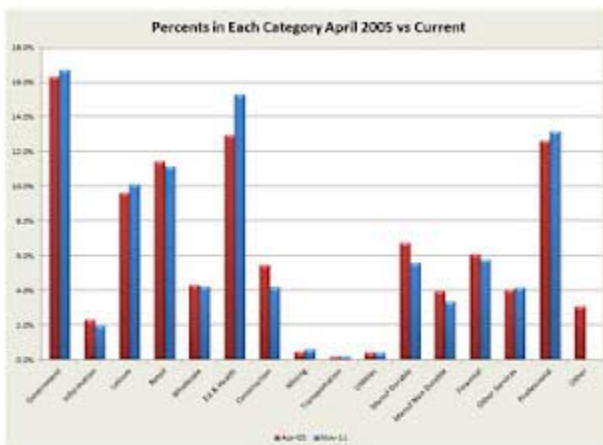
It is worth a review of some of the recent economic data regarding employment. First the chart above looks at the actual data to the Romer projections. It is clear that no matter how much we may have improved we are still way off from where the projections said we would be. This should be a continuing concern especially as regards to what any economist says about anything.



The above is a measure of the errors and we see the growth in what we should have seen with the recovery. The problem is that the variance from the projected recovery is widening.



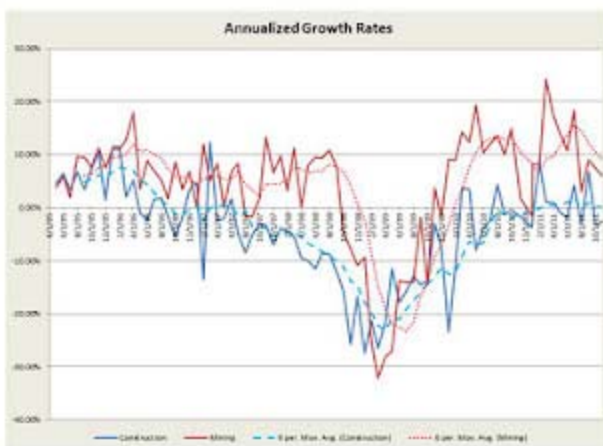
This is the difference in percent from what was projected and we see a 30-35% difference. Not surprising despite the trillions spent. In fact one should understand that the payroll tax cut is simply not charging working folks for their Social Security, a loss in some \$300 billion in revenue! Consider the almost \$300 billion in unemployment insurance and we see almost all of the trillion we are off.



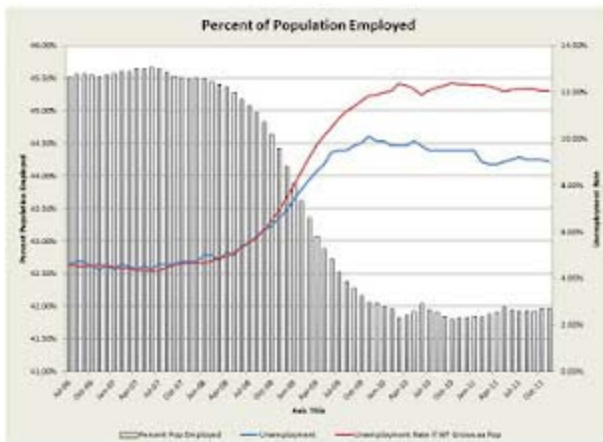
The above is the difference in employment from 2005 to the present. Growth is in Government and Medical/Education, essential Government, with some in professional. Construction and manufacturing are all down.



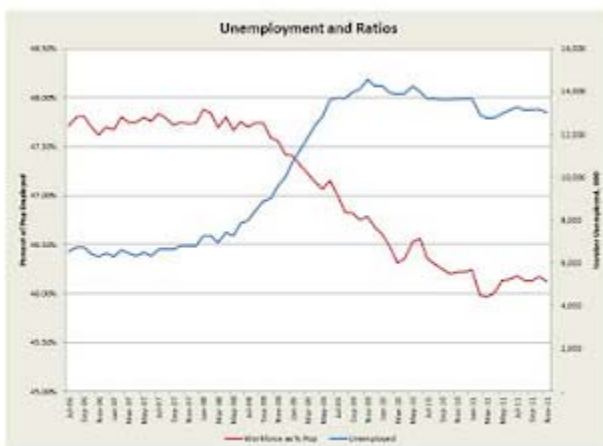
The above is the growth rates for those slower segments. They are at best about 1-2% pa, well below any reasonable level.



The above is the growth for construction as well. There is some growth in mining.



The above shows the percent of the population employed, and we see it remaining well below what we had before the recession. It demonstrates no material change in employment. In fact the unemployment using the 2006 base is still above 12% not the 8.6% stated by the Government.



This chart above is thus the essential one to watch and it still shows a sustained unemployment.
 Labels: [Economy](#)

SATURDAY, DECEMBER 10, 2011

COMMUNITY COLLEGES

There was an interesting piece this week in the [Harvard Crimson](#) on Community Colleges. They state:

Student attendance at community colleges has surged during the last decade. Enrollment now stands at 8.2 million, a 2.2 million hike in the last two years. In Texas, 79 percent of students who enroll in a public university begin at a community college. Even during the recession, the national rate of enrollment at community colleges leapt forward at a pace three or four times greater than that of four year institutions.

For all our Nobel Prizes, it's increasingly clear that investment in higher education gets the most bang for the buck when it's put into community colleges, not Ivies. There are two reasons why community colleges should be a top priority for anyone who cares about higher education.

It continues:

Granted, community colleges often don't provide a great education. Their graduates are less likely to occupy top spots in the nation or world. But one lesson of American history is that sometimes mass education is more important than elite education. In the 19th century, European countries offered first-rate schools for the upper class but scrimped on education for all. In contrast, the United States promoted mass education—first, widespread literacy and primary education, and then in the 20th century high school education for the great majority of children, and finally higher education for a large share of the public. America's best schools were often inferior to Europe's best schools, but what turned out to matter most was that mass education was better in America than in Europe—and that gave us the jump on economic productivity and technological innovation.

Now I have first hand knowledge of the community college. I spent the past semester taking Organic Chemistry at County College of Morris, a nice place on a hill west of New York City some fifty miles or so. Now I did not go to an Ivy League university, MIT never considered itself so endowed as say Harvard, but on the same hand I have unlike the author never found a non-American university on a par with any top ranked American one.

Now to Community Colleges. I tracked the MIT course and indeed we kept pace. The exams were comparable. What was different was how the faculty treated the students. At MIT we were treated as potential peers, and expected to perform and excel in such a manner. At CCM we are treated as High School middle of the roaders. Now the top 20% are comparable to many MIT students, but they have little money, are first generation immigrants, and recent immigrants, and are returnees. In effect they are what can and should become our entrepreneurial class. Yet the role of the Community College appears to be "training" not education. The administration focuses on taking attendance so as to ensure that if the drop out rate is too high they do not get blamed. They do not push the students, there is no research path to show the way, there is no networking, and in fact the administration seems to be on par with any public high school.

Thus the students in many ways could I believe compete on par with many at MIT, but the fire to excel has been crushed despite the fact that they keep pushing ahead. Thus the challenge is not more money per se but a better attitude, a respect for the student and a linking of the student with their potential.

It always helps to be part of the system to understand it.

Labels: [Academy](#)

TUESDAY, DECEMBER 6, 2011

TEDDY AND NEW NATIONALISM

But remember that Teddy lost in 1912 to a Governor from New Jersey!

THE NEW NATIONALISM

Teddy Roosevelt

Osawatomie, Kansas

August 31, 1910.

We come here to-day to commemorate one of the epoch making events of the long struggle for the rights of man - the long struggle for the uplift of humanity. Our country - this great Republic - means nothing unless it means the triumph of a real democracy, the triumph of popular government, and, in the long run, of an economic system under which each man shall be guaranteed the opportunity to show the best that there is in him. That is why the history of America is now the central feature of the history of the world; for the world has set its face hopefully toward our democracy; and, O my fellow citizens, each one of you carries on your shoulders not only the burden of doing well for the sake of your own country, but the burden of doing well and of seeing that this nation does well for the sake of mankind....

Of that generation of men to whom we owe so much, the man to whom we owe most is, of course, **Lincoln**. Part of our debt to him is because he forecast our present struggle and saw the way out. He said:

"I hold that while man exists it is his duty to improve not only his own condition, but to assist in ameliorating mankind."

And again:

"Labor is prior to, and independent of, capital. Capital is only the fruit of labor, and could never have existed if labor had not first existed. Labor is the superior of capital, and deserves much the higher consideration."...

"Capital has its rights, which are as worthy of protection as any other rights.... Nor should this lead to a war upon the owners of property. Property is the fruit of labor; . . . property is desirable; is a positive good in the world."...

"Let not him who is houseless pull down the house of another, but let him work diligently and build one for himself, thus by example assuring that his own shall be safe from violence when built."...

At many stages in the advance of humanity, this conflict between the men who possess more than they have earned and the men who have earned more than they possess is the central condition of progress. In our day it appears as the struggle of freemen to gain and hold the right of self-government as against the special interests, who twist the methods of free government into machinery for defeating the popular will. At every stage, and under all circumstances, the essence of the struggle is to equalize opportunity, destroy privilege, and give to the life and citizenship of every individual the highest possible value both to himself and to the commonwealth. That is nothing new. ...

Practical equality of opportunity for all citizens, when we achieve it, will have two great results. First, every man will have a fair chance to make of himself all that in him lies; to reach the highest point to which his capacities, unassisted by special privilege of his own and unhampered by the special privilege of others, can carry him, and to get for himself and his family substantially what he has earned. Second, equality of opportunity means that the commonwealth will get from every citizen the highest service of which he is capable. No man who carries the burden of the special privileges of another can give to the commonwealth that service to which it is fairly entitled.

I stand for the square deal. But when I say that I am for the square deal, I mean not merely that I stand for fair play under the present rules of the games, but that I stand for having those rules changed so as to work for a more substantial equality of opportunity and of reward for equally good service. ... When I say I want a square deal for the poor man, I do not mean that I want a square deal for the man who remains poor because he has not got the energy to work for himself. If a man who has had a chance will not make good, then he has got to quit. ... For every special interest is entitled to justice, but not one is entitled to a vote in Congress, to a voice on the bench, or to representation in any public office. The Constitution guarantees protections to property, and we must make that promise good. But it does not give the right of suffrage to any corporation. The true friend of property, the true conservative, is he who insists that property shall be the servant and not the master of the commonwealth; who insists that the creature of man's making shall be the servant and not the master of the man who made it. The citizens of the United States must effectively control the mighty commercial forces which they have themselves called into being.

There can be no effective control of corporations while their political activity remains. To put an end to it will be neither a short nor an easy task, but it can be done....

I believe that the officers, and, especially, the directors, of corporations should be held personally responsible when any corporation breaks the law.

Combinations in industry are the result of an imperative economic law which cannot be repealed by political legislation. The effort at prohibiting all combination has substantially failed. The way out lies, not in attempting to prevent such combinations, but in completely controlling them in the interest of the public welfare. For that purpose the Federal Bureau of Corporations is an agency of first importance. Its powers, and, therefore, its efficiency, as well as that of the Interstate Commerce Commission, should be largely increased. We have a right to expect from the Bureau of Corporations and from the Interstate Commerce Commission a very high grade of

public service. We should be as sure of the proper conduct of the interstate railways and the proper management of interstate business as we are now sure of the conduct and management of the national banks, and we should have as effective supervision in one case as in the other. The Hepburn Act, and the amendment to the act in the shape in which it finally passed Congress at the last session, represent a long step in advance, and we must go yet further....

The absence of effective State, and, especially, national, restraint upon unfair money-getting has tended to create a small class of enormously wealthy and economically powerful men, whose chief object is to hold and increase their power. The prime need is to change the conditions which enable these men to accumulate power which is not for the general welfare that they should hold or exercise. We grudge no man a fortune which represents his own power and sagacity, when exercised with entire regard to the welfare of his fellows.

...

No man should receive a dollar unless that dollar has been fairly earned. Every dollar received should represent a dollar's worth of service rendered - not gambling in stocks, but service rendered. The really big fortune, the swollen fortune, by the mere fact of its size acquires qualities which differentiate it in kind as well as in degree from what is possessed by men of relatively small means. Therefore, I believe in a graduated income tax on big fortunes, and in another tax which is far more easily collected and far more effective - a graduated inheritance tax on big fortunes, properly safeguarded against evasion and increasing rapidly in amount with the size of the estate.

The people of the United States suffer from periodical financial panics to a degree substantially unknown among the other nations which approach us in financial strength. There is no reason why we should suffer what they escape. It is of profound importance that our financial system should be promptly investigated, and so thoroughly and effectively revised as to make it certain that hereafter our currency will no longer fail at critical times to meet our needs....

But I think we may go still further. The right to regulate the use of wealth in the public interest is universally admitted. Let us admit also the right to regulate the terms and conditions of labor, which is the chief element of wealth, directly in the interest of the common good. The fundamental thing to do for every man is to give him a chance to reach a place in which he will make the greatest possible contribution to the public welfare. Understand what I say there. Give him a chance, not push him up if he will not be pushed. Help any man who stumbles; if he lies down, it is a poor job to try to carry him; but if he is a worthy man, try your best to see that he gets a chance to show the worth that is in him. No man can be a good citizen unless he has a wage more than sufficient to cover the bare cost of living, and hours of labor short enough so that after his day's work is done he will have time and energy to bear his share in the management of the community, to help in carrying the general load.

... The national government belongs to the whole American people, and where the whole American people are interested, that interest can be guarded effectively only by the national government. The betterment which we seek must be accomplished, I believe, mainly through the national government.

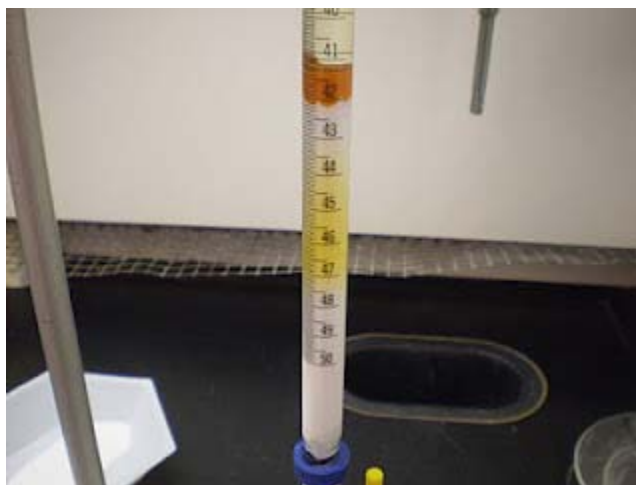
The American people are right in demanding that New Nationalism, without which we cannot hope to deal with new problems.

The **New Nationalism puts the national need before sectional or personal advantage. It is impatient of the utter confusion that results from local legislatures attempting to treat national issues as local issues. It is still more impatient of the impotence which springs from over division of governmental powers,** the impotence which makes it possible for local selfishness or for legal cunning, hired by wealthy special interests, to bring national activities to a deadlock. This New Nationalism regards the executive power as the steward of the public welfare. It demands of the judiciary that it shall be interested primarily in human welfare rather than in property, just as it demands that the representative body shall represent all the people rather than any one class or section of the people...One of the fundamental necessities in a representative government such as ours is to make certain that the men to whom the people delegate their power shall serve the people by whom they are elected, and not the special interests. ...

The object of government is the welfare of the people. The material progress and prosperity of a nation are desirable chiefly so far as they lead to the moral and material welfare of all good citizens. Just in proportion as the average man and woman are honest, capable of sound judgment and high ideals, active in public affairs - but, first of all, sound in their home life, and the father and mother of healthy children whom they bring up well - just so far, and no farther, we may count our civilization a success. We must have - I believe we have already - a genuine and permanent moral awakening, without which no wisdom of legislation or administration really means anything; and, on the other hand, we must try to secure the social and economic legislation without which any improvement due to purely moral agitation is necessarily evanescent. ... You must have that, and, then, in addition, **you must have the kind of law and the kind of administration of the law which will give to those qualities in the private citizen the best possible chance for development. The prime problem of our nation is to get the right type of good citizenship, and, to get it, we must have progress, and our public men must be genuinely progressive.**

Labels: [Politics](#)

FRIDAY, DECEMBER 2, 2011

AGAIN ON PEER REVIEW

The [WSJ](#) published a piece today on the non reproducible results of peer reviewed papers. As I had indicated yesterday this is one of the problems of peer reviewed articles. The most serious one and the one all too often not recognized.

As the article states:

This is one of medicine's dirty secrets: Most results, including those that appear in top-flight peer-reviewed journals, can't be reproduced....

Reproducibility is the foundation of all modern research, the standard by which scientific claims are evaluated. In the U.S. alone, biomedical research is a \$100-billion-year enterprise. So when published medical findings can't be validated by others, there are major consequences. Drug manufacturers rely heavily on early-stage academic research and can waste millions of dollars on products if the original results are later shown to be unreliable. Patients may enroll in clinical trials based on conflicting data, and sometimes see no benefits or suffer harmful side effects.

Thus the issue of peer review being the sine qua non is somewhat baseless. One can assume the best of intents on the part of the researchers but in the final count the work all too often fails in the most critical step of scientific discovery, repeatability. Furthermore the works seem rarely to be retracted.

The piece continues:

In September, Bayer published a study describing how it had halted nearly two-thirds of its early drug target projects because in-house experiments failed to match claims made in the literature.

The German pharmaceutical company says that none of the claims it attempted to validate were in papers that had been retracted or were suspected of being flawed. Yet, even the data in the most prestigious journals couldn't be confirmed, Bayer said.

One thus wonders if it would be better to demonstrate repeatability in the presentation of the results. All too often there is a race to publish without a care of the result having the ability of standing the most critical of tests. One experiment, with results, may have limited value.

Labels: [Academy](#)

THURSDAY, DECEMBER 1, 2011

[MORE ON PEER REVIEW](#)

Yesterday I discussed the problems with Peer Review regarding the papers on obesity and social networking. There is an interesting set of articles in [The Scientist](#) which addresses this in more detail.

They list the problems and solutions as follows:

Problem #1: Reviewers are biased by personal motives; Solution: Eliminate anonymous peer review (Biology Direct, BMJ, BMC); run open peer review alongside traditional review

Problem #2: Peer review is too slow, affecting public health, grants, and credit for ideas; Solution: Shorten publication time to a few days (PLoS Currents Influenza); bypass subsequent reviews (Journal of Biology); publish first drafts

Problem # 3: Too many papers to review; Solution: Recycle reviews from journals that have rejected the manuscript (Neuroscience Peer Review Consortium); wait for volunteers (Chemical Physics Letters); reward reviewer efforts.

The real problem is often the fact that reviewing a paper falls into three categories:

1. Just Plain Junk: Namely the paper is poorly written, is outright wrong, or is incomplete.
2. Duplication: The work may already have been done.
3. Falsification: Namely that the results are fraudulent.

Typically the second should be the easiest. You show what and where and note the result. However all too often the reviewer will say it has been done elsewhere but never state where. The Editor takes it as gospel and the author is left hanging. This is both unprofessional and unethical but I have seen it many times.

The first issue is sometimes difference in style. Although some reviewers want to see it written the way they dictate to their students, style should not be the selector. True errors should be noted and either corrected or rejected. Style on the other hand should no be a basis. Even if it

makes the paper less readable.

The third issue is quite difficult. As we have seen again and again fraudulent results often take time to uncover and in the review process there is a presumption of integrity of the data.

[The Scientist](#) also discusses new biological journal trying to meet this challenge:

Although there are many specialist journals headed by scientists, the top tier publications are often run by professional editors who do not work in a lab, and who do not moderate the peer-review process. Many researchers have complained that their manuscripts are rejected on the opinion of one reviewer, even when the remaining two reviews are glowing. To stem this problem Schekman plans to have referees discuss their opinions in a private online forum and come to a consensus—a process mediated by the senior editor—ideally within a month of the paper's submission.

It will be interesting to see if this makes progress.

The whole process of peer review will change as we see more and more on-line drafts. The old stodgy types will refrain from placing anything on line until peer reviewed but frankly the sooner a result is available the sooner the usefulness can be maximized.

Labels: [Academy](#)

WEDNESDAY, NOVEMBER 30, 2011

[OBESITY, PEER REVIEW, AND QUESTIONS](#)

I had commented on a NEJM paper a while back which was said to determine a relationship between obesity and associated groups such as facebook friends. At the time I thought is nonsense.

A [paper by Lyons](#) debunks the paper and its sequellae quite well. As [Russ Roberts](#) states quite well:

Here is the summary:

We begin by summarizing the major problems with C&F's studies:

- 1. The data are not available to others.*
- 2. The unavailable data are sparse for friendships.*
- 3. The models used to analyze the sparse data contradict the data and the conclusions.*
- 4. The method used to estimate the dubious models does not apply.*
- 5. The statistical significance tests from the questionable estimates do not show the proposed differences.*
- 6. The wrongly proposed differences do not distinguish among homophily, environment, and induction.*
- 7. Associations at a distance are better explained by homophily than by induction.*

Or in another words, bad paper, meaningless results. It's not an easy article to follow (and neither was the original work by Christakis and Fowler.) The point on statistical significance is pretty clear though and pretty deadly.

However the paper also demonstrates the problems with Peer Review.

Lyons states:

Both of C&F's first two papers were published in the world's top medical journal, the New Engl. J. Med. Their third paper was published in BMJ, another very highly respected medical journal. Their fourth paper was published in the J. Pers. Soc. Psychol., a top journal and the flagship journal of the American Psychological Association. After we had completed our analysis of those four papers, two more based on the same data appeared: the fifth (Rosenquist, Murabito, Fowler, and Christakis, 2010) in Ann. Intern. Med., again a very highly respected journal, and the sixth (Rosenquist, Fowler, and Christakis, 2011) in Mol. Psychiatry, a top journal in psychiatry. We leave as an exercise to the reader to spot in these last two papers the same errors we have recounted here.

*Given the fundamental errors we have described, what can we conclude about the process of peer review at these top journals? Altman (1998), currently the senior statistics editor at BMJ, gave a personal account as a statistical reviewer of submissions to medical journals, as well as a table summarizing some studies on the quality of statistics in published medical articles. His bleak assessment: **"The main reason for the plethora of statistical errors is that the majority of statistical analyses are performed by people with an inadequate understanding of statistical methods. They are then peer reviewed by people who are generally no more knowledgeable. Sadly, much research may benefit researchers rather more than patients, especially when is carried out primarily as a ridiculous career necessity."***

Problems with peer review have long been known and several remedies have been proposed. One remedy has even been shown to fail (see Fidler, Thomason, Cumming, Finch, and Leeman, 2004). We propose a new solution below, based partly on our experiences in getting the present critique published. One can find several anecdotal reports on the web about the policies of top scientific journals regarding critiques, but we are not aware of any study of the issue. Our experiences matched the anecdotes we saw and seem informative.

We first submitted our critique to the New Engl. J. Med., but it was rejected without peer review. The journal declined to give a reason when asked. We next submitted to BMJ, but it was again rejected without peer review. This journal did, however, volunteer that "We decided your paper was probably better placed in a more specialist journal." It is interesting to note that the same issue of BMJ that published Fowler and Christakis (2008a) also published the critique Cohen-Cole and Fletcher (2008a). The cover of that issue, in fact, was devoted to those two articles. In contrast to BMJ's decision, the general-interest online newsmagazine Slate published an article by Johns (2010) on our critique the same month we submitted our paper. An delightful coda is that a few months later, BMJ published an editorial by Schriger and Altman (2010) called "Inadequate post-publication review of medical research".

After these rejections by the New Engl. J. Med. and BMJ, we approached three top journals who did not publish any of C&F's studies, JAMA, Lancet, and Proc. Natl. Acad. Sci.. All were uninterested in our critique since they do not publish critiques of articles they did not originally publish. The section of J. Pers. Soc. Psychol. that published Cacioppo et al. (2009) does not publish critiques even of papers they have published, unless accompanied by new data.

Following on this educational venture, we submitted to a statistics journal that specializes in reviews, Stat. Sci. Five months later they had 3 referee reports. The first two recommended publication after revisions (e.g., "an important critique" and "well worth publishing"), while the third, though agreeing with our critiques, said that C&F's work was insufficiently important to warrant publication of a critique in Stat. Sci. Two months after getting these reports, the editor made his decision: rejection, allowing for resubmission if we made the tone more neutral and changed the focus, perhaps to "editorial decision making standards in medical journals", as suggested by the third referee.

The above is one of the best arguments against Peer Review ever. It demonstrates the closing of ranks. It shows that Kuhn and his paradigm shift is a simplistic reason at times for scientific lack of integrity. I rarely include such a length reference but Lyons has done a service.

The Internet has dramatically changed the essence of peer review. It allows presentation of material and its evaluation as is. In my recent experience the peer reviewed journals are all too often a closed environment, closed for certain points of view. NEJM during the health care debate had in my opinion an undue balance in favor of the law. It published articles often from Administration advisers as if they were purely academic research analyses. They were in fact propaganda.

Thus a congratulations to Lyons for a superb piece of work and hopefully more of this can be delivered. I especially would like to see this applied to the less than reasonable analysis of PSA testing.

Labels: [Academy](#), [Health Care](#)

WRONG PREMISE

MIT hosted a conference on the loss of manufacturing in the US, a conference of a White House panel to understand what could be done. In the [MIT report](#) on the event they state:

AMP's premise is that there exists a substantial "innovation gap," as many forum participants called it, in which not enough of the country's research discoveries move on to form the basis of viable businesses. Helping those innovations move into the marketplace could strengthen the nation's manufacturing sector and reverse the sector's long decline in employment.

Now one should explore that premise. Having headed R&D groups as well as having started a few companies the issue is not one of too few ideas becoming reality. That is the natural course of things. A viable business is based upon markets not good ideas or technology.

I am reminded of an early investment opportunity I rejected almost thirty years ago. The inventor had a great idea and he built a great prototype and he had a fantastic assembly line, yet he went bankrupt. His final comment to the Board was:

"If only there were customers I could have made millions of the units!"

Namely he was looking at the wrong thing, namely the good idea and his ability to execute on the manufacturing side. In surviving and growing companies they all have one thing in common, customers, and more customers. The challenge is in having the entrepreneur who finds that bridge between good technology and a customer demand.

That is why I always insist on having the customer first. That hopefully presents revenue but it also modifies the product so that it meets the need.

The article continues:

Indeed, as White House officials emphasized, the challenge of AMP is to identify and support new areas of manufacturing activity. Some of these areas may be in existing fields such as biotechnology, energy and robotics; others lie in evolving fields such as nanotechnology and advanced materials, where advances could create either specific products or new techniques that could apply to many industries.

Manufacturing is but one of several elements in the delivery of market demanded goods and services. Manufacturing qua employing trained union labor is being pressed out of existence by the use of robots and other intelligent production means. Why use humans when the robot is cheaper. Yet the intelligence that goes into the robot is of substantial value. It is the next step on the evolutionary trail, not more manufacturing jobs.

They continue:

When it comes to commercializing research, one challenge for AMP is to figure out how best to help university scientists connect with manufacturers. "There is a discontinuity between academic research and industrial needs [that is] particularly pronounced in manufacturing," said Andre Sharon, a mechanical engineering professor at Boston University. Speakers on one panel described a variety of emerging university-industry partnerships, from nanotechnology to stem-cell research, that aim to make applied research a more central part of their organizations.

Another set of challenges involves finding ways to help innovative small firms expand. Some of these concern funding: The credit crunch has made small-business loans harder to come by. But many speakers at AMP cited an additional problem: getting skilled technologists to stick with manufacturing firms and follow through with the often-arduous process of not just hitting on an innovation, but delivering it to customers.

"The big problem, and the one we really haven't solved at all, is that while we're quite good at supporting the efforts that lead to startups, we're really very poor at supporting the research and

education that would help startups to scale up," said Suzanne Berger, the Raphael Dorman and Helen Starbuck Professor of Political Science at MIT, who is helping lead the Institute's own study group on manufacturing, Production in the Innovation Economy (PIE).

University researchers connect to entrepreneurs NOT manufacturers. That is the food chain and shame on these folks for not understanding it. Or perhaps this is nothing but a political agenda. Yes MIT and Stanford and others are good at connecting with start ups, AKA then entrepreneur, yet they miss the manufacturer since that entity is well down the food chain. You do not manufacture until and unless there is a customer and it is the entrepreneur who starts that process.

As for scaling up, that is a normal Darwinian process well understood. If one makes progress with customers and generates cash then more cash will flow.

Labels: [Academy](#), [Economy](#)

SUNDAY, NOVEMBER 27, 2011

[AND WE LET THEM VOTE](#)

I noticed a short piece by [Gawker](#) which included a plethora of "tweets" regarding the implausible endorsement of Newt by a "union leader". This came initially from [DeLong](#).

Now having just returned from my home in New Hampshire, the northern Republican region to my New Jersey home, the Republican county of Morris and the most Republican town in the country, I was amazed of the general stupidity of twitter users. You see every town in northern New England has a Civil War memorial in the town center. A stature commemorating the survival of the Union, not the IBEW or Teamsters, but the real Union, like Lincoln and all that stuff about 150 years ago.

The idiots who tweeted though it was some New Hampshire labor union. That tells you a great deal of who made up the selection of the government which now rules, It is a terrifying fact, we have ignorant malcontents deciding who governs. It took much less to destroy Athens, in 400 BC that is.

Now for those who know little of New Hampshire one should be aware of Gov Meldrim Thomson who amongst his many claims sought to get nuclear weapons for the NH National Guard to protect us from those Canadians. Now I got to know the Gov when driving across Rt 25 over the hills past his farm. I often stopped and purchased a few vegetables and then passed the time on politics. Where else can one meet a Gov on a hill selling goods and who will share part of his day. Not in New Jersey, some of them are just trying to stay out of the local lock up. Same at times for New York.

But that is New Hampshire and that is why it is a good place to start. So for those twitter morons perhaps you may find that the union is the Union, the United States of America, and the Union Leader is the reflection of that concept.

Labels: [Commentary](#), [Politics](#)

TUESDAY, NOVEMBER 22, 2011

DEATH OF THE ENTREPRENEUR

I am in New Hampshire looking at opportunities and coming up I drove past Manchester where the current president spent time making another speech.

As reported by the [Union Leader](#) he said:

...a lot of the folks who have been down in New York and all across the country, in the Occupy movement, there is a profound sense of frustration -- (applause) -- there is a profound sense of frustration about the fact that the essence of the American Dream -- which is if you work hard, if you stick to it, that you can make it -- feels like that's slipping away. And it's not the way things are supposed to be. Not here. Not in America. (Applause.)

This is a place where your hard work and your responsibility is supposed to pay off. It's supposed to be a big, compassionate country where everybody who works hard should have a chance to get ahead -- not just the person who owns the factory, but the men and women who work on the factory floor.

First, yes the applause was written into the speech. Second look at what is said in the last paragraph. The entrepreneur invented the product, spent their money, took substantial risks, sold the idea, raised capital, and lived at the precipice until the company was a success. The employees got a job, they show up, get paid for what they do, and go home. No risks, and the rewards are what they are paid.

Getting "ahead" is a matter not just of working hard, it is having a good idea, then implementing it, taking risks that are often extreme and then being a bit lucky. Clearly the current president seems clueless as to what an entrepreneur is. There is not equality between a worker and the entrepreneur. Let the worker leave their job, "burn the boats" and set out to create a new company on their own. Then they have the option of a substantial reward. They have no right to be compensated because they work hard, they are compensated, it is a paycheck, and that is all they deserve, at least until they do the same as the factory owner.

That single paragraph establishes the difference between the United States and the old Soviet Union. The American Dream is that you have the opportunity to do it on your own, to create wealth, to create value. You may work very hard digging ditches but your pay may be very little. In a factory you may work very hard but the owner is always thinking of how to replace you with a machine. Machines do not whine, machines have no sense of entitlement, machines do what they were built to do.

Just working hard was never the recipe for success. Working smart is better, but still not there. Taking risks, educated risks, are getting to the point. Compassion is a good emotion, it may be a religious one but it is not an essential part of a capitalist democracy. We do not have to be Scrooge types, we can be generous and helpful, but by choice not by law. There is no moral value to be obliged to be compassionate.

Labels: [Economy](#), [Politics](#)

MONDAY, NOVEMBER 21, 2011

OBESITY AND ECONOMISTS

[I have argued from facts, the literature and experience](#) that almost all obesity is self imposed. You see it is a fundamental law of physics:

$$\text{Input} - \text{Output} = \text{Net Accumulation}$$

Unlike Economics and their various assumptions regarding human demand and its impact on the economy, the above is almost a tautology, it is true by definition, almost.

Thus obesity is simple, at 3500 Kcal per pound, eating 100 Kcal per day, 6 oz of soda for example, half a small can, would in one month's time add a pound of weight, all other things being constant. Thus that corn muffin at work in the morning at 600 Kcal would add almost a pound per work week. It is a fact of nature. No AD or AS analysis, just an energy balance.

Now one of the many pontificating economists has taken up the challenge, I faced this a year ago by a Harvard type who said in effect that the added soda was infringing on his liberty and that we should ignore it, when in fact the tubby kids will cost me more even as I age, well this [other economist states](#):

I was reading a book about genetic engineering ... and was struck when... (the author) claimed: Research shows that obesity is consistently attributed to laziness and a lack of self-discipline. In reality, the truth may be just the opposite. Studies of identical twins reared together or apart indicate that much obesity may be caused by hereditary factors. In technical terms, the heritability of obesity, the percentage of observed variation among people that is attributed to genes, is very high, somewhere between 50 and 80 percent.

Do you see the problem with Green's assertion? He asks us to believe that just because obesity is 80% genetic, it can't also be 80% due to laziness. But why? What are those two hypotheses viewed as mutually exclusive? Is it because genetic characteristics are viewed as "not one's fault," whereas laziness is viewed as a character flaw? But why shouldn't character flaws be genetic?

First of all, no matter what your genes if you adhere to the above equation you will not get fat. It would be physically impossible. No input, even with no output, is no accumulation. Period, simple. It is not the genes in the twins it is the twinkies.

Thus my argument is that economists were given a great opportunity to understand physics, not a complicate element of it but a simple one. Mass balance. But alas they get that wrong too. They can use massive equations that fail to reflect reality but when reality hits them in the face they reject it.

Is there a problem here?

Labels: [Economics](#), [Health Care](#)

MONDAY, NOVEMBER 21, 2011

[A NEW AGENDA](#)

The current focus on the OWS effort, not clear that it is a movement, has resulted in some statements of goals that have at best been confusing if not outright incoherent.

A recent statement in the [Washington Post](#) represents one of the few attempts at coherency and is worth reiterating and analyzing:

And we will see clearly articulated demands emerging, among them a “Robin Hood tax” on all financial transactions and currency trades; a ban on high-frequency “flash” trading; the reinstatement of the Glass-Steagall Act to again separate investment banking from commercial banking; a constitutional amendment to revoke corporate personhood and overrule Citizens United ; a move toward a “true cost” market regime in which the price of every product reflects the ecological cost of its production, distribution and use; and with a bit of luck, perhaps even the birth of a new, left-right hybrid political party that moves America ...

Permit me to analyze the above:

1. Transaction Tax: Taxes are generally created to collect revenue, possibly to motivate behavior. In this case it is to penalize people who create markets. The function of many of the financial markets is to create liquidity. Money moves to where it is best put to use. Thus if I want to raise capital by debt or equity I need an efficient and reliable market. If the cost of doing this is too high in the US then it moves to Singapore, Luxembourg or Shanghai. Along with the move is the opportunity as well. Thus taxing transactions assumes inherently an immovable market, yet that is not the case. Dry up capital and you dry up the entrepreneur. Kill that and you kill this country. Thus the idea of an arbitrary tax is insane.
2. High Frequency Trading: Well there I would agree. As I have been saying for now forty years watch out for the instabilities. Look at LTCM back fifteen years ago, great minds but they got caught up in their own simplified assumptions. The market changes in ways to reverse attempts to maximize returns. It is inherently an unstable system, at best one can ride trends, at worst one can increase the unstable oscillations. Good idea but based upon total ignorance of cause and effect.
3. Glass Steagall: Good idea but remember it was Clinton and Summers and Rubin that gave you that one.
4. Corporate Personhood: Well why not unions as well. Frankly the more voices the better. Look at lobbyists, they write most of our legislation. Just look at [SOPA](#), the Internet regulatory bill, and the mess it will create. It will cause a collapse of the Internet and will make China look like the free speech state par excellence!
5. "True Cost": Now here is a real dumb idea. Think Coase my friends. Who will determine the true cost. Anyone who has ever dabbled in calculating such ephemeral costs knows that it cannot be done. All that can be done is a Coasean cost balance, show me the harm and pay the remedy.

The problem is that some of these are fine and others make no sense. They are all half baked as is the movement.

Now the [NY Times](#) comments on this as well. They state:

Occupy Wall Street is animated by a central, galvanizing idea — that the distribution of wealth is unfair. That struck a very live nerve, grabbing something that was in the air and turning it into simple math: 1 percent should not live at the expense of the other 99 percent.

However this leaves a significant question. If the 1% benefited at a cost to the 99% then one may have a basis for a claim. If, however, the 1% benefited and so did the 99%, albeit less so, then there is not only no basis for a claim but the claim is denied on face value. Now clearly banks and bankers benefited from public money and also the public has been devalued as a result. Thus the Government officials who created such deals did so in such a way to penalize the public. The benefit went solely to the 1% elements in banks. They in turn should have paid, but the horse has left the barn.

However, for the 1% who did not so benefit, say Steve Jobs and other entrepreneurs, who took risks, create wealth and jobs, then they should be rewarded not penalized.

What is the dividing line; **wealth creation versus wealth transfer**. Bankers just transfer wealth taking a piece for themselves. Wealth creation is what we should reward, the creation of new businesses, new technologies, new jobs.

Labels: [Politics](#)

SUNDAY, NOVEMBER 20, 2011

LAWYERS VS PHYSICIANS

There is an interesting article in the [NY Times](#) regarding lawyers. Namely lawyers, those just out of school, first year associates, frankly know nothing. Yet the client often pays the \$300 per hour to train that person. Now a physician straight out of medical school spends four more years in hands on training before they get the chance to do anything. The classic "Intern" is in many cases replaced by Resident and a first years Resident is often as deadly as some diseases. They do not know their way around the hospital etc but the system accounts for that by having layers of oversight. And the pay is horrible and you are billed for the Attending not the Resident.

Lawyers are different. You are billed for everything. Let's try writing a contract. Now many business people know more about contracts than attorneys, why, because they have lived through the bad ones. A first year associate would be clueless.

Take a will, in most cases a cut and paste. Yet some firms I have seen will spell the clients name different ways on the same page and get gender mixed even as often. If that is the case what else have they messed up on?

The Times states:

“The fundamental issue is that law schools are producing people who are not capable of being counselors,” says, the general counsel of FMC Technologies, a Houston company that makes oil drilling equipment. “They are lawyers in the sense that they have law degrees, but they aren’t ready to be a provider of services.”

The simple task of filing a lawsuit, a will, of finding the right window in the Courthouse and getting the right form comes only from experience. Most often a law school grad is clueless of even where the Court House is no less understanding the difference between them.

Imagine a physician not knowing where to insert the needles to withdraw blood, it is at that level. Is that a bad thing, not really if the law firm takes upon itself the burden of training the apprentice. Low pay commensurate to say an Intern. But that has often not been the case, first year stars were getting almost \$200,000 pa on Wall Street before the collapse.

Law often is learned by doing. Writing a contract, writing a brief, filing a law suit, deposing a witness, crossing a witness, and the reading of depositions. Done by doing, so does this mean that perhaps law school grads should go through a system akin to physicians, low pay for say four years, and not be charging clients. Perhaps it is worth considering, equity after all.

Labels: [Commentary](#)

FRIDAY, NOVEMBER 18, 2011

[IN MEMORY: DAVE STAELIN](#)

[MIT](#) announced the passing of Dave Stalin. I knew Dave since 1965. In fact, I went to his first class as a Faculty member which was Radio Astronomy. It was in the Fall of 1965 it was the first class I dropped into just out of curiosity and not because I was required to take it. Dave was always a bit of a polymath, and over the past 46 years our paths have crisscrossed many times. About ten months ago was the last I spoke with Dave at lunch in the Stata building, we sat for a couple of hours and discussed politics, and his views. I listened, he sent me his thoughts and we compared notes.

In between those years, Dave and I have bounced back and forth while in many varying worlds. While at Comsat he was good friends with my boss, Jack Harrington, and we bought a company Dave introduced us to called ERT, whose CEO John Gaut, I believe, was also one who I had interaction with. Dave and I discussed the future of environmental testing and monitoring, and ERT was then positioned to contribute and we had the satellites to do the monitoring. Yet we were a bit too early.

Then in the 80s I ran across Dave at PictureTel, one of his student founded companies, which morphed to Polycom, and lives on today. PictureTel was one of the first, if not the first, to compress real time video and send it over a data telephone line. It worked and it was the beginning of what we see today. It was Dave who saw the potential and Dave who held the vision aloft those many years.

Then in the 90s I met up with Dave again while he was at MIT Lincoln Lab, a former home to the two of us, and we tried to get Lincoln to act as a support for the US wireless industry. Good

idea but wrong politics.

Then back at MIT for the past few years Dave and I met frequently. I reminded him that his book on electromagnetics got me through my FCC License exams with flying colors, it read like a great novel, now who else could do that to Maxwell Equations.

Dave was one of those rare individuals whose great insight and gentlemanly manner allowed great ideas to flourish. He will be missed.

Labels: [Commentary](#)

TUESDAY, NOVEMBER 15, 2011

[AMA STOPS ICD 10](#)

The AMA today announced it was pulling support for ICD 10, which has been mandated by the new Health Care Law and HHS.

ICD 9 is the current version and is a coded list of diagnoses. ICD 10 would be an upgrade to that. The reason given is cost.

In their [Press Release the AMA](#) states:

The AMA House of Delegates voted today to work vigorously to stop implementation of ICD-10 (The International Classification of Diseases and Related Health Problems, 10th Revision), a new code set for medical diagnoses. ICD-10 has about 69,000 codes and will replace the 14,000 ICD-9 diagnosis codes currently in use. "The implementation of ICD-10 will create significant burdens on the practice of medicine with no direct benefit to individual patients' care," said Peter W. Carmel, M.D., AMA president. At a time when we are working to get the best value possible for our health care dollar, this massive and expensive undertaking will add administrative expense and create unnecessary workflow disruptions. The timing could not be worse as many physicians are working to implement electronic health records into their practices. We will continue working to help physicians keep their focus where it should be – on their patients." A 2008 study found that a small three-physician practice would need to spend \$83,290 to implement ICD-10, and a 10-physician practice would spend \$285,195 to make the coding change.

This is a change from the AMA's recent support of the current administration in all their efforts. Hopefully we can see a continued set of efforts in this direction.

Labels: [Health Care](#)

MONDAY, NOVEMBER 14, 2011

[HAVE THEY NO SHAME?](#)

I have argued on multiple occasions that economics, especially macroeconomics, is not a science, and no way an engineering discipline, but it is a cacophony of political thoughts

embodied in equations, as if the equations give it a patina of respectability.

The latest flap seems to be in some discussions in Reuters. The [first is a discussion](#) which I would concur with which states:

As the power of the scientific method has encroached further than its applicability warrants into fields such as economics and business, its predictions of the future become ever more erroneous. In this list, we can include virtually every economic prognostication from the first half of 2008, and countless market research studies that misjudge consumer interest in the new product concepts that they test. Were he alive today, Charles Sanders Peirce, a turn-of-the-20th-century American pragmatist philosopher, would be unsurprised at the shoddy results of these analyses. A brilliant thinker, Peirce is less famous than his peers William James and John Dewey, mainly because he was an ornery and unpleasant character. However, Peirce had an almost entirely overlooked yet extremely insightful theory applicable to modern scientific work. He concluded that no new idea was ever derived from the analysis of the past using inductive and deductive logic – the two forms of logic our modern scientific method utilize.

We can even include my favorite misstatements the now infamous predictions of Romer and what the result of the Stimulus would be. I have followed her errors for almost three years now. Their counter arguments are that things would have been worse if the money were not spent. That is not the issue, she said one thing and something else grossly different happened.

Now, in my opinion, one of the left wing economic theory [followers responded to the above first posting](#). He states:

Incorporating rational expectations into macroeconomic models increases the level of complexity by an order of magnitude over what was already a difficult problem in the engineering literature, and much of what Lucas, Sargent, and others did was to find a way to forge forward despite the technical difficulties. That was an important contribution, but for our purposes it is the conceptual contribution — the loud, clear message that simple extrapolation from the past can lead to problems — that was important.

Frankly I resent the reference to the engineering world. We have very complex problems, has the author ever seen a bridge, perhaps a machine, a robot, and yes even a micro chip. It is not the difficulty or complexity of the problem, it is that the answers are based on what if issues. What if elephants had wings, but they do not have them so why even discuss the issue.

The retort piece ends with:

Presently, there is no shortage of work trying to fix the problems with our models. I don't know if we will succeed — the next model will work until it doesn't — but we are certainly trying. And there is also no shortage within economics of “imagining things other than as they are,” a phrase the author uses repeatedly. From recommendations on how to fix markets, address pollution problems, stabilize the economy, put people back to work, to models of comparative economic systems that imagine societies with different institutional structures and societal relationships, economists are constantly imagining how to improve social conditions. In fact, for the most part we are charged with trying to do too much social engineering, not too little. In

any case, we don't think of the economy as an unchangeable "hunks of granite," we understand that social relationships are at the heart of what we study and that those relationships are not etched in stone.

This is where they get into trouble, the truth is their social engineering game. They like to get into the fight, use what they see as the way we as humans should live, tell us how we can do what we can with our very existence. They should be able to reach some agreement on monetary policy, but between gold and socialism there is not a bit of agreement.

Once you cross the line to social engineering you cross into belief, it lacks reason. No wonder Krugman is an Asimov fan, for Asimov was the one who articulated the social engineering of galactic civilizations, not just a country.

Labels: [Economics](#)

THE FALLACY OF HIGHER EDUCATION'S COST RISE

In the [New Yorker](#) there is an article purportedly explaining the high costs of college education. The author uses the Baumol argument which we discussed a few years ago regarding its application to health care. Simply in the services business such as health care, law and education there are no productivity increases so that justifies the cost rise.

The author states:

Instead, it stems from the peculiar economics of education, which have a lot in common with the economics of health care, another industry with a huge cost problem. (Indeed, in recent decades the cost of both college education and health care has risen sharply in most developed countries, not just the U.S.) Both industries suffer from an ailment called Baumol's cost disease, which was diagnosed by the economist William Baumol, back in the sixties. Baumol recognized that some sectors of the economy, like manufacturing, have rising productivity—they regularly produce more with less, which leads to higher wages and rising living standards. But other sectors, like education, have a harder time increasing productivity. Ford, after all, can make more cars with fewer workers and in less time than it did in 1980. But the average student-teacher ratio in college is sixteen to one, just about what it was thirty years ago. In other words, teachers today aren't any more productive than they were in 1980. The problem is that colleges can't pay 1980 salaries, and the only way they can pay 2011 salaries is by raising prices. And the Baumol problem is exacerbated by the arms-race problem: colleges compete to lure students by investing in expensive things, like high-profile faculty members, fancy facilities, and a low student-to-teacher ratio.

Now the fallacy of this argument is that faculty salaries have not increased at the rates of college tuition. The basis of the comment is missing and is wrong. The real reason is that universities have perforce of Government mandates added Deans of everything to the Administration. It is the Administration which has exploded. Highly competitive schools have seen their endowments explode at the same time, and one would think this would reduce tuition, but to the contrary. Instead we have explosions of new facilities. With new facilities come explosive maintenance costs. Then there are the costs to "feed" the Deans with more administrative help.

If the Presidents of colleges could say No once in a while then that would be much better, but there is always the new facility. Perhaps even simpler new facilities would help but the Administration always cajoles the givers into ever so more complex a structure at ever so greater a cost. Building the beast is cheap relative to feeding the beast.

Thus the Baumol argument is without merit. The true driver in a perverse way is the increasing endowment and its abuse in being used to construct more monuments with no regards to life cycle costs. When I was first teaching at MIT my office was in WW II wooden shacks. The largest cost of overhead was the steam heating, there was no AC and there were no computers. Now in its places is the Stata center, leaky windows, massive HVAC expenses, and even elevators. Feeding that beast is truly a heavy burden.

Thus do the increases in such infrastructure lead to better education? Oftentimes not. It would be helpful if people were to write articles of this type if they would first analyze the flow of funds into and out of the universities.

Labels: [Academy](#)

SUNDAY, NOVEMBER 13, 2011

THE 1%, WHOMEVER THEY ARE

I have been reading the many folks writing on this 1% issue. I read [Tyler Cowen's](#) piece today which rambled around and about the issue. I wrote a few pieces a couple of years ago looking at income inequality and I came up with an interesting question.

"What percent of your friends, family and associates are in the 1%"

Now depending on that answer one can ask the next question:

"What is the probability that you are in the 1% given that x% of your friends etc are in the 1%"

One would suspect that say 5% of your friends etc are in the 1% that perhaps you are also. But not necessarily.

For example, there are people in the 1% who have few friends in the 1%. I would guess there are few of these people but they may exist. Then again if you have 50% of your friends in the 1% the chance that you were also could be quite high, really high, unless for some reason they just want to know you.

Thus the clustering of the 1% may be an interesting phenomenon to analyze. Perhaps the 2%, 5% and 50% as well, but I suspect it breaks down quickly. Also this could be an interesting mathematical problem.

But again, the 1% are also self segmented. Entrepreneurs cluster with entrepreneurs, look at Silicon Valley, Cambridge, and bankers cluster with bankers, ie Wall Street, and big CEOs all

pall around together, look at well you know, and then there are the Sopranos, you see I live in New Jersey.

I would suspect that the 1% is itself inhomogeneous, spread out all over. So is the complaint about Wall Street, large company CEOs, sports figures, movie stars, entrepreneurs, Soprano types, just who?

The more one thinks of this issue the less focused it becomes.

Labels: [Commentary](#), [Economics](#), [Economy](#)

SUNDAY, NOVEMBER 13, 2011

[BILLING AND HEALTH CARE COSTS](#)

When I was quite young back in the early to mid 40s, physicians made house calls. I remember when I had roseola and this wonderful blond pediatrician arrived, asked me to lift my shirt and then calmly told my mother that I had roseola. Let me rest and she said good bye. I believe we did this all in the entry way to the house. My mother paid her some cash, not a great deal, and off she went to the next house. All of this without any forms, no GPS in her car, no cell, but it all just worked. Now it did nothing more than give a name to what I had and assure my mother that I would not pass away that night. That was when I fell in love with medicine, or at least this beautiful physician, or both!

Now what does this have to do will billing. Dr. Emanuel in the [NY Times](#) today writes about Medical Billing costs. He states:

Imagine that repeated millions of times daily and you have one of the biggest money wasters in our health care system. Administration accounts for roughly 14 percent of what the United States spends on health care, or about \$360 billion per year. About half of all administrative costs — \$163 billion in 2009 — are borne by Medicare, Medicaid and insurance companies. The other half pays for the legions employed by doctors and hospitals to fill out billing forms, keep records, apply for credentials and perform the myriad other administrative functions associated with health care. The range of expert opinions on how much of this could be saved goes as high as \$180 billion, or half of current expenditures. But a more conservative and reasonable estimate comes from David Cutler, an economist at Harvard, who calculates that for the whole system — for insurers as well as doctors and hospitals — electronic billing and credentialing could save \$32 billion a year.

Now there is a kernel of truth here but one must dig deeper. In the early 90s I ran a medical software billing company for a friend for a while. As in most cases I went out on sales calls, remember if all else fails listen to the customer. Now this was the most painful sales calls I ever performed. You see you do not speak to the physician, you speak to an office administrator, usually a very underpaid and overworked person who takes any suggestions as an affront to their performance. Not that one complains, but the billing and coding specialists have mastered an art lost somewhere in the 9th century by some monks in the Alps, namely medical billing.

The problem is really as follows:

1. The Government has HCFA forms, they demand the most complex and convoluted data known to man, ICD 9 codes for the diagnosis and CPT codes describing what procedures were performed. So for example you may have a skin lesion and it may have been biopsied. It gets worse especially if you have multiple diagnoses and multiple procedures. They must be entered properly or the bill is rejected. Remember that 20% of all health care bills are Medicare. Thus this one payer controls a lot but not all. In addition they reject a great deal just to slow pay.
2. Private insurers are always looking for fraud and over practice and over payment. Thus they take the Government forms and personalize them for themselves, making for a plethora of different forms and multiple inputs.
3. The forms are now for the most part electronically filed, but remember that the patient also has to eventually pay something, either a co-pay at the time of the visit or a payment when all other payers have been taken care of. That may easily be a year or more after the service is rendered. There is no other business in the world where the payment cycle is stretched out so far and the physician must personally foot the money until the receivable is obtained as cash.

As Emanuel states:

But the real savings is in billing. There are at least six steps in the process: 1) determining a patient's eligibility for services; 2) obtaining prior authorization for specialist visits, tests and treatments; 3) submitting claims by doctors and hospitals to insurers; 4) verifying whether a claim was received and where in the process it is; 5) adjudicating denials of claims; and 6) receiving payment.

That is correct, and the physician today must have a small finance department taking care of all of these elements. The physician is placed in the middle of this validation process and becomes a non-paid facilitator of the insurer. This is often the most painful part of the practice of medicine. Very painful. Lost claims, claims denied, claims rejected, all add up to a nasty number.

Emanuel alludes to the provision of a credit card type approach, where a patient has a card and the physician is pad and all is electronic.

The problem is that the system, the health care system, is NOT like the credit card business at all. It is a system where the entities paying whether Government or for profit are each trying to push costs down. They also do not trust physicians or patients. The means to control is delay. Remember delay is the deadliest form of denial. And ultimately they deny. Thus there is an inherent conflict, the conflict of not paying versus the conflict of lowering costs. By not paying or stretching out payments the costs as Emanuel say actually go up. He seems to imply a 10-15% costs to health care of billing and its allied issues. I would agree. Now how do we solve this problem.

You simply do what we did in cellular. When I took over our customer service people were told to deny any billing issues, delay and have the customer call back. The result was many more call

backs and loss of customers to the competition. Loss of customers may not work in the monopoly like environment but multiple call backs will drive up costs even more. The solution, trust but verify.

Trust but verify say that the payee pays out to the physician at the time the electronic invoice is submitted. But then like the credit card companies using sophisticated fraud management software ferret out the cheats and deal with them to the fullest degree of the law. There will always be cheats, physicians or patients, but for 99% of the patients and providers they will do the right thing. This will then cut down on costs and allow physicians to do what they do best, treat patients.

Labels: [Health Care](#)

[HOW TO DO A TURN AROUND](#)

The [NY Times](#) recounts the efforts of one of the current presidential candidates when he was performing turn arounds.

Now I spent a few years doing turn arounds. One must understand that these are often companies in some rather bad straits. They are burning money, have a management which may have become deer in head lights and are very close to their demise.

So here are the three rules of a turn around:

1. **Fire half the people.** Yes, half. How did I do this, easy, I have a Social Security number which ends in an odd number so I fired all those with even numbers. Nothing personal, and people actually understand that they just drew the wrong card. Even the lawyers accepted it. Why half, well it cuts costs and it makes a statement, namely we are really in bad shape. It is also fast. You do not get into the problem if making choices.
2. **Raise the Prices.** Why raise prices? Well simply you find out very quickly who are real customers who want your product or services and then you quickly get rid of those dragging you down. By this time you have actually become profitable, possibly still burning cash but profitable.
3. **Find a buyer!** This must be done quickly. You now have cleaned up problems, shown how to get the business functioning but you may very well have gutted it too much, so find someone who will keep it rolling and sees value.

Those three simple rules are rules of survival. Now the Times states:

But an examination of the Dade deal shows the unintended human costs and messy financial consequences behind the brand of capitalism that Mr. Romney practiced for 15 years. At Bain Capital's direction, Dade quadrupled the money it owed creditors and vendors. It took steps that propelled the business toward bankruptcy. And in waves of layoffs, it cut loose 1,700 workers in the United States, including ..., who lost their jobs at a plant in Westwood, Mass. Staggered, Mr. wondered, "How can the bean counters just come in here and say, Hey, it's over?" Mr.

Romney's career at Bain Capital, which he owned and ran as chief executive, is a cornerstone of his campaign for the Republican presidential nomination — a credential, he argues, that showcases the management skills and business acumen that America needs to revive a stalled economy. Creating jobs, Mr. Romney says, is exactly what he knows how to do.

The writer has no idea what a turn around is. It saves what is savable. The company was dying, you had to remove parts to save the remainder. I had done this many times, it is emotionally exhausting. I remember once in Memphis the above rule caught a man whose wife was dying of cancer. He came in to see me mad as hell. Did I make an exception, not exactly, but I did find him another job and we bridged health care costs. I was always willing to face those who I had cut, sometimes helpfully, sometimes as a cathartic.

The people at a dying company know what is happening. They all too often hang on in hope of someone saving them instead of recognizing that they should take it upon themselves to seek alternatives. Turn arounds are job preserving for some, and possibly job creating for others.

Thus the above article totally fails to understand what a turn around is. It demonstrates the gross and total ignorance and/or bias of our press. The "bean counters" are coming in after the company was near death, and if an employee did not recognize that then in my opinion and based upon my experience, they have a real problem.

I guess I just have the distinct disadvantage of experience!

Labels: [Economics](#)

SATURDAY, NOVEMBER 12, 2011

[NEWS FLASH: HARVARD BEATS MIT](#)

The [Crimson](#) splashed across its headlines the following:

In its season opener, the Harvard men's basketball team downed cross-town rival MIT, 76-49, in front of a sold-out crowd at Lavietes Pavilion on Friday night.

Now why am I not surprised. MIT never had a varsity team, we played football against the Cambridge High Schools for good lord's sake.

Why I remember one time MIT was "playing" Rindge, I think, from Cambridge, you see it was MIT Seniors versus High School Sophomores and well MIT introduced Cheerleaders. Yes, MIT Cheerleaders. Now they were also students, some just outright brilliant, and they had assembled some "uniforms" and created some "cheers". Good try, but I have seen severe neurological defects which were coordinated better. But I must commend them for their enthusiasm. I even watched them for a bit. I think MIT lost to the High Schoolers.

So is this defeat something to moan about? Well it is not Penn State. Thank God for that.

Labels: [Academy](#)

NEVER SAW A FOOTBALL GAME

When I was young, my father was a police officer in New York City and, as such, instead of going into little league or the like, I was sent to the local Police Athletic Center, Rasmussen Center, to learn how to box. Boxing is a sport which is not really a team sport, it is survival, and as the only blue eyed heavy weight, I ended up with nose reformations and restructurings about three times until it was clear that I would not become the Great Irish Hope, or whatever.

Now I have never watched a football game, or basketball, and at best watch the Red Sox game only in World Series since my wonderful wife is from Boston. Thus, I have no interest in any spectator sports. So where is this going? [Worthwhile Canadian Initiative](#) had a piece regarding salary to sports figures which frankly blew my mind for its lack of understanding of the economics of the industry.

You see, I also ran a cable system, and have kept close to the industry's machinations. Now take sports channels. As I stated I have never watched any of them, never. Yet my \$70.00 per month Basic Cable, you see I have Cablevision, pays the likes as ESPN and YES a cumulative of up to \$20 per month per sub even if the customer never watches the channel! That is 100 million or more homes paying \$250 per year, or \$25 billion per year!

Now how does that relate to sports figures. Revenue less expense equals profit. The revenue here is as close to extortion as one can imagine, you want off the air TV then you must pay for stuff you never watch. The game then moves to the players and their unions and the games they play. If the game were paid for by attendees one suspects the players would be paid from the proceeds available. It is not paid that way. Everyone is taxed for these income transfer to these players. I pay despite the fact that I never benefit. It is income redistribution, but in this case from the less financially well off to the more so.

The article states:

Just what is the difference between an athlete that ends up earning millions and one that never makes the big leagues? Luck is a part of it, but even if getting an extra hit in a given week may be a matter of chance, the law of large numbers says that you can't count on that kind of luck for long. But what this clip suggests is that the while the differences in skill between those playing in Yankee Stadium and those in the minor leagues may be small - one hit a week - they are at least measurable, and that's what counts.

To the extent that professional athletes' salaries can be explained by the tournament model, then those high salaries aren't so much a measure of the marginal product of top performers as an incentive dangled before everyone in the industry. Curiously enough, this is also the story that is often told to explain why CEOs' salaries are huge multiples of other executives.

So maybe we shouldn't be making the distinction between the millions that athletes earn and the millions earned by CEOs.

The actual point is to first understand how the revenue is generated. The CEO gets customers to buy the product made. The sports figure lives off the taxes collected from those who may have no interest in that they are doing or who frankly find their behavior reprehensible, such as Penn State and so many other sports figures. CEOs create value, sports stations redistribute incomes.

At least the movies types make money from people watching and paying. There is a one to one correspondence between what an actor gets and what is paid by a customer, akin to the CEO model. But sports figures get payments from people who have no interest, like me. Why should I pay \$250 per year for nothing. And on top of it having some now over paid sports figure get involved in anti social activities resulting in negative externalities.

Perhaps it would help the economists to understand the true economic model rather than try to compare apples to mushrooms, or whatever.

Then Nick Rowe, tongue in cheek I suspect, responded:

Baseball players are workers; CEO's are bosses, and therefore must be capitalists. Those who earn wages are poor and those who earn "profits" are rich. It's that old set of economic theories that conflate the distribution of managerial authority with the functional distribution of income with the personal distribution of income. Zombie ideas, that have been undead since 1871.

No, they are not workers, these figures are instruments, instruments of facilitation, like machines, since workers are transformers of raw materials to finished goods, well sports figures are the Gladiators and are necessary evils. The CEOs in this case have through the FCC and other Government agencies managed a taxation without representation scheme to get money for nothing.

Another comment made was:

*A classic example of not seeing the forest for the trees. **What is more important is wealth inequality and the power inequality it breeds.** While salaries are a factor in that, they aren't necessarily a major factor simply because many people who are paid high salaries don't often receive them long enough to accumulate a lot of wealth. Professional athletes are a perfect example of this. While a certain percentage do have lengthy careers at the top, the majority only last a couple of years.*

Where is John Galt when you really need him! Wealth inequality is due to the fact that some of us took substantial risks and were successful in those opportunities and created value for others and there was a return resulting therefrom. In what remains of a free society you have the opportunity to seek such a return. Instead whenever I hear this socialist retort I rebel. Since my grandmother was the head of the Socialist Party in New York a century ago, I understand better than most what that means, and it did not work then and will most certainly not work now. What power? There are many much less powerful people who are wealthy, they just want to continue

to see their efforts prosper. Thus we in the State have fortunately put out capitol city outside of business cities.

Now for professional athletes, if someone gets \$10 million a year then even at 3 to 5 years this is wealth creating. So the sop of it being for a short time is just that, a sop.

Thus my argument is quite simple:

1. A CEO may become one of the 1% because he/she managed to create value by having products or services that people saw value in and thus purchased, aka Steve Jobs.
2. A sports figure gets rich because there is income transfer, mandatory and without the consent of the person whose income it is, to the sports figure. The sports figure creates nothing of value.
3. An entertainment individual obtains wealth by having customers come a pay to see them perform.
4. The issue of how long one makes a certain income is irrelevant. A CEO may have his/her wealth tied up in options, and thus at risk. A sports figure can make extraordinary sums for as long as they can facilitate the creation of wealth for their owners.

Thus the posting mentioned above I believe misses the point totally. In fact, the old adage, follow the money, must be used in all such circumstances, and I believe that perhaps economists should keep that in mind.

Labels: [Economics](#)

FRIDAY, NOVEMBER 11, 2011

NEW ELEMENTS NAMES

[Science](#) reports on the new official names for the three new elements:

The official monikers for elements 110, 111, and 112 are coming to a periodic table near you. On 4 November, the International Union of Pure and Applied Physics approved the final names of these three atoms: darmstadtium (Ds)—after Darmstadt, Germany, the site of its discovery— as well as roentgenium (Rg) and copernicium (Cn).

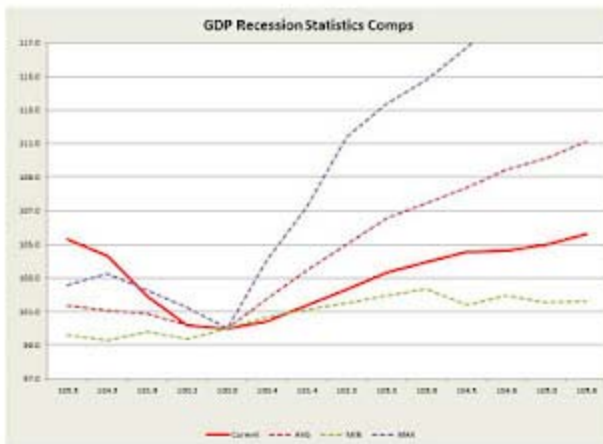
One wonders what use they may be put to.

Labels: [Science](#)

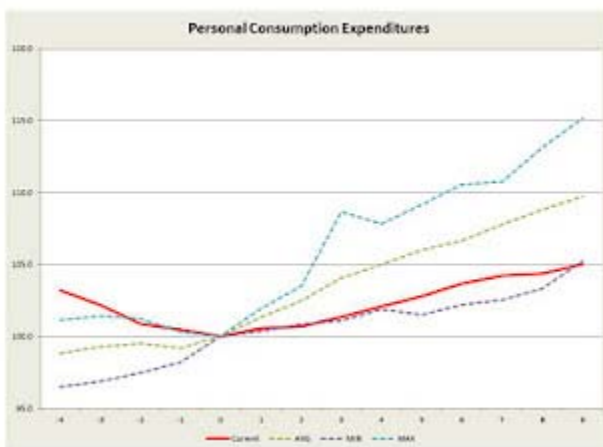
RECESSION STATISTICS NOVEMBER 2011

We present the update of the Recession Statistics as compiled by The FED in St Louis. They tell a somewhat stark tale of where we seem not to be going.

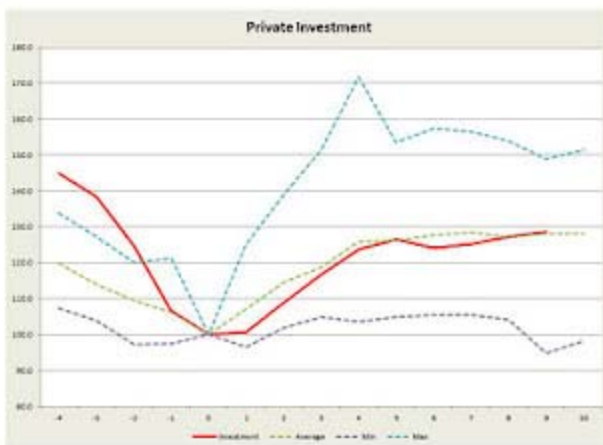
Let me begin with the GDP and its components:



First the GDP growth. As seen above we are lagging well below the median in GDP recovery. There have been worse Recessions but not many.

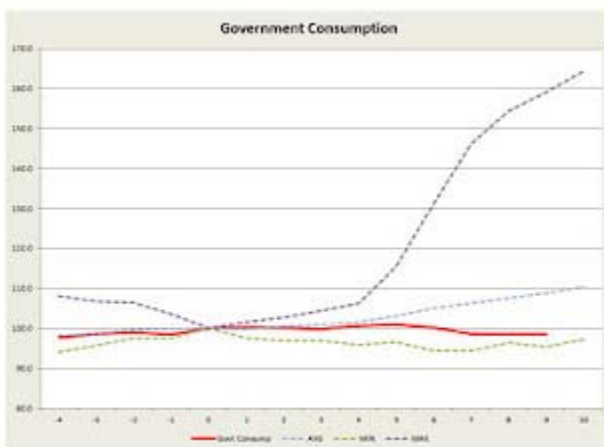


Personal consumption is lagging at the lowest level and not recovering. The consumer is fearful of a further down turn combined with the loss of employed consumers.

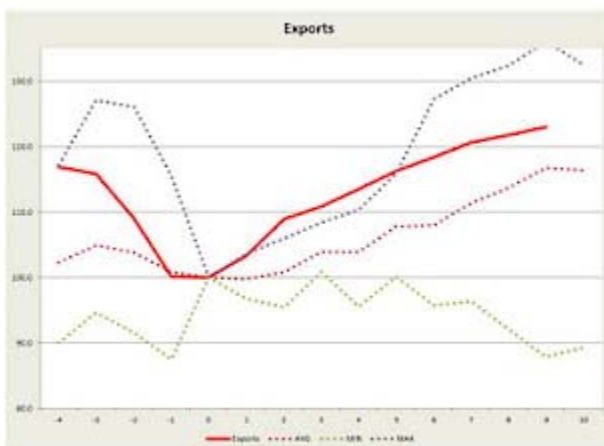


In contrast private investment is on the average and it means that companies are still investing in

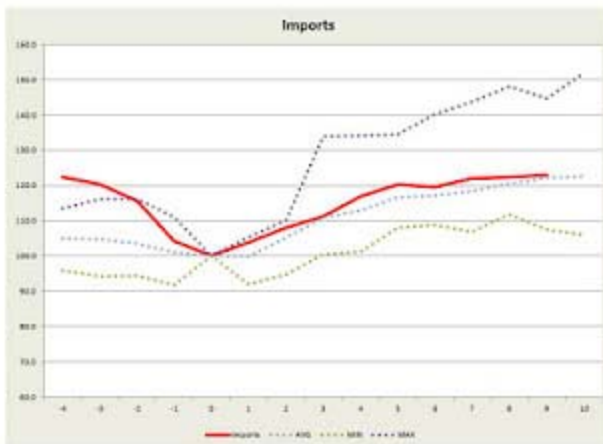
their infrastructure. This to a degree is bad news since it means further growth in productivity and lesser demand for labor. This we believe will be an increasing trend in our business cycle movements.



Despite the claims to the contrary the Government Expenditures are near bottom. This seems puzzling especially in light of the excess debt.



On the positive side we see strength in exports and in imports seen below.



Now as regards to Industrial Production we seem to be on average as seen below:



Yet the Income chart below is truly of concern. This is less of a 99% issue than the fact that income growth has staggered. Again our view is that this is driven by productivity changes.



Employment as above is as we expect at the bottom end. There is no sign of any recovery here

and this should be a major concern of Government but in an election year and the current Administration we expect no changes.



Finally Retail Sales seems on average. One wonders where the source of income comes from to drive this. The upcoming Christmas Season will tell.

Labels: [Economy](#)

VETERANS DAY



The U.S.S. Albert W. Grant, DD-649, my father's ship, under repair at Manus after the Battle at Leyte Gulf, November 1944. The tanker U.S.S. Mount Hood (AE-11), in the distance, exploded within hours of this photo killing most aboard. In the memory of the men lost and in appreciation to all women and men in the military, present and past, many thanks.

Labels: [Commentary](#)

THURSDAY, NOVEMBER 10, 2011

TECHNOLOGY AND HEALTH CARE: QUO VADIS?

I am at my core an engineer. Engineers take technological advances and turn them into worthwhile things. Engineers are not at the core a researcher, seeking knowledge for knowledge's sake; but the engineer has a goal, and part of the goal is to have something that is reproducible, cost effective and satisfies the needs of people. Engineers succeed, if and only if, people appreciate and value what they create as a new process or thing. Engineering is an honorable profession.

Now where is this going? In the [NY Times](#) the former head of the MIT Media Lab has a piece where there is a discussion of technology and health care. Now a little history, back in the 70s I shared a student with the early entity called Arch MAC, the predecessor of the Media Lab. In the 80s I as head of R&D at NYNEX, now Verizon, gave the Media lab several millions of equipment focusing on high resolution imaging and multimedia communications. In 89 I taught the first Multimedia Communications course at MIT, [the book](#) from that available for at this point historical reference. Now one thing I found out was the Media Lab is neither science or engineering, it is demo demo demo. It is an idea factory where the ideas are but a patina of a possible reality.

Thus in reading this article I was amazed to see that not much has changed. It states:

It would begin with a “digital nervous system”: inconspicuous wireless sensors worn on your body and placed in your home would continuously monitor your vital signs and track the daily activities that affect your health, counting the number of steps you take and the quantity and quality of food you eat.

Wristbands would measure your levels of arousal, attention and anxiety. Bandages would monitor cuts for infection. Your bathroom mirror would calculate your heart rate, blood pressure and oxygen level.

Then you’d get automated advice. Software that could analyze and visually represent this data would enable you to truly understand the impact of your behavior on your health and suggest changes to help prevent illness — by far the most effective way to cut health care costs.

Many situations would still call for professional medical attention, of course, but in most cases you wouldn’t need to make a costly trip to the doctor’s office. If you were not feeling well, a lifelike avatar on your smart phone would use natural-language processing to listen as you described your symptoms and then would translate them into medical jargon. After consulting a diagnostic supercomputer, the avatar would ask you to run a few quick medical tests at home.

Now does any of this make sense? Frankly, in my opinion, little if any. Why? Well take measuring levels of arousal and anxiety. What do we measure and how often and what values are meaningful and at what costs? Just to begin asking.

I am a true believer that monitoring blood sugar is a good thing if it can be used to motivate

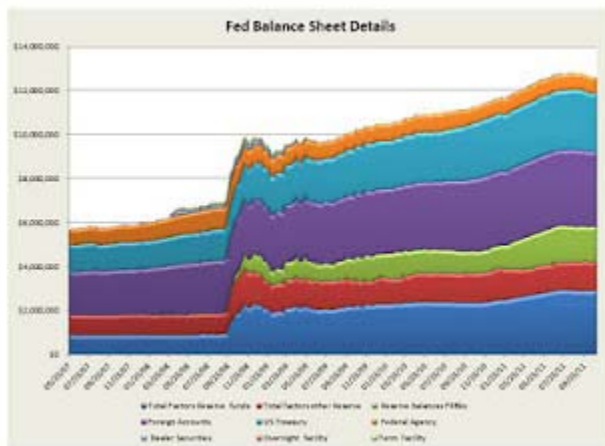
weight loss and Type 2 Diabetes control. Does it work? We really do not know. At what cost? We do not know. Heart rates and the like may be useful for collection purposes but it is not clear that they will improve the life of the patient nor would they be cost effective. It requires engineering not demos.

What do physicians do. To paraphrase Osler, "if all else fails listen to the patient". That worked well at Hopkins a century ago and it is useful today as well. It is not a natural language processor that Osler had in mind. It is sitting there across from that seventy year old woman who has back problems and knee pain and find out that she has been gardening for the past month in her rock filled garden. Should we use an MRI for \$2,000 a clip, and have the risk of finding things which we then must follow up on at exploding costs, or tell her in a comforting manner that some naproxen and come back in two weeks will be just fine.

All too often we do not need demos, we need competent family or general practice physicians who can handle the general day to day practice. Where can we get them, one source may be the very many foreign born and foreign educated physicians who could fill the gap. I have met many well educated physicians who could pass boards but would find it difficult to get into residency programs required for final licensing. Can we create another class, say between a Physician Assistant and a Board Certified Specialist. I believe the numbers are there and we just have to consider that option. Having more "demos" is not, in my opinion, productive in any manner.

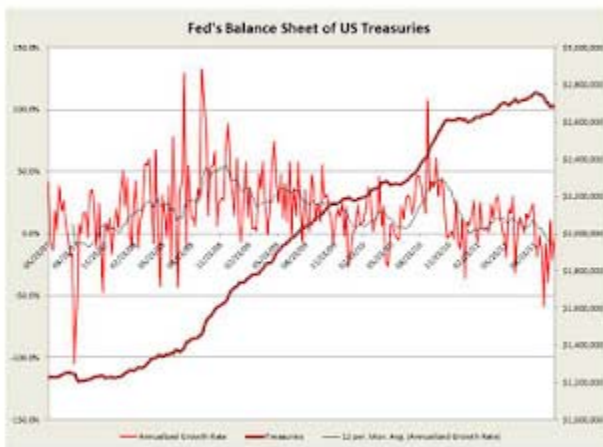
Labels: [Health Care](#)

[FED BALANCE SHEET AND M2 AND DEBT](#)

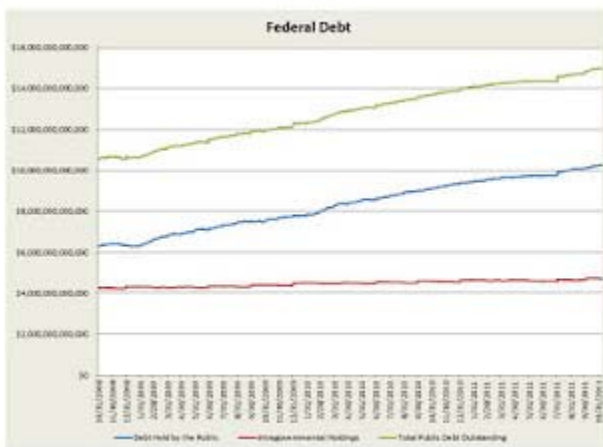


First a look at the FED BS. Here we have a slow decrease from peak. Hopefully this will be a trend. Yet as Ron Paul notes the forced low interest rates frankly mean those elderly on fixed incomes are the ones being taxed by the large banks to help support their income. It is frankly a total disregard of those who were wise and saved. They now have 0% interest and thus must deplete their capital. A true free market rate would be more likely 4.5-5.5%. That would adjust

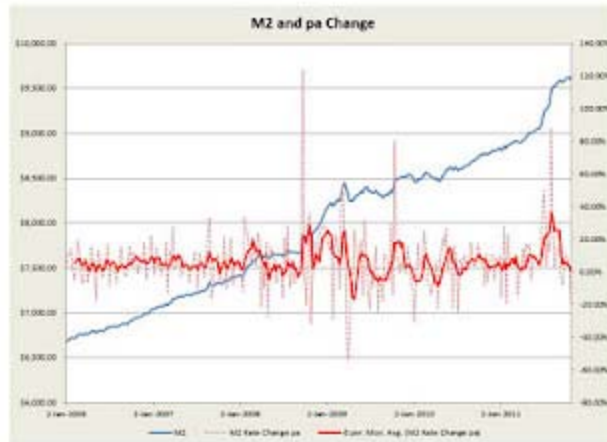
all elements to reasonable levels. It would drive up US Government Debt costs as well. Thus we have a collusion of the FED and the current Administration living off the backs of the retired and furthermore now hitting their Medicare to the tune of \$500B.



The FED's collection of US Treasuries has declined somewhat, a good trend, but one suspects a temporary one. It is a result of everyone else being worse. Thus a market for US Treasuries.



US Debt continues unabated. It well exceeds GDP and there appears to be no limit.



Finally I look at M2 from time to time and there has been volatility but now we see a flattening. Clearly the volatility will still be there but M2 shows a good 4-5% inflation, missing in the FEDs artificial control.

It is a shame that the old folks do not understand what is being done to them. The children will be loaded with long term debt unless we become Argentina and the older folks will just eat away principal. This is truly a third world governing milieu.

Labels: [Economy](#)

WELL THIS SHOULD BE INTERESTING

The [Harvard Crimson](#) has been following the occupation of Harvard Yard by the OWS contingent in Cambridge. As they state:



A tent city was hastily constructed in front of University Hall Wednesday night during a tense dialogue between "Occupy Harvard" protesters and Dean of Student Life Suzy M. Nelson.

The occupation followed a protest on campus involving more than roughly 350 participants sympathetic to the Occupy movement, during which Harvard Yard was shut down by Harvard University Police officers and Securitas guards.

The protest was intended to convey disapproval of the University's perceived complicity in growing income inequality across the country. Participants included students, staff, faculty, and community members.

Around 7 p.m., protesters were met with increased security that would prevent Boston residents who were not Harvard affiliates from entering the Yard.

Now as one who lived through the 60s and tear gas in the Square this is a bit disorganized and in my opinion demonstrates the collapse of our educational system. As one student is quoted as saying:

"I'm here because I think this is one of the most important social uprisings in modern American history," said. "I believe deeply that this is a moment in America's history that requires such a people's movement. I'm happy to be part of it."

Really, do they teach any real history at Harvard these days. Children of the Baby Boomers Revenge perhaps. Social uprising, at what? Yes perhaps Harvard had something to do with it, after all it was their economic types who both set up this mess and then made it worse, but they started at MIT. I can't wait till this migrates down Mass Ave.

I remember one night working late I believe in 69' in the old Building 20, the Rad Lab's wooden shacks, and we got a bomb scare since the SDS, I believe from Harvard, wanted to bomb the ROTC. Did any of us leave, no, did any of us join in, no, we just kept working, someone had to pay for all of this, thus we kept working to keep the economic engine working.

Also the students should note that at their head appears to be some "Dean of Student Life", one of the more than likely dozens if not hundreds of Deans of something or other. That and their staff drive up costs.

Now back to the student quote. What is the issue, what is your proposal, what are the anticipated results, how will you communicate than, how will you propose to implement it? Duh!

Revolutionaries, namely those seeking a fundamental change in a system, often have well thought out plans, for better or worse. "No Taxation without representation!", simple, not the abolition of taxes, it was understood that they played a necessary function, but let us have a say. Even Robespierre had his views, the Revolution was for Equality, Liberty, and some form of Brotherhood, vague as they were, it opposed the monarchy. Then the Terror.

Even Lenin had a well thought out plan. He wanted a communist state and the elimination of the Czar, and communist aka Marx and his tomes.

But what do these people want? Where is their Rousseau, Voltaire, Marx, Paine? Where is the

Jefferson to write a precis, a list of complaints? It is not as if there was not enough history, West and East, to show how to make a movement like this function.

Then one must ask, who created and leads this? All too often students are followers, and they often are the ones to complain. Be a leader, that is how one gets to the 1%. Followers are doomed to the 99%.

Labels: [Academy](#)

WEDNESDAY, NOVEMBER 9, 2011

YOU REALLY CANNOT MAKE THIS UP!

The USDA and the current Administration were ready to deliver the Christmas Tree Tax, says [The Hill](#).

They state:

The Obama administration is delaying implementation of a new Christmas tree tax that has provoked conservative fury.

A White House spokesman said the U.S. Department of Agriculture would revisit the issue after several Republican lawmakers criticized the proposed 15-cent-per-tree tax, which would have been paid by producers and importers of Christmas trees.

The White House also pushed back at the idea it was proposing a Christmas tree tax.

Now how dumb does one have to become. Yes it is a \$0.15 tax per tree but the cost to collect those taxes will be monumental. Forms, forms and more forms. This is the USDA for God's sake, do you have any clue how many forms they have, I do since I had gone through the USDA loan process, and then walked. If you do not fill in the forms you are out of business.

Now the people in DC want to put the Boy Scouts out of business, I knew they hated the Scouts but this is a bit too much.

Where is Robespierre when we really need him?

Labels: [Politics](#)

TUESDAY, NOVEMBER 8, 2011

SOME THOUGHTS FROM HAYEK

In the biography by Ebensten of Hayek the authors makes several prescient comments. I would like to share a few here:

On Individualism:

He distinguished two types of individualism: true—stemming from England and Scotland, emphasizing the insignificance of individual reason; and false—having roots in Cartesian rationalism—stressing the importance of individual reason. Of true individualism, the "first thing that should be said," Hayek stated, "is that it is primarily a theory of society, an attempt to understand the forces which determine the social life of man, and only in the second instance a set of political maxims derived from this view of society. Its basic contention is that there is no other way of understanding social phenomena but through our understanding of individual actions. . . . The next step in the individualistic analysis of society is the contention that by tracing the combined effects of individual actions, we discover that many of the institutions on which human achievements rest have arisen and are functioning without a designing and directing mind."

And the second on Federal Debt:

He was greatly concerned about United States federal government budget deficits. In a letter to the Times, he wrote "Sir, you would do a public service if you displayed in capital letters the elementary truth that IF THE UNITED STATES GOVERNMENT BORROWS A LARGE PART OF THE WORLD'S SAVINGS TO FINANCE CURRENT EXPENDITURE, THE CAPITAL AVAILABLE ANYWHERE FOR INVESTMENT MUST BECOME SCARCE AND EXPENSIVE." This was not the first time he wrote to a newspaper recommending the use of capital letters. In 1978, he wrote a letter-to-the-editor to the Wall Street Journal, "Could you print in front of every issue in headline letters the simple truth that INFLATION IS MADE BY GOVERNMENT AND ITS AGENTS: NOBODY ELSE CAN DO ANYTHING ABOUT IT. It might do some good!" though he noted in his scrapbook that the letter was published only once and in small print.

In 1983, Hayek was asked by the news magazine the Economist to participate in a centenary critique on Keynes. His final word on his old Cambridge friend was contained in the June 11 edition. There he wrote that he was "claiming that perhaps the most impressive intellectual figure I have ever encountered and whose general intellectual superiority I have readily acknowledged was wholly wrong in the scientific work for which he is chiefly known." He was a bit kinder in an earlier newspaper interview, when he responded to the question, "Are there any similarities between your economic theory and that of Keynes?" "No. I think basically Keynes was also a free trader and an economic liberal. But with many qualifications and restrictions. He was never quite consistent. We were personal friends but we rarely agreed on economics."

Hayek saw the element of individualism along with the extravagance of debt as two key factors in the evolution of the United States. First preserving individualism in the sense of the Scottish Enlightenment and second tamping down the stupidity of explosive debt.

First the lack of a designing and directing mind is the lack of a Government in central control. Just look at what has been happening when that is tried.

Second, one wonders what Hayek would say of the explosive debt we now see. Yes, he thought

highly of Keynes but:

the most impressive intellectual figure I have ever encountered and whose general intellectual superiority I have readily acknowledged was wholly wrong in the scientific work for which he is chiefly known

Seems to say it all.

Labels: [Economics](#), [Economy](#)

MONDAY, NOVEMBER 7, 2011

WHY MIT?



Grafton at the [NY Review of Books](#) uses MIT as the intro to his analysis of the failure of US Universities. Why?

He states:

Yet American universities also attract ferocious criticism, much of it from professors and from journalists who know them well, and that's entirely reasonable too. Every coin has its other side, every virtue its corresponding vice—and practically every university its festering sores. At the most prestigious medical schools, professors publish the work of paid flacks for pharmaceutical companies under their own names. At many state universities and more than a few private ones, head football and basketball coaches earn millions and their assistants hundreds of thousands for running semiprofessional teams. Few of these teams earn much money for the universities that sponsor them, and some brutally exploit their players.

At competitive private colleges and universities, admissions directors reserve places in each class for the children of alumni and potential donors; for athletes, many of whom will make less use of their academic opportunities than their classmates do; and simply for those who can pay. And at universities that boast of their commitment to undergraduate teaching, too many professors gabble through PowerPoint slides twice a week and entrust the face-to-face teaching of actual students to underpaid graduate students and Ph.D.s on short-term contracts, who do their best to impart basic skills in writing and quantitative analysis while earning only a few thousand dollars a course.

Frankly this does not play at all at MIT. Perhaps Princeton or Yale, but MIT? really. Why do we have so many from China, tuition free, and then they return because we fail to get them resident visas. They are creative, productive and not those from alumni children, in fact the alumni offspring are limited at best.



MIT produces some of the best, if not often the best. One wonders who chose the photo for this article?

We have no short term PhDs, we have senior faculty teaching Freshman, more than one can say about many other institutions. Shame on the Review.

Perhaps he should investigate the alleged NYU student and puppet user who complains as noted in the [piece which states](#):

Here's an astounding illustration of my argument that "American students are not studying the fields with the greatest economic potential."

The Nation: A few years ago, Joe Therrien, a graduate of the NYC Teaching Fellows program, was working as a full-time drama teacher at a public elementary school in New York City. Frustrated by huge class sizes, sparse resources and a disorganized bureaucracy, he set off to the University of Connecticut to get an MFA in his passion—puppetry. Three years and \$35,000 in student loans later, he emerged with degree in hand, and because puppeteers aren't exactly in high demand...he's working at his old school as a full-time "substitute" ...[earning less than he did before].

...Like a lot of the young protesters who have flocked to Occupy Wall Street, Joe had thought that hard work and education would bring, if not class mobility, at least a measure of security...But the past decade of stagnant wages for the 99 percent and million-dollar bonuses for the 1 percent has awakened the kids of the middle class to a national nightmare: the dream that coaxed their parents to meet the demands of work, school, mortgage payments and tuition bills is shattered.

What astounds me is not that someone could amass \$35,000 in student loans pursuing a dream of puppetry, everyone has their dreams and I do not fault Joe for his. What astounds me is that

Richard Kim, the executive editor of The Nation and the author of this article, thinks that the failure of a puppeteer to find a job he loves is a good way to illustrate the "national nightmare" of the job market. Even in a wealthy society it's a privilege to have the kind of job that Kim thinks are the entitlement of the middle class. And, as Tyler says, we are not as wealthy as we thought we were.

In considering the plight of the puppeteer lets also remember that millions of the unemployed would be grateful to have a job that they don't like.

When I entered MIT I did so by looking at the NY Times, 1959, and seeing what jobs were available. I really wanted "pure math" but frankly there were no jobs for pure mathematicians. Thank God MIT had EE, it was close enough to being an electrician just in case! And when I finished I had no debt!

Labels: [Academy](#)

[CHANGING UNEMPLOYMENT](#)

Again on the [Mankiw blog](#) is a comment regarding his discussion on employment and the understanding that technology has played a role.

Let me review four of my prior postings:

1. Wiener some sixty years ago in Cybernetics and The Human Use of Human Beings laid out just what is happening. It was no surprise then nor should it be now. Namely we have "machines" which make humans more productive and thus decrease the demand for human labor as relates to what a machine can do. Simply, I have not had a need for a secretary in over 20 some years. In fact they get in the way. I type, I electronically file, I email, I use my mobile phone, and thus why get some intermediary unless there is value added.
2. Economists have made one mistake after another, a la Romer. So frankly why do we need them. Unlike say physicians who can do more and are forced to do so, economists really do not accomplish anything, just churn up the water. Perhaps when that is fully recognized we can reduce that overhead.
3. We, not me but "academics", try to make learning science and engineering easier and more learner friendly. That is the core of what I call the "iPhone" generation, namely give someone an iPhone and let them play with it and we assume that they are technically astute. In fact they could never design such a device nor construct it. The poor student who found mechanics "too hard" was probably never really challenged. One can get 800 on the math part of the SATs but frankly that does not mean anything in terms of solving a mechanics problem, that requires understanding geometry and how to fit $F=ma$ into that geometry, that is all, and you do NOT do that by memorizing.
4. Finally good schools are good "fishing, drinking, and smoking clubs", namely watering holes where smart people gather and learn from each other. The learning is what topics are hot, what techniques work, where things are going, and most importantly getting a feeling for one's own

measure. Egos can be destroyed or built in such an environment and it the very ego which is a core to the success of the entrepreneur.

Thus growth requires an entrepreneur, one trained in the area of expertise, but one secure in their own vision of moving forward. It is the "individual" who makes progress.

As the contributor to the blog states:

We attribute this in part to the fact that tech. progress is driving productivity even has it leaves many types of workers behind. In fact, a large group has been made worse off, even as those with education and talent have gained immensely, and opportunities for entrepreneurs are better than ever. In my judgment, the underlying trends are on track to accelerating in coming years.

Technical progress has always been driving productivity, just think of the wheel, the steam engine and of course the PC. Education qua schooling is useless unless one is independently well off. I selected Engineering because there were jobs when I started, there were none ten years later, but welcome to the luck of the draw. But one makes do, not complain. The problem as I understand it is that there is a view of entitlement, entitlement of success, if one finishes some form of college, whether that is a productive path or not. That is not true. A History or Philosophy major may be well educated but the demand for that skill in the work force is nil.

No matter what Deans of Liberal Arts say. The Chinese students focus on that productivity factor, thus engineering. But also if one looks at the authors of the new biotech and genomics papers they come from the new Chinese generation, and if we think we have problems now just wait a decade! Frankly it is easy to be an engineer compared to the total uncertainty of the biotech world. Yet the challenge is being met by what we call our economic competitors.

Labels: [Economy](#)

SUNDAY, NOVEMBER 6, 2011

EQUESTRIAN: FIRST TIME WINNER



Just a note, my Grand Daughter on her first time competing on her horse got two firsts and a second, not bad for six months effort so far, Congrats Bella! West Virginia horse country has a new star, wait till she crosses over to Virginia! Upperville, here comes a Mountaineer!

Labels: [Commentary](#)

WIENER AND THE CHANGING INDUSTRIAL ESTATE

In the early 1950s Norbert Wiener wrote a readable version of what Cybernetics may bring forth. For those not in the know cybernetics is what has happened to manufacturing, robots, computers, and little need for people as workers.

Wiener said:

*Let us remember that the automatic machine, whatever we think of any feelings it may have or may not have, is the precise economic equivalent of slave labor. **Any labor which competes with slave labor must accept the economic conditions of slave labor. It is perfectly clear that this will produce an unemployment situation, in comparison with which the present recession and even the depression of the thirties will seem a pleasant joke. This depression will ruin many industries, possibly even the industries which have taken advantage of the new potentialities. However, there is nothing in the industrial tradition which forbids an industrialist to make a sure and quick profit, and to get out before the crash touches him personally.***

Thus the new industrial revolution is a two-edged sword. It may be used for the benefit of humanity, but only if humanity survives long enough to enter a period in which such a benefit is possible. It may also be used to destroy humanity, and if it is not used intelligently it can go very

far in that direction. There are, however, hopeful signs on the horizon. Since the publication of the first edition of this book, I have participated in two big meetings with representatives of business management, and I have been delighted to see that awareness on the part of a great many of those present of the social dangers of our new technology and the social obligations of those responsible for management to see that the new modalities are used for the benefit of man, for increasing his leisure and enriching his spiritual life, rather than merely for profits and the worship of the machine as a new brazen calf. There are many dangers still ahead, but the roots of good will are there, and I do not feel as thoroughly pessimistic as I did at the time of the publication of the first edition of this book.

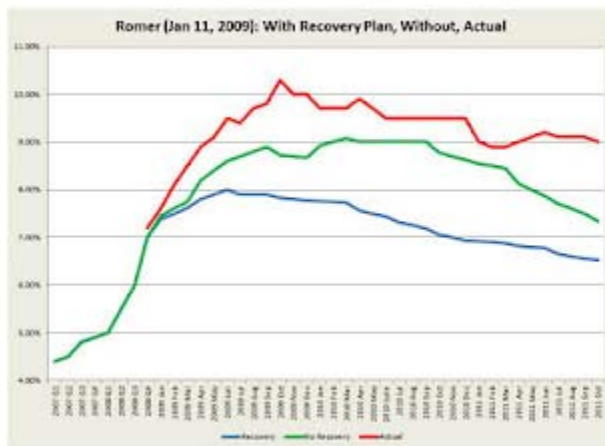
Wiener was quite prescient at the time. He saw machines replacing humans in factories. I have had conversations with many who say the US is declining because we no longer "make" anything. Frankly in a Wienerian sense no one else is also, despite the Chinese.

The Cybernetic threat poses a difficult conundrum. We have had a society where we could put people to work on farms and then factories. Now the best we seem to do is get them iPhones and iPads, the soma of our current society.

What is needed in a Cybernetic Age is creativity and productivity, developing value added elements with intelligent workforces not just bodies.

Labels: [Economics](#)

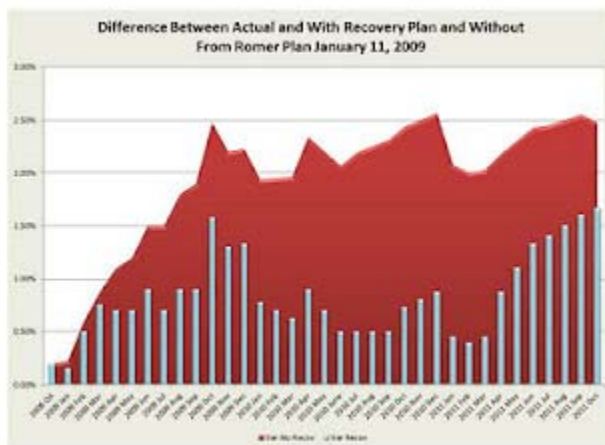
UNEMPLOYMENT AND ROMER



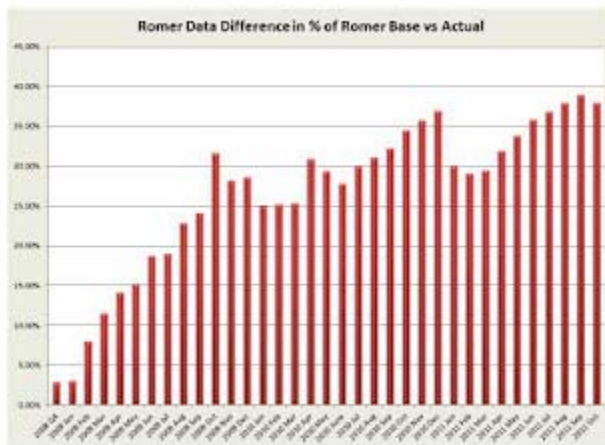
The chart above shows the unemployment situation and again compares it to what Romer predicted with and without the Stimulus on January 11, 2009. It is stuck in high and Romer said no mater what it would be dropping almost like a brick.

I often wonder how some "professional" is so wrong yet continues to tell us what to do. To paraphrase the McCarthy hearings, "Have you no shame!" But this indicates a much larger issue the general lack of reality in economics as a whole. Imagine what has happened to medicine in

the past fifty years, we have considerable more certainty. The Romans knew how to build bridges, they still are standing, that is engineering. But economics is a conundrum.



The above details her errors a bit differently, it shows a continual and growing bias of error. Why one wonders. Was it wishful thinking or are there fundamental flaws in the Keynes type analysis. It was the use of multipliers she had studied which she applied and they just did not work. Government spending has had no effect. They say it would have been worse but her "worse" is better than reality.



The above percent errors are especially telling. They are almost 50%. They are slowly getting there. Again one must ask why? The economists just will not. The left wing just wants to do more. Based upon what? You have no evidence.

I had thought I would have left this curve behind months ago, but it just festers now almost 3 years later. I had said it would not work then and well, it is tough being an engineer in a world of economists.

Or to quote Crystal Gayle:

*Mad is the captain of Alpha Centauri
We must be out of our minds*

*Still we are shipmates bound for tomorrow
And everyone here's flying blind
Oh, we must believe in magic
We must believe in the guiding hand
If you believe in magic
You'll have the universe at your command*

Labels: [Economy](#)

SATURDAY, NOVEMBER 5, 2011

[YOU HAVE TO WAIT ON THE CORNER TO GET ON THE BUS](#)

The aphorism in the title means that if one wants to have a chance at success one must go to where the bus to that end stops in hopes of getting on it, it will never come to your front door, no less your bed room.

The deeper meaning can be seen in scattering problems. Sorry for the technical digression but in say a nuclear explosion one seeks certain fissionable materials that have a maximum scattering cross section, the get a better chance or probability of a collision and thus an explosion.

Then onto an exceptionally prescient piece by [Mankiw](#), where he is looking at education and the top 1%. He states:

But it may be better to think of the return to education as stochastic. Education not only increases the average income a person will earn, but it also changes the entire distribution of possible life outcomes. It does not guarantee that a person will end up in the top 1 percent, but it increases the likelihood. I have not seen any data on this, but I am willing to bet that the top 1 percent are more educated than the average American; while their education did not ensure their economic success, it played a role.

I would argue that the top 1% are not just well educated but were on the corner if you will or were where the scattering cross section was the greatest. Say Harvard. When at Harvard you are exposed to people who are brighter, well connected and who in life are most likely to build on that. You have thus put yourself in the best spot for that bus to stop.

Going to say Rutgers may not put you there, there are exceptions, but the scattering cross section would be much smaller. Going to MIT may not put you in the Harvard cross section but would most likely put you in another favorable cross section, the entrepreneurial one, where again you may have a chance at the 1%, if that is your goal, or a Nobel prize if that is a goal. In contrast the MIT education may actually be a negative for becoming a large corporate CEO due mainly to the development of independence and lack of group political finesse, yet that very cultural milieu may be ideal for a start up, as one would expect.

Mankiw continues:

I am inclined to think that education is important here in part because the large increase in the share of the top 1 percent from the 1970s to the present occurred together with the increase in the rate of return to education during this period documented by labor economists. It is possible, of course, that the two phenomena just happened to occur simultaneously. But the timing suggests that the two trends--the increasing value of education and the rising share of the top 1 percent--may be related

Education qua learning "stuff" is important but is not the sine qua non. Getting a PhD from say MIT in EECS will not in and of itself assure you of say entrepreneurial success. Thus possibly the stochastic element of Mankiw. However the culture combined with the contacts, fellow entrepreneurs, may establish a critical mass, a larger scattering cross section if you will, to get to that point.

I think Mankiw has hit onto something, a complex systems view of the process. Why work to get into MIT, why not default to say some other place, again Rutgers, I am picking that solely because it is down the road a piece and near Princeton. I really have no other reason, but say Rutgers. Most people there will seek jobs in well established firms most likely. Why, the scattering cross section for other options is small and thus the probability for such interaction is low, they are waiting on the wrong corner.

So is education a guarantee, not really, is going to Harvard one, not necessarily, it is an amalgam, but good schools raise the probability. One may be exposed to options and opportunities, as well as style and modus vivendi that may not have been known to the individual.

The Mankiw idea has some substantial merit, perhaps someone may pursue it further.

Labels: [Economics](#)

[ENGINEERING AND SCIENCE](#)



There is an interesting piece in the [NY Times](#) about Engineering and Science education. What is most interesting is that it is reflective of today's society rather than the facts.

First, they use the acronym, STEM, for science, technology, engineering and math, and I really do not get that. We always had math in the sciences and I have no idea what technology is. The world is divided into science and engineering. Science looks at primal stuff like chemistry, biology and even math, and engineering uses that stuff to make things. A chemist creates a process and a chem E makes it into a production engine. Simple, clear, direct. This STEM thing must be some Washington type who is trying to sweep every type into a pool. Frankly it is nonsense.

Second, the article states:

“We’re losing an alarming proportion of our nation’s science talent once the students get to college,” says Mitchell J. Chang, an education professor at U.C.L.A. who has studied the matter. “It’s not just a K-12 preparation issue.”

The bulk of attrition comes in engineering and among pre-med majors, who typically leave STEM fields if their hopes for medical school fade. There is no doubt that the main majors are difficult and growing more complex. Some students still lack math preparation or aren’t willing to work hard enough.

Other deterrents are the tough freshman classes, typically followed by two years of fairly abstract courses leading to a senior research or design project. “It’s dry and hard to get through, so if you can create an oasis in there, it would be a good thing,” ...

Now let me give some current personal interjections. I wanted to get back some of the Organic Chem I took 50 years ago, yes 50, and so I enrolled in the local Community College, and am taking the course. Yes, it is worse than 50 years ago, we just learn tons of facts, and for me it is not hard since I had all the courses that followed and am doing my own advanced work beyond that level. I just wanted to refresh some ideas. The poor students seem stunned by the collection of facts and the constant harangue from the instructor as to how hard they must work. That was not MIT despite the reputation. There the instructor distilled the facts into a coherent whole, just look at the MIT Open Classroom videos on Freshman Chemistry, no memorization, understanding and applying concepts.

The article continues:

...bailed out of engineering at Notre Dame in the fall of his sophomore year. He had been the kind of recruit most engineering departments dream about. He had scored an 800 in math on the SAT and in the 700s in both reading and writing. He also had taken Calculus BC and five other Advanced Placement courses at a prep school in Washington, D.C., and had long planned to major in engineering.

*But as ... **sat in his mechanics class in 2009**, he realized he had already had enough. “I was trying to memorize equations, and engineering’s all about the application, which they really didn’t teach too well,” he says. “It was just like, ‘Do these practice problems, then you’re on your own.’ ” And as he looked ahead at the curriculum, he did not see much relief on the horizon.*

So ..., a 21-year-old who likes poetry and had enjoyed introductory psychology, switched to a double major in psychology and English, where the classes are "a lot more discussion based." He will graduate in May and plans to be a clinical psychologist. Of his four freshman buddies at Notre Dame, one switched to business, another to music. One of the two who is still in engineering plans to work in finance after graduation.

This is the problem. First I took the same course almost 50 years ago also. Mechanics does not require memorizing a single thing! You got all the theory in high school. It is applying the ideas to different geometries, moving parts, and just thinking. That is engineering, the difference between science and engineering. If memorizing was required it was either taught improperly or the student perhaps was never meant for engineering in the first place.

How about looking at the excess pampering of students, the telling them that they are all perfect. They are NOT, some are just lazy, even dumb. But when one looks at percentages from now and back 50 years one sees that we were much more productive then, was it the draft, the fact that without an education we would at best pick up trash, or worse work on Madison Avenue! That was before Wall Street for the young folks.

The article continues:

"They learn how to work with their hands, how to program the robot and how to work with design constraints," he says. But he also says it's inevitable that students will be lost. Some new students do not have a good feel for how deeply technical engineering is. Other bright students may have breezed through high school without developing disciplined habits. By contrast, students in China and India focus relentlessly on math and science from an early age.

I have had many of those recent Chinese students at MIT. They are all back somewhere else, never stayed here thanks to our Government, but they had the basics and we then applied it. It seems that the approach is to "play" without principles. I do not believe that such an approach works, especially based upon experience. Engineers also look at large systems, and as such they must be able to abstract reality while retaining all of its key elements. Then reconstruct it and tell how it works and how to control it. That requires an ability to deal with a broad set of fields and at two levels, levels of significant sophistication such as stochastic systems and then at levels of conveying that to people whose concurrence you may need, such as MBAs who have no idea what you may be talking about in reality. Thus the challenge for the engineer is dealing with the facts properly and then converting that reality into a consistent and truthful yet understandable simplicity.

Thus the attempt to make the Freshman year one of fun and games is in my view a fatal error. A good college is not a High School. MIT understands that and has for decades. Thus Pass/Fail. At MIT there is very few places to hide, there are however many places to explore and find that resonance that makes for an enjoyable and productive career. It often is the mentoring of people who are mid or later career that helps the student, seeing where they may be going.

I am reminded of one of my student dinners, we had an MIT grad, about ten years out, CEO of his own start up. The students after the dinner said as we walked back to Campus:

"We did not know an engineer could run his own company? We thought you had to get some MBA person."

I turned somewhat miffed and said to the Chinese mostly students in my oft times abrupt New York manner:

"What do I look like, chopped liver. Besides look who runs your country, all engineers, they are not chopped liver either!"

Try and translate that into Mandarin!

Labels: [Education](#)

WEDNESDAY, NOVEMBER 2, 2011

[THE HARVARD WALKOUT](#)

At [Harvard](#) today a group in line apparently with the Occupy crowd staged a walkout of Prof Mankiw's Economics Class. The letter stated their reasons as follows:

A legitimate academic study of economics must include a critical discussion of both the benefits and flaws of different economic simplifying models. As your class does not include primary sources and rarely features articles from academic journals, we have very little access to alternative approaches to economics. There is no justification for presenting Adam Smith's economic theories as more fundamental or basic than, for example, Keynesian theory.

Care in presenting an unbiased perspective on economics is particularly important for an introductory course of 700 students that nominally provides a sound foundation for further study in economics. Many Harvard students do not have the ability to opt out of Economics 10. This class is required for Economics and Environmental Science and Public Policy concentrators, while Social Studies concentrators must take an introductory economics course—and the only other eligible class, Professor Steven Margolin's class Critical Perspectives on Economics, is only offered every other year (and not this year). Many other students simply desire an analytic understanding of economics as part of a quality liberal arts education. Furthermore, Economics 10 makes it difficult for subsequent economics courses to teach effectively as it offers only one heavily skewed perspective rather than a solid grounding on which other courses can expand. Students should not be expected to avoid this class—or the whole discipline of economics—as a method of expressing discontent.

Harvard graduates play major roles in the financial institutions and in shaping public policy around the world. If Harvard fails to equip its students with a broad and critical understanding of economics, their actions are likely to harm the global financial system. The last five years of economic turmoil have been proof enough of this.

Now there have been times when I have taken a different position with Mankiw, such as on Pigou and his opposition to a control of sugars. Economists who lack knowledge of the human body

and medicine should frankly stay on the hog and corn cycle at best. But that notwithstanding, Mankiw is a highly respected and generally quite thoughtful a thinker in the field.

He is often a voice of well founded reason and often with understatement as compared to some of the left wing ranters we all see. Thus it is almost absurd that this group should select him amongst all the players out there.

Why not pick on Romer, she was the one with the January 11, 2009 memo which predicted nothing that ever happened, or perhaps any one of the others of her ilk. But Mankiw, I think not.

But this does bring back the days of the 60s when students protested everything. I gave an Electronics Final in the Armory in June 1970, I got a bomb threat, and it was up to me to decide to stay or leave. I informed the students of the threat, told them that I and the exam would remain but that had the option of leaving and getting graded accordingly, and then I walked the floor for the next two hours. No bomb, and no one ever tried that again, at least on me. I would not do that In Iraq however.

But this rather ill focused Luther like letter, well it really misses the point. If you have other ideas, no one stops you from reading, and in turn talking. In addition I am certain that Harvard can be creative in its curriculum, Mankiw's "favorite book" sales will not suffer that much.

The problem here is that this protest lacks the elan of the 60s. The protesters look like schlubs, no style, and what they are protesting is so vague, not the War in Vietnam, and they seem to miss the target of the issue, unlike Johnson.

Yet I still remember Kent State. That was the first time I remember that US troops executed unarmed citizens. Hopefully never to be repeated.

Labels: [Economics](#), [Education](#)

MONDAY, OCTOBER 31, 2011

[COASE, PIGOU AND POWER OUTAGES](#)



During the October Blizzard here in New Jersey I had the opportunity to look at the world from the eyes of Coase and Pigou. I also saw externalities in a real fashion.

Let me explain. You see, as predicted, sometime mid Saturday, October 30, 2011, we lost all power. The proximate cause, falling trees. The real cause was multifold. First the town has a tree loving policy, Namely there is a strong group of folks, the Mayor appears to be at the core, who believe every tree and each of its parts are sacred, at least that is my opinion having attended the town meeting where the decision was made.

Now I like trees, I grow them, hundreds, and give them away. Yet having gotten my degrees in Botany and Horticulture from the school at the New York Botanical Garden, I know something of trees. The locals in town are fans of “native” trees, maples and ash. Now anyone who knows where we live it is the remnants of Lake Passaic, from the last ice age. It is then end of the ice flow from the north, the last of what we know as the New England terrain. Twenty miles south we have sand, here we have rocks and clay, dragged a thousand miles or more from the north by sheets of glaciers. Now the native trees are really grown up weeds.

Ash have invasive roots and maples break is a stiff wind, and with snow the come crashing down. The tree decision has allowed the growth of trees over, under and through all the power lines. Thus the falling trees, thousands, really. Totally predictable, and it happens every other month, not thousands of course but a dozen or so!



Thus the proximate cause is really a result of the decision by the town to allow this to happen. If it were like the adjacent towns we would have trimmed them or eliminated them. The costs to repair is orders of magnitude more than the cost to fix the tree problem. In classic Tort law, the owner of the property upon which the tree was growing would be liable for any direct and consequential damages. However, this may be mitigated by the actions of the town by abrogating the ability of an owner to remove a tree. However a town does not have a sovereign immunity as does the State or Federal Government, it is collectively liable. Thus one ends up litigating against one's self. Perhaps Coase never thought of that.



That leads to externalities. You see people want a town covered in trees. However the choice of having this lovely coverage is loss of power, frequently. The costs of loss of power is substantial. I had to move my company from New Jersey to Prague, could not rely on the power. In my office here I had to get motor generators, an even then we lost Internet access and thus business. Thus it cost me and others for the ability of some to have trees overhanging streets.

The solution is simple, cut the trees. Or if you were Coase, sue those who have trees and lead to loss of power. It is like the railroad and farmer familiar to Coasean arguments. You want trees, and I am harmed, the you pay me for the harm.

Now to Pigou. Let us assume we do not follow Coase, that we follow Pigou. Namely there is a cost to the externalities but there is a cost to remedies. Pre-emptive remedies are always best, namely prevention. That means cutting the trees. Let us put the tree huggers aside. I really hate ash trees, the roots are invaders of all surface areas and basements.

But my personal likes aside, I like metasequoias, but let us assume we cut and or remove the trees overhanging the roads and wires. Who then pays for it, directly and indirectly? Let me make three arguments.

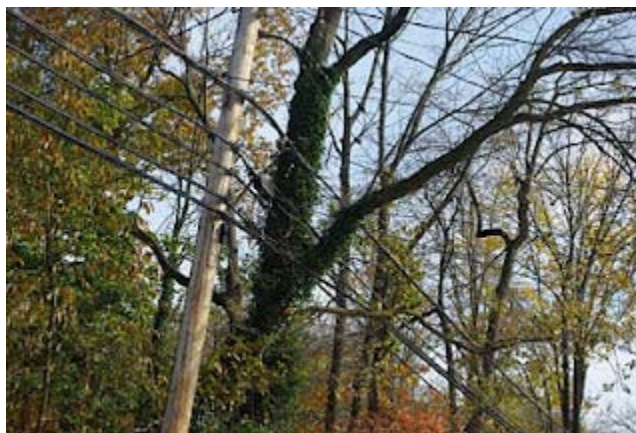


1. The Power Company: We tell JCPL to get rid of all the tree problems. That in the long run saves them money but as a Public Service Commission controlled entity they will but it goes into the rate base calculation. Plus a mark-up. Thus we all get to pay whether they are our trees or not. I get the benefit of better power but at a cost for which I bear no liability. You see power lines are buried in my area and I have chosen trees that are much more durable. Thus I am being "taxed".

What actually happens is JCPL must love this. It is not their "fault" and the costs become part of the rate base and as such increase rates. Even a one in a hundred year event raises the rates for the remaining 99 years! Towns are filled with managers who have no idea of unintended consequences, yes they are lawyers. They oft times make their living on these results.

2. The Town: The Town takes the responsibility to remove the trees. They do this by raising the property taxes and hiring more people. Towns never outsource, they just get more people, more trucks, and exploding benefits. Again I get hit with the costs but now for an amount proportional to my property value not my electricity usage. I may be very prudent in electricity, which I am, but this approach will not reflect that point.

3. The Owner: Namely we tell the owner of the property what the standard is and they have the duty to remedy the problem. This allocates the costs to the source. The problem is that it may be a sudden increase in costs but that could be remedied. The picture below is a prime example. The cable and telco brought the lines between this dead tree! Yes a dead tree, which sooner or later will collapse. Is this negligent on their part. Is the owner liable for the damage subsequently caused. Can we have a class action suit?



Thus the Pigou approach is to tax and cut, trees that is, but the Coasean approach would be either to sue or frankly place the duty where the problem is, and if not compliant and damage occurs then fine or sue. A fine is a zero transaction cost remedy, so that may be the best Coasean approach.

Just a thought.

Labels: [Economics](#)

MONDAY, OCTOBER 31, 2011

UNINTENDED CONSEQUENCES

The drug shortage, especially for chemotherapy, has a strange but predictable source, namely unintended consequences. As [NEJM](#) reports:

Before 2003, Medicare reimbursed 95% of the average wholesale price — an unregulated price set by manufacturers — whereas oncologists paid 66 to 88% of that price and thus received \$1.6 billion annually in overpayments. To blunt unsustainable cost increases, the Medicare Modernization Act mandated that the Centers for Medicare and Medicaid Services (CMS) set reimbursement at the average sales price plus a 6% markup to cover practice costs. This policy has reduced not only drug payments but also demand for generics. In some cases, the reimbursement is less than the cost of administration. For instance, the price of a vial of carboplatin has fallen from \$125 to \$3.50, making the 6% payment trivial. So some oncologists switched to higher-margin brand-name drugs. Why use paclitaxel (and receive 6% of \$312) when you can use Abraxane (for 6% of \$5,824)?

This is about a small real example of what a failure to think through the process results in. As one of the left wing politicians said when trying to get the recent health care bill passed, she said, "You have to pass it to see what it says." Pass it they did, and if one thinks the current shortage is anything just wait.

Labels: [Health Care](#)

CHINA AND SPACE

[China Daily](#) and the [BBC](#) report on the launch of China's unmanned spacecraft for the ultimate goal of establishing a space station. As China Daily states:

The main tasks of the Shenzhou VIII is to test docking technology and functions of the modified space vessel and rocket, and carry out scientific experiments, Wu said. The unmanned spacecraft is equipped with devices for recording real images and mechanical parameters during its flight, to test the space docking before a manned attempt. Once China has mastered the technologies of rendezvous and docking, it will be equipped with the basic technologies and capacity required for the building of a space station, said Zhou Jianping, chief designer of China's manned space program. "It will make it possible for China to carry out space exploration of larger scale," he said. For this mission, Chinese and German scientists will also conduct 17 space life science experiments on Shenzhou VIII. Among the research programs, 10 will be controlled by China, six by Germany, and one by joint efforts, Wu said.

The BBC states:

It is a learning curve China hopes will eventually lead to the construction of a space station, starting at the end of the decade. At about 60 tonnes in mass, this future station would be considerably smaller than the 400-tonne international platform operated by the US, Russia, Europe, Canada and Japan, but its mere presence in the sky would nonetheless represent a remarkable achievement.

The emergence of China as a player in space has interesting elements. Clearly they see this as an element of national pride. Also they see this as a strategic element of their development as a significant international/global power.

In a way the US and its fumbling NASA programs have changed the attitude of the public to the "show off" space missions, the 1960s type banter from the space platforms, almost Kindergarten in nature.

If space is a strategic element then it should be run that way, and in fact that is what DoD is doing despite the follies of NASA.

Labels: [China](#)

SATURDAY, OCTOBER 29, 2011

THIRD WORLD STATE

Why do businesses leave New Jersey, well in my opinion and experience it is the power problem, and especially JCPL. Power out as expected and on motor generators. I have done this more in New Jersey with JCPL than any other place in the world, from Korea, Thailand, Poland, Russia, and even GREECE!

Go to [their site](#) and you get nothing!

One wonders with all the "infrastructure projects" that a little prior planning would prevent poor performance! Just cycle around and every day I see hundreds of trees which would collapse in a moments notice. Perhaps with First Energy one gets Last in Service.

Thank God for my Chinese motor generator. American power just can't deliver.

Labels: [Economy](#)

[AL GORE, WHAT ABOUT THIS SNOW!](#)



Here we are still in the early Fall and we are getting 1" plus an hour. What happened to that Global Warming stuff? Yes July was hot, but August was downright frigid and well just look now.

And yes, I expect any minute now to lose all power, JCPL seems to have the worst record in the 20+ countries I have operated in. Well on to the motor generator set.

Perhaps a white Christmas too.

Labels: [Global Warming](#)

[WHEN WILL THEY GET IT RIGHT](#)

I keep wondering if the writers of commentary will ever get anything right. This time it is [George Will](#).

He states:

Every day, 10,000 baby boomers become eligible for Social Security and Medicare, from which they will receive, on average, \$1 million of benefits (\$550,000 from the former, \$450,000 from the latter). Who expects difficult reforms from Romney, whose twists on ethanol make a policy pretzel?

Now it is clear he does not like Romney, but as to the facts..

- 1. Medicare pays \$11,000 per year per enrollee.**
- 2. A man retires at 65 he lives to 82, I corrected that one. That is 17 years.**
- 3. \$11,000 times 17 is \$187,000. Not the \$450,000 above!**

Dummy, dummy, dummy!

I wrote a [White Paper](#) on this which was picked up by the Fact Checker at the Post a few months ago, and he and I communicated on tightening up the numbers. Where is Will.

Frankly once you read that stupidity you just have to reject the rest of his writing, even if some may be correct. Wrong facts kill all other true observations.

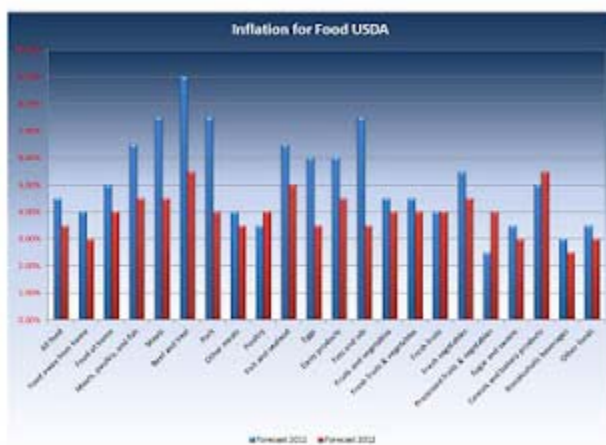
Oh, and by the way, always remember the 3% of all the salaries the person paid into the program. Duh George Will!

Labels: [Economy](#), [Health Care](#)

SATURDAY, OCTOBER 29, 2011

[FOOD INFLATION 2011 AND 2012](#)

The inflation on food has been quite substantial over the past few years. For example a gallon of milk has gone from \$3.00 to \$4.50 in eighteen months, a 50% inflation and an annualized rate of 32.5%. The [USDA](#) has issued a report on food inflation for 2011 and 2012. The results are below:



Note the high levels of inflation, some exceeding 9% pa. Dairy is at 8% but that weights cheese eggs etc. Milk is hidden there.

The USDA report states:

Although food price inflation was relatively weak for most of 2009 and 2010, cost pressures on wholesale and retail food prices due to higher food commodity and energy prices, along with strengthening global food demand, have pushed inflation projections upward for 2011.

The all-food CPI increased 0.8 percent between 2009 and 2010, the lowest food inflation rate since 1962. Food-at-home prices increased by 0.3 percent—the lowest annual increase since 1967—with cereal and bakery product prices declining 0.8 percent and processed fruit and vegetable prices dropping 1.3 percent. Food-away-from-home prices rose 1.3 percent in 2010, the lowest annual increase for restaurant prices since 1955.

For 2012, food price inflation is expected to abate from 2011 levels but is projected to be slightly above the historical average for the past two decades. The all-food CPI is projected to increase 2.5 to 3.5 percent over 2011 levels, with food-at-home prices increasing 3 to 4 percent and food-away-from-home prices increasing 2 to 3 percent. While many inflationary pressures that drove prices up in 2011 are not expected to intensify and may even decrease in 2012, retailers have been slow to pass on cost increases to date. Price levels in 2012 will hinge significantly on several macroeconomic factors such as weather conditions, fuel prices, and the value of the U.S. dollar...

The price of food is a heavy burden on the lower income groups. I expect it to continue at a 10% rate for the foreseeable future.

Labels: [Economy](#)

FRIDAY, OCTOBER 28, 2011

[HEALTHCARE COST DYNAMICS](#)

In a recent posting in the [Globe and Mail](#) by Auld, the author makes the following argument:

The idea that a healthy lifestyle substantially decreases demand on the health care system has been repeatedly shot, stabbed, and poked at with sharp sticks, but it won't just die.

The zombie argument goes like this: poor health causes more use of the health care system. Poor health can be caused by an unhealthy lifestyle -- smoking, overeating, lack of exercise, and so on. Therefore, unhealthy lifestyles cause increased use of the health care system.

Therefore, policies which induce people to choose healthier lifestyles are rigorously justified since they mitigate such external effects and reduce demand on the public health care system.

The zombie notion that promoting healthy lifestyles is a good way of reducing demand on the health care system should be put to rest.

To simplify it he argues that:

Consider smoking, perhaps the most commonly studied health-affecting behavior. It is very well-established that smoking causes poor health. We can estimate the amount of health care used treating smoking-related illnesses by comparing disease rates for smokers and non-smokers and attributing some fraction of cases of various diseases to smoking. ...

However, all people -- and I do not mean to shock anyone -- die some time, even including people who live very healthy lifestyles. Preventing someone from dying of a smoking-related illness only means that they will die of a non-smoking related illness. The effect of smoking on lifecycle health care costs is the difference between costs which are incurred if the person smokes and the costs which would be incurred if the person doesn't smoke. Whether improvements in lifestyle increase or decrease lifetime health care costs depends in a complicated manner on how a healthy lifestyle affects length of life and health care costs at any given age. Whether smoking or other unhealthy behaviors increase or decrease health care costs is an empirical question.

The evidence suggests that unhealthy lifestyles tend to increase health care use at any given age and reduce life expectancy, so more is spent per year but for fewer years.

Thus the argument is simply that:

1. We all die at some time.
2. Spending money to delay death is a waste.
3. In fact bad behavior results in earlier death and thus lower total lifetime costs.

Now perhaps some facts from Medicine would help. Let me compare what we could do in say 1967 when I first started studying the field and today, almost 45 years later.

1. Lung Cancer: Once detected first with a simple chest X ray and then with a lavage of the lung, a very painful process then and now, we might operate, after all whenever a surgeon sees a patient they see the opportunity to cut, but it was almost always nonproductive. Thus the patient died in 3 to 6 months and the best you could do was use morphine which just shortened the inevitable. The advantage was they really did not need much care, the medications were minimal and they ged before Medicare or Social Security kicked in.
2. Type Diabetes and Sequelae: Here is a counter example. In 1967 there frankly were few obese people, and children were almost never obese. Thus there was a low incidence in Type 2 Diabetes. In fact we treated Type 1 and almost ignored Type 2 until it was too late, namely kidney failure. There were no kidney transplants and dialysis was just coming out. However now with the epidemic of obesity and the resulting Type 2 diabetes and its sequelae, we have more patients, and we can now keep them alive for quite a long time at a tremendous cost. Here is a counter example to the lung cancer cases. If we were to change behavior then we could indeed save money. In a way this is the total counter to lung cancer.

3. STDs: Sexually transmitted diseases are causes of a variety of chronic and fatal diseases. Hep B, AIDS, HIV syndromes, Herpes, HPV, cervical cancers and oral-pharyngeal cancers to name a few. Now will promoting better health help here? Possibly, especially since AIDS maintenance is quite costly, and the Hep B liver cancers can be costly, etc it is possible to demonstrate a savings in a lifetime. Remember we all eventually die of something.

4. Alcohol and Other Drug Abuse: This has been an on and off again issue. Cirrhosis is a terminal state for some, it is the liver effectively decomposing and raising all the toxins in the system. Alcohol is a significant factor. Can health living deal with this? Possibly, but like other drug abusers they generally peak out in mid-life and become terminal.

5. Cancer Screening: This is the preventive care problem as evidenced with the current debate over PSA screening. Does cancer screening as part of a healthy lifestyle work? Let me give a low cost example. Melanoma is growing in North American and may most likely continue. The incidence is increasing but the survival is also. Early detection, a semi-annual skin exam, for a ten minute procedure, can find the lesions while still Melanoma in situ and the lesion can be excised while still 100% curable. That is a good investment, and the lifestyle part of that decision is to stay out of the sun, perhaps less of a problem for Canadians than for Australians.

6. Congestive Heart Failure: Cholesterol, triglycerides, and the many other elements which give rise to cardiac problems leading to congestive heart failure are now part of management of a healthy life style. Why? Well in 1967 when you were diagnosed with Stage IV congestive heart failure you were sent home to put your affairs in order with some relatively inexpensive morphine. That's all. Today we can manage it for quite a while even to the limit of getting a new heart. We are bombarded with ads saying to exercise, watch our weight, take lipid lowering drugs and the like. Does this save costs? Good question. The unhealthy behavior of eating pizza every day, smoking, processed foods, fats etc may lead to an MI, congestive heart failure, but now we can keep you going at a substantial cost. In 1967 we just sent you home!

Note what is happening, we are being able to keep people who live unhealthy lifestyles alive but at a tremendous cost. This is a clear example of externalities. Namely they get to live the lifestyle and we all end up with the costs.

Let me give one more conflicting example. A 50 year old man decides to take up jogging because he thinks it is good for his heart. At 60 he gets prostate cancer and we pay for that. At 70 he gets retinal failure and we pay for that. At 80, now his hips are gone, and we pay for double hip replacements. Then the surgery was compromised and we have dual hip infiltration of some nosocomial infection, we pay for that. The list goes on. If he had not jogged he would not have needed the hip replacement and he may have even died at 55 from heart problems. So what is the answer?

Thus to reiterate the author:

Whether improvements in lifestyle increase or decrease lifetime health care costs depends in a complicated manner on how a healthy lifestyle affects length of life and health care costs at any given age. Whether smoking or other unhealthy behaviors increase or decrease health care costs is an empirical question.

In fact the question, as shown above, is also disease dependent as well.

Now along comes [Frances Woolley](#) in her inimitable style and asks the important set of questions. She responds with the following. I present her comments and intersperse mine:

The question that Chris Auld's article raised in my mind was: why? Why is it so hard to convince people that public health measures, like reducing smoking, might lead to increased health care costs in the long-run? I can think of a number of explanations.

*1. **Policy makers are stupid.** That's not a good economic explanation; the basic premise of economics is that people are (usually) not (that) stupid. But it might be right.*

There may be some validity here, I spent my time in Washington and saw for myself. But generally policy makers in the US are responding to a great number of influences and it is the amalgam of these influences which result in a final policy. Stupid, possibly, but influenced definitely.

*2. **Policy makers aren't stupid, but they want to raise money by suing tobacco companies.***

Yes, that is a possibility. But what of the other healthy lifestyle issues. Take alcohol, we banned it under the Constitution, we saw what that did. The costs and social destruction was monumental. Could we argue the same for drugs as the libertarians do? Possibly.

*3. **Policy makers are paternalistic.** Unhealthy behaviors are bad, either because they are morally reprehensible (the sin of gluttony), or because unhealthy behaviors make people unhappy. The zombie argument - "quit smoking for the good of the health care system" - is trotted out in order to induce people to behave better. Or in order to justify our moralistic views. 3a. Because people believe unhealthy behaviors are bad, the idea that these behaviors could be beneficial - that they could, for example, reduce health care spending - causes cognitive dissonance. Thus people refuse to believe it.*

Now this is not a simple question. I have often tried to understand what makes a libertarian and what makes a progressive. Progressives believe that Government, assuming they are in charge, knows best and can do what needs be done. Libertarians view Government as a necessary evil and that the individual knows best. So what makes one person a libertarian and another a conservative, my two children are one of each, so it cannot be environment or genetics. Paternalistic may be for some but not all.

*4. **Policy makers have high discount rates.** The person who quits smoking today will soon be at lower risk of suffering a heart attack - and at increased risk of living long enough to get Alzheimer's disease. But if a policy maker has, say, a 10 percent discount rate, \$100,000 in health care expenses in 20 years' time is equivalent to less than \$15,000 in health care expenditures today. So present costs matter far more than future costs.*

Yes, they do have high discount rates, Cust the costs now and just push it down the road to someone else. Yet if we have a good CBO one would think it would be their job to ferret out those costs and let the public know.

*5. **Policy makers only care about certain costs.** Some types of illness place large burdens on Canada's publicly funded health care system - cancer, for example, which is largely treated in hospitals. Other forms of illness place burdens on informal caregiving networks. If you or someone you love is diagnosed with Alzheimer's for example, it will generally be up to you to provide home care, or arrange and pay for at least part the cost of long term residential care. If quitting smoking reduces cancer treatment costs by \$1 and increases long-term care costs by \$1.50, the publicly funded health care system might still have saved money.*

Possibly, and in fact in the US the concern is about deficit at the current time and long term debt. Not total costs. Frances ends with:

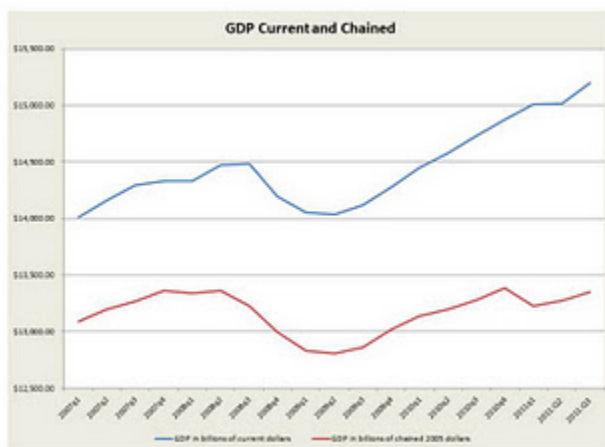
I don't know what the right answer is. But I did find Chris Auld's exploration of the issue well worth reading.

Like Frances I also do not know the right answer. In the end we are all dead.

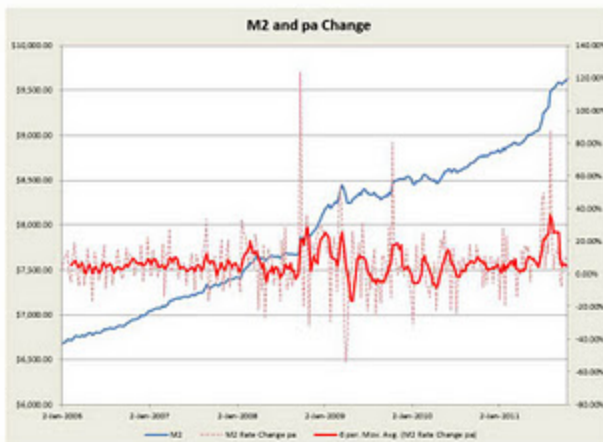
Labels: [Economics](#), [Health Care](#)

THURSDAY, OCTOBER 27, 2011

[GDP ISSUES: 3Q 2011](#)



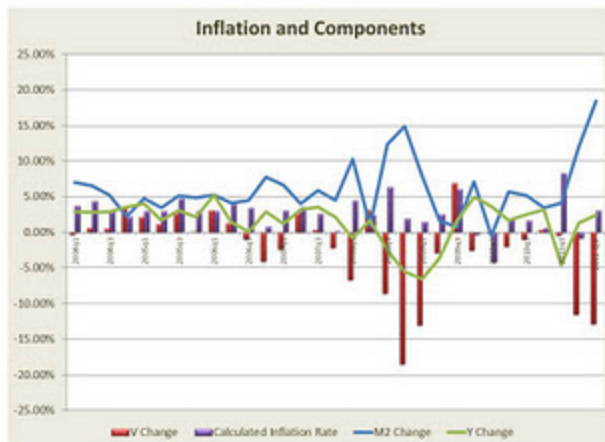
The GDP has grown at an annualized rate of 2.5% in Q3 as of the current estimates from the [BEA](#). The above is the real and the chained data, chained being effectively adjusted for inflation. The good news is that the chained has returned to where it was before the collapse.



The above is M2 and its annualized change. M2 has been growing with a large increase in Q2 and early Q3. Now it has again flattened. That most likely indicates slowing of the potential for inflation.



The Monetary Base has stopped its growth since the FED has stopped its policy of dumping cash into banks.



Inflation and its components generated from M2, Velocity and Y or GDP change are shown above. Calculated inflation is about 2-3%.

Thus we see some growth, we see little inflation pressure, and yet we see a stalled economy. As I have indicated before the major source of hesitancy is from the current Administration and its punitive policies.

Labels: [Economy](#)

[PROSTATE CANCER AND ANCIENT EGYPT](#)

There is an interesting article in [Science Now](#) regarding the diagnosis of prostate cancer in a mummy some 2250 years old.

They state:

Now an international research team has diagnosed what ailed M1: the oldest known case of prostate cancer in ancient Egypt and the second oldest case in the world. (The earliest diagnosis of prostate cancer came from the 2700-year-old skeleton of a Scythian king in Russia.) Moreover, the new study now in press in the International Journal of Paleopathology, suggests that earlier investigators may have underestimated the prevalence of cancer in ancient populations because high-resolution computerized tomography (CT) scanners capable of finding tumors measuring just 1 to 2 millimeters in diameter only became available in 2005. "I think earlier researchers probably missed a lot without this technology," says team leader Carlos Prates, a radiologist in private practice at Imagens Médicas Integradas in Lisbon.

Interesting to see what the did and the now revised view of prevalence. Also the age given the now indolent view the Government has.

Labels: [Medicine](#)

MONDAY, OCTOBER 24, 2011

[HOW ABOUT GIVING ME MONEY FOR MY NEW CAR!](#)

Anyone who buys a new car knows that once they drive it out of the showroom and around the block they lost 10% of the value. Less than 1,000 feet, and wham, it is underwater! Then there is underwear, just buy it, wear it for just one day, and think you will get your money back, they are underwater. How about that pizza, buy it at 8 PM, just a few bites, and wham, underwater.

But when someone buys a house, and it goes under water we want the Government to make them whole again, whatever that means.

Now the fundamental idea was that when you bought the house and agreed to the payment terms, the value of the house became relatively irrelevant. Who cares what the house is worth, you owe the money back.

But not any more, some how in the entitled generation if you make a dumb mistake, even if you committed fraud, well we expect the Government to make us whole.

That is just another element of the victim and welfare state, take from those who paid and give it to those who will not. The old adage of reward success and punish failure is gone. But someone must eventually pay. The Government really does not exist as a payer, it is a fund transferer. It takes from the rich and gives to the poor. But the rich, whoever they may be, got that way for many by creating and working hard, and yes many had gotten burned, that is the way you learn.

Survival of the fittest, Spenser and Social Darwinism, yes it has some merit.

Labels: [Economy](#), [Politics](#)

[PIGOU, COAL, COASE, AND WHAT NEXT?](#)

I am not a fan of Pigou and his tax. Frankly it just is another way for the Government to take money under false pretenses. It will not do what the promoters intend especially when it comes to reducing energy use.

My standard argument is that if it is cold we just heat the house. We must drive to work so we use the car. Will doubling the cost of energy by taxing it exorbitantly change much, never really did. Perhaps a few may die from freezing, that will reduce demand, and more will be unemployed which is another decrease. Simple logic dictates that demand is just not that flexible. Will it force Harvard economics faculty to drive from Newton to Cambridge in a car pool, no way, take the T, unlikely.

There is a review in the [NY Review of Books](#) of a few recent additions to this nonsense:

... a tax specialist, and his chapter on energy taxation is especially interesting. Environmental economists have emphasized the use of externality taxes (sometimes called Pigovian taxes after their first important advocate, English economist Alfred Pigou). The idea is to levy a tax on "bads" that have negative externalities, where the tax is equal to the size of the external costs. In

the case of coal, the “bad” is largely sulfur dioxide. If the pollution from coal were currently taxed proportionally to its damages, the price of coal-fired electricity would increase from 9.0 cents to 15.2 cents per kilowatt-hour (kwh).

]

If we were to calculate the externality taxes implied by the costs shown in the table (on sulfur, carbon dioxide, and other harmful pollutants), these would raise over \$300 billion per year in revenues. Somewhat more than half of this would be taxes on the global warming externality, while somewhat less would be charges on the conventional pollutants.

A second point is that environmental taxes can play a central role in reducing the fiscal gap in the years to come. These are efficient taxes because they tax “bads” rather than “goods.” Environmental taxes have the unique feature of raising revenues, increasing economic efficiency, and improving the public health.

Now let me return to my argument. If global warming exists, no I do not believe in it, it either exists or does not and if it does it is either man made or not, and those are matters of science and not belief, so I leave the answer to science and the scientific method, not the political or religious method. But in a strange way if we get warmer up here in the north then we will have more trees and warmer winters thus using less energy and absorbing more CO₂. Perhaps a negative feedback loop, perhaps a boon for Canada.

Yet back to Pigou. The increase in taxes as stated in the review will raise \$300 billion in tax, so why not just call it a tax. It will not make the drive from Manchester NH to Cambridge any shorter, just more expensive. So the more well off will move there driving up real estate and driving the poor folks farther north at greater distances. The Government will get more taxes and overspend even on those.

Now to the externalities. Let me use the oft quoted Coase example, the railroad and the farmer. A railroad has a right of way through a farmer's field. The farmer grows wheat and the train kicks sparks onto the wheat field. A fire starts and burns the farmer's wheat. The farmer can sue the railroad for damages, and if one assumes zero transaction costs the railroad will most likely lose. The railroad can then either continue to pay farmers or fix the train. The costs of this externality, fires in farmer's fields, can be mitigated either way.

Moreover the farmer can attach a cost to the damage. Wheat yields some many bushels per acre, the price of wheat is so much a bushel, the fire covered so many acres. Plain and simple, just do the arithmetic. The key to Coasean damages is the ability to define value, and value is the estimation of future cash flows.

The problem with the Pigou tax is several fold. First that it really does little. Second is that the Government just ups the tax ante, and third the concept of externalities fails. What is the cost, like that field of wheat, there we have a good measure, with CO₂ we have academics and Government hacks coming up with nonsense, been there done that. There is no simple calculation, there is not clear person harmed and the harm is highly contingent and speculative at best.

Thus despite the wonderful world of Harvard economists and their schemes, this one still stands wanting.

SUNDAY, OCTOBER 23, 2011

CLOUD COMPUTING AND BEING A SPY

Now one may wonder what cloud computing and the business of spying have to do with one another. The answer is "words to live by".

What motivated this was an article by [Friedman](#) in the NY Times. He states:

The latest phase in the I.T. revolution is being driven by the convergence of social media — Facebook, Twitter, LinkedIn, Groupon, Zynga — with the proliferation of cheap wireless connectivity and Web-enabled smartphones and “the cloud” — those enormous server farms that hold and constantly update thousands of software applications, which are then downloaded (as if from a cloud) by users on their smartphones, making them into incredibly powerful devices that can perform myriad tasks.

The emergence of the cloud, explained Alan Cohen, a vice president of Nicira, a new networking company, “means that anyone can have the computing resources of Google and rent it by the hour.” This is speeding up everything — innovation, product cycles and competition.

Now I am reminded the Gilder a decade or so ago who espoused all the wonders of wireless, I wrote a piece about the "Gilder Conjecture" and its less than on target analysis. But this one is dangerous.

Exuberance is always fun, exciting and has the potential for danger, just look at the collapse of our recent financial engine.

Now to spy craft. There are three rules a good spy should live by:

1. Trust no one, not even your father.
2. Never put it in writing, namely do not leave a trail or evidence.
3. Always have a second exit.

Cloud computing violates each of these rules. Is that bad? Well if there is an enemy who wants to do you harm, say like what a spy does. Is this the case in cloud computing world? Think China, think of all those computer science students we educate in the US with DoD money and then ship back to China because unions do not want those types here. If they can be unionized it is fine but if they think, get rid of them.

So what is wrong with Friedman, well simply he, like Gilder, seems to have little to no technical understanding of what he speaks, in my opinion, namely in the technical areas most critical to security, and second, he takes what he is told almost at face value.

One must remember there is a dark side. In the 1970s with Soviet threats we worried about secure kernelized operating systems in red and black environments. Secure to the nth degree, limited access, tickets, and the list went on. Since 9/11 we are sharing everything with everybody, thus Wikileaks.

The risk of the cloud is that it is easy to compromise and worse. Remember the three rules of spying and beware the cloud.

Labels: [Technology](#)

SATURDAY, OCTOBER 22, 2011

[ROWE AND BYGONES: WHAT IS REAL ESTATE WORTH?](#)



As I have noted from time to time I am a fan of all Canadian economists, at least all that I know. And especially Nick Row who comes up with some of the best and most thoughtful ideas, and he is still undoubtedly the best economist on the planet. Now [he has an interesting discussion](#) on whether God over-invested in land. Now I view this a bit differently but first Rowe:

Question. "What is the economic difference between capital and land?" If you answered: "People made capital and God made land", you are wrong.

Economists have known that answer is wrong since 1871, when we discovered that bygones are forever bygones, and switched to the forward-looking marginalist theory of value. In 1871 we stopped saying that the value of goods is determined by what they cost to produce in the past.

Instead we said the value of goods is determined by their marginal utility in the present and expected future. (OK, there are two blades of the Marshallian scissors, demand and supply, but both blades are made of the same stuff (Mark Blaug?), because marginal costs are really opportunity costs, and are the foregone marginal utility of the other goods we could make with the same resources.)

It doesn't matter whether people or God made stuff in the past, and what it cost to produce it. The only things that matter are: the present; and present expectations about the future. If archaeologists discovered that Prince Edward Island was an artificial island, rather than a geological formation, it shouldn't matter at all for the allocation of resources going forward. (OK, some geologists would have extra work to do, to revise their theories.)

Now I have never been to PEI but we have family a bit south in Nova Scotia, Breir Island, out there in the GM.

Now as an investor, I guess that is a good description now that I am almost 70 since no one wants an old guy really running a company, unless you are a Murdoch, and besides I do not want to do it anyway, I almost every day have to give an answer to "what is it worth?" and place personal capital at risk.

So how do I do it. Simple, discounted cash flow. I look at future cash flows, discount them and then that is what it is worth. Does it work? Sometimes. I looked at real estate once, 1987, before it crashed, in fact just before it crashed, and I used a 10% pa increase in value. Well I was underwater for a while, no Government bail outs then, just ride the curve.

Now I looked at other investments in similar manners for the next decades, namely DCF and NPV. There is always the question of good projections, discount factors and terminal values. Never really got it perfect but did get it better.

So what to me is the difference between capital and land. As a DCF freak it is as follows:

1. Land has value based on the demand at some future time and the discount factor. What will someone pay for it at a later date. Land is one of those things that are in limited supply, and some land more limited than others. Location is the key phrase we always hear and yes that is a good part of the value. Will it look better to others at some future time, and better by an amount that exceeds the discount?
2. Capital, well cash qua cash does not increase, in fact holding just dollars depreciates over time in its ability to buy some milk was \$3.00 a gallon a year ago and now it is \$4.80, gasoline the same. Despite Krugmann we do have inflation. Perhaps he never went shopping, they never do down there in Princeton. Thus unlike real property capital is worth what it is worth when you have it, and like a new car it just is worth less when you hold onto it.

But Nick continues:

And firms find their capital stocks seem to be far too small, so they do a lot of investing to get them back up to normal. And households find they are crammed into houses that are smaller than they need be, because there are a lot of houses sitting empty, but they soon sort that one out. And are driving old cars, and wearing old underwear, and so start investing in a lot of new stuff.

I missed the point here. But wearing old underwear sounds quite common, as is crammed into houses. I forget who may have said it, George Carlin I believe, but the reason we get new and bigger houses is because we get more "stuff". "Stuff" is the driver of getting more "stuff". Perhaps there is some irrational subliminal driver to getting "stuff" that is really at the root of all this, not any rational theory of economics.

For the proof of that I look at the chipmunk. You see we have dozens and even more in New Hampshire. The chipmunk has one primary goal in life, find food and bring it back to the nest. They have those pouches on the sides of their mouths to accumulate food, not consume it, accumulate it. Chipmunks accumulate tens of times more than they consume in their lifetime. What is the food worth? I leave that question to Rowe.

Labels: [Economics](#)

FRIDAY, OCTOBER 21, 2011

CHILDREN OF RAWLS

There is an article in the [NY Times](#) arguing the Rawlsian nature of the Ant Capitalism Demonstrators who have taken up residence in public spaces around the country. They state:

Rawls's boldest claim — that inequality in society is only justified if its least well-off members fare better than they would under any other scheme — could provide a lodestar for the protests. Rawls was no Marxist: this "difference principle" acknowledges that a productive, free society will be home to at least some degree of inequality. But the principle insists that if the rich get richer while wages and social capital of the poor and middle class are stagnant or falling, there is something seriously wrong.

Now the above is somewhat slight from the mark. Rawls was a redistributionist and his view was to maximize the social and economic benefits to all by taking from the producers and given to the consumers, my words. In my work on [Individualism and Neo Progressivism](#) I discussed this in detail. This country was for years a bastion of individualism. This was recognized by de Tocqueville, and most likely was a direct result of the fact that the immigrants performance of the vacatness and isolation of the country were forced to be that way, and the result was the strength of this country.

The counter to Rawls was his Harvard colleague Robert Nozick who looked towards individualism.

Nozick establishes his "entitlement" rules for the Lockean distribution of property by the individual.

Specifically Nozick states them as:

1. An individual acquires property via the principle of justice in acquisition is then entitled to that property;
2. An individual who acquires property via the principle of justice in transfer is then entitled to that property;
3. An individual who acquires property via the principle of justice in retribution is then entitled to that property.

These were true elements of individualism. Now the Times continues:

Inequality becomes injustice when the cooperative nature of society breaks down and a significant segment of the population finds itself unable to thrive, despite its best efforts. Rawls does not prescribe particular policies to heal the divide, but structural changes in campaign financing, the banking system and the tax code are natural places to begin the discussion. Whatever platform Occupy Wall Street adopts, Rawlsian principles might help clarify the values of the movement and navigate it away from divisive or intellectually bankrupt rhetoric.

"Unable to survive", it hardly looks as if these people are unable to survive, for one wonders who is supporting them now. What significant percent of the population? In many ways the people appear and lost but bound together by a rhetoric that is divisive, lacking focus, and perhaps a metaphor for their own lives, lives without positive self direction, lives rejecting the challenge of individualism. They are children of Rawls, as Rawls was of Marx.

Labels: [Economy](#), [Political Analysis](#)

WEDNESDAY, OCTOBER 19, 2011

PUBLIC SERVANTS?

[The Hill](#) recounts the current Vice President's demand to spend hundreds of billion stimulating the economy by paying for more teachers (my daughter is one), police officers (he calls them cops, but as the son and grand son of New York City police officers I prefer to use the non-derogatory term), firemen (both my uncles were New York City firemen, never used the term fire fighters, they were a Captain and Battalion Chief), I find this rather unsettling.

"... chastised Senate Republicans Wednesday for putting millionaires before teachers and first responders because of their opposition to the latest Democratic jobs bill.

"I don't know where these guys live," said Biden, implying that GOP leaders have fallen out of touch with the concerns of average Americans.

"The critics say this costs money. Surprise, surprise — it does cost money," Biden added. "My dad used to say if everything's equally important to you, nothing's important. Everything's about priorities."

Well my dad used to say the Government always spent too much and especially on themselves.

In New Jersey we have police officers who get \$125,000 per year and more and retire with half million dollar pensions because they find ways to jack up the last years salary which is all they need. Teachers have several assistants, aides, and administrators and they get well over \$100,000 per year plus full free benefits and pensions that exceed their salaries.

And not one of these people created a job. My father did, he started his own electricians business and hired quite a few people and created value. Police, well it depends. In New York, Newark, and a few other places I would agree. But in many towns there are probably too many and most are over paid, especially in New Jersey. Teachers, well my daughter teaches in West Virginia, and I gather the pay is not New Jersey, New York, Massachusetts, and the like.

The problem is not buying off more union votes it is frankly just the opposite. It is paying them less, as was the case with my father, who in what little spare time he had he created his own company. That created jobs, not the New York City Police Force, God bless them.

The current insanity in Washington is to spend more money for things that will never create jobs. They just do not get it, I guess that is what comes from never having had one.

Labels: [Economy](#)

TUESDAY, OCTOBER 18, 2011

[KRUGMAN ON BLOGS](#)

[Krugman](#) has written an interesting piece regarding blogs. Simply stated he argues, justly so, that blogs open the process up from where it was. He recounts the progress:

1. Peer Reviewed Journal articles: I gave up on them years ago except for certain areas. They manage to establish two things; (i) get "junk out of circulation and (ii) establish a "repository" for the work. But blogs do that equally well. First one is attacked for making errors. Just try one and see. And it is instantaneous, have corrected a few of mine here. Second the record is permanent and is universally available. Thus blogs frankly out do such journals.

2. Closely Circulate Working Papers: NBER is a classic example here as is say many Rand papers and the like. This was a great way to get ideas out there because they could be of any length, could be critiqued by the best and they got ideas flowing. Yet they had two problems. First it was just for the club. Second there was no real repository, libraries usually did not have shelf access.

As Krugman relates:

*Since there's some kind of conservation principle here, the fact that it's easier for people with less formal credentials to get heard means that people who have those credentials are less guaranteed of respectful treatment. So yes, we've seen some famous names run into firestorms of criticism — *justified* criticism — even as some "nobodies" become players. That's a good thing! Famous economists have been saying foolish things forever; now they get called on it.*

And this process has showed what things are really like. If some famous economists seem to be showing themselves intellectually naked, it's not really a change in their wardrobe, it's the fact that it's easier than it used to be for little boys to get a word in.

As you can see, I think this is all positive. The econoblogosphere makes it a lot harder for economists to shout down other people by pulling rank — although some of them still try — but that's a good thing.

The issue is one of changing media, media that allow the free flow of ideas. It has lowered the barrier to entry to the market of thought and has allowed anyone to judge for themselves. It is thus no wonder that when looking at the decisions of late there is so much skepticism, that those in economics prognosticate from a dream world.

Blogs have opened the world to on line white papers. People have responded reasonably well. Journals I am afraid are just a way to go through the check-marks of tenure. They may be a dying breed. Books moreover may be transforming from heavy tomes to on line fabrics of wisdom.

Labels: [Economics](#)

SUNDAY, OCTOBER 16, 2011

CHINA'S TRADE

It is always worth reading [China Daily](#) for today they announced that China has beat out the US as the largest trade partner to Europe.

They state:

The overall value of China-EU trade in July exceeded that of the EU and the United States by 800 million euros, accounting for 13.4 percent of the region's total imports and exports, according to data released by the EU's statistics office.

However, bilateral trade shrank for a second consecutive month in July, falling 0.8 percent from the same period last year.

Meanwhile, China remained the EU's second largest export market. EU exports to China totaled 11.7 billion euros in July, up 12.3 percent year-on-year, which is higher than EU's total export growth rate of 4.1 percent.

The EU imported 23.9 billion euros in Chinese goods, down 6.2 percent from the previous year. But China still held the top spot as the region's import source, making up 17.4 percent of the EU's total imports.

This puts substantial pressure on the US GDP growth. It will be just one more factor in the slowing economy.

Labels: [China](#)

THURSDAY, OCTOBER 13, 2011

MEDICAL CARE, WAITING AND RATIONING

The [Guardian](#) has a piece indicating the ongoing deterioration of the National Health Service in the UK. They state:

The number of patients waiting more than the recommended maximum of 18 weeks for NHS treatment has soared by 48% since last year.

Figures released by the Department of Health came as a separate report by the King's Fund found that in more than 45 hospital trusts, more than 10% of patients were not admitted within 18 weeks of being referred by their GPs, breaching legally binding targets in the NHS constitution. The figures have more than doubled on the previous year.

The report found that while the NHS overall had managed to meet targets on waiting times and infections despite hospitals having to find savings of between 6% and 7% this year, this masked "considerable variation" at a local level.

Using government data, the Guardian found that 28,635 patients in England who were treated in an NHS hospital during August had been waiting more than 18 weeks, compared with 19,355 in the same month in 2010 – a rise of 48%.

One can readily see that this will be part of the new Health Care system as well. We have a model to watch, and it is not a pretty one.

Labels: [Health Care](#)

TUESDAY, OCTOBER 11, 2011

AN INTERESTING IDEA



New York City is not Palo Alto. So one wondered what will happen when Stanford joins the old CCNY to create a high tech university in the City (yes, this is a picture of the GW Bridge taken from Manhattan).

[Stanford announced:](#)

In response to New York Mayor Michael Bloomberg's call to strengthen that city's economy by creating a world-class applied science and engineering school, Stanford President John L. Hennessy, The City University of New York Chancellor Matthew Goldstein and City College President Lisa S. Coico today announced the creation of the Stanford-CUNY Collaboration at City College, or Stanford@CCNY.

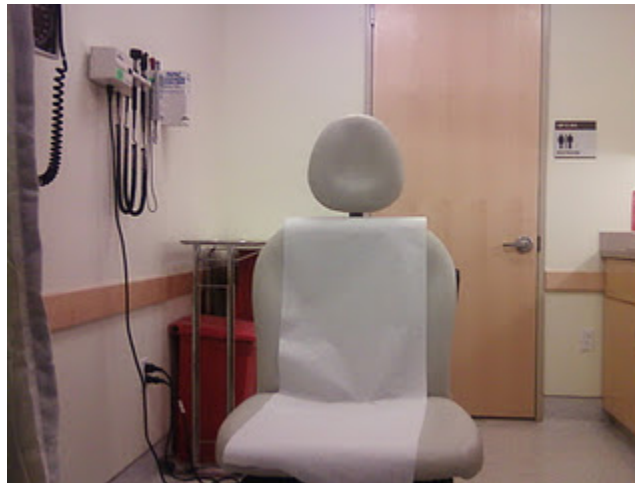
Joining East and West Coast resources in an innovative new arrangement, Stanford@CCNY has the potential to offer the students and faculties of both universities transformative opportunities to partner at the undergraduate, graduate and postdoctoral level and would provide start-up space for Stanford's proposed applied science campus.

New York used to have a great engineering school at CCNY but somehow it has mellowed, Brooklyn Poly got absorbed into NYU and will most likely be displaced to Long Island, Columbia is well, Columbia, and there really is not much else, yes Manhattan College in the Bronx is a Catholic college but it has a mediocre at best engineering department, which generally was a feeder for city engineers and Con Ed.

So it will be interesting to see what happens. NYC is rather ethnic, just look at Poly, and it is a rather more intense mix than Palo Alto. It will be interesting to watch.

Labels: [Education](#)

SCREENING FOR PROSTATE CANCER: THE TASK FORCE REPORT



The [U.S. Preventive Services Task Force](#) has issued its report regarding screening for prostate cancer. I will make a few observations here based upon [the work I have done previously](#) and other recent efforts. Let me begin by saying that not all prostate cancer is the same and at this time no one really knows how to determine the difference. This is a genetic pathway problem and the issue is that many elements of the pathway are yet to be identified and moreover the dynamics of the pathway are still unclear.

1. Does screening for prostate cancer with PSA, as a single-threshold test or as a function of multiple tests over time, decrease morbidity or mortality?

2. What are the magnitude and nature of harms associated with prostate cancer screening, other than overtreatment?

3. What is the natural history of PSA-detected, nonpalpable, localized prostate cancer?

Let us examine these questions based upon the Task Force's approach and based upon our analyses and compare them.

1. DOES SCREENING FOR PROSTATE CANCER WITH PSA, AS A SINGLE-THRESHOLD TEST OR AS A FUNCTION OF MULTIPLE TESTS OVER TIME, DECREASE MORBIDITY OR MORTALITY?

Task Force:

No good- or fair-quality RCTs addressed this question. Two poor-quality RCTs with important flaws in design and analysis do not show a mortality benefit from PSA screening independently or in a meta-analysis. We identified no RCTs that measured health outcomes from PSA screening by means other than single-threshold tests.

Now would one be willing to bet one's life on 2 poor tests! Also as we have noted elsewhere the tests reported in NEJM a year or so ago were flawed for several reasons, mainly they used a fixed and out dated threshold, and in fact asked the wrong question, and also especially in the European study tests at too high a level and tested too infrequently.

The medical issue is that the PCa which is the most deadly is also the fastest growing and it should be tested at a lower level and more frequently. The remaining PCa is really indolent, no one denies that, but the determination of which is which is difficult without sophisticated genetic tests.

2. WHAT ARE THE MAGNITUDE AND NATURE OF HARMS ASSOCIATED WITH PROSTATE CANCER SCREENING, OTHER THAN OVERTREATMENT?

Task Force:

One cross-sectional and 2 prospective cohort studies of fair-to-good quality reported short- and long-term psychological harms from prostate cancer screening. Although abnormal screening results did not affect summary measures of anxiety or health-related quality of life, men with false-positive PSA screening test results were more likely to worry specifically about prostate cancer, have a higher perceived risk for prostate cancer, and report problems with sexual function compared with control participants for up to 1 year after the test. In 1 study, 26% of men with false-positive screening results reported moderate- to-severe pain during the prostate biopsy; men with false-positive results were also more likely to undergo repeated PSA testing and additional biopsies.

The counter to this is simple, many people are just terrified about death, yet it comes to all. Are there issue for some men, yes, but those most likely are the same men who smoke, drink in excess, are obese, and the list goes on. Is a prostate biopsy painful, it is a state of mind and medication. That is why God made the poppy!

This second issue seems to be a contrived issue. People have the same issue regarding colonoscopies, which have been clinically effective in reducing death from colon cancer. Yet we seem not to hear this issue. The Task force also had the same concern about mammographies.

Frankly why should this be an issue for the Task Force at all. The public will talk but let an educate patient decide, it is ultimately the patients choice.

3. WHAT IS THE NATURAL HISTORY OF PSA-DETECTED, NONPALPABLE, LOCALIZED PROSTATE CANCER?

Task Force:

Three fair-quality cohort studies with small-to-medium sample sizes, highly self-selected elderly patients, and high drop-out rates show that some men with PSA detected, nonpalpable, localized (stage T1c) prostate cancer have good health outcomes up to 10 years after diagnosis. We did not identify any population-based studies in which patients with stage T1c prostate cancer were followed longitudinally with no intervention in order to determine health outcomes resulting from the natural progression of disease.

It appears that the Task Force has no answer here. In fact the asked the wrong question. They should have asked what genetic markers were prognostic of a virulent form of PCa? Simple question, but we as of yet really do not know. Assume we knew? Then What? Can we test every cell for these genes. What of the issue of a cancer stem cell, thus there being say just a few hundred or ten of them, and must we find them? Do they give off a measurable inter-cellular market to express their presence?

The answer seem to be we do not yet know. How will we find out? More studies with more men. Yes more biopsies where the samples are analyzed genetically in a large scale study. Yet with the admonitions given off by the Task Force that may soon become unlikely.

A recent study on the genetic level in [Oncology](#) states:

Arul M. Chinnaiyan and colleagues sought to develop a new read-out for prostate cancer due to the non-specificity and unclear mortality benefit of PSA testing. The goal was to find a novel biomarker or biomarkers that can facilitate the individualization of PSA levels.

The test the researchers developed is a clinical-grade, transcription-mediated amplification assay that can detect prostate cancer non-invasively in the urine. The read-out of the test is the quantitative measure of a TMPRSS2:ERG fusion transcript that is unique to prostate cancer.

More than 50% of PSA-screen prostate cancer harbors this fusion between the transmembrane protease, serine 2 (TMPRSS2) and the v-ets erythroblastosis virus E26 oncogene homolog (avian) (EGR) gene.

Thus we are beginning to see such tests arising. Yet not a comment from the Task Force regarding this work. This is the essence of the Translational approach, the translating of science into the practice of medicine. This is another shortfall of the Task Force.

Now let us return an review what the Task Force said. The Task Force total basis of their conclusion seems to be as follows:

Effectiveness of Early Detection and Treatment: *A meta-analysis of **2 poor-quality RCTs** (random controlled trials) of population- based screening for prostate cancer using PSA and digital rectal examination found no reduction in prostate cancer mortality in men invited versus men not invited for screening (relative risk, 1.01 [95% CI, 0.80 to 1.29]). A recent RCT reported that men who received PSA screening had a decreased risk for receiving a diagnosis of metastatic prostate cancer. The USPSTF assessed the study as providing inconclusive evidence of benefit from screening because of a high likelihood of unequal outcome ascertainment and small absolute numbers of an imperfect intermediate health outcome (metastatic prostate cancer is an imperfect surrogate of prostate cancer mortality because of both high initial response rates to androgen deprivation therapy and competing causes of death). No RCTs have reported health outcomes from the variations of PSA screening that consist of multiple measurements over time (for example, measurements of PSA velocity, PSA slope, or PSA doubling time).*

However that is the point. We examined many of these trials and we concluded:

1. PSA thresholds must be age dependent as well a family history dependent.
2. PSA velocity is an essential element of the analysis and it means that PSA tests should be performed annually starting say at 30 to 35. Thus PSA velocity can be reasonably determined.
3. PSA testing needs a better baseline as a test. There is substantial variation between PSA values based on different testing methods.
4. PSA measurements including % Free PSA are also useful and should equally be used.
5. PSA algorithms can assist in ascertaining what may be a cancer but a biopsy is usually required.
6. Biopsies

One of the conclusions is as follows:

How Does Evidence Fit with Biological Understanding? *Prostate-specific antigen screening presupposes that most asymptomatic prostate cancer cases will ultimately become symptomatic cases that lead to poor health outcomes. However, the natural history of PSA-detected, nonpalpable, localized prostate cancer is poorly described. No prospective studies have followed*

a population-based cohort of patients with screening-detected cancer who have had no intervention in order to determine health outcomes resulting from natural progression of the disease. Evidence from small, selected cohorts of men with arbitrarily defined “favorable risk” (that is, with prostate cancer likely to be clinically indolent) suggest a good prognosis for some men with screening-detected cancer; however, the longest of these studies has reported health outcomes from 2 to 10 years after diagnosis only.

The statement is evidential hearsay at best. The problem is that prostate cancer, like so many cancers, is still somewhat of an enigma, but it is fair to say that it is a genetic pathway breakdown and this breakdown results in expanding cells that lose the ability to understand where they belong, thus metastasis. The Report totally fails to join this issue. The above is about as close as it appears to get.

Now the Press as usual is in the fray. The [NY Times](#) reports :

But doctors are divided about when to recommend watchful waiting. The decision can be guided by an indicator called the Gleason score, a measure of the aggressiveness of the cancer found in a biopsy, but there is often disagreement about how to care for men whose scores are in the middle — neither highly aggressive nor probably not aggressive. In addition, the biopsy process itself is imprecise; a standard “12-core biopsy” gives information about only one three-thousandth of the prostate, says Dr. Eric Klein of the Cleveland Clinic. According to research at Johns Hopkins, staging and grading mistakes occur in about 20 percent of specimens.

The Gleason score is a microscopic pathological marker. Simply put are the prostate glands normal, small opening with evenly distributed basal cells with luminal cells atop? Or are the glands reproducing, many small immature glands, then expansion of half formed glands, and then just a mass of uncontrolled cells, moving from Gleason 1 through 5 and Gleason 2 through 10 on its score. That may be useful but it totally fails to tell us the genetic makeup of the cancer stem cell controlling this entire process.

The goal is determining the genetic makeup, that is what should be the topic, not this foolishness.

As a final conclusion: one should look at the number of studies used, 3 for the first question, three for the second, and 3 for the third. Yes they scanned a thousand or so but 9 studies were used! If a doctoral student came to me with what they thought was an earth changing conclusion based on 9 disparate studies, some rated poor, I would wonder if that student were up to the challenge. I would not shout to the four winds the student's erstwhile world changing conclusion. Then again that is just me.

Welch, one of the authors of "Overdiagnosed" wrote today in the [NY Times](#):

It's a stark juxtaposition: screening is good for women and bad for men. But just how different are these two cancer screening tests?

The answer is: not very. Neither is like the decision of whether or not to be treated for really high blood pressure. That's an easy one — do it. Instead, both breast and prostate cancer

screening are really difficult calls, and the statistical differences between them are only of degrees. Reasonable individuals, in the same situation, could make different decisions based on their valuation of the benefits and harms of screening.

Personally, as a 56-year-old man, I choose not to be screened for prostate cancer (and, were I female, I believe I would choose not to be screened for breast cancer). Some of my patients have made the same choice, while others choose to be screened. That's O.K., because there is no single right answer.

Screening is like gambling: there are winners and there are losers.

I never gambled a penny in Las Vegas, I know the odds. However I have seen PCa patients with mets and DIC, not a pretty sight. The problem is that the question is NOT PSA. It is effective screening and what facilitates that. Somehow we have taken a crude but somewhat useful screening test and made it an all or nothing, a sine qua non.

It is akin to throwing out the X Ray because we really cannot use a plain film to diagnose a block or bleed well enough in a stroke. Then along came CAT and MRI scans. The issue must not be PSA, the issue must be proper screening. We are not there yet, and we are wasting too much time arguing over what we know to have problems.

Labels: [Cancer](#), [Health Care](#)

SATURDAY, OCTOBER 8, 2011

COMPUTER VIRUS IN DRONES

[China Daily](#) reports on computer viruses in Predator drones.

They state:

Government officials are still investigating whether the virus is benign, and how it managed to infect the heavily protected computer systems at Creech Air Force Base in Nevada, where US pilots remotely fly the planes on their missions over Iraq, Afghanistan and elsewhere.

"Something is going on, but it has not had any impact on the missions overseas," said the source, who was not authorized to speak publicly.

Armed tactical unmanned planes have become an increasingly valuable tool used by the US government to track and attack individuals and small groups overseas, but the virus underscores the vulnerability of such systems to attacks on the computer networks used to fly them from great distances.

What is interesting is the apparent total lack of reporting in the US of this issue.

Labels: [China](#)

THURSDAY, OCTOBER 6, 2011

[MORE ADVANCES IN HEALTH CARE: KILL OFF THE OLD MEN!](#)

The [NY Times](#) has noticed the following:

Healthy men should no longer receive a P.S.A. blood test to screen for prostate cancer because the test does not save lives and often leads to more tests and treatments that needlessly cause pain, impotence and incontinence in many, a key government health panel has decided.

The test measures a protein — prostate-specific antigen — that is released by prostate cells, and there is little doubt that it helps to identify the presence of cancerous cells in the prostate. But a vast majority of men with cancer of the prostate never suffer ill effects because the cancer is usually slow-growing. Even for men who do have fast-growing cancer, the P.S.A. test may not save them, since there is no proven benefit to earlier treatment of such invasive disease.

We have in our book on [Prostate Cancer](#), a draft available, have shown the errors in many of the prior studies. But follow the logic.

1. Healthy Men do not need the test.
2. PSA helps identifying cancer.
3. No benefit to invasive cancer.

Now there is nothing wrong with any statement on its own. Taken together it is total nonsense.

1. How does one know one is healthy? You have a test taken.
2. If PSA is effective in identifying then if you have PCa then you are NOT healthy.
3. Invasive or metastatic cancer is cancer which was not detected early, namely a man did not have the test and was a priori considered healthy but was not!

Still following this nonsense. But why now? Well it is the intent of the current Administration to apparently let old men die, imagine what happened when they said something about breast cancer! But not old men, let them die off, besides they just complain!

Well guess what you have, death panel number 1. Beware for you may be next.

It is also interesting to see how the NY Times has edited their initial posting after perhaps much annoyance at their in my opinion illogical writing. The report to be presented by [AHRQ](#), which according to HHS is:

The AHRQ Prevention and Care Management Portfolio fulfills AHRQ's Congressionally mandated role to support the U.S. Preventive Services Task Force (USPSTF). The USPSTF is an independent panel of non-Federal experts in prevention and evidence-based medicine and is

composed of primary care providers (such as internists, pediatricians, family physicians, gynecologists/obstetricians, nurses, and health behavior specialists).

The USPSTF conducts scientific evidence reviews of a broad range of clinical preventive health care services (such as screening, counseling, and preventive medications) and develops recommendations for primary care clinicians and health systems. These recommendations are published in the form of "Recommendation Statements."

The AHRQ also drives Medicare allowances and thus it will most likely prohibit men from having this test. Thus one would suspect like prohibition it will go underground. One can envision personal PSA tests done via the mail over the border to say Canada.

Labels: [Cancer](#), [Health Care](#)

GEORGE WILL AND GALBRAITH

[George Will](#) has written a piece today that describes in parallel terms what I have been writing about for the past three years. Namely he speaks of Elizabeth Warren and Galbraith and the current crop of left wing progressives.

Will states:

Warren is (as William F. Buckley described Harvard economist John Kenneth Galbraith) a pyromaniac in a field of straw men: She refutes propositions no one asserts. Everyone knows that all striving occurs in a social context, so all attainments are conditioned by their context. This does not, however, entail a collectivist political agenda.

Such an agenda's premise is that individualism is a chimera, that any individual's achievements should be considered entirely derivative from society, so the achievements need not be treated as belonging to the individual. Society is entitled to socialize — i.e., conscript — whatever portion it considers its share. It may, as an optional act of political grace, allow the individual the remainder of what is misleadingly called the individual's possession.

Warren is the apotheosis of anti-individualism and the very example of Harvard Law School and its Faculty. Progressivism denies individualism. Progressivism denies the individual, and as such it would be impossible for Warren to believe that any person could do it on their own. Yet since she has apparently never done anything the very thought that others have is so foreign she sees its very existence as a threat to human existence as she sees it.

Further it is Galbraith to whom we all owe a debt, he more than Marx, Lenin, and Stalin, destroyed the very concept of the individual.

Thus Will in many ways is just echoing what I wrote in one of my earlier books, [Progressivism and Individualism](#). Yet Warren in her arrogant stance based in my opinion on total ignorance may very well get elected. After all it is Massachusetts, we shall see.

Labels: [Economics](#), [Politics](#)

WEDNESDAY, SEPTEMBER 28, 2011

[THE SMARTEST ECONOMIST ON THE PLANET](#)

Now I am not an economist, nor would I ever want to be one. I read Krugman, I know Summers from afar, I even had Samuelson as an instructor and cajoled Solow to give a talk or two for my company a few decades ago. Over the past few years I have been exceedingly critical, especially of the institutional know-it-alls who have gotten us into this mess. No it was not just Wall Street. You see Wall Street is just a bunch of 4 year olds in a sand box. The baby sitters are supposedly those in Government and their advisers.

That did not work out too well. But at the same time I have been following the Canadian Economists in Worthwhile Canadian and frankly they seem to be the only ones making any sense over the past few years, and indeed a great deal of sense. Perhaps that is why Canada has so little a set of problems. Also it makes my wife and her Nova Scotia brethren happy.

But today [Nick Rowe](#) had what I could call a brilliant piece, a commentary on knowns, and unknowns. It is really worth the read, as is all of Rowe's works. His final words in the piece are:

We draw a supply and demand curve and point to where the two curves cross. We shift the supply and demand curves and point to where the two new curves cross. The only people who talk about the process of getting from the first point to the second point are: teachers of Economics 1000; Austrian economists.

Maybe it takes time to get from the first point to the second point. Not because people are idiots, in not changing their prices, or not figuring out what's going on and how to react. But because the territory is a lot more complicated than the map.

And it's always going to be hard to build a map of how the territory is more complicated than the map.

Yes, the territory is quite complicated. The human genome is trivial as compared to the complexities of our economic world. Once we admit that we can then commence the conversation. Rowe has done that quite elegantly. He is always worth the read. Keep it coming!

But extending this thought a bit, I have a modest proposal, an Irish euphemism for a good idea. Perhaps the US should outsource all of its economic planning to the Canadians. They seem to be clearer thinkers, they seem to have fewer spats, they do not write whatever comes into their minds sans thought in their blogs, they argue in a rather admirable fashion, and sometimes I really enjoy the ideas they bring forth. Imagine instead of what we have had in the States for the past few years we had a group of genteel thinkers say up in Toronto, just a hop skip and jump outside Detroit but a world away. Just a thought.

Labels: [Economics](#)

TUESDAY, SEPTEMBER 27, 2011

[AN INTERESTING QUESTION OF DOUBT](#)

As my readers know I hold little respect for economics as a science. It is a field ripe with political views, what people feel should be but as a science it is not just lacking it is not even close.

Thus I read with interest [Krugman's latest blog](#) asking himself that very question, not from a real epistemological viewpoint, no it is Krugman does so often to jab at his foes.

He states:

What I'd add to that is that at this point it seems to me that many economists aren't even trying to get at the truth. When I look at a lot of what prominent economists have been writing in response to the ongoing economic crisis, I see no sign of intellectual discomfort, no sense that a disaster their models made no allowance for is troubling them; I see only blithe invention of stories to rationalize the disaster in a way that supports their side of the partisan divide. And no, it's not symmetric: liberal economists by and large do seem to be genuinely wrestling with what has happened, but conservative economists don't.

And all this makes me wonder what kind of an enterprise I've devoted my life to.

The last sentence is sadly true. The first paragraph is his shot at others. The problem is that in real science, say genetics, since 1971 we have progressed in leaps and bounds to the point at which we can now deal with many cancers, slow them down, cure them, and we have created true value to humanity.

In the world of communications and computers we have advances well beyond anything imagined and at costs well below anything we could have predicted. A telephone call to Beijing is a penny a minute as compared to hundreds of dollars.

Medicine has advanced tremendously, for better and worse, cost being the issue. We can now in seconds determine the cause of a stroke, a block or bleed, and then do something about it. We can keep people with congestive heart failure alive and feeling fairly well. In my 1966 Harrison's we were told how to make them comfortable until they died.

Now what has economics done, Krugman is correct. We all too often have arrogant individuals using meaningless theories destroying human lives with their witch doctor like suggestions. So what can we do, especially when they admit to it?

Labels: [Economics](#)

[HEALTH CARE COSTS](#)

[Kaiser reports](#) an annual increase of more than 9% for this year in health care costs. They state:

Employers' spending on health coverage for workers spiked abruptly this year, with the average cost of a family plan rising by 9 percent, triple the growth seen in 2010.

Family plan premiums hit \$15,073 on average, while coverage for single employees grew 8 percent to \$5,429, according to a survey released Tuesday by the Kaiser Family Foundation and the Health Research & Educational Trust. (KHN is an editorially-independent program of the foundation.)

Workers paid an average of \$921 toward the premium of single coverage and \$4,129 for family plans.

The results mark a sharp departure from 2010, when the same survey found average family premiums up only 3 percent.

Although many benefit analysts say the federal health law's requirements played only a small part in the rise, the results could provide political fodder for both supporters and opponents of the law.

The [detailed report by Kaiser](#) is worth the review.

Now some observations. The last sentence above says "many analysts" that is deceptive. For many others say otherwise. The new health care plan mandates excess spending on such things as paying for your 26 year olds, added testing for women, and the like. While the current Administration is gutting \$500 Billion from Medicare they have placed trillions on the backs of companies, most likely as a strategy to drive them from the market and turn it into a UK style system.

Labels: [Health Care](#)

SUNDAY, SEPTEMBER 25, 2011

[LIGHT ON SHAKESPEARE](#)

F. L. Light has written an interesting work, [Shakespeare Undiminished](#), using the [Shakespearean Sonnet](#) as a vehicle, and the life of Shakespeare as the backdrop. Mr. Light asked if I would read his book and comment. This review was done at that request. First, I am not a Shakespeare expert, albeit I first was introduced to the Bard in the sixth grade by a friend of my father's, Mr. Redmond O'Hanlon, who was a NY Police Lieutenant and winner of \$16,000 on the ["\\$64,000 Question"](#) as the show's first contestant (see [...]). Redmond O'Hanlon volunteered to teach our class Shakespeare and I became Richard III in the play of the same name. Thus at ten I began my exposure to the man, wondering what much of what I was saying meant. Some sixty years later, and after a reasonable amount of study, and having seen more Shakespeare than most people would ever admit to, I have but a modicum of understanding.

Shakespeare's early life is hidden in a fog of uncertainty. He did attend the local Grammar School, which in the mid sixteenth century meant years of learning Latin Grammar and he did enter the theatre as an actor and then as a writer in the early 1590s. He was seen by the educated writes at the times, such as Green, as somewhat unfit for the field due to his lack of education.

Now Shakespeare's Sonnets are also somewhat clouded, having been published in 1610, they were credited to him but there is some dispute as to what were his and what were others. There are some 154 sonnets attributed to Shakespeare. There is also a standing set of disputes over his plays which in many places scorn those who write such sonnets and the fact that he wrote so many often raises questions. I leave these disputes to those much more steeped in the record than I.

Enter Light, he uses the Shakespearean Sonnet (ababdcdefef followed by gg as compared to Petrarchan sonnet which use abbaabba followed by cdecde). He has some 145 pages of these and they take one through the early life and early career of Shakespeare. They are wonderfully entertaining, superbly structured and when read aloud, as one should slowly provide a window to what may have gone through the Bards mind during these periods.

The set of Lightean sonnets can be read in pieces, it is not a work that I would recommend reading from front to back. It helps to know Shakespeare's life, what is known and conjectured. Light brings many of these events to life using the vehicle of the sonnet.

Let me suggest two. First he goes through several intriguing sonnets regarding Shakespeare as a young student and his work on Latin grammar. He speaks of Vergil and the Aeneid . As one who struggled with Vergil and translation, Light opens the window to the mind of Shakespeare and his understanding of Latin verse, the structure of language and how this may very well have been a motivator for his later work. The use of words, the use of phrases and the use of grammar, Latin versus English. The second is Shakespeare's alleged incident with Green, who died early in the 1590s, and who possibly saw Shakespeare as an interloper, as one without the "training" and as merely an actor. Light works this issue wonderfully with his sonnet structures.

For those looking for an alternative view of Shakespeare, for a view framed in a context which the Bard would most likely have enjoyed, Light presents a wonderful presentation.

It is useful to have read before or have at hand the two wonderful works by Duncan-Jones. [Shakespeare's Sonnets \(Arden Shakespeare: Third Series\)](#) and [Shakespeare: An Ungentle Life \(Arden Shakespeare Library\)](#). Professor Duncan-Jones has written a sine qua non on the Sonnets and her life of Shakespeare is the standard. Then go to Light, it will be both lyrical and enlightening, no pun intended. I look forward to seeing his many other works.

Labels: [Books](#)

SATURDAY, SEPTEMBER 24, 2011

PERHAPS THEY NEVER HEARD OF LOGIC

The CEA head who wrote on January 11, 2009 that the Stimulus of almost a trillion dollars would thwart excess unemployment is at it again in her favorite platform, the NY Times. Now readers will remember that when she issued this plan that I had detailed why it would fail, and I am a simple engineer, like those who run China, an economy we can at best admire from afar, have to seek the guidance of economists! Why not witch doctors!

Now in the [NY Times](#) this soothsayer states:

WE NEED A HOUSING PLAN, NOT MORE FISCAL STIMULUS *The bubble and bust in house prices has left households burdened with too much debt. Until we deal with this problem — perhaps by providing principal relief to the 11 million households whose mortgages are larger than the current value of their homes — we'll never get the economy going.*

Let us examine the facts behind this.

First, when one gets a mortgage, one assumes one can pay the mortgage. Who cares what the house is worth, you have a deal to pay back what you borrowed.

Second, this economist says they "bust" left them with too much debt. That makes no sense. They entered into an agreement to borrow money and pay it back. You borrow money to buy a new car. You drive it a block. It is worth thousands less. Should you go back and renegotiate the deal? My dear Lady, it does not work that way.

Third, this is not the first time this has happened. In 1987 house prices peaked, the market crashed and house prices collapsed. Did people stop paying mortgages. No, they paid even when the house was "under water". I had one of those loans, for eighteen years on a piece of property. Sometimes you win sometimes you lose.

She continues:

Recent research shows that government spending on infrastructure or other investments raises demand even in an economy beset by over-indebted consumers. Another effective approach is to aim tax cuts and government payments at households that would like to spend, but can't borrow because of their debt loads (such as the poor and the unemployed).

Now what is she saying here? First, she speaks of building bridges. Do we not have a gasoline tax to support that? If we need it then raise the tax and make certain it is spent properly. But the problem is that politicians have no ability to ever do the right thing. They will spend it on getting themselves re-elected. Now she switches to give tax cuts to get people who are overly in debt to spend even more. That is like giving a morbidly obese woman an unlimited supply of brownies. Not going to fit into those tight jeans that way.

She continues:

***IT'S THE DEFICIT, STUPID** People are concerned about the deficit, and this concern is holding back the recovery. Fiscal austerity, not more stimulus, is the answer.*

This argument makes me crazy. There's simply no evidence that concern about the current deficit is a significant factor limiting consumer spending or business investment. And government borrowing rates are at record lows, suggesting that financial markets are not worried about the deficit, either.

Moreover, as I discussed in a previous column, the best evidence shows that fiscal austerity depresses growth and raises unemployment in the near term. That's the experience of countries like Greece, Portugal and Britain, which have embarked on drastic deficit reduction plans over the last two years. Cut the current deficit and you will raise unemployment, not lower it.

I hate to bring reality to the table, but the deficit does have an effect. It is akin to having death sit at the poker table and just look around at the players. Kind of makes one a tad bit nervous. No evidence, perhaps a conversation with the people who create jobs may be of some help in clarifying the issue. Get out of the ivory tower and find out what real entrepreneurs think.

Now for Greece, you see I had a company in Greece, I speak Greek, I have many Greek friends, I have had Greek students, and I know Greece better than many Greeks. It is an impossible place to get anything done in, which is why many Greeks leave. There are more people on Government payrolls, who collect Government funds, work on EU funded make work projects, it is not the Greeks, it is the socialist system in Greece. Get the Greeks away from Greece and its socialism and they prosper quite well. Leave them there and you can see where we are going. It does help to know something about that of which you speak my good Professor.

She ends with:

The president has started a discussion about job creation. His proposal deserves a full debate based on facts, evidence and careful analysis.

Her record of analysis stands. It did NOT work in her January 11, 2009 predictions. It will not

work now. Her proposal and predictions are facts. They did not even come close! So why should anyone believe a single word she utters on this topic?

Labels: [Economy](#)

THURSDAY, SEPTEMBER 22, 2011

NOBODY GOT RICH ON THEIR OWN!



Only a Harvard Law Professor would say that. Oh yes, also Columbia, Princeton, and the list goes on. So the good [Professor from Harvard is quoted](#) as:

An August video of Massachusetts Senate candidate Elizabeth Warren on the campaign trail is heating up on the internet, and some commentators are pointing to the clip - in which Warren makes a case for progressive economic policies - as evidence that the newly minted Democratic candidate could give incumbent Republican Senator Scott Brown a run for his money.

*In the video ..., which was filmed at an event in Andover, Mass., Warren rebuts the GOP-touted notion that raising taxes on the wealthy amounts to "class warfare," contending that "**there is nobody in this country who got rich on his own. Nobody.**"*

She continues:

Warren rejects the concept that it is possible for Americans to become wealthy in isolation.

"You built a factory out there? Good for you," she says. "But I want to be clear: you moved your goods to market on the roads the rest of us paid for; you hired workers the rest of us paid to educate; you were safe in your factory because of police forces and fire forces that the rest of us paid for. You didn't have to worry that marauding bands would come and seize everything at your factory, and hire someone to protect against this, because of the work the rest of us did."

I hate to burst her bubble but in my case I set up a business in 20 countries, my investors were in 8, my customers spanned more, and I moved from the US to the Czech Republic because the conditions were better, less regulation, and the electricity worked, here in New Jersey JCPL seemed to always have business killing outages, and still does. So do I get a rebate!

So should I tell all my subsequent investments; just leave the US because otherwise some greedy Harvard Professor wants your money.

Such a statement, if true, shows the total lack of understanding in the Progressives of how an entrepreneur works. They take risks, sometimes even life threatening risks, to seek a dream, and they get people to follow them in that dream. Is there a payoff, well sometimes, but often it is failure, and they pick themselves up again and start over. That, dear Professor, is what made and can still make America great, unless you want us all to move to Prague! You see in Prague they saw the results of your thinking and have rejected it. They had tanks, they had redistribution. They rejected that.

It was like when my ancestor, Jacob van der Voort came from Holland in 1649 and started his farm in what became Brooklyn. He settled in the unprotected hill tops, growing crops, bring them across the river to what was New Amsterdam. Did the Dutch remind him of the great advantage they had afforded him to take those risks? Doubtful.

So when the Professor makes a definitive statement of "Nobody" she perhaps ought to think that she is not as omniscient as she thinks she is. In engineering, we always look for the exception, we look at boundary conditions, we look at extremes. Well Professor, look down Mass Ave, and there are hundreds! They, Madam, are your future, try not to send them all back to where they came from! For if you do, then God help this country!

Now [The Economist](#) has a more detailed quote:

I hear all this, you know, "Well, this is class warfare, this is whatever."—No! There is nobody in this country who got rich on his own. Nobody. You built a factory out there—good for you! But I want to be clear. You moved your goods to market on the roads the rest of us paid for. You hired workers the rest of us paid to educate. You were safe in your factory because of police forces and fire forces that the rest of us paid for. You didn't have to worry that marauding bands would come and seize everything at your factory, and hire someone to protect against this, because of the work the rest of us did. Now look, you built a factory and it turned into something terrific, or a great idea—God bless. Keep a big hunk of it. But part of the underlying social contract is you take a hunk of that and pay forward for the next kid who comes along.

But, good Professor, I hired Czechs, Poles, Russians, Greeks, Thais, Koreans, and no one paid to educate them in the US, but I did pay via Real Estate Taxes to educate many here in New Jersey, who for the most part were unemployable, poorly educated. I was not safe in my home because, well it is New Jersey, and perhaps one may seen that television show... my "goods" moved over

fiber built by Germans, French, Russians, Romanians, Ukrainians, ... Need I continue.

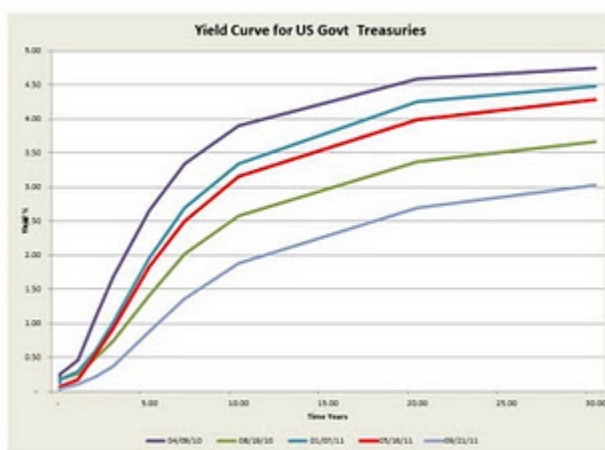
What "social contract", I did not see Rousseau anywhere on my block, not even Hobbes, perhaps the good Professor could read [my book](#), perhaps de Tocqueville.

So they want to replace a native born resident of the Commonwealth with another wild eyed erstwhile socialist! It will be interesting. And yes, I paid for her education, she went to Rutgers!

Labels: [Commentary](#), [Economy](#), [Political Analysis](#)

WEDNESDAY, SEPTEMBER 21, 2011

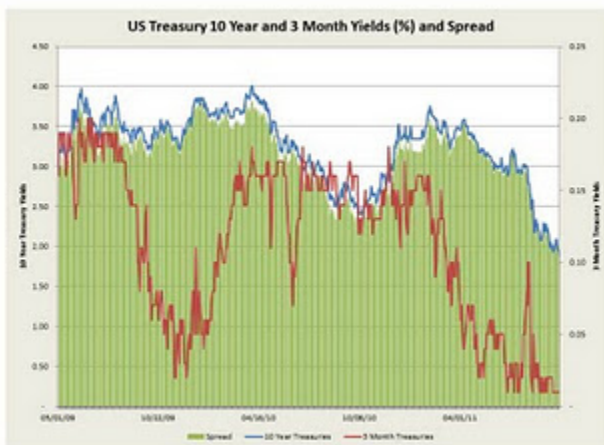
[THE YIELD CURVE: SEPTEMBER 21, 2011](#)



The above is the yield curve for today and the past year at selected points. As expected it has started to totally collapse. As we have said before it presents both opportunity and risk. As opportunity it makes potential borrowing of some interest. As a risk, for those on fixed incomes where the sources of returns on low risk investments it means that you need 50% more in assets in your accounts to get the same payout with the lower yield. That places a tremendous burden on the elderly as well as on pension funds with low risk investment profiles. Imagine what that does to state pension plans! It means that defined benefit plans are now underwater by that much more in just a year! That means an added effective burden on the taxpayers of those states!



This is the spread, and it also is tanking. Namely the difference between 30 years and 30 days is only a small percent. That means that the expected growth in the economy is most likely negative!\



The above is 90 day and 10 year spreads and rates. 90 day money is almost free. 10 year money is at an all time low. The spread is also at an all time low.

Thus one wonders what the FED is doing. The costs will be borne by all of the taxpayers. It is not as if the banks are lending it out. The banks are using the free money to still make high risk investments and receive great returns. Again on the backs of the taxpayers.

Labels: [Economy](#), [Yield Curve](#)

MONDAY, SEPTEMBER 19, 2011

INCREASING THE COST OF HEALTH CARE FOR MEDICARE PARTICIPANTS

Medicare Participants costs under the current President's just announced [Tax Plan](#) will increase exponentially. For example:

Introduce a Part B premium surcharge for new beneficiaries that purchase near first-dollar Medigap coverage. Medigap policies sold by private insurance companies provide beneficiaries additional support for covering healthcare costs by covering most or all of the cost sharing Medicare requires. This protection, however, gives individuals less incentive to consider the costs of health care services and thus raises Medicare costs and Part B premiums.

That is if I choose to buy a premium at my cost for better payment just in case, then the Government will tax me for the money I spent. It is akin to buying auto insurance and the Government saying that if I get a low deductible, no matter how good my driving record, it will add a surcharge tax on because I should not be allowed to hedge my risks. This is insane. The issue is usage not hedging your bets.

Modify Part B deductible for new beneficiaries. Beneficiaries who are enrolled in Medicare Part B are required to pay an annual deductible. This deductible helps to share responsibility for payment of Medicare services between Medicare and beneficiaries. To strengthen program financing and encourage beneficiaries to seek high-value health care services, the Administration proposes to apply a \$25 increase in the Part B deductible in 2017, 2019, and 2021 for new beneficiaries.

This is just an increase in deductibles. It is in effect an added tax. Why not just say that outright!

Introduce home health co-payments for new beneficiaries. Medicare beneficiaries currently do not make co-payments for Medicare home health services. This proposal would create a home health copayment of \$100 per home health episode, applicable for episodes with five or more

visits not preceded by a hospital or other inpatient post-acute care stay. This would apply to new beneficiaries beginning in 2017.

The prior one increases deductibles and this increases co-payments. This is another tax.

Require prior authorization for advanced imaging. The rapid growth in the number and intensity of imaging services in recent years raises concerns about whether these services are being used appropriately. This proposal would adopt prior authorization for the most expensive imaging services, beginning in 2013, to ensure that these services are used as intended and protect the Medicare program and its beneficiaries from unwarranted use.

Now this means we have that morbidly obese GS 9 in some office in DC deciding if we can have the MRI as we lay on a table with an undetermined stroke! And also that means that we are not allowed to pay for it ourselves, it must get approval from that half human character with the attitude. Your Government is here to help you!

Strengthen the Independent Payment Advisory Board (IPAB) to reduce longterm drivers of Medicare cost growth. Created by the ACA, IPAB has been highlighted by economists and health policy experts as a key contributor to Medicare's long term solvency. Under current law, if the projected Medicare per capita growth rate exceeds a predetermined target growth rate, IPAB recommends to the Congress policies to reduce the rate of Medicare growth to meet the target. IPAB recommendations are prohibited from increasing beneficiary premiums or costsharing, or restricting benefits.

Remember the "Death Panels", well here it is again folks. The IPAB will be empowered to reject procedures with no recourse. Remember those left wing movies railing against the rich Insurance companies denying coverage, well it will now be your very own Government doing so.

And the list goes on. One would have thought this was written by someone to the right of Ron Paul, but no, it is the current Administration. This knocks another \$500 billion or so from Medicare, on top of everything else.

Now it is not that we are against restructuring Medicare. We are indeed. But this is not that, this is disemboweling Medicare. What should be done is increasing the age, increasing the Medicare tax from 3% to 4%, and making some minor means adjustments, calculated on a year by year basis. Should we also change deductibles, yes a bit. Certain procedures should be dis-incented by reducing the amount compensated, but allowing individual choice. However the idea of taxing people for exercising their economic right to hedge against a risk is not just a socialistic nightmare it become a communistic form of economic rights control.

Labels: [Health Care](#)

FRIDAY, SEPTEMBER 16, 2011

CODES OF KINDNESS

Apparently Harvard has introduced a "code of kindness", so says [Bloomberg](#). That should put a crimp in the style of some of its well know faculty who were at the heart of the most recent economic collapse. As Bloomberg states:

It reads, in full:

“At Commencement, the Dean of Harvard College announces to the President, Fellows, and Overseers that ‘each degree candidate stands ready to advance knowledge, to promote understanding, and to serve society.’ That message serves as a kind of moral compass for the education Harvard College imparts. In the classroom, in extracurricular endeavors, and in the Yard and Houses, students are expected to act with integrity, respect, and industry, and to sustain a community characterized by inclusiveness and civility.

“As we begin at Harvard, we commit to upholding the values of the College and to making the entryway and Yard a place where all can thrive and where the exercise of kindness holds a place on par with intellectual attainment.”

The original plan was to post the pledge in each dorm entryway, along with the names and signatures of the students living there. Although signing was supposed to be voluntary, any dissent would have been obvious.

Now down the street, at MIT, I never really saw nasty people, competitive, but never nasty. I would guess there may be some. Arrogant, but arrogant and smart and being right is OK. Nasty, well read Watson's book. Cambridge is down right nasty, class nasty. The Double Helix is an example of class structure.

Now one wonders who in their right mind established this thing. There are enough things to deal with that one should not add the burden of wondering if perhaps I offended someone. I am certain that it has been done many time without intent. Is there a mens re involved, is intent necessary. Why we can keep the Harvard Law School busy for decades, and keep the faculty

away from our civil rights. They can opine on nonsense such as this.

What is next, taking attendance?

Bloomberg continues:

And that brings us to the second half of the pledge equation: intellectual attainment. Not inquiry or excellence, but "attainment." What a strange, and revealing, choice of words.

Consider a common argument in favor of the pledge. It starts with a survey last spring in which then-freshmen were asked to indicate how they believed Harvard ranked various values, and then to do the same ranking for themselves. Students deemed "success" as Harvard's highest value while ranking "compassion" low for the university. By contrast, they put compassion high on their personal lists, ranking it fourth behind hard work, honesty and respect.

Attainment? Are you nuts! This is the problem. As an MIT PhD student your goal was to beat all others across the finish line, to be the best, to beat your brains out to have the most, the best, whatever, and alone! It was a Marine Corps of the intellect. Harvard was not far behind in those days. What are they, a Community College, then charge tuition for attainment and not excellence.

We wonder why costs at universities are skyrocketing. It is because we hire people like this. Harvard got a pledge, MIT lost a faculty club. That's a story for another day. Same problem, just a different side.

Labels: [Academy](#)

YIKES, SQUIRRELS IN DANGER

[CNN](#) reports about our poor friends, the squirrel. They state:

In Tennessee, \$269,000 was spent on a sanctuary for white squirrels. ... One senator -- Tom Coburn -- threatened to block his colleagues from voting on a stop-gap measure to fund the Federal Aviation Administration and highway construction program because he objects to how some of the funds will be spent. ... The cantankerous Republican from Oklahoma wanted more highway construction funds to be spent on critical infrastructure projects like bridges, and fewer federal dollars directed to a category called "transportation enhancement activities." ... As it was written, 10% of the highway bill's surface transportation funding would be directed to projects that fall into that category, which include transportation museums, pedestrian walkways, bicycle paths, landscaping and scenic beautification. ... Oh, and in the past, that has even meant projects like squirrel sanctuaries.

Now we agree with the Senator, after all why have sanctuaries when we have set aside food, shelter, friends, socialization, and national pride with a focus on the grey squirrel. They sit out on my back porch and tap on the door to demand more food, they tap on the bedroom window to wake us up to demand more food.

Now they have the chipmunks at it, why we must have 30+ chipmunks, where they came from I do not know, but they climb trees, sit on the deck, run up the screen, we are surrounded by animal life!

They do not need Federal protection, they need birth control.

Labels: [Squirrels](#)

[EPISTEMOLOGY OF THE CELL: A REVIEW](#)

The book, *Epistemology of the Cell*, by Dougherty and Bittner is a gem. Dougherty is a Professor at Texas A&M and has written extensively and brilliantly on the issue of using systems thinking in the growing field of genomics. Now systems thinking was, in way, started by Norbert Wiener in the 1930s, as he began to model various systems, from the dynamics of nerve fibers to the development of the first artificial arm. Yes, he did the arm, not the physician at Mass General. Wiener also developed the systems to the control the pointing of radar controlled guns on ships in WW II.

What made Wiener unique was that Wiener asked “Why”. The why meant finding the cause and the result and establishing the connection between the two, establishing the system. Physicists and chemists ask “why” questions, they find the cause and the causality chain. Biologists were for ages asking “what” as people who classified.

Darwin broke that chain of biologists somewhat by asking “why” as regards to evolutions and he is pilloried even to this day. Physicians often ask “what” and “how” and do not really want to be bothered by the “why”. It is not their jobs to find out why, just find out “what” is wrong and know “how” to fix it. Thus a physician is taught “what” to look for to diagnose prostate cancer and is also taught “how” to remove it. The physician does not know or care “why” the cancer is doing what it is doing. That is epistemological.

That, in essence, is a simplification of what Dougherty and Bitter go about to explain. Their book explores the challenges set forth to those exploring the gene and the cell and entices them to think beyond just the what and how to go to the why, the explanation of the process, the system, from cause to effect. The authors have written a treatise which compares a few others which look at the epistemological basis of research, asking the correct questions, and pursuing the best path to answer them (see the work by Winograd and Flores as a prime example written some 25 years ago). Dougherty has with his colleagues and associate been developing the ideas contained herein for well over the past decade and I have read many of his works, they provide great insight to what should be done.

Chapter 1 begins with a discussion of the definition of epistemology, on p. 2. They define scientific epistemology by what it addresses; knowledge and its truth. Then they use Kant to develop the transition from the Enlightenment to today. On p. 4 there is a brief but focusing discussion where he explains the simple Newtonian world maturing into an Einstein one and likewise a Watson and Crick paradigm of DNA/RNA/proteins into the way we understand cell dynamics today, as pathways, miRNAs, repressor enzymes and the complexity of both

intracellular dynamics and intercellular dynamics. They rely extensively on a Popperian view of Science, which for those more familiar with Kuhn may tend to have some slight dissonance, but it holds together quite well.

All in all, Chapter 1 sets the stage well, both from establishing the necessity to have models which answer why, and to establish the counterpoint of the thinkers who have reverted back to Aristotelian classification as the finders of what.

Chapter 2 is a discussion of Aristotelian causality. p 14 states it well with the statement,

“explanation must involve a causal relation...”.

On p 21 they state, *“Galileo and Newton do not deny causality as a category of knowledge but they widen the scope of knowledge to include mathematical systems that relate phenomena, while bracketing “questions about nature” of the phenomenon...”*.

On pp 33-34 they have an excellent discussion of Bertrand Russell’s work on causality.

In Chapter 4, on p 70, the authors use the work of Norbert Wiener and his associate Arturo Rosenbluth on Cybernetics. For it was indeed *“the synergy of communications, control, and statistical mechanics...”* that set the framework of how we should view cellular and organ dynamics. The authors then given examples of gene regulation. I would have simply stated that every cell and every organic system is a multidimensional distributed random process.

One could take a Feynman like approach and posit the obvious, and then fill in the details. The authors work from the bottom up to demonstrate their world view. Namely that when we look at cells we are looking at complex dynamic random systems. Systems we can ascribe states to, states being measurable quantities, which in turn operate on other states in a dynamic fashion.

In Chapter 5 the authors start the transition to complex state models. They again rely on the wisdom of Wiener on p 89 to state:

“Wiener recognized the difficulties that the mathematical requirement of science and translational science would present for medicine ...”

For back in 1948 when Wiener had published Cybernetics, Medicine was still a *“what and how”* practice. It did not transition to a *“why”* approach. The translational science that the authors speak of is:

“... mathematical engineering, applied mathematics with a translational purpose..”

Namely, to translate nature to measurable quantities. Quantities which we can then by knowing the *“system”* we can then manipulate and predict. We can observe and we can control, the end goals of translational science. In a Popperian sense, the authors address the issue of measuring, predicting, and examining what does not do what we said it would.

The key arguments are developed in Chapter 9 and 10. Chapter 9 is the “sola fides” discussion, *faith alone*, as a mantra to those who fail to understand the system nature of the cell dynamics. The authors, on p 149, evoke William Barrett, the insightful Columbia University philosopher, who wrote *The Illusion of Technique*, a superb work integrating the principles of epistemology and science in the late 1970s. Frankly, to see Barrett in a book of this type was an exciting surprise, for I had thought that Barrett was falling into obscurity, a loss to many who are struggling with issues that Barrett has thought through decades ago. The authors then on p 148 also discuss the nature of stochastic dynamic systems.

Dougherty brings insight via avenues that I found resonated strongly. The discussion on Wiener, where Dougherty, unlike Gleick in what I feel is presented with uninformed bias, sees Wiener as the father figure, one combining systems thinking, clear and built upon strong mathematical foundations, which is then integrated with real biological systems. Although I find their approach insightful and compelling, I would have taken pathways in cancer dynamics as somewhat well-defined stochastic systems.

For example, we know the effects of PTEN, the AKT pathway, and the MYC pathway, the p53 pathway, and the complex dynamics which are well described in the readily available NCI data base of pathways. One can use as states the concentrations of any one of these proteins and then state simply that they all interact with one another, the result being homeostasis or if a change cancer. The model is multidimensional, stochastic, highly complex, and strewn with “noise”, namely uncertainties. Models have been developed and tested for such cancers as prostate, melanoma and colon. Dougherty, himself, has made substantial contributions to this area. It would have been useful perhaps to demonstrate this approach as well.

On p. 163 the authors place a stake in the ground to say what would be expected for those to work in the field, that the books by Loeve and Cramer be used as standard bearers! As I read that in the book I looked on my bookcases and saw my old well-worn copy of Loeve, which got me through my PhD. Cramer was my core text for my introductory course, but then again it was MIT. Thus they set a high hurdle, but a necessary one for those to work in the field. My first book, *Stochastic Systems and State Estimation* (Wiley, 1972), in a sense was one of the many which established the bar.

The clear strike at the adversaries is set on p. 165. After again referring to Barrett and Kant, the authors end with:

“Does anyone really believe that data mining could produce the general theory of relativity?”

I think this can be extended. For example many researchers run millions of microarrays and are currently finding hundreds of SNPs or thousands of miRNAs and each time they send out a press release saying they have “discovered” some new “gene” or worse “cause” or “cure” of say prostate cancer or melanoma. In reality one does not know whether this is a marker for cancer, a marker for a predisposition for cancer or just plain noise.

What the authors, and others, have argued is that it is essential to have a well-defined dynamic system model of how say PTEN and AKT interact and how they in turn control MYC and where

the controls on p53 are in this chain. The microarray analyses should be done in the context of defining the linkages in the state model and not as ends in themselves. The model can then be validated. From such a model we can then see conditions on their way to cancer and conditions representing advanced cancers. For example, recent authors have announced a way to measure PTEN in prostate cancer and laud that as a diagnostic step. In reality by the time PTEN has been deactivated there is most likely a metastasis. Understanding and refining a model is the essence of the “why” articulated by the authors.

On p 166 there is a superb critique of what the authors call the *pre-Galilean thinkers*, namely the biologists who like Linnaeus were really just classifiers of forms and shapes failing to understand why they were what they were. One must remember that biology was all too often just a study of things and a process of naming them and classifying them. The systems which made for these differences were little understood, and worse, beyond the mindset of many who practiced in the field.

Chapter 9 is, in my opinion, the pinnacle of their argument. Simply put, we should now begin to perform our experiments within the context of a model. For example, we know many of the pathways of the key genes intracellular, but we do not yet understand the dynamic model that controls them. Thus, when we do microarray tests, we should be doing them to determine the constants in the model and then validate that design. We should, in effect, *identify* the system, using a system framework, not just some unstructured set of classifiers. We have the structures, now is the time to put them to use.

Science is iterative. It is an iterative set of models and refinements. On p 171, the authors refer to Turing's last paper on tessellation, or why zebras have stripes. The paper by Turing was submitted a day or two before he committed suicide and it was done without the benefit of Watson and Crick who were simultaneously doing their work at Cambridge. He intuited intercellular flow of some yet to be defined controlling substances. The concentration of these unknown substances would rise and fall in concentration and as such the color would change.

This approach has recently been applied, using a system model of flower genetics, and it explains and demonstrates the control of patterning in a genus of flowers. Having the model for this genus of flower, which is experimentally verifiable, one can then do the inverse, namely the controllability issue of creating desired flower patterns. That also is the essence in cancer dynamics, namely of creating a control or cure, but with a verifiable model. One must have the model, thus say the authors. Thus says nature! If one takes the authors systems approach and applies it to intercellular systems thinking, then it can be argued that the stem cell of cancer theory as has been recently evoked can be readily explained, as readily as those zebra stripes! That is the strength of the model posited by the authors.

My only negative is the price. There are some 187 pages and the price is well above \$100. Amazon does have a better price but not much. That is over \$0.60 per page, and for that I would blame not just Wiley, but the IEEE which somehow has all too inflated prices. This book is so insightful that the barrier to entry should be more modest. It is worth the insight at any price however.

And one last nit. The work of the authors should also shine a light on macroeconomics, which suffers not from a surfeit of models and mathematics, but from any ability to validate them, just look at the current state of the economy. Thus what biology brings from data to systems, macroeconomics brings from systems to reality. Both have to merge and be able to be predictive. We are approaching that in biology, especially with the insight of the authors, it is a pity that such has not yet passed the minds of those who opine on the world's workings.

Labels: [Books](#)

THURSDAY, SEPTEMBER 15, 2011

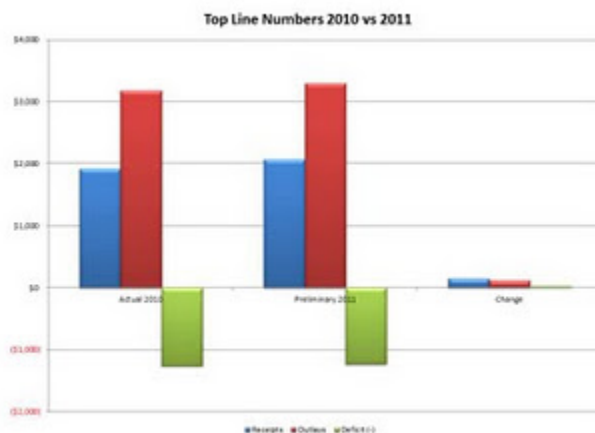
[CUTE](#)

From [New Tampa Republican Club](#).

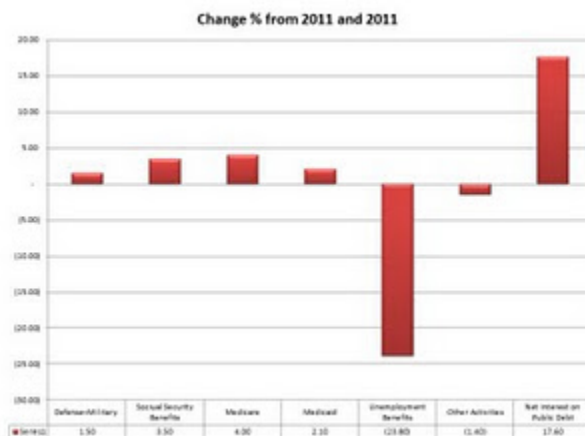
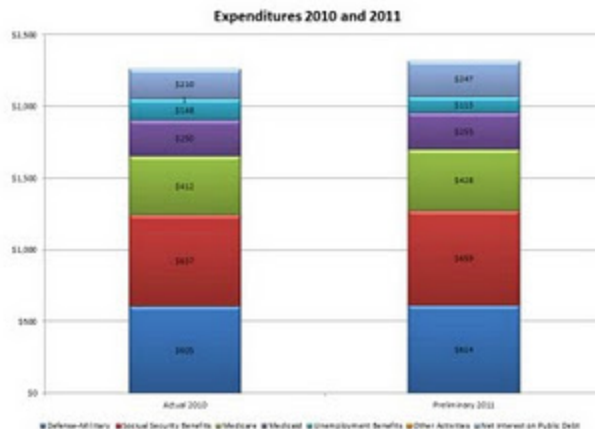
Labels: [Economy](#), [Politics](#)

[CBO DATA AND THE ECONOMY](#)

The [CBO issued a set of reports](#) on the current state of the economy and the projections looking forward. It is worth a look at the data.



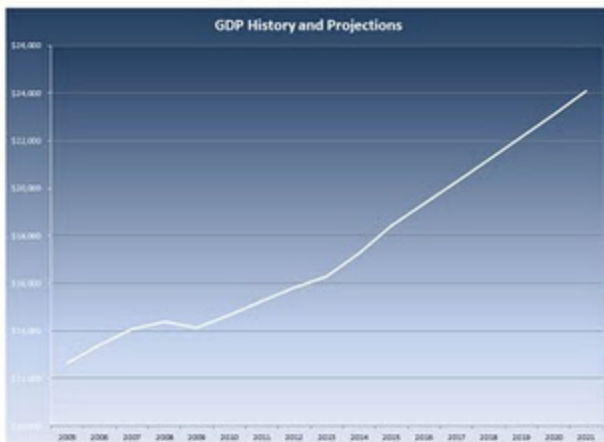
First, the revenue, outlays and deficit. As we see above there is little change from 2010 to 2011. They are still burning at a tremendous rate. Deficit well in \$1 T plus.



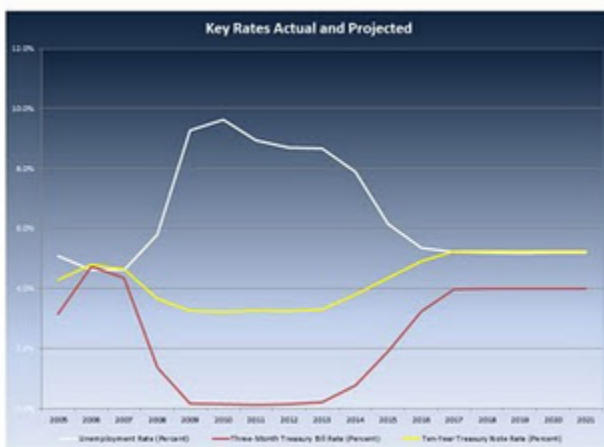
The above is some details as to the amounts and the percent changes from 2010 to 2011. What is interesting is that Medicare has a 4% change which is amazing given the cost increase in healthcare and the added enrollees. Note that SS payments have increased only 3.5%. The greatest increase is interest on the debt at 17.6% Unemployment benefits dropped 23.8% from year to year.

The conclusion is that it is not Medicare and SS alone but the debt. Just look at the numbers.

Now the CBO also looks at the economy backward and forward. First their GDP projections.



Now the key rates:



Note they assume that we will all be back to normal by 2016, strange the date. But one should see the increase in the Treasury rates as we see the expected unemployment decrease.

Labels: [Economy](#)

THERE ARE NO EX-MARINES, JUST FORMER MARINES

The [NY Times](#) wrote today regarding the Former Marine awarded the Medal of Honor. They state:

1 EX-MARINE AWARDED MEDAL OF HONOR

..... awarded the Medal of Honor on Thursday to a young former Marine who ignored orders to stay put and fought his way five times into an ambush in an Afghan ravine, helping to rescue three dozen comrades and to recover the remains of four dead American servicemen.

The headline states "Ex" and the lead states "former". You see there are no ex-Marines, there are only former Marines. The writer seems to get the point the Editors and others seem not even to read the lead sentence. Congress awards the Medal and the presentation usually is by the sitting

president.

As an update, the NYT did change the headline in later editions. I guess some adult caught the error. Now why former and not ex. Just ask any Marine, current or former. They should be glad to tell you. Paris Island, or Quantico, even the place out there in San Diego, better weather.

Picky, picky, picky! Semper Fi!

Labels: [Media](#)

[CHANGES IN PATENT LAW](#)

There has been a change in the Patent Law, and it is a sea state change. As [Science](#) states:

The biggest change will bring the U.S. patent process into line with that of other industrialized nations. Most use “first to file” patent systems, which issue patents to the first inventor to file a valid application. In contrast, the United States has had a “first to invent” system, which awards patents to inventors who can prove they were the first to make a discovery, regardless of when they filed their application.

This is the most important change in many ways. It takes away the first to invent and the battle as to who had what note book at what time. It removes the old way and potentially allows large entities to have massive filings, rush to the Patent Office, and pile up the IP base. Is this good or bad, it is one of those issues where there is on the one hand and on the other.

Science goes on:

To protect U.S. research traditions, the new law contains “safe harbor” provisions that give researchers who receive federal or university funds a year to decide whether to pursue a patent after publishing a paper or discussing a discovery at a scientific conference. These researchers will also have the opportunity to file temporary “provisional” patent applications that protect a discovery while companies decide whether it is worth pursuing a full-blown application.

Universities have become more and more bastions of Patent Packages, some doing well and others not as well. Stanford seems to have one of the best and as I hear from others MIT one of the poorer effectors of the distribution of patent licensing.

Science then discusses the prior use issue:

Particularly troubling ... is language that expands “prior user rights.” Those come into play if one company patents a new technology or process, but it turns out that a second company was already using it as a “trade secret.” The new law is intended to prevent the “prior user” from being forced to pay royalties to the owner of the new patent—a change long sought by the electronics industry. Yet prior-user rights could create “a powerful disincentive” to publishing research results, ... sharing key information could tip competitors on how to create “a competing trade secret product” that would be safe from lawsuits. To prevent that scenario, the final legislation bars companies from using a prior-rights defense against academic patents produced under the 1-year grace period or that are the products of federally funded research. prior-user

rights “essentially give trade-secret holders a free ride on somebody else's patent.” ...the law could create “disincentives for collaboration and open communication.”

These are three of the elements; first to file, one year window and prior use. It will be interesting to see whether this has a positive or negative effect.

Labels: [Academy](#), [Economy](#)

WEDNESDAY, SEPTEMBER 14, 2011

GREEN TECHNOLOGY AND REALISM

The recent issues regarding the DOE's "investment" in a solar panel company and its loss of more than \$500 million bring to mind my long felt opinion of Government investments; really really dumb.

As the [Hill](#) states:

Republicans blasted ... administration officials Wednesday for green-lighting a \$535 million loan guarantee to Solyndra, a now-bankrupt California solar company with close ties to the White House.

The GOP attack at House Energy and Commerce subcommittee hearing focused on emails they said showed the White House tried to rush a final decision on Solyndra's financing so that Vice President ... could announce approval of the loan guarantee at the September 2009 groundbreaking for the company's new factory.

"The documents demonstrate that, when DOE was reviewing the Solyndra guarantee in 2009, it was well aware of the financial problems the deal posed," ... chairman of the panel's Oversight and Investigations subcommittee, said Wednesday.

First in my experience the DOE is one of the worst managed agencies around, except for the old AEC nuclear part. Second any Government agency has no clue as to how to make an investment. Those that do would never work in the Government, they would do! Imagine any GS 14 sitting on some Board. You have to be crazy to think they could even ask a sensible question.

The problem is we have hundreds of these follies. Again I remind all of the Broadband program, tens of billions down the proverbial rat hole! The market is a real thing, it should reward success and punish failure. Thus the TARP should never have been, let them fail, it clears the market. Instead we have trillions stored up going nowhere. GM and Chrysler, they too should have failed. Instead we shoveled out taxpayer money and they want more, like any addict. There is not rational for this mess.

Labels: [Climate Issues](#), [Economy](#)

MONDAY, SEPTEMBER 12, 2011

UNDERSTAND WHAT CREATES JOBS

The [new proposed Job Bill](#) finances more teachers, firemen, police officers (being the son and grandson of one we do not call them cops, it was considered a bit derogatory), and union construction workers, and more of that ilk. Not a single job to be created in which it will sustain new real economic growth.

What does an entrepreneur/investor look at regarding the creation of jobs? The long term return. Simply the net present value, NPV, of the investment. We formalize this below. The NPV is the value today of a stream of revenues, hopefully, in the future.

$$NPV = \sum_{k=1}^K \frac{R(k) - E(k) - C(k)}{(1+r)^k} + \left[\frac{TV(k+1)}{(1+r)^{K+1}} \right]$$

If we look at this equation we see several factors:

- (1) First the NPV must be greater than the investment made. If we invest a \$1M then we need well more than a \$1M NPV.
- (2) The revenue today is highly un-predictable. Why, demand, no matter how low we price it people are just out of money for many things. Thus the entrepreneur cuts this estimate down.
- (3) Costs or Expenses, they are driven up by health costs and the ACA mandates. Taxes are also high, state and local, and the costs of meeting all other state and federal mandates just add to the per employee burden. So one tries to build a business with as few employees possible. That is great for productivity and bad for employment.
- (4) Capital is a problem because it may be available but raising investment or loan dollars for some equity leverage may be near impossible.
- (5) Risk, r , which is the sum of cost of risk free plus risk makes it a highly discounted number. We may have used 18-25% before, when risk free was say 5-7%, but now we raise it to 30-35% when risk free is almost zero. Why? Recession, unpredictable Government taxes and costs etc. Just the risk of seeing capital gains go back up to high end income tax rates drives this number sky high.
- (6) Terminal values: just as capital gains affected the r it kills the terminal value for the same reason. Also with markets going sideways at best the ability to monetize the company in say $K=5$ years if unrealistic. Thus the terminal values drop.

The result is that from the investor/entrepreneur view we do not see why we should put capital at risk as was done before. Washington does not understand this. Macroeconomists are lacking any fluency here, it is not part of their thought process.

Labels: [Economy](#)

SUNDAY, SEPTEMBER 11, 2011

[LEAD, FOLLOW OR GET OUT OF THE WAY](#)

There is a [blog by some academic](#) who states:

My plan for zero unemployment: There were 14m unemployed workers in August. The \$447b stimulus package could be used to generate a check of almost \$32,000 to each and every one of them. As a condition of receiving that check, they would be asked to work at some organization, for profit or nonprofit, for one year. These jobs would last just as long as the stimulus package and some of them would no doubt turn into real jobs. Isn't this a plan everyone could support?

Not really. If you ever ran a real business you have people doing jobs that need to be done. They are leaders or followers. If one does not fit that category then get out of the way! The observation is that industry has what it needs under the current situation. Don't send us people who we cannot use, and worse who are not motivated by a paycheck based on what they do.

This is another example of academic dreaming. And I gather the fellow heads up the entrepreneurship program. If you want to become an entrepreneur my suggestion is do it and stay away from the Academy. People who do, do, people who can't, teach. So beware from whom one takes advice.

Labels: [Academy](#), [Economy](#)

SUNDAY, SEPTEMBER 11, 2011

[MEMORIES OF SEPTEMBER 11TH](#)



9/11 A Decade Later

Ten years ago at 3:29 in the afternoon in Prague I received the following email from my New York office. The PS was an understatement.

From: xxxxx@zephyrtele.com

To: "'Terrence McGarty'" mcgarty@zephyrtele.com> **Subject:** RE: Faxed the call in info to Preferred's

Date: Tue, 11 Sep 2001 09:28:25 -0400

X-Mailer: Internet Mail Service (5.5.2653.19)

X-SLUIDL: 4F2B5048-97DE11D5-849E00D0-B73C39FD

PS At around 9am two airplanes each hit the World Trade towers.

I sat for a few moment thinking of what it meant. We had no televisions. So tried calling my offices back in New Jersey, not far from the collision.

*If you can keep your head when all about you
Are losing theirs and blaming it on you;
If you can trust yourself when all men doubt you,
But make allowance for their doubting too;
If you can wait and not be tired by waiting,
Or being lied about, don't deal in lies,
Or being hated, don't give way to hating,
And yet don't look too good, nor talk too wise: Kipling*

Sunday night, September 9th, at about 10 P Athens time I was in the bar at the Grand Bretagne across from Syntagma Square, the famous square where the Greeks come to protest everything even the price of feta. On one side were two Russians and on the other two Greeks. We sparked up a conversation, with my poor combination of Greek and Russia, then it was still passable. The Russian on my right looked up at the television with the BBC announcing the assassination of the head of the Northern Alliance in Afghanistan and said to me:

“You guys are next.”

I asked him what he meant. His response was simple:

“Bin Laden”

I had heard of him and even saw an interview with him. We continued the conversation a bit. I would guess he had spent time in Afghanistan, he looked more KGBish than Red Army, but we had another drink and watched in silence.

Tuesday at 3:28 PM in Prague I received the above. Called New York and no luck so I called my daughter in West Virginia, got through. She was speaking to her friend in Vienna, Virginia, and with her friend's husband who worked at some not to be named Government agency. I could hear

CNN in the background, there apparently was still uncertainty as to who caused this, and my first comment was:

“It was Bin Laden.”

The question came back:

“How did you know?”

Answer:

“Well I was a bar in Athens Sunday and had a drink with two Russians and two Greeks...”

Question:

“Where are you now!”

Answer:

“Prague”

CLICK. Clearly Echelon picked that call up! Perhaps that was the way DC found out so quickly. Some guy, in a bar, in Athens, on a Sunday night, with a bunch of other guys, putting a puzzle together. Old fashioned intelligence. Not the fancy stuff of satellites and technical Int.

Now to the night of the 11th. Back in Prague at the Marriott, having dinner alone. Four Americans came by, we exchanged some pleasantries and I asked them to join me. Two couples, both men had flown B17s in WW II and they were making their first return. We sat and said nothing for an hour just listening to the reruns on the BBC.

Then on the 12th off to Paris, Air France knows how to deal with security, the pilot goes down the aisle and kicks off anyone he does not like. Quite French and quite effective. No TSA frisking grandmothers in wheel chairs, just plain old profiling.

Then on the 13th, we were at the Four Seasons in Paris, the hang out for the Gulf State crowd, who when France had a moment of silence did anything but, we decided to get out of there. So I felt getting out would be best, seeing we would be there for a week or more. So off to Bayeux. Why not, William the Bastard left from there in 1066 so historically it would be a good jumping off point for a return, lots of symbolism. After all it was his offspring Henry II and Richard I who brought their revenge.

On the 14th to Normandy, a place to reflect, flags at half mast, notes of kindness from many nations on the graves. The Normandy French were very kind and friendly, they still remembered D Day the the sacrifice the Americans made for them at that time.

We, our Company, lost a few relatives, neighbors and friends out of the 3,000. Some of our folks volunteered to help out and did. But all are remembered.

*We few, we happy few, we band of brothers;
For he today that sheds his blood with me
Shall be my brother; be he ne'er so vile,
This day shall gentle his condition.
And gentlemen in England, now abed,
Shall think themselves accursed they were not here;
And hold their manhoods cheap whiles any speaks
That fought with us upon Saint Crispin's day. Shakespeare, Henry V*

Labels: [Commentary](#)

SATURDAY, SEPTEMBER 10, 2011

REPAIRING THE ECONOMY

There is a piece by Mankiw in the [NY Times](#) which clearly states many of the problems. His starting observation is quite spot on. Namely:

The economy is in bad shape. Technically, the recession ended in June 2009, and since then the economy has been recovering. But it doesn't feel that way to many Americans. Things have stopped getting worse, but they have not gotten much better. The recovery has been so meager that unemployment lingers at historically high levels.

But one of his final observations is the key:

Economists often rely on the convenient shortcut of separating long-run and short-run issues. Recessions are then viewed as short-run problems that require short-run solutions. That approach, however, may be simplistic. Lack of investment spending is a large part of the economy's current difficulties, but capital investments are always made with an eye toward the future.

First, "bad shape" is an understatement. Second, the short term and long term is truly a key factor. From an investment perspective, we on the investment side, especially the high risk tech entrepreneur side, look long term. We fortunately do not have to worry about the quarter to quarter issue, albeit it counts. Yet, we look say at a discounted cash flow, DCF, for say five years. Then we add a terminal value to see what happens. We always have the entrepreneur see it as a higher number than we do, but the point being we look at revenue, expenses and a discount factor plus a terminal value. Unlike economists we have our capital at risk.

Thus not knowing the revenue, the buying propensity, not truly knowing true costs, taxes and health care plus regulations, not knowing how to discount the risk, cost of capital plus risk factor, and finally not knowing how to determine a terminal value, even if there will be one, and of course if we lose capital gains then the deal changes totally, that is why the investors are wary to say the least.

This is not a macroeconomist's issue. It is a rational investors issue, and there currently is no rational place out there. Is Mankiw correct, in part yes, as an economist yes, but I believe there is more to this issue, or perhaps I may be just reciting a corollary to his proposal. We have been frozen in place from uncertainty, uncertainty in all elements of what goes into our decision process.

But as an adjunct, I read a piece in the [Washington Post](#) analyzing the current President as "covert commander in chief". The author states:

This is a president, too, who prizes his authority to conduct covert action. Clapper's predecessor, Adm. Dennis Blair, lost favor in part because he sought to interpose himself in the chain of covert action. That encroached on (the current President), who aides say sees it as a unique partnership with the CIA.

This may explain some of the focus. On one hand George H W Bush was head of the CIA before he became President so he had the opportunity to play spy. It can be a heady game, but we really need a leader in chief, for better or worse an FDR character, not that he was the greatest, but he was the cheerleader in chief.

Labels: [Economy](#)

EDUCATION

The [Guardian](#) has an interesting piece on school systems in Sweden. It shows the "open" teaching principles and student freedom that they have aspired to. In a way it resembles the blackboard jungle. The last paragraph is terrifying:

But as I was leaving his school, one of his students, Mohammed Mahmoud, put it differently. "This is a school for criminals," he declared, to laughter. "Nobody's working in this school, because no one here has any future."

One wonders if anyone is listening.

Labels: [Education](#)

THURSDAY, SEPTEMBER 8, 2011

THE SPEECH: "TRAINING" ENGINEERS

Well [the speech](#) is over but it is worth reading what is in the minds of those who wrote it. It states:

Already, we've mobilized business leaders to train 10,000 American engineers a year, by providing company internships and training. Other businesses are covering tuition for workers who learn new skills at community colleges. And we're going to make sure the next generation of manufacturing takes root not in China or Europe, but right here, in the United States of America. If we provide the right incentives and support – and if we make sure our trading partners play by the rules – we can be the ones to build everything from fuel-efficient cars to advanced biofuels to

semiconductors that are sold all over the world. That's how America can be number one again. That's how America will be number one again.

Read this, they want to "train" engineers. You educate engineers not train them, and most never make it. They take courses, they compete for entry, they pass exams. You train dogs, not engineers. And we wonder what the problem is? Companies hire engineers, colleges and universities educate them.

If they have no clue about the people who build their economy, no clue of the leaders of China, then how in God's name will they ever understand how to get out of this mess.

Do we train lawyers? Possibly a bit, but when they are associates, after they have been educated.

I am taking a course at a community college. First I was denied admission because I was over 65, a law suit helped solve that. Then the course instructor takes attendance at each class, when you leave. Now MIT never took any attendance and my secondary school never did either. You pass the tests you get through. I took courses and Regents exams in courses never taught. No one gave a peep. But the community college is akin to some reform school. So that is where we want to train these engineers.

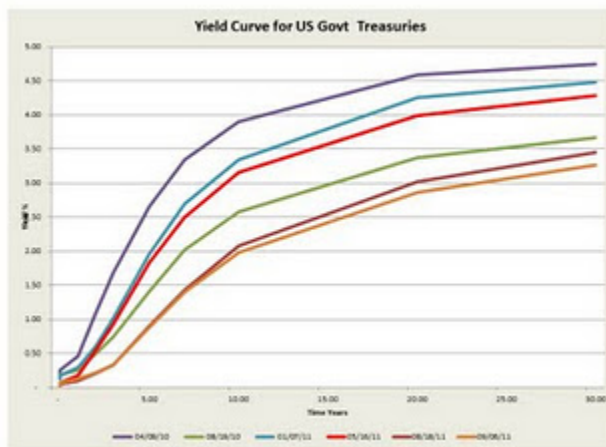
It will only get worse before it gets better!

Does IIT in Mumbai or Tsing Hua in Beijing "train" its engineers, were Watson and Crick "trained" at Cambridge, was Einstein "trained" to come up with Relativity, the Photon Effect, Brownian Motion? It is not just misuse of words it is a gross misunderstanding of how things work. God forbid we start training people. They like the dog would then do just they are told. Or is that what they really meant!

In the old days, a "Training" School was a place to reform delinquents. Perhaps they want to have such a place. But wait, can we train a new Steve Jobs, Thomas Edison, Claude Shannon, well perhaps in their minds. I wonder what they think in China?

Labels: [Economy](#), [Politics](#)

WEDNESDAY, SEPTEMBER 7, 2011

YIELD CURVE COLLAPSE

The yield curve is collapsing. We can see in the above that it is dropping down to record lows. Despite the FEDs free hand with cash the same cash seems to go no where. Again we note that those on a fixed income relying on secure long term debt for payments are facing record "inflation" as the rate drops, while prices continue to rise.



The spread has also collapsed. We have been tracking this for three years now since the current Administration took over and we see the lowest ever in spread. The anticipation is for record low growth.



The details above show further the nature of this spread. The short term Treasury is as near zero as it can be but the 10 years have also collapsed. Good news for debt payment but bad news for long term growth potential.

Labels: [Economy](#)

TUESDAY, SEPTEMBER 6, 2011

DUMB AND DUMBER

I have been listening to what some folks have been saying about jobs. Now I have a personal view as one who for a few decades created jobs, out of whole cloth. I did not work for someone and hire new people, I created a new company and hired people to do things in the new company. And from time to time we have reunions and they always say that working in the start up was the greatest moment of their career.

Why? Well I did not care about degrees, I wanted to have people do their best. I had quite a few High School grads, and PhDs, and they all did a great job. Never really asked where they were educated just wanted to know what they could do. The secret to good management, finds out what someone does well and then let them at it.

Now I have heard an actor, at least that is how he was introduced, tell his interviewer how we should create jobs, train people, have the Government train more people. Now when I listened more closely he and his interviewer, some foreigner from across the seas, said yes, high tech training, that will create jobs!

Are they out of their minds. What shall we do, take some teamster and train them to be a PhD in EE from MIT, thugs with brass rats! Do we just say to MIT, forget standards, open the door and take these thugs and make them leading edge researchers, get them to come up with great ideas, now, think, create! They are union thugs, they cannot do this, it is not in their genes. This is what we get from Washington.

How about training Cancer Researchers at Stanford, we just get unemployed auto workers ship them to California, set them up in labs and train them to cure cancer. Oh yeah, that will work! After all they take their breaks, they leave at 4 PM, just drop those good old gels down the drain

and come back on another work day. And then they strike, yes strike, after all they are not paid enough. That will really encourage post-docs.

Train entrepreneurs? Trains researchers? Do these people have a clue, apparently not. After all they are actors, big egos, little brains.

Labels: [Economy](#)

FRIDAY, SEPTEMBER 2, 2011

MUNICIPAL BROADBAND: A FAILURE

Burlington Telecom was apparently sued by Citi to get all of the equipment used as collateral back. The [Burlington Free Press](#) states:

Citicapital, the financier of Burlington Telecom to whom the city owes more than \$33.5 million, filed suit today in federal court seeking repossession of all equipment and millions of dollars in repayment and damages.

The city-owned provider of television, Internet and phone services has been in arrears for much of its existence, and also violated its state license by spending cash from general Burlington accounts to keep the utility afloat. Burlington Telecom has been unable to make payments to Citicapital, and the financing giant responded Friday by suing the city in federal court in Burlington.

In a brief statement, the city said it is "reviewing the complaint and will vigorously defend the City's interests in court. Citicapital's filing has no impact on Burlington Telecom's provision of services to its business and residential customers."

We had indicated almost two years ago that this was to be the outcome, despite the remonstrances of several of those interested in its success. This is no surprise. We have seen the Government hand out almost \$10 billion to companies with no track record in deploying fiber and operating systems of significant size. In fact as we observe the progression of some we see further internalization and less attempts to get the experience necessary for meeting the challenge. This we believe may very well mean a total loss of the \$10 billion or so given away. It is a shame for RUS up to this point had a fine reputation. Alas it may be sullied.

Labels: [Broadband](#)

WEDNESDAY, AUGUST 31, 2011

THE NEWS: BALANCED?

A recent post by some [professors](#) contends that:

We find that, on average, newspapers are located almost exactly at the median voter in their home states. In California, where we have the most data, newspapers are probably slightly to the right of the median voter. We find no evidence that the US press exhibits a liberal bias.

Our second finding is that newspapers are moderate relative to interest groups and political parties. That is, although newspapers exhibit some variation in their ideological position, they tend to be much closer to the median voter than most interest groups.

First, what planet do these folks come from. Ever read the NY Times, Washington Post, Boston Globe, Atlanta Journal, Baltimore Sun, and the list can go on. Not to mention any rag in California! But so what, any reasonable person recognizes the bias, it is so blatant and third rate. They make the old yellow journalism rags look like Aristotle.

I am continually amazed at the academics who seem to have the conclusion first and then seek means and methods to justify them. The advantage of the Internet is to some degree self selection. One can reach their own conclusion.

At least it is not MSNBC.

Labels: [Press](#)

TUESDAY, AUGUST 30, 2011

[NO ONE KNOWS WHAT TO DO](#)

The [NY Times](#) had an article which just reinforces what I have been saying for three years since the financial mess began; macroeconomists have no idea what to do, or a corollary is they have no idea about what they are doing. From the far left with Krugman to the libertarian Paul side the positions are all over the place. Nothing seems to work. Imagine if it were engineers and a bridge. Can't do that? Why, because engineering is based upon sound principles. Macroeconomics is religion during the height of the Reformation, or even worse than when they were trying to figure out the Trinity.

As the Times states:

Officials also came to a temporary policy compromise by giving markets clearer guidance on how long interest rates would continue to hover around zero. Some committee members said they wanted to set a calendar deadline, and others preferred to instead peg interest rates to a specific rate of unemployment or inflation.

The calendar-deadline version won out, and in its public statement the Fed pledged to keep its benchmark short-term interest rate at “exceptionally low levels,” for “at least through mid-2013.”

There were three dissenters: Richard W. Fisher, Narayana Kocherlakota and Charles I. Plosser. Not only did they disagree with the mid-2013 language, they all disagreed for slightly different reasons.

This is worse than the Mad Hatter's Tea Party. No one could make this up. And we expect a recovery? When? Not with these wizards.

Labels: [Economics](#)

SATURDAY, AUGUST 27, 2011

GOOGLE AND GLEICK

Gleick wrote a well written book on chaos, I really enjoyed it and found it often spot on. Then he wrote the book on information theory and gave at best back handed compliments, in my opinion, Norbert Wiener, that I did not like. Now [he opines on Google](#).

He states:

Google is where we go for answers. People used to go elsewhere or, more likely, stagger along not knowing. Nowadays you can't have a long dinner-table argument about who won the Oscar for that Neil Simon movie where she plays an actress who doesn't win an Oscar; at any moment someone will pull out a pocket device and Google it. If you need the art-history meaning of "picturesque," you could find it in The Book of Answers, compiled two decades ago by the New York Public Library's reference desk, but you won't

Now I grew up in New York and never ever went to the Library. They never had what I wanted. I went to used book stores, you see I wanted to have the information around permanently, not just find some answer, I wanted to know. By the way, my wife worked at the Boston Public Library, and I met her as a librarian, at MIT. But I digress, since she really was the only thing I remember of value there, and I even took her home!

Now in 1972 I believe, MIT tried to move to microfiche, removing journals. I somewhat blew my top, because you see when looking in journals it is often not what you are looking for that stimulates a new idea but what you pass over by happenstance. You see it is what you are able to connect in the context of your own educated and prepared mind that all too often leads to results, not what someone has ordered for you to peruse.

Thus microfiche allowed targeted search. Now the next thing that came along was Dialog, the on line search company. My wonderful wife went to work there for about a decade. In this case you went to the reference librarian trained to use the system and asked for a search, and she would interrogate you and depending on how well the two of you communicated a few days later came a printout. You then read through it to find the papers you wanted and then again in a few days you finally got them. Better than fiche, not really. By the time you got them you often forgot why you even asked.

Now to Google. Google never ever answers my questions. Google just finds what I ask for, a real time version of Dialog, with instant gratification, downloading a pdf set of files that in real time allow a widening or focused search. I can now get a draft book out in six months or less, depending on other factors. Why, because Google facilitated the search. It was a search, guided by my questions, and all Google did was index what others put on the web. Google did not make

any value choices. Thus when I seek "*cancer stem cell*" *site:edu filetype:pdf*, I get what they have indexed. I then look through a few hundred and build a pile of 30-50 papers which I then read through. Has Google made a value judgement on what I should see? Doubtful, and I would be the ultimate arbiter in the end anyway.

Gleick continues:

Part of Google's mission is to make the books of answers redundant (and the reference librarians, too).

Well yes the reference librarian is obsolete, thank goodness. Yet I did get a wonderful wife. But I get what I need and more much more efficiently now. Never was my wife's fault. But Google is a "free" Dialog with a better interface.

As for Gleick's inference that somehow Google have evil intents. He states:

The business of finding facts has been an important gear in the workings of human knowledge, and the technology has just been upgraded from rubber band to nuclear reactor. No wonder there's some confusion about Google's exact role in that—along with increasing fear about its power and its intentions.

Now frankly how will Google do evil in getting me papers from universities on "cancer stem cells". Perhaps if I wanted a sump pump they would sell me one, as does Amazon. But for true search and find one cannot live without Google. Notwithstanding Gleick's views.

Labels: [Google](#)

[M&A IN CHINA](#)

The M&A business has always been a way for business to progress, grow, sometime fail, but it is a key element in a capitalist market, allowing success or failure. Now China has promulgated a new law which ex post facto would deny an M&A action if in the Government's opinion it threatens national security.

[China Daily](#) states:

If any mergers and acquisitions involving foreign investors are determined to be a threat to national security, those deals should be terminated, according to the regulation. In addition, any past mergers and acquisitions of domestic companies by foreign investors that are found to have threatened national security will be terminated. As an alternative, the MOC may "take relevant measures such as equity and asset transfers or other methods to eliminate their (mergers and acquisitions) influence on national security," according to the regulation. The regulation will take effect from Sept 1 of this year, the ministry said.

This may make further investments difficult.

Labels: [China](#)

TUESDAY, AUGUST 23, 2011

WE ARE NOT CALIFORNIA!

We just had an earthquake! A little one but it was in Virginia, a couple of hundred miles away but we had it! So says the [NYT](#).

Labels: [Commentary](#)

SUNDAY, AUGUST 21, 2011

INNOVATION, RUSSIA AND THE ENTREPRENEUR

Edison was a 19th century US entrepreneur. Above is his desk in his office, a place where he worked and struggled for decades. The US has a long history of entrepreneurs, people who have a dream and struggled against many odds to see it in reality. In the 19th century we had our oligarchs, today we also have them, but the game does have some rules. The [FT](#) describes the current status of the intended "Silicon Valley" in Russia. They conclude:

Kristina Tikhonova, head of Nokia Siemens Networks in Russia, says the group decided to invest in Skolkovo because it appeared to offer more transparency and eliminated some logistic barriers. The company considers Skolkovo a "great project", she emphasises, but also one "that needs the next generation of political leaders to continue and support ...".

Whether Russia can create the next Silicon Valley is another question. While the country has exported some of its best talent there, including Mr Galitsky, an old friend of Google's Eric Schmidt from Sun Microsystems, with the current legal environment it is doubtful the Kremlin can replicate the same thing back home, Mr Lasov says. "It's not going to be like Silicon Valley in five to 10 years. But it could be a place like Bangalore was a decade ago," he says.

As one who has been both an entrepreneur and an entrepreneur in Russia I find the intent to become another Silicon Valley as somewhat a wishful thinking. Russia has always been creators of fundamental technology, great research, but the linkage between that and its implementation has been lacking to say the least. I find the very individualism that is the core to the American entrepreneur is totally absent in Russia. The oligarchs are examples of that. They did not create anything but for the most part via their contacts and associations managed to grab wealth.

So will Russia become a Bangalore? Not really, Indians have along culture of study and business expertise, albeit lacking in the individualism of the US. China, albeit a communist state by name has in the core Chinese soul the independence of the entrepreneur. The Chinese in Singapore, Malaysia, Indonesia, Thailand, the US and elsewhere went out and struck gold with their businesses, independent of any government. The Russians have done so here in the US but nor in Russia. Thus in many ways the Russians in Russia may be akin to the Greeks in Greece. For the Greeks who leave often become quite successful, the leave behind the burden of Greece, and prosper on the soul of the Greek. The same for the Russians.



Entrepreneurism must at its core be organic. It must come forth from the driven individualism of the inventor, the drive that takes that one person forth as a dream merchant, as the executor of the dream, and generate a following to make it real, a following of workers, customers, and financial backers. This is what Russia, not Russians, lack. The bed above is that of Edison, again an exemplar of what it takes, the 24 hour day, the seven day week, not the 35 hour week of the French, but the full commitment to create, to bring dreams to reality. No Martha's Vineyard here.

My Russian partners were innovative, hard working, honest, but always working around the system. It was the system which in many ways was the problem, as we are seeing today in the US, the burden of too many people who want to promulgate rules rather than create.

So will Russia create a Silicon Valley by mandate, doubtful. But it will get a lot of money flowing into someone's hands.

Labels: [Russia](#)

[MORE ON CANCER STEM CELLS: A MARKOV MODEL](#)

In a recent article in [Cell](#) by [Guptal et al](#) the authors have built a model and have tested it experimentally in vitro with breast cancer cells. They summarize their work as follows:

We show that subpopulations of cells purified for a given phenotypic state return towards equilibrium proportions over time. These observations can be explained by a Markov model in which cells transition stochastically between states. A prediction of this model is that, given certain conditions, any subpopulation of cells will return to equilibrium phenotypic proportions over time. A second prediction is that breast cancer stem-like cells arise de novo from non-stem-like cells. These findings contribute to our understanding of cancer heterogeneity and reveal how

stochasticity in single-cell behaviors promotes phenotypic equilibrium in populations of cancer cells.

Now as we have discussed before, there is a widely held theory that cancer stem cells exist, they may be 1 in a million of them in a collection of other non-stem cancer like cells, and it is these few stem cells which control the growth of cancers.

There are two opposing theories:

1. Uniqueness of the Stem Cell: Namely that there are a few such cells and that they have the ability to reproduce albeit at a limited amount. They have malignant progeny which are not stem cell like. They are unique and once they are created they remain that way. The other malignant cells not stem cells remain as that.

2. Regeneration of Stem Cells: The second school as exemplified in this paper says that there seems to be a balance between percent of stem cells and percent cancerous but non-stem cells. That there may exist some mechanism of, say inter cell signalling, which turns on and off stem like characteristics.

We would then ask one to consider our argument regarding prostate cancer. Say the HGPIN argument we made a few months ago. Namely, we know that HGPIN often moves to PCa. We also know that PCa may have a stem cell character. We know that there is a certain number of patients with HGPIN who undergo saturation biopsy who on second biopsies are found to no longer have any HGPIN. So where did it go? Think stem cell, namely if one makes the following assumptions:

1. PCa has a stem cell
2. HGPIN is a precursor to PCa. It too may have a stem cell.
3. Saturation biopsy removes $x\%$ of the glands. $x\%$ removed contains y million cells.
4. If we calculate the probability of catching stem cells and we calculate the probability of catching all, given the density, then we can compare the percent HGPIN free of HGPIN on second biopsy and the probability of removing the stem cells. We get a close match.

Thus if this is projectable, then it may call into question the results in the breast cancer model. Namely if the stem cells are removed leaving only HGPIN with no stem cells, then the HGPIN regresses, is it from the loss of the stem cell AND the fact that the remaining HGPIN cannot regenerate them?

Interesting question.

Yet there is the more compelling issue of what pathways have been altered, what mechanism allows a non stem cell to become a stem cell. The observation has interest but without an underlying state model it lacks extensibility.

Labels: [Cancer](#)

SATURDAY, AUGUST 20, 2011

[SCOUTS, THE LEFT, AND THE CANDIDATES](#)



The left wing blog, the [Beast](#), has an article comparing two of the presidential candidates on their interactions with the Boy Scouts. There was a time that the Scouts were held high as an organization which fostered loyalty, accomplishment, team work, individual accomplishment, and were considered contributors to America. The left seems to see them as some form of malignant infiltrators seeking to destroy their view of what we should all be doing.

They are not Hitler Youth, quite far from it. But the Beast, aptly named I assume, takes the position that one candidate did the right thing by denying Scout participation in the Olympics and the other candidate is somehow Attila the Hun.

As the article states:

Perry's view of the outside world hasn't changed too much since then. He'll vigorously defend the Scouts no matter who the perceived enemy might be. Besides that turncoat Romney, there are bullies everywhere. Atheists and gay activists are the most threatening.

His biggest bugaboo might be the American Civil Liberties Union, the individual-rights organization, which has been particularly litigious when it comes to the Scouts. Everywhere, Perry sees an assault on his wholesome Scouts; the judiciary and the ivory tower are both stacked with liberal relativists. Psychiatrists are overdrugging America's kids. Even the whole math movement has apparently run roughshod over, you know, normal arithmetic. Pretty typical of what keeps conservatives up at night.

It now is clear that one candidate cannot make a decision, somewhat what we have now, and the other can. Perhaps the better candidate has come forth, we shall see.

The Scouts have a valid, necessary and productive cause which they have delivered on for a century. Very few other youth groups can say the same. Yes there are organizations that want to deny the individualism which had made America, the individualism observed by de Tocqueville, and the individualism which survives to this day. That is a major theme of the Scouts.

I have never understood why the left wing is so terrified of the Boy Scouts. Is it the Marksmanship Merit Badge perhaps, or is it Reptile Study? Is it the fact that a majority of the men admitted to the Military Academies were Eagle Scouts, the same men who follow orders and put their lives at risk day after day. My first Scout Master was one of those quiet men, Fred Droste, a veteran, leader, and a quiet man, quiet after WW II. Thus I wonder what this fear is that drives them to truly fear little 11 year old boys who go camping?

As for the ACLU, I would argue it is not individual rights as one would understand the Individualism of many Americans, but the group rights of the Progressives. Does that make a difference, yes it does, for the Progressive's group rights deny the Individualism, the true individual's rights.

Thus is there a difference between these two candidates. There appears to be. One stands for whatever he has to, the other for what he believes. Now I believe in evolution, in fact anyone who works in biology, especially in propagating species and hybrids as I have done for decades, cannot but see the pattern of evolution; either the intelligent design of the hybridizer, really a bit of luck, or the survival of the fittest in the mountain side of my rejects, the plants I just cannot throw on the compost pile, surviving and prospering, and taking over the mountain side. That by the way was a skill learned in the Scouts.

Labels: [Politics](#)

FRIDAY, AUGUST 19, 2011

THE CHICKEN OR THE EGG?

The US Federal Debt is a concern. It has exploded under the current Administration in an almost wanton fashion. The prior Administration did a "Johnson" by having two wars with no payments for the costs. The assumptions when they started were that they would not cost that much but as anyone who has a semblance of knowledge of history knows they always cost a lot more than we ever thought. Thus there was an increase. The Stimulus of 2009 was an unabashed Keynesian explosion with not positive effect, especially since we were told by Romer that unemployment would go down, it did not, in fact it increased.

Thus to reduce the debt we must do two things; cut expenses and raise revenue. In addition we must deal with the entitlements; Medicaid, Medicare, and SSI. Now Medicaid is a non-contributory entitlement, namely it goes to those having made no contribution. The other two have a contributory element and Medicare actually pays out much more to those with less contributions and thus less income, than they ever contribute.

Now there is a flap about raising taxes on the rich, and to the current Administration that means anyone with a family income in excess of \$250,000. Those folks depending on where they live are not really that rich. For example in New York or New Jersey they pay Federal Taxes of say

25-30%, plus 7-9% State taxes, then 10% real estate taxes, and 8% sales taxes. That is just off the top. Thus if we have that group one must also remember that the 8% sales is after tax so we see:

1. We pay \$75,000 Federal Tax
2. \$15,000 State Tax
3. \$20,000 real estate tax
4. 8% sales tax on say \$100,000 or another \$8,000.

That is a total of \$118,000 of the \$250,000. Also they pay 14% SSI on the first about \$100,000 so that is another \$14,000 and they pay 3% of Medicare tax or \$7,500.

Total Tax: \$139,500

Tax Rate: 55.9%

In addition they pay for college etc.

So we see that these folks are fairly well taxed already. But the billionaires are asking to be taxed more, and they are asking that the ones at the bottom of the "rich" pile get to contribute as well.

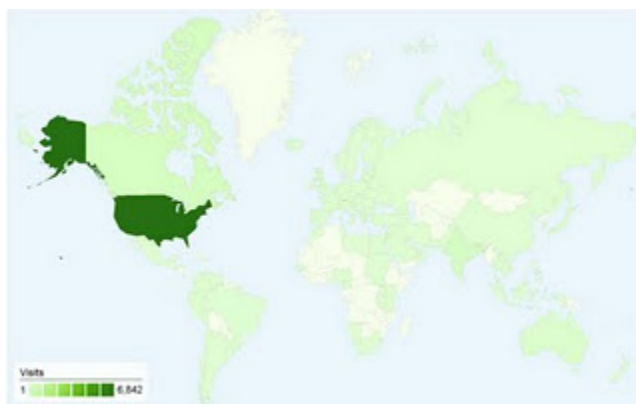
The [FT](#) has an interesting article describing these generous folks, and it states:

The call for higher taxes on the wealthy – which is shared by President Barack Obama and many congressional Democrats – appears to chime with the desire of most Americans. A CNN poll this month found 63 per cent of Americans favoured higher taxes on businesses and rich citizens to curb the soaring debt.

So what are they asking for, expanding the total to say 60%? But should we not reduce spending first? That is the dilemma. You don't buy an addict more junk, you get them to go cold turkey first. This is the political dilemma. The current Administration has no such idea, they just want to tax more.

Labels: [Economy](#)

[AN INTERESTING OBSERVATION](#)

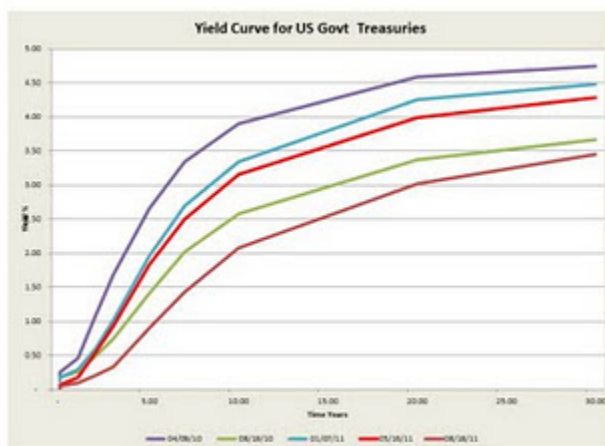


One interesting fact, I notice that as of today less than 67% of the visits are from the US, more than 33% are from outside the US. That is significantly different than most blogs. I am happy about that since it shows a non-parochial commentary. I invite any comments by email, I refrain from using posts to the Blog since I all too often see some of the strangest postings from unknown characters. Thanks to my distant visitors, perhaps it is because I have lived in so many places.

Labels: [Commentary](#)

[YIELD CURVE, AUGUST 2011](#)

The Treasury Yield Curve Data is flattening and the spread is getting smaller than ever before. Here is the data for the past year at a few points.

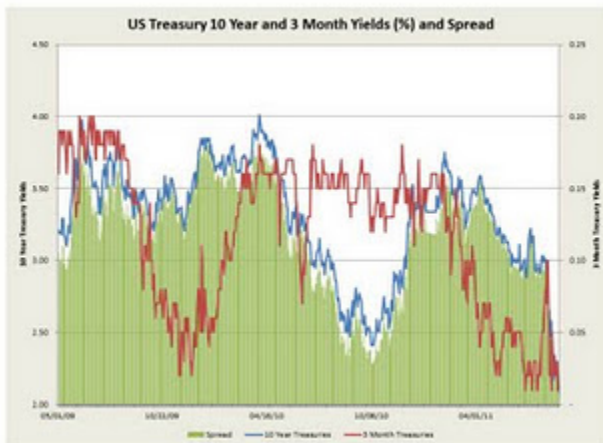


In a sense we are not as bad as last August but it is getting there. Now for the spread:

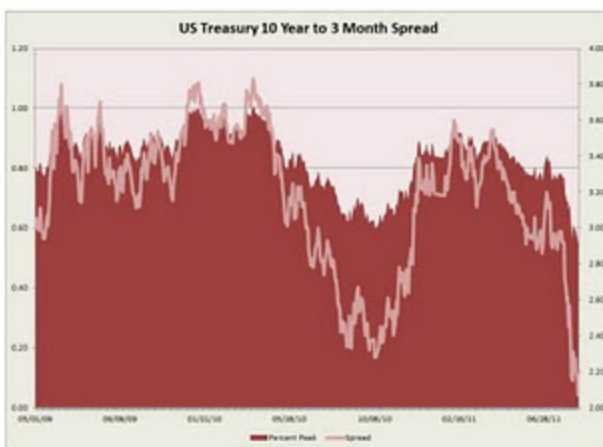


It is interesting to see the spread going as last August as well and the lower the spread we also see the market drop accordingly. Bu this time the drop in the spread was like falling off a cliff.

There appears to be a leading indicator in spread based upon the market, or a flight to safety, with no yield.



The above is a summary of all the data. The 3 month Treasuries are in the tank as also are the 10 year Treasuries. Good for issuing new debt but bad as an indicator of any growth.



The above demonstrates the fall from peak spread, namely we are now down to almost 50% of the peak spread, which is a good measure of the flattening. Thus the long term growth outlook is quite poor.

More to come!

Labels: [Economy](#)

TUESDAY, AUGUST 16, 2011

[REAL NAMES ON THE INTERNET](#)

There is a collection of legal entities who have decided that one must use a real name when using the Internet. In a recent posting of [Ars Technica](#) they relate the experience of Korea, South, not North, in banning those without real names. Now anonymity is not a right anywhere as is

privacy, as one reads our Constitution. However one would like to have a right to be left alone.

Yet there are two forms of anonymity. First the type where I just want to be left alone, Walden Pond type if you will. Clearly our current Administration eschews that in toto, one need just look at health care. If I were to live in the woods off the land away from humanity, not having to pay taxes, I would have to find some health plan which in all likelihood I would never use. That type of anonymity has been destroyed. The second type is the type where I just want to throw stones and not have anybody find out, the type that wear a hoodie or face mask. That type is the type where they want to get in your face but do not want any return for their behavior.

The authors of the Federalist Papers were of the latter. They wanted to get in the face of those opposing certain aspects of the Federal form of government. Why? Ask some historians, but they were not the first.

The most entertaining parts of the Internet are often the comments. Here people have the feeling that they can and do say anything, stupid, inane, insulting, and the list goes on. One often laughs at the person who we do not know for their total lack of manners and knowledge. Yet rarely do they find out how bad they are.

Thus is there value to be unknown? Possibly. Yet someone's comments are all too often measured by who makes the comments. It is like Cable, we know most of those speaking are idiots, so we filter it out.

Labels: [Climate Issues](#), [Commentary](#)

MONDAY, AUGUST 15, 2011

GOOGLE AND HANDSETS

In 1985 I was asked to have lunch with Bob Galvin at Motorola. We went to the company cafeteria and he had a peanut butter sandwich, which as I age I also have become fond of, and I had a tuna salad. He asked me for some advice on Motorola getting into the data service business. He said (paraphrased):

"We make a billion dollars of pagers and the paging companies sell a billion dollars of service every year, and we make tens of billion of cell site infrastructure, and hand sets, and the cellular carriers make billions every year. We have this radio data service, and I want to see how we can get Motorola into the service business. Let me know how to do it?"

I spent a few months and discovered several things:

1. In 1985, 1986, data was doable with the Motorola KDT terminal, IBM field service used them, but the problem was one needed an application internally to get it going. I remember talking to Kraft to try to get them on board, but they saw the potential yet it would take a few years an tens of millions of software development. Thus timing was too early. Not that way now.
2. I then met with Motorola sales. They were great, except they sold hardware, instant gratification. You sold the brick, and sold as many bricks as you could. They had no idea about

the service business.

These two observations have resonated for years. Timing and culture. Too early, you may be the inventor, but the world forgets. Culture, hardware sales and service sales are often at odds. In one you get instant gratification and in the other you develop a lasting relationship. In fact a good service business is one where you never get a customer service call.

So today I was baffled by the [Google buying of Motorola](#) set business. Why would the world's best service provider buy a second tier manufacturer? That puts them into conflict with all others, and they want to get Android out there.

It will be interesting to see what happens, but Bob Galvin's words ring in my head. Bob was a great leader, a great human being. He knew this market better than anyone. Which is why he was concerned mixing apples and oranges, service and products. A worthy concern indeed.

Labels: [Google](#)

SATURDAY, AUGUST 13, 2011

[FIXING THE ECONOMY](#)

Imagine going to a doctor whose last set of patients all died from his treatments, not a one lived. And the deaths were horrific.

Now would you rely upon that practitioner the next time? I think not. Well today in the [NY Times](#) we have Romer pontificating again, the same Romer whose January 11, 2009 document foretold the wonderful world at the end of the Stimulus. Never happened, we have what we have now.

She bemoans:

The lesson here is that fiscal stimulus can help a depressed economy recover — an idea supported by new studies of the 2009 stimulus package. Additional short-run tax cuts or increases in government investment would help deal with our unemployment crisis.

What of the idea that monetary and fiscal policy can do little if unemployment is caused by structural factors, like a mismatch between workers' skills and available jobs? As I discussed in a previous column, such factors are probably small today.

In place of the tepid budget agreement now in place, we could pass a bold plan with more short-run spending increases and tax cuts, coupled with much more serious, phased-in deficit reduction. By necessity, the plan would tackle entitlement reform and gradually raise tax revenue. This would be the World War II approach to our problems.

Now she was so far off almost three years ago why should we trust Chuckles now? If she had been an engineer all of her bridges would most likely have collapsed, and yet she wants us to build more.

Remember, macroeconomics is a political philosophy, each person sees it in their own way, often masked with equations, but then again one can mask a great deal in equations, especially meaningless ones.

Labels: [Economy](#)

SATURDAY, AUGUST 13, 2011

[CT USAGE: THE DOUBLE EDGED SWORD](#)

One of the major complaints in the rise of health care costs has been the use of costly procedures. CT, and of course MRI, are often at the top of the list. In a recent [Aunt Minnie](#) posting the authors state that there is a substantial decrease in hospital admissions when CTs are performed in the ER/ED.

They state:

Based on data from close to 100 million patients receiving CT scans in the ED, researchers found that CT use increased by 330% between 1996 and 2007 -- most strikingly for patients presenting with abdominal and flank pain. Over the same time period, the likelihood of hospital admission after a CT scan has fallen by half, though the trend toward lower admissions has leveled off in recent years.

However one commentator states:

At our institution, the triage nurses order the CT scans before the ER doctor sees the patient. A recent patient came in one week after an auto accident and was 'triaged' for a CT of the head, cervical spine, chest, abdomen and pelvis.

The comment is frankly a bit terrifying. First the triage nurse has most likely no clue, second the cost, and third the amount of radiation.

The article ends with:

Much of the increase is probably related to changes in how doctors practice medicine and the availability of CT scanners, said lead author Kocher in a statement accompanying the study's publication. CT scans "provide lots of information quickly, and so doctors and patients see CTs as a means of arriving at diagnoses efficiently and conveniently," he said. "Couple that with the fact that CT scanners are commonly housed in or near the ED itself, and the barriers to getting the test done are lower than in the past."

Frankly it is the change in the practice as well as the concern for having missed something. So why not do a scan. It throws another set of eyes in the loop. It also increases the costs and the risks. There once was a time before CAT/MRI where listening to the patient and understanding the depths of medicine counted. Imaging is a true improvement, but it has a cost, and it is not always necessary.

Labels: [Health Care](#)

FRIDAY, AUGUST 12, 2011

HEALTH CARE OPINION

The 11th Circuit Court of Appelas issued [their opinion](#) on the Health Care Bill. They conclude on p 206 the following:

We first conclude that the Act's Medicaid expansion is constitutional. Existing Supreme Court precedent does not establish that Congress's inducements are unconstitutionally coercive, especially when the federal government will bear nearly all the costs of the program's amplified enrollments. Next, the individual mandate was enacted as a regulatory penalty, not a revenue-raising tax, and cannot be sustained as an exercise of Congress's power under the Taxing and Spending Clause. The mandate is denominated as a penalty in the Act itself, and the legislative history and relevant case law confirm this reading of its function.

Further, the individual mandate exceeds Congress's enumerated commerce power and is unconstitutional. This economic mandate represents a wholly novel and potentially unbounded assertion of congressional authority: the ability to compel Americans to purchase an expensive health insurance product they have elected not to buy, and to make them re-purchase that insurance product every month for their entire lives. We have not found any generally applicable, judicially enforceable limiting principle that would permit us to uphold the mandate without obliterating the boundaries inherent in the system of enumerated congressional powers. "Uniqueness" is not a constitutional principle in any antecedent Supreme Court decision. The individual mandate also finds no refuge in the aggregation doctrine, for decisions to abstain from the purchase of a product or service, whatever their cumulative effect, lack a sufficient nexus to commerce. The individual mandate, however, can be severed from the remainder of the Act's myriad reforms. The presumption of severability is rooted in motions of judicial restraint and respect for the separation of powers in our constitutional system. The Act's other provisions remain legally operative after the mandate's excision, and the high burden needed under Supreme Court precedent to rebut the presumption of severability has not been met.

Accordingly, we affirm in part and reverse in part the judgment of the district court.

AFFIRMED in part and REVERSED in part.

An interesting read and this should make things move quickly.

We have argued that health care should have some universal coverage, but at a minimum for catastrophic coverage, not for hang nails. The current legislation is everything and the kitchen sink and it creates a massive Government infrastructure. Perhaps it can be rethought.

Labels: [Health Care](#)

THURSDAY, AUGUST 11, 2011

ECONOMIC GROWTH

The [NY Times](#) questions where growth will come from. They state:

To keep its goods cheap, it has allowed its currency to rise only about 6 percent against the dollar since June 2010, even as the dollar has plunged against other currencies. Last month, the I.M.F. called on China to help global growth by letting the currency appreciate more rapidly, which would make Chinese goods more expensive around the world and give a break to competing manufacturers.

China has so far resisted that advice. It lashed out at economic mismanagement in Washington after the Standard & Poor's downgrade, which could potentially reduce the value of its \$1.1 trillion stash of American Treasury bonds. Rather than berate Washington, it should abandon its currency manipulation. China's leaders have said they want to put more money in the hands of consumers through social programs and higher wages, and to rely less on exports. They can do this without stoking inflation by allowing the renminbi to rise significantly.

In addition a [WSJ](#) piece by two Democrats states:

According to the Bureau of Labor Statistics, the U.S. currently has approximately three million job openings, all waiting to be filled. With so many Americans out of work, what is the delay? Workers want to work, and so many businesses want to hire—but there is a widening "skills gap" that prevents many Americans from filling the jobs of the 21st century economy. If we want to get our economy back on track and get workers back on the job, we will have to address this issue in a better way.

The problem is that growth is driven by entrepreneurs building the better mousetrap. Namely making something that someone wants. And in addition if that something actually increases productivity all the better. Thus the PC is an example of something that created tremendous growth and led to an exploding market. One questions whether the iPad will do the same or is it just a form of Soma. Yet it does create growth.

Can Government create growth. We have argued that it cannot. At best it inefficiently transfers wealth. At worst it take capital from real creation and distributes to value destruction spenders.

As for the skill's gap, I am always amazed that somehow Government will solve the problem. We need more engineers, not fewer. The ones we develop go back home for a better opportunity. During the Space Race period the Government did provide funding and to some degree motivation. Yet even that had a double edge. The graduates went to work for NASA or DoD and did not go into private industry. It opened a window for Japan to enter and it did with gusto, letting Japan dominate the 1980s.

Thus Government can help, but it often comes with strings attached, strings that can all too often pull us down again.

Labels: [Economy](#)

WEDNESDAY, AUGUST 10, 2011

[CHINA, BLUE WATER AND ITS CARRIER](#)

China launched its first carrier today. The first of most likely a half dozen, enough to crowd the US out of the Pacific. As the [People's Daily](#) states:

China's first aircraft carrier, rebuilt from the imported steel platform "Varyag" from Ukraine, is scheduled to make its maiden voyage for a series of sea trial today. The official Xinhua news agency sent a flash early today that the huge carrier sets sail for a testing voyage on Wednesday. Recent pictures on a few Chinese websites show the Varyag, which has been refitted at a shipyard in northeastern China's Dalian port, has removed scaffolding used for construction. Late last month, a spokesperson from China's defense ministry said that the aircraft carrier would be used for "scientific research and training". The brief information tells the huge vessel is on its way to the blue sea.

Earlier this month, more than 200 naval soldiers were seen forming ranks on the warship. The Chinese Navy Command has appointed 50-year-old Li Xiaoyan, a senior colonel in the Chinese Navy, to command the ship, according to Chinese press reports. Three Navy officials were appointed deputy captains. Li, from northeast China's Jilin Province, was a member of the country's first warship academy class in 1987 mainly for aircraft carrier commanders and among the country's first group of commanders who could both pilot aircraft and sail warships. Cao Weidong, a researcher with the PLA Navy's Academic Research Institute, said the Varyag was a conventionally powered medium-sized carrier that would be equipped with Chinese engines, aircraft, radar and other hardware.

Now it is worth looking at another article in the [same paper](#):

China's rapid rise has exerted a profound and visible impact on the entire world. British philosopher Bertrand Russell wrote in "The Problem of China" in 1922, "All the world will be vitally affected by the development of Chinese affairs, which may well prove a decisive factor, for good or evil, during the next two centuries." The world already knows that China adheres to the path of peaceful development. The country has left different impressions on the minds of different people, and more and more people are developing their own unique understanding of China.

The ad screen is close to certain screens rented by major Western news agencies and has been used to display promos for Chinese media, cities and brands over the past nearly 10 days. Placed at "the crossroads of the world," it serves as a window into China and its importance extends far beyond the scope of commercial ads. Undoubtedly, the main purpose of leasing the ad screen is to better introduce China to the world and to improve China's international image.

Now finally [another article](#):

Late last month Irish Prime Minister Enda Kenny stood in parliament late last month and openly criticized the Catholic Church over its role in the long running child abuse scandal. He accused the Vatican of interference in the affairs of a sovereign state. Enda Kenny said the Vatican displayed "dysfunction, disconnection, elitism, (and) narcissism." And then to top it all, he continued that "We're fed up with hearing about canon law. This is a Republic, it's about civil law." ...

The remnant of the temporal power of the Church is now concentrated in the Vatican city and it still wields influence that is vastly disproportionate to its diminutive size. It names cardinals in other countries, its senior priests abroad have diplomatic protection and, we have it from the Irish PM that they can interfere in the affairs of sovereign states. ... China's history has taken place outside the historical lands of Christianity and its experience is totally different. China can respect the decision of Europeans to allow the Vatican the kind of leeway it has in their countries.

*It's the West's historical baggage and frankly its problem. But China is very much within its rights to question the power of the Vatican state to have sole authority in naming priests in faraway lands. The Pope, you see, is not just the Vicar of Rome, which is one of his titles. **He is also a head of State, with soldiers who carry real guns, a diplomatic corps and a bank.** Europeans may choose to see this as quaint, but China is questioning the principle of letting a foreign state dictate to another what happens on its own territory.*

*The Church is an admirable institution which brings spiritual comfort to hundreds of millions of people throughout the world, but it is also a pragmatic one and has adapted and changed itself sometimes beyond recognition over the centuries. **It must recognize that China cannot be expected to adhere unquestioningly to culturally alien rules that it never participated in creating, let alone ones which actually weaken the Church rather than strengthen it.** ... **Why can't the Chinese pick their own bishops, ideally without the interference of any state, whether local or foreign?** Excommunicating them was a medieval tool that has no place in 2011 in China or anywhere.*

Consider these three stories. First the expansion of the Blue Water Fleet, a clear move to control the Pacific. Second, a promotional move to show how peaceful the intentions of China are. Third, the battle with Rome, a battle reminiscent of Henry VIII, where China will allow a Catholic Bishop, yet it must be a bishop of its own choosing. In many ways it is also the Gallic Church, but with conflict. Yet the Pope having an army, well the Swiss Guards hardly are a match for that aircraft carrier or the few million PLA troops.

Labels: [China](#)

MONDAY, AUGUST 8, 2011

[THE GUNS OF AUGUST](#)

[S&P](#) has also downgraded the GRE entities. Specifically they state:

Standard & Poor's Ratings Services said today that it lowered its issuer credit ratings and

related issue ratings on 10 of 12 Federal Home Loan Banks (FHLBs) and the senior debt issued by the FHLB System to 'AA+' from 'AAA'. We have also lowered the ratings on the senior debt issued by the Federal Farm Credit Banks to 'AA+' from 'AAA'. The ratings on the individual farm member banks are not affected. In addition, we have lowered the senior issue ratings on Fannie Mae and Freddie Mac to 'AA+' from 'AAA'. Our 'A' subordinated debt rating and our 'C' rating on the preferred stock of these entities remain unchanged. Finally, we have affirmed the short-term issue ratings for these entities at 'A-1+' and removed them from CreditWatch Negative where they were placed July 15, 2011. ...

The downgrades of 10 of the 12 FHLBs and the FHLB System's senior debt reflect a one-notch reduction in the U.S. sovereign rating. Before we downgraded the U.S., under our GRE criteria, 10 of the 12 FHLB banks were rated 'AAA', the same level as the U.S. sovereign because they have either 'aa+' or 'aa' stand-alone credit profiles and we classify them as having a very high likelihood of receiving support from the government if needed. The FHLBs of Chicago and Seattle were already rated 'AA+' prior to the U.S. sovereign downgrade as they have lower stand-alone credit profiles ('aa-' and 'a+', respectively) than the other 10 FHLBs.

This is a firestorm in the making. There appears to be no place to hide and it in effect becomes another way to create inflation. Historically August seems to be a volatile month. I remember 1998 with LTCM and Russian and Thailand, since I was in both countries opening my companies.

Somehow we really need some leadership....

Labels: [Economy](#)

SATURDAY, AUGUST 6, 2011

[THE ARROGANCE OF THE UNINFORMED](#)



There is a brief note in [Science](#) regarding Boy Scout Merit Badges. [It states](#):

Results showed that although these requirements involved factual recall, personal understanding, and application of the material, evaluation and creativity, considered to be higher-level thinking skills, did not receive much emphasis. Although familiarity with scientific terms is not an unacceptable goal, providing only this in informal science experiences is a missed opportunity, and Scouting and other informal education programs will benefit from the addition of more requirements that use evaluation and creation.

Now this statement and [the source paper](#), in my opinion, lacks any understanding of the Merit Badge process. You see I have counseled scouts on Plant Science merit badge. Now we do not get into plant genetics at the DNA level but we do perform some rather extensive field work. Here is where these shall I call them rather uniformed if not opinionated writers dramatically miss the point. In fact the authors do not appear to be scientists, they are what one calls educators, with apparently no professional scientific credentials. But alas they seem fit to opine.

First, the scouts are asked to perform the tasks by themselves with limited guidance. It is not memorization, not a class led discussion with returning the desired answer, not a multiple answer test, but real field work over an extended period of time. They learn about hybridizing, about plant color, about plant growth, about the cellular structure, and a variety of things regarding the hands-on nature of plant science. Hands on doing is an essential element of learning, so also is the personal pursuit.

Second, it is an individual accomplishment. They are personally motivated and personally required to reach a level of understanding based solely on what they can do. Frankly that is what research often is, a personal journey into knowledge. This is not the "team" solution we find pervasive in the country today. Einstein did not do his work with a group. His papers had one name as author, not dozens. If he were forced into the team world educators now praise it is doubtful that he would have accomplished anything. Learning to learn is the key, and individualism and individual achievement is also key.

Third, the badges are directed to a broad base of young men. Not just those in high achiever academies of the rich, but young men for whom this may very well be the first experience into science and what it means. It is an individual journey into discovery, discovery of what their life may lead them to. It is a journey of exploration and learning open to all. There is no barrier to entry.

This is not the organized educational system. This is for young men ages 11 through 14, grammar school young men, who would not find anything like this in their own schools. The Grammar school teachers of science today are often the detritus of the teaching profession, using picture books and generalizations lacking in any true science. Whereas the scouts have often professionals, mentors and role models of individuals competent in the specific area. Public school science instructors are generally poorly educated if at all. They "teach" to the text, in a read and respond manner. In my experience they are perniciously ignorant. That is the comparison these authors seek?

Thus, I find this article not only lacking in any true understanding of what the process is but highly counterproductive and elitist. Elitist, however, based upon, in my opinion, the overt ignorance and prejudice of the authors. Now let me tell you how I really feel

By the way, the ones above are my merit badges from some 55 years ago! Stick that in your pipe and smoke it!

Labels: [Education](#)

[A REMINDER](#)



The above is the Philippines in December 1944. Today is the 65th anniversary of the dropping of the first nuclear weapon on Hiroshima. The damage above was done by Japan. In Manila the death toll was well above that of Hiroshima. One should always remember the destruction of total war. And avoid it. My father gave me this picture when he returned. A reminder of what we should avoid. Thus each year I believe the reminder is worth repeating.

Labels: [Commentary](#)

SATURDAY, AUGUST 6, 2011

[HOW BAD CAN YOU GET?](#)

I just read a piece in the [Washington Post](#). Essentially it blames the old folks for the current mess.

First, as [we have been showing](#) for a few years now, Medicare is a payment to the poor and a tax on those not so. I even gather that this was a discussion point in the Post.

But we've heard almost nothing of the main problem that makes the budget so intractable. It's the elderly, stupid.

Wrong. If all else fails look at the facts. Social Security is well funded and Medicare is really a payment system to the poor. You see those who make money still pay into Medicare after 65 and in fact they most likely are health and do not use the system!

This wonderful author then states:

Meanwhile, Social Security, Medicare, Medicaid and other retiree programs constitute roughly half of non-interest federal spending.

Well, Medicare and Social Security are collecting massive amounts. Yet it has been Congress which has taken the money from the funds. The genius continues:

Older Americans do not intend to ruin America, but as a group, that's what they're about. On average, the federal government supports each American 65 and over by about \$26,000 a year (about \$14,000 through Social Security, \$12,000 through Medicare). At 65, the average American will live almost 20 more years.

Now to be correct, life span is to 82 not 85 and the \$12,000 for Medicare is really \$10,500. As for Social Security the average person will have contributed well beyond any payout they receive. Remember it is 14% of their gross salary for say 45 years of their life. For that they get \$15,000 per year. Do the math you wizard of Washington, it will not hold up in court! As for Medicare, I did the math, yes for the poor it is a subsidy, for those otherwise it is a tax which keeps on taking!

In my opinion this article starts a real age war! Why not let Granny just die now Sir! You have her money, so take it and redistribute it to those who have contributed nothing! This is the Washington that will drive the United States to the bottom.

Do we need reform, yes. What is it? First, take Social Security out of the hands of the Government, let the money be handled elsewhere. Do not let Congress spend it!

Second, as for Medicare, increase the rate to 4% and move the age to 10 to 12 years before the average death, so if we use 82, we move it to 70 or 72 over the next ten years. Also Medicare should really focus on catastrophic coverage, not every last thing. Yet under the new health care law we have added everything and the kitchen sink to mandated coverage. Dumb.

But why blame those who in good faith contributed? Frankly they are also the ones who vote. In a frightful way this sounds a bit like Germany in the early 1930s, pick a group which is vulnerable and blame them for someone else's stupidity. This is really scary!

I remember walking around Munich and seeing remnants of the beer halls. Echos of the past now call out for the elimination of the elderly! The system is the problem, not a class of people who have little left to defend themselves!

And by the way, if you have \$200,000 in cash at say 65, and the interest rate on a 10 year bond is 3%, you get \$6,000 in interest. Rich, I think not!

Labels: [Economy](#), [Health Care](#)

ENTERING COLLEGE TODAY

The [NY Times](#) has an interesting piece on students preparing to enter college via spending what appears to be exorbitant funds going places. For example:

....., an 18-year-old graduate of, spent the summer after his sophomore year studying Mandarin in Nanjing, China. The next year he was an intern at a market research firm in Shanghai. When it came time to write a personal statement for his college applications, those summers offered a lot of inspiration.

When back at MIT in the early 60s the students were not Harvard, they were at best lower middle class, lots from New York, and they did what they did mostly on their own nickle. You had a job in the summer and the money for the job paid for room and board, and even a little left over for books. The jobs were at factories, barrel factories were popular, no air conditioning, lots of sweat. You got to meet all sorts of people, immigrants who came here to make it, telling you in their highly accented speech how grateful they were to work besides a "college boy". They wanted their children to do the same.

We saw America, we also saw Poland, Ukraine, China, Hungary, from the perspective of the gratefulness of being in America.

But in the current story the students leave the US and understand cultures in some structured foreign environment. In my experience, having no structure, when I went and started businesses in 20 countries I had to understand them, I had to fit their culture. It was akin to spending the summer aboard a Greek freighter, not speaking a word of Greek.

The article continues:

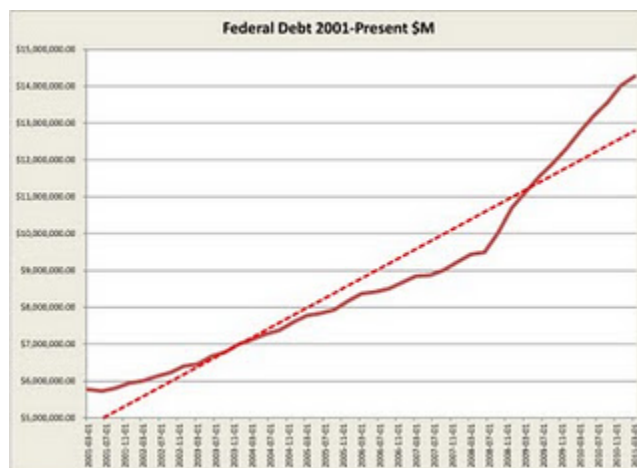
For those who lack the means to pay for an essay-inspiring trip, at least one scholarship program exists to help. Ten 11th-grade New York City public school students won the, which entailed traveling around Italy for a month this summer to study the culture, philosophy and arts of the Renaissance. The students were required to keep diaries and write a final essay, which the foundation said would be used with their college applications.

Again, perhaps they would have been better off in the barrel factory, and if colleges looked to the self starters, value creators, which we seriously lack. That is one reason in my opinion that we have the S&P debacle. Colleges look for glitz, not substance, because those doing the looking in my opinion often do not have a clue of what creates real value.

My latest example is that for reasons too long to explain, I decided to take an Organic Chemistry course at the local New Jersey Community College. In applying, besides have a bit of an age discrimination hurdle, they only admitted students who graduated High School from 1981 thereafter, I found that the demanded my High School Transcript from the 1950s! My MIT degrees were worthless, the rules said they needed a High School Transcript! Now that is a small example of those making these decisions. And we should be worried about the country, and yes, they get tremendous salaries, great benefits, and fantastic pensions!

Labels: [Education](#)

FRIDAY, AUGUST 5, 2011

IT'S HAPPENING: THE BEGINNING OF THE END!

We have just been downgraded. The [NY Times](#) reports the following:

Standard & Poor's removed the United States government from its list of risk-free borrowers on Friday night, citing concern about the rising burden of federal debt. The rating on the country's long-term debt was lowered one notch, from AAA to AA+, with a negative outlook.

This by one of the entities who rated the junk mortgages as great has rated the US as negative and with future potential downgrades. This is what we get for having economists. They just was to spend more!

This is truly a sad day. Perhaps the voters may wake up. Perhaps not.

Labels: [Economy](#)

GOOGLE, MEMORY AND THE ACADEMY

I wonder what some Greeks thought when Vergil wrote the Aeneid. Not that it was a rip off of Homer but it was written, on paper. Homer was memorized, and when spoken, was done in a poetic manner. For those few of us who studied [Vergil](#), and had to translate him, we remember memorizing that introduction, in a sing song manner. But Rome wrote things, lots of things, and copied them again and again.

*Arma virumque cano, Troiae qui primus ab oris
Italiae, fato profugus, Laviniaque venit
litora, multum ille et terris iactatus et alto
vi superum saevae memorem Iunonis ob iram;
multa quoque et bello passus, dum conderet urbem,
inferretque deos Latio, genus unde Latinum,
Albanique patres, atque altae moenia Romae.*

Now this week in [Science](#) some researchers bemoan Google, as I suspect some Greeks

bemoaned the Romans and their scribes. they state:

The advent of the Internet, with sophisticated algorithmic search engines, has made accessing information as easy as lifting a finger. No longer do we have to make costly efforts to find the things we want. We can “Google” the old classmate, find articles online, or look up the actor who was on the tip of our tongue. The results of four studies suggest that when faced with difficult questions, people are primed to think about computers and that when people expect to have future access to information, they have lower rates of recall of the information itself and enhanced recall instead for where to access it. The Internet has become a primary form of external or transactive memory, where information is stored collectively outside ourselves.

And they conclude:

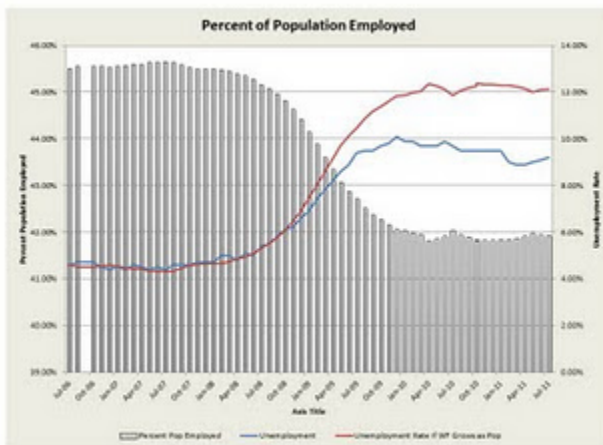
We are becoming symbiotic with our computer tools, growing into interconnected systems that remember less by knowing information than by knowing where the information can be found. This gives us the advantage of access to a vast range of information, although the disadvantages of being constantly “wired” are still being debated. It may be no more that nostalgia at this point, however, to wish we were less dependent on our gadgets. We have become dependent on them to the same degree we are dependent on all the knowledge we gain from our friends and co-workers—and lose if they are out of touch. The experience of losing our Internet connection becomes more and more like losing a friend. We must remain plugged into know what Google knows.

This may be some interesting bemusings that one may hear at a Cambridge coffee house, but frankly is in my opinion misses the mark by a galactic distance. One still remembers Planck's constant, the charge of an electron, the speed of light the length of a carbon bond and even the phone number of ones first girlfriend. Even though that number no longer works and even if it were 55 years ago! Will Google replace all that, hardly, it can enhance that.

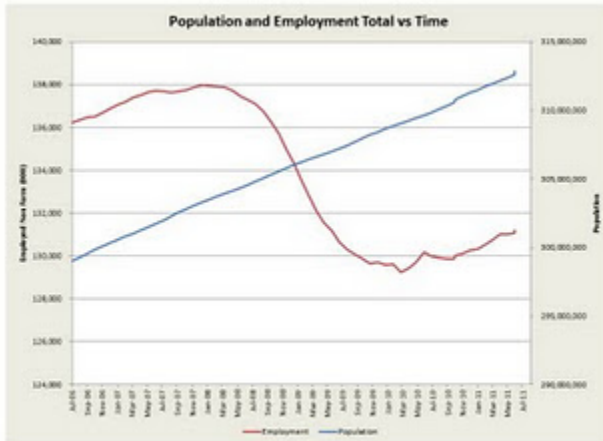
A lawyer at trial cannot stop his cross to check a site, a surgeon cannot go check Google to see just where that Trigeminal nerve really goes, and many other things of this sort. Interesting bar talk, but research, in Science, peer reviewed!

Labels: [Commentary](#), [Google](#)

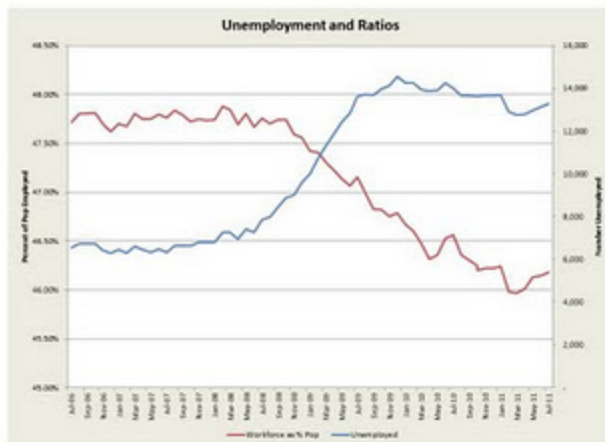
EMPLOYMENT: NO REAL CHANGE



The report today shows no real improvement. The 9.1% is most likely a sampling error from "no change at all". The chart above shows that the percent employed included in base is still at 42% rather than the 45.5% under the past Administration. That means the unemployment using 2008 base is still above 12%.



This shows what is a true concern, that employment is barely keeping up with the growing employable base. As that grows we will see unemployment grow unless the Administration doctors the numbers again.



The above shows the effects of the changing base.

Labels: [Economy](#)

THURSDAY, AUGUST 4, 2011

[DO ECONOMISTS EVER DEAL WITH THE FACTS?](#)

I have found [Rajan](#) often a clear thinker and cogent arguer for generally good policies. However in a recent post I must differ. He states:

In truth, rising life expectancy and growing health-care costs mean that today's elderly have contributed only a fraction of what they expect to receive from Social Security and Medicare. The government made a mistake in the past by not raising taxes to finance these programs or reducing the benefits that they promised. Unless the growth of these entitlement programs is curbed now, today's young will pay dearly for that mistake, in the form of higher taxes now and lower benefits when they are old.

As we have shown time and time again his arguments are outright wrong for many. Not all, but many. The deal is those who were successful by their persistence and work ethic often pay for those who have done little or less. That seems to be the deal. There are those of us who pay more into Medicare every year after 65 than we may ever collect in our lifetime by benefits. Good living, good genes, whatever. Then there are those who are obese, smokers, drinkers, drug abusers, and bad genes who absorb the resources. 90% of Medicare goes to 10% of the beneficiaries. So Rajan should at least examine the data before spouting the line so many seem to have absorbed. My [white paper](#) from a couple of years ago and edited a couple of months ago is a good start. I know, I know, facts are often so difficult because they tend to destroy the myth of policy. But Rajan should remember all those engineers in the Chinese hierarchy, after all he did go to IIT (the one in India).

Now a second point. He states:

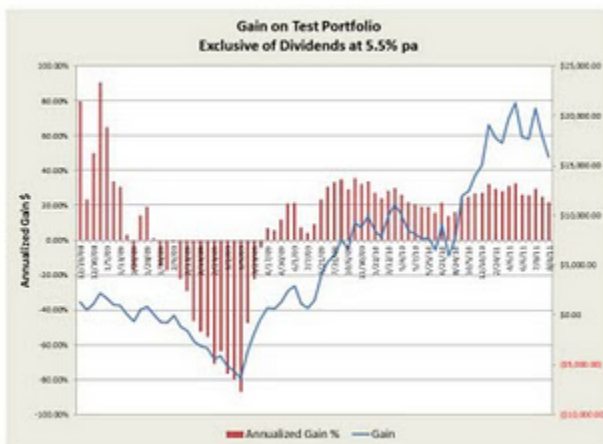
Let's start with why the electorate is so polarized. There are two key divisive factors: incomes and age. Income inequality has been growing in the US over the last three decades largely because the labor market has increasingly demanded skills that the education system has been unable to supply. The everyday consequence for the middle class is a stagnant paycheck and growing employment insecurity, as the old economy of well-paying low-skilled jobs with good benefits withers away.

It is not the educational system per se. It is the pandemic problem of the filling of primary and secondary education with union hacks, yes hacks. When I attended the first grade back in the 1940s we had 45 students per teacher. Today a primary teacher may have up to 10 but the teacher has a teaching aide, and almost unlimited breaks. We have seen an 8 fold increase in teachers per student. In addition the standards have dropped like a brick. I hazard to say that less than 10% of the grammar school teachers know grammar! No less math and science. A high school graduate in 1940 was more educated than a college grad today! Frankly that is why we got through WW II.

The problem is increased expectations, and the assumption that the Government will provide. That assumption is under attack. As it should and must be.

Labels: [Economy](#), [Health Care](#)

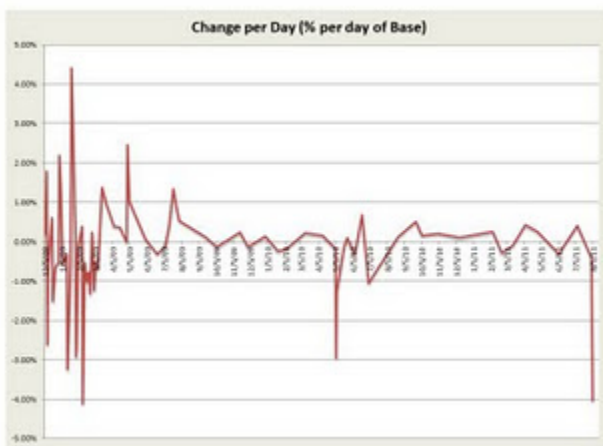
OVER THE EDGE AGAIN?



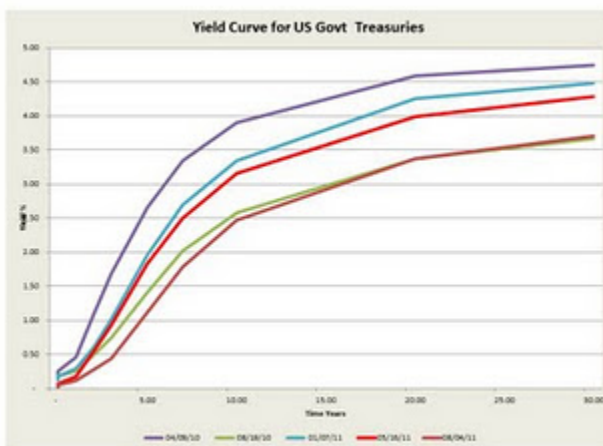
In December 2008 we created our Baseline Portfolio. Basically it was a set of Blue Chip stocks in unrelated sectors with dividend yields each above 5.5% at the time. Above is the result of performance to date. Our annualized gain is still above 20% from that date but dropping fast as of today.



You can see some of the details above. Still there but dropping.



The above is the daily drop. Today we saw a 4% drop from two days ago. It is the largest drop since the March 2009 period. We believe we may be seeing another 2009 period as we indicated before.



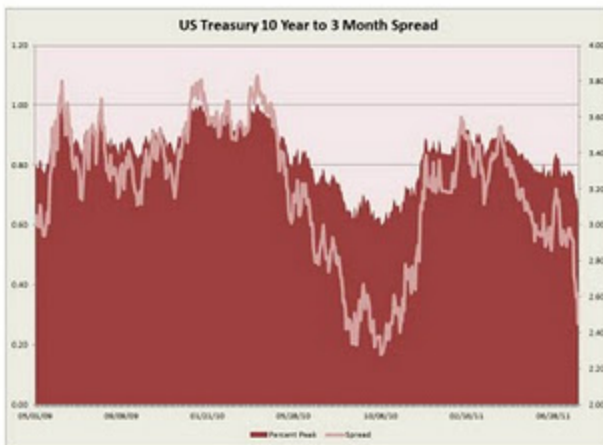
Now the yield curve is flattened and dropped again. It is back to where we were a year ago. Surprising given the debt fiasco.



The spread in 30 year to 30 day is dropping again and it can be seen to be approaching what we saw a year ago as well.



The 3 month Treasury is approaching record lows but the spread is still higher than a year ago.



The above shows this a bit more clearer.

All in all there is a great deal of conflicting data. On Friday we should get the employment news. We await it.

Labels: [Economy](#)

MONDAY, AUGUST 1, 2011

[ECONOMICS IS SCIENCE? HUH!](#)



In a recent [Science](#) article they speak of changes made in a questionnaire where there is phrasing allowing questioning of evolution.

They state:

*For 2 decades, the survey has included two true-false statements: “**Human beings, as we know them today, developed from earlier species of animals,**” and “The universe began with a huge explosion.” Two expert panels assembled last year by NSF have suggested qualifying those statements with the phrases “**According to evolutionary theory**” and “According to astronomers.” The board has decided to ask NSF to give the new versions of the questions to half the respondents on its next survey and to analyze the results.*

*The change infuriates Jon Miller, a science literacy expert at the University of Michigan, Ann Arbor, and architect of the original questionnaire, which is now used by several countries. “If you are altering the questions in that way, you are doing it for religious reasons,” he says. “We don't make statements like, ‘**According to some economists, we had a recession**’ or ‘According to the weatherman, we had a tsunami.’”*

Yes we do! Economics is at best a set of political philosophies shrouded in pseudo mathematics. Now I do not want to malign weathermen but they do not call tsunamis either, but that is a nit.

Now evolution can be shown through experiments, analysis, historical data, and on and on. I do a bit of it myself every time I dump daylilies on the hillside. You see the picture above is the result

of natural selection, a few hybrids take over and reproduce stronger each time, filling up the hill side, so that centuries from now someone will ask where this new species came from. Me! Now I am not a god or anything of the sort, I just facilitated a process of natural selection. And in a single decade we see the best coming out. Amazing.

Never see this with an economist, just look at the deficit debate! Perhaps we should just throw them out on the mountain side and see who survives! Frankly I would have used another example, even an alchemist!

Labels: [Commentary](#), [Economics](#)

[SAVING CAPITALISM: A REVIEW](#)

[Saving Capitalism by Rappaport](#) is an interesting book describing a key source for why we are where we are now. There are always different sides of the equation but this specific side has substantial value.

People often do what you have asked them to do, so if you do not like the result examine what you asked for. That in a nutshell is the message of Rappaport and his book *Saving Capitalism*. The principle he rejects is the short term goals set for management and by which they produce their results, oftentimes at odds with what he sees as true value creation.

For Rappaport, value creation is based upon a discounted cash flow value looking forward (see *Valuation: Measuring and Managing the Value of Companies*, 5th Edition by Koller et al). The audience for this work is the more general public and the arguments he makes add to the overall discussion the nation is having regarding changes we must make to our thinking of business, finance, and the economy. In general his arguments are compelling and build on the already recognized deficiencies of short term profit maximization.

One can conclude from the Rappaport model that if the investment bankers had to rely upon the performance of their deals, rather than obtain instant gratification, and if the banks had to live with their loans, rather than hand them off to the Government with no risk, then decisions would have been different. Rappaport clearly demonstrates that people are all too often great optimizers of the rules, and if the rules are wrong, they may very well not pay any attention until it is way too late.

For Rappaport value creation is determined via the discounted cash flow produced by the entity on a going forward basis. Value for Rappaport is not created by short term optimization. Let me give an example of how this had actually been applied in the small. When I took over as COO of the cellular company at what was then NYNEX, now Verizon, the churn, or loss of customers, was about 8% per month. That meant we spent 26-28 days of sales just to remain where we were the last month. Why the churn? Simple, the goal was to get new customers, so the sales force got a commission for every new customer, as did the competition's sales force!

The company thought that just motivating customer growth was the desired result because we wanted more customers. However, customers would sign up, receive a sign up. bonus

themselves, and then in a few months switch to the competition. The sales forces on both sides benefitted, the customers benefitted, but the company, and in turn the shareholders paid a tremendous price. Simple solution, as Rappaport states, think long term and think cash flow. Pay the sales force a percent of the revenue from the customer over a reasonable lifetime, not all at once. Churn dropped to 2% and even lower and cash flow increased. That is Rappaport in the small.

Rappaport spends a good deal of time defining and discussing what he calls “short termism”, namely the principle of living quarter by quarter. He spends Chapters 1 through 4 demonstrating how this thinking precipitated the financial crisis and how infects the way business is conducted in both the corporate and financial world. Broadly speaking, it is this short term viewpoint which Rappaport argues drives the decisions which lead to what we see today in business and finance.

Taking actions to meet the quarter’s number is and has in many ways been the bane of managers for the past few decades. Accounting gimmicks and tricks have been applied to maximize returns. The second part of the book by Rappaport suggests ways to remedy the short term view, namely by using discounted cash flow metrics and managing on a truly forward looking basis. Rappaport spends a great deal of time on these topics in various business segments.

Value creation is the cornerstone of Rappaport’s view as it is introduced on p. xviii. By value he means, as one later learns, is the discounted cash flow, DCF, of the business on a going forward basis. In principle, he is correct, in practice this may be a bit more difficult to achieve.

Chapter 1 allows Rappaport to frame some of his discussion as the evolution from self invested entrepreneur to what he calls agency capitalism, the management of the large capital markets by a few who in turn are compensated on short term gains with no dependency on long term performance. There are some misconceptions in his footnotes however. On p. 17 he states that the dot.com bubble was somewhat debt independent.

In fact, as one who survived that bubble by not having debt, debt was key to that bubble as well. Telecom suppliers provided 125% to 150% financing of equipment, and the amount of high yield debt was explosive with no reasonable prospect of paying it off. The dot.com bubble lost almost \$5 trillion in debt and equity value in less than a year. It was the same culprits then who came back in 2007-2008 with housing rather than fiber and Internet facades. In both cases, I believe identical cases, the bankers made their killing. In both cases trillions were lost.

Chapter 2 is a discussion of the recent collapse as per his view. He states on p. 34 that some independent directors had little if any knowledge of the financial concerns. Indeed if one knows some of the principals they were at best “fishing, drinking and smoking” buddies of the management. The problem all too often is that Boards are composed of controllable and socially acceptable and well paid members. Rappaport hits a very key point here. Boards are ultimately responsible, but all too often that are clueless and just along for the ride and to ensure the management gets compensated.

In Chapter 3 on p. 46 Rappaport finally describes his value as discounted cash flow. For the sophisticated reader they may have already jumped on it but for the general reader it may have

been lost. But DCF is a truly valuable method except it suffers from three critical potential faults. First it assumes we can project future cash flows. That means revenue, expenses, capital plant, taxes and the like. Risky to do this well. Second it assumes we have a discounting factor, cost of capital. This also depends on capital structure, exogenous factors such as the risk free rate, perhaps no longer a Treasury rate. Third it depends on a terminal value. That factor often dominates the total value. Rappaport makes length and positive arguments on DCF shareholder value throughout Chapter 3 and his discussion is compelling and I believe correct. The short term view he decries is truly the basis of what got us where we are now.

In Chapter 4 Rappaport discusses the finance issues of his concerns. On p. 74 he makes the point of projecting cash flows. I believe he is right. Accounting is history, it just records what has happened. Finance is to some degree looking forward. As most entrepreneurs know who have investors, they always ask how one did last week, and how it compared to plan. It is the plan that they are looking towards, since it was the projections that management gave and it is the ability to meet the projections that are most important.

All too often as Rappaport decries we just look at accounting measures of how things were and not how they are supposed to be. On p. 79 he discusses the capital asset pricing model, CAPM, which incorporates an efficient market hypothesis, EMH. The problem here is that reality and perception may never really mesh. There is the concept of the Rowe conjecture that looks at the alignment of the probability of the EMH actually being in play and the probability that people believe that the EMH is a reality. One sees as Rappaport describes that perhaps all the information is really NOT out there and that the EMH does not apply but that people believe it does, or vice versa.

Chapter 5 is an excellent discussion of what should be in the world of executive compensation. The same of course would apply to those in the financial sector. People should be compensated on the long term performance not on the short term.

In Chapter 6 Rappaport lays out several rules he sees as critical for long term management. There are 12 simple rules and each is worthy of a read by themselves. I believe that this Chapter will stimulate much productive discussion. The remaining two chapters bring his argument to completion.

Rappaport argues that Boards should take the long term view, the value creation perspective. However I feel that all too often that such a process is a bit too difficult, albeit worthy of great consideration. The Boards rely on management, and certain Boards are often nothing more than Management's friends, so collusive behavior is rampant. Furthermore the creation of reliable DCF models requires substantial knowledge and understanding. They are not the simple acts of the accountant. They certainly go well beyond the ken of most Board members, especially those from the public or non-profit sector or academia.

DCF models require a true understanding of the business, in depth. Rappaport has done an excellent job on raising the issues but it is necessary to show how and by whom they can be carried out. Clearly the compensation consultants are generally clueless on this issue, which also goes to the heart of many of the problems facing Boards.

In summary, Rappaport has presented a very worthwhile contribution to a discussion on what should be done next. The recommendations are based upon a clear understanding and analysis of the crises we have just gone through, a crisis of short termism to use his phrase.

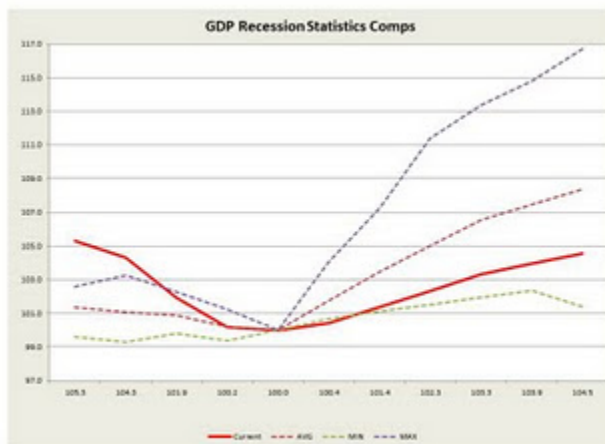
DISCLOSURE: The reviewer received a copy of the book from the publisher and was asked to review it for Amazon. There was no compensation provided nor any guidance regarding the review. These are the opinions solely of the author regarding this book based upon a reading of the book.

Labels: [Books](#), [Economy](#)

SUNDAY, JULY 31, 2011

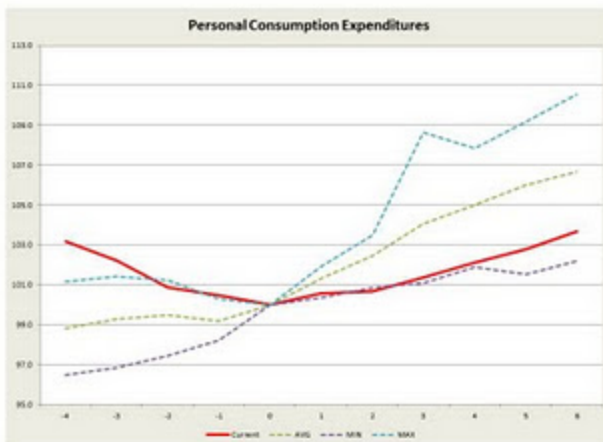
[RECESSION STATISTICS: AUGUST 2011](#)

Using the St Louis FED Data we present with some commentary the Recession Stats as we have for the past three years.

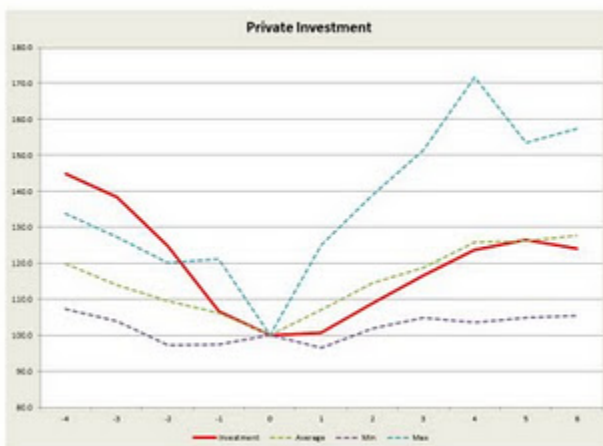


First the GDP. It is lagging behind almost all other Recessions as we have seen. This will clearly be a serious problem for the current administration.

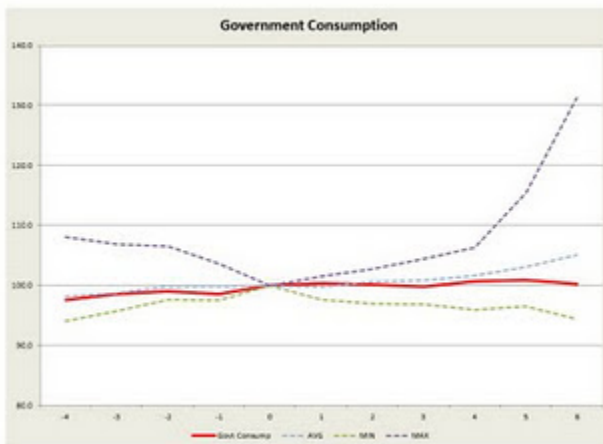
Now for its components:



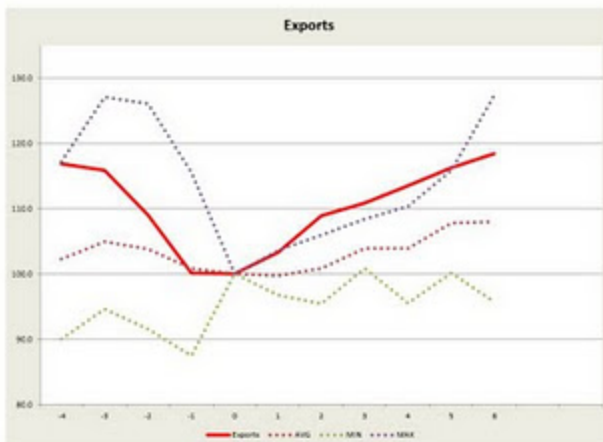
Personal Consumption had been growing but as a driver of GDP it has dropped the last period.



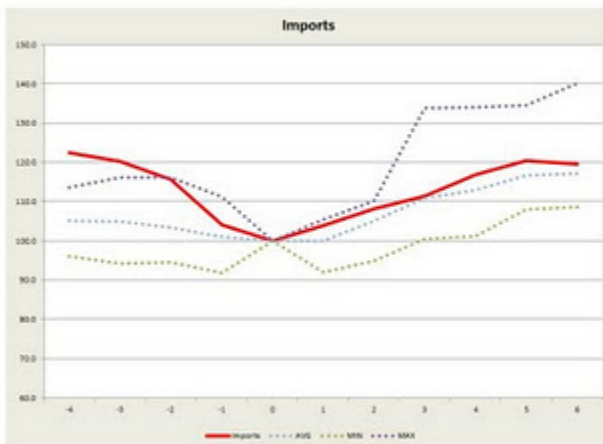
Private Investment also dropped. This is a very bad sign going forward.



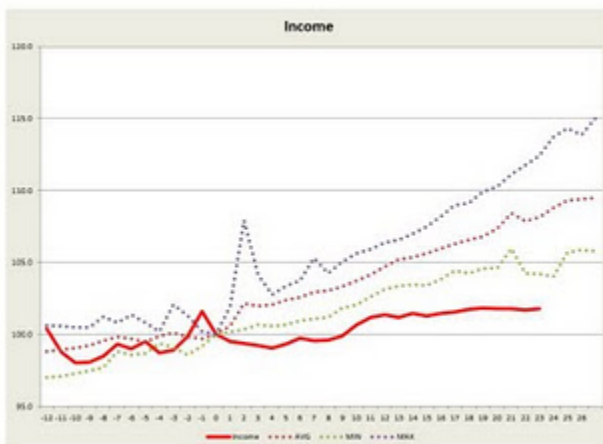
Government Consumption has also lagged as we have seen pressure on the over expansion and total ineffectiveness of the Stimulus. There clearly is no credibility in the collection of economists who has said one thing and another happens.



Exports have increased relatively showing the potential weakness of the dollar.



Imports are on norm.



Incomes are below the minimum. That is a major concern. Both as a source of tax revenue and in terms of the pressure downward. Perhaps the only good news is the low pressure on any inflationary trend.



Industrial production is slowly increasing but with low incomes there is little hope of that continuing.



Finally Retail Sales seems to be on par.

Net, this Recession is far from over and signs of a second dip are evident.

Labels: [Economy](#)

[THIS REALLY SOUNDS LIKE THROWING GRANDMA OVER THE CLIFF](#)

The report from the [Hill](#) states:

Failure of Congress to pass the future deficit-reduction package would automatically trigger cuts to defense spending and Medicare. An aide familiar with the deal said the Medicare cut would not affect beneficiaries. Instead, healthcare providers and insurance companies would see lower payments.

Now one must remember that you must take Medicare at 65, or forfeit it forever, and if perchance you do then your providers must accept what they get paid. Now if Congress slashes

payments you lose your providers because you are not allowed by law to pay them any more than what Medicare states.

Now if they reduced the payments but allowed you to make up the difference that is one thing. But these characters have let loose the hounds of hell! Everyone over 65, almost everyone, is caught in this debacle.

Just pay what you will but make it legal for us to make up the difference!

Labels: [Economy](#), [Health Care](#)

SATURDAY, JULY 30, 2011

[INTEREST RATES WOULD INCREASE: THE OTHER SIDE](#)

The more I hear that people will have to pay higher interest rates, greater than 3% or so, the more I am amazed. You see there are two sides to this issue. For every dollar loaned there is someone getting interest because they are loaning the dollar. Thus if I have all cash and you still want to borrow money, because you cannot get your business to generate cash, then I would be more than willing to loan it at much higher rates.

You see there are two sides to this argument. One is easily solved, stop borrowing! Yes, you really don't need those new whatever. That of course means lower GDP but how much lower will it get. But if you want it then it will cost more, and in fact it will cost what it should without the FED artificially lowering the interest rates. Perhaps this action will result in an economic balance. Interesting thought!

Labels: [Economy](#)

FRIDAY, JULY 29, 2011

[THE NONSENSE IN UNIVERSAL SERVICE](#)

There is an article in [The Hill](#) regarding the "reform" of Universal Service. Fourteen year ago I wrote a [piece on Universal Service](#). Simply Universal Service is an \$8-10 Billion give away by the FCC to rural telcos. It makes small operators quite rich in the process. It allows them to provide local telephone services at rates almost equal to the local CATV provider but in turn it makes them confiscatory profit.

Change the system? One would think so. Get rid of it! Yet the Hill states:

The plan comes one day after a bipartisan group of lawmakers called for reforming the \$8 billion fund, which subsidizes phone service for low-income and rural residents. The FCC proposed reforming the \$4.5 billion high-cost portion to focus on broadband deployment in the National Broadband Plan.

Namely they want to move it from the left pocket to the right and may very well increase the costs to the telco users in urban areas. It continues:

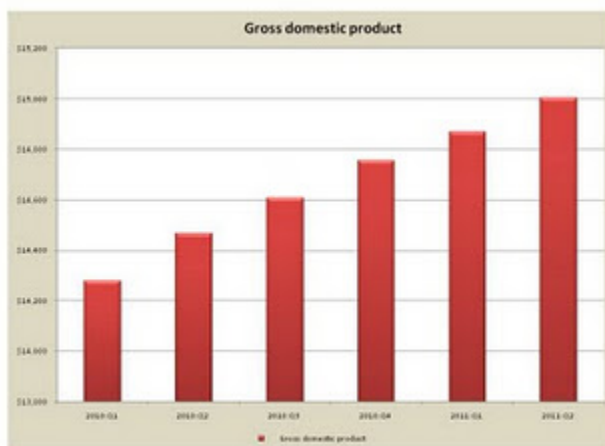
The plan unveiled a day later by the telecom firms, including AT&T, Verizon and CenturyLink, attempts to achieve those ends by re-directing the high-cost USF funds to deploy broadband access where there is currently no business case for carriers to provide service.

If there is no business case then why do it! This is another "tax" we could cut and we should cut now. Also it would eliminate almost half the FCC as well. That of course is another issue. The FCC was set up originally to do two things: (regulate spectrum, and (ii) manage the monopoly. Well the monopoly is gone and they have turned spectrum management into a fund raising mechanism. But if we managed and taxed spectrum on a real time basis then this would be no problem. [I suggested how to do that a few years ago](#) as well. That would totally eliminate the need for the FCC, from a pragmatic sense as well. It would eliminate a lot of plum jobs however and that is something Washington cannot do.

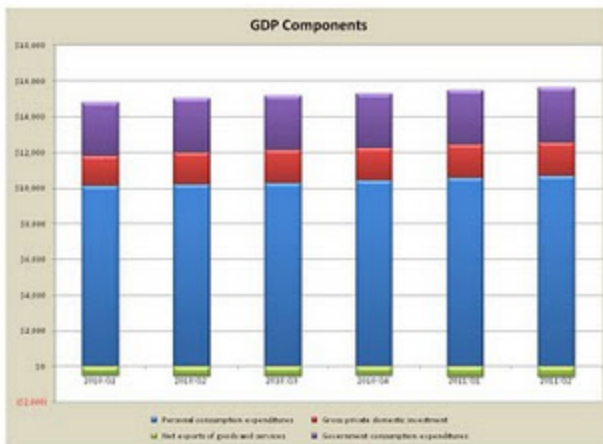
In a sense the USF is the Deficit/Debt crisis in miniature. Namely we could save money and make things more efficient except for the politicians.

Labels: [Telecom](#)

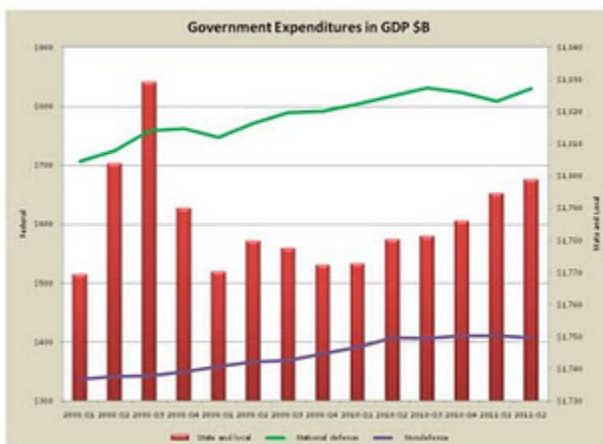
THE GDP AND THE ECONOMY



The GDP has a very sluggish growth despite the words from our wonderful macroeconomists who predicted a turn about with the Stimulus. I always come back to Romer's report on January 11, 2009 on how things would turn out. Not a recommendation for the new Delphi oracle to say the least. The above shows the change in GDP since early 2008.



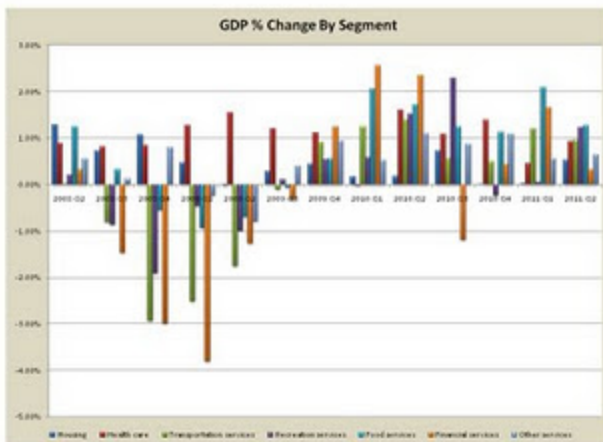
The above shows the components.



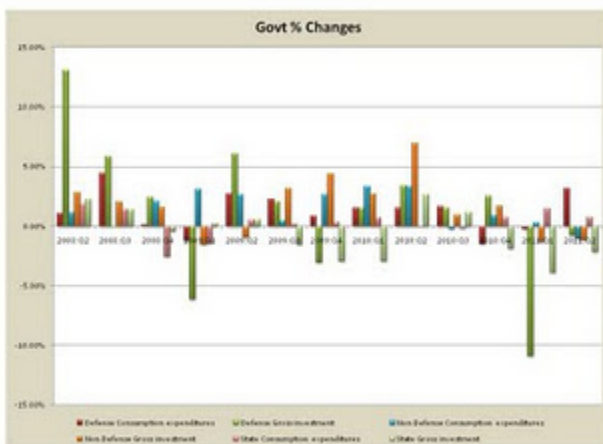
A look above at Government expenditures shows that State and Local are slowly building after a drop from their explosive growth but that the Defense spending is still moving forward at an unlimited rate. It is clear that we need to cease that and in fact re-trench substantially. A Defense cut of \$50B pa is not unrealistic now. In fact a cut of \$60B is achievable by returning forces and acting with a pure Special Forces mindset.

Also the non Defense spending has risen almost \$100B and this too can be cut back.

These do NOT include Medicare and SSI. Needless to say we can do a great deal there. Thus it is possible to achieve a \$500B cut from the Federal budge and then add easily a 10%-15% reduction on entitlements and we are on a good standing.



The above depicts the change by Quarter. Note the drop in the early part of the Recession but the growth has continued.



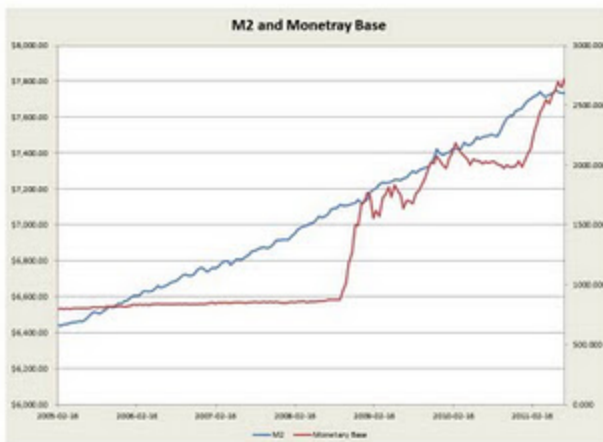
Finally we re-emphasize the Govt changes. Defense still remains an issue. This is especially disconcerting since we are allegedly winding down. There is also the issue as to where such expenditures as Homeland Security and CIA/NSA/NRO etc are hidden.

Labels: [Economy](#)

WEDNESDAY, JULY 27, 2011

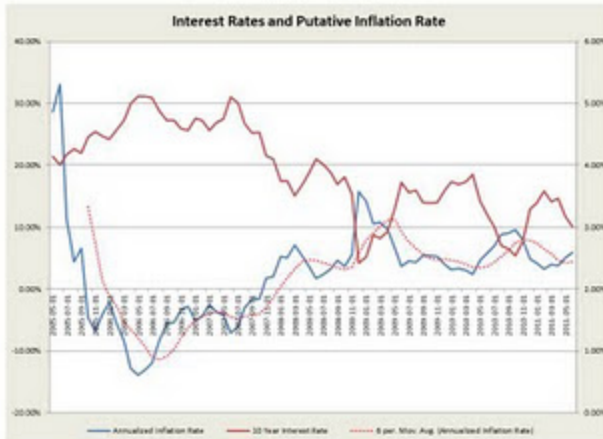
[ANOTHER VIEW OF INTEREST RATES](#)

There is a fear of increasing interest rates. We all know that the FED has pressured them down by its printing of money. Let us first look at M2 and the Monetary Base.



Clearly we have a growing M2 and an exploding Monetary Base. Trillions are pressed into the banks and the MB now is approaching \$3 Trillion.

Now consider a simple retiree. Say they had \$1 million in the bank and wanted to live off the interest. Independent of any real inflation, they would have to inflate their earnings at a rate which we will show so as to keep the same annualized payout. Thus if they had \$1 million and the annual rate was 5% they got \$50,000 pa. But if they want \$50,000 pa and the interest is 3%, they must have well over \$1.5 million. The rate at which the base must increase is an imputed inflation. We show this below assuming a 10 year Treasury.



The above shows the 10 year rate as well as the calculated inflation due to the decreasing rate. This imputed inflation is in addition to the actual cost inflation. Thus we see that for someone on a fixed payout from a seemingly risk free investment they will see an added inflation rate of from 5-10% pa due to the FEDs manipulation of the MB.

Now if the Treasury defaults, and if the money was in cash, then they can buy in at a higher rate and reduce the FEDs inflation. Thus it is to the advantage of those with cash assets to see a default!

Labels: [Economy](#)

TUESDAY, JULY 26, 2011

PHYSICS IS NOT ECONOMICS

In an interview in the [Washington Post](#) the former head of Harvard came across as I gather he has always done, well, he just seems to know more than any of us humans. One should be reminded that on January 11, 2009 the incoming "team" of which he was a dominant player issued a proclamation on what the Stimulus would do. NOT!

Now in physics when you say x will happen and it never does, in fact NOT x happens, one must go back and review the theory. Apparently this does not apply to macro types, especially ones with rather large egos. I have seen lots of types like this but they are also right when they predict some outcome. When whatever you predict never comes about one would think some humble pie is in order. Does not seem to be the case here.

As the wizard of Cambridge says:



*There are multiple aspects of this question. **First, the administration proposed considerably more than Congress was willing to enact.** Taking account of the addition of the AMT, the Administration's Recovery Act proposals were cut back by about 20% in the process of passing Congress by very narrow margins.*

*Second, the President's economic team advised that there was essentially no danger of excessive fiscal stimulus in 2009. **I joked at the time that worrying about overdoing fiscal policy was like my losing too much weight and becoming anorexic — a conceivable possibility, but very far from the dominant risk. The President's political advisers — rightly in my view — constrained the initial stimulus proposals to avoid sticker shock and rejection or great delay on Congress's part.***

*Third, politics aside there were difficulties in moving spending rapidly in 2009. **So-called shovel-ready projects often were not in fact ready to go. Almost everyone close to the process feels that (the VP) and his team did a very good job of moving the stimulus money through the system and, as a consequence, money moved more or less on the schedule we projected in 2009.** They would be the first to say that it would not have been possible to move vastly more*

money into quick trigger infrastructure projects. Of course it would have been possible to increase the tax cuts or assistance to state and local governments, but there were severe political limits in both those areas.

Fourth, we believed in the winter of 2009 that if, as seemed likely, more stimulus would ultimately be required, it could be passed through the Congress using the unemployment insurance extension for 2010 as a vehicle. This view proved incorrect. The administration proposed and the House passed in the fall of 2009 a substantial further program with respect to unemployment insurance, job incentives and infrastructure. Unfortunately it did not pass the Senate and the focus has shifted very much towards deficit reduction rather than job creation. It is fortunate that the President was able last fall to lead an effort to pair extended tax cuts with payroll tax reductions — without that stimulus we might be looking at a double dip today.

Fortunately we did not go over the cliff. Anyone who has worked in capital intensive industries knows the lead time. If you have never done a real days work then you would have no clue. So, shovel ready, great phrase, totally empty.

Imagine more stimulus. There is some crazy assumption that by the Government putting money in the hands of those ill equipped will somehow generate business is insane. Just look at the broadband program. One suspects that most of that money will be totally wasted. I suspect so.

And yes, perhaps there are some people who should worry about weight loss!

MONDAY, JULY 25, 2011

WHERE ARE THE JOBS?

Now here is an interesting quote from [The Hill](#):

Rep. Joe Crowley (D-N.Y.) was even more direct.

"Mr. Speaker, where is the jobs bill?" Crowley asked. "Your caucus ran on creating jobs and yet [there's] not [been] one single bill in 200 days of Congress to create a single job."

Perhaps the good Congressman does not understand, the Government does not create jobs, unless of course you mean Government employees, but those are not real jobs, they are after all Government employees.

Business creates jobs, entrepreneurs create jobs, and the problem is that they, and that includes me, have been sitting by wondering if it is worth the risk. This is as bad as the 1972-1980 period. We all sat around wondering then. Now, perhaps because of age, it really seems worse.

Jobs are created by risk takers who see an opportunity and then add their intellectual capital and take the risk to start, and then they rely upon the financial backers, those rich folks, to provide added investment. Now make the environment so uncertain that you drive away the risk takers and tax the rich so there is no investment capital and what does one get, you are experiencing it.

And what can Washington do? Not what it has done of late. So the very idea that Washington can create any real value producing job is insane. The more stuff Washington creates the more that is taken from the economy. Just look at that great idea of a Stimulus! Perhaps the Republicans are right, no jobs bill is the jobs bill!

Labels: [Economy](#), [Politics](#)

[MY LOCAL USED BOOK STORE](#)

I have a small used book store in town. It has been there for decades. It survived the Borders, it survived Amazon, it survived Kindle. Why? It is cheap, it is some what friendly, it has interesting stuff, and it is a walk away.

Borders tried to be too much to too many. I do not think I bought anything from them in a decade. Not that I did not look.

There is a piece in the [Boston Globe](#) which I believe totally misses the point. It bemoans the loss of Borders. It states:

Speculations abound concerning the deeper effects of screen technologies on a thoughtful inner life, and it is too soon to mourn the death of reading altogether. People love their e-books. The disappearance of the public book shelf, though, is not unrelated to the blatant new illiteracy that shows itself, at one end, in the shrinking number of published book reviews, and, at the other, in today's shallow political discourse. Junk opinion replaces the astute analysis that only careful and well-edited authorship provides. ...The business of Borders might be replaced online, but the web that matters most is intangibly of the spirit, and Borders was one of its master weavers. This is the death to mourn - and take warning from.

Spirit of Borders, I think not. I have placed drafts of my books on line. The get down loaded by the dozens every day, all over the world. Once in a while I get comments. Rarely dd that happen with my Wiley books. I can write things that have a 1-2 year life, such as on health care, and then there are others with a longer life. Is it worth the trouble of getting something published or just getting the ideas out there. Since I no longer worry about tenure, or getting the PR, I can do this. My younger colleagues cannot. But perhaps soon they will.

So is Borders a loss, not at all. What spirit are we talking about! Stuff is out there, and Amazon is making a fortune selling it, and there are tons available on line free.

The issue is what is the purpose of publishing. Making money for the publisher. Sometimes for the author. If that is what you want then stay put folks. If however you are a Thomas Paine and you want to get your ideas out, this is the time to live in. Paine paid to have Common Sense printed and distributed and he took the profits and gave them to Washington. Unlike the classic Harvard Prof in Newton or Lexington, who forces students to but a \$200 book, an on line thinker just wants some one to read and perhaps understand his ideas. That is where we are today, that is the new spirit.

Labels: [Books](#), [Commentary](#)

SUNDAY, JULY 24, 2011

MEANS TESTING: MEDICARE AND KRUGMAN

For once I agree with [Krugman](#). Means Testing for Medicare is a mess and not that productive. He concludes:

So what's the difference between means-testing and just collecting a bit more taxes? The answer is, class warfare — not between the rich and poor, but between the filthy rich and the merely affluent. For a tax rise would get a significant amount of revenue from the very, very rich (because they have so much money), while means-testing would end up imposing the same burden on \$400,000 a year working Wall Street stiffs that it imposes on billion-a-year hedge fund managers... What we need is actual control of health costs. Means-testing of Medicare is just a badly designed, unfair form of taxation.

Of course part of the issue is what do we mean by means? Is it income or total wealth. If I have been frugal all my life and have a bit stashed away for my old age yet do not make a massive amount in what is called income, namely I get interest and dividends, then what am I taxed upon? The Baby Boomer who blew everything and has a sky high mortgage and a trophy spouse gets the benefit of my frugality?

That is another way to look at Krugman's stand. Namely not just what you are earning but what you have created. If you have just destroyed whatever wealth you have, albeit your choice, then I have no duty to bail you out.

Labels: [Health Care](#)

OBESITY: PIGOUVIAN VS COASEAN SOLUTIONS



As [I have been writing for the past few years](#), obesity leads to Type 2 Diabetes, leads to all sorts of expensive stuff. Today the [NY Times](#) has a quite length article reinforcing the fact and suggesting taxing calories. They state:

Rather than subsidizing the production of unhealthful foods, we should turn the tables and tax things like soda, French fries, doughnuts and hyperprocessed snacks. The resulting income should be earmarked for a program that encourages a sound diet for Americans by making healthy food more affordable and widely available.... A study by Y. Claire Wang, an assistant professor at Columbia's Mailman School of Public Health, predicted that a penny tax per ounce on sugar-sweetened beverages in New York State would save \$3 billion in health care costs over the course of a decade, prevent something like 37,000 cases of diabetes and bring in \$1 billion annually. Another study shows that a two-cent tax per ounce in Illinois would reduce obesity in youth by 18 percent, save nearly \$350 million and bring in over \$800 million taxes annually.

Well we demonstrated a bit more but it is Columbia after all. At least this time they seem to be going in the right direction. But folks, it is the carbs not the fat. Carbs seem to be the main driver as we discussed. But put that aside.

We can approach this in two ways:

Pigouvian: Tax the thing. This is the Times' author's suggestion. Last year I had a bit of a flap with a Harvard Professor who opposed that, you see, this will work. You get to attack the source. You say:

Calories lead to obesity, obesity leads to Type 2 Diabetes, and Type 2 Diabetes leads to all sorts of costly things, so we the Government want to stop that behavior from the start and to do so we will tax it. Could also work with drugs logically but that is another story. But let us assume that the Pigou approach works. It is an ex ante approach and its intent is to inhibit bad behavior. Another view is its tax is to pay for abusing the calorie limits. But it puts the burden on the abuser. The only question is who gets to keep the money for what? My suggestion is the money goes into a non Government pool to pay for Type 2 Diabetes sequellae. If it runs out then the sick must ante up themselves. They must know that from the start and be reminded constantly.

The Coasean approach is as follows:

Health care costs are shared. If you decide to overindulge and get obese, then you add substantial costs to the system which I must share in. You have thus taken my property, my money via higher costs, and thus I have a right to sue you. The Government has an obligation to facilitate that at no cost and ensure payment. This is an ex post facto approach. It would apply only to added health care costs incurred by life style diseases. Yes that include obesity related diseases, alcohol, sexually transmitted diseases, smoking and the like. Get sick by choice and I get to sue you!

Now the tax approach works because we have used that again and again. It also is better in being ex ante. But it denies freedom of choice for those Libertarians. The Coasean approach is great for Libertarians for two reasons. It allows choice and it punishes publicly the offenders!

It is interesting to wonder why the Times looked solely at the Pigouvian world.

Labels: [Health Care](#)

SATURDAY, JULY 23, 2011

HOW NOT TO DO A DEAL

Now over the years I have done a few deals, hundreds. Not the greatest number, but enough to understand what works and what does not. Now I have done these in over twenty countries. I even did a \$100 million closing which ran from Athens to Palo Alto, ten hours, seven languages, and it all had to close simultaneously.

Now I have learned what works and what does not.

1. Written term sheets. Yes you put down what you agree to and what you don't in writing. You see words count. They really do.
2. Compromise. Understand what is un-doable and then compromise on the rest. I have even flipped a coin on items which were doable but in contention.
3. Make clear who is negotiating. The person negotiating must have the power to make certain decisions and it must be clear what he must bring back to the boss.
4. Never have the final decision maker in the room during negotiations. You always want time to review.
5. Never, never, allow multiple teams to negotiate. That is a sure way to go unstable.
6. Have your own team together. Keep them focused.
7. Be honest. Loss of trust in negotiations is deadly and a deal killer. Say what you mean and mean what you say.
8. Understand the culture of the other party. Where does he come from, what are his goals. There may be no chance of meeting them. If so walk away.
9. A deal is not a deal until the money is in the bank, for a week! Promises are not deals. They become the basis for law suits. Clarity is only obtained by actions not words. Words is what law suits are about.
10. Focus, focus, focus. Understand what you want, communicate it unambiguously, and act honestly.

Now look at the current budget process. It will fail. Then what. Experience is essential, egos must be set aside, and some form of pragmatism must apply. Look at the Palestinian issue, there is a clear solution, namely do something, and then get more, but you may not be able to get everything up front. Same for the budget and deficit and debt limit.

[Hennessey](#) has been doing a great analysis of the politics of this issue. Those interested in the details should read his write up. What comes to the fore are two things; an committed idealist

with no real life experience will have a tough time, and if they are also possessing of a great ego, it may never work.

Labels: [Economy](#)

FRIDAY, JULY 22, 2011

[THE LAW: IS A DEGREE NECESSARY?](#)

The [NY Times](#) has a collections of comments on the need for Law School. Now Law is not like Medicine, you have to know a real body of knowledge there. In the case of Law, you can read it and you can apprentice it.

Take a contract for example, studying contract law is interesting but it rarely helps write a contract. The only real help to writing a contract is to write a contract, hundreds and perhaps thousands. And watching what goes wrong, reading other contracts, and the like. It is truly the business of an apprentice. Academic lawyers rarely know contracts, the theory at best, yes, but the practice, rarely.

Now take Torts, or the game of getting even. Form frequently is as important as facts. Learn from other torts filings and learn how to frame your argument in tort format, but the key is the trial, convincing a jury. That is the development of a style that is rarely if ever attained at law school. The ability to get the best from your witnesses and the disclosure of the worst from theirs.

Now take Administrative Law, the dominant body of law we deal with today. It is almost all process, and how to work the system. I have seen this before the FCC and a plethora of Governmental bodies, State and Federal, it is pure process.

Finally Criminal Law, and here experience and style count for everything. One need look no farther than some of the cases of late. Style, the ability to manipulate a jury is as important as the number of cases under one's belt.

All of this can be accomplished by "reading" the law, by that I mean real law, and by apprenticing, namely doing real law.

Thus why have Law School at all, just to make money? It is not like Engineering or Medicine, where labs and real stuff is required. In the law you get a desk and some one talking. It is a real farce to charge almost a quarter million dollars for three years, and then to award an ersatz doctorate!

One of the authors in the piece above states:

That education also deals with the relationship between law and society as well as the manner in which law is both used and transformed in action. Whether the questions involve constitutional protection for undocumented children or cloning or climate measures or the parameters of

humanitarian intervention or the ownership of the resources beyond our gravitational field, the best in legal education prepares its graduates to participate in the discourse and arrangements necessary to such complex concerns. It is true that the cost of this quality education, all in, may exceed \$200,000. The value of a new generation of law graduates prepared to take on these challenges: Priceless.

The important question may not be cost but, rather, access. What will we do to insure that talented people from all groups in our society, especially those historically excluded, have access to this course of study about the arrangements of power? And how do we insure that all groups in society, including our public and governmental institutions, enjoy the services of our brightest and best prepared?

If the author of this piece sees law school as correcting societal issue or in educating more humanitarian lawyers, then so much the better, but why force all to go through the process. The issue should be passing a Bar Exam, and a Law Degree does not guarantee that. In fact experience is a better marker here.

Finally why should a Law Degree cost so much, it has no infrastructure costs, except the professors. So my thought is just let anyone sit for the Bar, and that solves everything.

Labels: [Commentary](#), [Education](#)

THURSDAY, JULY 21, 2011

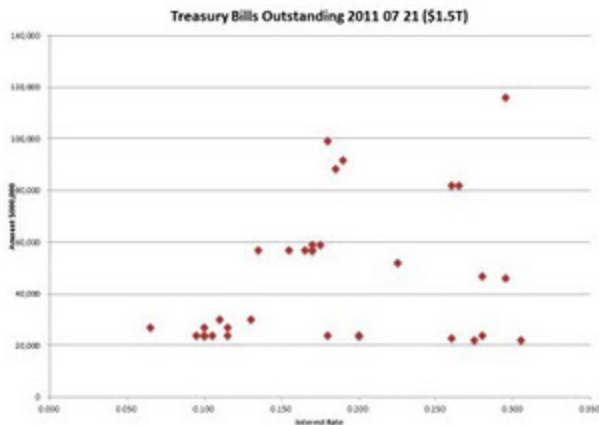
THE DEBT: REMEBER IT IS AN ARM

The National Debt is not just debt, it is an ARM, an adjustable rate mortgage. Prof Shiller, and I assume one who should know better since he looks at real estate a bit, states in [Project Syndicate](#) that:

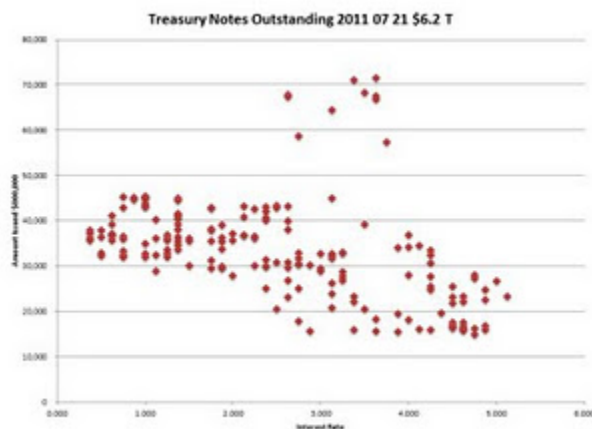
The fundamental problem that much of the world faces today is that investors are overreacting to debt-to-GDP ratios, fearful of some magic threshold, and demanding fiscal-austerity programs too soon. They are asking governments to cut expenditure while their economies are still vulnerable. Households are running scared, so they cut expenditures as well, and businesses are being dissuaded from borrowing to finance capital expenditures. The lesson is simple: We should worry less about debt ratios and thresholds, and more about our inability to see these indicators for the artificial – and often irrelevant – constructs that they are.

The reality is that as we start to see inflation hit we will see interest rise greatly. Most of the Treasury lending is short term and it will adjust rapidly. That will drive up interest payments.

Now look at the total debt by interest rate in [Bills, Bonds and Notes](#). First Bills:

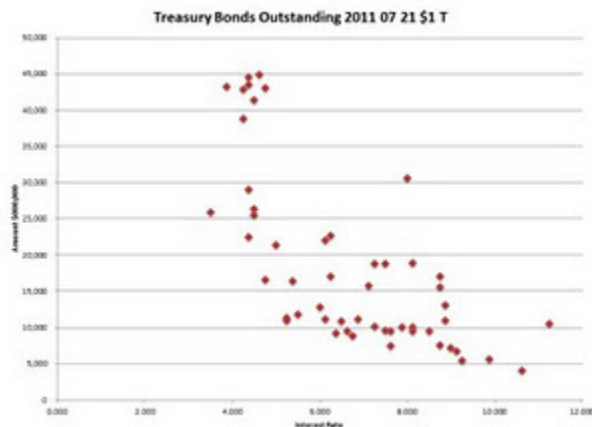


Now for Notes:



We have a great deal at the low end but there is still a substantial tail. Now if inflation occurs we will see that explode. We have about \$1 trillion in this long term and about \$6 + trillion in short term. That really is the problem.

The Bonds then are:



Note here that we have the clumping at the low end but it does go well above 4 and above 5%! That would mean a 10X increase in interest. Shiller seems to ignore that fact. The RM effect can and will cause havoc on the economy unless we halt deficit and reduce the debt!

Of course the [left wing economists](#) who pushed this scheme that got us where we are think in line with Shiller. As they state:

High unemployment also lowers long-run economic growth, but we aren't we putting nearly as much effort into that problem as we are into austerity. Where are the White House meetings with key Republican leaders over what to do about the unemployment problem? True, Republicans might not show up show up for such a meeting, but so what? Pictures of empty chairs at a meeting focused on helping the unemployed would send a strong message about what really counts for the GOP. Unfortunatley, Democrats seem to have forgotten about the unemployed as well -- right now all the chairs are empty -- and that sends a strong message as well.

But as one who has created jobs a few times in my lifetime I can assure the academics who have never bet the ranch on a business that (1) Washington never created a real job, just look at NASA and the Space Shuttle, lots of money to launch science projects, (2) real jobs are created by risk takers who see a reward, and with the current Administration they want to tax both income and wealth. Why do anything until the dust settles.

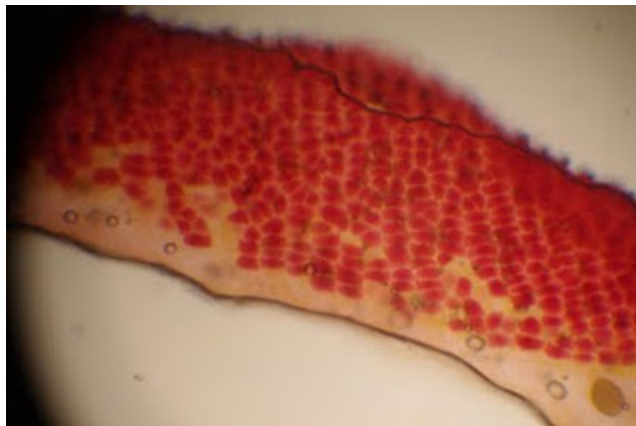
Labels: [Economy](#)

WEDNESDAY, JULY 20, 2011

[HAPPY BIRTHDAY MENDEL](#)



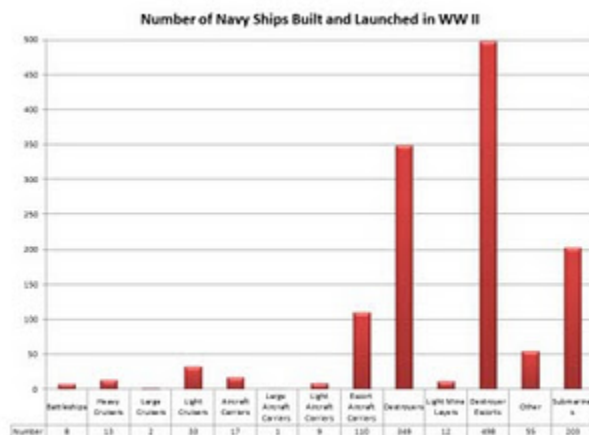
Mendel did peas I do Hemerocallis. In honor of the good monk Mendel I have done a few extra today and depending on what comes out we can name one for him.



Brno in the Czech Republic is a small town, to the East of Prague and home of Mendel. It is worth a trip if one ever gets there, fine place.

Labels: [Science](#)

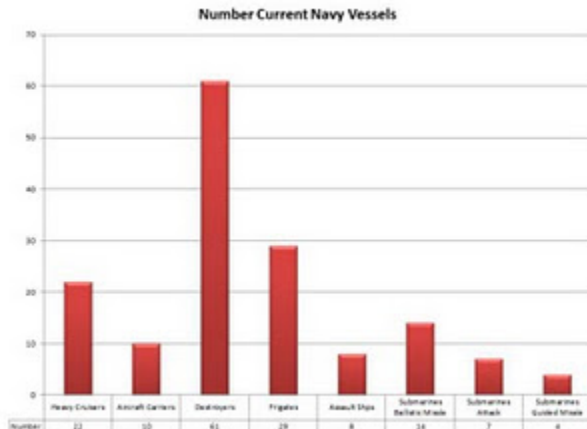
THE NAVY: WHERE IS IT GOING



It is interesting to read Admiral King's Report from 1945 to the President regarding what the Navy did during the war. The above is a summary of ships of the line manufactured during WW II. These were all built then, not before or after. 349 Destroyers, 203 submarines, and almost 500 DEs!



Now let us look at the [present](#):



This is it folks. 61 Destroyers. There is at best one third at sea at any time. It depends on whether there is enough fuel available. And who has the credit card to buy it, really! I wonder what the Chinese know, they just got the Canadian oil sands.

There are ten carriers, with at most 4 at sea at a time. A few frigates and 14 ballistic missile subs. When one looks at this and remembers the losses to ships in battle, it really does not take much to cause some harm.

Chilling thoughts. Where is Admiral King when we really need him?

Labels: [Military](#)

DISEASE, DEFINITION AND DESTINY

Lyme disease is one of those ailments which has in many ways become a cult. Difficult to diagnose at time, and also difficult to treat, it is often a clinical diagnosis. Having been one who encountered the problem and its sequella, namely Bell's Palsy, I can on the one hand appreciate the issue but also as one who has seen the near cult like groups spending what appears to be billions on treatments with less than any clinical basis, I am wondering what is up.

People often like to know that they have a disease, it helps define them, they get to wear a ribbon, a wrist band, get to go to support groups, but often it is not the disease but other psychological factors driving the sense of having a disease.

Now autism also falls in this area. Dr Frances in [Project Syndicate](#) has an interesting and telling piece. He states:

Not long ago, autism was among the rarest of disorders, afflicting only one child in every 2,000-5,000. This changed dramatically with the publication in 1994 of DSM IV (the manual of psychiatric diagnosis widely used around the world). Soon, rates exploded to about 1 per 100. And a large study in South Korea recently reported a further jump to 1 in 38 – an astounding 3% of the general population was labeled autistic. What is causing this epidemic and where are we headed?

As he continues all of this growth is due to a change in definition. The DSM IV and soon the DSM 5 allows diagnosticians the broadest latitude to diagnosis these psychological disorders. Unlike say a melanoma, which at times may have some difficulty, there are no well defined boundaries in autism. Parents often like to have a diagnosis for a poorly behaved child, for it surely is not their fault that the little brat just will not conform to society. So out comes autism.

Imagine that 1 in 38 children have the disease, then if so we will have an explosion of exorbitant special education classes and the like. Perhaps the parent just has not done their job, for the left the child in the care of some third party, they continually hand the child off but at the same time tell the child that they are "special" and soon the little one really believes and acts out the tale they are told.

With DSM 5 it is likely that we will get back to the massive amount of psychological disorders we once saw in the 1950s. Won't that drive up health care costs.

Labels: [Health Care](#)

CHINA, OIL, CANADA

China has purchased a Canadian oil sand producer according to the [BBC](#). Did not see this one in the NY Times.

The BBC states:

The deal - which must be approved by regulators - is the latest move by state-run Chinese firms to buy stakes in North American oil producers. Canada's Alberta province is believed to have the

third-largest reserves of oil in the world. However it is far more expensive to extract oil from Canada's oil sands than from conventional fields. CNOOC says it will pay OPTI shareholders \$34m, but will also take on the firm's \$2bn worth of debt. The firm's main asset is a 35% stake in the Long Lake oil sands project in Alberta. The International Energy Agency (IEA) predicts that in the next five years almost half of global oil demand growth will come from China. Rising demand for oil and significant cash reserves have led Chinese energy firms to buy into foreign oil reserves.

As the US struggles with its own confused energy policies one continue to see the well managed Chinese economy move steadily forward. In the case of the current Administration the US would ban any such production. Strange folks!

Labels: [China](#)

TUESDAY, JULY 19, 2011

OFFICE SPACE

I read an article in the [NY Times](#) and its commentary regarding office space. It made me think back.

First, in the early 1960s I had my first real job at NY Telephone, suit, even hats. The office was a thousand square foot space with grey desks side by side and telephones from the 1920s hanging from the side of the desk. No air-conditioning and they all went out for martinis at lunch. I even think smoking was allowed and of course no women. It was a monastery scribes' room with suits rather than robes. Coffee breaks were duly observed and everything was in paper.

Then when at NYNEX, soon to be Verizon, I had a room the size of a modest NYC apartment, a conference room, a bath, a secretary room, and even dishes. I was not all the way on top but it was clearly a select group of Bishops and Cardinals, sans color.

When we started my company I had everyone go out to Staples, buy their own desk, transport it back to the cheap office space and assemble it themselves, me included. I still use that \$175 desk, it has many fond memories.

In Prague we had a redone apartment, I and my Czech staff shared a set of connected desks, no phones, just mobile, and I overlooked the oldest Synagogue in Europe, and the Golem store. My local COO, yes he worked for me, was a Canadian ex-pat who insisted on his own suite, expensive furniture, secretary etc. He lasted about four months. Then back to the team crammed in on one another.

So what does the office culture of a company reflect? Good questions. Cubicles are dehumanizing, open space is equalizing, and there are times one needs the privacy of a conference room. Yet it all depends on what you do for a living I surmise.

Interesting article but I feel it really missed the point, in fact all the points. Form follows function, I have heard that, architects spout if frequently, but one of my best offices was in the

wooden shacks left over from WW II at MIT which housed the Radiation Lab. Mice, drafts, and all!

Labels: [Commentary](#)

SATURDAY, JULY 16, 2011

[GOOGLE, MCLUHAN, ACADEMICS AND REALITY](#)

There is a recent article in [Science](#) by some researchers who comment on the loss of "knowledge" in a world where there is an intellectual crutch like Google.

When I was young my grandmother made me complete a 1,000 piece puzzle every Saturday before I could have my small handful of M&Ms or Kraft caramels. Puzzles are a reasonable metaphor for the Internet and Google. We assemble new knowledge by getting the pieces that Google presents and from that we can assemble a new picture. At least that is the way it works for creative people. It adds substantial value to the human race. I can go out and reassemble pathways for cancer generation, look at the genes, look at the SNPs that may cause problems, look at microRNAs and the like and then share my thoughts with others. It is a new medium and the knowledge that it creates is a new form of knowledge.

But some people believe that Google has a negative side. It makes them rely upon the computer for the storage of knowledge. I suspect the same concern was there when alphabets were developed and we relied less upon oral memorization, and then books, and on and on. Clearly people worried that we would forget arithmetic when we used a calculator.

Avogadro's Number, Planck's Constant, Boltzmann's Number, length of a single carbon to carbon bond in Angstroms, and the list goes on. What is important to remember. Well 2.54 centimeters to the inch is good and 5,280 feet to a mile. That helps. Anyone who has taken Organic Chemistry knows that the reactions are memorized and soon forgotten for the most part. Yet I recall most of the Krebs's cycle, why? Now for a physician, human anatomy is remembered enough to pass the Board exam, then most likely 90% forgotten until clinical practice gets one to think that this nerve passes through this bone, which is impacting on this, ..., well you get the idea.

As [I wrote a few decades ago](#), before Google, but in clear anticipation of it:

*To fully understand multimedia it is necessary to explore the work of two sets of major thinkers. The first is Marshall McLuhan and the second is Winograd and Flores. McLuhan, in *Understanding Media*, and Winograd and Flores in *Understanding Computers and Cognition* have complemented each other in a way in which their convergence of ideas lays the ground work for "Understanding Multimedia Communications". We shall be relying on these two sets of authors for a guide through the development of the meaning of multimedia. McLuhan has been discredited of late because of his simplistic views. We shall argue and shall attempt to show, that this may be a direct result of the critics, frequently the Pop Press, not understanding how perceptive McLuhan was in his more academic treatises. McLuhan will be the definer the "bright line" that results when a paradigm shift occurs in a new medium.*

Winograd and Flores are the other set of lights that the author shall rely heavily upon. Unlike the Pop writers of the above definitions, Winograd and Flores have developed one of the most seminal works in the areas of computers and computation that have ever been done. These authors have used access to the most recent philosophical understandings of knowledge and knowledge processing from a philosophical perspective to develop a philosophy for computing, especially software development. We shall, in this paper, develop and extend these concepts for the multimedia area.

To quote Drucker, who paraphrased McLuhan;

"Did I hear you right," asked one of the professors in the audience, "that you think that printing influenced the courses that the university taught and the role of university all together." "No sir," said McLuhan, "it did not influence; printing determined both, indeed printing determined what henceforth was going to be considered knowledge."

As Sparrow et al state:

The advent of the Internet, with sophisticated algorithmic search engines, has made accessing information as easy as lifting a finger. No longer do we have to make costly efforts to find the things we want. We can "Google" the old classmate, find articles online, or look up the actor who was on the tip of our tongue. The results of four studies suggest that when faced with difficult questions, people are primed to think about computers and that when people expect to have future access to information, they have lower rates of recall of the information itself and enhanced recall instead for where to access it. The Internet has become a primary form of external or transactive memory, where information is stored collectively outside ourselves.

The authors conclude with:

*These results suggest that processes of human memory are adapting to the advent of new computing and communication technology. Just as we learn through transactive memory who knows what in our families and offices, we are learning what the computer "knows" and when we should attend to where we have stored information in our computer-based memories. We are becoming symbiotic with our computer tools (8), growing into interconnected systems that remember less by knowing information than by knowing where the information can be found. This gives us the advantage of access to a vast range of information—although the disadvantages of being constantly "wired" are still being debated (9). **It may be no more that nostalgia at this point, however, to wish we were less dependent on our gadgets.** We have become dependent on them to the same degree we are dependent on all the knowledge we gain from our friends and coworkers—and lose if they are out of touch. The experience of losing our Internet connection becomes more and more like losing a friend. We must remain plugged in to know what Google knows.*

But I had also written:

The important observation that McLuhan makes is not often understood. He really means that the medium defines what is knowledge. A new medium, as a general construct, will define a new knowledge base. We all too often define knowledge so obtained with truth. In fact, truth is that relative reality that we find comfortable to our understanding, and all too often ascribe an absolute character to it. The essence of this paper will deal with these two issues; knowledge as defined in the McLuhanesque sense, and truth as a phenomenological expression of that knowledge. Multimedia communications will alter those definitions and will dramatically change the way we see, think, and ultimately act. We argue, for example, as with McLuhan, that television violence, for example, changes what is knowledge, the acceptance of moral norms, and this change in moral knowledge is reflected in the truths of everyday existence. The expansion of multimedia communications will take this minor concern many levels higher. Thus multimedia communications is a technological issue, a philosophical consideration, and ultimately a moral imperative.

So is Google good or bad, or is the McLuhan construct the key. Namely the new medium defines the new knowledge. We rarely memorize Homer, yet it was created to be memorized and recited. We see knowledge moving from oral, to written to being in a nether world of digital domains.

The point to make is simple, Google is progress, a massive amount of progress. It expands the human's ability to access and correlate data, information, and to create new linkages. For anyone who started as I did in a paper library, it was the slowest process ever. On line searching was cumbersome, costly, and less than productive. You paid a fortune for the article. But Google sets a new threshold, I can find what I need as I am creating. It changes the way I think, the way I write, the way things get done.

What the authors seem to be speaking of is the useless socializing on the Internet, the telling of others just what they had for lunch etc. I had a Facebook account driven by my MIT students but after a while saw it as not only a wast of time but as a mechanism which built a persona of me based on the persona of my Facebook friends, and I often did not agree with or even like what was being developed. Google allows me to work as I need to. It will change the way we think, and yea as McLuhan said, it will change what we perceive of as knowledge.

Labels: [Commentary](#), [Google](#)

THURSDAY, JULY 14, 2011

HAPPY BASTILLE DAY

Allons enfants de la Patrie
Le jour de gloire est arrivé
Contre nous de la tyrannie
L'étendard sanglant est levé (bis)
Entendez vous dans les campagnes mugir ces féroces soldats
Ils viennent jusque dans vos bras, égorger vos fils, vos compagnes
Aux armes citoyens ! Formez vos bataillons !
Marchons, marchons, qu'un sang impur abreuve nos sillons

But remember Robespierre!

Labels: [Commentary](#)

WEDNESDAY, JULY 13, 2011

CHINA'S GDP GROWS AT ALMOST 10% PA

[China Daily](#) reports continual growth in China's GDP. They state:

Gross domestic product (GDP) rose by 9.5 percent year-on-year in the second quarter of 2011, tapering off slightly from the 9.7-percent growth posted in the first quarter and 9.8 percent in the fourth quarter of last year, the National Bureau of Statistics (NBS) said Wednesday....

*According to preliminary statistics, the country's GDP reached 20.45 trillion yuan (**3.15 trillion U.S. dollars**) in the first six months, up **9.6 percent year-on-year**, NBS spokesman Sheng Laiyun told a press conference.*

Sheng called the growth deceleration a desired outcome of macro regulation, which was also "normal" after the ending of some stimulus policies...

"The country's economic development is now shifting to self-initiated growth from previous overheated expansion spurred by the economic stimulus," he said.

Although some economic indicators declined, he noted the country's economic performance was "generally good" and had developed according to macro-economic regulation in the first half. "The momentum of China's economic growth remains strong and the risk of a sharp growth plunge is slim," he said.

China is now less than a quarter of the US GDP but at a growth rate exceeding all other developed countries. There is undoubtedly significant inflationary pressures which may very well force a revaluation of the currency especially with the current US problems.

Labels: [China](#)

CHILDREN, OBESITY, THE STATE VS THE MARKET

We have written extensively on [obesity and especially Type 2 Diabetes](#) and its sequellae. As we have stated there and in many other cases the problem with obesity is that we can medically deal with the sequellae but at ever increasing costs. Thus there are well documented costs per Kcal above the basal rate.

There is an article in [JAMA](#) stating that the State should have the prerogative to take control of children in families where they are allowed to become obese. It concludes:

An increasing proportion of US children are so severely obese as to be at immediate risk for life-threatening complications including type 2 diabetes. Some will become candidates for treatment at newly established pediatric surgical weight loss programs throughout the country. As an alternative approach, involvement of state protective services might be considered, including

placement into foster care in carefully selected situations. Ultimately, government can reduce the need for such interventions through investments in the social infrastructure and policies to improve diet and promote physical activity among children.

Needless to say this is a rather strong solution. We have argued that the market can handle this at almost all levels. Yes there are cases of true child abuse, but one must wonder if with all those obese children that they parents are abusers. In fact the parents are equally obese so who is to take them away, is that next.

A simple solution is a Kcal or carb tax. Let them make their choices but have the choice be reflected in the price. That is a market solution.

In contrast the Libertarian approach is that we just let everyone do what they want. However there are costs or penalties on those of us who are not obese. Why should we pay. Is there a Coasean option whereby we can sue them for their excess use of health care based on their personal choice. Did the children so choose as well.

Thus between the Statist or Progressive's approach of taking the child and the Libertarian approach of letting everybody do what they want and the costs be damned, the free market approach applies a price to the choice, and a price equal to the excess demand created by that choice. We can and have measured that cost by the unit of excess BMI and we should consider such an approach as well.

Labels: [Health Care](#)

WHY DID I MOVE TO PRAGUE

Today the [NY Times](#) is filled with the writings of many wise men telling us what we should do including the development of FDR like infrastructure banks. But the key question that seems to be hidden somewhere is why do companies make decisions. Decisions to invest, relocate, expand, and the like. Often they are really rational in nature despite what others may think.

Take for example why I moved from New Jersey to Prague. The first reason was that New Jersey has one of the most unreliable power grids in the world. It kept failing multiple times a month. At first I had battery back up and then I got a motor generator set but soon it became clear that this was a pandemic issue and the electrical power company was in my opinion rather lacking in some key areas. Second labor was cheaper, third, we got closer to our ultimate customers, and fourth we could get cheaper offices and work in one place.

Ultimately our decision was based upon the question; how do we increase earnings. Simple. Cut costs where not essential, get close to the customer, position product properly, then look at tax issues. Prague it was.

Somehow the current Administration seems to be somewhat clueless in understanding this issue. By increasing costs and taxes they make the decision easier, go elsewhere. Perhaps they have their ideas fixated in this manner because they never ran a company, especially in a global

market. By the way, we never thought of moving to Greece or Germany, the governmental overheads would have killed it. Hint!

Labels: [Economy](#)

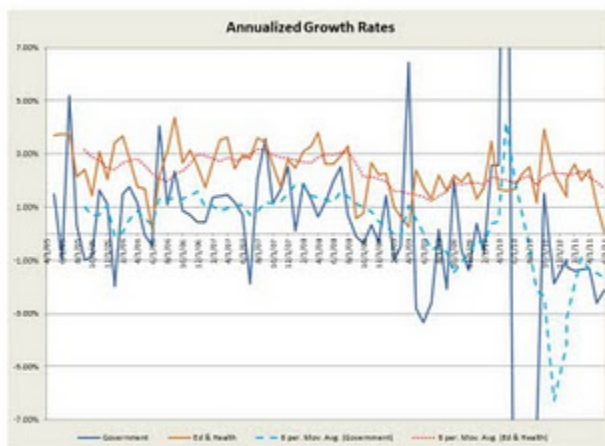
TUESDAY, JULY 12, 2011

JOBS AND GROWTH

The [WSJ](#) today had a note on where the jobs are and are not. They state:

Manufacturing has been adding jobs since the start of 2010 due in large part to the sharp rebound in automobile production at General Motors Co., Ford Motor Co. and Chrysler LLC that has filtered to suppliers. On the flip side, just about anything to do with housing, from furniture makers to hardware stores, remains depressed. Homebuilder Toll Brothers Inc., of Horsham, Pa., plans to bring its total employment to 3,300 by Oct. 31. But that is less than half of its peak of about 7,000 in 2005.

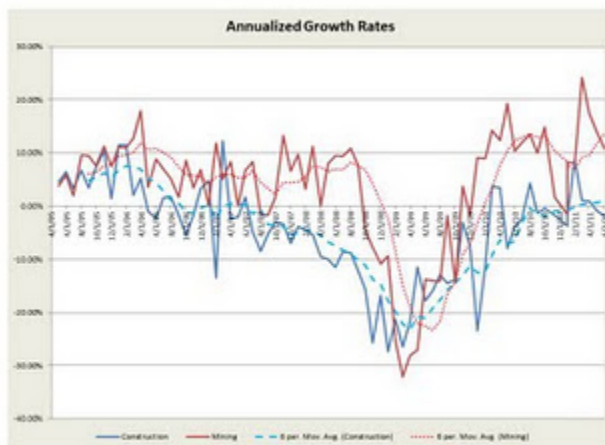
We have looked at a few sectors over the past six years and the results are shown below:



The first is the Government and Education and health. The Gov sector maintained its growth using Stimulus money but now that it has run its course they show some signs of adjustment. The blip is the Census data which frankly should have been factored out. Ed and Health shows a growth rate decline from 3% to 2%, not very much.



This is manufacturing, which saw great dips and we see durable goods going positive but non durables still negative on a run rate basis. Some recovery is noticed but not withstanding it appears to be a systematic decrease.



Mining has shown strength but construction is still low, with some possible blips due to Stimulus but none really to speak of.

In fact there effects of the trillion dollar stimulus is almost nowhere to be found except with money passed on to the unions.

Labels: [Economy](#)

[RED QUEEN VS COURT JESTER REDUX](#)

I wrote a piece on the [Red Queen versus Court Jester](#) hypothesis of evolution and applied it to the handling of the economy by the current Administration some two and a half years ago. The [Red Queen hypothesis](#) is gradualism, the ever changing nature of genetic transfer via mating that allows for adaptation in a continual basis. The Court Jester model is one which says we adapt as a result of some catastrophic event, such as a meteor from outer space.

I am reminded of this again as we see the debt limit issue arising. The current Administration has

been trying to adapt by means of incremental changes but the meteor of the debt limit is fast approaching. If it hits then the Court Jester model may take over and the result may be significant.

We have many examples of this effect. WW II was a Court Jester effect, one where we saw a globally explosive event which rearranged the way we live. Since then we have been in a Red Queen mode slowly adapting in an incremental manner. The collapse of our banking system and the collapse of our own financial world in terms of the exploding debt may set the Court Jester model to work again.

In a sense this is evolution in a political sense. It will impact us poor humans in a dramatic manner but it appears to be a process of nature.

Labels: [Economy](#)

TUESDAY, JULY 12, 2011

SOME REALLY DO NOT UNDERSTAND

There have been suggestions from the left that the current President should first cease payments on Social Security and Medicare to solve the problem if the debt ceiling is not raised. [For example](#):

There's enough money coming into the Treasury to service the payments on the current debt. But if you don't borrow more money you have to shut down vast amounts of federal outlays. And the most logical places to start are with Social Security payments and Medicare reimbursements. Stuff like cutting Social Security checks in half starting the following week.

You see, these were trust funds, and the Government had a fiduciary duty to repay them, before Congress purloined them all and left IOUs, which get paid from current revenue and borrowing. In contrast the Departments of Agriculture, Energy, Education, FCC, etc have no such IOUs, so why not close them down, in fact close down everything south of the Mason Dixon and north of the Rappahannock River!

This seems to be the mindset of the left, void fiduciary duties and keep on trucking to the end of the earth!

Labels: [Economy](#), [Health Care](#)

SUNDAY, JULY 10, 2011

MEDICARE TREATMENT IN THE AGE OF NOW

The [Guardian](#) has run a piece speaking of the dangers of Britain's NHS as regards to the treatment of cancer patients. It states:

Patients could die because of rising [NHS](#) waiting lists for tests and treatment, the leader of Britain's hospital doctors has warned. Delays in identifying conditions such as cancer may mean

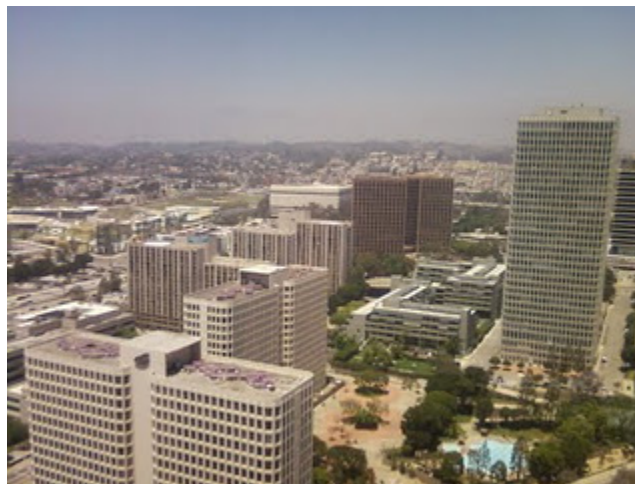
that a patient's illness reaches the stage where surgery or drugs cannot save them, Dr Mark Porter told the Guardian A Guardian analysis of official NHS data on England's six main waiting time targets shows that five are increasingly being breached. The number of patients waiting more than six weeks for a diagnostic test such as an MRI scan has quadrupled in the last year, an extra 2,400 people a month are not being treated within 18 weeks, and 200,000 patients waited longer than four hours in A&E this year compared with the same period in 2010, the data reveals ... Professor Jon Rhodes, president of the British Society of Gastroenterology, said the rise in waits for procedures such as colonoscopy was "alarming". He added: "No one should have to wait more than four weeks for a diagnostic colonoscopy, since delayed diagnosis is a major factor underlying the country's relatively poor survival rates for colorectal cancer." The NHS had too few endoscopists to cope with demand, he added.

With the changes proposed by both the Democrats and Republicans and even more so as a direct result of the new Health Care Bill we will see this becoming not only common in the US but we will hold the Brits out a paragons of virtue compared to the way we deal with the Medicare groups.

All of the above commented on issues we have considered as the Health Care Bill was being forced through Congress but it is only now that we are beginning to see the results. The Brits got there first but we will pass them by in a femto second. Just watch.

Labels: [Health Care](#)

[A HAM SANDWICH](#)



Language reflects many things. Let me give an example which I came upon of late. After a trip to Los Angeles for a week, I realized that there is something askew in the world. No, it was not Los Angeles per se, but it was my simple my search for a ham sandwich. And not the ham sandwich that DAs bring to Grand Juries, just the simple eating kind.

If one were to go from New York to London one would in New York ask for sausages whereas in London one would ask for a banger. **Same food, just a different name.**

In New York when you ask for a ham sandwich you get two pieces of bread and ham, and if you want mustard or whatever you better ask for it. Now in California, I believe this applies universally, one asks for a ham sandwich and one gets some exotic grain based wrapper, adorned with some strange collection of plant materials, some complex dressing with unlimited numbers of flavors and hidden in the middle, if one is lucky, is some ham. So when one from New York asks for a ham sandwich in California one has had their choices already made by some arbiter of food preparation. You get the pile of stuff. Individuality is destroyed. You get what the masses get. **Thus the same name gets you different food.**

In general, one could say that the difference between New York and London is that the same thing has different names. The difference between New York and Los Angeles is that the same name delivers different things. A stretch of culture. There is no dissonance between things when they have different names. There is when the different things have the same name. This observation is one of significant merit when we examine the world of politics, especially if one is totally unaware of this observation.

But it also reflects a sense of belief structures. The New York ham sandwich is the statement of pure individualism, the creation of property, and an expression of liberty. You get bread and ham, and then you get to choose. You can have mustard, butter, mayonnaise, peppers, all you have to do is ask in the transaction. In Los Angeles there is a sense of “shared community” in that someone has made all those decisions for you, like the new health care law, no choices, not just a ham sandwich, but the California concoction.

This is also exemplified when having dinner in say New York and San Francisco. In my favorite New York restaurant, I go in and ask for what I want, no menus, then they get it and we are left alone to enjoy dinner, with staff in the shadows if anything else is needed. In San Francisco, the waiter comes over, introduces himself, wants our names, suggest what to eat, what wine goes well with that and almost joins us at the table. And for that he expects remuneration. And God forbid you want a piece of fish, broiled, no butter, salt, pepper, just broiled, you are looked at as if you were from Mars. The chef after all has prepared his sauce and botanical overlays and you have committed a criminal act rejecting them and making an individual decision.

As [Bastiat](#) has said:

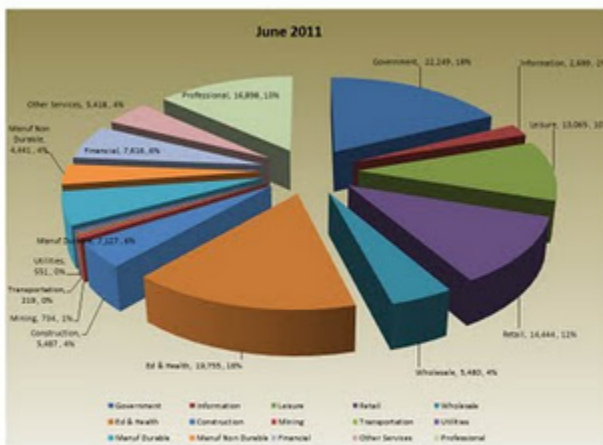
Life, faculties, production — in other words, individuality, liberty, property — this is man. And in spite of the cunning of artful political leaders, these three gifts from God precede all human legislation, and are superior to it. Life, liberty, and property do not exist because men have made laws. On the contrary, it was the fact that life, liberty, and property existed beforehand that caused men to make laws in the first place.

Yes, individuality, as understood by Bastiat, by de Tocqueville, as practiced in America in the 1850s, the ability to make individual decisions and choices seems to be taken away in many areas of our lives today. Starting with my ham sandwich.

So we need the return of the ham sandwich. Just two pieces of bread, and yes you even get to choose the kind, and ham, just plain old sliced ham. You want anything else then you get to ask for it. Consider that becoming part of the way we do things.

Labels: [Commentary](#), [Politics](#)

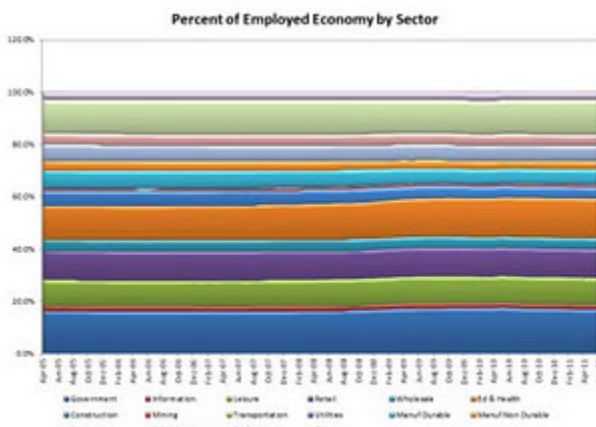
SOME EMPLOYMENT DETAILS



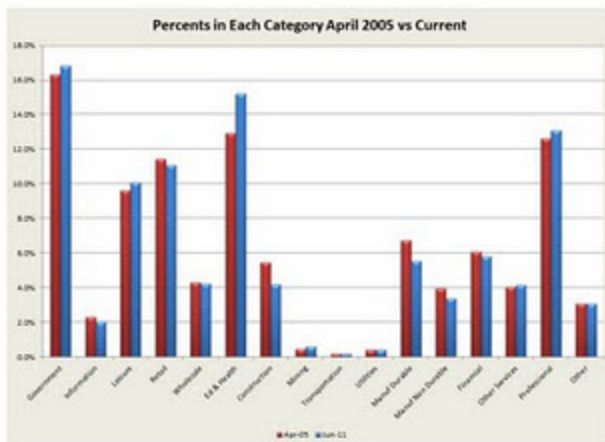
The above details the breakout in percent of employed by sector. Education and Health plus Government is in excess of 34%, approaching 35%. In April of 2005 it was less than 30%. That is the key to some of our problems. These tax dependent non value producing jobs eat up our financial resources.

In contrast Manufacturing is less than 10%. Thus if we look towards manufacturing to support us then we see almost 4 people living off the labor of one!

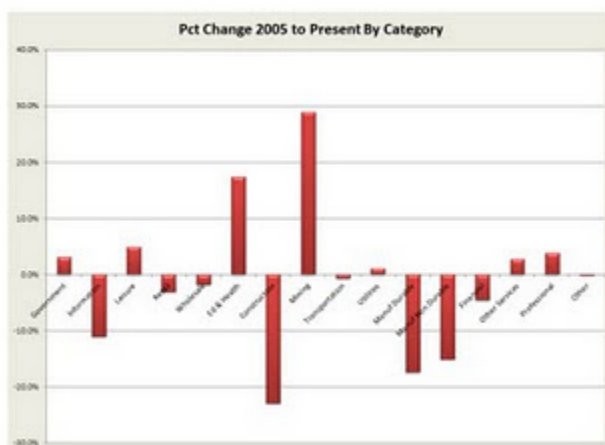
Leisure alone is 10%!



Finally we have a depiction of this change below;

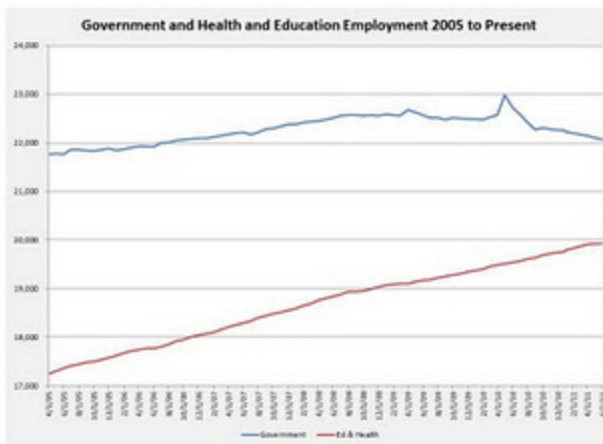


Again this depicts some of the issues. The solution, reduce Government, make Education more efficient, it is the most inefficient element of the economy and move health care to a free market approach. Otherwise watch the collapse!

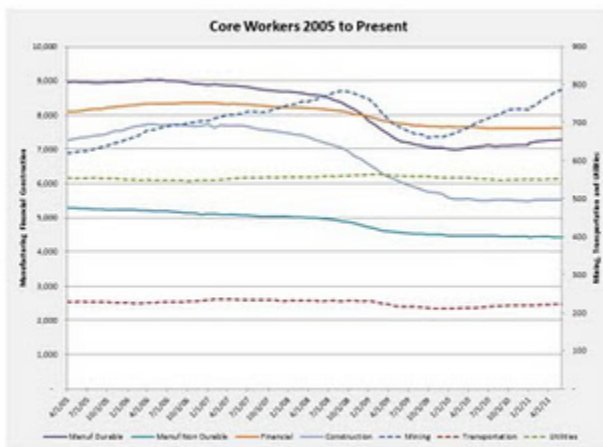


The above is a clear indication of the problem. Note that Government has increase 5% and Ed and Health 15% of the relative total employment base. Construction, Manufacturing and Information have cratered. The tale is one of the number of people working to pay for those on the dole is now less than 2! More people are getting paid by those who create value. In New Jersey local police average \$92,000 pa and bus drivers in some towns get in excess of \$84,000. In addition they get pensions and unlimited life time health care! So we wonder why there is a problem.

Now if we look at the actual numbers we see the following:



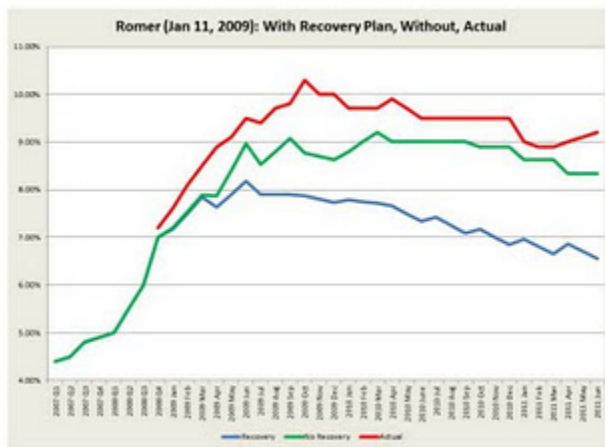
which is the Government related job profile. The bump up in Government was the census. The rest is the loss in state and local government workers. Health and Education has exploded.



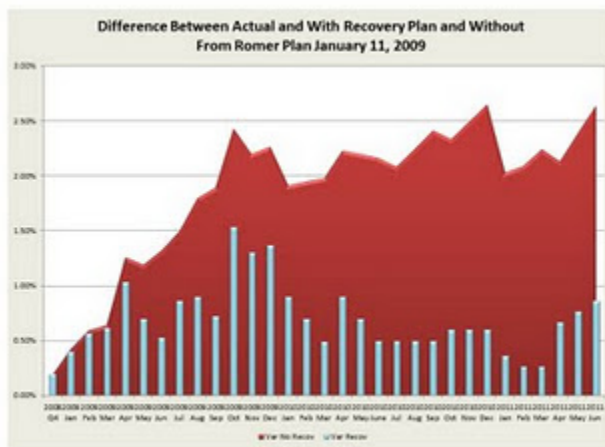
The core value creating jobs show decreases as we show above. There is no sign of growth other than in mining.

Labels: [Economy](#)

FRIDAY, JULY 8, 2011

ROMER REDUX: OR WHY SHOULD WE BELIEVE THEM?

The Romer curve data and the actual unemployment is shown above. Clearly we have a divergence from what was so dutifully predicted based on "economic science" and reality. And the folks that brought us this want to just do more.



The above shows the variance from reality. Clearly the people have lost faith and this is the beginning of a further downfall.

Labels: [Economics](#)

REASON, ECONOMICS, AND REALITY

There is an interesting article in [TNR](#) regarding the use of reason. Now I am not either an rationalist nor an empiricist, I believe that a combination of the two are at play. Further I am far from a Kantian since neuroscience brings far more to the table than the man from Konigsburg.

However, as I have noted before, in the real world there is never a balance between belief and

reality. As with the Rowe conjecture regarding the efficient market hypothesis, there is a stochastic process which moves belief in the EMH and the reality of the EMH taking place. Economists all too often assume some cause and effect, and they all too often fail to note that responses are based on what people "believe" yet the market may be acting on some exogenous reality, or any possible combination thereof. And that is the problem.

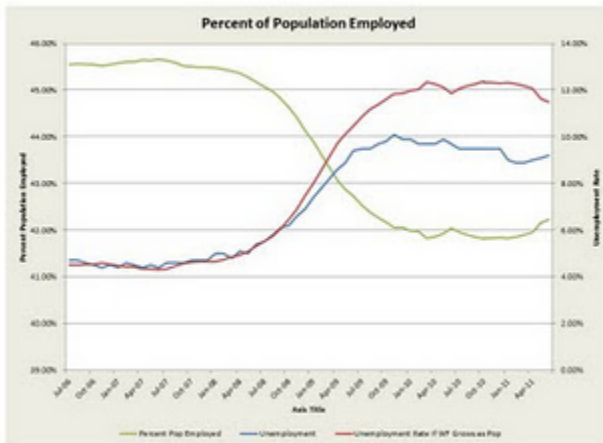
*WHEN THE INTELLECTUAL history of our time is written, it will be a sorry chronicle of knocks on reason. You would think we have too much of it. **These days the work of delegitimation is done largely in the holy name of intuition. Psychologists and economists (and their journalistic secretaries) keep discovering that people are not usually rational, and they cannot contain their excitement.** We often do not know the reasons for our beliefs and we often do not deliberate logically before our actions: careers and reputations are made out of this breaking news. But then the mean is elevated into the norm. That is the scandal. **Since we rely so little on reason, we ought to emancipate ourselves from the summons to reason, and be content with the management and the manipulation of our intuitive nature (as if that, too, will not require the services of reason).** The most recent instance of the intuitionist complacency is the "argumentative theory of reason," propounded by Hugo Mercier and Dan Sperber, according to which reasoning is not a "means to improve knowledge and make better decisions," but a callow technique for winning arguments, which is an evolutionary gain.*

People sometimes act reasonably and sometimes do not. That is the problem. As I had indicated earlier, when a jury seeks to reach a conclusion based solely on the "facts", and there is just a circumstantial case, then reason is essential. That is why they call it a "reasonable doubt". The Founders clearly understood that since they were offspring of the Enlightenment. Reason existed. Most advances if not all in science are reasoned. Yes there are the inevitable surprises but then reason kicks in again.

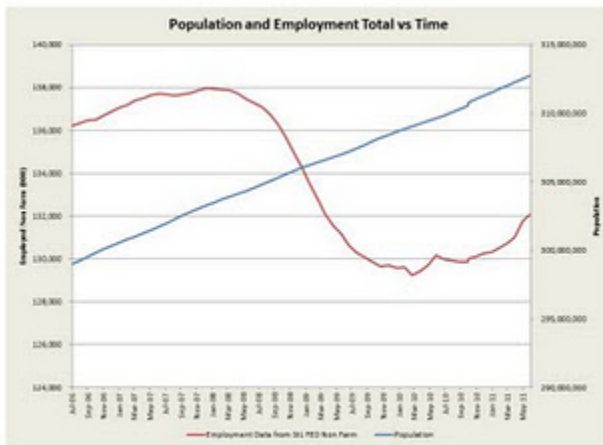
The problem is also that with many today what one person "feels" has equal footing on what another "feels", and reason be damned. We have replaced feeling for reason, and worse for the facts.

Labels: [Economics](#)

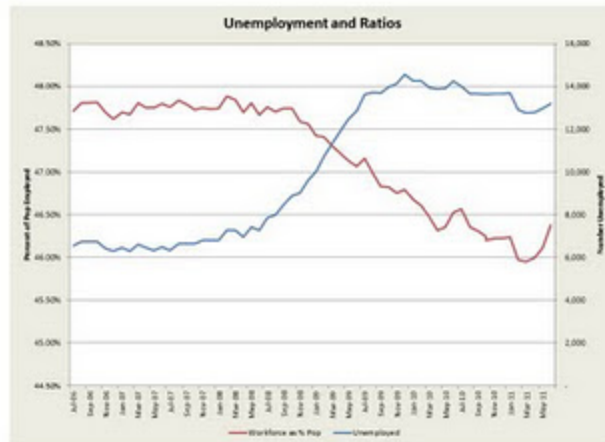
UNEMPLOYMENT AT 9.2%



Unemployment reached 9.2%. However as we can see above there appears to be more in the work force. There now are 132.0 M nonfarm workers up from 129.6 M nonfarm at the low point. That is 2.4 M new workers but the population has grown by 4.5 M and we typically have 45% of that in the work force. Thus we have been keeping pace with the growing population and falling behind with those unemployed.



This is another of our monthly graphs which shows population and employment. There is a clear drop at the bottom but we seem slowly to be coming out despite the increase in percent.



This is the unemployment assuming normal workforce seekers and unemployment using the adjusted numbers. There is an increase in both which is a concern.

If employment and the economy is a political determinant then the 2012 elections will be interesting.

Labels: [Economy](#)

THURSDAY, JULY 7, 2011

[THE IRISH POLAR BEAR](#)

On a hot July day it is always a fine thing to have the Brits inform us that the Polar Bear is Irish! The [BBC](#) states:

Scientists in the UK, Ireland and the US analysed the teeth and skeletons of 17 brown bears that were found at eight cave sites across Ireland.

The new research has been reported in the latest edition of [Current Biology](#).

Previously, it was believed that today's polar bears were most closely related to brown bears living on islands off the coast of Alaska.

However, analysis of mitochondrial DNA - which is passed from mother to child - has shown the extinct Irish brown bears are the ancestors of all today's polar bears, the scientists said.

Their work provides evidence of the two species mating opportunistically during the past 100,000 years or more.

Now we have Brendan and his crew coming here first and now we also have the good old polar

bear coming from Ireland. Well if it could make it that far then the ice may be just a minor obstacle.

Labels: [Commentary](#)

INDUCTION AND DEDUCTION: BEYOND A REASONABLE DOUBT

When listening to a juror from the recent trial in Florida I was amazed at how naive she was, and frankly how simplistic. I thought that the issue is understanding the difference between deduction and induction or between the rationalism of Descartes and the empiricism of Hume.

Simplistically she seemed to state that unless there was a clear deductive path from one fact or event to the other then one could never prove anything. She seemed to state that failure in any link, and to her failure required an inductive leap, would result in her view as a failure to provide evidence. Yet the law expressly states "beyond a reasonable doubt". and that term reason was there for a reason! It admits induction, it admits a Cartesian acceptance of connecting the dots.

Juries are oftimes a highly unpredictable lot. The problem is also often that their conception of how one reaches a conclusion is not necessarily what the educated mind would use. This one juror is a case in point. She seems never to have ever heard of induction but one could wager that she uses induction daily in her life.

Labels: [Commentary](#)

MONDAY, JULY 4, 2011

CHINA: AN OBSERVATION

In the 1950s as Japan was slowly recovering its economy, there was always the comment of "Made in Japan" meaning poor quality but cheap. Japan worked hard to overcome that fault and today Japan makes some of the best products in the world. Just look at Honda versus any GM vehicle.

Now recently I purchased an optical device for my work. It was "Made in China", and not for a US company but by a Chinese company. It was sold in the US. Now what did I observe, well it was in a cheap box, a several hundred dollar electro-optic device and not a toy, the instructions were in Chinese with some English, and when connected to the computer it failed, never worked.

So off to the web site, not there, in fact the web site was a bit shabby. Then to the phone, a several hour delay and a call back and still not working.

Observation, Chinese companies can manufacture for American suppliers if and it appears only if they do exactly what they are told and the US company uses Chinese cheap labor. Stan alone, and the Chinese companies have no understanding of a customer. One would suspect that the same would be true if they marketed drugs or sold cars. Perhaps having cheap labor works if it is leveraged off of a well established quality system and distribution channel. Left to their own, well it seems they are not yet ready for prime time. Just an observation.

Labels: [China](#)

OBSERVABILITY AND CONTROLLABILITY

There are two concepts in systems theory that frequently come to the fore. They are observability and controllability. Observability means simply that by observing the outputs we can determine what the system is. Controllability means that by controlling the inputs we can get the system to a specified end state.

Now [Posner](#) has written an interesting piece on the shortage of primary care physicians. He states that if this were a normal economic process if supply was lagging demand that by normal price adjustments the system would stabilize. Well it is stabilized but at a shortage so what do we observe, Government regulation sets a new stable point.

Posner states:

The underlying causes of the shortage of primary-care physicians are licensure and third-party payment. I do not think it is a mistake to require that physicians be licensed, rather than allowing anyone to provide medical care, as we allow anyone to dig ditches, wait on tables, or for that matter start a new online business. Patients are in a poor position to evaluate the quality of medical care, and without licensure of physicians would doubtless be highly vulnerable to quacks. But licensure inevitably reduces supply. Primary-care physicians have to spend four years in medical school and then three years as a resident paid little more than a subsistence wage. The number of medical schools is limited, as is the number of residency programs; it has been argued (whether rightly or wrongly I don't know) that specialists control the approval process for residency programs and use that control to throttle the expansion of primary-care medicine by limiting the number of new residency programs in primary-care medicine. Many U.S. physicians are foreigners trained abroad, which is fine, but we make them jump through hoops to be licensed to practice medicine in the United States; the hoops may be justified to ensure that foreign-trained physicians are competent, but make it difficult to make up a physician shortage by recruiting foreign-trained physicians.

Third-party payment is a pervasive feature of American medicine. Why anyone should want health insurance other than "major medical"—that is, insurance against catastrophic medical bills—is a great mystery, as is the fact that Medicare subsidizes routine health care of upper-middle-class people. Since disease and injury tend to be unpredictable, health insurance smooths costs over time, which is efficient, but a person could achieve that smoothing simply by saving the money that he now pays in health-insurance premiums and investing it to create a fund out of which to pay future health expenses as they occur.

First as to licensing, that has always been a sticky problem. One takes a set of exams as well as having been educated in an approved institution. The exams are putatively meant to test knowledge related to the practice. Take anatomy, often the anatomy is best learned by doing as well as study. For example, a pain in the knee may be referred pain, not knee pain, and an old time Doc could determine that without an MRI. Today one may have 3-5 MRIs of the knee never looking at the hip! What does that tell one?

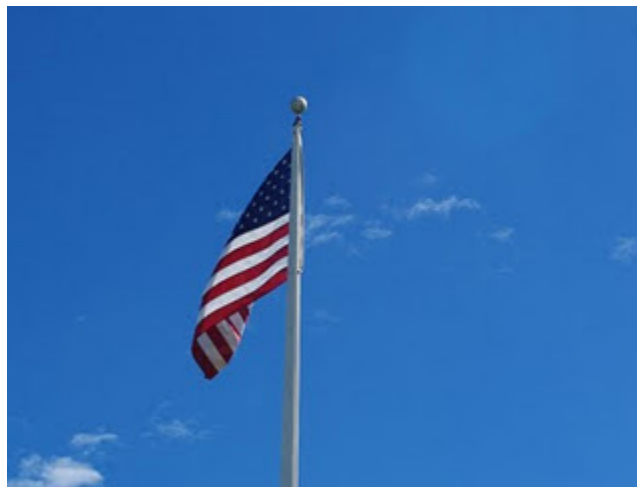
Second, payment has always been an issue. The primary care doc is left at the end of the payment schedule. Yet using my knee example a good Doc would not spend the time and money on the knee since they would have identified the hip as the problem. The specialist just all too often piles on tests, that is how they make money.

The system is broken, broken because of the rules and more rules mean more breaks.

Posner makes another point in the second paragraph. Insurance should be catastrophic, not something that covers everything. We have large deductibles for our cars, most at least, why not be incented to do the same for health care, especially Medicare.

Labels: [Health Care](#)

HAPPY JULY 4TH



Happy July 4th! The above was from the Maine coast, a wonderful place to see the world. Enjoy the day. Now back to farming.

Labels: [Commentary](#)

TUESDAY, JUNE 28, 2011

TRYING WORDIE

I have tried [Wordie](#) on my Melanoma papers and this is what it looks like. Cute:



SUNDAY, JUNE 26, 2011

A TECHNICAL EDUCATION

Premier Wen spoke at Eotvos Lorand University in Budapest. His speech as summarized by [China Daily](#) stated:

"To solve the troubles facing us now, such as the financial crisis, I think the fundamental way to get rid of the crisis is ... new discoveries, new inventions and a new industrial revolution," Wen said ... I'm not only interested in science, I hold it in awe and veneration," said the premier. The 69-year-old leader worked for 14 years in the mountains and Gobi desert areas of Northwest China's Gansu province after his eight years on-campus, during which he focused on geological structure.

The premier, nicknamed Grandpa Wen by admirers at home because of his common touch, shared a moment with a girl from a local bilingual primary school who is learning both Hungarian and Chinese.

The girl asked the premier how she can gain admission to Peking University when she grows up. "As long as you work hard your dream will be realized. I can tell you there is an empty place at Peking University waiting for you," he said, smiling.

Interesting set of remarks.

1. China is truly pushing technical education.
2. Yet having a technical education does not make one an entrepreneur.
3. If there is an empty place in Beijing for someone from Budapest then why are there so many coming to the United States? Just a thought.
4. Science is a means to an end. New inventions and discoveries must find markets for their

value to be delivered. Having just a new technology without a market is like having the world's best factory with no customers. The factory may work well but it soon closes.

Thus markets are essential. Taking the technology from proven idea to value added product is the task of the entrepreneur. Perhaps Wen knows that well, and perhaps this was just a tailored speech. Or perhaps not.

Labels: [China](#)

SUNDAY, JUNE 26, 2011

BEING INFLUENTIAL

Being influential, via the Internet, is discussed today in the [NY Times](#). They state:

If you have a Facebook, Twitter or LinkedIn account, you are already being judged — or will be soon. Companies with names like Klout, PeerIndex and Twitter Grader are in the process of scoring millions, eventually billions, of people on their level of influence — or in the lingo, rating “influencers.” Yet the companies are not simply looking at the number of followers or friends you’ve amassed. Rather, they are beginning to measure influence in more nuanced ways, and posting their judgments — in the form of a score — online.

Now I had a Facebook page, nothing on it really, but after seeing some of the comments by those with whom I had become connected I decided that discretion was the better part of being public. I also have a twitter account, I needed it for something I thought was useful although I never used it. Frankly it all takes up too much time and in addition one really should think a bit before saying something, or frankly anything.

Yes I have seen the tables where some couple is sitting waiting for dinner while each engrossed in their twitter or Facebook pages. Perhaps they know all they need to about each other, perhaps they really do not care.

I even have a Linked In page, my students said I should have one. Never really used it, and I have 100+ links. Again I see no need. Generational, perhaps, style perhaps, but why spend so much time "online".

But the "influence" measure by the likes of [Klout](#) allegedly rank you by the following:

1. True Reach is the size of your engaged audience. Something about your tweets.
2. Amplification Probability is the likelihood that your content will be acted upon. Something on how your message is amplified by others.
3. Network Influence is the influence level of your engaged audience. Something about how your message influence others.

Just what this means is in my opinion questionable. First, if you are spending time tweeting then you are probably not working. Influencing others for what purpose. More fun, more food, more entertainment. How about creativity.

Creativity means developing new ideas, new businesses which themselves create or transform value. Not often senseless communications, also known as noise. Perhaps a measure of how new value is created in our economy would be a better measure. Instead we seem to be fixated on the bread and circus mentality. Thus one wonders why we are in such a poor economic state.

Labels: [Commentary](#), [Internet](#)

SATURDAY, JUNE 25, 2011

[COOKIES, FRIES, AND SODA](#)

There is an article in [NEJM](#) discussing diet and weight gain. They conclude:

Within each 4-year period, participants gained an average of 3.35 lb (5th to 95th percentile, -4.1 to 12.4). On the basis of increased daily servings of individual dietary components, 4-year weight change was most strongly associated with the intake of potato chips (1.69 lb), potatoes (1.28 lb), sugar-sweetened beverages (1.00 lb), unprocessed red meats (0.95 lb), and processed meats (0.93 lb) and was inversely associated with the intake of vegetables (-0.22 lb), whole grains (-0.37 lb), fruits (-0.49 lb), nuts (-0.57 lb), and yogurt (-0.82 lb) ($P \leq 0.005$ for each comparison). Aggregate dietary changes were associated with substantial differences in weight change (3.93 lb across quintiles of dietary change)....

A habitual energy imbalance of about 50 to 100 kcal per day may be sufficient to cause the gradual weight gain seen in most persons.^{57,58} This means that unintended weight gain occurs easily but also that modest, sustained changes in lifestyle could mitigate or reverse such an energy imbalance. Our findings suggest that both individual and population-based strategies to help people consume fewer calories may be most effective when particular foods and beverages are targeted for decreased (or increased) consumption. Aggregate dietary changes accounted for substantial differences in weight gain, with additional contributions from changes in physical activity and television watching, thus highlighting specific lifestyle changes that might be prioritized in obesity prevention strategies.

The problem is really much simpler. Remember:

1. One pound on weight gain is due to 3500 excess Kcal
2. The normal burn rate per person is 2000 Kcal.
3. Eat more and after step one you gain a pound.

Simple, no study needed.

Now the [BBC](#) speaks of a study which states:

Researchers from Imperial College London and Harvard University analysed data from 2.7m people across every continent, using statistical techniques to project a worldwide figure.

They claim the total number of people with diabetes - which can be fatal - has risen from 153m to 347m. ... Its authors said 70% of the rise was down to people living longer. The rise has been most pronounced in the Pacific Islands. In the Marshall Islands a third of all women have the condition.

Majid Ezzati, of Imperial College London, said: "Diabetes is becoming more common almost everywhere in the world.

"Unless we develop better programs for detecting people with elevated blood sugar and helping them to control their weight, diabetes will continue to impose a major burden on health systems around the world."

Diabetes leads to inadequate blood sugar control, which can damage the kidneys and cause blindness. It can also cause heart disease and strokes.

The condition is closely linked with obesity. Patients have to inject themselves with insulin.

Now we have written extensively on this issue:

1. Weight control is simple, keep the consumption down.
2. Obesity is the dominant cause of Type 2 Diabetes.
3. The input is driven by processed food and excess consumption. For example I have seen offices where the junk food is excessive. People are eating all the time. Then they go out and they get American portions which exceed normal portions by a factor of three.

Thus the NEJM study is interesting because it states what some of the specifics are, but that was a well known fact. Nurses are especially at risk as one would suspect since they are in a high stress environment and have food often readily available, just look behind many a nurse station.

The Lancet study in the BBC article just clearly articulates the result.

That I believe will be the major driver for future health care costs!

Labels: [Health Care](#)

SUNDAY, JUNE 19, 2011

DOUBLE CHEST SCANS AND COSTS

[Kaiser](#) reports on the use of double CT scans on Medicare patients. They report:

In a double CT scan, patients get two imaging tests consecutively: one without dye and the other with dye injected into their veins. Providence Hospital in Northeast Washington and nearly one of every six hospitals in Virginia were among those performing double scans particularly frequently, according to the most recently published government data, from 2008....Experts say almost all chest problems can be properly diagnosed with a single scan. But some physicians,

who order the tests, still value double scans for gathering the most information possible. Hospitals and radiologists are paid more for the double scans, so they have a disincentive to crack down on them. ... The scans' benefits are great. They allow physicians checking for cancer, heart disease, damage to arteries and blood clots to see inside the body with detailed, multi-dimensional pictures. But chest CT scans also expose patients to about 70 times more radiation than conventional X-rays. Having the combination CT scan can double that exposure, though some physicians say the latest generation of scanners operate with much lower radiation levels.

There are several points worth noting here:

1. Double scans are not scans done twice but two scans done with and without contrast to get better resolution. The process has merit in a very small number of complex cases.
2. The billing is such that there is effectively a double bill. This can be corrected since frankly it does not cost twice the amount.
3. The radiation issue is overwhelming. That should be the driver.
4. Scan this much and I guarantee you will find a batch of new issues to be concerned about.
5. In a hospital like the Brigham in Boston there is 0% whereas in suburban NJ hospitals it is 5-7%. Why? The Brigham has some of the best diagnosticians and radiologists in the world, and perhaps they know better. Or perhaps the Brigham has installed controls in the radiology department to prevent this type of putative patient abuse. I suggest it is a combination of both.

So how should Medicare handle this? Good question, is it better radiology EHR systems or via financial penalties. We will see.

Labels: [Health Care](#)

SATURDAY, JUNE 18, 2011

[THE CONUNDRUM OF HEALTH CARE COSTS](#)

[Mankiw](#) has written an interesting piece regarding health care policy and the last point he raises is worth a discussion.

He argues:

Democrats and Republicans generally have different approaches to controlling the growth of health care spending. Democrats often favor a top-down approach: a panel of experts set up by the recent health care law will decide which medical procedures are cost-effective and which are wasteful. Republicans tend to prefer a bottom-up approach: empower consumers to make their own choices, they say, and the power of competition among private providers will keep costs down.

*One thing that the two parties share, however, is the belief that controlling health care costs is possible. Yet many economists believe that the rise in health spending is largely the result of medical advances, which prolong and enhance life at a high cost. **Perhaps health spending will inevitably, and even should, keep rising as a share of national income.***

*This possibility raises a question: If health care becomes an increasing share of the economy, how will we allocate it, and how will we pay for it? **That is, if controlling the cost of health care fails, what is Plan B?***

What he seems to be saying if I read it correctly is that the future is most likely just more of the past but just more of more. Namely health care is inevitably an ever increasing burden on the economy.

Now I would like to argue a different future, and I do so by also looking at the past, the distant past, and also looking at the future, especially the genetic medicine future we have been writing about herein. I have been accused by some in a lighthearted manner as being idiosyncratic, covering a disparate set of issues but in this one statement by Mankiw I believe I can try and tie some of them together.

Fifty years ago if one had congestive heart failure we just took care of you until you died. It was relatively cheap. The average weight of a recruit into the Army in 1943 was about 135 pounds and obesity then was not an issue. If a patient presented with a breast tumor or melanoma we gave then six to nine months of care which was relatively cheap.

We are in a stage in medicine where the tools for diagnosing and treating are massive and costly. But we are seeing tremendous changes and developments in genetic medicine. The imatinib in CML and the recent approaches to melanoma which we have written about, as well as the advances in prostate cancer, and of course our understanding of the costs of obesity and its sequelae.

Thus we will most likely see this growth of genetic tools explode and putatively reduce costs by catching disease early and treating it medicinally. Life style disease is still a conundrum which I see no way other than "taxing" the one making the choice and placing the tax in a future fund to treat them. We kind of do that with smokers. We must do that with the obese.

So what is the counter to Mankiw:

1. Medicine is not a stable field of science. Massive sea state change can occur and we are seeing them now. Looking at the future we see based upon the facts [we have discussed herein](#) clearly shows that change and we see a medicine dramatically different and in reality potentially less costly, except for life style choices, which [we have discussed in detail](#).

2. Plan B may very well be this effort. More genetic developments, better understanding disease at the pathway level as we have described it and taxing the life style costs.

There is a second issue Makniw considers, the payment for Medicare, I believe that is what he meant. He states:

Democrats want to increase taxes on the rich to fund the looming fiscal gap, which is driven largely by soaring health costs. Republicans object, saying higher taxes create economic distortions, discourage work and impede growth. Last month, John A. Boehner, the House speaker, said that we should instead consider means-testing Medicare. But what does that mean?

But [as we have shown this week](#) in our analysis in response to the Washington Post discussions, we have a Medicare system which taxes the rich to pay for the poor. In fact the super rich are already super taxed. The Democrats want to further increase the tax and we proposed a level adjusting along with an age adjustment. The Medicare problem is really solvable by those to means and also can be further improved if we deal with the excessive use, namely people playing the system to maximize income but to no benefit to the patient. Medicare should really focus on catastrophic coverage; cancer, end of life, accidents, debilitating disease, and we should raise the bar on the rest. The new law through the ACO play I believe will do just the opposite. [We have discussed](#) that in detail as well.

Discussing health care and its future must be done in a holistic manner, not just as an economist would do by simply looking at the past and projecting the future, but as a scientist, engineer and physician would, looking at the changes and integrating them in the path forward. It is only by understanding what the future as we see it currently unfolding is going to bring and how to assist its movement forward that we will best understand health care.

It is a pity that no one in Washington seems to either understand or articulate that issue.
Labels: [Health Care](#)

FRIDAY, JUNE 17, 2011

[BLUE WATER NAVIES, ARE WE GOING THRU THE 1930S AGAIN?](#)

The CNO has been quoted in the [Hill](#) giving a view of the future of the Navy. They state as follows:

During the early 2000s, the Navy had a much smaller role in the Iraq and Afghanistan wars, leading military experts — and some service officials — to wonder how the service would fit into future U.S. combat operations....Several years later, the Navy's slate of missions is becoming clear. The sea service has spent years building up its tactical aviation fleet, enhancing its information operations abilities and moving toward unmanned craft that operate beneath the ocean's surface, Adm. Gary Roughead, chief of naval operations (CNO), said Thursday....

In an era when defense budgets are expected to remain flat or shrink, some lawmakers and defense analysts say it is unlikely the Navy will ever have the 313 ships it says are needed. The fleet is now at 285 ships, Roughead said Thursday.... Employing more crewless underwater drones is one way to help offset a smaller fleet, Roughead noted.

Yes they are at now 285 ships, of which roughly 1/3 to 1/2 are at sea at any one time and there may be three to five carrier groups. Imagine Okinawa where a ship was lost per hour for weeks! We would be out of ships real quickly. One need look only at WW II destroyer production of say Fletcher Class. Very complex at its time technically. They were made in months. Also they could be destroyed in minutes.

Now look at [China Daily](#) which states:

*By 2020, a total of 15,000 personnel, compared with 9,000 now, will serve in the China Maritime Surveillance (CMS) force under the State Oceanic Administration, a senior official with the CMS, who declined to be identified, told China Daily. The CMS air arm will be increased to 16 planes and the patrol fleet will have 350 vessels during the period of the 12th Five-Year Plan (2011-2015), the official said, adding that the **fleet will have more than 520 vessels by 2020**. Currently, nine aircraft, more than 260 surveillance vessels and 280 law enforcement vehicles are in operation. The CMS launched the construction of 36 patrol ships and 54 speedboats last year, the official said. The expansion plan was unveiled as China's biggest civilian maritime patrol ship was sent into the South China Sea to protect national "rights and sovereignty". China's offshore surveillance force will be beefed up to ensure that the country's maritime interests are fully protected amid increasing disputes with its neighbors.*

We in the US seem to be going in the opposite direction. The South China Sea will become a hotbed of activity. Ports in China on the South China Sea are expanding and China is exercising its hegemony there to the detriment of countries like Vietnam.

Now one should look at an article in the [Naval Institute Naval History](#) in June 2001 by Frank entitled Picking Winners. It recounts the secret list kept by FDR on the then top ranking Navy Admirals, the Navy Department's list of leaders. Nimitz was not there nor was Spruance! Many who were there were soon jettisoned. Political planners often work to preserve their position. As Frank states:

*It is vital in assessing the omission of Admiral Chester W. Nimitz and Rear Admiral Raymond A. Spruance from the "most competent" list not to "read back" from the battles of the Coral Sea and Midway or even later events to their stature in the eyes of the members of the selection board in early March 1942.... In a late-March 1942 letter to his wife, Catherine, Nimitz confided: **"Ever so many people were enthusiastic for me at the start but when things do not move fast enough they sour on me. I will be lucky to last six months. The public may demand action and results faster than I can produce."** This missive raises the tantalizing possibility that Nimitz had somehow learned of the secret flag selection board results.... Spruance was a very junior cruiser division commander who had enjoyed no opportunity for significant independent command. He carried the reputation in the small world of the Navy's flag ranks as a quiet-spoken theorist from his tours at the Naval War College. A few weeks later, before Midway, King would press Spruance on Nimitz as a chief of staff with that reputation in mind. Those credentials scarcely warranted anointment as one of the elite flag officers in the Navy.*

War, if and when it comes, with a good President, finds the true leaders. Having researched this

for one of my books, [DD 649](#), I found that Harry Hopkins played a significant role in feeding FDR the right people and FDR somehow had the genius to find and promote them.

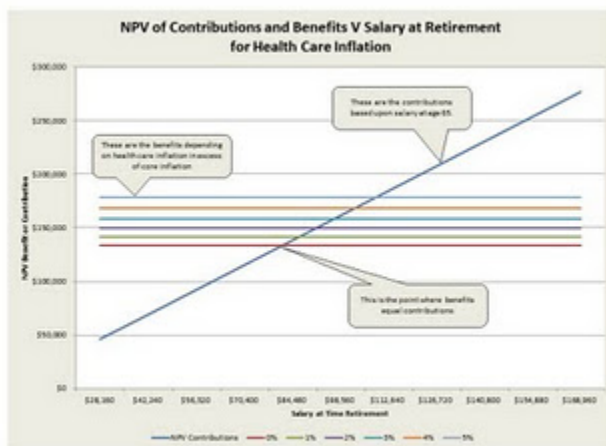
Hopefully if push comes to shove we can do the same again. In many ways it looks as if we are entering the 1930s again. Watch out for the 1940s.

Labels: [China](#)

THURSDAY, JUNE 16, 2011

[A LITTLE MORE ON MEDICARE](#)

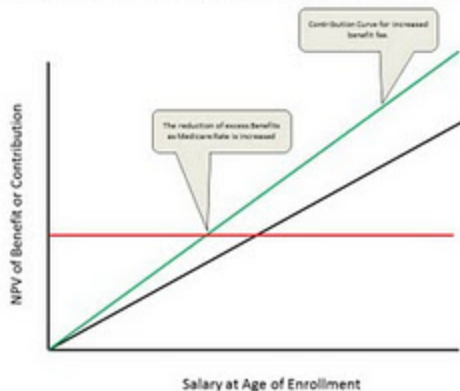
I thought it would be useful to provide some more details on how the curve I presented may be useful to policy makers. I consider a few cases.



First the above chart shows the details of what we had plotted. Not the contribution increasing and the benefits as horizontal but increasing as health care inflation increases. Now let us look at three cases.

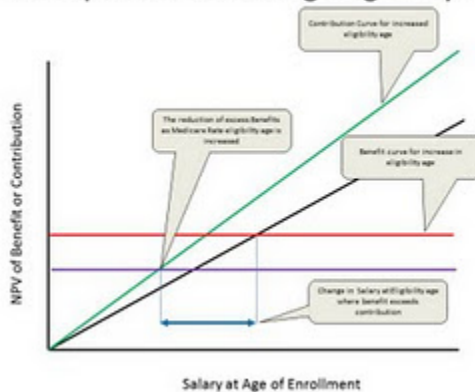
Case 1: This is the case of increasing the contribution from 3% to say 4%. Note the horizontal remains fixed but the contribution increases. Thus the salary at which a benefit occurs decreases meaning that fewer people get a free ride if you will.

Example of Increasing Contribution



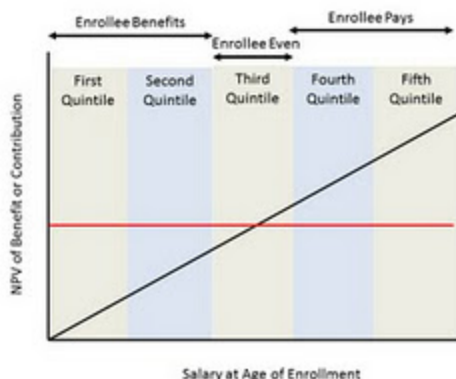
Case 2: Here we increase the age of eligibility and the contributions increase and the benefits decrease.

Example of Increasing Eligibility Age



Case 3: We look at income brackets by quintile. We show that in this case, say the balanced example, the lower two benefit and the upper two pay and the middle quintile averages out even.

Example of Income Distribution



Now from a policy perspective this gives a simple tool to see what the impact would be across large income groups. If we were to use this with our numerical analysis we could readily see the impact of increasing eligibility to 67 and increasing contribution to 4%. We believe that such a change over say the next few years would solve the Medicare issue. Just a thought.

Labels: [Health Care](#)

[MORE ON MEDICARE](#)

We have issued a [document](#) which is a revision of a white paper written in mid-2009 as a draft working paper on the issue of Medicare costs. Recently there has been a great deal of interest in the costs of Medicare and the assumptions herein have been revisited. Specifically Lois Matelan has indicated that an assumption that was made regarding expected lifetimes was in error and we have subsequently addressed that issue in the revision.

The issue which this paper addresses is the assertion that most if not all Medicare beneficiaries receive more than what they contributed. This seems to be predicated upon a report by the Urban Institute and reiterated by journalists of the kind like David Brooks of the NY Times and also republican contenders like Ron Paul. We look at this issue in more detail herein. However we propose a methodology commonly accepted in such circumstances called the net present value, NPV, model. Namely we look at cash flows, discount them, and then compare contributions and disbursements or benefits at a single point in time, in our case at retirement at 65.

The model we use is somewhat simple:

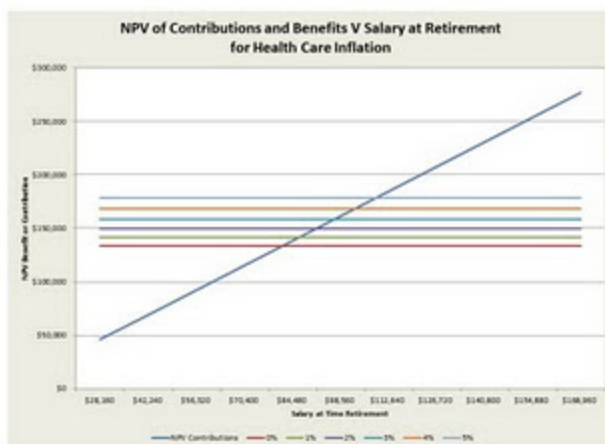
1. We assume a starting salary in 1970 and then we escalate that by a percentage, generally well below inflation. That then yields an ending salary in 2009 when we assume retirement.
2. We assume a Medicare contribution percent of 3% of gross salary. We have not reached any limits with the proposed salaries.

3. We then look at the current annual Medicare costs and we grow them first with inflation and then we add a health care inflation in excess of the core inflation. Thus if we see 2% inflation and we add 3% health care above it the total is 5%.

4. We assume a lifetime of 18 years for someone at 65. We then calculate the NPV for the benefits or distributions from Medicare at age 65.

5. We then compare NPV of contributions and NPV of benefits versus salaries and health care inflation.

We show this summary below in the graph. Note that as the salary increases there are point at which the contributions exceed the benefits. At no excess health care inflation it is at about \$83,000 and at 5% excess health care inflation it is at about \$112,000. Thus unlike the general statement that Medicare is an excess benefit, it is that only for those of lower incomes.



The above shows two curves, one a set based on excess health care inflation. One curve is the net present value of Medicare contributions at age 65 based on salary at reaching 65 and the second the benefits received in NPV at 65 based upon a specified health care inflation in excess of core inflation. Whenever the contribution exceeds the benefit they individual is funding Medicare in excess and whenever the contribution is less the individual benefits. The Urban report focuses on the lower earning portion of the curve and we consider that less than complete.

Now when one looks at salary distributions we see that over 40% of people are paying in excess of their disbursements. That means that less than 60% are receiving benefits. In fact the people whose contributions have exceeded their disbursements are in many ways covering those who are not. Thus, the bold claim that Medicare beneficiaries are having a free ride must and should be clarified. Some do have a benefit and many provide a benefit to that group.

It should also be noted that this analysis considers the analysis at a high level but it does go, I believe, much deeper than the Urban Institute. Much finer and detailed analyses may reveal even more critical observations.

Labels: [Health Care](#)

WEDNESDAY, JUNE 15, 2011

MEDICARE UPDATE

I apparently was seen somewhere in an article yesterday regarding my Medicare paper in early 2009. I received an email regarding an apparent flaw in the analysis and had responded personally but thought a discussion on the record may help. There were many assumptions but I think this is worth addressing. Let me re-articulate what I said or should have said.

1. I assumed that the average lifetime of a Medicare beneficiary was 12 more years. This is from the [CDC](#) data base. Actually it is 18 years if one reaches 65. I was told the added 6 years was a flaw and indeed it is an error in fact.

2. However, here it gets complicated, there were many Medicare contributors who paid into the system but who died before getting benefits. Should we recognize those contributions? The answer is yes, it is like an insurance plan. But they never benefit. Yet the money must be recognized. So even though the duration is longer the total imputable contributions are greater.

3. Does the added 6 years make a difference. Again it depends. We discounted future payments by some cost of capital. But they must also be inflated by medical costs inflation. Here it gets sticky. If say the discount factor is 5% from year 13 thru year 18, then this neglected period is an additional 20% to the total NPV at 65. Following me folks? Now if at 65 we had obtained \$140,000 and now we have \$168,000 but we contributed \$174,000 then we still hold water. But wait... If medical care inflation exceed the return on invested capital, then it explodes! However one could invest in a portfolio of health care companies and hedge the bet ...

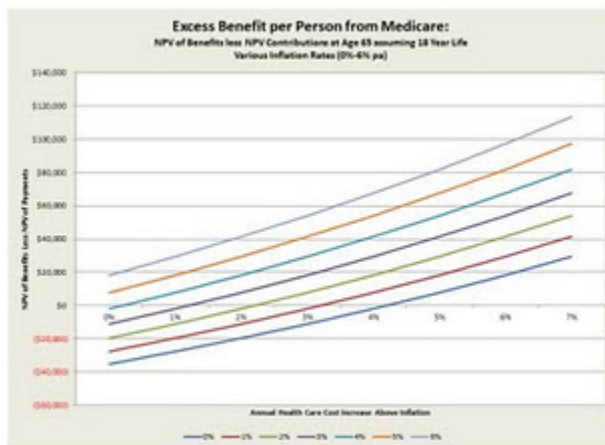
4. My analysis was different from the one critiqued since they assumed a single income family who made \$45,000 by age 65 which is just above poverty. My argument was that one should still look at the average not the lowest. Still feel that is correct. Yet the real method should be to consider a real distribution of incomes and weight them. Also one must add in the contributions of those who did not survive to 65 but who contributed. This is somewhat difficult as are all allocation algorithms. This is why I used the average lifetime and not the average lifetime given one had reached 65. This was a plug for the lost revenue from those who did not survive.

5. Then there is the issue of race and sex. Blacks have lower survival and women live longer than men. I did not look into this detail. For example white women have been paid less than men but live longer and benefit more. So ... I really cannot comment but it is a fact ... that is why it is insurance.

So bottom line, was 12 years wrong, yes in a specific manner, no in a general sense. Was the conclusion in error; yes in an exact science manner given the way the problem may have been defined but no when one considers the orders of magnitude of difference when including the data.

However, the main time bomb in all of this is the issue of the inflation in health care. If that exceeds economic growth the system is doomed. Yet that assumes the past is prologue to the future and unchangeable. If we look at the changes in health care we can see clear signs that it is possible to reduce costs thru genetic approaches. However, the costs of life style diseases such as type 2 diabetes, most often driven by obesity, will soon smother the system. That is the challenge, it is a challenge of the present, and has yet to be voiced except by the current President's spouse who went bravely to the front. Should we tell people what to eat, yes if we are forced to collectively pay for the consequences, no if they agree never to charge us for their costs. It is just a matter of dollars and sense!

I have updated the analysis for 18 year lifetime post 65 and attach it below.



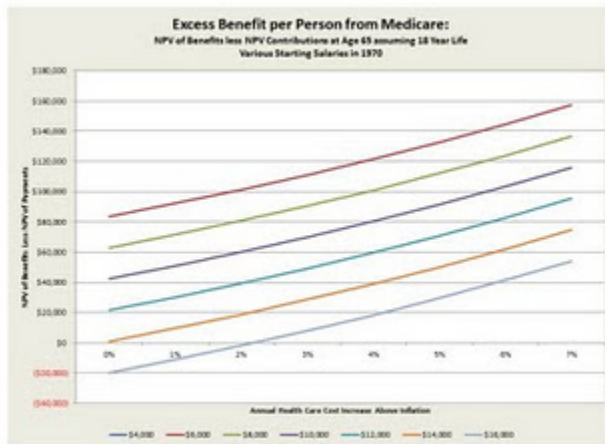
As expected it is really not that different. Let me explain:

1. I assumed a typical lower middle class worker with a reasonable job. Starting work in 1970 with \$16,000 pa but never really going anywhere so I gave him a 6% pa raise. Remember that is thru Carters 18% inflation period.
2. I assumed 3% Medicare tax as was the law.
3. I assumed the payment was invested at 6% during this period. Not too bad.
4. I assumed that the person retires at 65 and lives 18 years. Simple but still skews the real actuarial result. So they live to 83.
5. Assume inflation and Medical care costs rise. I have parameterized the data accordingly.
6. Then I plotted at age 65 the difference between the NPV of Medicare Benefits and Medicare Contributions. The net is the "excess Medicare benefit". Worst case it is \$100,000 only if health costs exceed inflation by a factor of 2! Not the several hundreds of thousands that others complain about making no assumptions about such costs.

My argument stands. The Brooks et al argument assumes a two family household where the age

65 income is near poverty. I assume lower middle class individual. Can we adjust this across all of the society, yes, just lots of work but I believe the conclusion will not change much.

Now I have also parameterized this versus starting salary to give an idea as to the benefit.



Note that for the very poor, starting at \$4,000 pa in 1970 and receiving marginal raises and with medical inflation 7% in excess of core inflation we can generate an individual benefit of almost \$160,000! That is possible but it is for an extreme segment of the population not on average!

Labels: [Health Care](#)

TUESDAY, JUNE 14, 2011

REALITY AND BELIEF: A CONUNDRUM FOR ECONOMISTS

Observation

Economists build models using assumptions that all too often fail to reflect the reality that there is a lack of convergence between belief and reality. The classic efficient market hypothesis assumes that people have equal and timely information and that markets are efficient and always clear, namely markets reflect true value of the assets being traded. This premise is wrong most of the time. There is a frequent failure of reality and belief to align. Economics also fails to both understand this fact and its models all too often fly in the face of reality. The appropriate aphorism for this is: Do you believe me or your lying eyes? The problem is that people often act on belief, facts be damned. In addition there is a herd mentality associated with belief. Yet there is an objective reality, house prices are too high, and the belief being that they will continue to go that way. The challenge is how does one incorporate a belief set, and in reality a stochastic belief set, into economics. People have trust in their belief. Yet trust also can go from total trust to total lack thereof.

Discussion

This assumption is also called the efficient market hypothesis, or a few other names, and is at the heart of many if not all of the models economists use in modeling the economy.

In reality the markets fluctuate from being efficient and to being highly inefficient. Namely there are times when people have equal information, they act rationally, and the price reached in the market reflects the value of what is being transacted. On the other hand there are times when there are bubbles, people have little information and they act irrationally and the price fails to reflect any reality. Real estate bubbles are common. I would also argue that there are bubble being created in university level education, namely the price being paid is a gross distortion of the value being produced. One could also make a similar argument with respect to health care.

Now there is also the dichotomy between when the EMH is valid, namely when the market is fair, and when people believe it is valid, namely what people think. Bubbles typically result when people believe it is working, namely when EMH is valid, but when it is actually not functioning. This is the dichotomy between belief and reality. There are times when they align but all too often they do not and that lack of alignment leads to bubbles and market collapse.

This has been called the Rowe conjecture, the fluctuations between reality and belief. Economists have assumed a consistent alignment of reality and belief. Rowe has conjectured that reality and belief may not always align, and in fact may have some cyclic behavior. We can show that the balancing of reality and belief is a fundamental element of the instabilities in the markets.

Basis

There is a herd mentality and the time scale of the herding may be affected by the media available but it exists and demonstrates a stickiness factor which means it does not adapt or reflect reality in an instantaneous manner.

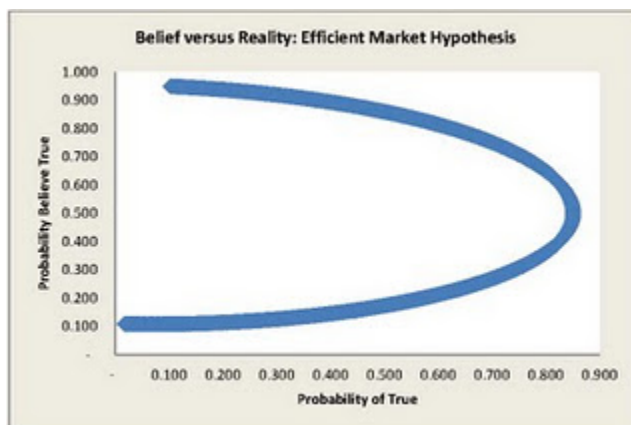
Examples

Bubbles are the most common of the examples here and the housing bubble is the most recent of them. Bubbles occur when reality and perception have a tendency to flip.

Implications

All economic models assume alignment of reality and belief. In reality that is not the case and people often act on belief and not reality. An example is inflation, peoples actions are often driven by expectations of say an inflationary trend.

Model



The above is an analytical model of belief versus reality in what was assumed an efficient market. Note that it cycles, namely this is the phase plane plot and the (belief, reality) points moves along this curve. Thus there are times when reality says there is no efficient market, namely a Bernie Madoff type market exists, and for a while everyone believe it cannot happen and then after a while they believe in the reality.

Conclusions

Economics must factor belief as well as reality. Belief is difficult to measure but it is a powerful force in markets, whether efficient or otherwise.

Labels: [Economics](#)

[CHINA AND ITS INFLATION](#)

[China Daily](#) reports the hike in bank reserves as CPI increases. They state:

China's central bank raised bank reserve ratios on Tuesday for the ninth time since last October after data showed inflation rising in May to 5.5 percent, its highest level in almost three years.

The central bank increased the ratio for China's biggest banks to 21.5 percent, a record high, locking up funds that could otherwise be loaned out and add to inflationary pressures...

At 5.5 percent, China's consumer inflation in May was the highest in 34 months. It compared with expectations for 5.4 percent and showed a pick up from 5.3 percent in April.

One suspects that with a 21.5% reserve that they are pulling back strongly and that inflation expectations are quite large. Revaluing the Chinese currency will be reflected in increased US prices. That in itself will not be inflationary since there is such excess slack in employment. It will just put further downward pressure on those employed and otherwise.

Labels: [China](#), [Economy](#)

MONDAY, JUNE 13, 2011

MEDALS, MEDALS, MEDALS

The [Government](#) is asking for nominations for the Citizens Medal. Again I recall my former partners in Central and Eastern Europe and their boxes of medals from the old Soviet regimes. Medals were the substitute for economic success. Every one had some medal.

I am reminded of Admiral King who was head of the Navy in WW II, he hated medals, he saw it as some British affectation. The British Navy wore medals and the US Navy did not. King stressed that. This was the US and you were rewarded by a job well done not by having ribbons all over your body. But alas things have changed. Just look at any general who appears in public, they have more medals that anyone could count. A bit too much, they occupy the entire left side of their body, perhaps bod armor.

I am also reminded of one of my late Czech partners, who was a good Communist until the fall, educated in Moscow, and all the rest. One day in his attic study I came across a box filled with medals. It looked like hundreds. I asked what they were. His answer was that they were what a good Communist got instead of money. The UK has such rewards, the Queen's Honors List, a knighthood, a Lordship, an OBE, a KBE, whatever. It works in Boy Scouts but not in life, except for Hollywood and performers, there they have an award ceremony a week.

The US had a tradition of few if any medals. But now it seems if we cannot allow and foster American ingenuity and creativity then we hand out medals.

Labels: [Economy](#)

10,000 ENGINEERING TEACHERS

The current President made a speech today stating that the Government must create 10,000 new engineering and science teachers per year going forward. [The USA today](#) reports:

President Obama set a goal today of recruiting 10,000 teachers in science, technology, engineering and math, calling these subjects essential to competing in the 21st-century global economy.

As [Market Watch](#) reported he also said:

Speaking in the key battleground state of North Carolina, Obama said the program would involve companies like Intel Corp. doubling their summer internship hiring; helping universities pay for engineering programs; and offering students incentives to finish their degrees.

Now just where are these coming from. You see Engineering Professors, well we never called them teachers, take a bit of time to create and find. I think MIT hires at most a dozen per year in a really great year and then gets 2 or 3 tenured from that batch. You see engineering is kind of really hard, as is physics, biology, chemistry.. Well, Math, that is just impossible. You do not train Math profs, God creates them, and they are rare as hen's teeth.

In fact you do not even train engineers. They are educated, you see, they take really hard courses like strength of materials, solid state electronics, computer architecture, heat moment and mass transfer, organic chemistry, fluid mechanics. You have to choose the best qualified and motivate students. They are educated to make things, not like economists, who just throw equations around and have never been able to predict anything. Not even like lawyers, who talk a lot and well we all know lawyers, my daughter married one. Nice guy but a lawyer.

The stated goal is unachievable. It is based on a fallacy, a set of fallacies! How in heaven's name can one hope to build an economy back with such statements. The Chinese do not do that, their Government is filled with engineers, they at least know of what they speak. They have been working for two generations to get there. Doubtful if any Government program in several lifetimes will get us there.

You see you have to have been educated to get into a good engineering school. Otherwise we train people who do not know engineering. This stated goal is akin to training 10,000 neurosurgeons. Chuckle, chuckle, chuckle!

Labels: [Economy](#)

SATURDAY, JUNE 11, 2011

[B-RAF AND ANOTHER HIT](#)

In [NEJM](#) today an Italian team did a splendid piece of genetic investigative work finding B-RAF changes identical to that in the melanoma work in Hairy Cell Leukemia patients. [Cancer Research](#) in the UK has a good summary as well.

The article states:

In 30 of the 48 patients with the V600E variant (including the index patient), the high purity of leukemic cells (>90%) allowed for the analysis of the zygosity of the mutation without substantial interference of wild-type alleles contributed by contaminating nonleukemic cells. In 26 of these 30 patients, the mutation appeared as a double peak...

The V600E mutation results in the constitutive activation of BRAF kinase activity. Therefore, we assessed the phosphorylation status of MEK (the immediate downstream kinase target of BRAF) and ERK (the kinase phosphorylated by active MEK), using antibodies that specifically recognize phosphorylated MEK and ERK.

The similarity to the melanoma case is quite interesting. They conclude:

BRAF V600E was present in all 48 patients with HCL in our study. However, given the relatively small number of patients who were evaluated, we cannot rule out the possibility that some patients with HCL may not carry the BRAF V600E mutation. It must also be stressed that all samples that were analyzed in this study contained at least 30% neoplastic cells, which was the threshold for detecting a heterozygous clonal mutation by direct Sanger sequencing in our study. The detection of BRAF V600E in HCL samples containing lower proportions of leukemic cells

will require more sensitive molecular techniques. If antibodies against the BRAF V600E variant protein become available, immunohistochemical analysis may be an alternative approach.

Labels: [Cancer](#)

FRIDAY, JUNE 10, 2011

[EASY MONEY AND THE FUTURE](#)

[Prof Rajan](#) has penned a short piece regarding the evils of easy money. He makes the point that with the extra low and artificial interest rates people should be spending and not saving, but he argues why the contrary is true and why the burden has been placed square on the shoulders of the savers.

Now one should remember that the good old 401Ks have continued but at an ever increasing pace. Yes they were reduced in number as people were let go but as companies eliminated defined benefit plans for retirement they have grown more than what was lost by unemployment. Much of that 401K money does go to assist the growth of the market since people have this forced form of savings and there is no alternative. Housing is now dead.

However the true burden as Rajan recounts is on the saver, especially those older retired savers who may have moved to Government securities now yielding an infinitesimal rate, say 2% when a few years ago it was 6%. That means for the same cash output they must have three times in savings of what they had just a few years ago. Unlikely. Thus it means they have much less buying power or that this low interest rate is really another form of hyperinflation!

Yes, the FED is feeding the banks and their money loving employees off the backs of the old. Instead of eating your young they are eating their old. Now with Washington killing Medicare, well just wait.

One is reminded of the old dictum. Why did God invent Washington? Because Hell was overcrowded! That may have a point in current times.

Labels: [Economy](#)

FRIDAY, JUNE 10, 2011

[EUROPEAN DOWNGRADE OF US DEBT](#)

[Feri Eurorating](#) has downgraded US Debt from AAA to AA. From the release they state:

The Bad Homburg Feri EuroRating & Research AG downgraded the first credit rating agency's credit rating for the United States from AAA to AA. Feri analysts justify the downgrade by the continuing deterioration of the creditworthiness of the country due to high public debt, inadequate fiscal measures, and weaker growth prospects.

“The U.S. government has fought the effects of the financial market crisis primarily by an increase in government debt. We do not see that there is sufficient attention being paid to other measures,” said Dr. Tobias Schmidt, CEO of Feri Rating & Research AG. “Our rating system shows a deterioration in economic health, so the downgrading of the credit ratings of U.S. is warranted.”

For the third consecutive year the deficit of the United States is in double digit percentages relative to gross domestic product (GDP). “Deficits of such magnitude are not a sustainable fiscal policy. We would reconsider the rating when the U.S. government creates a long-term sustainable budget,” said Schmidt.

Feri Rating is listed on the Federal Financial Supervisory Authority (BaFin) as an EU credit rating agency approved and created with more than 20 years experience in sovereign ratings. Every month, the Feri analysts evaluate sovereign credit ratings from the perspective of a foreign investor based on the ability and willingness of countries to repay their debts. The credit ratings have eleven possible gradations between “AAA” (best credit) and “Default”.

Something about the chickens and their return to home?

Labels: [Economy](#)

THURSDAY, JUNE 9, 2011

[CANCER IN THE UK](#)

The UK has just released a [study on cancer mortality](#) and the reasons why the NHS, the state run health system which is the goal of many in the US, is at fault. The report summarizes the reasons as:

Cancer survival rates in England are improving, but they still lag behind those in the best-performing countries in the world. The current government has identified cancer survival rates as an area for improvement and the cancer strategy commits to saving an additional 5,000 lives by 2015, but how can these improvements be achieved?

How to improve cancer outcomes, published in partnership with Cancer Research UK, considers the existing differences in cancer survival rates between countries and discusses the reasons for these variations including: stage at diagnosis and diagnostic delay; treatment factors; patient factors; and tumour biology and physiological/biological factors.

The authors suggest that the most plausible drivers for improved survival rates are:

- 1. diagnosis at an early stage, including through effective screening programmes*
- 2. access to optimal treatment*
- 3. improvements in the management of older people with cancer.*

This has been rephrased by [Cancer UK](#) as:

It highlights the fact that compared with other countries:

- *English patients are often diagnosed at a later stage*
- *In England there are delays in accessing treatment*
- *In this country evidence suggests that some older patients are being under-treated*

The message for us in the US is simple. With the new systems going into place emulating the NHS we too will see a rise in mortality. The Report is worth the read but it needs interpreting. Euphemisms abound.

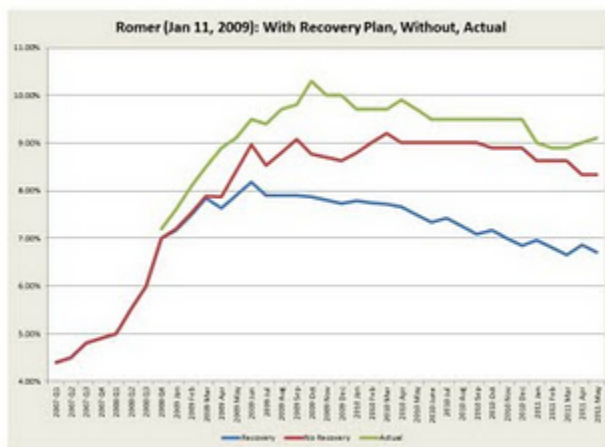
Labels: [Cancer](#), [Health Care](#)

WEDNESDAY, JUNE 8, 2011

[EMPLOYMENT, ECONOMICS, SCIENCE: ROMER REDUX](#)

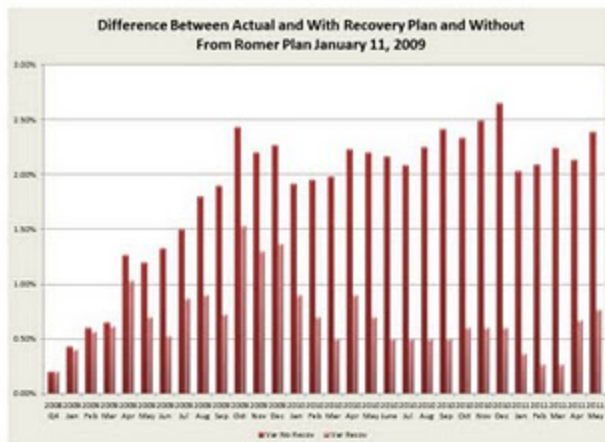
It is worth a return to the Romer curve, the data that the former head of the CEA presented in January 2009 regarding the effects of the trillion dollar stimulus. Now remember this is economics, not medicine or engineering and especially not science.

First we show the projections that Romer made:

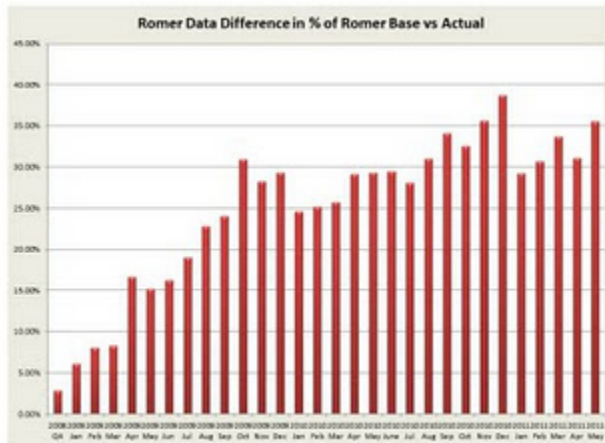


This shows what she predicted to date. Note the tremendous gap between what she said would happen and what did. There is also a great gap between reality and what would have happened if they did nothing. Frankly we would have better off with nothing.

Now for the variance. We do this in two charts.



and



Now what faith should one have in economists if they are that far off? Or was the stimulus just the opposite, namely a drag on the real economy? Lot's of PhD theses will come out of this data. However no employment will.

Also worth a look at a [Washington Post](#) note regarding Romer which states:

The economic team went round and round. Geithner would hold his views close, but occasionally he would get frustrated. Once, as Romer pressed for more stimulus spending, Geithner snapped. Stimulus, he told Romer, was “sugar,” and its effect was fleeting. The administration, he urged, needed to focus on long-term economic growth, and the first step was reining in the debt.

Wrong, Romer snapped back. Stimulus is an “antibiotic” for a sick economy, she told Geithner. “It’s not giving a child a lollipop.”

Perhaps Romer should kick the sugar habit.

Labels: [Economics](#)

[FACTIONS, MADISON AND WICKED PROJECTS](#)

There is a continuing complaint that the leaders in Washington are always at war with one another and that this is bad. That they should agree, come to a resolution. Take the debt as an example, is it good or bad, do we need to spend more or less.

Now one need go no further than [Federalist Paper 10](#) by Madison which recounts the usefulness of factions, namely the usefulness of there being many fragmented ideas and that from time to time the majority of other factions can block any one from implementing something.

As Madison states:

The latent causes of faction are thus sown in the nature of man; and we see them everywhere brought into different degrees of activity, according to the different circumstances of civil society. A zeal for different opinions concerning religion, concerning government, and many other points, as well of speculation as of practice; an attachment to different leaders ambitiously contending for pre-eminence and power; or to persons of other descriptions whose fortunes have been interesting to the human passions, have, in turn, divided mankind into parties, inflamed them with mutual animosity, and rendered them much more disposed to vex and oppress each other than to co-operate for their common good. So strong is this propensity of mankind to fall into mutual animosities, that where no substantial occasion presents itself, the most frivolous and fanciful distinctions have been sufficient to kindle their unfriendly passions and excite their most violent conflicts.

Thus Progressive or Libertarian, Liberal or Conservative, factions are a natural part of humanity. Silencing any one voice is doing harm to the body politic. Thus for example the Progressives intent to destroy FOX is most likely as abhorrent to Madison as the intent of the Presbyterians to silence the Catholics.

Madison continues:

The inference to which we are brought is, that the causes of faction cannot be removed, and that relief is only to be sought in the means of controlling its effects.

If a faction consists of less than a majority, relief is supplied by the republican principle, which enables the majority to defeat its sinister views by regular vote. It may clog the administration, it may convulse the society; but it will be unable to execute and mask its violence under the forms of the Constitution. When a majority is included in a faction, the form of popular government, on the other hand, enables it to sacrifice to its ruling passion or interest both the public good and the rights of other citizens. To secure the public good and private rights against the danger of such a faction, and at the same time to preserve the spirit and the form of popular government, is then the great object to which our inquiries are directed. Let me add that it is the great desideratum by which this form of government can be rescued from the opprobrium under which it has so long labored, and be recommended to the esteem and adoption of mankind.

Yes, clogging the administration is an effect of a well-structured Government because it blocks the attempts of a faction.

Madison ends with:

The influence of factious leaders may kindle a flame within their particular States, but will be unable to spread a general conflagration through the other States. A religious sect may degenerate into a political faction in a part of the Confederacy; but the variety of sects dispersed over the entire face of it must secure the national councils against any danger from that source.

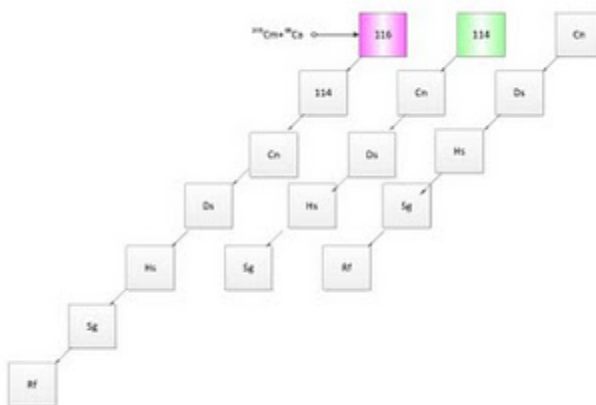
A rage for paper money, for an abolition of debts, for an equal division of property, or for any other improper or wicked project, will be less apt to pervade the whole body of the Union than a particular member of it; in the same proportion as such a malady is more likely to taint a particular county or district, than an entire State. In the extent and proper structure of the Union, therefore, we behold a republican remedy for the diseases most incident to republican government. And according to the degree of pleasure and pride we feel in being republicans, ought to be our zeal in cherishing the spirit and supporting the character of Federalists.

One need just read his parting remarks. The need for paper money, namely the ability to create dollars out of free air, the equal division of property, what we now call redistribution of wealth. the abolition of debts, what we now see as adjusting mortgages for those stupid enough to get in over their heads, is as Madison clearly states a wicked project! Factions have their evils but they also help block certain other evils, evils of the majority, a Government run by one party which has taken up the wicked projects detested by Madison.

Just a thought for the day.

Labels: [Political Analysis](#)

[TWO NEW ELEMENTS](#)



IUPAC has announced the acceptance of experimental work to introduce two new elements. The [BBC](#) announced the following:

The working party concluded that elements 114 and 116 fulfilled criteria for official inclusion in the table. The others, as yet, do not.

Names have not as of yet been defined. IUPAC includes the above in their discussion.

Labels: [Science](#)

TUESDAY, JUNE 7, 2011

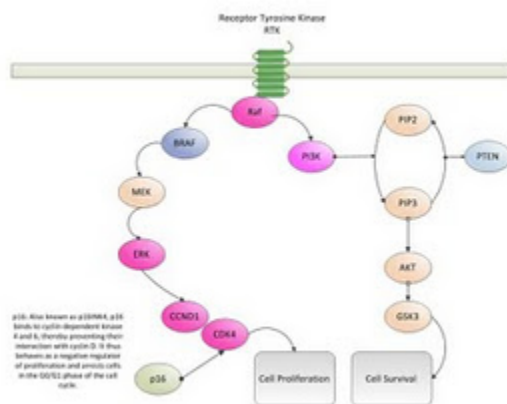
MELANOMA: PATHWAYS, IMMUNE RESPONSE, AND PROGRESS

There has recently been several pathway control mechanisms developed and tested and also an immunological approach deemed to be somewhat effective. We examine them here and also use them as suggestive of what else may be accomplished.

The current methods focus on two areas: (i) controlling aberrant pathways and (ii) using the immune response to control aberrant cells. It should be noted that in both cases we are dealing with the paradigm of a single but multiplying yet identical cancer cell. There is no hypothesis as regards to a stem cell or to the fact that the cancer may be multi-clonal.

1.1.1 Aberrant Pathway Control

We now examine the aberrant pathway approach. First let us consider the pathways that control a single cell. We show them below:



The above shows two results; cell proliferation and cell survival. They are two characteristics of a cancer. Namely the cell replicates and it does so in an almost immortal manner. The changed cell then starts to take over where other functional cells have been and the result is an unstable and ultimately deadly takeover of the human. Thus the two pathways are but a few of the many we will discuss at length. Yet the key point is that in examining melanoma it has been discovered that there is a specific mutation in the B-RAF gene that activate the MEK pathway. Activating that pathway creates a situation where we have an uncontrolled growth.

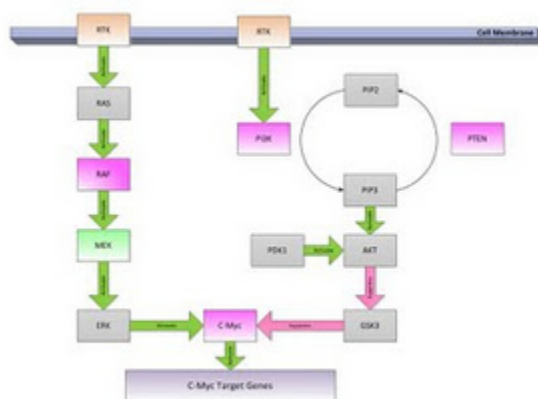
The growth factors activate the RTK kinase which activates the RAS which activates a B-RAF which overexpresses its product and this over-expression is what drives the proliferation pathway. It is this single gene and its protein expression which causes the problem in 60% of the cases.

The cell survival is often controlled by PTEN and it is the loss of PTEN which results in the cancer cell immortality. The PTEN loss is comparable to the same issue we have seen in prostate cancer.

Key to aberrant pathway control is a simple principle. Namely, we base the approach on the observed fact that certain pathway control elements have been changed as a result of a change in the underlying gene. We will show that in the current well known example of B-RAF that the underlying gene of B-RAF has been mutated and it the resulting B-RAF protein which has allowed the pathway to be turned on permanently. Thus the putative solution is to turn off the protein by targeting it with a drug which will pass the cell membrane and bind to the protein and inactivate it. A simple approach based upon an established fact. As we shall see there are two immediate issues: (i) only about 50% of the melanoma patients have the mutation, and (ii) the drug lasts for a relatively short time. It is similar to the effect that imatinib has on CML, a temporary regression and then a return.

As we shall see the possible solution may be multiple drug therapies targeting other pathway elements.

Now another way to view the pathways is shown below with the prominent role of c-Myc displayed at a common point. Note here we have the common surface kinases and the impact of B-RAF as well as PTEN. PTEN can modulate the limited up-regulation of B-RAF but only to a degree. As we have seen in PCa the loss of PTEN functionality leads to very aggressive forms.



The above also presents alternative control elements for possibly melanoma or frankly many other cancers. Specifically Smalley and Flaherty (2009) had suggested these pathway elements focusing on B-RAF, AKT and PI3K. One could also focus directly on the genes through a suppression mechanism but the technology for doing so is not yet available. Also there must be some specific targeting since we do not desire to target normal types of these products.

The control of aberrant pathways is conceptually simple.

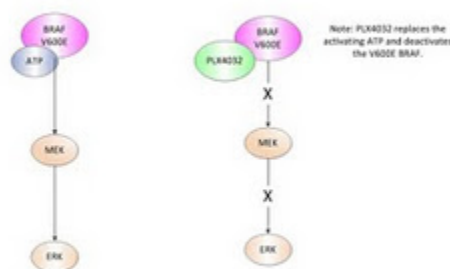
1. Using a methodology such as microarrays, attempt to identify genes, or their expressions, which are present in the malignant cell. These are not unique and sometimes they are transient as well. The B-RAF identification is an example.
2. Develop a target molecule which can attach to and inactivate the aberrant gene or protein. In the current case of B-RAF they have deactivated the protein.
3. Test and use.

It may sound simple but the first step is potentially searching for a needle in a haystack and the second step can be as demanding. One may ask why not just block MEK or AKT just to stop everything. Assuming targets are possible the problem is it would do so for all cells and it would play havoc on the rest of the body. No blood cells, no hair, skin, and the like.

1.1.2 B-RAF control

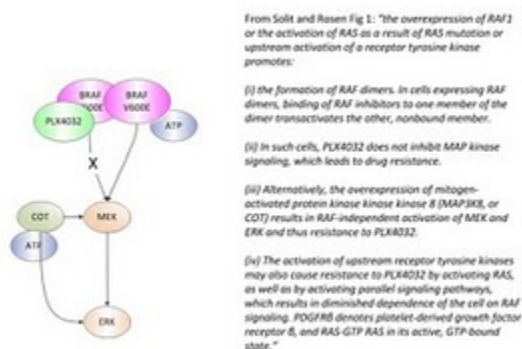
The most recent one is the control of a mutated B-RAF, a variant of the RAF pathway. It was observed that there was a mutation in the B-RAF gene so that what was produced was a different B-RAF called V600E which had excessive up-regulation in almost 50-60% of all metastatic melanomas. The identification of this product then allowed for its targeting and suppression as a means to reduce cell proliferation. The results have been reported recently by the work of Chapman et al (2011) and Flaherty et al (2010). A review by Smalley and Flaherty (2009) had made suggestions on controlling both the BRAF as well as the AKT pathway. We will discuss that later. Recent work by Poulikakos and Solit (2011) has also presented both BRAF and MEK control, trying to avoid the loss of efficacy we discuss here.

Specifically, a drug now called Vemurafenib, or PLX4032, binds to the ATP activation site on the B-RAF mutation V600E and as such it blocks the overexpression of this protein and reduces the flow downward which we have shown causes ultimately an up-regulation of proliferation.



Now we can also see that Vemurafenib can lose its effectiveness and there are several proposals for why this happens. We discuss a few here. From Solit and Rosen (2011) we show one of the possible ways in which resistance can occur. We discuss several of their conjectures in detail.

Below we depict the supposition from Solit and Rosen. Arguably this is what accounts for the mortality in the Kaplan Meir data they have from their trials.



The paper by Solit and Rosen propose three reasons for loss of action of PLX4032:

(i) In melanomas with the BRAF V600E mutation, levels of activated RAS are too low to promote adequate formation of RAF dimers, and PLX4032 inhibits RAF activity and ERK signaling ... This model is consistent with our observation that the introduction of mutant (activated) RAS into cells with mutant BRAF causes insensitivity of the ERK pathway to the drug. This model suggests that increases in RAF dimerization (because of RAS activation or increased RAF expression) will cause ERK signaling to become insensitive to PLX4032 ...

(ii) The findings of Johannessen et al. suggest another mechanism for the resistance of ERK signaling to RAF inhibition in cells driven by the BRAF V600E mutations. These investigators used a new technique — the introduction of a library of DNA constructs, each of which encodes a different kinase — into tumor cells with the BRAF V600E mutation to screen for kinases that confer resistance to RAF inhibition. Using this screen, they confirmed a previous finding: that overexpression of RAF1 confers resistance to RAF inhibition. They further showed that the overexpression of mitogen-activated protein kinase kinase kinase 8 (MAP3K8, or COT), which phosphorylates MEK in a RAF-independent manner, can also mediate resistance to RAF inhibitors ...

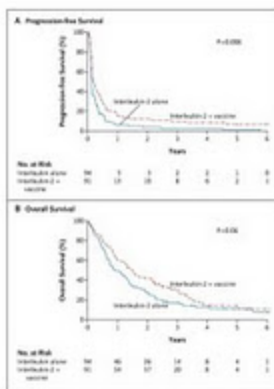
(iii) a third basis for acquired resistance, one in which the activation of other pathways causes the tumor cell to become less dependent on ERK signaling. In these tumors, ERK activation remains sensitive to the RAF inhibitor. Specifically, they report that platelet derived growth factor receptor β (PDGFRβ), a receptor tyrosine kinase, is overexpressed in cellular models selected for RAF-inhibitor resistance in cell culture and in a subgroup of biopsy samples obtained from patients with progressing tumors. In the cell lines, PDGFRβ overexpression was

associated with resistance to the anti-proliferative effects of the RAF inhibitor, despite continued inhibition of ERK signaling in the presence of the drug.

1.1.3 Immunological Techniques

Rosenberg has for decades been examining the use of the immune system to attack cancer cells and he has done a great deal of work specifically on melanoma. The second thrust of the recent advances has been along these lines and Rosenberg has also been a contributor.

The first recent report is by Schwartzentruber et al (2011, NEJM) wherein, along with Rosenberg, they have used a vaccination of a peptide which can recognize melanoma cells and then by increasing the T cells via an interleukin infusion they found that the result was improvement in survival of metastatic melanoma patients. We show the results below from the paper.



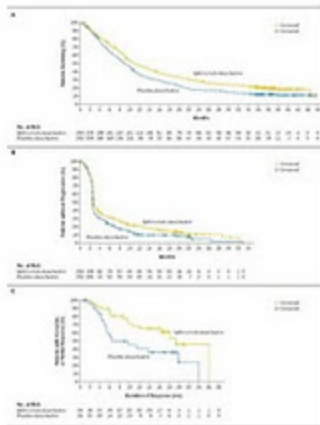
It should be noted that there is some improvement but still there is a very poor survival prognosis.

The second paper by Robert et al (2011 NEJM) uses another approach. They use a combination of a monoclonal antibody and a standard chemotherapeutic element. They state:

Ipilimumab, a fully human, IgG1 monoclonal antibody, blocks cytotoxic T-lymphocyte–associated antigen 4 (CTLA-4), a negative regulator of T cells, and thereby augments T-cell activation and proliferation.

The second agent is dacarbazine. Decarbazine is a classic alkylating agent and has been used before with very limited results.

The data on survival is shown below:



Survival with the first approach after 36 months is about 38% and with the second approach it is about 45%. The interesting factor however with the second approach is the total remission in patients exhibiting total remission at the end of the study being almost 50%. Thus if total remission was exhibited it was sustained.

As the authors of the second study state:

Prolonged survival was noted among some patients who were followed for up to 4 years. In the ipilimumab–dacarbazine group, an estimated 28.5% of the patients were alive at 2 years, and an estimated 20.8% at 3 years, as compared with an estimated 17.9% and 12.2%, respectively, in the dacarbazine group.

One can seem to state that the second approach was more effective than the first.

Possibly combining the approaches will be more effective and the current understanding is that they intend to examine those paths.

1.1.4 Considerations

The current efforts clearly show some significant advancement. However there are several key issues which must be clarified:

1. Is melanoma like colon cancer as described by Vogelstein or do we have a somewhat random set of mutations depending on the location of the lesion. Namely is melanoma really a disparate set of different sub-cancers. Is there a clear genetic pathway, is there a gene that predisposes and if so how. The how is all too often the key question.
2. Where does the melanoma stem cell fit in this paradigm? Stem cells have a problem because if they exist and are of the primary concern then perhaps we are just eliminating the TIC cells and not the CSC.
3. What of the Harahan and Weinberg model of an interacting environment? Namely what about the influence of the other parts of the body including the immune system? This has been a Rosenberg issue for decades and Harahan and Weinberg make a strong case for its consideration.

4. Is it necessary to develop a data base of aberrant expressions of proteins?
5. What about dealing with the gene itself? Why just the protein.
6. How can we identify these cells from say cell surface markers. That would enhance the ability to expand our understanding of the histology down to the expression level.
7. What genes have been changed and how? What was the change agent. We have argued elsewhere that it is radiation, ultraviolet and x-ray. But what of other factors. Where do the miRNAs fit, other epigenetic factors, methylation, and the like.
8. As with other cancers, there may be a sequence of changes, and is MIS, melanoma in situ, one of the steps. Is MIS akin to say HGPIN in prostate cancer or an adenoma in colon cancer?

There are many other issues which will evolve from this study. It represents a step in the forward direction but as has been seen each time we do this we see other new paths as unknown.

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Labels: [Cancer](#), [Health Care](#)

[BROOKS, MEDICARE AND THE FACTS](#)

[David Brooks](#) seems fixated on the fallacy of what people pay into Medicare and what they get. Today he again makes the false statement, based upon our detailed analysis of the data, the facts, that:

The fee-for-service system is incredibly popular. Recipients don't have to think about the costs of their treatment, and they get lots of free money. The average 56-year-old couple pays about \$140,000 into the Medicare system over a lifetime and receives about \$430,000 in benefits back. The program is also completely unaffordable. Medicare has unfinanced liabilities of more than \$30 trillion. The Medicare trustees say the program is about a decade from insolvency.

Recall that when you go to the CMS data site you find that the average expenditure is \$10,500 per annum from 65 and the average life expectancy is 12 years. Even for a couple that is \$250,000. Now the average contribution, compounded at 5% pa is \$180,000 per person, so it is \$360,000 per working couple, and more than 70% work.

Thus Brooks is wrong. Why? He got this ditty from someone else and has never checked it. Well it is the Times, that is the way it works.

He concludes:

The fact is, there is no dispositive empirical proof about which method is best — the centralized technocratic one or the decentralized market-based one. Politicians wave studies, but they're really just reflecting their overall worldviews. Democrats have much greater faith in centralized expertise. Republicans (at least the most honest among them) believe that the world is too complicated, knowledge is too imperfect. They have much greater faith in the decentralized discovery process of the market.

I'd only add two things. This basic debate will define the identities of the two parties for decades. In the age of the Internet and open-source technology, the Democrats are mad to define themselves as the party of top-down centralized planning. Moreover, if 15 Washington-based experts really can save a system as vast as Medicare through a process of top-down control, then this will be the only realm of human endeavor where that sort of engineering actually works.

Yes, there is no clear proof of which system is best. Yes this seems to be becoming the defining issue. Not war. not taxes, not the economy or debt, but Medicare. The shame is that most who debate have no handle on the facts. And I thought Brooks was a [follower of Hume](#).

As Brooks was quoted in [The Guardian](#):

Brooks hails British rather than French Enlightenment thinkers as the guys who really understood what makes the social animal tick. While Voltaire, Condorcet and Descartes used

reason to confront superstition and feudalism, thinkers across the Channel – Brooks cites Burke, Hume and Adam Smith – thought it unwise to trust reason. Rather, and here Brooks quotes Hume with approval: "Reason is and ought to be the slave of the passions."

But Hume was a believer in the observed, not the reasoned. Thus the difference. Rationalism versus Empiricism. To be an Empiricist as Brooks alleges one MUST deal with the facts, one must go beyond hearsay and discover what the facts are. Their interpretation may take on some Humean form of self-delusion but at least one deals with facts.

Thus my suggestion:

1. Go to CMS and especially the annual report from the Medicare Board and determine the cost per subscriber per year.
2. Then go to the Census data and determine the survivor rates.
3. Then go to the same data and determine what people made, the advantage of Medicare is that people pay a fixed percent of their total salaries! Not like taxes or SSI. In fact of one takes all salaries and then takes 3% that is what has gone into Medicare.
4. Then take that on a per person basis. Not what Brook did assume that it was a single worker family who made it to \$45,000 pa by age 65! Give us a break, how few are these people. 70% of people are dual income, and \$45,000 pa in 2011 for a 65 year old probably means a lot, the bottom 10% of all salaries!
5. Then do the analysis as I have done. Hume did teach us something, facts count!

Labels: [Health Care](#)

FRIDAY, JUNE 3, 2011

CCE AND PROSTATE CANCER

[AHRQ](#) has announced a study of comparative clinical effectiveness for treatment of prostate cancer. The study states:

Localized prostate cancer is a priority condition for comparative effectiveness research, and affects approximately 200,000 men in the United States each year. This study will examine the comparative effectiveness of management strategies for localized prostate cancer. Currently, few studies have directly compared the effectiveness of the different management modalities, including newer radiation and surgical techniques which have been widely adopted without proven benefit over older techniques.

The objectives are stated as:

*1. To directly compare the **disease-free survival and treatment-related morbidity in men with localized prostate cancer treated by open radical prostatectomy, minimally-invasive (including laparoscopic and robotic) prostatectomy, 3D conformal radiation therapy, intensity-modulated radiation therapy, proton radiation therapy, and brachytherapy.***

*2. To directly compare the prostate-cancer specific and global **quality of life (QOL) in men** with localized prostate cancer treated by the same treatment modalities.*

Part of the problem is defining localized cancer. It is not just the issue of invasiveness and tumor margins but it is more importantly the genetic makeup of the PCa cells. That is what should be addressed as well. Otherwise we are lumping all cancers together. It is not as if we have no knowledge of what to look for, we do. (See my book on [Prostate Cancer Genomics](#), draft 2011).

The major defect we argue is that the genomic profile will be more critical than say a Gleason score and if this becomes part of the HHS CCE protocol, they are doing a study with little if any merit. They are failing to consider the key profiling elements.

It is reasons like this that we are seriously concerned about the incompleteness and potentially false conclusions drawn for studies of this type.

Labels: [Cancer](#), [Health Care](#)

FRIDAY, JUNE 3, 2011

SOME ACO CLARITY

Cannon of Cato has a piece on [Kaiser](#) regarding the ACOs and it is one of the best I have seen. Recall that ACOs are fabrications being tested by Medicare, CMS, to lower costs of Medicare payments by getting physicians to voluntarily group together and treat a patient. Thus a primary, a dermatologist, an endocrinologist, and a cardiologist get together and somehow agree to who gets what. Medicare pays them less, but there is a magic bonus and they agree to split by another magic formula the total. Ever see a divorce property settlement?

Cannon states:

Medicare's idea of encouragement is this: If doctors and hospitals invest substantial resources to form an ACO, and better care coordination reduces the amount they bill Medicare, then the ACO will get to keep part of the savings.

"Here's a flash for the policy wonks pushing ACOs," writes industry expert Robert Laszewski. "They only work if the provider gets paid less for the same patient population. Why would they be dumb enough to voluntarily accept that outcome?"

The Mayo Clinic, the Cleveland Clinic and 93 percent of multi-specialty physician groups are not that dumb. In what the Associated Press called an "unusual rebuke," they and other providers that President Obama has hailed as models for his ACO program have refused to participate in it.

Many of the recalcitrant providers gladly participated in a similar program launched by the Bush administration, and this week we learned why: that program failed to produce any significant savings for taxpayers.

They now want Obama's ACO program to cough up more money before they will participate.

As we have argued before this will just drive costs up and transparency down.

CMS has now been pushing many [ACO models](#). CMS states:

The payment models being tested in the first two years of the Pioneer ACO Model are a shared savings payment policy with generally higher levels of shared savings and risk for Pioneer ACOs than levels currently proposed in the Medicare Shared Savings Program. In year three of the program, participating ACOs that have shown a specified level of savings over the first two years will be eligible to move a substantial portion of their payments to a population-based model. These models of payments will also be flexible to accommodate the specific organizational and market conditions in which Pioneer ACOs work.

The Pioneer ACO Model includes strong patient protections to ensure that patients have access to and receive high quality care. To accomplish this goal, Pioneer ACOs will be expected to improve the health and experience of care for individuals, improve the health of populations, and reduce the rate of growth in health care spending. Participating ACOs will be held financially accountable for the care provided to their aligned beneficiaries. In addition, CMS will publicly report the performance of Pioneer ACOs on quality metrics, including patient experience ratings, on its website.

It will be interesting to see how reality sets in.

Labels: [Health Care](#)

THURSDAY, JUNE 2, 2011

[THE PSA DEBATE CONTINUES](#)

The [NY Times](#) has an interesting discussion by a group of young folks on what they would suggest cutting in Medicare.

Medicare should stop paying for prostate cancer screening in men over the age of 75....Studies have been inconclusive about whether prostate cancer screening saves lives. What's more

certain are the harmful effects, including impotence and urinary incontinence, caused by unnecessary prostate procedures stemming from false positive P.S.A. tests. The U.S. Preventive Services Task Force updated their prostate cancer screening guidelines in 2008, and after careful deliberation of the evidence, recommended against screening older men.

1. The good doctor seems to base his decision on facts not in evidence. As I have noted here and elsewhere, see my book on [Prostate Cancer Genomics](#), the studies detailed in NEJM had fatal flaws. Thus the conclusion reiterated in the statement is itself flawed.
2. PSA tests should be Bayesian in nature. Namely if there is a family history then they should be used cautiously. If a first degree relative died of an aggressive form of PCa then that should be watched very carefully.
3. Genetic tests are slowly evolving yet not yet there. However they do present an option.
4. Some small percent of PCa is highly aggressive and early detection does have a positive effect. Most cases are indolent and slow growing, yet we still have no clear test other than family history to determine this.
5. Allowing the patient to pay themselves is an option. If the test is indicative, does this young man suggest that the biopsy should also be charged to the patient, what if the PCa is Gleason 6, should the operation also be charged to the patient.
6. Is he suggesting that old men have no value? That seems to be the consensus of this group.

Shame on the Times! But I guess everyone tries to throw grandpa over the cliff, the Democrats want to save just grandma!

Labels: [Health Care](#)

WEDNESDAY, JUNE 1, 2011

[NAVIGATING PATHWAYS THROUGH THE MEDICAL MAZE](#)

[Thoma](#) has linked to an interesting study which gives some statistics on the difficulty many people have working their way through the medical establishment when they have cancer. This is indeed a major problem and as Thoma concluded:

If patients need to be coached to simply make an appointment, how can we expect them to shop around for the best care as they would need to do in a privatized, voucher system?

That indeed is the problem. The fact is that most primary care physicians are more than capable of. Thoma states from the [reference](#):

Two-thirds of newly diagnosed cancer patients unable to obtain oncology appointments, EurekAlert: Newly diagnosed cancer patients frequently face hurdles in obtaining an appointment for care with an oncologist, according to new research from the Perelman School

of Medicine at the University of Pennsylvania... Even callers with private health insurance had difficulty scheduling an appointment, with just 22 percent of them obtaining a slot, compared to 29 percent of uninsured patients and 17 percent of patients on Medicaid, according to results of a study in which research assistants posed as patients seeking an initial evaluation.

They conclude that some form of medical navigator is essential. It used to be the family physician who would help. That was fifty years ago. Today it is ever so much more complex. The specialists are truly specialists and patients are generally not able to create and present their case file.

For example if a patient goes to a primary care physician with a concern about a mole, the physician sends them to a dermatologist. In fact they may get a list of several to call. Which one? Then if they get an appointment, it may take a couple of visits and if the lesion is a melanoma, then what? It really depends. What level, and what treatment?

Does the patient then find some academic facility with a melanoma expert, and how would they choose the physician, and what must they bring, and the list of uncertainties goes on, and the costs increase.

The same is the case say with a prostate concern. Say the PSA velocity jumps, well above 0.75 per year. Does the patient find a urologist, then have a biopsy, then if it is HGPIN. Then how best to follow up, since 50% of the second biopsies can have Gleason 7 or higher. Then what?

How does the normal person navigate this?

I have seen a multiple set of ways. First a great primary care physician assists, but he is generally not paid for this. It is a gift. Second, the patient becomes a victim of the system and it is a crap shoot. Third is the take care type, a family member may be a nurser and then they get pushed here and there, still confused. Fourth is the physician as patient, they call around friends and by networking get themselves from the very beginning in the best route. That of course requires great insight and contacts. The problem often with physicians is that they are not the best patients and often delay and deny.

Thus this issue, not at all addressed in any health care plan, is a cause of much mortality and morbidity, not to mention costs.

Thoma's point is well taken, and worth some consideration.

Labels: [Health Care](#)

[A SURGEON, AN INTERNIST AND A PSYCHIATRIST WALK INTO A BAR](#)

This is not a joke about surgeons and physicians, it is a commentary on a article written by one. Although perhaps there is a joke here somewhere. In [The New Republic](#) there is a piece on how we have exploded the expectations of health care. How we are spending too much, promoting things which will never materialize, and we should just be satisfied with taking care of sick people. The article states:

Let us begin by pointing to some unpleasant realities, starting with infectious disease. Forty years ago, it was commonly assumed that infectious disease had all but been conquered, with the eradication of smallpox taken as the great example of that victory. That assumption has been proved false—by the advent, for example, of HIV as well as a dangerous increase in antibiotic-resistant microbes. Based on what we now know of viral disease and microbial genetics, it is reasonable to assume that infectious disease will never be eliminated but only, at best, become less prevalent.

Then there are chronic diseases, now the scourge of industrialized nations. If the hope for eradication of infectious disease was misplaced, the hopes surrounding cures for chronic diseases are no less intoxicated. Think of the “war on cancer,” declared by Richard Nixon in 1971. Mortality rates for the great majority of cancers have fallen slowly over the decades, but we remain far from a cure. No one of any scientific stature even predicts a cure for heart disease or stroke.

Now let me make a few comments:

1. In a 1942 Internal Medicine text and earlier I find almost 30-40% of the book about infectious disease. On the other hand there is a paragraph on prostate cancer basically saying by the time it is noticed you might just as well forget it. In the current volume of Harrison's the focus has changed, we can handle most infectious diseases and even most prostate cancer.
2. As to their claim that we assumed to have solved the infectious disease problem, well we have, just look at AIDS, we managed to turn it into a chronic disease in almost zero time. The dealing with AIDS was and is a medical triumph, and the authors downplay it. Well one is a surgeon.
3. Chronic disease, well, yes there are major problems, say with obesity and Type 2 Diabetes and their sequellae. How to solve that, less medial research, hardly, just change diet, at least in almost all cases. Cancer, great progress here, and we keep taking steps forward. The cell, its pathways, its microenvironment, cancer provides a window to understand that. Hopefully we can learn not to cut but to cure.

They continue:

In light of the fact that we are not curing most diseases, we need to change our priorities for the elderly. Death is not the only bad thing that can happen to an elderly person. An old age marked by disability, economic insecurity, and social isolation are also great evils. Instead of a medical culture of cure for the elderly we need a culture of care, notably a stronger Social Security program and a Medicare program much more heavily weighted toward primary care. Less money, that is, for late-life technological interventions and more for preventive measures and independent living. Some people may die earlier than now, but they will die better deaths.

The issue is cultural not governmental or medical. Advance Directives are typically prepared by those who have looked ahead. People died of heart problems or pneumonia, while having a more serious underlying disease. We are now often forced by the law and yes by families to extend the care to overcome the first cause and to then deal with the expensive and much more painful second cause.

The authors reveal their true selves with the statement:

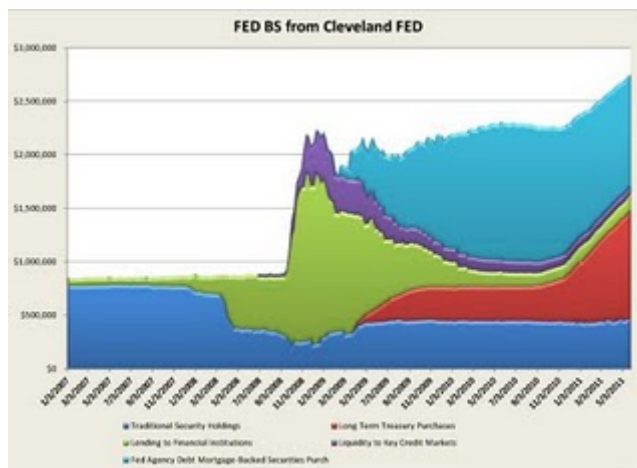
*Finally, we need a health care system that is far more radically reformed than the system envisioned by the Affordable Care Act (ACA). Should the ACA be successful down to the last detail, it is still unlikely to succeed in bringing the annual rise in health care costs down to the annual GDP increase. In their 2011 yearly report, the Medicare program trustees project insolvency by 2024. **The only reliable way of controlling costs has been the method used by most other developed countries: a centrally directed and budgeted system, oversight in the use of new and old technologies, and price controls.** Medicine cannot continue trying to serve two masters, that of providing affordable health care and turning a handsome profit for its middlemen and providers.*

Yes, they want that obese GS5 with an attitude telling us what to do and what we can do with ourselves! Imagine that GS5 telling the surgeon, after all I rarely met a surgeon who took orders from anyone, no less than a GS5 over a telephone.

So what is the alternative? Central control or individual choice. The market does have a way of selecting priorities. Having to pay something does force the individual to choose. The real only reliable way to paraphrase the authors is to have a more market driven system. If you want unending care for chronic and debilitating old age, beyond a reasonable level, then you must be prepared to pay for it. It is amazing to see what happens when the relatives are presented with the bill.

The issue is not affordable care as they say above. The issue is excessive care. CAT scans are great for identifying strokes, but the incidental findings all too often send us down the rabbit hole. Lots more tests and at great cost. It is the burden of the overhead of litigation, patient demands without understanding costs, and Government that got us here. More of the same will not get us out.

Labels: [Health Care](#)

FED BALANCE SHEET JUNE 1, 2011

The FED Balance Sheet continues to expand with both mortgage securities and Treasury buys. There appears to be no end in sight and one wonders if there is a QE3 in progress.

Labels: [Economy](#)

TUESDAY, MAY 31, 2011

CHINA, ITS DROUGHT AND INFLATION

The [China Daily](#) reports on the impact of the drought in China.

Shoppers at a supermarket in Shanghai's Huangpu district complained that the price of rice produced in Hubei increased 20 percent in one month to 2.6 yuan a kg. Lotus root produced in Hunan also climbed 20 percent during the same period to 4.2 yuan a kg.

In Wuhan, capital of drought-hit Hubei, the average price of 20 monitored vegetables climbed 7.3 percent in one month. The price of cabbage almost doubled in May to 2.22 yuan a kg, according to the Ministry of Agriculture.

This may have a substantial impact on US inflation as well. Demand for Agricultural product up and price on manufactured products up as well.

Fifty years ago we were isolated from much of this and now it is as if it is all one country.

The article continues:

If food prices continue to soar during the summer, the increase may exceed 20 percent, which will push up inflation in the short term, Liu Ligang, an economist for the Greater China area with the ANZ Bank, said in his column for Financial Times.

On another note, Gao Wenqi, a researcher with the Shanghai Agricultural Technology Extension and Service Center, said the drought has provided better conditions for aphids to reproduce.

Aphids can produce a new generation in days with no rain, said Gao.

Things are getting a bit stiff.

Labels: [Economy](#)

MONDAY, MAY 30, 2011

[MATHEMATICS, TECHNOLOGICAL CHANGE AND TRUTH](#)

[Frances Woolley](#) has written an interesting piece as usual and this time it is regarding the changing understanding and usage of mathematics in students. She states:

Here's my theory: Some students struggle with economics because they do not fully understand the mathematical tools economists use. Profs do not know how their students were taught mathematics, what their students know, what their students don't know - and have no idea how to help their students bridge those gaps.

The arithmetic gap is the most obvious one: profs over a certain age (and some immigrant profs) were drilled in mental math; Canadian students under a certain age haven't been. Some implications of the arithmetic gap are familiar: profs who can't understand why students insist on using calculators; students who can't understand why their profs are so unreasonable.

I believe it is even worse than that. Estimating was once the art which followed measuring. You went out and measured again and again until you had the understanding of what distance was and then you could look at say a tree, a lot, or almost anything and estimate. You could look at a jar of jelly beans and estimate to within a good margin of error what was in there. So if you are being attacked by a giant dinosaur you were able to determine rather quickly how far to hurl the bolder to scare the fellow away. Not so in today's grammar schools.

Technology has entered. Frances uses the map example and she states:

Other technologies also create generation gaps. Today's undergrads have been carrying a cell-phone since their early teens, if not earlier. They rarely wear watches. Some will struggle to read an analogue clock - even if there's a clock on the wall in the exam room, they might not know how much time they have left to write the exam. The disappearance of analogue clocks, however, means that profs risk confusing students when they use clock-based language: "Rotate counter-clockwise." "Turn clockwise." "At 2 o'clock" (as in, 60 degrees to your right).

Maps are another rapidly changing technology. Google maps was launched in 2005, in other words, when an undergraduate entering university this Fall was 11 or 12 years old. She has always been able to navigate by reading a list of instructions from google maps, she might never have had to locate two points on a map and plan a route from one to the other. Yet maps imbed spatial concepts very similar to those used in economics. An indifference curve or iso-profit line

is, conceptually, similar to a contour line on a topographical map. What forms of understanding do students lose -and what do they gain - when they rely on google maps rather than map-reading?

This goes to the classic McLuhan statement that as media changes what we perceive as knowledge, read truth, change to resonate with the new knowledge.

Take maps. I started companies in twenty countries and in each case I did three things first. I learned 100 words, such as please, thank you, where is the bath room, here and there. Second, I read a history of the country, so for example in Prague I knew all about the Thirty Years War. In Greece, well, you had a lot. In Korea, you better know about Japan and China. Third, I got maps, I would look at them again and again, it was the culture, it was the history, it was the present. I now use Google Maps but I always change the route, and have second exists. I also from time to time use my Garmin, but alas, if you were born and raised in New York, you never follow Garmin! It must have been programmed by someone in Duluth! They always send you on the Cross Bronx Expressway, the parking lot of the city. Culture counts.

Take watches, yes, most use the cell phone, but even there I have a pocket watch, yes a pocket watch, from an old Russian friend. It stops the conversation every time. But a watch is more than a time teller, it is as Frances says an artifact of saying lots of things, like clockwise and counter clock wise.

The technology is change what we know as knowledge, it is splitting a generation.

But I take her a step further. In mathematics some fifty years ago before computers we had to solve problems by approximation. We had to have a gestalt about the equation, its movement as we changed variables. We understood the equation as a living thing. We looked at boundary conditions and extrema to see if they made sense. The classic example here is Richard Feynman. Feynman had this art down pat, he could feel the answers. He could see a problem and intuit the answer, and then fill in the details. He lived in the equations as a particle, moving and rotating. His approach led to his work on quantum electrodynamics and his symbolic math which got him the Noble Prize. Very few students can even near that now, they all use MatLab and they have totally lost a feel, the no longer go down the alleys of mistakes that lead to enlightenment. Pity. The technology has removed the opportunity of discovery by mistake.

Since getting beck peripherally into academe, at MIT, I have been spending time trying to model cell genetic pathways and cancer dynamics. Not that it will solve world hunger but it is an interesting problem which may or may not be solved by such models. The more I work, the less I know, and the harder it gets. It is akin to economics, just when you think you know something you discover a new path that someone has discovered which changes your model.

For the folks in the cancer modeling area, they understand and await the next change, the stem cell, the micro RNAs, the epigenetic factors, and try again. They are always change models to match the flow of new facts.

Economics is NOT that way however. They add new theories to explain what the result should be and the facts be damned. The Phillips curve and CAPM is an example. So why are economists so different, is it their love of the math qua math, and has the technologies changed any of that. Is there an economist like Feynman who can intuit the right answer and everyone agrees. It is not Krugman, that is for sure. Does the technology make any difference for economics. It has for genetic pathway research, both in generating data and in modifying models.

Economics however is so much of an understanding of the human condition, and more importantly of humans with dramatically differing world views. The homogeneous assumptions of markets often fail to incorporate that factor. It also fails to incorporate the fact that humans change, in random and intermittent ways. Perhaps economics shall never adapt to that. Perhaps the goal of Isaac Asimov and his *psychohistory world view*, as beloved by Krugman, will not be achieved.

Finally, even [Mark Thoma](#) and the followers there seem to have resonated with the post by Frances. My comments still stand as one who uses mathematics to solve real problems, fundamentally as an engineer. It is a tool, a tool to understand reality, to project forward and to live with reality. The tool just for the sake of the tool, or the tool used according to the old dictum, "if elephants had wings..." world, has much lesser value. When employing mathematics it is done to seek truth, employ facts, and predict outcomes. It is not to see what the proverbial elephant looks like.

Labels: [Economics](#)

MONDAY, MAY 30, 2011

[THE CHANGE IN PHYSICIANS](#)

The [NY Times](#) recounts the change of physician's political views in Maine as more and more practice at what could be called "jobs" and no longer as sole practitioners. The new physician is driven by getting better hours, lower stress, benefits, no overhead, and just a job. This in many ways is being accelerated by the mass infusion of women into medicine, where the balance is tipped to more than 50% women now entering the field.

It has been changing from a profession to a job. We saw that almost a century ago in engineering where companies brought the profession in-house and then fifty years ago as teachers became employees and no longer professionals as unions took over. Now the trend to employee status is taking over the field of medicine. Soon the MD will be akin to the PhD engineer at some corporation, both employees, cogs in the wheels of a changed society.

Yet the engineers still spin out as entrepreneurs, what will be the equivalent for the physician who seeks to retain a profession rather than a job?

For example the article states:

...a 51-year-old orthopedic surgeon... is the kind of doctor who has changed ...She trained at Harvard, but after her first son was born she began rethinking 18-hour workdays. "My husband used to drive my son to the hospital so that I could nurse him," she said. "I decided that I really wanted to be a good surgeon, but also wanted to raise healthy, well-adjusted kids I would actually see." So she went to work for a hospital, sees health care as a universal right and believes profit-making businesses should have no role in either insuring people or providing their care. She said she was involved with the Maine Medical Association, for the most part, to increase patients' access to care.

But this also is the ACO model that the new health care plan fosters. So what can we expect? Physicians with jobs all belonging to unions, and dominated by women who want to work no more than 40 hours per week. Ah, we have seen that tale already, the Public School system. We know where that goes.

Imagine if lawyers wanted the same. Just 40 hours per week, just a job. They could also all work for the Government and when we need one they get assigned by that good old GS5 in the belly of the beast. Just imaging where Madoff or DSK would be now?

As the article continues:

Even in Texas, where three-quarters of doctors said last year that they opposed the new health law, doctors who did not have their own practices were twice as likely as those who owned a practice to support the overhaul, as were female doctors.

Frankly why did they enter medicine in the first place. Just to get a job? If we think things are bad now just wait!

Labels: [Health Care](#)

MEMORIAL DAY 2011



To all the men and women who have been in the wars for this country and its freedom. Happy Memorial Day and be safe.

Labels: [Commentary](#)

SATURDAY, MAY 28, 2011

GRADUATION SPEAKERS

This is the season of graduation speeches. I do not remember mine, and I went to a few. However I do remember that whatever they said was both useless and a waste of time. Graduation has different meanings to different people. For many it is just another occasion for acting out their childhood fantasy of wearing little or nothing, shaming their parents, or demonstrating their sense of individuality as a group, somewhat a conflict of terms to say the least. But the speaker is chosen by some "select" and "august" body to reflect the class and as usual in academic circles they generally are well of the mark.

The poor parents who often have contributed substantially are forced to sit through some useless pontification of some self absorbed speaker who knows less than their children who may now possess a college degree but themselves may be less than functional in society. If perhaps they had just learned how to be a good electrician then perhaps they could contribute, but fine arts just does not have a great calling.

Now to the value of this education. There has been more recent talk about the bubble of higher education, the fact that a \$250,000 bill for a degree in anthropology may have little merit, then add an MBA from some second rank school say like Dartmouth and what you have is an unemployed disenchanted and generally still uneducated and nonproductive member of society. Better be a carpenter! There is a demand for good carpenters. Investment bankers use them all the time to upgrade their mansions and unbeknownst to the bankers they get paid well.

So in this season of Graduation speakers who bring nothing to the table and to students with degrees that have no value and to Universities who charge more for a degree than a home in the Hamptons, I can only say that the Chinese now produce more engineers that the US and Europe

combined. And an IIT grad still outdoes almost all US grads! And none of them have the mill stone or graduation speakers!

Labels: [Commentary](#)

THURSDAY, MAY 26, 2011

[MEDICARE, BAYES, AND REDUCING COSTS](#)

The mathematician Bayes conceived of a probabilistic methodology which conditions probabilities on what is known about the event before determining its eventual outcome. Consider prostate cancer. If your father died of an aggressive form of prostate cancer then if you have an elevated PSA there is a good chance that you too may have such a form. Not a sure thing mind you but a higher chance than say someone who had no family history but an elevated PSA. That is Bayes in action. Just look at [my book on prostate cancer](#) for some info.

Now what does this have to do with Medicare. Well today in the [NY Times](#) some cardiologist published a piece stating that there are excess tests. Yes indeed there are, but, there is Monsieur Bayes. Sorry Doctor, but Monsieur Bayes must be paid attention to.

For example the good Doctor states:

The task force recommends against screening for prostate cancer in men 75 and older, and screening for cervical cancer in women 65 and older who have had a previous normal Pap smear, but Medicare spent more than \$50 million in 2008 on such screenings, as well as additional money on unnecessary procedures that often follow.

Yes, much of this may be not worthwhile but some saves lives. Bayes helps. How? Family history and very soon genetic testing of the type we have been discussing here. So what does one do? Simple, if Bayes says you are at high risk you get paid fully, if Bayes says you are at lower risk the payment is ramped down. Simply we use the risk to adjust the payment, we use information to make decisions, information which is patient specific.

He continues and states:

Medicare pays for routine screening colonoscopies in patients over 75 even though the United States Preventive Services Task Force, an independent panel of experts financed by the Department of Health and Human Services, advises against them (and against any colonoscopies for patients over 85), because it takes at least eight years to realize any benefits from the procedure. Moreover, colonoscopies carry risks of serious complications (like perforations) and often lead to further unnecessary procedures (like biopsies). In 2009, Medicare paid doctors more than \$100 million for nearly 550,000 screening colonoscopies; around 40 percent were for patients over 75.

We use Bayes again. If a patient has a family history, first degree relative with colon cancer and a previous colonoscopy had an adenoma before say 65, then we continue every five to seven years. We can remove a recurring or new adenomas simply, save a life, and reduce costs. Death from colon cancer is not fun, I have seen it a few times so trust me, heart attacks are simple.

He continues:

The full extent of Medicare payments for procedures with no known benefit needs to be quantified. But the estimates are substantial. The chief actuary for Medicare estimates that 15 percent to 30 percent of health care expenditures are wasteful. Medicare spending exceeded \$500 billion in 2010, suggesting that \$75 billion to \$150 billion could be cut without reducing needed services.

Yes we agree and this is exactly what we demonstrated in 2009 in [my book of health care policy](#)! So my suggestion is to follow Bayes. You do for those at risk, allow the others to have access but at a lower rate of funding. Never deny someone just put a rational price on it. Also the genetic tests evolving will give much better Bayes tests.

He ends with:

Changing the system would be relatively easy administratively, but would require a firm commitment to determining whether tests and procedures truly benefit patients before performing them. Unfortunately, in a political environment in which doctors providing end-of-life counseling are called death panels, and in which powerful constituencies seek to preserve an ever-increasing array of procedures and device sales, this solution remains hidden in plain view.

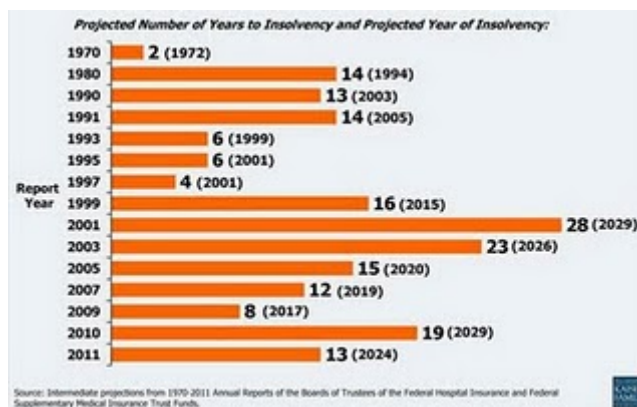
Of course, doctors, with the consent of their patients, should be free to provide whatever care they agree is appropriate. But when the procedure arising from that judgment, however well intentioned, is not supported by evidence, the nation's taxpayers should have no obligation to pay for it.

The last sentence is spot on. Never deny just price accordingly. But pricing should be based on all the evidence, and some due process should be allowed, and more importantly the Government should never, I repeat never, be the collector or arbiter. I fear what would happen with that GS5 with an attitude. The Motor Vehicle Office and IRS are more kindly to a person!

Thus the recommendation, use Bayes, allow the data and testing to change. Then we will see two things, costs will go down and people will be better informed. So will physicians.

Labels: [Health Care](#)

WEDNESDAY, MAY 25, 2011

THE ACO MODEL

In a recent [NEJM](#) post they discuss the ACO model. They state:

The ACO model is a reaction to the failure of both fee-for-service payment, which offers incentives to provide excessive services but not to devote resources to managing chronic disease or coordinating care, and capitated payment, which offers providers incentives to stint on care and take on more financial risk than many can handle. The ACO concept represents an attempt to control costs and improve the quality of care in ways that are more acceptable to patients and physicians than those associated with capitation. Built on a fee-for-service chassis, but with unrestricted patient choice, safeguards to prevent stinting on needed care, and quality standards, the Medicare Shared Savings Program attempts to avoid the pitfalls of capitation but still offer ACOs a financial upside if they reduce costs relative to a benchmark and report strong results on quality metrics.

The problem they are solving is the excess costs associated with the wandering patient who in the fee for service world goes from internist to cardiologist to nephrologist etc. The typical example is the obese Type 2 Diabetes patient who if weight controlled would not have been a problem. But ACOs are the darlings of the hospitals who see them as sources of more revenue. Take Partners Health in Massachusetts, it is the ultimate in an ACO. However it tends to put the old physician model out of business.

The article lays out some concerns:

One of the more controversial aspects of CMS's proposed rule is its method of attributing beneficiaries to ACOs. In an effort to promote more organized care delivery without interfering with beneficiaries' choices of providers, CMS opted for retrospective attribution...

Also controversial is the proposed system for sharing savings. Basing benchmarks on historical per-beneficiary costs means that ACOs that are already efficient will have to work harder to become more efficient.

The above chart however shows that the pressure is on since Medicare is due to run out of money. There are many problems with this approach:

1. If we increase Medicare from 3% to 4% the problem disappears for an additional twenty years. We have demonstrated that before.
2. The chart also assume that medicine never changes. No new procedures or medicines. That is clearly false. It is difficult to determine what will change but it would be at least worth the try.

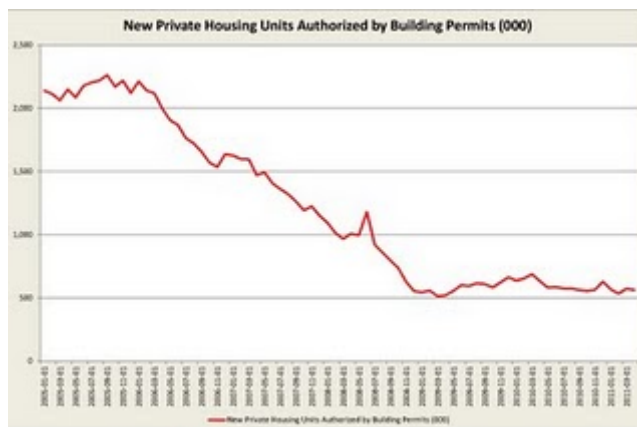
The article concludes:

The other side of the coin, however, is a real risk that the bar is set so high that too few ACOs will apply. Noting the substantial investments required for ACOs to improve care delivery, some have concluded that the prospects for earning an acceptable return on investment are small and that CMS may have been too ambitious in trying to generate large savings in what is, in essence, a voluntary demonstration

This is the Berwick problem. Having an academic make these proposals, especially one with such close ties with Partners is at least problematic. ACOs are akin to HMOs, just of a different cloth. One suspects they will grow than the backlash will destroy them. The pain in between will be real.

Labels: [Health Care](#)

HOUSING STARTS



These are the stats on housing starts. In many ways this reflects the problem in several ways. First there is a dramatic reduction of employment here. Second there is lower demand, thus lower pricing, thus dramatically reduced value, thus wealth loss, thus the feeling that there will be a poor future.

So much of economics is human perception. One should read Smith and Hume again for in a way they stress the empirical world where reason plays less of a role as compared to perception based on what is presented. Unfortunately economics treats this poorly, for in fact the tools are not there.

Labels: [Economy](#)

[CATS AND DOGS](#)

Well this settles the problem, cats and dogs drink the same.

Science is wonderful and in [LeMonde](#) there is an article stating that cats and dogs drink the same:

On pensait que chats et chiens étaient différents. Ce n'est pas si vrai. Les premiers ronronnent quand les autres jappent, certes. Mais quand il s'agit de se désaltérer, chiens et chats font pareil. Et d'une manière plutôt évoluée : ils se débrouillent pour faire fi de la gravité afin de faire remonter le liquide du récipient jusqu'à leur œsophage.

La physique du chat qui boit. L'an dernier paraissait dans la revue Science une [étude](#) poussée sur la façon – bien particulière, croyait-on – qu'ont les chats de laper.

Just to lighten up your day, the French really think about the most interesting things.

Labels: [Commentary](#)

WEDNESDAY, MAY 25, 2011

[GOOGLE AND ELECTRONIC PAYMENTS](#)

The [NY Times](#) states that Google is expected to introduce an electronic payment system obviating the need for a credit card. This is a major game changer. This moves the one trick pony to full circus status.

1. Search is well done and a winner via advertising.
2. Android, the embodiment of the G phone, was also well executed thanks in part to Apple who closed their system.
3. If this works watch the credit card companies take a head dive. The real question is where is American Express, the initial entrepreneur into card services. If this works it may very well be a big hit on American Express, the ever decreasing player in this market.

I remember in the early 80s when I was at Warner and we deployed the first video on demand system for transactions over cable. The American Express executives kept asking "How do you make money on this?" Perhaps Google will not show them the hard way.

Labels: [Google](#)

[A COMMUNITY ORGANIZER AS ECONOMIST](#)

In [USA Today](#) some community organizer, one Sally Kohn, has a piece on the debt of the US and why high debt to equity ratios in industry prove that having a high debt is not a problem. She states:

Borrowing today to fund the innovation of tomorrow stimulates our economy and generates revenue growth that pays back the debt. That's why emerging economies such as Singapore — which is still riding high despite the worldwide economic downturn — carry a debt-to-income ratio that looks more like IBM's, borrowing money to keep its economy innovating and growing.

Yes, too much debt can indeed be dangerous, especially debt that is not directed at growing future opportunity and ultimately paying down that debt. But in the midst of a stagnant economy, with the private sector sitting on record amounts of unspent capital and failing to create jobs, government is the spender of last resort — the only way to jump-start the economic engine of our future.

Often, those who oppose federal government spending compare the federal budget to the family budget. Even President Obama has said, "Families are tightening their belts. Their government should, too." Indeed, when families run up credit card debt, though often understandable or even unavoidable, that kind of debt is seen as irresponsible. Think of buying a home. Yet most families grow through strategic debt, including assuming decades-long mortgages. Is such a move irresponsible, or simply a strategic investment in a family's future?

Critics of government often say public institutions should be run more like efficient, profit-driven businesses. In that case, it's time to end the ideological attacks on our federal debt and let our government borrow the same way America's best businesses do. The dividends will come back to all Americans — not just in dollars but also in better schools, better health care and retirement, new roads, safer streets and greater prosperity for all.

Now I though economists were bad but this takes it to another level.

First, companies had debt to generate wealth. If they don't do so and return the money, unless you are GM with unions, you go out of business. A dollar of corporate debt generates \$x of new wealth. Now show me what \$x of DoE debt generates, just look at Romer and her plan, no way!

Second, families do not get wealth with debt. Did the lady happen to miss the last few years. In fact they piled on debt and well we all know the result.

Third: Yes, if you want the Government to borrow as a business, show me your plan and accept the consequences when you fail. You're fired!

Fourth, the Government does not generate wealth! The entrepreneur does that. True fact dear community organizer! Just look at DoE, 40+ years of hundreds of billions on electric cars, no result. Would we ever allow that in the real world? No way.

Fifth some facts. Caterpillar has annualized \$52 billion in revenue, and \$20 billion in long term debt. Now this financial whiz states:

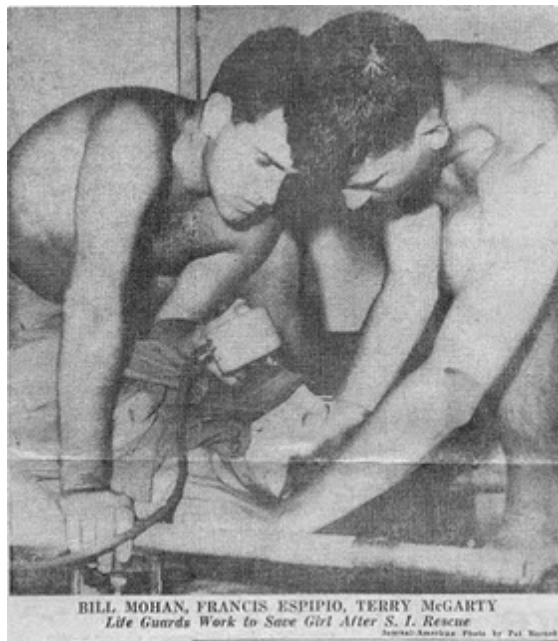
The United States generates approximately \$14.5 trillion in GDP each year and carries, currently, \$14.3 trillion in debt. That represents a debt-to-income ratio of roughly 1-to-1.

This is even more than a mixed metaphor. She is mixing income, profit, GDP, and she is all over the place comparing apples to oranges. She seems to argue that all the money we manage to spend or invest is more than enough to cover our debt! She clearly fails to understand cash flow, economic growth and the like. This is what we face going forward, this is what a community organizer sees in their reality, no wonder we have problems.

Perhaps we should have a candy store own run for President!

Labels: [Economics](#)

[LIFEGUARDS, CALIFORNIA AND THE ECONOMY](#)



Yes this is me in 1962 on Staten Island as a lifeguard. We were paid, I believe, \$56 per week. Now to California.

The [Orange County](#) paper states:

According to a city report on lifeguard pay for the calendar year 2010, of the 14 full-time lifeguards, 13 collected more than \$120,000 in total compensation; one lifeguard collected \$98,160.65. More than half the lifeguards collected more than \$150,000 for 2010 with the two highest-paid collecting \$211,451 and \$203,481 in total compensation respectively. Even excluding benefits like health care and pension, more than half the lifeguards receive a total salary, including overtime pay, exceeding \$100,000. And they also receive an annual allowance of \$400 for "Sun Protection." Many work four days a week, 10 hours a day.

Somehow this has gotten a bit out of whack. In my day we worked Coney Island and Staten Island, had anywhere between 500,000 and a million people per day per weekend and several saves per day. The thought that we would be paid more than a Police Captain was insane. This is why California has so many problems. Thanks to Greg Mankiw for the lead.

Labels: [Economy](#)

MEDICARE. SOCIAL SECURITY AND THE FACTS!

The [WSJ](#) has an article by Cogan which states:

According to my calculations based on government data, such married couples will begin receiving monthly Social Security checks that will, on average, total about \$550,000 after inflation. They will receive health-care services paid for by Medicare that, on average, will total another \$450,000 after inflation. The benefactors will be a generation of younger workers who are trying to support themselves and their families while paying taxes to finance the rest of government spending.

Let us deal with the facts, the basis of the facts and then deal with Cogan who somehow has distorted the facts!

1. First go to the [CMS](#) data site, that is where the data is Mr Cogan, so let's deal with the facts. We do not want to deal with your calculation we want to deal with the facts. The total Medicare expenditures in 2009 were \$502 billion. Now people paid into that fund and if we look at the [actuary reports](#), say for 2009, we find on p 194 the fact that per beneficiary in 2009 we have the annual costs per beneficiary as:

Part A: \$5,319

Part B: \$4,686

Part D \$1,885

Total \$11,890

Now not everyone gets Part D and many do not get Part B. Only Part A is mandatory. Now if we look at their projections we have:

	Part A	Part B	Part D	Total
2010	\$5,374	\$4,569	\$1,915	\$11,859
2011	\$5,577	\$4,622	\$2,031	\$12,230
2012	\$5,823	\$4,849	\$2,139	\$12,811
2013	\$6,111	\$5,053	\$2,254	\$13,418
2014	\$6,483	\$5,362	\$2,396	\$14,240
2015	\$6,493	\$5,375	\$2,573	\$14,441
2016	\$6,734	\$5,716	\$2,736	\$15,186
2017	\$7,003	\$6,087	\$2,953	\$16,042
2018	\$7,301	\$6,502	\$3,177	\$16,981
				\$127,208

Or a total of \$127, 208 for 9 years. The average life from 65 is 77 for a male so if we add that on we get just shy of \$150,000. But as we have shown before the average, not the lowest paid, but the average worker contributed in net present value terms at 65 \$180,000. In NPV terms at 65 the amount paid is less than \$130,000! So where did the money go? And where does Cogan get his numbers! Facts, they are really difficult to face. That is why China, run by engineers, is eating the US lunch run by lawyers and economists!

2. Now for Social Security! Where in God's name does he come up with his logic. Yes SSI payments are close to that but we have been doling out 15% of our gross income for 45+ years! Does that not count?

He concludes:

So today's seniors need to consider how they want the script for "The Millionaire" sequel to be written: There's a knock at the door. We now know that on the other side there's a check for a million dollars. When the door opens, do we really want to see our children, under the commanding gaze of Uncle Sam, presenting us with that check?

Excuse me Sir, but the money was paid, now time to pay the piper! And he served in the OMB, what a surprise! How about wiping out that Stanford pension, you never really earned it, right. The right and left seem to demonize those over 65. Why, well, the "silent generation", those of us not baby boomers, quietly paid year after year while the folks in Washington "borrowed" the money we paid and now they are screaming that we should not be honored! Why did they not do that to the banks, we paid them trillions, and they screwed up! This is true generational warfare, and no one really suspects that killing off granny will really change anything, just wait till they become granny.

It is a real shame that all of these economists and academics have a total disregard for the truth, the facts shall we say. That is why China is winning! Engineers cannot disregard facts, the bridge will fall. In China if you build a bridge without the facts and it falls, your family pays for the bullet.

Labels: [Health Care](#)

BUDGET SWINGS

The [CBO](#) has issued an update on its projections.

In January 2001, CBO's baseline projections showed a cumulative surplus of \$5.6 trillion for the 2002-2011 period. The actual results have differed from those projections because of subsequent policy changes, economic developments that differed from CBO's forecast, and other factors. As a result, the federal government actually ran deficits from 2002 through 2010 and will incur a deficit in 2011 as well. The cumulative deficit over the 10-year period will amount to \$6.2 trillion, CBO estimates—a swing of \$11.8 trillion from the January 2001 projections.

Worth a read.

Labels: [Economy](#)

GENETIC SCREENING FOR PROSTATE CANCER

In a recent [British Journal of Cancer](#) article the authors have performed a preliminary analysis of genetic screening of those for higher risk for prostate and breast cancers. We herein look at the prostate cancer issue.

Simply stated the authors have assembled a database of genetic samples and for each have detailed the relative risk and the prevalence. Specifically:

1. They listed SNPs from the dbSNP (“Single Nucleotide Polymorphism database”). A SNP is a DNA sequence variation with a single nucleotide, ATGC, and may be in an exon or intron. Many of these variations occur.

2. The odds ratio, OR, is the odds of an event occurring in one group as compared to another. Thus we can say that if we have two groups, say group 1 which has the SNP alteration, and Group 0 which does not have the alteration, then the odds ratio is given by:

$$[p1/(1-p1)]/[p0/(1-p0)]$$

and if the odds ratio is greater than one then we have a greater chance of occurrence. Now consider two SNPs, and their respective individual and total odds ratio. Let p1 be SNP1 and p2 SNP2 and p0 be the lack of SNP1 and p00 the lack of SNP2. Then we have an odds ratio for both occurring, if independent, as:

$$[p1p2/(1-p1p2)]/[p0p00/(1-p0p00)]$$

This assumes independence and shows that the OR do not readily allow direct and simple calculation from each other separately. We of course can extend this principle to n SNPs. It is obvious

3. Using the SNPs as a measure of increased or decreased risk, one can set a risk threshold and test those above and ignore those below.

The result is given by the authors as:

Compared with screening men based on age alone (aged 55–79: 10-year absolute risk >2%), personalized screening of men age 45–79 at the same risk threshold would result in 16% fewer

men being eligible for screening at a cost of 3% fewer screen-detectable cases, but with added benefit of detecting additional cases in younger men at high risk.

Similarly, compared with screening women based on age alone (aged 47–79: 10-year absolute risk >2.5%), personalized screening of women age 35–79 at the same risk threshold would result in 24% fewer women being eligible for screening at a cost of 14% fewer screen-detectable cases.

Personalized screening approach could improve the efficiency of screening programs. This has potential implications on informing public health policy on cancer screening

That is, by performing SNP analysis and then establishing a threshold one can bifurcate the groups. One could also select groups in some graded multi-sector grouping as well.

The SNPs chosen are shown in a modified form below. Many are on the same gene segment. There were a total of 31 SNPs as of the date of the paper where the odds ratio exceeded 1.0.

dbSNP No.	Locus/gene	Risk allele frequency	Odds Ratio per allele
rs12621278	2q31/ITGA6	0.940	1.300
rs721048	2p15	0.190	1.150
rs1465618	2p21/THADA	0.230	1.080
rs2660753	3p12	0.110	1.180
rs10934853	3q21.3	0.280	1.120
rs7679673	4q24 /TET2	0.550	1.090
rs17021918	4q22/PDLIM5	0.660	1.100
rs12500426	4q22/PDLIM6	0.460	1.080
rs9364554	6q25	0.290	1.170
rs6465657	7q21	0.460	1.120
rs10486567	7p15 /JAZF1	0.770	1.120
rs2928679	8p21	0.420	1.050
rs1512268	NKX3.1	0.450	1.180
rs620861	8q24	0.610	1.280
rs10086908	8q24	0.700	1.250
rs445114	8q24	0.640	1.140
rs16902094	8q24	0.150	1.210
rs6983267	8q24	0.500	1.260
rs16901979	8q24	0.030	2.100
rs4962416	10q26 /CTBP2	0.270	1.170
rs10993994	10q11/MSMB	0.240	1.250
rs7127900	11p15	0.200	1.220
rs7931342	11q13	0.510	1.160
rs4430796	17q12 /HNF1B	0.490	1.240
rs11649743	HNF1B	0.800	1.280
rs1859962	17q24.3	0.460	1.240
rs2735839	19q13/KLK2,KLK3	0.850	1.200
rs8102476	19q13.2	0.540	1.120
rs5759167	22q13	0.530	1.160

rs5945619

Xp11

0.280

1.120

The procedure here is an interesting first step in the genetic testing of potential cancer patients. The process however will most likely require significant refinements. The process however will most likely require significant refinements.

A simple approach to the above is to note that if we rank order the SNPs from highest OR to lowest, and then plot total OR versus N, total SNPs used as ranked, and then also the frequency of the same SNPs as ranked we get an interesting curve. I will leave that thought for the moment.

Thus we can ask the questions as follows:

1. Which SNPs, say the set of some n of them, provides the best set to minimize mortality and minimize the number requiring testing?
2. Can there be some clustering of SNPs such that there are disjoint classes of individuals which get assigned to risk groups. Those in the highest receiving the most significant attention and those in the lowest receiving minimal?
3. Are the SNPs such that they are independent predictors or are there environmental or other exogenous factors which can effect SNPs alone?
4. What is the relationship between SNPs and the pathways known as part of PCa development?
5. Are there temporal changes in SNPs and is there some relationship between these temporal changes? Namely are there causal SNP changes?
6. What are the causes of the SNPs?
7. Knowing the SNPs and those with PCa, what can be determined regarding the dynamics of PCa development?
8. What is the relationship between SNPs and the prostate cancer stem cell? Does the CSC have different expressions?

There are many more questions that arise from this work.

[THE EU AND COHESION](#)

Prof Sachs has an article on [The Syndicate](#) which discusses the EU, the failed Arab Union and the idea of a world of unions. His thesis is that a weakening US, I suspect under the current President, means that other regions must find out how to work amongst themselves. He states:

The Middle East is in a strong position to help itself. There is a high degree of economic complementarity between Egypt and the oil-rich Gulf States. Egypt can supply technology, manpower, and considerable expertise for the Arab region, while the Gulf provides energy and finance, as well as some specialists. The long-delayed vision of Arab economic unity should be returned to the table.

Israel, too, should recognize that its long-term security and prosperity will be enhanced as part of an economically stronger region. For the sake of its own national interests, Israel must come to terms with its neighbors.

Other regions also will find that the decline of US power increases the urgency of stronger cooperation between neighbors. Some of the greatest tensions in the world – say India and Pakistan, or North and South Korea – should be defused as part of region-wide strengthening. As the EU shows, ancient enmities and battle lines can be turned into mutually beneficial cooperation if a region looks forward, to resolving its long-term needs, rather than backward, to its long-standing rivalries and conflicts.

He uses the EU as an example of regional development. He states:

The EU has created a zone of peace where once there was relentless war. It has provided the institutional framework for reuniting Western and Eastern Europe. It has fostered regional-scale infrastructure. The single market has been crucial to making Europe one of the most prosperous places on the planet. And the EU has been a global leader on environmental sustainability.

Now having lived in the middle of this region for a decade it was still clear that the Thirty Years War had not yet ended, the dislike of Czechs and Slovaks still was there, the fear of the Germans exists and the Irish never really liked the Poles coming to their lands, the French like only the French, and the English still have a strong class society and still ban Catholics, just look at the recently converted ex PM.

Now frankly in the Middle East we have a situation that has lasted since 680 AD. Probably before. Egypt has ups and downs since the remnants of Alexander took over Alexandria, Ptolemy was always a problem, and Carthage having been settled by Arabs had prospered but after its fall wheat was good but just for so long. Needless to say Persia has been up and down but the rest has had less to show for itself since the Assyrians.

Is it the fault of the US as Sachs seems to infer? Is it a cultural problem. One should consider what Palestine could have become if it had used the Billions sent there for productive purposes. Thus do we still have remnants of a "Thirty Years War" in the Middle East without end, or is it as Sachs seems to say, we the US are faltering and they must get on with it themselves. Well what are they waiting for?

Labels: [Middle East](#)

WEDNESDAY, MAY 25, 2011

[MEDICARE, MEDICARE, MEDICARE!](#)

The [New Republic](#) writes about the Hochul election and the Medicare issue. As they state in the intro to the piece:

Hochul bounded to the stage of a union hall in Amherst, just northeast of Buffalo, late Tuesday as the newly elected congresswoman from the ruby red congressional district that brought us Jack Kemp, Bill Paxon, and Tom Reynolds. After all the requisite hugs and thank yous, she mentioned her plans to fight to close corporate tax loopholes and make millionaires pay their fair share. "We can do all that," she said, "and not decimate Medicare." Hearing that single word, the crowd erupted with the mantra of the Hochul campaign. "Medicare! Medicare! Medicare!"

Now I want to make two points.

First, a tale of Medicare from one there. I watch my blood sugar, just in case, family history and all, diet and exercise, try not to get any of the sequellae that I see and write about. So now Medicare pays for the glucose strips, under the new law. Since that change in January my supplier changed billing from me to Medicare, then because the supplier always used my plain old name, no middle initial and no Jr at the end, never really used that, Medicare denied payment. So I called the supplier, mistake number one, they got Medicare, mistake number 2 and here is the result. Since Medicare pays I am not allowed to. But since the supplier has the wrong spelling, Medicare will not pay, but since the wrong spelling can only be corrected with a new prescription and an re-registration, I must re-apply to my supplier under my new name, wait till they tell Medicare etc, you kind of get the tale, and Oh yes, I am not allowed by law to buy it myself!

So what is the problem of medicare, a bunch of GS5s and idealists as managers who have no idea what the real world i like. Hours patiently getting the cats herded and yes we still have not remedied the problem. I cannot buy it myself! If however my kidneys were to fail, then they will pay!

Now to Medicare. Some facts:

1. It is a train wreck in process. Folks, it will not last and Ryan recognized that.

2. Vouchers and private insurance will not work. Just look at the confusion over Part D, the drug component. Some 70 year old with mild dementia is really going to have a tough time selecting a plan and managing it.
3. The principle of Medicare is a valuable one, it has merit.
4. Medicare is truly inefficient and spends too much. My classic example is \$300,000 for an IgG transfusion for Lyme disease, yes they pay for that!
5. Every system is scammed, and there is fraud and waste, but the current system almost encourages that.
6. There should be means testing. There should be a slight Medicare Tax increase, and the age should be pegged to a life expectancy number, not a specific date.

Ryan should have approached this incrementally, I suspect he has a tin ear. The problem now is that the Democrats will push back, nothing will happen and we go down the financial tubes.

Poor, poor politicians.

Labels: [Health Care](#)

SUNDAY, MAY 22, 2011

[A NEW VIEW OF CANCER CELL GROWTH](#)

In a recent paper by Hanahan and Weinberg ([Hallmarks of Cancer: The Next Generation](#), Cell, 2011) has some interesting observations on what has been developed in the area of cancer research. As they state at the outset:

The hallmarks of cancer comprise six biological capabilities acquired during the multistep development of human tumors. The hallmarks constitute an organizing principle for rationalizing the complexities of neoplastic disease. They include sustaining proliferative signaling, evading growth suppressors, resisting cell death, enabling replicative immortality, inducing angiogenesis, and activating invasion and metastasis. Underlying these hallmarks are genome instability, which generates the genetic diversity that expedites their acquisition, and inflammation, which fosters multiple hallmark functions. Conceptual progress in the last decade has added two emerging hallmarks of potential generality to this list—reprogramming of energy metabolism and evading immune destruction. In addition to cancer cells, tumors exhibit another dimension of complexity: they contain a repertoire of recruited, ostensibly normal cells that contribute to the acquisition of hallmark traits by creating the “tumor microenvironment.”

Another dimension of complexity is not represented in this simple schematic: both neoplastic cells and the stromal cells around them change progressively during the multistep transformation of normal tissues into high-grade malignancies. This histopathological progression must reflect underlying changes in heterotypic signaling between tumor parenchyma and stroma. Such stepwise progression is likely to depend on back-and-forth reciprocal interactions between the neoplastic cells and the supporting stromal cells, Thus, incipient

neoplasias begin the interplay by recruiting and activating stromal cell types that assemble into an initial preneoplastic stroma, which in turn responds reciprocally by enhancing the neoplastic phenotypes of the nearby cancer cells.

The cancer cells, which may further evolve genetically, again feed signals back to the stroma, continuing the reprogramming of normal stromal cells to serve the budding neoplasm; ultimately signals originating in the tumor stroma enable cancer cells to invade normal adjacent tissues and disseminate. This model of reciprocal heterotypic signaling must be extended to encompass the final stage of multistep tumor progression—metastasis ...

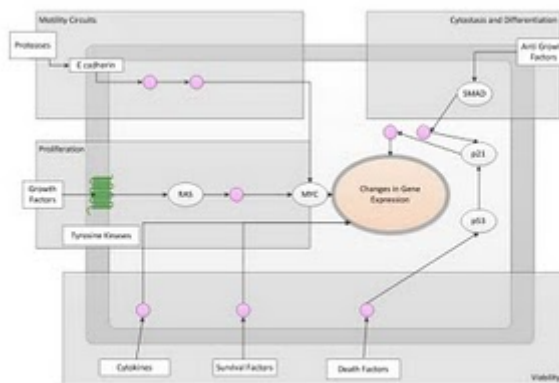
The circulating cancer cells that are released from primary tumors leave a microenvironment created by the supportive stroma of such tumors. However, upon landing in a distant organ, these cancer cells encounter a naive, fully normal, tissue microenvironment. Consequently, many of the heterotypic signals that shaped their phenotype while they resided within primary tumors may be absent in sites of dissemination, constituting a barrier to growth of the seeded cancer cells. Thus, the succession of reciprocal cancer cell to stromal cell interactions that defined multistep progression in the primary tumor now must be repeated anew in distant tissues as disseminated cancer cells proceed to colonize their new found organ sites.

The model presented can be reduced to some simple descriptions, albeit a major change from a decade prior. The model is shown below:



Note that we have two different steps. The classic first step, the Vogelstein model, takes the normal cell via some genetic change into a cancer cell. The model here requires some genetic change where loss of the control mechanism for growth or death are altered. Understanding normal pathways we can see that if we lose a genetic element associated with some pathway we can lose the control elements which would result in a cancerous cell. However that does not in and of itself lead to a metastatic type of cancer, it may merely lead to a cell which grows more than it should.

When we examine the cancer cell we see a multiple set of pathways and a corresponding multiple set of means in which the pathway control of homeostasis can be degraded to create a cancer cell. We show such a model below which is a modification of what the author's present.



This model is an example of the classic pathway models which we have discussed earlier . Each of the pathways are triggered by some external stimulus and one often wondered what happened to do this.

To answer this question is the context of a larger model the authors report on a volume of research which they have been doing every ten years. One of the interesting elements is the development of a multicellular control mechanism after a malignancy has developed. To do this the authors consider first a collection of interacting cells and second the signalling mechanism which are used between the cells.

The authors first consider six cell classes. They are:

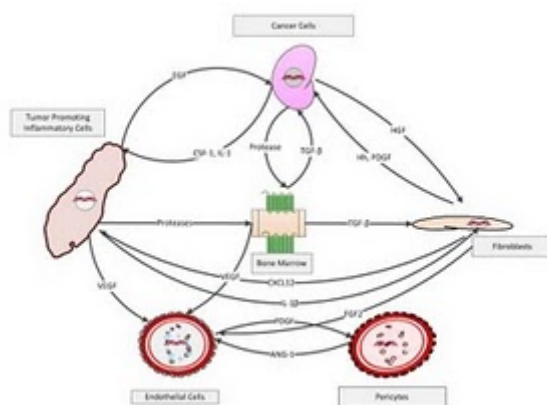
1. Cancer Cells – all the developing cancer cells
2. Bone Marrow – cells in the bone marrow
3. Tumor Promoting Inflammatory Cells
4. Endothelial Cells – thin layer of cells inside the blood vessels
5. Pericytes – connective tissue cell in blood vessels
6. Fibroblasts – generates the intercellular fabric

Now the cells communicate via the following signalling proteins, each with its receptor. They are:

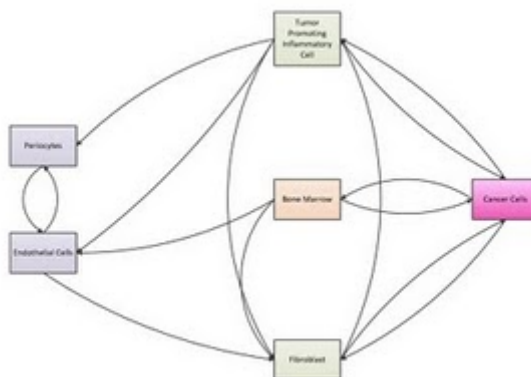
1. EGF- Epidermal Growth Factor attached to EGFR (receptor) and initiates cell growth.
2. HGF – Hepatocyte Growth Factor acts on endothelial cells and other cells
3. PDGF – Platelet Derived Growth Factor for blood vessel formation and is also a powerful mitogen.

4. VEGF – Vascular Endothelial Growth Factor produced by blood vessels and induces growth of new endothelial cells.
5. TGF- β – Tumor Growth Factor stimulates cell growth and tumor growth.
6. IL-1 β apoptosis.
7. Ang-1 – Angiopoetin 1 promotes angiogenesis
8. CXCL-12 – Chemokine Ligand 12, This gene product and its receptor CXCR4 can activate lymphocytes and have been implicated in the metastasis of some cancers such as breast cancer.
9. Protease - involved in angiogenesis
10. CSF-1 – Colony Stimulating Factor 1 a cytokine that controls the production, differentiation, and function of macrophages

We depict the result below:



Now we can reduce the above graphic to a system model which we show below. Here we show cells and driver stimuli from cell to another cell. We have a very complex network where the start of the process is the genetic change in a normal cell which becomes a cancer cell.



We can now look at the dynamics of this complex process. We can specify for example the concentrations of the products or cells as follows:

$$\begin{aligned}x_1 &= [\textit{Cancer Cells}] \\x_2 &= [\textit{Tumor Producing Inflammatory Cells}] \\x_3 &= [\textit{Bone Marrow}] \\x_4 &= [\textit{Fibroblast}] \\x_5 &= [\textit{Endothelial Cells}] \\x_6 &= [\textit{Pericytes}]\end{aligned}$$

Now one must remember that if we have no cancer cells then the process may continue without a malignancy. However if the cancer cell is developed then this model may represent the development of the cancer in the related micro environment.

Thus we can state:

$$\frac{dx(t)}{dt} = Ax(t)$$

where

$$x(t) = \begin{bmatrix} x_1(t) \\ \dots \\ x_n(t) \end{bmatrix}$$

The matrix A relates the links which have been described. Inherent in this is also the reaction rate dynamics which we have linearized.

Now the process may go as follows:

1. In a benign state there is no cancer cell so that the system functions with the initial condition being zero for cancer cells.

2. Apart from the cycle, something happens inside a normal cell to alter its internal pathways, say from a genetic change, a methylation, some microRNA or the like.
3. This change then alters, activates, or deactivates a set of pathways which now can thrive in this environment.
4. The environment then becomes a positive feedback factor in the growth and dissemination of the cancer cells.

There are many interesting questions which may arise from this view. First the body itself propagates the cancer cells. Thus rather than just attacking the cancer cells we may consider attacking or modifying this supportive environment.

The authors conclude:

*Yet other areas are currently in rapid flux. In recent years, **elaborate molecular mechanisms controlling transcription through chromatin modifications have been uncovered, and there are clues that specific shifts in chromatin configuration occur during the acquisition of certain hallmark capabilities** Functionally significant epigenetic alterations seem likely to be factors not only in the cancer cells but also in the altered cells of the tumor-associated stroma. It is unclear at present whether an elucidation of these epigenetic mechanisms will materially change our overall understanding of the means by which hallmark capabilities are acquired or simply add additional detail to the regulatory circuitry that is already known to govern them.*

Similarly, the discovery of hundreds of distinct regulatory microRNAs has already led to profound changes in our understanding of the genetic control mechanisms that operate in health and disease. By now dozens of microRNAs have been implicated in various tumor phenotypes ... and yet these only scratch the surface of the real complexity, as the functions of hundreds of microRNAs known to be present in our cells and altered in expression in different forms of cancer remain total mysteries. Here again, we are unclear as to whether future progress will cause fundamental shifts in our understanding of the pathogenetic mechanisms of cancer or only add detail to the elaborate regulatory circuits that have already been mapped out.

Finally, the circuit diagrams of heterotypic interactions between the multiple distinct cell types that assemble and collaborate to produce different forms and progressively malignant stages of cancer are currently rudimentary. In another decade, we anticipate that the signaling circuitry describing the intercommunication between these various cells within tumors will be charted in far greater detail and clarity, eclipsing our current knowledge. And, as before ... we continue to foresee cancer research as an increasingly logical science, in which myriad phenotypic complexities are manifestations of a small set of underlying organizing principles.

The three points in their conclusion are worth merit:

1. Epigenetics and the complexity of reactions
2. Micro RNAs and their overall influence

3. Heterogeneous pathway dynamics, as we have outlined, and their complexity.

The major effort to date was to understand intracellular pathways. Now we can combine them with extracellular, or spatial pathways. This reminds us again of the work by Turing, the old zebra stripe issue.

Micro RNA and epigenetics can become an issue akin to adding noise but what type. Their behavior is more akin to randomness at least as is currently understood.

Having these papers provides a wonderful baseline worth reviewing a decade at a time.

Labels: [Cancer](#)

SATURDAY, MAY 21, 2011

ARAB UPRISINGS

One is reminded of the final scenes in Lawrence of Arabia when the tribes arrived in Damascus and total riots resulted and the water and electricity failed. The [NY Times](#) reports on this issues. The question is; can a stable outcome result or are we seeing just the beginning of more confusion.

This is not at all unexpected to anyone who has spent time in the region. I have been in and out of this areas for the past forty years. One even stays in mind, when in the late 1970s I had to set up training for what was then ArabSat, a pan Arab satellite system. One could sense the issues then. Whether it is Saudi, Jordan, Egypt, Libya, Morocco, to name a few, stability may not be found easily and "democracy" as Americans know it may never be attained.

So why are we not surprised. After all, Elizabeth II was the first English monarch since 1162 who did not claim Ireland in toto.

Labels: [Commentary](#)

FRIDAY, MAY 20, 2011

MANUFACTURING: WHERE'S THE BEEF?

There is a piece in the [NY Times by Krugman](#) bemoaning the loss of manufacturing and looking forward to its return in the US. I believe it misses a critical fact. If one looks down the streets aside MIT one sees dozens of multi-story building housing various bio-tech buildings, the replacement for the manufacturing buildings there a century ago. So should we tear them down so we can replace them with dc motor building plants? Doubtful, for the value created per person or per square foot is orders of magnitude greater than ever before.

The issue is that we are facing a society where fewer people create true value than ever before. That means that the old paradigms of the economists must change. Manufacturing may not have that great a value, but it did employ people who had little other than hands and a trainable brain to the table. Clearly our educational system is not up to the challenge. In fact the Dewey system we suffer under, one structured to deliver trainable but limited workers, must be abandoned, and people must face a reality that just getting by may not be enough.

As Krugman states:

First, what's driving the turnaround in our manufacturing trade? The main answer is that the U.S. dollar has fallen against other currencies, helping give U.S.-based manufacturing a cost advantage. A weaker dollar, it turns out, was just what U.S. industry needed...So while we still have a deeply troubled economy, one piece of good news is that Americans are, once again, starting to actually make things. And we're doing that thanks, in large part, to the fact that the Fed and the Obama administration ignored very bad advice from right-wingers — ideologues who still, in the face of all the evidence, claim to know something about creating prosperity.

Just making autos may not make the future. One need just look at the names and affiliations on the many papers in bio tech and one sees a trend to the growth from China. That may be the canary in the mine shaft, a tell tale omen that the value creating jobs in that area are not safe here. I remember Russia and Poland ten years ago, with the lasting remnants of manufacturing and re-manufacturing. Old building where people were employed doing repetitive tasks remaking a DC motor or the like. Little value created.

Now in a strange way this also ties in with some comments on [Brooks in the Guardian](#). They have reviewed his recent work. They state:

But what's important about Brooks is not so much that he acts British, but that he thinks British. His new book, [The Social Animal: A Story of How Success Happens](#), is steeped in the anti-rationalist philosophical reflections of the British Enlightenment. And this is no ordinary book: even before publication this week it has become, according to Times columnist Rachel Sylvester, "the must-read text for politicians searching for a new prism through which to examine the apparently intractable challenges of social immobility, school dropout rates, welfare dependency and crime". Education secretary Michael Gove believes it contains vital clues for turning around failing schools; universities minister David Willetts reckons it may help define modern Conservatism...Brooks hails British rather than French Enlightenment thinkers as the guys who really understood what makes the social animal tick. While Voltaire, Condorcet and Descartes used reason to confront superstition and feudalism, thinkers across the Channel – Brooks cites Burke, Hume and Adam Smith – thought it unwise to trust reason. Rather, and here Brooks quotes Hume with approval: "Reason is and ought to be the slave of the passions."

Brooks most powerful comment is:

*Perhaps the fact that you're a self-described socialist will appeal to Ed Miliband, I suggest to Brooks. "Yes, but my socialism doesn't value state over society. **It favours a more communitarian style of politics.** The point is to ensure that people from different classes feel united in a common enterprise."*

You see Brooks is Canadian by birth, which explains everything. The communitarian comment above is the most telling. It is the antithesis of the individualism of the Founders, the rejection of many of the class based structures of a British society. The statement of lack of faith in the rationalism of the French is a Burkean statement of the rejection of the French Revolution. This has been a continual battle as to what the cause of the French Revolution was, a Marxian cause due to the oppression of the workers, or otherwise.

[De Tocqueville](#) has written a brilliant piece worth re-looking on the issue, and Rationalism has its merits. Hume and friends always had their heads somewhat in the clouds. Reason has merit, substantial merit, and it is what drives us as humans. Remember if all else fails, look at the facts.

The English cannot really learn anything from the Americans, the cultures are diverging, for England is a class based society where class is based upon a blood line. Even France rid itself of that plague. The US has some semblance of class, but it is diffuse and can be lost or attained.

Whether through money or fame, education or politics, there are classes in the US but as such they are all too often ephemeral.

So what is the connection between Krugman and Brooks, other than the Times? The connection seems to be a total disjointed understanding of the American reality. That Americans will invent, create, evolve, and as a result the need for manufacturing is akin to the need for small farms, or the need for ditch diggers. In the latter case the Irish and Chinese who built the railroad and who were equally despised by the existing class of English, have somehow become the elements of what has moved upward. Again just look at the names on so many of the papers in genomics. That is the future of the United States, and that is what we should be supporting, not fender benders in Detroit.

Labels: [Economy](#)

THURSDAY, MAY 19, 2011

[LICENSING OF ECONOMISTS](#)

[Frances Woolley](#) always has some thought provoking posts on my favorite economics blog, Worthwhile Canadian Initiatives. My general means of replying is done here because at times the responses are somewhat askew of the intelligent post.

She raises an issue of licensing. I have a few and they vary from one extreme to another. I have been through the professional side and I also had to get a Pesticide License in New Jersey, just to handle my genetically modified plants. That was an interesting exam but alas a tale for another day. I even have an FCC radio license, and yes it did take some reviewing. Come to think of it there are medical licenses, car licenses, gun licenses, no I do not have a gun but New Jersey requires them if you ever bring a BB rifle through the state so just in case got that one too. Never got a Professional Engineer license however, it required learning stuff that I would never use, like surveying, advanced bridge design, strength of materials, and the like.

I remember taking the PhD qualifying exam when I spent a year at Northwestern. They asked questions about transmission lines, vacuum tubes, and dc motors. I went back to MIT, and never looked back to Illinois.

But back to Woolley and her argument. She argues, possibly somewhat tongue in cheek:

First, licensing might serve the public interest. In order to obtain a license, an individual must demonstrate competence in his or her field. In order to keep and maintain their licence, an individual must continue to act competently and ethically. Hence licensing guarantees consumers some basic level of competence and integrity.

Second, licensing might increase wages. [Kleiner and Krueger \(2008\)](#) estimate that, all else being equal, licensing increases wages by 15 percent, about the same as unionization. A licensing body can increase wages either by restricting the supply of licensed professionals, or by setting price guidelines, say, \$85 for a dental examination.

Third, the process of licensing might provide opportunities for rent-seeking. For example, if economics bloggers were licensed, then license fee revenue could be used to fund honoraria for directors of the Canadian College of Economics Bloggers or jobs for Economics Blog Inspectors.

The first issue may have some merit. In medicine we really do not want incompetents operating on someone's brain. In fact we do not want someone even diagnosing a disease unless they have been educated and demonstrated proficiency. Same for the engineer and bridges. But alas these two science based professions demonstrate consequences, and a generally agreed to and provable base of knowledge. Yes Medicine is still part art, but today we have a lot of science in it as well. Even Law has an defined and agreed to body of knowledge. Thus the Bar exams test that agreed to set of knowledge and of process.

However economics lacks almost any of the qualities of the above. There is Keynes, there Hayek, there is well a whole mass of schools and believers. Probably more than there are religions in the world. Which is true, they fight amongst each other calling each other names, specifically those down here in the States, and in addition they seem never to get things right. I think of Ms. Romer and her infamous document of January 11, 2009 where she predicted the results of the Stimulus to the month. Did not happen! My guesses were better.

Thus how can one conceive of a license to such a group if the core beliefs are so disparate.

The second concern is that given the lack of structure in economics, namely core beliefs, I really discount all the math as want to be engineers who want to be mathematicians type of stuff, I went through part of that phase when I started out so I know, the core beliefs are so disparate.

My third point is a bit more serious. Namely by creating some license for an area of study which is still in its infancy it may create a chilling effect on those who may desire to comment and contribute. Would the license be such that any commentary would be controlled similarly to that of a physician who is diagnosing a patient. In this case the patient is the economy in large and thus putatively any comment on the economy would be diagnosing a patient, namely the economy, and thus may be allowed only to those who are licensed.

Fourth, as any medical student knows in their fourth year, what they have learned will most likely be invalidated by the time they are at the peak of their profession, so expect the change. Yet as the students know for their licensing exams they must recite back what the standard is at the time at which they take the exam! Namely licensing exams reflect what the assembly of minds believe at a specific point in time, and God forbid you have a different insight, do not exhibit that in the exam, recite what has been agreed to mantra. In medicine that may get worse as the new health laws require the following not of the professional wisdom but of the

Governments CME directives. So as a summary of the fourth observation, licensing means compliance with the past. Economics just does not work that way.

She continues:

The other way of establishing competence is through examinations, such as law societies' bar exams, or the chartered accounting profession's uniform final exam.

Done well, accreditation could raise the quality of economic debate. How many times have you read a newspaper, or turned on the TV, and heard someone claiming to be an economist who demonstrated absolutely no knowledge of basic economic principles? Accreditation could - perhaps - flush out these charlatans.

Done poorly, accreditation could institutionalize a rigid orthodoxy, a particular approach to the economics discipline.

Economics as a profession, or more importantly as a field of study, needs many commentators and providers of insight. There has been no Newton to establish ground rules, there still is a cacophony of voices all with opinions. Woolley raises many interesting points and is a well deserved discussion.

Labels: [Economics](#)

TUESDAY, MAY 17, 2011

EXTERNALITIES, GOVERNMENT REGULATION AND SOME THOUGHTS

Observation

In a world where the Government efficiently and effectively facilitates the enforcement of all property rights, the benefits or costs of externalities will not exist.

Namely if there are benefits or costs to third parties not part of the transaction, such parties can be readily adjoined to the transaction via Government enforcement of their property rights. As a corollary, in order to avoid Government interference, the parties may amongst themselves append to the initial agreement or transaction additional terms reflecting the impacted third party property costs. In this case the Government becomes the enforcer of property rights if, and only if, the parties cannot attain a remedy between and amongst themselves.

Discussion

Externalities are benefits or costs incurred by third parties when parties to a transaction take actions which result in benefits or costs to those third parties, who themselves are not parties to the initial transaction.

A classic example is the case of a railroad which obtains a right of way to run its tracks across some piece of land. The parties may be the railroad and say the state Government which has leased the right of way for some period. A third party is the farmer whose land is adjacent to the tracks. Now from time to time the train sends out sparks which ignite the corn field and destroy the corn.

In a world of free markets protected by well-defined and readily enforceable property rights, the farmer would be able to seek remedies for the losses. Alternatively the farmer could enter into a transaction with the farmer.

Basis

This is the essence of Coase's Theorem. In effect the Coasean world would have fully enforced property rights and at no transaction costs and such a world would flush out any third parties who may not have been part of the initial agreement and costs associated with the impacts of the initial transaction could be ascribed and collected.

Examples

There are a plethora of examples of the construct of externalities. Coase initially considered them in the context of the FCC's actions. The FCC functioned for decades as the rate setter for AT&T the Government mandated telecom monopoly. Rather than allowing the market to set the rates, the FCC established a complex Government controlled process which was in a continual state of flux.

Pollution is another classic example. There is well over a thousand years of English Common Law regarding such things as the flow of water over property resulting from the actions of the party upstream or downstream who may have interfered with the flow. Thus if flooding occurs the party taking the actions causing the flood is at fault. If water is redirected and the party downstream deprived then the damaged party can seek remedies under classic tort laws. These have been extended to cover pollution effects. Thus following the Coase paradigm one can seek remedies in the absence of Government interference if the role of the Government is that of enforcing property rights between parties.

Implications

The most direct consequence from the Coase analysis is that the Government can by regulating the interaction between parties of transactions where externalities exist may cause new externalities and also more importantly distort the true price setting mechanism of a free market as to the value of the externality.

Counter Examples

One may try to look at the antitrust laws as a model of a counter example. Indeed they were looked at in that very manner at the turn of the 19th century when they were developed. There

was a fear of larger and larger monopolies and the destruction of the fair and competitive markets. That is the monopolies could set their own prices and consumers would pay whatever they set the price at. This would be especially true in such markets as steel, oil, railroads where alternatives just did not exist. Posner, Bork, Areeda and others have studied this areas without any clear set of conclusions. Every time the Government tries to create competition in certain markets, say telecommunications services, somehow there results a new amalgamation. Then the Government steps in to regulate, and the cycle begins anew.

Model

A good example and model for the externality issue is that of interconnection or access fees between networks. The third party is the consumer of the service and the consumer has no part of the transaction between the two network providers. Yet the consumer bears the cost.

For years economists such a Baumol, Willig, Tirole, and others have promulgated the idea that there is some welfare model for establishing access fees. Unfortunately none of these individuals ever looked at the consumer welfare for they looked solely at the welfare of the incumbent. Thus the Government established rules to protect the original network operator, to insure that their network would not be disintermediated. If one were to maximize consumer welfare, then the conclusion would be disaggregated networks with zero access fees between them. Unfortunately the FCC mandates a contrary position, thus allowing incumbents to maximize their returns and to effect quasi monopoly pricing.

Conclusions

Externalities have both costs and benefits. The pricing of the externality using a Coase model can be effected if the Government defines and enforces property rights with de minimis transactions costs. However, there are cases where the parties to the externality do not have a balanced ability to transact the costs of those property rights effectively and equitably, such as monopoly players of large players with small players where the transaction costs tend to overwhelm the ability to clear the market and establish an equitable price.

Labels: [Economics](#)

MONDAY, MAY 16, 2011

[FTC DISCLOSURE](#)

A [von Mises](#) blog entry warns of an FTC regulation demanding the disclosure of any and all:

Federal Trade Commission officials to explain why the agency now requires online media (like blogs) to disclose any free products or gifts they receive from manufacturers but not print media (like magazines)

Just for you all who may have any interest, in this blog we receive no, direct or otherwise, "stuff" for which we comment. Nothing, da nada, zilch, bubkas, etc. Hopefully this meets the FTCs recent ruling.

As they say, you cannot make this stuff up!

Perhaps Ron Paul has some valid points!

Wait till the IRS gets wind of this.

Labels: [Regulation](#)

FRIDAY, MAY 13, 2011

[TRUSTEES REPORT](#)

The [Medicare Trustees Report](#) was issued today. The most obvious observation is that it is clear that it has been written by politicians who seem to have had no business experience. It seems to me to be a political document and not an independent evaluation. But what would one expect.

For example they state:

...the projected total expenditures for the Medicare program are considered, along with the primary sources of financing. Figure II.D1 shows projected costs as a percentage of GDP. Medicare expenditures represented 3.6 percent of GDP in 2010. Under current law, costs would increase to about 5.6 percent of GDP by 2035 under the intermediate assumptions and to 6.2 percent of GDP by the end of the 75-year period. However, it is important to note that Medicare expenditures are almost certainly understated because of unrealistic substantial reductions in physician payments scheduled under current law and may be further understated (and to a greater degree) if the statutory reductions in payment updates to other categories of providers cannot be adhered to for all future years. The Introduction to this report describes this concern in greater detail. If the physician payment reductions are overridden and the other update constraints are phased out, then Medicare expenditures would reach an estimated 10.7 percent of GDP in 2085.

Now to be able to project out to 2085 is really "shingling the roof in the fog". There is no clear vision on what will be happening in medicine, other than more of the same. What would it be like if in 1911 I predicted out to 1985 using the fixed assumptions of medical practice circa 1911! I looked at an old, very old, Osler of the period. Lots of folks would die.

Medicare needs change, and the change is simple and direct. It should not be abandoned as per Ryan, that was frankly just dumb, but at least he threw a chip on the table. This report depicts what ills are in the system, the political system.

Labels: [Health Care](#)

ONE OF OUR RENTERS



Bushie, one of our inhabitants in New Hampshire. These guys are becoming quite domesticated! And demanding. They love fresh blueberries.

Labels: [Commentary](#)

HGPIN AND PROSTATE CANCER

In a recent [Nature Prostate](#) journal article entitled, Predicting prostate cancer at rebiopsies in patients with high-grade prostatic intraepithelial neoplasia: a study on 546 patients, they state:

The aim of this study was to analyse the factors that predict the diagnosis of prostate cancer (PCa) after high-grade prostatic intraepithelial neoplasia (HGPIN).

Data from 546 patients with HGPIN submitted up to a 6-month series of three rebiopsies, according to an institutional protocol, were reviewed.

PCa has been found in 174 cases (31.8%), in 116 cases at the first and in 58 cases at a further rebiopsy.

The risk of finding PCa at the first rebiopsy was:

(i) correlated with the PSA value and

(ii) with an anomalous digital rectal examination (DRE) at the time of the initial biopsy;

the risk at a subsequent rebiopsy was correlated to the number of cores with HGPIN, with a cutoff of four, and to the ratio with the total number of cores ('PIN density'), with a cutoff of 50%, at the time of initial biopsy.

A tailored protocol of controls can be suggested: (a) higher PSA value and/or anomalous DRE: early extended or saturation rebiopsy; (b) number of cores with HGPIN >4 and/or PIN density >50%: delayed rebiopsy; and (c) no risk factors: PSA and DRE controls.

Now the counter concern would be equally compelling to consider. Namely of the cases where HGPIN is noted at initial biopsy, and then the second biopsy, especially of a saturation type, indicates total remission, namely all samples being unremarkable, then it begs the question of what happened. We have previously conjectured that perhaps this is a stem cell artifact, namely that the instigating stem cells was opportunistically removed. There may be an immune system argument and the like. It would however be of much interest to study those cases especially looking for unique CSC surface markers.

Labels: [Cancer](#)

BUDGET SWINGS

The [CBO](#) has issued an update on its projections.

In January 2001, CBO's baseline projections showed a cumulative surplus of \$5.6 trillion for the 2002-2011 period. The actual results have differed from those projections because of subsequent policy changes, economic developments that differed from CBO's forecast, and other factors. As a result, the federal government actually ran deficits from 2002 through 2010 and will incur a deficit in 2011 as well. The cumulative deficit over the 10-year period will amount to \$6.2 trillion, CBO estimates—a swing of \$11.8 trillion from the January 2001 projections.

Worth a read.

Labels: [Economy](#)

LIFEGUARDS, CALIFORNIA AND THE ECONOMY



Yes this is me in 1962 on Staten Island as a lifeguard. We were paid, I believe, \$56 per week. Now to California.

The [Orange County](#) paper states:

According to a city report on lifeguard pay for the calendar year 2010, of the 14 full-time lifeguards, 13 collected more than \$120,000 in total compensation; one lifeguard collected \$98,160.65. More than half the lifeguards collected more than \$150,000 for 2010 with the two highest-paid collecting \$211,451 and \$203,481 in total compensation respectively. Even excluding benefits like health care and pension, more than half the lifeguards receive a total salary, including overtime pay, exceeding \$100,000. And they also receive an annual allowance of \$400 for "Sun Protection." Many work four days a week, 10 hours a day.

Somehow this has gotten a bit out of whack. In my day we worked Coney Island and Staten Island, had anywhere between 500,000 and a million people per day per weekend and several saves per day. The thought that we would be paid more than a Police Captain was insane. This is why California has so many problems. Thanks to Greg Mankiw for the lead.

Labels: [Economy](#)

MEDICARE. SOCIAL SECURITY AND THE FACTS!

The [WSJ](#) has an article by Cogan which states:

According to my calculations based on government data, such married couples will begin receiving monthly Social Security checks that will, on average, total about \$550,000 after

inflation. They will receive health-care services paid for by Medicare that, on average, will total another \$450,000 after inflation. The benefactors will be a generation of younger workers who are trying to support themselves and their families while paying taxes to finance the rest of government spending.

Let us deal with the facts, the basis of the facts and then deal with Cogan who somehow has distorted the facts!

1. First go to the [CMS](#) data site, that is where the data is Mr Cogan, so let's deal with the facts. We do not want to deal with your calculation we want to deal with the facts. The total Medicare expenditures in 2009 were \$502 billion. Now people paid into that fund and if we look at the [actuary reports](#), say for 2009, we find on p 194 the fact that per beneficiary in 2009 we have the annual costs per beneficiary as:

Part A: \$5,319

Part B: \$4,686

Part D \$1,885

Total \$11,890

Now not everyone gets Part D and many do not get Part B. Only Part A is mandatory. Now if we look at their projections we have:

	Part A	Part B	Part D	Total
2010	\$5,374	\$4,569	\$1,915	\$11,859
2011	\$5,577	\$4,622	\$2,031	\$12,230
2012	\$5,823	\$4,849	\$2,139	\$12,811
2013	\$6,111	\$5,053	\$2,254	\$13,418
2014	\$6,483	\$5,362	\$2,396	\$14,240
2015	\$6,493	\$5,375	\$2,573	\$14,441
2016	\$6,734	\$5,716	\$2,736	\$15,186
2017	\$7,003	\$6,087	\$2,953	\$16,042
2018	\$7,301	\$6,502	\$3,177	\$16,981
				\$127,208

Or a total of \$127, 208 for 9 years. The average life from 65 is 77 for a male so if we add that on we get just shy of \$150,000. But as we have shown before the average, not the lowest paid, but the average worker contributed in net present value terms at 65 \$180,000. In NPV terms at 65 the amount paid is less than \$130,000! So where did the money go? And where does Cogan get his numbers! Facts, they are really difficult to face. That is why China, run by engineers, is eating the US lunch run by lawyers and economists!

2. Now for Social Security! Where in God's name does he come up with his logic. Yes SSI payments are close to that but we have been doling out 15% of our gross income for 45+ years! Does that not count?

He concludes:

So today's seniors need to consider how they want the script for "The Millionaire" sequel to be written: There's a knock at the door. We now know that on the other side there's a check for a million dollars. When the door opens, do we really want to see our children, under the commanding gaze of Uncle Sam, presenting us with that check?

Excuse me Sir, but the money was paid, now time to pay the piper! And he served in the OMB, what a surprise! How about wiping out that Stanford pension, you never really earned it, right. The right and left seem to demonize those over 65. Why, well, the "silent generation", those of us not baby boomers, quietly paid year after year while the folks in Washington "borrowed" the money we paid and now they are screaming that we should not be honored! Why did they not do that to the banks, we paid them trillions, and they screwed up! This is true generational warfare, and no one really suspects that killing off granny will really change anything, just wait till they become granny.

It is a real shame that all of these economists and academics have a total disregard for the truth, the facts shall we say. That is why China is winning! Engineers cannot disregard facts, the bridge will fall. In China if you build a bridge without the facts and it falls, your family pays for the bullet.

Labels: [Health Care](#)

GENETIC SCREENING FOR PROSTATE CANCER

In a recent [British Journal of Cancer](#) article the authors have performed a preliminary analysis of genetic screening of those for higher risk for prostate and breast cancers. We herein look at the prostate cancer issue.

Simply stated the authors have assembled a database of genetic samples and for each have detailed the relative risk and the prevalence. Specifically:

1. They listed SNPs from the dbSNP (“Single Nucleotide Polymorphism database”). A SNP is a DNA sequence variation with a single nucleotide, ATGC, and may be in an exon or intron. Many of these variations occur.

2. The odds ratio, OR, is the odds of an event occurring in one group as compared to another. Thus we can say that if we have two groups, say group 1 which has the SNP alteration, and Group 0 which does not have the alteration, then the odds ratio is given by:

$$[p1/(1-p1)]/[p0/(1-p0)]$$

and if the odds ratio is greater than one then we have a greater chance of occurrence. Now consider two SNPs, and their respective individual and total odds ratio. Let p1 be SNP1 and p2 SNP2 and p0 be the lack of SNP1 and p00 the lack of SNP2. Then we have an odds ratio for both occurring, if independent, as:

$$[p1p2/(1-p1p2)]/[p0p00/(1-p0p00)]$$

This assumes independence and shows that the OR do not readily allow direct and simple calculation from each other separately. We of course can extend this principle to n SNPs. It is obvious

3. Using the SNPs as a measure of increased or decreased risk, one can set a risk threshold and test those above and ignore those below.

The result is given by the authors as:

Compared with screening men based on age alone (aged 55–79: 10-year absolute risk 2%), personalized screening of men age 45–79 at the same risk threshold would result in 16% fewer men being eligible for screening at a cost of 3% fewer screen-detectable cases, but with added benefit of detecting additional cases in younger men at high risk. Similarly, compared with screening women based on age alone (aged 47–79: 10-year absolute risk >2.5%), personalized screening of women age 35–79 at the same risk threshold would result in 24% fewer women being eligible for screening at a cost of 14% fewer screen-detectable cases.

Personalized screening approach could improve the efficiency of screening programs. This has potential implications on informing public health policy on cancer screening

That is, by performing SNP analysis and then establishing a threshold one can bifurcate the groups. One could also select groups in some graded multi-sector grouping as well.

The SNPs chose are shown in a modified form below. Many are on the same gene segment. There were a total of 31 SNPs as of the date of the paper where the odds ration exceeded 1.0.

dbSNP No.	Locus/gene	Risk allele frequency	Odds Ratio per allele
rs12621278	2q31/ITGA6	0.940	1.300
rs721048	2p15	0.190	1.150
rs1465618	2p21/THADA	0.230	1.080

rs2660753	3p12	0.110	1.180
rs10934853	3q21.3	0.280	1.120
rs7679673	4q24 /TET2	0.550	1.090
rs17021918	4q22/PDLIM5	0.660	1.100
rs12500426	4q22/PDLIM6	0.460	1.080
rs9364554	6q25	0.290	1.170
rs6465657	7q21	0.460	1.120
rs10486567	7p15 /JAZF1	0.770	1.120
rs2928679	8p21	0.420	1.050
rs1512268	NKX3.1	0.450	1.180
rs620861	8q24	0.610	1.280
rs10086908	8q24	0.700	1.250
rs445114	8q24	0.640	1.140
rs16902094	8q24	0.150	1.210
rs6983267	8q24	0.500	1.260
rs16901979	8q24	0.030	2.100
rs4962416	10q26 /CTBP2	0.270	1.170
rs10993994	10q11/MSMB	0.240	1.250
rs7127900	11p15	0.200	1.220
rs7931342	11q13	0.510	1.160
rs4430796	17q12 /HNF1B	0.490	1.240
rs11649743	HNF1B	0.800	1.280
rs1859962	17q24.3	0.460	1.240
rs2735839	19q13/KLK2,KLK3	0.850	1.200
rs8102476	19q13.2	0.540	1.120
rs5759167	22q13	0.530	1.160
rs5945619	Xp11	0.280	1.120

The procedure here is an interesting first step in the genetic testing of potential cancer patients. The process however will most likely require significant refinements. The process however will most likely require significant refinements.

Thus we can ask the questions as follows:

1. Which SNPs, say the set of some n of them, provides the best set to minimize mortality and minimize the number requiring testing?
2. Can there be some clustering of SNPs such that there are disjoint classes of individuals which get assigned to risk groups. Those in the highest receiving the most significant attention and those in the lowest receiving minimal?
3. Are the SNPs such that they are independent predictors or are there environmental or other exogenous factors which can effect SNPs alone?
4. What is the relationship between SNPs and the pathways known as part of PCa development?
5. Are there temporal changes in SNPs and is there some relationship between these temporal changes? Namely are there causal SNP changes?
6. What are the causes of the SNPs?
7. Knowing the SNPs and those with PCa, what can be determined regarding the dynamics of PCa development?
8. What is the relationship between SNPs and the prostate cancer stem cell? Does the CSC have different expressions?

There are many more questions that arise from this work.

Labels: [Cancer](#), [Health Care](#)

SUNDAY, MAY 8, 2011

HAPPY MOTHER'S DAY



Yep, Mother's Day 1943 if I remember correctly! Love the hair styles. Dad was already off to the Pacific thanks to the Japanese!

Labels: [Commentary](#)

SPRING IS REALLY HERE!



Spring seems finally here. The dogwoods are in bloom and the temps are rising, and after a fairly cold winter we anticipate some global warming summer! Flowering seems to be at an all time

late date. Tough to defy the data. You see flowering times integrate total heat input. Late time means low heat input.

Labels: [Commentary](#)

[INFLATION: PRICES OR SALARIES](#)

What is inflation? To [Krugman](#) it seems to be wages. To others it seems to be buying power, the variation between wages and prices. For example if my wages are static, namely my real salary remains say \$20 per hour, and if milk has gone from \$3 per gallon to \$4 per gallon, and gasoline has gone from \$2 per gallon to \$5 per gallon, and the transit costs to go to work on the train has gone from \$14 per day to \$22 per day, then this is inflation! Perhaps they do not notice this in Princeton but just a few miles north in Morristown it is quite evident.

As the good Professor states:

So here are a couple of questions.

First, do you see any sign that workers are about to (or are even able to) demand higher wages to compensate for the higher prices of gas and food?

*Second, do you any sign that employers are getting ready to make more generous wage offers?
Third, have you heard anything about companies feeling that they have room to raise prices by substantially more than the rise in their raw material costs?*

The answer to all three questions is clearly no. So what we have is a rise in raw material prices, which will largely get passed on the consumers, but no hint that this is spreading into a wider rise in prices; and with labor costs flat, that means we get a one-time jump in consumer prices, but no persistent rise in inflation.

But for the poor schlubs who see the prices, that my friend is inflation. It drives up the GDP and we have shown that it indeed is indicated by the PPI as well as the DOW Index, that is the costs of things are higher than what we get to buy them. That is what happens in an open global economy. So is there inflation, you betcha.

Labels: [Economy](#)

SATURDAY, MAY 7, 2011

[HAWK CAM](#)

Watch [live streaming video](#) from [nytnestcam](#) at [livestream.com](#)

Here is the Hawk Cam from NY Times. Worth a look.

Labels: [Commentary](#)

APHORISMS: THOUGHTS ON A SPRING DAY

I have from time to time collected aphorisms which I have found useful to explain certain things. Given this fine Spring day I felt it may be useful to share them.

1. Saying no is okay.

Saying no is the positive statement. All too often not saying no and going forward is deadly. Saying no may be the most difficult thing to do, it should be done more often. Not saying no costs money, takes time, and engenders distrust.

2 Delay is the deadliest form of denial

Let's have one more meeting before we agree. Let's review it one more time. And the litany could continue. This is a corollary of "no is a good answer".

2 3 AVOID AMBIGUITY OF EXPECTATIONS

Everyone did what they thought they were to do. And everyone was sorely disappointed with each other. Expectations were not met, in fact they were never discussed. It is critical to avoid any ambiguity of expectations. It is essential to have concurrence and then get it in writing with a plan agreed to by all and followed religiously on a periodic basis.

4 If all else fails listen to the customer

This is the problem of both engineers and marketing people. All too often companies just listen to themselves and worse "the market" which is some amorphous entity which does not exist. The worst thing to listen to is analysts reports. They are dated and generally have some agenda beyond understanding the true market potential. One must reach out and talk to customers and see what they really want. That means listening to them even if it is what you may not want to hear.

5 Prior planning prevents poor performance

Planning is a key part of business. Prior planning is the most key. Such questions as what do we need when and what will cause the business to fail are also important issues to plan for. Failure can be precipitated by many factors and measuring failure metrics and having an action plan to counter them is an important part of the overall plan.

6 There may always be rocks from heaven

No one is immortal. The end may come silently, over a long time, or as we say with a rock from heaven. When the rock from heaven falls on a key person in a company the remaining players better have a plan ahead of time. All too often that key person is key because the others are not. When the rock falls the company falls as well. Thus it helps to have a strong a deep team and never have all of them too close together so that one rock can do them all in at once!

7 Listen to a burning bush that speaks

When one sees a burning bush, and then one hears it speaking there are three possible responses; first I may think I am crazy and just ignore it, second I may feel fear and run away, and third I may have some curiosity and listen to what it says. Burning bush moments happen frequently in life. Listening and then taking some action may be the better strategy. The burning bush moment may occur when one sees a new technology and when one then hears what the economics of that technology may do to an industry. It may also be when the stock market starts a downward spiral and one has a day or two to bail out. Listen and then act.

8 Any business whose profits exceed that of the cocaine business will soon be taken over by the Mafia

In business plans, new businesses always have very rosy financial perspectives. Also the profits of these new businesses are unrealistic from the outset. They may also be unsustainable at any level. Thus care in assessing hidden costs and price wars must be taken into account.

9 Profit is revenue less expenses, and only cash flow counts

A small corner store in Brooklyn is an excellent example of understanding business. At the beginning of the week you count the cash, and at the end of the week you count the cash. If it has grown it is a good week, if not you are in trouble. Finance is not complicated unless you are playing games to hide bad decisions. Profit is only one of the factors to be considered, cash flow is the only factor to be considered.

10 If the Business is failing, do an acquisition

Whenever a business has problems, especially a big business, they do another acquisition. The market thinks of any lack of performance due to the transition period, so there is time to hide the developing mess under the smoke screen of an acquisition.

11 Any start-up which has a company headquarters that looks better than the best law firm will soon go out of business.

This rule seems to apply everywhere. If one goes into a start up company and sees expensive furniture in an elegant office with lots of staff and amenities, they are spending money on the wrong thing. It is most likely the ego of the management that

has gone wild not the success of the business. The problem also is that the Board has allowed this to occur.

12 You have to be at the bus stop if you want to get on the bus

If you want to be on the bus to success you have to be at the corner stop when the bus arrives. That means that you have to get out to as many places as possible to ensure that you will be at the right place at the right time.

13 Whenever a company builds a grand new edifice, it will soon collapse

Companies have the habit of reaching a point and deciding that they need their own new building. They then commence construction and lose focus on day to day execution. The CEO may be spending more time on the seat cover fabric than on the bottom line. One observation that seems to be very consistent through all economic conditions is that whenever a company decides to spend great amounts on a new corporate edifice most likely it occurs just before a great downturn. Just look at Time Warner, Bear Stearns, MCI, Worldcom, and lists of others. To avoid this plague one should stay in smaller offices or grow incrementally. The best example was the AT&T massive headquarters. By the way, Verizon is moving into that building now.

14 Always have a second exit

No plan is ever fool proof. Thus having second exits, a Plan B possibly, or another way to get around the mountain other than just climbing it is essential.

15 Attila the Hun could get a job as a grief counselor

Selecting management personnel is a difficult task but the most critical in any company. All too often the same bad person ends up in the same job that he managed to mess up the last ten times. It is amazing to see patterns repeat over and over again. One would not hire Attila the Hun as a grief counselor if one did a brief check on what he did prior to seeking this position. It is critical to check what people did why they left where they left and if your company wants to have that person, perhaps you do, most likely you don't.

16 A deal is not a deal until the money is in the bank, for a week

One should not count on something that is one's sole perception of what could occur. All too often after a meeting with a customer, a vendor, a banker, we all ask each other how did it go and what chance do we have. The answer is that there is zero chance until the deal is done. That means signed, delivered and the money collected. Signed deals are not done until they are done, again money in the bank.

Labels: [Commentary](#)

[A CHANGE IN DIRECTION: H-1B VISAS](#)

The [WSJ](#) has an interesting report on H-1B visas, they seem to little used now as compared to say three years ago. There is a principle inherent in human transactions which simply stated is: if there are obstacles then humans will find highly adaptive means and methods to work around those obstacles to achieve their goals. Simply stated in the H-1B case the goals was becoming prosperous, NOT living in the US, and as the US became more difficult and the ability to become prosperous became equally viable say back in India or China, well, so be it, get the free education here and then go back and create the value there. The law of unintended consequences.

Namely the US is now funding via its taxes the graduate education of many foreign nationals, why, because US students go to business or law, never a guarantee of success, but not engineering, why because the see less opportunity. This is a canary in the coal mine moment! Is Washington or the Universities listening, no, frankly they are in collusion just to build up schools, the result, we are funding our own demise.

As the WSJ states:

"It's baffling that H-1Bs aren't picking up if the economy is stronger," said Steve Miller, a Seattle attorney who prepares petitions for employers in high tech, retail and other sectors.

For years, the H-1B program was a mainstay for software companies, architecture firms and other businesses that seek foreign nationals to fill certain jobs. Demand for the visas by companies outstripped supply, and companies such as Microsoft Corp. lobbied the U.S. government to raise the cap on the number of visas.

No, it is not baffling, it is obvious. You can achieve your goal now in India and China and you can do so off the taxpayers of the US! As the WSJ states:

Nutan Kunduri, a software engineer who stayed in the U.S. on an H-1B visa after completing her studies, said she decided to accept a job offer in India less than a year into working in Silicon Valley.

"Ten years back, I had this 'nothing will change in our country' attitude," she said. A recent visit to India made her realize that "for an IT professional like me, India is the place to be, with its booming tech industry."

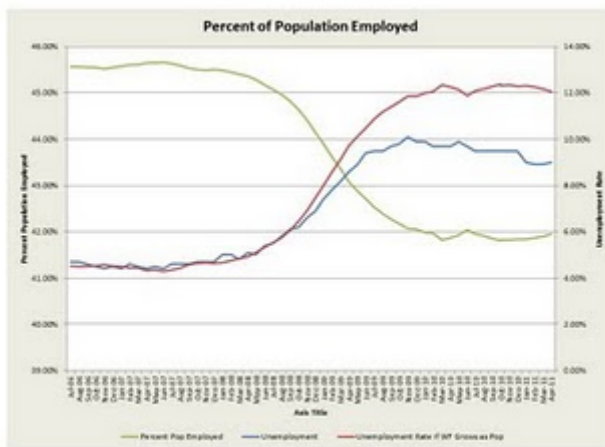
Abhinav Tripathi, a software engineer with a U.S. company in Boston, also plans to return to India, where salaries are slightly lower but the cost of living is significantly cheaper. "I see my friends back home enjoying most of the comforts of Western life," he said, with the added bonus of being close to friends and aging parents. "We can't often bring our parents to the U.S., as it's getting difficult to obtain visas for them," he said.

Yes, India is booming as is China. They look at the US and its economy and they become terrified. Why stay here? Get educated here and then go back. This is a major policy issue which we shall see hit our economy in another ten years.

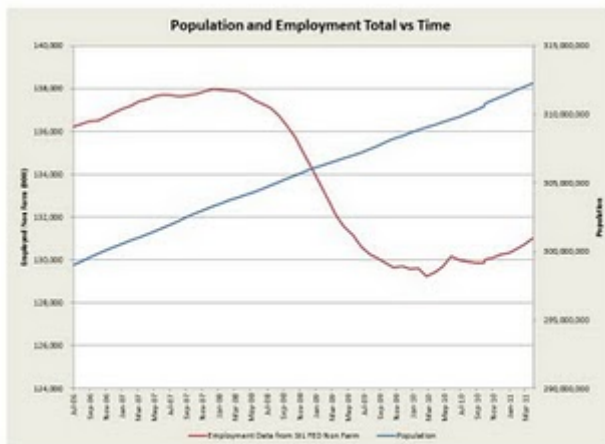
Labels: [Economy](#), [Education](#)

FRIDAY, MAY 6, 2011

EMPLOYMENT: STILL A MIXED BAG



The unemployment went up to 9.0% from 8.9 and we suspect then it may be higher after further analysis. The unemployment based upon our January 2008 baseline is 12.2% and there seems to be a decline there albeit slow and low!



The above shows the details but we see some slight improvement but frankly nothing to cheer about. Employment losses are themselves the main cause of a deficit, other than the usual factors of excess Government spending.

The key question is what will stimulate economic growth, the problem is that we have decreased demand, increased productivity and outsourcing of those elements which we can get results off shore. None of these will change short term. Thus deficit changes will be painful with Government expenditure cuts, DoD included.

Labels: [Economy](#)

WEDNESDAY, MAY 4, 2011

[FAT, INSULIN, DIABETES AND CANCER](#)

We have discussed the issues of obesity, the impact of the inflammatory response with excess fat and the resultant impact on Type 2 Diabetes and even cancer. [Science](#) has an article today which states:

Inflammasomes are multiprotein complexes that are activated by the innate immune system in response to pathogens and endogenous “danger signals” through the actions of caspase-1; this activation culminates in the production of the proinflammatory cytokines IL-1 β and IL-18.

Because a high-fat diet and increased free fatty acids have been linked to type 2 diabetes, Wen and colleagues asked whether free fatty acids could activate the inflammasome and mediate metabolic changes. The authors demonstrated that palmitate, as part of a high-fat diet, triggered inflammasome activation in macrophages through the generation of reactive oxygen species (ROS), resulting in increased secretion of IL-1 β and IL-18.

In vivo, high-fat diet led to inflammasome activation and impaired insulin signaling with increased insulin resistance in wild-type mice, whereas similarly fed mice deficient for inflammasome genes Nlrp3 or Pycard were protected from these effects. Most surprisingly, palmitate treatment in macrophages reduced 5' adenosine monophosphate-activated protein kinase (AMPK) activity and autophagy, the cellular process that facilitates the turnover of damaged proteins and organelles, with a concomitant increase in mitochondrial ROS.

Pharmacological activation of AMPK in palmitate-treated macrophages rescued these defects, indicating a previously unknown role for fatty acid in the upstream regulation of autophagy and mitochondrial ROS through AMPK signaling.

Just what we have been arguing for a few years. Work continues.

Labels: [Health Care](#)

[INTERESTING POSTER ON CANCER STEM CELL](#)

[Nature](#) has an interesting poster on the cancer stem cell, CSC. The poster states:

The concept of the cancer stem cell (CSC) has taken off rapidly over the past 10 years. CSCs are cells with properties that are similar to those described for tissue stem cells: self-renewal and asymmetric division resulting in the generation of daughter cells destined to differentiate, enabling the regeneration of a tissue. Initial research into the properties of CSCs was based on identifying and verifying markers of this subset of cancer cells. However, most studies have now moved on to understanding the biology of CSCs and the cancers in which they maintain tumour growth, as well as how and why they are able to serially generate a tumour. It is thought that a key element regulating the biology of stem cells is their niche — cells and extracellular matrix that support self-renewal and survival. As we begin to understand the pathways that are crucial for the properties of CSCs, including signals provided by the niche, we will hopefully be able to effectively target this cell population. Linked to the identification of CSCs is the cell of origin. These are cells that when mutated are able to give rise to a tumour. Although these cells may share properties with CSCs, in most cases it is not yet clear whether these cells are one and the same. This poster highlights some of the recent findings regarding the biology of CSCs and the identification of cell types from which cancers can arise.

As regards to prostate cancer they state:

In the normal prostate, epithelial cells with tissue-regenerating capacity that are Sc α 1+, CD49fhi, TROP2hi, CD44+, CD133+ and CD117+ (mouse) or CD133+, CD44+, CD49fhi and TROP2+ (human) seem to reside in the basal layer of the prostate. However, studies in mice indicate the existence of luminal cells with progenitor characteristics that can regenerate the prostate after androgen withdrawal. As castration resistance is also a property of basal stem cells in the prostate, it suggests a complex cellular hierarchy. Studies in mice indicate that prostate tumours can arise after transformation of basal stem cells and luminal progenitor cells. A subset of cells that are CD133+, a2b1 + and CD44+ and have basal cell characteristics have been shown to be tumorigenic, but whether these cells can serially propagate tumours in mice has yet to be verified.

Again and interesting experiment can be performed:

1. Take biopsies from N men with HGPIN diagnosed on initial biopsies. Perform sampling from say 20 cores.

2. Wait 9 months, and rebiopsy, again with near saturation cores, 20+ .. There are three possible outcomes:
 - a. HGPIN remains
 - b. PCa has been determined

c. HGPIN regresses and only benign cells are left

3. The question is why did (c) above happen? What percent of the HGPIN have regressed? If the percent of HGPIN that have regressed equals the probability of having actually excised the cancer stem cell or cells, we can calculate this, then by chance we have removed the CSC from the HGPIN and this would affirm its existence by inference.

Now a similar article appears in [Science](#) which speaks to colon cancer and the cancer stem cell theory:

In normal colon tissue, intestinal stem cells (ISCs) that reside at the base of mucosal wells, named crypts, expand through mitosis and move upward toward the crypt tip. The cells then undergo cell cycle arrest and terminal differentiation, finally becoming the mucosal epithelium of the colon. In the recent study, the investigators identified in mouse ISCs a gene signature that was specifically marked by high expression of the ephrin type-B receptor 2 gene (Ephb2), which encodes a receptor tyrosine kinase, the leucine-rich repeat-containing G protein-coupled receptor 5 gene (Lgr5), which encodes a G-coupled protein receptor of unknown function, and ~50 other genes. This gene signature also defined a specific population of stem-like cells at the base of colorectal tumor structures in mice that were morphologically similar to normal mouse intestinal crypts. The authors then similarly inspected tumor samples from 340 colorectal patients and discovered a 10-fold increase in the relative risk of recurrence in patients whose tumors displayed high expression of the human counterparts of the mouse ISC genes, relative to patients whose tumors showed low expression of these genes.

To test whether the mouse colorectal tumor cells with the ISC gene signature were cancer stem cells, the investigators isolated the cells and introduced them into an immunodeficient mouse model. The stem-like cancer cells demonstrated both a tumor-initiating capacity and self-renewal capability in vivo. These findings pinpoint potential markers that may allow a clinician to predict a patient's future with respect to recurrence. These differentially expressed genes also may give rise to therapeutic targets that quell cancer stem cells.

What is clear is that the CSC is becoming a viable model for understanding cancer at another level.

Labels: [Cancer](#)

SUNDAY, MAY 1, 2011

HAPPY MAY DAY: THE SPRING KIND



Happy May Day, spring flowers, sun, the end of winter. Not the other kind. Enjoy.

Labels: [Commentary](#)

THURSDAY, APRIL 28, 2011

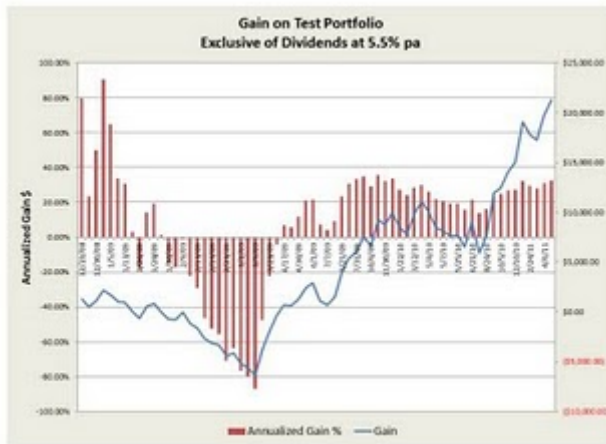
INFLATION: A LOOK AT THE BASELINE PORTFOLIO

In December 2008 we assembled a Baseline Portfolio of stocks which we used to track market sentiment and inflation anticipations. The market all too often reflects anticipated moves. In view of the fact that interest rates are artificially low, and that we now believe that inflation is in the wings if not already starting, and that the other leading indicators show a 10% or plus inflation, we felt it worth a return to the Baseline.

Recall that the Baseline was assembled to reflect the following:

1. A 5.5% dividend payout which in December 2008 was a reasonable limited risk return.
2. The elements were broadly reflective of major elements of the economy.
3. None of the elements were considered as trendy.

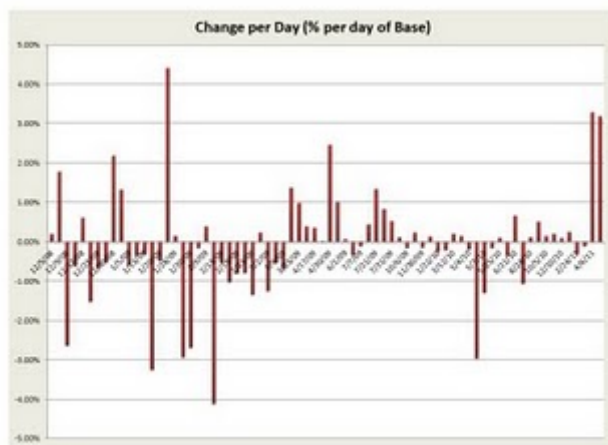
4. We would take the position and do nothing thereafter while the current Administration was in place.



The first results are above. We see an annualized return of 30%. That is before any dividends. Why that return, are these companies doing so well, and the answer is not really. Perhaps in an environment anticipating zero inflation we would see say 8-10%. The added amount we believe reflects inflation. Current and anticipated. We argue that there is about a 10% contribution from current inflation plus an added 10% from anticipated.



The above is the same data but showing the return slightly differently. Note the flat return on an on going forward basis.



The above shows the daily returns. The problem we see here is the sudden increase, that we believe is anticipated high inflation rates. People are streaming in for protection.

This analysis thus anticipates a 10% inflation on a going forward basis.

Labels: [Baseline Portfolio](#)

[GDP, INFLATION, AND Q1 2011](#)

The [Government](#) has released the first estimate of Q1 2011 GDP and its details.

In summary it states:

The price index for gross domestic purchases, which measures prices paid by U.S. residents, increased 3.8 percent in the first quarter, compared with an increase of 2.1 percent in the fourth. Excluding food and energy prices, the price index for gross domestic purchases increased 2.2 percent in the first quarter, compared with an increase of 1.1 percent in the fourth.

Real personal consumption expenditures increased 2.7 percent in the first quarter, compared with an increase of 4.0 percent in the fourth. Durable goods increased 10.6 percent, compared with an increase of 21.1 percent. Nondurable goods increased 2.1 percent, compared with an

increase of 4.1 percent. Services increased 1.7 percent, compared with an increase of 1.5 percent.

Real nonresidential fixed investment increased 1.8 percent in the first quarter, compared with an increase of 7.7 percent in the fourth. Nonresidential structures decreased 21.7 percent, in contrast to an increase of 7.6 percent. Equipment and software increased 11.6 percent, compared with an increase of 7.7 percent. Real residential fixed investment decreased 4.1 percent, in contrast to an increase of 3.3 percent.

Real exports of goods and services increased 4.9 percent in the first quarter, compared with an increase of 8.6 percent in the fourth. Real imports of goods and services increased 4.4 percent, in contrast to a decrease of 12.6 percent.

Real federal government consumption expenditures and gross investment decreased 7.9 percent in the first quarter, compared with a decrease of 0.3 percent in the fourth. National defense decreased 11.7 percent, compared with a decrease of 2.2 percent. Nondefense increased 0.1 percent, compared with an increase of 3.7 percent. Real state and local government consumption expenditures and gross investment decreased 3.3 percent, compared with a decrease of 2.6 percent.

The change in real private inventories added 0.93 percentage point to the first-quarter change in real GDP after subtracting 3.42 percentage points from the fourth-quarter change. Private businesses increased inventories \$43.8 billion in the first quarter, following increases of \$16.2 billion in the fourth quarter and \$121.4 billion in the third.

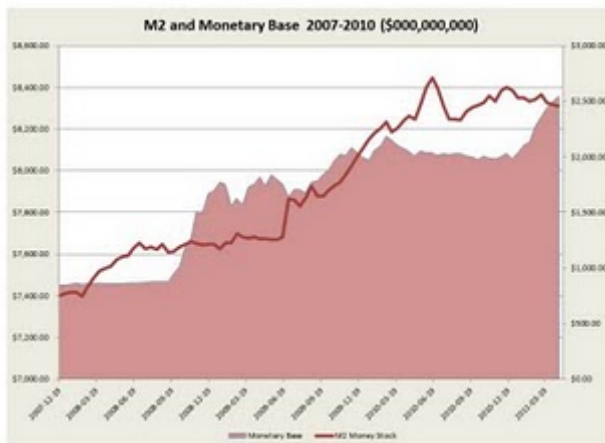
Now we can look at some of the details. Remember that GDP or Y is:

$$Y=C+G+I+Ex-Im$$

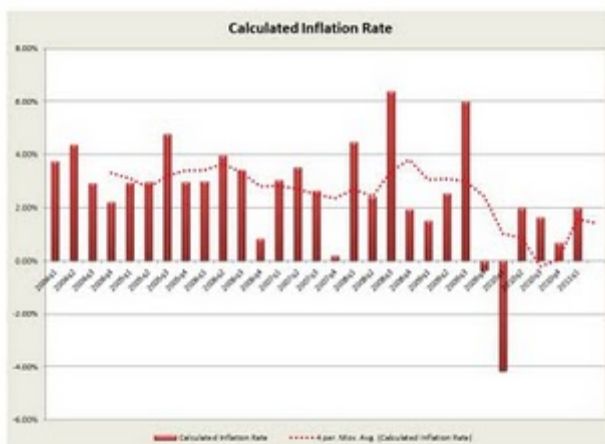


First, it is worth a quick look at the Monetary Base. It may be useful to read our paper from mid 2009 on the [Monetary Base](#) as a refresher. The FED has done QE1 which we see with TARP

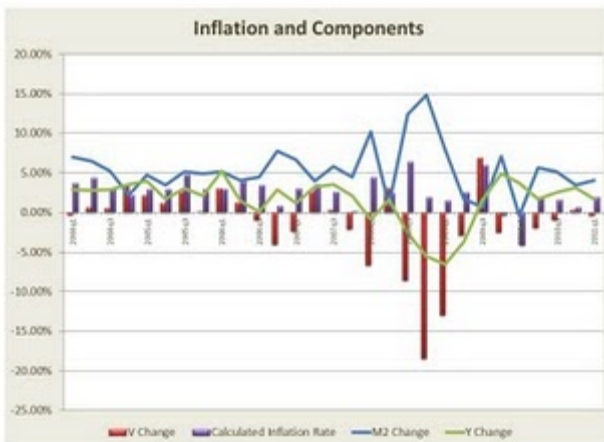
gave rise to the first bump up and then did QE2 with the second recent bump up. This is simply the printing of money.



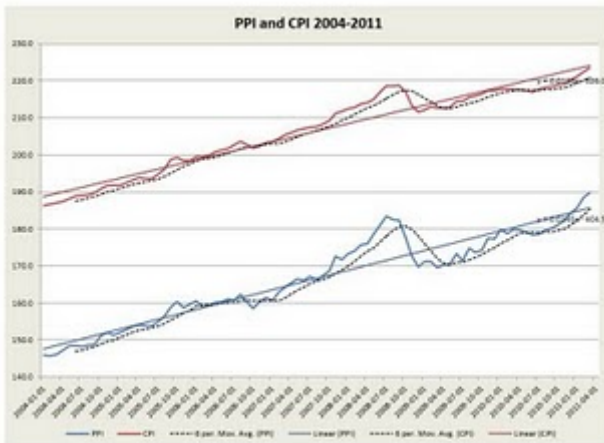
Now we show M2 and the MB. Note that QE1 has leaked out into the M2 flow, the lag being almost a year. We see the start of QE1 in later 2008 and we see the rise in M2 a year later. Slow but there it is. We expect a similar rise in M2 after QE2. Remember that M2 will drive inflation.



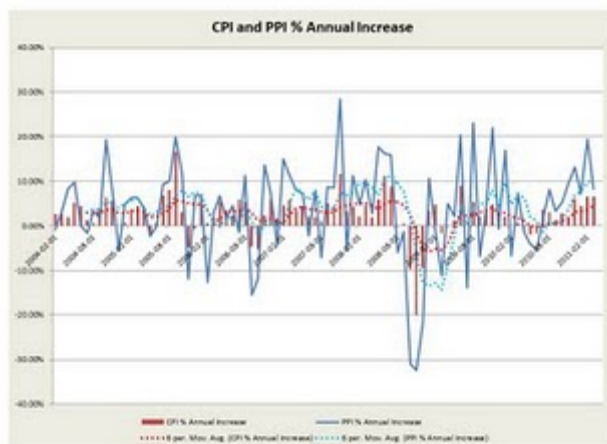
Using classic economic theory we can calculate the inflation based upon GDP, M2 and the velocity. This is shown above. We see a 2% pa rate based upon the past data. Remember this is past and the spikes in M2 will be significant.



The above shows the details in this calculation. V has decreased a bit which means that people are really not turning their money over as quickly.



The above shows PPI and CPI. The major concern is PPI increases, a leading indicator. We show the present changes below.



The above is the worrisome chart. We see a steady rise in PPI and a 6 month moving average annualized rate of increase of 10%. Now the CPI is at 5% but it is a lagger. Our concern is that:

1. The GDP backward looking inflation of 2% is deceptive since the MB is lagging in terms of the M2 impact.
2. PPI is a leading indicator and quarter to quarter fluctuations are acceptable but 6 month moving averages with 100% increases are quite worrisome.
3. CPI is a lagger and we expect it lags the PPI by a year at times. This means that we can expect a 10% inflation rate in the summer of 2012.

Interesting.

Labels: [Economy](#)

WEDNESDAY, APRIL 27, 2011

CHRONIC DISEASE AND COSTS

There once was a time that people got sick and died. One of the major achievements of modern medicine is that we can now keep many of these people alive for a very long time and at a very high cost. Thus one of the drivers for the ever increasing health care costs is the ever increasing prevalence of chronic disease and the ever increasing ability of medicine to keep these people alive longer yet at an ever increasing cost. Yet these are preventable chronic diseases which for the most part are preventable as we had shown in our book on [Health Care](#).

[Science](#) states today:

Diabetes, heart disease, and cancer now cause more deaths worldwide than all other diseases combined, according to the first global status report on noncommunicable diseases (NCDs) released at the WHO Global Forum in Moscow today. Communicable diseases such as malaria

and AIDS are now outpaced by NCDs in every region except Africa. Chronic diseases, many of which are preventable, accounted for 63% of the 57 million deaths worldwide in 2008. Of those 36 million deaths, 80% occurred in low- or middle-income countries.

Health leaders from around the world are continuing to meet in Moscow the rest of this week to prepare for the [United Nations summit on NCDs](#) in September. It will be only the second U.N. summit convened to address a health issue; the first, held in 2001, focused on AIDS and led to the creation of the Global Fund.

The [100-page report](#) aims to establish a baseline for the risks of NCDs, measure their prevalence, examine the progress various countries are making in dealing with NCDs, and outline what steps countries can take to both prevent and combat NCDs.

"The good news," WHO Director-General Margaret Chan said in a press conference today, "is that these diseases are preventable." The report identified smoking, alcohol use, insufficient physical activity, and poor diet as the major risk factors. The report predicts that even African countries will suffer more deaths from NCDs by 2020 than from transmissible diseases and poverty-related issues such as malnutrition and maternal deaths. A 15% increase in mortality from NCDs is expected worldwide in the next decade.

We have argued quantitatively that if we treat and prevent then we can almost half our current health care expenditures. One wonders why no one in the current Administration has raised this issue.

Labels: [Health Care](#)

MONDAY, APRIL 25, 2011

[THE GROCERY STORE](#)

[Boudreaux](#) presents an excellent metaphor for Government control in describing what if the Government controlled grocery stores as compared to Government controlling schools. The problem is that was the way it was in the old Soviet Union.

I remember the late 70s in Moscow, February, 20 below in F, the dry crunch of snow, the limited lights, the empty streets, the smell of kerosene and Borstch coming from the compounds of apartments hidden behind the carriage entry ways, and of course the ever present KGB. The Magazin, the stores, with no signs, each carefully set at basement level, each assigned in a well planned manner to distributed the planned foods to the workers. Vodka always cheap, food always rather poor if you were truly just a worker.

I believe Boudreaux needs to see the reality of this view, for it is much worse than what he could imagine, it is like many NYC public schools!

Labels: [Economics](#)

SUNDAY, APRIL 24, 2011

ARE THEY BOTH WRONG?

Between Ryan and Krugman we have two extremes. Ryan wants to throw folks on the market, even folks who may have been paying into Medicare for 40+ years, yes I stated working at 12 and paid SSI at 14! Child labor, no, NYC gave work permits to deliver newspapers and somehow at 14 I worked in an HMO in NY as an assistant to a group of physicians. Could never do that now but that is another story.

Back to Ryan, if I were 15 years or more younger then I would get Ryan Care, namely a check for something at some age most likely later than 65 and told go fish, namely find an insurer. [Krugman](#) is spot on this time, try and find a policy. I can get auto insurance pretty simply because I have been doing it for more than half a century. It was also around before that. But old age health insurance, the frauds will be explosive, it will make the banking collapse look like Sunday School efforts. It just will not work and no matter how you try to fix it ab initio there will be a plethora of unintended consequences, just watch the current health care plan.

On the other hand the current Health Care Plan has the same problems, ACO, IFAB, etc etc, it just goes on. Government employees on top of Government employees, it will be the land of zombies.

Somewhere there must be a middle ground. I have made several detailed suggestions but no one in DC seems to even try such an approach. Pity.

Labels: [Health Care](#)

FRIDAY, APRIL 22, 2011

POVERTY, CHASTITY AND OBEDIENCE

[Boudreaux](#) presents an interesting counter argument to Krugman. There may very well be a subtext here which could be missing. You see, we pay for attorneys, unless we are unable to and then the state pays for them. We do pay for physicians, unless the state decides it wants to intervene and then the state does pay. We do not have the option to pay for economists, the state chooses them and we are forced to pay for them. What if we could individually choose our economists. You see a bad lawyer, doctor, even an engineer may lose clients or patients but a bad economist may often get a tenure position at a politically correct institution, apparently not George Mason, they seem to put their necks out. What if Princeton, Harvard and even MIT had to?

You see as best I can figure out, you have to take courses from these elite, you cannot select say a different dermatologist because Doctor X is a hack. You cannot select a better lawyer or accountant. As a student you have been convinced that this degree has worth and they you pay based on others decisions. Economics somehow fails the test of the market.

Now for physicians. There is as best I remember no vow of poverty, chastity and obedience in medical school. There was a time when I was in a Franciscan Seminary, but I did not stay, had problems with being told what to do all the time, that obedience problem. So physicians do have to sell themselves. Some are real, well how shall I say it, real jerks, there, it is simple, they may or may not be good, but they are dullards. For many you just memorize the tests and pray you cram through, they are not the ones who asked why. But there is a true market for physicians.

A patient is not forced, at least not yet, to go to a specific physician. They have reputations, for better or worse. There are market decisions made by patients all the time. If a patient has cancer, perhaps they make the market decision of Memorial Sloan Kettering Cancer Center, a long drive, added costs, but most likely a better outcome. There is a decision there, an economic one, even if Krugman fails to see it.

Boudreaux states:

Admittedly, the politically engineered wedge separating the receipt of health-care services from the responsibility for paying for these services creates problems. But the best way to address these problems is to remove the wedge rather than to arrogantly suggest that some mysterious transcendent force will more reliably look after individuals' health-care needs than will those individuals themselves as they operate in markets in which insurers and physicians must compete for consumer dollars.

I would argue that there are elements of economic decisions already in the equation. The problem all too often is the early stage of decisions that led to a life style choice which causes the disease state in the first place. Obesity, smoking, STDs, drinking to excess, all life style choices and all leading to chronic and possibly terminal diseases and costs. Why not charge for that externality, since as it is we all share the pain.

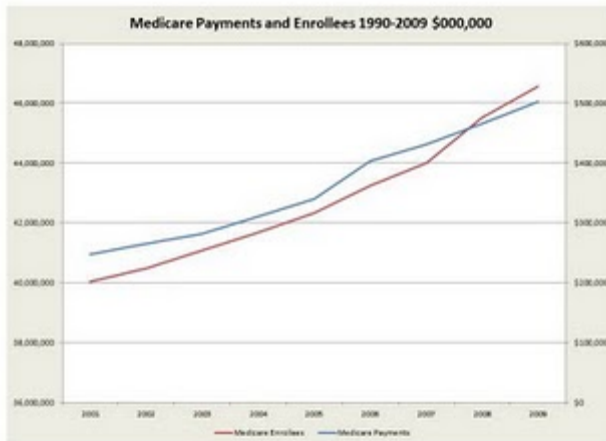
But back to the argument, physicians are not Franciscans, although some people think they should be. They are also economic animals, and with the costs of medical school, and the way funds are politically distributed to students the results may be less than favorable. Think public school teachers!

Labels: [Health Care](#)

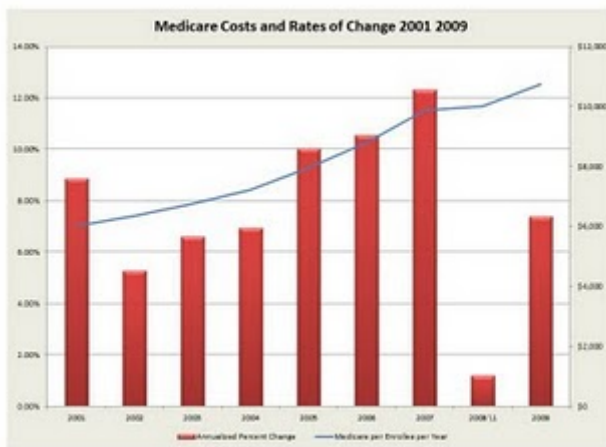
MEDICARE: DAMNED IF YOU DO, DAMNED IF YOU DON'T

There are two threatening clouds for Medicare on the Horizon. One is Ryan and his voucher system. I will get to that shortly. The second is IPAB, the Independent Payment Advisory Board mandated by the new Health Care law.

First the Medicare Facts. The chart below based upon Medicare data shows the growth of enrollees and expenditures. Of the almost 48 million enrollees in 2009 about 20% of them are NOT over 65. Frankly they should not be in medicare. They use most of the funds. You see 70% of the Medicare expenditures are used by 10% of the enrollees, and that 20% just mentioned is 90% of that 10%! You see numbers really count.



Now below we show the costs per enrollee per year. That is what Medicare pays, not what it really costs. Beware Government numbers. The annual growth rates are between 6% and 12%, the highest in 2007 for some unexplained reasons from Medicare. But we now spend \$10,500 per annum per recipient. Remember that and remember the growth rate, Ryan does not seem to remember that, because he places that on the backs of those who already paid in!



Now let us look at a simple example.

1. Let us take our simple example of a real worker, say a high school teacher, a police officer, not one of the highly paid Boston ones, but say a New York patrolman. They start work in say 1970 and retire in 2010. They start at say \$12,000 pa after their Rookie Year and then work a real 40 years till 65. They get paid say \$105,000 in their final year. Not unreasonable, unless of course you are in Boston and have packed your final year with excess overtime watching man holes.
2. Now assume you paid 3% of your pay each year to some fund, any fund other than the Government, and the fund invested in say Treasury bonds, notes, Ginnie Maes, whatever. The average return would be well in excess of 5% pa. So by 2010 you have \$170,000 in that account.
3. Now you retire. You statistically have 12 years left to live. Yes, that is all, some will live longer some less, but you can bet that the average in this large group is 12.
4. Let us assume that health care can be capped at say 6% annual increase and that it starts at \$12,000 pa. You can make book on the fact that on average it will cost \$127,000 present value to pay for these expenses. Yes, that is \$43,000 LESS than what you contributed. But it gets worse you see, since you are also paying \$1,200 pa in addition, which is a present value at 65 of say \$20,000. That means you are stiffed for not \$43,000 but \$63,000! Paul Ryan where are you!
5. Now along comes [Ryan who proposes](#):

"When fully phased in, the average payment is \$11,000 per year (the average amount Medicare currently spends per beneficiary), and is indexed for inflation by a blended rate of the CPI and the medical care component of the CPI. For affected beneficiaries, the payment replaces all components of the current Medicare Program (Medicare fee-for-service, Medicare Part B, Medicare Advantage, and Medicare Part D). Payment amounts are income-related and risk-adjusted. They also are partially geographically adjusted, with the geographic adjustment phasing out over time."

Why do we not get what we put in! The Ryan Plan clearly sets an instant gap! Medical costs are increasing and the increase is due highly to the people in Medicare who should not be. Do we kick them out? What of all that money we put in? Many left wing haters of the old argue that

Medicare beneficiaries are getting a free ride, even some ersatz right wing folks, because some number cruncher took the lower decile of workers and showed they get a free ride. Yes, if you worked at McDonald's as a floor sweep for your entire career you would benefit. But if you did you most likely have other problems as well and may not make it 12 years!

Now the current Health care Plan has a number of equally troubling issues the most troubling for Medicare is the IPAB. As stated in [NEJM](#):

The ACA alters the landscape for control of federal health care spending by creating new institutions intended to facilitate progress toward reform and by directly altering payment formulas for Medicare and Medicaid. The new Independent Payment Advisory Board (IPAB) and the Center for Medicare and Medicaid Innovation are charged, respectively, with stewardship of Medicare spending and piloting and diffusion of payment and delivery-system reforms. The IPAB is required to recommend cost-saving measures for Medicare in years when spending growth exceeds a set target; the changes must be adopted unless equivalent alternatives are substituted or Congress intervenes.

As the CBO stated in December 2009:

The legislation would establish an Independent Payment Advisory Board, which would be required, under certain circumstances, to recommend changes to the Medicare program to limit the rate of growth in that program's spending. Those recommendations would go into effect automatically unless blocked by subsequent legislative action. In its original estimate, CBO wrote that: "Such recommendations would be required if the Chief Actuary for the Medicare program projected that the program's spending per beneficiary would grow more rapidly than a measure of inflation (the average of the growth rates of the consumer price index for medical services and the overall index for all urban consumers)." That statement is correct for fiscal years 2015 through 2019. After 2019, however, the threshold for Medicare spending growth that would trigger recommendations for spending reductions would be higher—specifically, the rate of increase in gross domestic product (GDP) per capita plus 1 percentage point.

With this corrected reading, savings from changes to the Medicare program (along with other changes to direct spending that are not associated directly with expanded insurance coverage) would increase at a rate that is between 10 percent and 15 percent per year during the 2020–2029 period, compared with a growth rate of nearly 15 percent reported in the initial estimate. The long-run budgetary effects of the other broad categories of the legislation are unchanged from the initial estimate. All told, CBO expects that the legislation, if enacted, would reduce federal budget deficits over the decade after 2019 relative to those projected under current law—with a total effect during that decade that is in a broad range between one-quarter percent and

one-half percent of GDP. In comparison, the extrapolations in the initial estimate implied a reduction in deficits in the 2020–2029 period that would be in a broad range around one-half percent of GDP. The imprecision of these calculations reflects the even greater degree of uncertainty that attends to them, compared with CBO's 10-year budget estimates. The expected reduction in deficits would represent a small share of the total deficits that would be likely to arise in that decade under current policies.

In effect the IPAB becomes a de facto rationer of health care for those on Medicare. They are NOT medical practitioners, they are politicians! Have we not learned anything over the past couple of years? Do we really want to leave choices for life saving procedures to those who could not find employment elsewhere?

Labels: [Health Care](#)

THURSDAY, APRIL 21, 2011

[ENERGY, NASA, THE ACADEMY, THE ENTREPRENEUR AND THE FUTURE](#)

Energy, NASA, the Academy, the Entrepreneur and the Future; what do these have in common? In talking with an old friend of mine whose early career was at NRL and then NASA, and who in many ways is the quintessential engineer, I remember the days on the late 50s and early 60s with the space race when NASA and DoD funded many graduate students and the management of these agencies were in many cases the folks who came out of WW II. They were dedicated devoted and driven. The early NASA teams, before Johnson turned it into a political hack factory, were very bright folks and could always find ways to solve engineering problems.

Now the energy problem is hard but doable. It is somewhat akin to separating uranium in 1942, many options, not knowing the best, but the science of separation was understood, it became a big chemical engineering issue. It got solved.

Now the energy problem has been driven by DoE, not one of the swiftest parts of the Federal Government, if I remember Carter had appointed a dentist at its head at one time. You see DoE really makes bombs, the old Atomic Energy Commission, and it spends billions on other stuff, including electric cars which goes back to the early 70s at least. Nothing has ever come out of this mess. Unlike the early days of NASA, or the Manhattan Project, it became a Government institution with no well defined and targeted goal.

But energy alternatives is well defined. NASA did work early on, the Academy is a place to start, and the Academy produced many of the entrepreneurs. You see I had a 64K memory computer on the Apollo capsule to integrate my star tracker into, yes 64K, not 64G, a million times less. That meant you really had to think.

From this amalgam of really smart people and a really good Government agency, we solved some really hard problems. Instead, today we send our entrepreneurs to Facebook, another web based sale approach, which may have the ability to provoke social change but the "value" of that change is problematic. After all people spend tons of time tweeting, facebooking, and the like. I got rid of my Facebook stuff, it was just too dumb. My MIT students had me sign up early on but

after a few years I made a value judgement, it was negative. I really did not care what my nephew ate last night for dinner! Now I really like my nephew, but it just went too far.

So back to energy, leadership in Washington, focus, the right motivation, and I think we can make great progress. But first, move DoE to, well, West Virginia, south of Morgantown. Far enough away but close to CMU, WVU and a few others. In the coal belt, motivate folks. It has been done before, it can be done again.

Labels: [Energy](#)

[AN INTERESTING CANCER](#)

Melanoma is an interesting cancer to study. First one could surmise based upon many studies that a primary cause of its incidence is the UV radiation which the skin is subjected to. Then there appears to be some genetic correlation. However there are families where one sibling was a lifeguard for five years and managed to get to seventy and where the other sibling dies at 24 and was never exposed to the sun. Thus the true causal relationship may still be somewhat up in the air.

However the genetic profiles of certain melanomas, after the fact, and their pathways, are starting to be identified. A recent [NCI study](#) states:

In one approach, the team searched for mutations that occurred in multiple patients. They found mutations in the gene BRAF, previously implicated in melanoma, and in 9 other genes. Mutations in a gene called TRRAP occurred at the same position in 6 separate people with melanoma.

To test whether TRRAP is an oncogene—a gene that can prevent normal cell death and cause cancer—the researchers disrupted TRRAP in melanoma cells. As expected for an oncogene, disruption of TRRAP caused an increase in cell death.

In another approach, the researchers looked for genes with a higher-than-expected mutation rate. Of the 16 identified genes, only BRAF had previously been implicated in melanoma. Another, GRIN2A, is one of the most highly mutated genes associated with melanoma to date. The identification of GRIN2A, along with other data from the study, implicate the glutamate signaling pathway in melanoma.

Thus the pathways are becoming a key element. As we have discussed before, there is some experimental evidence of a stem cell model for melanoma. Thus one would ask if the genetic markers are stem cell markers or otherwise. It will become critical to be able to look at markers on a cell by cell basis and not on a larger cross section. Also it will be essential to correlate this with the controlling pathways, again on a cell by cell basis. Large scale cell by cell analysis will be a key driver. Perhaps indicators of cell surface proteins may be a reasonable proxy. Just a thought.

Labels: [Cancer](#)

TUESDAY, APRIL 19, 2011

A FINANCIAL WARNING FROM CHINA

[China Daily](#) sent out a note stating that China had formally sent a "warning" to the US regarding its failure to address its debt crisis, particularly regarding the recent change of status.

They state:

If investors start demanding higher returns for holding riskier US debt, the rise in bond yields could erode the value of Treasuries held in currency reserves and push borrowing costs up, putting the global economic recovery in jeopardy.

"We hope the US government will take responsible policies and measures to safeguard China's foreign exchange reserves, the world's biggest, rose by nearly \$200 billion in the first quarter to \$3.05 trillion. About two-thirds are estimated to be invested in dollars.

Beijing has repeatedly warned that loose US monetary policy threatens the dollar, but it has continued to accumulate dollar assets at the same time, adding about \$260 billion of Treasury securities last year, according to US data.

Policymakers in Europe, where interest rates are rising and debt is being cut, have also voiced concern.

However Washington seems to have a deaf ear. China is in the early stages of its own internal inflation and the ability to move forward in financing from the Treasury perspective may be pushed back to the FED merely printing dollars. We have gasoline up 75%, milk 33%, bread is up 25% and the list goes on. No inflation? Hardly! It is just that home sales prices are low, low demand, driven by back room money.

Labels: [China](#), [Economy](#)

WEDNESDAY, APRIL 13, 2011

GREAT INTERPRETATION OF TWO VIEWS: THE FUTURE OF MEDICARE

[Mankiw](#) at Harvard presents a great view of the two visions of Medicare. Strange how the deficit has suddenly been focused on one issue, the old folks! Everyone seems to feel it is open season on this one issue, albeit an important one. "Kill grandma" may now become acceptable.

But why are we having such a deficit! Medicare was and is an insurance program and perhaps it should be run that way. Instead it is run like a piggy bank. The truth of the matter is that using January 2008 employment data we have a 12.8% unemployment from a 4.5% number and that is a lot less tax revenue. True fact, and the problem is not all Medicare.

So perhaps we reform Medicare; increase the 3% to 4% and move the eligibility date to a rolling 10 years before the average age of death of the recipients, increase the monthly fee to be 3% of the gross annual income number and use a 30% deductible. That not only save the program but makes money. Perhaps we have a non-Governmental agency do this. Then again such a thought is from an engineer not an economist, one who has started and run companies, not played politics. By the way, China is still run by us engineers!

Then there is DoD and the rest of the Washington mess. Just look at DoE, Education, DoT, and the list goes on! Why pick on Medicare? Because they think the old people will just die. Watch out, they may live a long time, and remember!

Labels: [Health Care](#), [Politics](#)

TUESDAY, APRIL 12, 2011

[PROVENGE, PROSTATE CANCER AND COSTS](#)

There is a brief article on Provenge and its use for prostate cancer in [NEJM](#). Now Provenge is a new and supposedly targeted drug for metastatic androgen resistance prostate cancer. As NEJM states:

...sipuleucel-T (Provenge), a novel cellular immunotherapy for the treatment of asymptomatic or minimally symptomatic, metastatic, castration-resistant (hormone-refractory) prostate cancer. The pivotal clinical trial demonstrated the benefits of sipuleucel-T: an increase in median survival of 4.1 months as compared with placebo and fewer side effects than occur with docetaxel. Priced at \$31,000 per treatment, with a usual course of three treatments, sipuleucel-T is one of the most expensive cancer therapies ever to hit the marketplace.

Yes that is \$30,000 per treatment! The question is then should one have Medicare pay for this for all AR PCa patients. It does not really cure and has a limited ability to improve quality of life and survival as best as one can ascertain. This is a question which goes to the heart of the health care debate.

This is a difficult question, since there are many tens of thousands of men in that state at any one time. At roughly \$100,000 per patient per year, the number is in the billions, and the benefit is questionable. Men should be able to choose, but at what price, what should Medicare cover? Worth a discussion.

Labels: [Cancer](#)

MAN AND BEAR



There is a note about the polar bear Knut in today's [NY Times](#). Now let me state at the outset that I know bears. I saw the polar bears at Churchill, the very same who consumed some prior humans I believe and there is of course Bernie Bear, a 400 pound black bear who lives behind our home in New Hampshire. Bernie comes and goes, and at times sits at the edge of the driveway to greet us as we arrive. Man and bear have a strong if at time distant affinity. Bears walk on two feet, frequently, and are often at the top of the food chain, humans included.

The Times article seems to state the coolness and aloofness of the Berlin Zoo head, well for those of us who have worked in Germany that is no surprise. The best oxymoron is German humor, and the second best is German sympathy. Just does not exist in my experience. Russian are "great bears", bolshoi medveds, we Americans respect our bears, Ms. Palin included, yet I never met an Alaskan bear or any brown bear for that matter.

Bears are wonderful creatures at a distance. They are fearless, intelligent, and respectful. Perhaps the German zoo should take notice.

Labels: [Commentary](#)

SUNDAY, APRIL 10, 2011

MORE CONFUSION ON MEDICARE

[David Brooks](#) has a piece on the Ryan plan and in it he addresses Medicare. I had commented earlier that when he made similar quotes that they were at best irrelevant and at worst fallacious. He states:

Second, we can't let the oldsters get off scot-free. As my colleague David Leonhardt reported in The Times, two 56-years-olds with average earnings will pay about \$140,000 in dedicated Medicare taxes over their lifetimes. They will receive about \$430,000 in benefits. This is an immoral imposition on future generations. The Ryan budget wouldn't touch this generation, but a bipartisan budget deal should ask middle-class and affluent boomers to make a sacrifice for their country. Slow the growth in health care benefits now and dedicate that money to paying down the debt and investing in the young.

The problem is that [Leonhardt is also wrong](#). For he states:

Mr. Steuerle — along with his Urban Institute colleague Stephanie Rennane — has done some of the most careful work comparing Medicare taxes and benefits. They added up all the taxes people at different points on the income spectrum would pay over their working lives and then translated these amounts into a single sum, expressed in today's dollars. Mr. Steuerle and Ms. Rennane likewise added up the value of Medicare benefits (net of premiums) that men and women could expect to receive...Their results show that no cohort of Americans, with the possible exception of the very affluent, pays enough Medicare taxes and premiums to cover their costs. The gap is growing over time, too....Two married 66-year-olds with roughly average earnings over their lives will end up paying about \$110,000 in dedicated Medicare taxes through the payroll tax, including the portion their employers pay. They can expect to receive about \$340,000 in benefits. Two average-earning 56-year-olds will pay about \$140,000 and get back about \$430,000 in benefits.

The fact is that if one looks at the [Urban Institute Study](#), and then compare it to [our analysis](#) of a couple of years ago, one can note:

1. We look at the distribution of incomes and not at the lowest level. Their study looks at a 65 year old whose salary equals the average of all workers. In reality the average salary may be at the age of 32 not 65 and when the adult reaches 65 the salary has increased often two fold.
2. One must look at Medicare across all salary levels. Not just one low value.
3. The costs stated in the study are wrong by more than a factor of 2! Look at our study then look at the real data. I have no idea where they got their numbers.
4. They also fail to note that Medicare participants pay a substantial amount, namely \$1,200 per year and then 20% or more plus drugs if not in Part D.

The study is flawed to the extreme by not dealing with the full distribution of the population. If one looks at our analysis one sees we have taken into account all of the factors. On average the contributors never get back what they put in!

Now why did Leonhardt and Brooks not catch that flaw, well because the answer plays into their theme. It is a shame that writers who opine on things which they do not understand do so with almost total ignorance of the facts. Pity the Press is so poor.

Labels: [Health Care](#)

THURSDAY, APRIL 7, 2011

[VOUCHERS AND HEALTH CARE](#)

Somehow or the other the current Ryan proposal for eliminating Medicare is akin to one of the structures proposed by the financial whiz kinds in the last decade. In a [NEJM article by Aaron](#) the author states:

Under the House Budget Committee plan: (i) Traditional Medicare would end for everyone turning 65 in 2022 or later. (ii) Newly eligible Americans would receive a voucher worth \$8,000 on average. As people aged, their vouchers would be increased to reflect increasing use of health care. The value of all vouchers would be indexed to consumer prices. Vouchers for the 8% of enrollees with the highest incomes would be reduced. (iii) Low-income Medicare beneficiaries (“dual eligibles”) would cease to be covered by Medicaid. Instead, they would get a medical savings account equal to \$7,800 (also indexed to track consumer prices). (iv) The rest of Medicaid would become a block grant, also indexed to consumer prices. The plan would repeal all major elements of the Affordable Care Act (ACA), including subsidies, Medicaid extensions, insurance exchanges, and requirements that businesses provide insurance and that individuals buy it.

Now this is akin to selling options where the Government hedges itself. Now if we look at people, they fall into the following categories related to health care usage:

1. **Young and Unfortunate:** This would be the young who come down with some deadly disease like leukemia or who have some severe disability. Unfortunate and costly but not really that many and society has agreed to help them.
2. **Middle Aged Bad Luck:** These are the group who are mid life and are struck with say breast cancer. Bad genes, bad luck, whatever, but they did nothing that got them there and they are hit in the middle of their lives. Again we agree to help.
3. **Life Style Choosers:** These are the drinkers, smokers, eaters, and other life style based diseases. Type 2 Diabetes and Obesity account for almost 15% of this total. The problem here is that their costs remain. Unlike the first two who often die or are healed, this group takes a long time to die and their costs grow greater each year as do their numbers. Somehow this should be an issue but is not.
4. **Older and Unlucky:** This is the group with Parkinson's, and other debilitating diseases of old age as well as cancers hitting before 75. They may have breast, colon, pancreatic, kidney, and other cancers. Some may be mitigated against others not so. Alzheimer's disease is in this batch as well. This is the target for Medicare. It is catastrophic.
5. **The Real Old Folks:** It is often the case that when one gets to say 75 with no disease then there is a good chance you will hit 90 and drop of a plain old heart attack or the like. But if somehow we keep them away from heart attacks then perhaps they die of a cancer, more costly. Also more painful. This group may very well be kept off of the armory of blood thinners and pacemakers, and just let nature take its course. This of course is a personal choice but it should be an informed personal choice.

Thus Medicare is really targeted at those who get old and are unlucky. It has been expanded to the Life Style Choosers because we often can keep them alive. The drinker, the smoker, the obese individual, we can pump them up and treat their symptoms and it adds to the costs. In addition we have a group who want every little discomfort remedied. Yet at what cost?

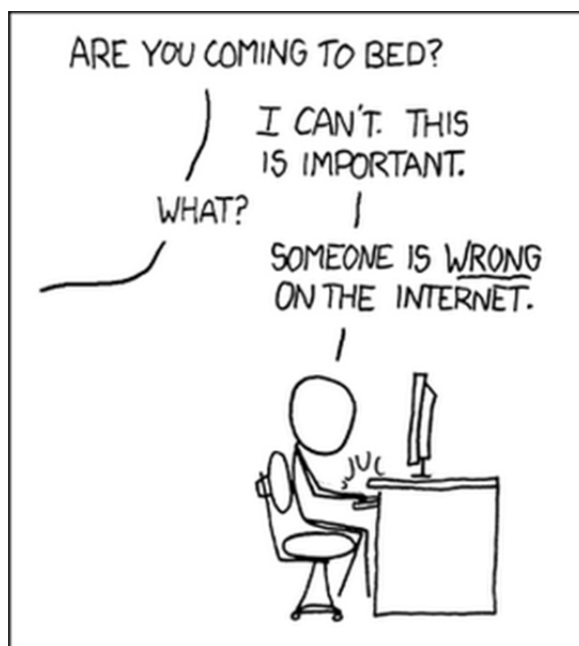
Aaron presents the argument in a superb manner. Medicare serves a purpose. It has gotten out of control, but so has all health care. Vouchers are rife with problems. The solution in my opinion is not a voucher.

Labels: [Health Care](#)

WEDNESDAY, APRIL 6, 2011

GREAT CARTOON

From [xkcd](#) we have the following:



Perhaps this also typifies the glut of economic verbiage! In a sense this tells a great story. We should all take it to heart.

Labels: [Commentary](#)

PREDATORY PRICING: IT EXISTS

[Prof Boudreaux](#) has a post regarding predatory pricing, and a [prior post](#) apparently rejecting its existence, if I read it correctly. He states:

A key to understanding the economics of predatory pricing is to realize that the predator must lose more money than do any of its prey. The reason is that the predator can force the preys' prices down only by taking away their customers. And to take away the preys' customers requires that the predator expand its sales during the price war. In contrast, the prey are free to reduce their sales to levels that minimize (if not eliminate) their losses.

How, then, can predation be a lucrative strategy? The answer must be that the predator is better able than the prey to absorb price-war losses. Fortunately for consumers, predators are not better able to absorb such losses. In fact, any prey that is as efficient as the predator has just as much access to funding for the price war as does the predator....

But suppose that the observed low prices really aren't predatory; suppose, instead, that these prices reflect the price-cutter's superior efficiency. In this case, a mistaken belief by private investors that these low prices are predatory does no social harm. Investors lend money to a firm that doesn't deserve the funds, while the genuinely more efficient firm keeps its prices low. Consumers never suffer. And eventually the mistake is revealed because the less-efficient firm cannot compete over the long haul with the more-efficient price cutter.

Now I see this as a rejection of predatory pricing as a social evil. Let me give a real counter example. In 2001 I was selling, amongst other services, VOIP into Poland. Unbeknown to me a second international carrier, a state carrier, was also selling into Poland. Week by week the prices dropped and week by week we matched it, until we saw that we could no longer do so. We actually had the lowest cost structure and we even went further than we should have to retain our market, but the Board said stop. Good thing, for our competitor just kept going, and against himself!

Two years later I meet the head of the same company and over lunch he recounts the tale. Allegedly he got the job because his predecessor lost \$100 million on this predatory pricing scheme.

Yet what of the consumer? Both carriers were out of the market replaced by the over bloated incumbent. Prices rose, the public had no alternative, and predatory pricing had a negative effect.

Just a thought from the real world. Oh, and telecom is filled with this stuff.

Labels: [Economics](#)

THE RYAN PLAN, HEALTH CARE. AND WHICH WAY TO GO

Rep Ryan has detailed at a high level [his plan](#). He states:

In 2010, health-care costs rose by over 7 percent, compared to around 1 percent for all other goods and services.

This is putting enormous pressure on Medicare and Medicaid. But these programs aren't just affected by rapidly rising health-care costs – they are actually a key driver of inflation in the health-care sector. Nearly 50 cents of every dollar spent on health care in this country is spent by federal, state or local government. Because of the design and structure of these programs, much of the government's money gets wasted – and shows up as inflation in the cost of care.

Everyone who is on Medicare or knows someone on Medicare has stories about waste in the system – unnecessary tests, redundant treatments, and the cost in both time and money of

mistaken billings and misplaced records. This kind of waste is inevitable in a top-down, government-run system, and it's a big reason that costs have spiraled out of control.

Yes, these costs are rising as we had examined two years ago. The reasons are several fold. First people take poor care of themselves and when they reach Medicare age they have already placed themselves at risk. Second we can do a great deal more. Third people are living longer, albeit with increased costly care. He continues:

Real reform – especially with respect to Medicare – must eliminate this unsustainable waste and reduce inefficiencies and costs by giving beneficiaries themselves more control over their own health-care benefits and decisions.

Waste has always been a factor focused upon as a cost reduction. However that can and should be done in the system as it stands. It does not require another new law.

He does make a useful point regarding the new health care bill:

*Nevertheless, even if these efforts worked, the tradeoff in terms of lost freedom would be completely unacceptable. This approach would transform the relationship between citizen and state, leaving individuals helplessly dependent on their government. On a more practical level, it would substantially diminish quality of and access to care. **There is no way for “experts” in Washington to know more about the health care needs of individual Americans than those individuals and their doctors know.***

Namely having some GS9 decide on your health care will not work. Yet the counter side is that you as an individual have a duty to refrain from personal choices which put you at risk and cost society. How to do that is the key.

His proposal in brief is:

- *Save Medicare for current and future generations while making no changes for those in and near retirement. For younger workers, when they reach eligibility, Medicare will provide a Medicare payment and a list of guaranteed coverage options from which recipients can choose a plan that best suits their needs. These future Medicare beneficiaries will be able to choose a plan*

the same way members of Congress do. Medicare will provide additional assistance for lower-income beneficiaries and those with greater health risks.

- *Ensure that the cost of frivolous litigation is not passed on to consumers in the form of higher health-care premiums by capping non-economic damages in medical liability lawsuits.*
- *Stop the raid on the Medicare trust fund that was going to be used to pay for the new health care law. Any current-law Medicare savings must go to saving Medicare, not financing the creation of new open-ended health-care entitlements.*
- *Fix the Medicare physician payment formula for the next ten years so that Medicare beneficiaries continue to have access to health care.*

The first is in essence the elimination of Medicare. What he suggests has great risks in that it will throw a mass of society onto the health care system at their most vulnerable time in life. No company offers retirement health insurance, almost none, except Government and union workers. That means the people creating the wealth will be subsidizing those consuming the wealth. Second, as we have written, it is not clear that tort relief saves a great deal. As to the Medicare Trust fund, it has been robbed! As we have shown time and again if one has a reasonable job in life one contributes more to Medicare than one receives! But Congress took the money. Finally the fixing the reimbursement formula is essential.

Should those on Medicare be in fear? Not for the short run, but now that the shot has been sent across the bow they must be wary.

Labels: [Health Care](#)

TUESDAY, APRIL 5, 2011

[A VERY STRANGE SHUTDOWN](#)

The impending shut down, if it happens, has set NIH a twitter. In [Science](#) they states:

Although government shutdowns are not uncommon, most recently in late 1995 and early 1996, the culture seems different this time around. While in the past many people, especially postdocs, came into work and were eventually paid, this time, "the impression I have is that you will have to show you're on some list" to enter a building, one lab chief said. Another investigator was told there will be fines for violators. This time, NIH staff members aren't even supposed to log into e-mail from home, a source said.

This means that some where from the top down, they plan on a hard ball tactic. Professionals are not even allowed email! Typically good scientists are really thinking all the time. This is not the FCC or the Department of the Interior. This is NIH.

One should ask what is going on?

Labels: [Government](#)

CHINA AND INFLATION

China has raised its rates again. This is the fourth time in a year and it is a clear indication of strong inflationary pressure. As [China Daily](#) states:

After the hikes, the one-year deposit interest rate will climb to 3.25 percent while that of the one-year loan interest rate will reach 6.31 percent. Analysts said the move indicated that the central bank was enhancing efforts to ease stubborn consumer price increases. The consumer price index (CPI), a main gauge of China's inflation, jumped 4.9 percent in February from a year earlier, exceeding the government's full-year target of 4 percent. Food prices, which account for about one-third in the basket of goods used to calculate China's CPI, surged by 11 percent in February from a year ago.

There is clearly strong upward pressure in China and this will most likely get reflected in US prices, having the effect of a strong inflationary trend.

This is worth watching closely.

Labels: [China](#)

THE RYAN REPLACEMENT FOR MEDICARE

Now I have been spending the greater part of the past two years plus commenting one way or another on the health care policy mess that Washington has created. As of today Rep Ryan has provided a succinct summary of what he proposes in the [WSJ](#).

He states in part:

This starts with saving Medicare. The open-ended, blank-check nature of the Medicare subsidy threatens the solvency of this critical program and creates inexcusable levels of waste.... its reforms will not affect those in or near retirement in any way....Starting in 2022, new Medicare beneficiaries will be enrolled in the same kind of health-care program that members of Congress enjoy. Future Medicare recipients will be able to choose a plan that works best for them from a list of guaranteed coverage options. This is not a voucher program but rather a premium-support model. A Medicare premium-support payment would be paid, by Medicare, to the plan chosen by the beneficiary, subsidizing its cost....In addition, Medicare will provide increased assistance for lower- income beneficiaries and those with greater health risks. Reform that empowers individuals—with more help for the poor and the sick—will guarantee that Medicare can fulfill the promise of health security for America's seniors.

Now there are a few problems:

1. If you are say near 50, as my children are, you have been paying into this Medicare fund for almost 30 years. Does that mean you will stop, or that you will not see an increase but will see a different benefit.

2. What happens to the pre-existing condition concern. By the time a person reaches 65-70 there may very well be a few pre-existing conditions making the cost for this group quite high. How does he deal with this issue?
3. What about all the restructuring underway under the new health care plans such as ACOs and the like.
4. What price private insurance and what coverage. What is the out of pocket. The new health care plan and the old Medicare drove carriers for retired people out of the market. Who will drive them back in.

The Congressman should be aware of the real issues here:

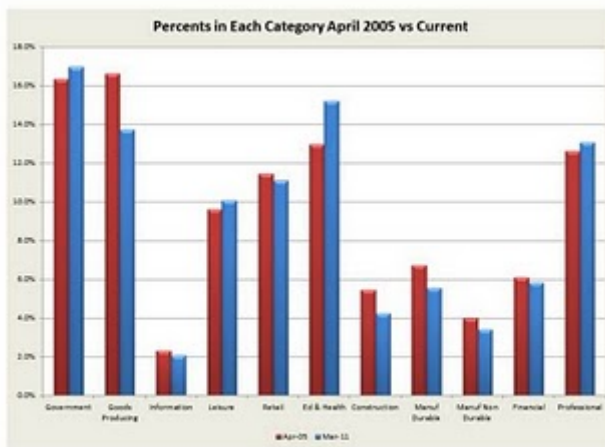
1. Many people have life style diseases, developed over many years of drinking, smoking, poor health care of their own choice.
2. Yet there are many with just a bad hand of genes. They get prostate, breast, colon, cancers at 60+, not their fault. How do we balance that risk?
3. We always need the 800 pound gorilla, and Medicare was that, at times a bit too heavy and getting worse. Yet we all remember HMOs. They were universally despised.
4. An increase in Medicare tax would cover everything if combined with a life style tax. We worked out the numbers well over a year ago. It would always be better for marginal changes for when there is a massive realignment many fall through the cracks.
5. Catastrophic coverage is essential, and waiting till you are 65+ is not the time to get that. Would the Government do that function, as say they do for flood insurance?

Ryan makes an interesting proposal but it really needs socializing. At least some one is doing something. Now if he can keep it below 2,000+ pages we are possibly moving forward.

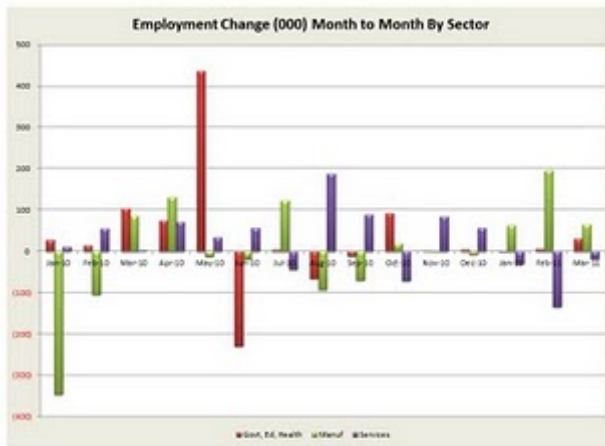
Labels: [Health Care](#)

MONDAY, APRIL 4, 2011

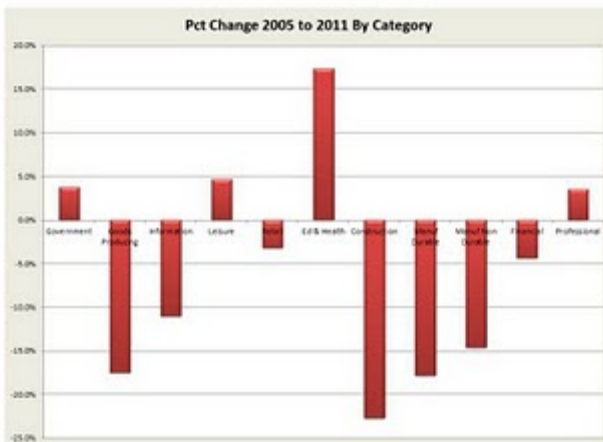
LOOKING AT THE EMPLOYMENT DATA



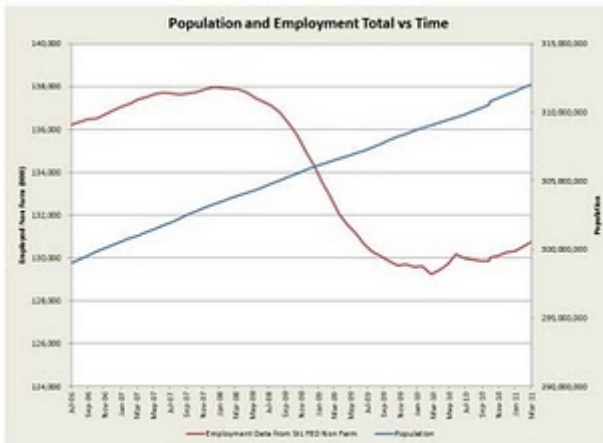
First we look at change from 2005, April specifically. Note that we have an increase in percent of Government workers and a dramatic increase in Education and Health Care. The latter being the greatest increase. Key sectors such as construction and manufacturing are still down. This represents a negative shift from production to Government operated employment. This means we are taking from our long term growth potential and putting an ever growing burden on future generations.



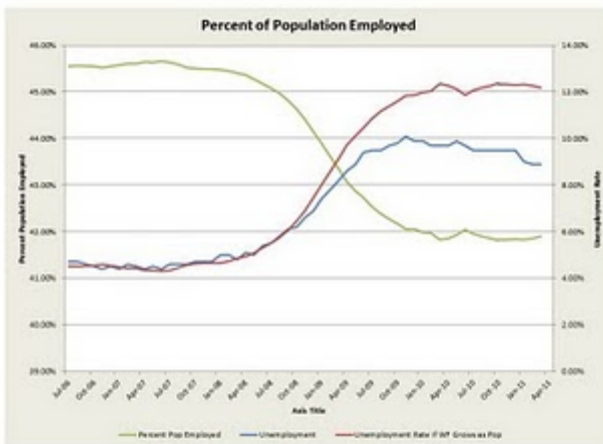
This is the month by month change by major sector. Despite what the press seems to say the Government supported sectors rose significantly as did manufacturing.



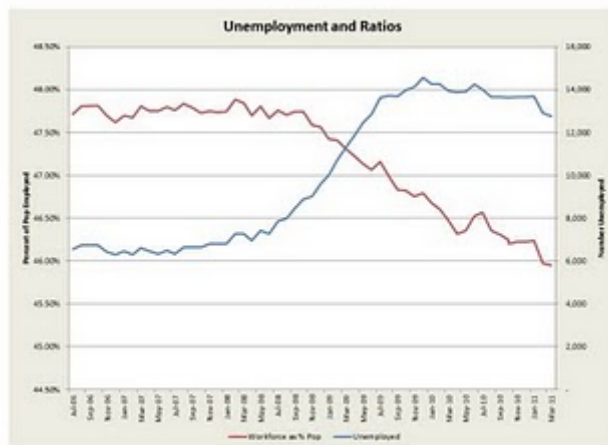
The percent change from 2005 is shown above and this rearticulates our concern. Just look at the above sectors and those are the value producing sectors.



Now for actual unemployment we use what we have been using namely total population and actual growth. Above is the total population growth and the total non farm seasonally adjusted employment. It is upticking but the employment base is still growing at a faster rate!



This is the unemployment numbers and what it would be if we kept the 2008 rate of employment as a percent of the population. Note we are still peaking at 12.2% unemployment based on the 2008 base numbers. There is a slight trending downward but not as provided by DoL.



The above is the detailed data we use for this analysis.

In summary unemployment is fundamentally stuck at over 12% per 2008 base numbers. DoL manages to reduce the base by assuming that those who have not found work are considered no longer looking. It is a nice trick but baseless.

Labels: [Economy](#)

[AN INTERESTING TECHNIQUE FOR CANCER CELL CHARACTERIZATION](#)

One of the major problems in determining the aggressive behavior of cancer cells is the genetic makeup of each separate cell. Perhaps this is a way to determine what the cancer stem cell is. A team from Cold Spring Harbor Labs has published a paper in [Nature](#) doing this for breast cancer cells.

They state:

Genomic analysis provides insights into the role of copy number variation in disease, but most methods are not designed to resolve mixed populations of cells. In tumours, where genetic heterogeneity is common very important information may be lost that would be useful for reconstructing evolutionary history. Here we show that with flow-sorted nuclei, whole genome amplification and next generation sequencing we can accurately quantify genomic copy number within an individual nucleus. We apply single-nucleus sequencing to investigate tumour population structure and evolution in two human breast cancer cases. Analysis of 100 single cells from a polygenomic tumour revealed three distinct clonal subpopulations that probably represent sequential clonal expansions. Additional analysis of 100 single cells from a monogenomic primary tumour and its liver metastasis indicated that a single clonal expansion formed the primary tumour and seeded the metastasis. In both primary tumours, we also identified an unexpectedly abundant subpopulation of genetically diverse 'pseudodiploid' cells that do not travel to the metastatic site. In contrast to gradual models of tumour progression, our

data indicate that tumours grow by punctuated clonal expansions with few persistent intermediates.

We believe that this is worth following.

The issues we look at are:

1. Isolation of single cells.
2. Non destructive measurements and identification of cell surface markers, perhaps via NMR techniques.
3. Destructive marking of specific gene segments.
4. Non destructive temporal analyses.
5. Development and identification of pathway dynamics.

Labels: [Cancer](#)

SATURDAY, APRIL 2, 2011

US COPYRIGHT OFFICE: SLOWER THAN A SNAIL!

If one wants to truly understand the gross sluggishness of the US Government the best place to look is the [US Copyright Office](#). Now I decided to copyright something with these folks almost a half a year ago. This is all on line and you download a copy of what you want. Not as if it is necessary but it is a worthwhile experiment. Well almost 6 months and counting and nothing, zero, zip! What do they have to do, translate it to ancient Greek! These are the very same people we want to take over health care! By the by, we actually pay them to be slow! If anyone wants to see what the Government is really like try this out some time!

Labels: [Government](#)

FRIDAY, APRIL 1, 2011

ACOS: THE LAST MOVE

Dr. Berwick, the interim appointee at CMS, has written about his accomplishment of issuing the rules for the ACOs, the Accountable Care Organizations. The [NEJM](#) article states:

Section 3022 of the Affordable Care Act (ACA) establishes the Medicare Shared Savings Program for accountable care organizations (ACOs) as a potential solution.¹ The creation of ACOs is one of the first delivery-reform initiatives that will be implemented under the ACA. Its purpose is to foster change in patient care so as to accelerate progress toward a three-part aim: better care for individuals, better health for populations, and slower growth in costs through improvements in care. Under the law, an ACO will assume responsibility for the care of a clearly defined population of Medicare beneficiaries attributed to it on the basis of their patterns of use of primary care. If an ACO succeeds in both delivering high-quality care and

reducing the cost of that care to a level below what would otherwise have been expected, it will share in the Medicare savings it achieves.

On March 31, 2011, the Department of Health and Human Services took a major step toward establishing ACOs by issuing a notice of proposed rule-making that will define how physicians, hospitals, and other key constituents can adopt this new organizational form. The issuing of the proposed rule follows months of obtaining informal and formal input from throughout the health care delivery system, but at this point the rule is only a proposal. The Centers for Medicare and Medicaid Services (CMS) will carefully review the comments we receive in response to the proposed rule before issuing a final rule later this year.

The ACOs are in effect hospital owned and controlled care organizations. For Berwick in my opinion, who allegedly was formerly related to one of the largest Massachusetts health care conglomerate this plan may be a God send. It drives the independent physician out of business while removing choice totally from the Medicare patient.

Let me explain why. First if a patient has say multiple problems, say prostate cancer, heart issues and say a tendency towards say melanoma, he will be "serviced" by a hospital based ACO. An all service vehicle. So if the melanoma can best be served by a regional cancer hospital, too bad, he is stuck with the ACO. The ACOs will in my opinion be the HMOs of the 1990s. CMS will in my opinion most likely use its heavy hand to drive those in Medicare into the ACOs.

The good doctor states:

Accountable care is not a panacea but rather one of a number of complementary initiatives chartered by the ACA to help achieve the three-part goal of lower costs, improved care, and better health. Other delivery-reform efforts such as expanded use of medical homes, bundled payments, value-based purchasing, adoption of information technology, and payment reforms are under way or under consideration. A critical success factor for ACOs will be their effective integration with these other efforts.

Yes it is not a panacea, it is in my opinion a way to recreate HMOs and even worse drive them into the hands of the mega hospitals! It is just one element of cost containment and rationing. Why rationing, because the ACO will become the gatekeeper. If the patient has the knowledge and wisdom to work their way through the system, the way will now in my opinion most likely be blocked with the developing Berwick rules.

Labels: [Health Care](#)

SUNDAY, MARCH 27, 2011

BOY, THESE ECONOMISTS REALLY GET MAD!

I have been seeing that those who have something to say about daylilies tend to get almost to the extent of, well using nasty name calling, over what I perceive to be minor issues like who is right about how color in the flower is generated. I know that this may not be as important as Libya, or earthquakes, but to the nome who is throwing the mud it most likely is. They accuse others, using hidden identities, of such evils of "buying" degrees and of false data and the like. Really nasty stuff. Perhaps it is what one would expect from a set of folks who spend their days on the daylily patch. I tend to let loose with my squirrel tales but alas I have done real work as well in life. But all of that banter is rather petty at time compared to these economists.

They are out [calling each other arsonists](#), yes arsonists! Now that may be a bit too heavy handed. There are times when I have my differences, differences based upon facts which hopefully we can discuss. For example I am against a Pigou tax, basically I have never seen a Government take a tax dollar and spend it twice on something not only useless but counter productive, and the net effect is a penalty on those creating value. Second I think that carbs should be taxed because they have a cost, and that would not be necessary if we had some Coase like litigation but again alas not.

But this vicious name calling, albeit not behind the Internet shield of pseudo names, sometimes goes a bit over the line. So this throwing of verbal cabbages back and forth does little for ever allowing confidence in any economist. Imagine is we had physicians doing this, wait we do sometimes, but not on a day by day basis. I do not see this with engineers, imagine a battle over the truss bridge versus a suspension bridge. Real exciting stuff!

So what is it really about economics? There was a piece a short while back where they claimed it a science. I do not think so. At least not based upon the actors. It seems like a debate club. With a large pile of mud to be slung back and forth.

Labels: [Economics](#)

OPERATION CUPCAKE

The [NY Times](#) recounts the lobbying efforts of AT&T to get the T Mobile deal in place. This was Operation Cupcake as they recall. Specifically the Times states:

IN this covetous town, the delicacies of the Georgetown Cupcake shop stand alone as symbols of wish fulfillment — heaping swirls of luscious confection atop rich, creamy pastry...Therefore: Operation Cupcake. As the Federal Communications Commission debated final rules last December on how Internet service providers should manage their traffic, AT&T delivered 1,500 of these opulent desserts to the F.C.C.'s headquarters here.

First, perhaps these "gifts" should not have been accepted by the FCC. Second, what if, God forbid, they were tainted in some manner and well just suppose, well one can consider. Third, and my main concern, is think of all the calories. It is not as if the FCC folks get any real exercise, I have been there. Now add this load of say 600 kcal per cupcake and 1500 of these fat

pills and we have almost 1 million kcal. Well at 3500 kcal per pound this would have added almost 300 pounds to the waist lines of the already over burdened waists of these Government workers. And we are then forced to pay for the sequellae resulting from this assault.

Why should AT&T be allowed to do this adding to an already exploding health care costs?

Labels: [Telecom](#)

SATURDAY, MARCH 26, 2011

[END OF AN ERA](#)



The [BBC has announced](#) the cessation of its short wave service to Russia. They state:

The service was set up in 1946 and enjoyed an audience of millions of Soviet listeners during the Cold War....After the collapse of the USSR, it was rebroadcast on Russian radio stations, but these partnerships suffered as ties between Moscow and London deteriorated. ...On Friday, BBC's Mandarin Chinese, Caribbean and Azeri broadcasts on radio came to an end. Five language service at World Service have been shut down and a number of programmes in English are ending.

It is a passing moment in history. For those of us old enough to get our world news over a short wave radio, specifically the old Hallicrafters above, with the noise and signal fading in and out, it is a fond memory of what it was like before the Internet. Farewell old friend.

Labels: [Commentary](#), [Russia](#)

[CHINA'S VIEW ON THE LIBYAN WAR](#)

[China Daily](#) states:

Military strikes against Libyan targets are still led by the United States, which Crow said has been drained "both materially and ideologically in terms of military intervention". But British Foreign Secretary William Hague has said he has "every expectation that there will be a NATO command of the entire operation, not just the no-fly zone and the arms embargo".Representatives

of intervening countries and international organizations are expected to meet in London next week to map out the political direction for operations in Libya.

The article mentions the US only once and as a drained nation. Perhaps that view is more expansive than just in regard to Libya. If so who will buy the Bernake Bonds when they come out?

Labels: [China](#)

THURSDAY, MARCH 24, 2011

THE BUDGET MESS

As most folks in the US and elsewhere know the budget is a mess. If this were a normal company we would have replaced the management team a long time ago. Shareholders would not put up with this. The current problem is threefold:

1. Large unemployment reduces revenue
2. Large unemployment increases unemployment benefits
3. Massive increases in Government expenditures dwarf 1 and 2.

One need just look at the recent [CBO](#) report. Now we have a letter from a dozen or so former CEA heads. A real mix of republican and democrats including Romer who was at the heart of this mess. Strange to see here there since she most recently wanted us to blow through a few more trillion. [They state](#): (see Politico)

The commission has proposed a mix of spending cuts and revenue increases. But even this requires cuts in useful programs and entitlements, as well as tax increases for all but the most vulnerable.

The commission's specific proposals cover a wide range. It recommends cutting discretionary spending substantially, relative to current projections. Everything is on the table, including security spending, which has grown rapidly in the past decade.

It also urges significant tax reform. The key principle is to limit tax expenditures—tax breaks designed to encourage certain activities—and so broaden the tax base. It advocates using some of the resulting revenues for deficit reduction and some for lowering marginal tax rates, which can help encourage greater investment and economic growth.

Now program must be cut. Take broadband to the moose. That is a waste of tens of billions. Then look at the other messes. Yes Medicare can be modified, namely increase the percent from 3% to 4% and reduce benefits pro rata to income, and increase the annual out of pocket and eliminate unnecessary treatments. Tax the hell out of carbs since you cannot tax people by the pound or BMI.

Social Security should be pegged at starting at say 10 years before average death, namely with a remaining rolling 10 year remaining life span for a retiree, yes women wait until later.

Reduce Corporate tax to attract business. Increase immigration of productive immigrants.

The list goes on! But stop the spending. They continue:

We know the measures to deal with the long-run deficit are politically difficult. The only way to accomplish them is for members of both parties to accept the political risks together. That is what the Republicans and Democrats on the commission who voted for the bipartisan proposal did.

It takes leadership, from the White House, not golf games!

Labels: [Economy](#)

PANE ET CIRCUM

Bread and circus, that is what technology development seems to have evolved into within certain quarters. Not a new chip company, a new wireless infrastructure, and new fiber network, nor even a new cancer cure, just new Apps. As one looks at the investments from venture companies one sees so many Apps which for the most part are time absorbers, bread and circus stuff. I wonder if there is a balance between selling entertainment and creating value. Just a thought.

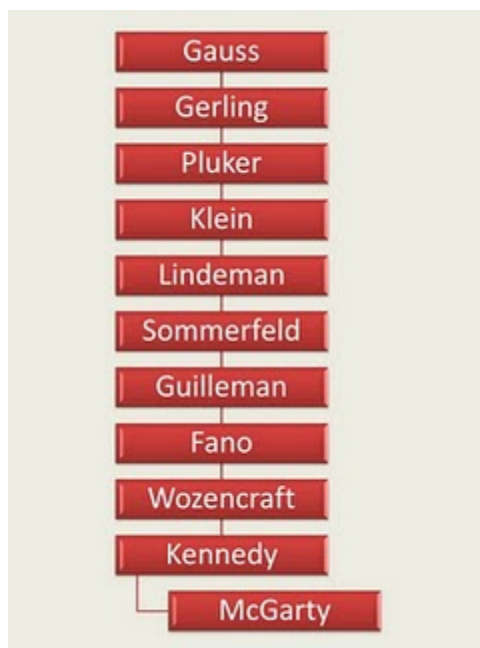
Labels: [Commentary](#), [Technology](#)

THE INFORMATION: GLEICK

[The Information](#) by Gleick is a long and winding tale in which the author has focused upon the work of Claude Shannon as exemplar. Gleick is a superb writer who has the ability to engage the reader in his evolving tale about information, its meaning, its use and its transformation. There are however a few problems in this book, style not being one of them. What is more intriguing is why these problems arose. It is most likely that it was not Gleick, who as a good recorder of what he has been told, after all he is no original thinker in this field by any stretch of the imagination. He must have run across some “information machine” programmed to render into the historical record some views which contradict the reality.

The subtext here is the almost angelic and prophetic Claude Shannon and the misanthropic Norbert Wiener. Hero versus arrogant non-contributing interloper, that seems to be the theme. One wonders who told him this tale. Why pick on Wiener as he did and by so doing distort history, and in fact due potential harm to future generations who may read this and be motivated accordingly? Whenever I see such an ad hominem attack in a document I am always suspicious as to agenda and in this case due to my proximity to Wiener and truly wonder. It seems clear to me that perhaps Gleick may not have the technical competence nor the necessary mathematical intellect to have understood Wiener.

Now before I continue some short bona fides. I did my doctoral work at MIT in the area with Shannon and while he was still there in the mid-1960s. My doctoral pedigree is below going back to Gauss, so perhaps there is some credibility there. I spent several tours at Bell Labs, thus knowing its inner workings fairly well and when at NYNEX, now Verizon, I was head of R&D for a period, and was responsible as Chairman of the Research Committee of Bellcore for its Research efforts. Bellcore was the telephone side of Bell Labs after the split. In addition I knew Wiener, albeit at a distance, and my first book in 1969 built upon his work directly. I taught Information theory at MIT for a while and was thus in close proximity to the main players, although I was [Wienerian](#) rather than Shannonian.



Before continuing I think a brief not of how people are divided in mind sets is worthwhile. I spent time in France and there is a feeling that every Frenchman, or French woman equally as well, is either a Cartesian or Pascallian. They either start with doubting everything or have a strong set of initial beliefs. Either way they view the world in a dramatically different manner. In Gleick's book he is a strong Shannonian. That seems less by intellectual or visceral choice but due to some pedagogical inculcation by some person hidden in the shadows of his book.

The author starts at the very beginning beatifying Shannon. Then he excuses in him the inability to solve certain problems, as on p 187, the fire control problem, which was actually being solved by those making electromechanical fire control systems. During WW II the fire control batteries were all a collection of electromechanical computers, brilliant devices made of gears and small synchro motors, all wired to model the tracking of dynamically moving aircraft. We depict such a device on my father's ship, the DD-649 in the fall of 1944. This was coupled into the radar system and the 5" guns on deck (see my [book on the DD-649](#) which discusses this in detail.



Thus Gleick's comment regarding Shannon finding the problem too hard with the nonlinear equations was already being solved elsewhere. We will also discuss the solving by Wiener as well.

As to Shannon's work it is without a doubt one of enduring prominence. The problem he addressed was simple, mainly because he phrased it in a manner in which it became simple. Namely if you were to send a message from point A to point B and I had a transmitter with a fixed level of power and a channel which added so much noise, what is the maximum rate, whatever that means, that I could ever achieve using the best possible technology, using that channel.

Namely given a signal level S and a noise level N , what was the best I could do. It was the establishment of a goal. To solve that problem, to answer the question, he looked at the world in simple terms, say as a telegrapher, but used 0s and 1s, not dots and dashes. For any message he believed could be transformed into such a set of 0s and 1s. Thus the bit. And the theorem said that for a certain S and certain N that the best you could do were some maximum rate R in bits per second per unit bandwidth. That means bits per second per Hertz. We now had a goal. He never said how to get there only that there was what there was! Brilliant. This was the Channel Coding Theorem.

He also posed in the same paper the Source Coding Theorem which became a basis for coding theory. Namely that give a channel with a signal and noise you could find a code which took the message and using some form of redundancy be able to achieve great accuracy.

This theorem drove many to find these codes. For example in cellular phones when I started deploying them twenty five years ago we had about a bit per second per hertz. Now with 4G LTE we have 7 or 8 bits per second per Hertz, which means we can carry 8 times more bits in the same bandwidth. The problem is we have now approached the Shannon Limit!

BSC, which said that if you sent a 1 then with probability p you received a 1 and with probability $q=1-p$ you made an error. Using modulators, demodulators and knowing signal and noise levels

one could somewhat readily calculate p . Thus the simple paradigm hid great complexities but it left one with a view of completeness.

Now the irony was that the details on finding the p and q was what Wiener and his students worked out. Depending on the signal and the type of noise on the channel one needed to get optimal transmitters and receivers. It was the Wiener-Hopf filters and receivers which allowed that. Gleick seems to be oblivious of that fact. One must see that there was a flow back and forth between many people at this time.

On p 222 Gleick shows the classic Shannon channel model. It is a shame he did not show the BSC model as well. The confusion is clear however in this model. Shannon used signal as the output of the transmitter, the modulator as it was later called, modem. Thus he was stuck with "signal" at that point and he then used information as the term which led to a signal. There is a difference. The signal can be an encoded concatenation of the information stream. Ironically the information stream may be some correlated set of bits, but frankly what it may carry in human meaning is irrelevant. Shannon did not care whether it was a mother's day call or the output of an EKG.

Now Gleick on p 233 comments on a review by Doob. Doob was a brilliant mathematician at the University of Illinois who published in 1953 one of the best books on stochastic processes. He was like Wiener a mathematician. Probability had become a branch of pure mathematics separate from say statistics. Doob as Gleick states says that the work is suggestive.

Yet that was the brilliance of the Shannon piece. It was NOT a mathematical work, it was targeted at engineers, and in the late 1940s many engineers could grasp what Shannon wrote about. It did not contain the depth required of an academic journal. It was suggestive, and simplistic, but elegant. It taught the reader and it brought the reader along, never letting them get discouraged. The writing style above all else was its strongest point. The insight it has was of course without par for that field but it was deliberately targeted at engineers and not mathematicians. That also was a source of irritation.

On p 235 we start with Gleick's attack on Wiener. He uses Pierce, one of the Bell Labs gang. Now I knew Pierce, took a semester seminar from him in late 1960s at MIT. His claim to fame was the traveling wave tube analysis, the TWT being a microwave amplifier. Now Bell Labs during this period was somewhat of an interesting place.

Since 1913 with the Kingsborough decision by the Justice Department giving AT&T a monopoly, the management and most members of AT&T fought tooth and nail to not only keep the monopoly but to expand it in as many ways as possible. Oftentimes to the detriment of technology. Pierce in my opinion was at the forefront of that efforts, namely keeping Bell Labs out in front, and ensuring that it got the fullest share of credit. Thus one often sees that Bell Labs would go to extremes to take work from MIT and other places to gain control.

There was a brutal fight over the Radiation Lab at MIT, which Bush established over the loud objections of AT&T. They wanted all electronics War work done at Bell Labs. The Government did not bend, Bush gave Bell Labs a piece but only a piece. Thus in short order the ship, aircraft

and land radars came out of MIT Rad Lab to the chagrin of Bell Labs. Wiener had been a part of that battle and one wonders what the purpose of Pierce's remark is. Gleick seems not to know of that issue.

If Gleick had studied Wiener a bit more before attacking him perhaps he would have understood this issue better. Pity. If only Gleick had read Masani's fantastic book on Wiener.

On p 237 Gleick details some of the background on Wiener. One of the statements was that Wiener's work was too ambitious for the real world. If he had read the Rad Lab book by Nichols and Phillips he would have seen that it was incorporated in the designs! In fact I used the same approach when I designed the Apollo start tracker navigation system actually using Nichols and Phillips and Wiener! It really helps at times to know something.

On p 239 he states that Cybernetics was Wiener's first book. In fact he had several mathematical treatises before. Perhaps Gleick means his first popular book. On p 240 he states that the book was abstruse and ungainly. Frankly when I read it in the mid-1960s it was smooth as butter. Much of it is mathematical but that is what it was supposed to be. "ungainly" is a rather strange phrase. The author provides little if any basis for it. Perhaps Gleick cannot understand it but perhaps it was not meant for him.

Now on p 263 Gleick states that cybernetics faded. Indeed it changed, it morphed, it took upon itself the complexities that Wiener had set forth. On the same page Gleick makes a rather confusing remark. He states that what McLuhan called the medium Shannon called the channel. Wrong! As Peter Drucker said on seeing McLuhan present his work:

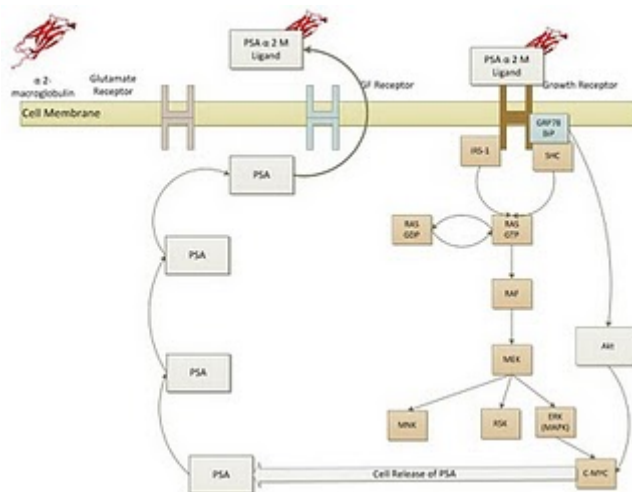
"Did I hear you right," asked one of the professors in the audience, "that you think that printing influenced the courses that the university taught and the role of university all together." "No sir," said McLuhan, "it did not influence; printing determined both, indeed printing determined what henceforth was going to be considered knowledge."

What Drucker implies is that the medium in which we receive the presentation determines what is knowledge, and in effect truth. Thus we Homeric verse, spoken, we have printed words, we have television, we have Internet presentations. The medium, the holistic process of communicating, the totality not just the channel, is the medium, and it determines what "henceforth was going to be considered knowledge". Thus in our world the use of the Internet as an overlay on books creates a new medium and thus established a new knowledge. This very Internet based review, picked up by hundreds, becomes in a small way knowledge.

Now in Chapter 10 with the genetic code Gleick has apparently not kept up with the current. Regrettably by the time he does it may have moved further on. Let us take cancer. Cancer is a random dynamic process based upon a distributed random state machine with sophisticated feedback in cells communicating with each other. For example, prostate cancer is a pathway disease. The figure below is a current understanding of some of these issues.

It is not a single static code. It is the result of interactions of genes on RNA to proteins and the proteins then interfering with the DNA and its transcription. It is not a one way process as Gleick

seems to allude to on p 299. Rather it is a Wienerian cybernetic machine, and one which communicates across many cells in a manner discussed by Alan Turing in his last paper (see my paper on the [Turing issue](#) and my book on [Cancer Pathways](#)).



Thus the reality is that Shannon made tremendous contributions. Information Theory became a branch of many fields and it continues to thrive in various niches of academia. In contrast Wiener viewed life as complex and messy, a concatenation of signals, noise, feedback and nonlinearities. In fact that is just what we must deal with. The division into a world of Shannonians and Wienerians is a division into a world which is highly focused in solving the problem of getting more out of a channel and the world which became expansive and trying to understand a control our world fraught with random processes and nonlinearities.

The work Wiener did on the first electronic arm, the Boston Arm, was a simple example of that step. He conceived of and pushed through in his own way that implementation of his cybernetic view. Did Wiener have personality issues? He was an MIT Professor, all one need do is walk down the halls. It is not Harvard folks! But that is the price one pays for brilliance I guess. Wiener was also a product of the old world way of doing things. He was a prodigy, and he recognized that being one was less of a sign of exceptionalism and more a burden to have borne as a child lacking a child hood. Gleick does Wiener a disservice.

Wiener made a tremendous set of contributions to the world as we know it now. The Wiener process, white noise, the Ergodic Theorem, namely the time average is equal to the ensemble average, feedback control with noise, optimal signal processing using matched filters. He did this all without the PR machine of a Bell Labs. On the other hand Bell Labs has a few stumbles. The fact that the CEO of ATT had to go to Canada to get a digital switch, the fact that ARPA had to independently develop what is now the Internet, the fact that almost all digital wireless standards were developed extra Bell Labs.

He was a brilliant man and his ideas permeated many areas. One need think only of the progression from Wiener to Kolmogorov to Kalman. The development of nonlinear dynamic

optimal estimation and control. This is at the heart of all of our current control systems. The beginning, Wiener.

Frankly I had hope Gleick would have done better. Shannon and Wiener were two sides of the same coin. They each contributed in their own way. I like Wiener, much of my thinking has been molded by his way in thinking. In fact if you want a brief on him, read my [Squirrel Tale on Norbert](#).

Labels: [Books](#)

WEDNESDAY, MARCH 23, 2011

[150 YEARS OF THE EQUATIONS BY MAXWELL](#)

[Maxwell's Equations](#) celebrating 150 years.

$$\begin{aligned}\nabla \times E &= -\frac{\partial B}{\partial t} \\ \nabla \times H &= \frac{\partial D}{\partial t} + J \\ \nabla \cdot E &= \rho \\ \nabla \cdot D &= \rho\end{aligned}$$

Or let there be light!

From Nature:

Physicists can rejoice in a historical moment of great insight, can share in the expressions of that insight that only they can understand in any depth, can bond over surviving the didactic stress that many students experience in learning to apply them and, above all, can roam freely in deploying the power thus provided for understanding the world and, on occasion, changing it.

These communal consequences of a grand discovery might arise in any scientific discipline. But Maxwell's equations are particularly characteristic of physics in the way in which they unified previously disparate laws and provided a foundational framework for vast industries — both academic and commercial.

Labels: [Commentary](#)

TUESDAY, MARCH 22, 2011

CHILDHOOD OBESITY, TYPE 2 DIABETES, AND WHAT TO SAY

Obesity in children is becoming pandemic and with obesity comes Type 2 Diabetes and its sequellae. I saw a post today about an Eagle Scout who apparently chose as his Scout project to develop a presentation on Diabetes but the person seems to have maintained what appears to be the morbid obesity that was the apparent cause of the Type 2 Diabetes. The problem is the excess fat in his cells will continue the inflammatory response and thus despite chemical attempts to increase insulin effectiveness he will have the sequellae most likely.

However I suspect he should help himself first by shedding the weight. I felt that the article missed the opportunity to bring out the point about obesity and the nexus to Type 2 Diabetes. Just adding metformin is not a cure. It is a crutch which will lead back to insulin and then oftentimes to end stage renal disease, heart problems, circulatory problems, neurological problems and the list continues.

Now the [Scout Oath](#) is:

*On my honor I will do my best
To do my duty to God and my country
and to obey the Scout Law;
To help other people at all times;
To keep myself **physically strong**,
mentally awake, and morally straight.*

As a Scout, father of an Eagle Scout and Grandfather to several Scouts, part of the oath is being physically strong, namely respecting one's body. That means eating moderately and keeping the body in reasonable shape. Morbid Obesity is most likely not physically strong in the broadest sense.



My old Scout Troop, 1954, Staten Island, before Jersey Shore crowds came around, the diets and physical exercise made certain that morbid obesity and Type 2 Diabetes were unheard of. Perhaps they should stress the Scout Oath, especially for Eagle Scouts!

Labels: [Health Care](#)

KHAN ACADEMY GREAT IDEA

At one time there were libraries. I remember learning calculus in high school as a sophomore by reading a calculus book from the library. Only could get it two weeks at a time and hoped that no one else asked for it because I had only been able to get through 20 pages a day.

But Khan Academy is a great idea. Not that all that he does is "easy" but most is exceptional. I also remember taking Continental Classroom in High School, on at 6 AM every day, and I think I missed the definition of a mole. Well, if you missed that you got lost and there was no recording the video, it was black and white on a 12" screen, and you always were trying to catch up with that damn mole, later in medicine I found out what they thought it was but it kept running around again and again. Now for Khan, great talk:

Labels: [Education](#)

SUNDAY, MARCH 20, 2011

CONSOLIDATION OF WIRELESS

In 2002 in a brief return to the US before going and selling my company, I was asked by Eli Noam to present a [paper on the evolution of wireless](#). Simply stated I predicted three major trends:

1. Data explosion
2. Loss of copper lines
3. Massive consolidation in wireless, with at most three carriers, likely just 2!

Now with the announcement of the acquisition of T Mobile by ATT the final resolution of my predictions is coming to fruition. Not a bad guess, I also said ten years.

Now the real problem is for Verizon and Vodafone. What are they to do with that mill stone. Tricky problem and they just keep kicking the can down the road, perhaps until Seidenberg retires soon.

Oh, yes, the next explosion is obvious, video on Internet, but I mean video conferencing. Not just downloads, I am talking about the explosion of real time video. Let's see what happens.

Labels: [Telecom](#)

ONE OF THE DUMBEST THINGS I HAVE EVER READ

Let me preface my remarks with a few points to establish my bona fides. First I knew, albeit as a student, Shannon and Wiener at MIT. Second, I taught Information Theory at MIT. Third my first book, Stochastic Systems and State Estimation written in the summer of 1969 was a direct result of the influence of Wiener. Fourth, I really like Wiener as one could surmise from one of my [Squirrel Tales](#).

First, this is NOT a review of Gleick's, [The Information](#), which I have yet to read. It is a review of the review in the NY Times. Second this is NOT in any way a critique of what Shannon did. His was in many ways a singular accomplishment.

The strength of what Shannon did was two fold. First, its very simplicity. It was a simple and clearly written paper which was elegant in the way he approached what was then a highly complex problem. I remember reading it in 1963 or 1964. It was like reading a daily news article, it flowed, it enlightened, and it explained. That in many ways was its strongest contribution since it was readily accessible to so many. Second was the elegance of his proof, showing bounds not necessarily specific answers, but showing what could be done. He did this using simple and well understood concepts. Thus the simplicity, elegance, and the ability to set achievable goals was the essence of his contributions. Shannon then had many brilliant academics follow upon his ideas, people like Fano, Elias, Gallager. The work of those people led to 4G wireless and LTE and the like. Built of course on silicon.

Now to the review in the [NY Times](#). I suspect the reviewer is clueless as regards to facts based on his comments. For he states:

But unlike the equally vogueish discipline of cybernetics proposed that same year by Norbert Wiener, which left little behind it but a useful prefix, information theory wound up reshaping fields from economics to philosophy, and heralded a dramatic rethinking of biology and physics.

First, at least spell Wiener's name correctly! When you say Wiener you pronounce the second vowel, unless of course you do not want to be called what you may be known for as I suspect some politicians have done. But secondly it would have been nice to have to have a reviewer who knew and understood a modicum of Wiener, his work and contributions. I guess the reviewer just wanted to sound smart. Too bad he fell short of that.

You see, Wiener was a real mathematician. He did real mathematics and was well known for that. His view of the world, with feedback, is the very essence of how we all see the world today. The Russians understood that. Wiener even influenced the Chinese when he taught at Tsing Hua University in the 1930s. Wiener understood the world as uncertain, a world with hidden instabilities, and he did a tremendous amount to influence future generations as regards to a

holistic view of nature. If only the banking world understood Wiener they would have been more concerned as to the instabilities hidden in its bowels.

It was Wiener who did the reshaping not Shannon. Shannon was highly gifted but he was focused on bits and their transmission. His paper is brilliant for its simple insight. The paper is truly an example of speaking to the masses. Wiener had trouble doing that. He was thinking too much. It is hard to read Wiener at time because behind his persona is the mind of a pure mathematician.

The world of Wiener is the world of cellular pathways, stochastic feedback loops which control cell growth. Shannon with all due respect is no where to be found, except perhaps in his [doctoral thesis](#) on genetics which frankly falls far from the mark.

Shannon was also part of the Bell Labs/ATT Public Relations machine. Unlike MIT, ATT used the press and managed to glorify its accomplishments and hide its disasters. Yet today Bell Labs Holmdel is an empty facade, Murray Hill, just down the road from me, is Alcatel, filled with more accountants than engineers or scientists. In contrast, it was Wiener who invented the first bio feedback arm to replace a lost limb using the very theories that the author seems to dismiss, and it was Wiener who developed the radar tracking systems which shot down enemy aircraft in WW II from Navy ships thus saving my father's life, and it was Wiener who inspired my comments to Professors of Finance that they had better watch out for those instabilities, and it was Wiener who discovered the very feedback systems in our neural networks which are now applied to modeling and controlling intracellular pathways in cancer!.

"Left little behind...", well to the author of the review you Sir are in my opinion totally clueless. It would help Sir to know something of Wiener. He did not have the PR machine of a Shannon or a Shockley. In fact they have equal standing. But alas, this is from a faculty member in Information, most likely called Library Science a decade or so ago, and at Berkeley. Thus why should I even wonder!

One further nit. The reviewer states:

In the 1950s, Francis Crick, the co-discoverer of the structure of DNA, was still putting "information" in quotation marks when describing how one protein copied a sequence of nucleic acids from another. But molecular biologists were soon speaking of information, not to mention codes, libraries, alphabets and transcription, without any sense of metaphor. In Gleick's words, "Genes themselves are made of bits."

The view of genes as bits you miss the point. Genes are stochastic dynamic variables in complex time varying state machines. They interact internally and externally. It was Alan Turing in his last paper describing the pattern generation in Zebras that established the essence of this complex automaton. This was a Wiener world view not a Shannon world view. This in no way delimits what Shannon did, his result was elegant, it was simple, and it was useful. Wiener's result was hard, complex, and reflective of nature.

The more I read this review the more disappointed I am in the NY Times for having selected this reviewer. Gleick is an excellent science writer, not that he gets everything correct or understands every nuance, but he strikes a chord. This reviewer in my opinion just was not even in the same galaxy!

In contrast there was a review in the [Wall Street Journal](#). Not a word about Wiener, perhaps the writer just wrote about what he knew, and he apparently knew Shannon. He states:

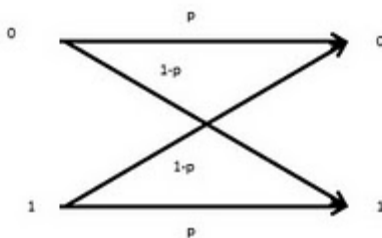
My two-page profile in Scientific American didn't come close to doing justice to Shannon, who died in 2001. After all, this playful polymath—whose work bridged electrical engineering, mathematics, computer science, physics and even philosophical logic—was among our era's most influential thinkers. His work, especially his 1948 paper "[The Mathematical Theory of Communication](#)," helped spawn today's digital devices and communications technologies. Information theory has also inspired a radical new scientific worldview, which proposes that reality is composed not of matter but of bits of information.

In the Shannon paper he introduces the simple model, paradigm in Kuhn's world. It contains:

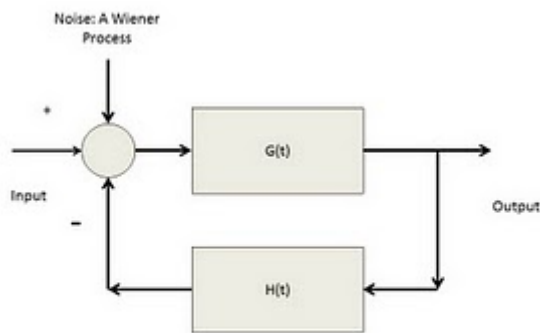
By a communication system we will mean a system of the type indicated schematically... It consists of essentially five parts:

- 1. An **information source** which produces a message or sequence of messages to be communicated to the receiving terminal. The message may be of various types: (a) A sequence of letters as in a telegraph (t) as in radio or telephony; (c) A function of time and other variables as in black and white television ..*
- 2. A **transmitter** which operates on the message in some way to produce a signal suitable for transmission over the channel. In telephony this operation consists merely of changing sound pressure into a proportional electrical current.*
- 3. The **channel** is merely the medium used to transmit the signal from transmitter to receiver. It may be a pair of wires, a coaxial cable, a band of radio frequencies, a beam of light, etc.*
- 4. The **receiver** ordinarily performs the inverse operation of that done by the transmitter, reconstructing the message from the signal.*
- 5. The **destination** is the person (or thing) for whom the message is intended.*

These five simple elements were then built upon. This was part of the Shannon elegance. The simplicity was the **binary symmetric channel** model, the BSC shown below:



This simple model of how one sends a 0 or a 1 across a highly complex communications channel such as a radio network, suddenly drew apart the curtain for many. It was simple and it allowed great steps to be made by many great minds. All the details were contained in the p , the probability that if you sent a one you got a one. Then he put messages together in his information construct and strings of correlated bits. It all became obvious. That was Shannon. Wiener on the other hand was the deep thinker and it took a lot of hard work to understand much of what he did. The Wiener world looked like:



The Wiener world had feedback, random processes and complex systems. The Wiener world had noise and he worked hard to define it in excruciating mathematical detail, thus the Wiener process. Shannon became the recipient of that detail, the simplicity was for him to build upon. Wiener was struggling with complexity, Shannon had found simplicity.

This WSJ review was balanced and on target, for there was no reason to attack Wiener. In fact he did a reasonably good job describing Shannon.

Finally there are a few good works on Wiener and the best is by one of his associates and a world respected mathematician, [Masani](#). It is worth a read. There is a popular author biography by [Conway](#) which gets into some of the psycho babble stuff but it is also useful.

Labels: [Books](#)

SATURDAY, MARCH 19, 2011

ECONOMICS AND SCIENCE AND ENGINEERING

I [read a post](#) today by one of those economist fellows, you know one of those folks who argue with each other, then throw around a lot of equations to show how smart they are, and in the end have no clue about what is happening.

Now this fellow today said:

Some people distinguish between soft sciences like economics, and hard sciences like physics. I don't understand that distinction. Are physicists very good at predict earthquakes, tornadoes, heat waves, etc? Obviously not. Some people claim that those events belong in geology or meteorology, but not physics. My response is that physicists claim that their models explain those phenomena, so we have just as much right to expect them to predict tsunamis as we have to ask economists to predict recessions. Indeed even more of a right, as economics has a sort of Heisenberg uncertainty principle, which says that (demand-side) recessions should not occur if they are expected.

Economics can predict some things very well and other things not so well. The more complex the system, the less well we predict—just like physics. I predict that bond prices will be unusually volatile between 8:30 and 8:35am on the first Friday of each month over the next few years. But our most useful predictions are conditional forecasts.

Now frankly I have no idea what he is saying. You see he may very well not have any idea himself, most of these fellows seem to be that way. Science is the study of natural phenomenon and the building of models to be able to consistently predict those phenomenon.

Now we do not have all the answers. Like earth quakes, and that global warming climate change thing that everyone has been talking about. But say nuclear reactions, we have them down pretty good, those electromagnetic wave things, you know the stuff we use in those ipod thing a ma jigs, well thanks to Maxwell we have that stuff, and that fluid flow stuff, you know pipes and all, again we have that stuff down. Now DNA and the genetics stuff, well we have some spotty areas, in fact we are still learning. And that cancer thing, really tough thing that cancer, but we seem to be making progress. There is no little fellow at Princeton writing nasty thinks in the Times every few hours in that area. They are too busy doing real stuff.

So is there a real science, you betcha folks, especially if you know what you are talking about.

Now is economics a science. No way. It is a political science discussion club hidden behind a mass of useless equations. You see, I wrote many of those equations when they first came out and then used them carefully in real engineering stuff, and it worked, sent men to the moon, really did.

Now as to the fellow's claim that economics can predict bond prices, well so can any damn fool who sits on his behind and watches every day. That is not science, it is people watching. Now finance is different, those folks actually make money, if they don't the get fired. Ever hear of a fired economist? No they become government employees or professor type fellas.

So when I read this it is really wishful thinking. If elephants had wings, well I still think the would not fly!

Now, having said all of the above, it is essential to remark that this seems to apply to American economists only. The Canadians do not seem to expel this hubris, the Europeans seem less. Economists are in many ways like ships boiler room operators. They know where some knobs are and which way to turn them. They have seen what happened in past ventures and respond by turning the knobs one way or another. Science, no, technique, yes.

You see there is technique, knowing what can be done, what may have worked in the past, and giving it the good old college try. That is not science, you are flying blind oftentimes, but many a ship's engine officer, or chief, has gotten the vessel there safely. They do not want to view themselves as Einstein however.

Labels: [Economics](#)

FRIDAY, MARCH 18, 2011

BACKSCATTER AND RADIATION AGAIN

There are some [recent papers](#) which attempt to justify the use of backscatter. Those reading this blog may have access to our [White Paper](#) regarding the putative risks. The recent results states:

An individual's risk of dying from cancer from such an exposure is estimated to be vanishingly small -- about one in 10 million for a trip involving two screening scans, writes David J. Brenner, PhD, DSc, director of the Center for Radiological Research at Columbia University Medical Center.

According to the FDA, which regulates X-ray devices, "There is no need to limit the number of individuals screened or, in most cases, the number of screenings an individual can have in a year."

But Brenner believes the picture changes when you look at it from a larger, public health perspective, in which a billion travelers are scanned in the U.S. each year.

"In the present context, if a billion X-ray backscatter scans were performed each year," writes Brenner, "one might anticipate 100 cancers each year resulting from this activity." Brenner also points to a heightened risk of cancer among children, which he says is five to 10 times higher than the risk to middle-age adults. Flight personnel, who pass through scanners hundreds of times each year, could also be at greater risk than the average traveler.

"Super frequent fliers or airline personnel, who might go through the machine several hundred times each year, might wish to opt for pat-downs," Brenner says in a news release. "The more

scans you have, the more your risks may go up -- but the individual risks are always going to be very, very small."

Our argument was different from that of the typical radiologist or physicist. They look at total body radiation and his is volume dependent. Our argument is the superficial cells and the pathways changes that result from the radiation. We argue that melanocytes in melanoma sensitive individuals can be significantly increased as a result of this backscatter approach. The metrics used are frankly old metrics and do not take into account what we now know about cancer and pathway dynamics.

Labels: [Cancer](#)

FRIDAY, MARCH 18, 2011

[A BOOK REVIEW](#)

I have decided to review the book, [Endgame](#), in this blog rather than on Amazon where I put most of my reviews. I do this for the reason that it appears, from some experience, that certain authors and companies seem to have "followers", who, upon seeing a negative review, bombard the review with "not helpful" and thus the review gets crammed down. I feel a review should stand on its own and should be identified by its author and if there are any comments then feel free to send them.

Furthermore this review is solely my personal opinion since I have never met the author but have scanned his newsletters from time to time. In my opinion and in many ways this book seems to appear as a cut and paste of his newsletters, but I have not gone back to the newsletter to validate that conclusion.

There are three areas of comment in this review; content, namely what he says when he says something; style, how he writes and presents his material, and presentation, namely how the material is visually presented.

Content

The author or authors. at time I am confused as to one or the other, state that the book is divided into two sections. See p 8. The first they contend is to explain the situation, namely the economic situation. It appears to me that they are trying to give a snapshot of where the economy is at the time of the writing of the book, as so many others have tried to do. No looking back, just looking at the specific point in time. The second half allegedly is a country by country review of some major countries and their chances going forward. Part Three seems to be basically a set of suggestions. On the one hand if there is deflation and on the other hand if there is inflation. They argue that we will first have deflation and then inflation, not spelling out when or really how to determine when each occurs. Thus although their recommendations for each state are common sense they are contrary for the other state. Their advice in my opinion is buy low and sell high without telling you how to determine what is low and what is high, just that now we have a mess.

On p 16 he uses an interesting chart which shows total US debt to GDP. Now the real issue is Government debt since personal and corporate debt have grown but a main reason was the

expansion of credit. Yes there was also the explosion of real estate debt but that was an added 10-15%, not the dominant portion. Clearly if debt was personal and short term then it would have put more cash in the economy via increased velocity of money which he later shows we did not have. This may be a terrifying chart but the real terror is Government debt. What is not included here is the unfunded liabilities such as pensions. That is in many ways the real hidden explosion.

On p 20 he shows debt by segment. On the Fig 1.5 he shows what appears to be corporate debt. This reflects different capital structures. The question is what is the assets under the debt. Who cares about corporate debt if the assets pay it back. That is the question. Personal debt also has a similar effect. More consumer debt means more expenditures means greater GDP. So in a sense for GDP growth it is good. The question is what is the quality of that debt. It clearly has not driven inflation. However it has resulted in a collapse of real estate. The real problem is Government debt, Federal and State!

On p 47 he starts with the discussion of GDP and its definition. Now on p 49 he has the equation:

$$\Delta\text{GDP}=\Delta\text{Population}+\Delta\text{Productivity}$$

There is a problem here, at least two specifically. First the equation may not be true. If you get more people then depending on the people you may increase, decrease or have no change in the GDP. In fact if you have many uneducated and marginally employable types then the social and governmental costs of maintaining them may exceed any contribution they make to the GDP. He alludes to that later but this equation has problems. As to the productivity factor, one can imagine that increased productivity puts people out of work, thus decreasing buying power and thus reducing GDP.

The chart on p 50 is critical. It is well placed and makes the argument that only start up companies create jobs, specifically entrepreneurial start-ups. Large old-line companies actually shed jobs. This fact is totally missed by the current Administration. But alas if you have never created wealth you may never have a clue.

On p 56 he presents a table which is a classic example of the excesses of spread sheets. Namely he shows that if your growth in Debt exceeds growth in GDP you get in trouble. The question is why not just say that, the table contains no more value than that statement. For those with some expertise it is obvious, for those with none it is incomprehensible.

On p 57 he speaks to [Rogoff and Reinhart](#), the now classic study of financial collapses over the past few centuries. Yes, there is a slippery slope, and as I noted a few decades ago regarding Black - Scholes, there are instabilities when you assume linear models, and the real world does have those tipping points. Where they are is still a mystery, and in fact they are often driven by human perception rather than fact.

On p 60 he makes an interesting argument which may be extended. The paradox of thrift may no longer apply as stated. Back in the 1930s people had limited or unknown balance sheets. Today with 401Ks it is the balance sheet that means even more than the income statement. People now think they can work around a blip on an income statement but when the balance sheet collapses

in front of their eyes there is abject terror. Thus the collapse of housing and the stock market causes a crisis.

Now on p 91 and throughout Chapter 5 it appears to be a condensed version of Reinhart and Rogoff. Good quotes from other people but what is he trying to do, show us he read it? Then on p 94 and throughout the chapter we see his interview of the authors and we see his name again and again. Does this make things better? It does show the reader that he has personally interviewed them. Yet there is this stylistic dissonance which goes from text, to quotes to interviews to letters. It just makes for a very rough ride. Again in Chapter 6 we have the same extensive references, lengthy and detailed.

On p 113 he does make a critical point that the current Administration fails to grasp. Namely that public debt crowds out productive private investment.

On pp 142-144 he has a reasonably good introduction to the velocity of money issue. However with the explosion of personal debt he discussed early on one should have expected on p 145a substantial increase in velocity in a buildup to the collapse but it does not appear to be so. Also one should compare the Bloomberg numbers to the St Louis FED numbers for this variable.

On pp 146-147 he goes a bit astray in my opinion. Clearly in Fig 7.6 he shows M2 and the Monetary Base. [We have written extensively](#) on this as it was happening. This is the FED pumping money into banking and most likely we will see a substantial reverse. They are uncoupled and the MB is an artifact of the FED and in my opinion not something of current concern.

I read through the chapters on countries and they stand by themselves.

On pp 294-295 the author make a conclusion. Namely, things will deflate then inflate. Before they deflate do A and before they begin to inflate get out of A and do Z! Great, but how do I know when? Buy low and sell high, we all know that but when is low and when is high. What are the telltale signs?

Style

The author has a style which is best described as a combination of writing as he speaks and an insistence of telling the reader about all the important people he knows.

The author has the annoying habit of using euphemisms and aphorisms in all the wrong places, namely anywhere he so desires.

There appear to be two authors. Yet they have the annoying habit of referring to "John" repeatedly to make some point. Often the point is self-aggrandizing in my opinion. The interjections begin on p 1.

On p 33 he begins a letter to his children. Frankly this is out of pace. It breaks the style of presentation. We all know he has many children and is a good parent. As a reader we want not

what he told his children but what he will tell the reader. This continues for 11 pages until p 44. The recommendation: “work hard, save, watch your spending, and think if your job is the right one if we have another recession” Frankly this is the advice from any reasonable parent to a child if you want to seek safety. On the other hand one could say take risks, go where others have not, think big, and find others to follow you. Namely as an entrepreneur, you create true value and wealth, not just transfer it from others for advice.

On p 59 he has a chart again without axes titles but now with a term “Ratio”. Well ratio of what?

On pp 62-63 he has another of his long quotes. This becomes annoying for a book of this type. He is not writing a scientific treatise where primary results are critical but his analysis of the situation and thus one should see his views not the cut and paste of others. We will see this many times again.

On p 68-69 he discusses the increasing of taxes on fuel and the assumption that the tax will be used to fix infrastructure. Nice idea but give Congress even a penny and they will attach it to some special project, an ear mark. I have seen this Pigou type argument again and again, and it never holds water. Congress is the fault.

On p 73 is one of his many aphorisms. “Trees tend to grow, and economies do, too.” I think this means something. Like “Delay is the deadliest form of denial” or “Prior planning prevents poor performance” but my aphorisms in my opinion make some modicum of connective sense. In the ones he uses they all seem somewhat out of context or even non sequiturs.

There is a paucity of source referencing for many of the charts.

Presentation

The book appears to be printed on newspaper print. That is a Wiley problem but the author could most likely have had some input to stop it. As such it appears as yesterday’s newsprint and one knows what that is used for

The graphs in my opinion are for the most part unusable. They were most likely done in color and they are black and white and one finds it difficult to read them. Also there are no vertical axes labels so one is always trying to figure which curve is what. Also there are abbreviations for what is on the curve and you have to figure out what he is talking about. Finally the sources for the graphs is totally missing. In summary it appears as if he just took some graphs he had lying around and connected them with words.

On p 19 we have a graph of debt and 10 year yield. The colors are missing and the axes are unlabeled. This problem is pandemic throughout the text and only get worse. The authors seem to have just thrown charts in from the newsletters and this what you get on your computer you have gotten in black and white here.

P 20 is an even worse example where they show the components of debt. This is a critical chart but it fails in black and white.

On pp 288-289 the charts appear to me to be unreadable, they appear to me as if they were copied from a Bloomberg terminal. If the author has a point to make then careful presentations are essential. If we just want to show what appears to be a Bloomberg terminal then fine but so what?

Throughout there should be a stipulation for the basis for each of his assertions, whenever he makes them.

Throughout, this book appears to be a cut and past of "talks" rather than a well thought out presentation. In my reading of it it provided no enlightenment but rather just added to the pile of confusion. The author is neither an economist, for that I am glad, nor a financial expert. Thus I wonder who the target market is for the book as well.

Finally there are many times when the author(s) make(s) an assertion that I have asked what basis he has for that assertion. Perhaps it is my academic training as well as legal experience which forces that response. After all this is a general public book not apparently directed at the professional audience.

Labels: [Books](#), [Economy](#)

[MORE ON CANCER STEM CELLS](#)

[Wang and Shen](#) have written a quite useful review of the cancer stem cell thesis for prostate cancer. There is no definitive conclusion but the review covers a wide path through what has been accomplished to date.

Recall as we have written before the cancer stem cell (CSC) model, and it is a model, hypothesizes that there are certain core cells which control the malignant growth of other cells and that the other cancerous type cells do not in and of themselves have the ability to continue to grow. In fact it could be concluded, although not part of the current theory, that removal of a CSC from a tumor, say the only CSC, would result in the apoptosis of the remaining cells. Namely a remission.

In contrast to the CSC model we have the clonal model which says that the cells have progressed through a set of pathway modifications that have resulted in a single cell which takes off and multiples and that the progeny have identical genetic makeup or further genetically modified makeup but all and equally malignant.

These are two fundamentally different views of cancer. One could also state that recent work with melanoma as we have discussed also posit that the CSC "communicates" to progeny to have them multiply and that arguably the loss of the CSC

There is a great deal of difficulty in identifying the CSC, usually attempting to do so via surface markers such as CD44 and the like.

Wang and Shen then discuss the controversy regarding the CSC concept. They state:

Much of the confusion in the literature arises through inconsistencies in nomenclature within the field. In particular, due to the wide use of xenotransplantation as a functional assay for CSCs, transformed cells that can initiate tumor formation in this assay are often referred to as CSCs in the literature. However, a tumor initiating cell (TIC) represents a different concept from that of a CSC, as TICs unquestionably exist within tumors and their identification does not by itself imply a hierarchical organization of a tumor.

Indeed, the majority of cells within a tumor could potentially possess TIC properties and nonetheless follow a clonal evolution model. Consequently, it is important to distinguish CSCs that have been strictly defined by their position and function within a lineage hierarchy in vivo from CSCs that have been identified as rare TICs in transplantation studies.

A similar confusion arises with respect to the cell of origin for cancer, which corresponds to a normal tissue cell that is the target for the initiating events of tumorigenesis. In principle, a normal adult stem cell could be a logical cell of origin for cancer, as it would retain the ability to self-renew and generate a hierarchy of differentiated lineages within a tumor. However, it is also possible that a cell of origin could correspond to a downstream progenitor cell or conceivably even a terminally differentiated cell that acquires stem cell properties during oncogenic transformation.

Our argument has been that the CSC may most likely exist and that it has undergone certain pathway changes and that as a result it may influence the growth of not identically genetically changed cells to multiply but not in and of themselves have the potential to multiply.

Wang and Shen continue:

The identification of normal cells that can serve as a cell of origin for prostate cancer is highly relevant for understanding the applicability of a CSC model, and is currently under intense investigation. The cell of origin may also have clinical significance, as in the case of breast cancer, distinct tumor subtypes have been proposed to originate through transformation of different progenitors within the mammary epithelial lineage. Thus, it is conceivable that there may be distinct cells of origin for other epithelial cancers, and different cells of origin may give rise to clinically relevant subtypes that differ in their prognosis and treatment outcome.

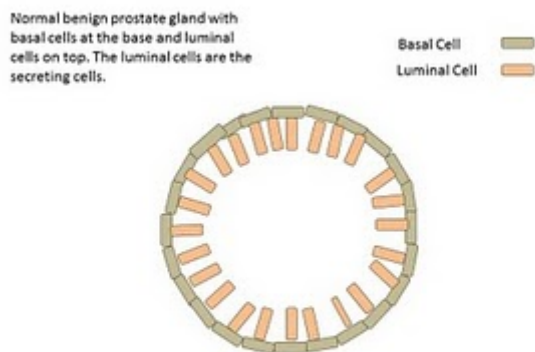
Thus there are either basal cells or luminal cells as the cell of origin. Goldstein et al in Witte's lab had developed a murine model demonstrating the basal cell as the cell of origin. However there may be strong issue regarding this model as applied to human prostate cancer. It represents a viable pathway but not necessarily the only. The issue is one of pathways as well as one of intercellular communications with debilitated pathways.

Now to follow the Wang and Shen model we have the following. First we show a normal prostate gland with basal and luminal cells.

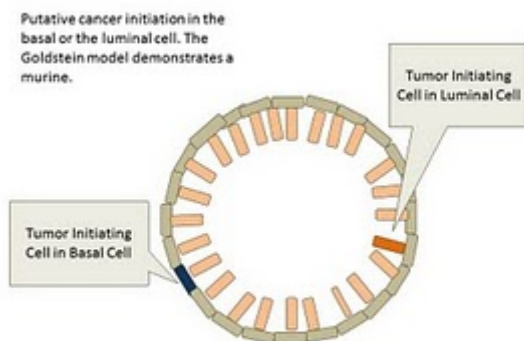
Then we show their view of a Tumor Initiating Cell in either the basal or luminal layer. The Goldstein et al murine model argue for the basal layer and there are others arguing for the luminal.

The Wang and Shen model is as follows.

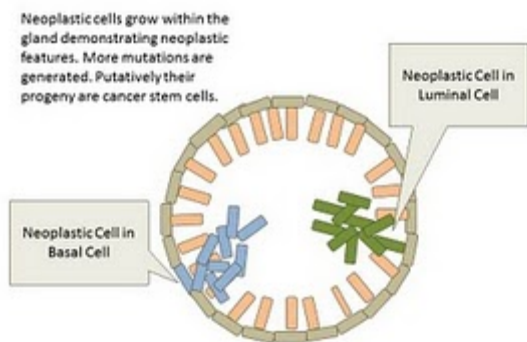
1. A normal prostate cell has both luminal and basal cells.



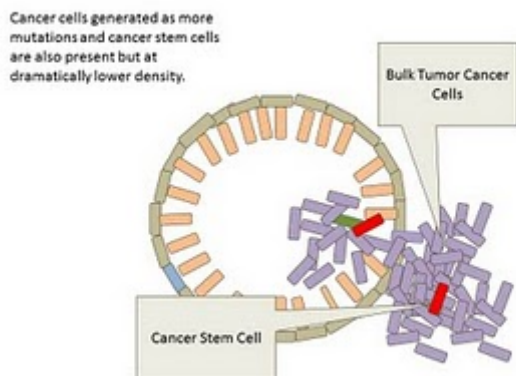
2. TICs may be formed in either basal or luminal cells.



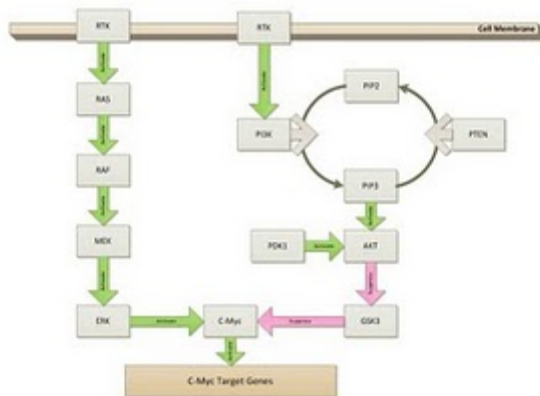
3. Neoplasia starts with intro acinar proliferation.



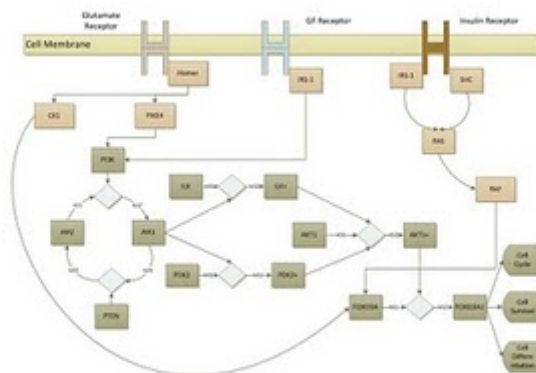
4. Carcinoma starts when it expands beyond the gland and starts up its own quasi-glandular structures.



Now what causes this? Genetic changes result in pathway changes. We show two pathways below. We lose PTEN and we may activate myc and other parts of the pathway control mechanism.

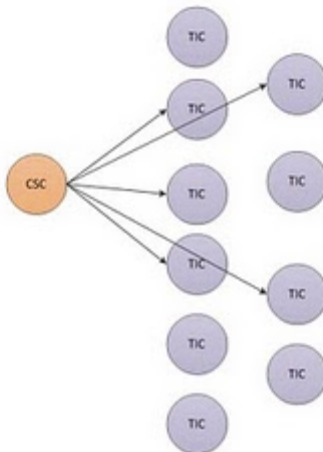


and the following pathway:



We now make a different argument. If there exists a true PCa CSC then perhaps one may putatively validate it as follows. The logic then is:

1. Assume a PCa CSC exists.
2. Assume that the PCa CSC replicates its CSC self at a low rate and is initially confined to the prostate gland.

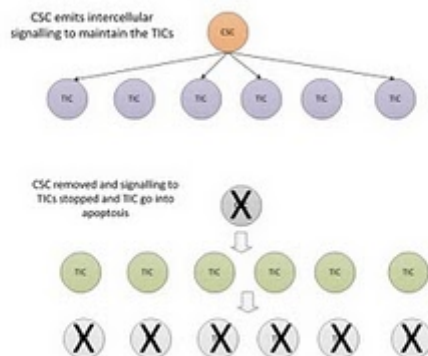


3. Assume that the PCa CSC can influence the growth of TIC which themselves cannot sustain a malignancy. Specifically we assume that the TICs require the CSC for continued growth and further the CSC does so via cell growth as well as intercellular communications.

4. Now let us assume we have performed an 18 core biopsy on a 60 cc prostate gland and find histologically extensive high grade focal prostatic intraepithelial neoplasia. According to Wang and Shen they are most likely TICs and furthermore there may be a CSC somewhere so that

eventually we see a PCa. There may be one or a few CSC in one or all of the glands yet we have no definitive marker to indicate as such.

5. Now assume we perform a second multi core biopsy on the gland and say do 22 cores in a 60 cc gland. This is the same gland but say 9 months later. We would arguably expect one of two possible outcomes. First that the HGPIN remains in place and possibly has expanded. Second that there was a CSC and the HGPIN had become classic PCa with say Gleason 2 or 3 at a minimum about the HGPIN clusters.



6. If however, we examine the cores and find no evidence of any neoplasia or PCa, namely the gland has totally reverted to benign histology, we may have a reasonable argument that perhaps the CSC was present initially, and it was somehow removed along with the HGPIN in the initial biopsy leaving the TIC alone behind. Thus the TICs requiring a CSC to survive go into an apoptotic state and are removed from the prostate. Perhaps.

We have seen that specific situation occur and one could then argue that the Wang and Shen model for CSCs may be a viable model and further if such can be shown more extensively than we may have a basis for PCa progression.

Labels: [Cancer](#)

THURSDAY, MARCH 17, 2011

[HAPPY SAINT PATRICK'S DAY](#)



From the family graveyard in Mohill, County Leitrim, Ireland. Just a few miles north of the River Shannon in the flat lands taken by the Normans. A goodly distance from Armagh now in the Northern Territories.

Labels: [Commentary](#)

WEDNESDAY, MARCH 16, 2011

[AIRPORT X-RAYS AND THE FACTS](#)

A while ago we wrote several pieces regarding the backscatter X Rays and the potential for cancer including a detailed [White Paper](#). The essence was that the backscatter systems in place do have a significant risk of inducing cancers such as melanomas in certain people.

Now an [Ars Technica](#) posting states:

The TSA, which has deployed at least 500 body scanners to at least 78 airports, said Tuesday the machines meet all safety standards and would remain in operation despite a “calculation error” in safety studies. The flawed results showed radiation levels 10 times higher than expected.

First why are we not surprised, it is after all the Government and second just watch the melanoma rate explode. The article continues:

The snafu involves tests conducted on the roughly 250 backscatter X-ray machines produced by Rapiscan of Los Angeles, which has a contract to deliver another 250 machines at a cost of

about \$180,000 each. About 250 millimeter-wave technology machines produced by L-3 Communications of New York were not part of the bungled results.

Note that the millimeter scanners are generally harmless. It is the backscatter machines which in my opinion present the risk.

Rapiscan technicians in the field are required to test radiation levels 10 times in a row, and divide by 10 to produce an average radiation measurement. Often, the testers failed to divide results by 10, Horowitz said.

This is the typical problem one often sees. Poorly trained and generally less intelligent and low cost "techs" go and perform tests not knowing what to do. One does not know the details here but based upon my experience that is what one sees.

"Certainly, the errors are not acceptable. It's not every report. We believe the technology is safe," she said. "We've done extensive, independent testing. It doesn't raise alarms in terms of safety."

Rapiscan, in a letter to the TSA, admitted the mistake and is "redesigning the form" used by its "field service engineers" when surveying the Rapiscan Secure 1000 that is deployed to 38 airports.

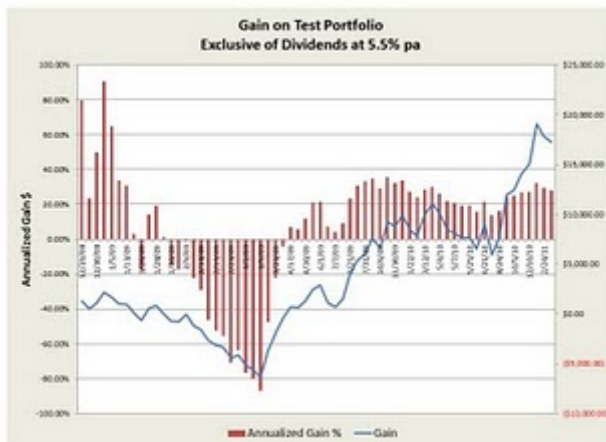
"Oftentimes, the FSE will bypass the step of dividing by 10. While the resulting entry, at a pragmatic level, is understandable on its face and usable for monitoring purposes, the value, if read literally by persons unfamiliar with our system and the survey process, would imply energy outputs that are unachievable by the Secure 1000 Single Pose," Rapiscan wrote.

In effect there appears to be a serious set of problems. Can TSA solve this? Not in my opinion based upon past performance.

Labels: [Cancer](#)

TUESDAY, MARCH 15, 2011

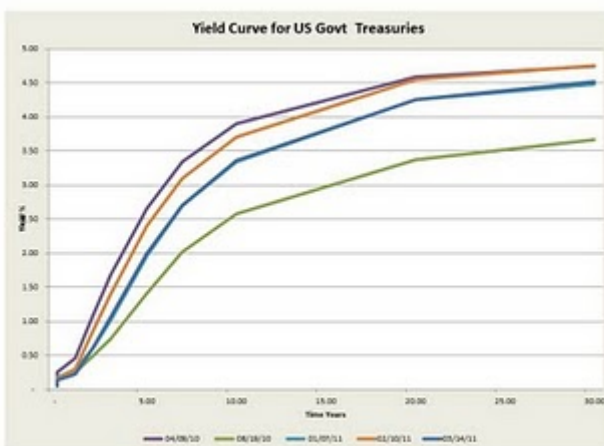
MARKET SNAPSHOT



The use of the Baseline Portfolio we have been watching since December 1 2008 is shown above. We are seeing the downward slope of the bundle and the yield is slowly declining. The problem is that the market has been the only safe haven for much of the investment given the lower rates of the bond markets.



The above shows a better view perhaps of what we have been saying. We were on an upward trend but Japan has brought that to a halt.



The yield curves are shown above. The low curve was last year in August but we see a steepening now.



This shows the spread and we see that the spread is nearing the peak over the past two year period again. The question is will we see a higher spread. The FED has kept the lid on this but like nuclear reactors sooner than later the pressure will be just too much.



This demonstrates the 90 day and 10 year rates and spread. The spread here is back to peak and the 90 day yields are drawn back down again, but the 10 years are not that high.

Thus one must ask, where are the returns. For those on fixed incomes and those near retirement this poses a disaster situation. Place SSI pressure on this and we will see an explosive result in the next election when this becomes more apparent.

Labels: [Baseline Portfolio](#), [Economy](#)

[AN INTERESTING ECONOMIC PROPOSITION](#)

Russ Roberts at [Cafe Hayek](#) presents an interesting argument. Let me see if I can present it reasonably.

1. There have been a group of classic left leaning economists who view the disaster in Japan through rose colored glasses. Namely they see it as a boost to the GDP.
2. Roberts states that GDP is a change in something. Specifically he states:

As some commentators pointed out, GDP is a flow and wealth is a stock. That is, GDP compares the change in output over time while wealth is a snapshot. So it is possible to lose wealth (destroy buildings) while GDP goes up.

3. Now if one looks at GDP as consumption, investment and government spending, with imports and exports thrown in then to create consumption one must have a base of underlying assets. Thus C is dependent on the related asset base of the country, I would think. Destroy the asset base and unless you just print money, well like we are doing, then you actually destroy consumption and thus reduce GDP.

4. There can be an argument made that there is more than a subtle point here and one not reflected in the thinking of most left wing economists.

5. Then there is the issue related to peoples' attitudes, when they get depressed things change, those constants that are all too easily thrown about change, and thus does the economy.

Bottom line, it is any one's guess, yes guess, what will happen next. The Middle East is unstable, Japan has massive economic problems, China may very well have based its plans on an incremental world model in which they have a controlling position, and one can argue that the assumption has feet of sand, and well, Europe, good question. The complexity of the situation may move all this into terra incognita.

Labels: [Economy](#)

BEWARE THE IDES OF MARCH

CAESAR

Who is it in the press that calls on me?
I hear a tongue, shriller than all the music,
Cry 'Caesar!' Speak; Caesar is turn'd to hear.

Soothsayer

Beware the ides of March.

CAESAR

What man is that?

BRUTUS

A soothsayer bids you beware the ides of March.

CAESAR

Set him before me; let me see his face.

CASSIUS

Fellow, come from the throng; look upon Caesar.

CAESAR

What say'st thou to me now? speak once again.

Soothsayer

Beware the ides of March.

CAESAR

He is a dreamer; let us leave him: pass.

Sennet. Exeunt all except BRUTUS and CASSIUS

CASSIUS

Will you go see the order of the course?

BRUTUS

Not I.

CASSIUS

I pray you, do.

BRUTUS

I am not gamesome: I do lack some part

Of that quick spirit that is in Antony.

Let me not hinder, Cassius, your desires;

I'll leave you.

CASSIUS

Brutus, I do observe you now of late:

I have not from your eyes that gentleness

And show of love as I was wont to have:

You bear too stubborn and too strange a hand

Over your friend that loves you.

Now today, the Ides of March, is bringing the near perfect storm, from East and from the West, thus beware the Ides of March

Labels: [Commentary](#)

MONDAY, MARCH 14, 2011

BROKE OR NOT BROKE? THAT IS THE QUESTION.

What's in a word? One of the [Washington Post](#) writers goes on on rant saying we are not broke. Before going into the detail the question should be asked as follows:

1. Who is the we?
2. What do you mean by broke?

Now the we seems to be the states and the Federal Government, not each and every person in the country. Thus as the writer jumps forward to say that there are many people in the cumulative United States who are not broke, he will use that false argument to then say that the collective we is not broke. The we not spending or using the money should just run faster, make more money,

and throw it in the common pot. Unfortunately a capitalist system does not work that way. Possibly under Lenin, even a bit under Stalin, but not under Adam Smith. The we is each of the separate governmental entities.

What is broke. Well you can always take away money from those who make it. But alas, it is those very people who use the money to create new businesses. The Government has really never created a new business.

Let me digress. There is always the example of the Internet and ARPA or NASA. Let me dismiss each as follows. ARPA funded the ARPANET and then walked away in the 1980s. But how did it find itself in this position. Simply, in about 1972-3 the principals at ARPA met with Bell Labs and ATT folks to get assistance to build a packet network. ATT as a Government sanctioned monopoly, Kingsborough Decision and Antitrust carve-out, had the power and it was a de facto Government agent. It demanded that it control everything, and fortunately ARPA had the ability to send the money to universities and industry and thus began the telecom revolution. The causal agent was de facto big Government in the guise of ATT. Frankly they have not changed even today. Now NASA, in the 1960s they drained much of the technical talent from the US and focused it on a space program along with DoD in their military programs. That let the Japanese take the lead in the 1980s, leaving the US behind. I argue that we are still suffering from that problem with the paucity of engineers.

Thus my argument that the Government never created a single real job has legs.

Now broke. The Government taxes and taxing takes money from investment and as such reduces the ability to support entrepreneurs. I would argue that for every dollar of tax the future reduction in GDP is multifold. I will not play Christina Romer and give a number, wrong as all here numbers were, but it is greater than one. Thus taxing beyond a point, and we are most likely there, is counterproductive.

The author states:

Just one problem: We're not broke. Yes, nearly all levels of government face fiscal problems because of the economic downturn. But there is no crisis. There are many different paths open to fixing public budgets. And we will come up with wiser and more sustainable solutions if we approach fiscal problems calmly, realizing that we're still a very rich country and that the wealthiest among us are doing exceptionally well....Bloomberg News looked at Boehner's statement and declared simply: "It's wrong....The U.S. today is able to borrow at historically low interest rates, paying 0.68 percent on a two-year note that it had to offer at 5.1 percent

before the financial crisis began in 2007. Financial products that pay off if Uncle Sam defaults aren't attracting unusual investor demand. And tax revenue as a percentage of the economy is at a 60-year low, meaning if the government needs to raise cash and can summon the political will, it could do so."...Precisely. A phony metaphor is being used to hijack the nation's political conversation and skew public policies to benefit better-off Americans and hurt most others.

The conclusion is to tax the rich, whoever they are. Now the US can borrow at low rates because of the FEDs manipulation. We had shown that almost two years ago and have been following it ever since. But that manipulation will end in disaster. The structure deficit problem has been a reduction in tax revenue from the excess unemployment plus the excess expenditures due to the payments to the unemployed. However, the expenditures from the current Administration go well beyond that level. That is the problem. The same holds true for states, just look at New Jersey. Here we allow our state workers to simultaneously hold three or four jobs, all with separate pensions and health care! We have had mayors who were senators, Commission heads and members of state college boards! Each with six figure salaries and accelerated pensions. They retire with half million dollar pensions! And the goodies rattle down.

Thus the we is the government entities and the broke means that to pay for all the goodies we will be bleeding our future. The future hemorrhage will be due to the fact that we will have exceeded the tipping point in the government taking money and putting it to no good whereas it should have been left in private hands and put to building new economic value.

Labels: [Economy](#)

[INTERNET USAGE CHARGES](#)

AT&T is allegedly going to charge for usage on their Internet customers. [DSL](#) reports:

*This is how it will work: only users who exceed the new usage cap three times -- across the life of your account, not per month -- will be forced to pay these new per byte overages. Overages will be \$10 for every 50GB over the **150 GB or 250GB** limit they travel.*

AT&T claims their average DSL customer uses around 18GB a month, and these changes will only impact about 2% of all DSL customers -- who the company states consume "a disproportionate amount of bandwidth."

"Using a notification structure similar to our new wireless data plans, we'll proactively notify customers when they exceed 65%, 90% and 100% of the monthly usage allowance," AT&T tells us. The company also says they'll provide users with a number of different usage tools, including a usage monitor that tracks historical usage over time, and a number of different usage tools aimed at identifying bandwidth-hungry services.

Now I remember how I fought in the late 1980s for fixed price billing when COO at NYNEX Mobile now Verizon Wireless. Why, because the costs of billing, direct and indirect were so high. It caused churn and it had real costs as well. The other problem is that you must provide itemized billing, otherwise you will end up in court. But this is ATT, the same company whose former head Ed Whitacre said is was "his" network. The same Ed Whitacre that the current President made head of the government controlled GM! Why were we not surprised.

Now a quick calculation.

1. Remember that you have $30 \times 24 \times 60 \times 60$ sec per month. That is about 2.5 million seconds per month.
2. Thus if I were to just keep my email going continuously, with text messages only, I would use about 1,000 bits per text message. Say I get 400 per day, not unreasonable. That would be 400,000 bits per day and 12 M bits per month. That alone is only 5 bps! But, and a real but, no one does that, they all come with images etc. Watch the number grow. Who pays for the unsolicited ones. Is there a no call list and how do you find out the address.
3. Now look at video. Assume an H264 video, at 5 Mbps and say a 2 hour video. That is 600 Mbp. Say you do 10 per month. That is 6 Gb. Then divide by 2.5 Msec we get 2400 bps. That is bits not bytes which is 8 bits.
4. Now assume you watch your HDTV which is 5 Mbps for 6 hours per day. Then you have an average down rate of 1.25 Mbps. That is also 1.8 Gb per day and 54 Gb per month. But is is 6.75 GB as well. Big difference.

Thus we ask:

1. Is it bits or bytes? Many times they get this messed up.
2. What is a detailed bill to look like. Must we have the calling party?
3. What of bill resolution?
4. What is we have a paper bill now, will it remain as such? If so how many pages are expected. If there is an entry per download per IP address per packet then we must start cutting all the trees in North America.
5. What of bill resolution. When a customer complains who will handle this and at what cost?
6. What about the do not call list, there should be a do not send list.
7. This starts to sound like the old telephone company again, well after all it is ATT.

I spent years telling the management that fixed price unlimited usage was the way to go. So 2% got a free ride. The costs of doing all the other stuff, including the loss of customers was too high. Well remember this is ATT and Texas. They seem to think differently there.

Labels: [Broadband](#)

SUNDAY, MARCH 13, 2011

PROSTATE CANCER AND THE GOVERNMENT

Here is one of the stupidest statements I have ever seen. It from [MSNBC](#), why am I not surprised, and it says:

There is no government-recommended age to start screening for prostate cancer, but doctors generally agree men should start at age 40 or 50, according to the NCI.

This is a classic example of where we are heading. We need Government to now write our medical books. Why just stop the next version of Harrison or Cecil, just close down JAMA and NEJM, we have the government. Think, folks, do you really want that GS 9 to tell you what to do!

Science is conducted in an open forum of debate. It is not mandated by the government. It is worth preserving that. Unless we want to repeat the error with Galileo. Instead of a Pope we have a President.

And oh by the way the writer of the piece was a woman. Go figguah.

Labels: [Cancer](#), [Health Care](#)

SATURDAY, MARCH 12, 2011

EXTREME GARDENING: NEW JERSEY

The [Telegraph](#) in London depicts extreme gardening which for them is using the rain forest tree upper structure for a green house. Although it may be difficult, my form of extreme gardening is done in the remnants of [Lake Passaic](#) which is the remnants of the last Ice Age as it moved south to the north central part of New Jersey. I have to deal with the remnants of boulders pushed down by massive glaciers which stopped just north of Princeton by some thirty miles, having managed to leave in its wake the massive Lake Passaic, and the droppings of some two to three thousand miles of rocks.

Thus each time I seek to plant one of my seedling I get the chance to discover another rock, of on the average 30-50 kilos! Thus I do not use shovels but I use large steel bars, Johnson Bars, to dig holes, through compacted clay, and each time hitting a reminder of the glaciers.

Extreme gardening, tree tops, no rocks, well hardly, that is for wimps! Try New Jersey soil, Garden State, no way until you are below Princeton. Some how we American gardeners face challenges that are unknown to many.

Labels: [Commentary](#)

RESPONSE TO MY NEWSPAPER POST

I got a posting on [Worthwhile Canadian Initiative](#) so I thought I would respond. Hope it clears the air a bit:

Frances

As usual it was long but the points were two fold:

1. Whether newspapers or television, or even any new media, there is self-segmentation by some almost visceral self selection process which is complex, namely by agreeing with the presentation content or method or just being curious
2. Fox news viewers are not per se stupid, backward etc. I see that view all too often in fellow faculty who lives too close to Cambridge or in the upper west side in NYC. Now I really do not understand Glenn Beck, but there are always different forms of entertainment, I do not understand Jersey Shore either.

But the key point is the old statement by Peter Drucker on what he heard McLuhan say:

"Did I hear you right," asked one of the professors in the audience, "that you think that printing influenced the courses that the university taught and the role of university all together." "No sir," said McLuhan, "it did not influence; printing determined both, indeed printing determined what henceforth was going to be considered knowledge."

The very fact that as a medium of information exchange changes then what we consider knowledge or truth changes with it. The challenge here is to see how that change occurs. In today's environment with blogs etc we are seeing a return to phamphleteers which may not bee too bad, for the centralized purveyors of truth truly do not exist. The problem is that there will always be a Marat somewhere whipping up the furies of the populace, but there is not much we can do about that.

Hope this clears up my point.

Labels: [Commentary](#)

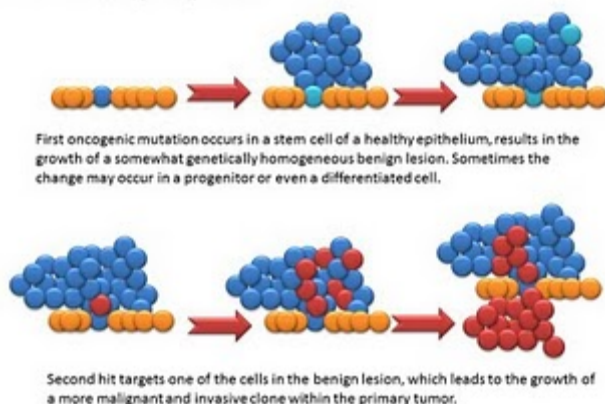
FRIDAY, MARCH 11, 2011

[MORE ON THE CANCER STEM CELL](#)

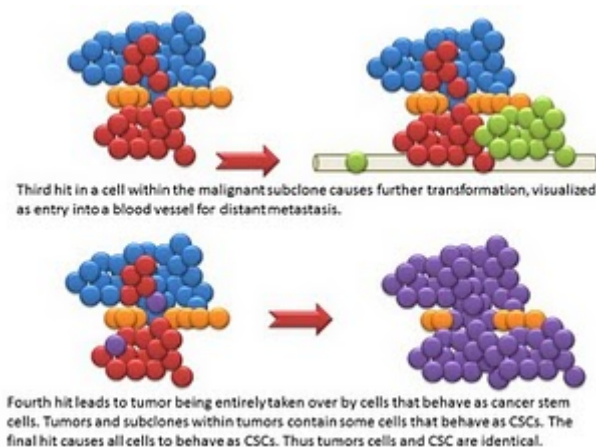
There is an interesting article by Clevers in [Nature Medicine](#) which is an up to date review of the cancer stem cell issue. In light of the flurry of reports stating the wonders of having identified genes which appear in many tumors, prostate being the case, and my previous remarks that perhaps is the CSC is in fact existent, that then one should be identifying it and its genetic makeup as well as the dynamics of its pathways.

Now Clevers suggests a four step process, albeit with limited experimental evidence, but an superb start. It is as follows:

Modified from: The cancer stem cell: promises, promises and challenges, by Hans Clevers;
 Nature Medicine VOLUME 17, NUMBER 3, MARCH 2011



The above are the first two steps. Perhaps a dysplasia or neoplasia but with the kernel of a stem cell. This is the first "hit" theory. The epithelium starts to grow in a strange manner. Say a polyp in the colon or HGPIN in the prostate. Then we see a second hit and the formation of extraepithelial growth.



Then the third hit for the author and we see transmission via the blood stream. Then the fourth hit and the explosion from a few to almost all cancer stem cells.

Whether this is a good or bad model is yet to be seen. As Clevers states:

Central to the cancer stem cell (CSC) concept is the observation that not all cells in tumors are equal. The CSC concept postulates that, similar to the growth of normal proliferative tissues such as bone marrow, skin or intestinal epithelium, the growth of tumors is fueled by limited numbers of dedicated stem cells that are capable of self-renewal. The bulk of a tumor consists of rapidly proliferating cells as well as postmitotic, differentiated cells. As neither of these latter two classes of cells has the capacity to self-renew, the contribution of these non-CSC tumor cells to the long-term sustenance of the tumor is negligible.

The increased focus on the CSC is truly needed because if it is indeed a key paradigm in cancer then it and not large tumor masses should be examined. Clevers concludes with:

Epilogue: are CSCs and clonal evolution mutually exclusive?

To date, the CSC field has treated tumors as genetically homogeneous entities, by and large ignoring the fact that the observed tumor heterogeneity may result from underlying genetic differences. However, it is well known that most solid tumors show extensive genomic instability. Moreover, genetic defects in a large variety of molecules that are involved in the maintenance of the integrity of the genome are well-known drivers of oncogenesis. Even in a disease like CML, so clearly driven by stem cells, clonal evolution can be seen at work when imatinib is administered: the malignancy becomes tumor-resistant through the emergence of clones that carry mutations in the target of imatinib, the BCR-ABL1 fusion gene⁷⁵. And the progression of CML into ALL blast crisis is caused by the emergence of subclones that harbor inactivating lesions in the cyclin-dependent kinase inhibitor 2A (CDKN2A, also known as ARF) gene in addition to the BCR-ABL1 translocation⁷⁶. The evidence for clonal evolution in the pathogenesis of cancer is so overwhelming that it appears inescapable that all models should be integrated with it.

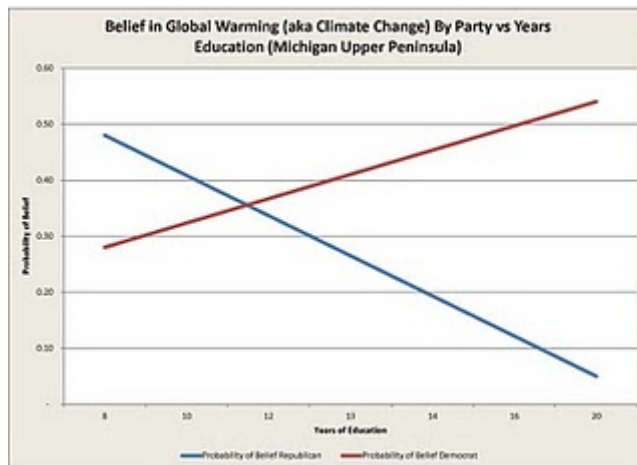
*The recent rapid advances in DNA sequencing are now allowing the global analysis of genomic changes of cancer cells. These analyses have confirmed many previously known common genetic alterations in cancer, and they have also revealed some new common mutations as well as unexpectedly large numbers of rare mutations. As a next step, this technology can be applied to chart genetic heterogeneity within individual tumors as well as between primary tumors and their local recurrences and metastases. **It should thus be possible to map, in both space and time, the genetic evolution of a tumor.***

The last sentence is the most compelling. Cancer may be more than just a cellular disease, it may require the spatial domain as well. This is an exceptionally good review and should be a focus for future research.

Labels: [Cancer](#)

GLOBAL WARMING AND BELIEF

In a [recent paper](#) by a fellow from New Hampshire regarding the "belief" in global warming, now I guess called climate change, whatever that means, he shows the following figure, as I have slightly modified it, which demonstrates education and political bent and belief.



Now what this portrays is "belief" in climate change being bad, as a function of years of education and by political party.

Now here is my first rub. Who cares about belief. You have freedom to practice whatever religion, belief, you want and I thought that the left did not want religion as part of the political argument. No one should care about a belief it is a scientific verifiable and in a Popperian sense deniable fact. If it is a fact, then present data, open the debate, and seek the facts. Belief is useless. It is what macro economists use in their models. It is Romer and her unemployment data used to justify the first Stimulus package. Belief.

Thus I am not surprised to see some of the very same economists making hay with this "finding". Oh by the way, this was from the upper peninsula of Michigan, it is solid ice there guys, and he does have some New Hampshire data, well I tell you, give me a few more warm days, we still have a few feet of snow guys!

Labels: [Global Warming](#)

THURSDAY, MARCH 10, 2011

[NEWSPAPERS IN THE OLD DAYS](#)

I like the web site [Worthwhile Canadian Initiative](#) and I have followed and even commented on the writings of Frances Woolley. In my own way I think they do a wonderful even handed job. However today Woolley put something up that I do not understand and while I sit here down south in the drenching rain I took a break to try to make a point.

You see, when I was growing up, before television, we did not even have a radio, and I lived in New York City, we always had newspapers. My father had a morning paper and then an evening

paper. In the morning it was the Daily News, I guess because it was easy to read and in the evening he had the Telegram. Now my grandmother read the Post, she was a socialist after all, yes the Post, before Murdoch, was very left wing, it had a light blue mast head and you could always see a Post reader. Then there was the Mirror, the Journal American, the Tribune, the Times, and even more. There were dozens of newspapers and each targeted a specific audience of political belief. I would read the Times on Sunday, we also got the News, and even the Newark Star Ledger, never really understood that. I delivered the Staten Island Advance everyday except Sunday, 109 customers over a 7 mile route.

I even knew a few old New York newspaper guys. Damon Runyon types all. Well that gets to Wolley and her piece. News, what is it and who will do the job? Yes news is a commodity like any other, people want it and will pay something, depending on what value it has. Before Television the newspapers were the only way to get news, and it was the news you wanted. Republicans and Democrats, Socialists and Communists got "their" news from their newspaper. Was there a spin, well look at Hearst and the Journal American, they actually "made" the news in many cases. If you were in their club then you liked what they said.

Now this gets to Fox. Poor Fox, somehow it is likened to some evil empire. She writes:

Which brings us to the rise of Fox News. If mere information provision is no longer profitable, who will volunteer to subsidize a news operation? Someone who is looking to re-design the flower beds - or a nation's government.

Yet as an explanation for the rise of Fox News, this is too easy. Why did Katie Couric ask Sarah Palin which newspapers or magazines she read? It's because what we read defines us. Like it or loathe it, Fox News provides its viewers with a strong sense of identity: Fox Viewers are Stupid, Less Informed and the list goes on.

Now what is the basis for that statement. Google's search suggestions? Is there any fact that one who watches Fox is stupid? Let's see, 14 books, 125 papers, six start ups, four Professor positions, six languages, ah stupid! You see I watch Fox, also MSNBC, PBS and even CSPAN! Now perhaps we down here should take our guidance from those up there but alas, we do not, except I do listen to my Nova Scotian wife! So why all the upsetness, my neologism, as to Fox? A lot is just "entertainment". Now I do not go to football games but I hear many people do, it is their entertainment. I do not go to hockey either but I gather my friends up north do.

Thus the better thing to do is ask why do people watch say Fox over MSNBC, perhaps it is "obvious" to some but a fact based analysis would help. No one in my opinion really buys pure

news. They buy a package. In some cases it is entertainment, in other cases it is reinforcement of their own views. In today's Internet world one often must create their own news, scanning across a multiplicity of sources. They are there and one gets to make a judgment as to what is and is not "real". One uses analytical reasoning to accept or reject the "facts". Thus out of hand dismissing of the Fox audiences is a contradiction to that method, the method of fact based accumulation of knowledge.

The Fox viewer is there. Okay, who are they, I would assume they are not all neanderthals. Remember back in the old days, the 1940s, there were dozens of newspapers, and people often read two to three each day. No television. I would suspect that the same happens today. There are those who switch from Fox to PBS and then back again. That does not make them troglodytes.

Labels: [Commentary](#)

WEDNESDAY, MARCH 9, 2011

NOW THEY BLAME MOTHER!

Here is another way to become a victim. It is mothers fault. Namely if you are fat! [Eureka](#) has a posting on research at Cambridge that states:

Poor diet during pregnancy increases offspring's vulnerability to the effects of aging, new research has shown for the first time.

The research, by scientists from the University of Cambridge, provides important insight into why children born to mothers who consumed an unhealthy diet during pregnancy have an increased risk of type 2 diabetes (a significant contributing factor to heart disease and cancer) later in life.

"What is most exciting about these findings is that we are now starting to really understand how nutrition during the first nine months of life spent in the womb shape our long term health by influencing how the cells in our body age," said Dr Susan Ozanne, the senior author on the paper and British Heart Foundation Senior Fellow from the Institute of Metabolic Science at the University of Cambridge.

Are you out of your mind. Fat kids are fat because:

Input - Output = Net Accumulation

That's it folks, and mom just fed the little tubby too much. Have you ever heard of mom feeding junior another cookie. Monty Python in a file The Facts of Life had the glutton in the one more mint scene. That is all there is. Perhaps they should show this at Cambridge!

They continue:

To test their theory, the researchers used a well-established rat model where, by altering the protein content of the mother's diet during pregnancy, the offspring develop type 2 diabetes in old age.

First, they studied the RNA from insulin secreting cells in the pancreas from offspring of normally fed as well as malnourished mothers in young adult life and in old age. When they compared the two, they found that there was a significant decrease in the expression of the Hnf4a gene in the offspring prone to type 2 diabetes. The expression of Hnf4a also decreased with age in both groups.

Second, they studied the DNA and found that the decrease of Hnf4a was caused by epigenetic changes. The age associated epigenetic silencing was more pronounced in rats exposed to poor maternal diet. They concluded that the epigenetic changes resulting from maternal diet and aging lead to the reduced expression of the Hnf4a gene, decreasing the function of the pancreas and therefore its ability to make insulin (and thereby increasing the risk of diabetes).

These are rats, with no will power, conditioned rats! Get the fat guy in Monty Python to just shut his mouth before he explodes. Oh well, maybe that is why everyone is ballooning out! See my book (draft) on [Obesity and Type 2 Diabetes](#), worth a peek.

Labels: [Health Care](#)

BIKES, BIKE RIDERS, AND THE REST OF MANKIND

Now let me start by saying I ride my bike every day, almost. It has been a tough winter so one uses reason and does not ride when the street is covered with ice and snow. But otherwise, I am out there. But I live 25 west of New York City and I have my 7 to 10 miles of local streets. You see the deadliest weapon in the western world is a woman in an SUV at rush hour on a cell phone, now texting, putting on makeup, and drinking coffee. It leaves little room for looking, and in fact I believe that they would not think anyone else exists any how. So I watch as if I were in the jungles during war time, you never know where the "enemy" is hiding, and they will kill you.

Now why the build up, a piece by [Cassidy](#) and the retort in [Reuters](#). Cassidy is somewhat out of joint over the what appears to be dictatorial person mandating what appears to be her one world view of bike lanes in NY. I take the train in and walk and use the subway, found it is really better, so I do not have a hand in this game. But Cassidy has a point. As I walk across Manhattan there are now wasted lanes for the infrequent bicyclists. I somehow wonder who would bicycle to work. If you have a real job as some do, or you are trying to do a deal, or even look presentable you wear a suit, good shoes, and an overcoat! Try riding a bike in that? No way. So when the temps drop below 20 F as they have all too frequently this Gorian winter one would

only approach cycling with a bit of warmth. For 10 miles of fast cycling may warm you a bit but not that much.

Now one must understand a major fact about New York, there are no alleys! There are alleys in almost all the other cities I have lived in over the ages, but not in New York. Also they prohibit night time deliveries, the noise. So it throws everybody out on the street from 9 to 5! Smart.

The Reuters commentator says:

Cassidy has no problem with the vast number of parked cars which take up precious road space in New York because he regularly aspires to transcending his bipedal nature and becoming one of them himself. But if you replace those parked cars with a healthy, efficient and effective means of getting New Yorkers safely around town, then watch him roar. Jaguars — whether they have four wheels or four paws — are good at that.

Well, he clearly fails to understand New York. My relatives settled here from Amsterdam in 1649, in Brooklyn. No cycles then, just cow paths. So genetically I know a bit of the city, not like these two Johnny Come Lately. It is not the parked cars which take up the space it is the double and triple parked trucks! Try 56th Street some time!

Cassidy makes his point validly as (from [The New Yorker](#)):

Today, of course, bicycling is almost universally regarded as a serious, eco-friendly mode of transport, and cyclists want it easy. From San Francisco to London, local governments are introducing bike lanes, bike parks, bike-rental schemes, and other policies designed to encourage two-wheel motion. Generally speaking, I don't have a problem with this movement: indeed, I support it. But the way it has been implemented, particularly in New York, irks me to no end. I view the Bloomberg bike-lane policy as a classic case of regulatory capture by a small faddist minority intent on foisting its bipedalist views on a disinterested or actively reluctant populace.

Yes, it is a heavy handed implementation. It has never worked before in New York, except in the Cross Bronx Expressway which is a Moses disaster and now one of the worst roads in the world! No cyclists there, yet.

I side with Cassidy, first I would never cycle in New York, it just does not make sense. It is like those Gucci dressed suburban groups of weekend cyclists who get on the \$5,000+ bikes and then cycle on the rural roads three abreast. They become indignant even though they are breaking the cycling laws, which allow one single file. Somehow cycling has become a religious cult. They have religious garb, they band together in celebration of their belief, they see those who are not as committed as non-believers, and at times worse than the typical Islamist Terrorist. Cults

perhaps that should be brought up before Congress, a threat to our very civilization, perhaps, who knows.

Labels: [Commentary](#)

IS IT THE HEALTH CARE OR JUST THE PEOPLE?

I have noticed that the [left leaning economists](#) are taking glee at an article in the [American Journal of Epidemiology](#) which states:

This study systematically compared health indicators in the United States and England from childhood through old age (ages 0–80 years). Data were from the 1999–2006 [National Health and Nutrition Examination Survey for the United States ...and the 2003–2006 \[Health Survey for England\]\(#\)](#)

First, it should be noted that the data is somewhat different between the databases. In fact the Health Survey is done by the UK agency responsible for industrial health whereas the CDC does the US data.

Individuals in the United States have higher rates of most chronic diseases and markers of disease than their same-age counterparts in England. Differences at young ages are as large as those at older ages for most conditions, including

This is a comment on chronic disease markers and those mostly driven by childhood bad behavior.

obesity, low high-density lipoprotein cholesterol, high cholesterol ratio, high C-reactive protein, hypertension (for females), diabetes, asthma, heart attack or angina (for females), and stroke (for females).

Now this statement set the tale. It is primarily obesity and its sequellae. That is one of the telling elements of this paper. It does not focus on the major health care issues of cancers and other generally non life style disorders.

For males, heart attack or angina is higher in the United States only at younger ages, and hypertension is higher in England than in the United States at young ages. The patterns were similar when the sample was restricted to whites, the insured, nonobese, nonsmoking nondrinkers, and specific income categories and when stratified by normal weight, overweight, and obese weight categories.

The following sentence is the most critical in the Abstract.

The findings from this study indicate that US health disadvantages compared with England arise at early ages and that differences in the body weight distributions of the 2 countries do not play a clear role.

There are several observations worth noting:

1. The [UK does have a higher mortality rate](#) for cancers [than does the US](#). That may be due to poor later care from their wonderful health care system. Yet that statistic does not appear to have been included.
2. The statistics addressed were in many ways lifestyle in nature and not health care system related. Obesity is a life style characteristic, people just eat more. In the US high caloric intake from larger portions as well as higher caloric density food is much more common. Yet Europe is catching up. Take C reactive protein, it is a broad measure for inflammation, often due to obesity. Thus many of the metrics indicated are all sequella from obesity.
3. The conclusion that the health disadvantage starts at an early age is a natural conclusion of higher childhood obesity. Yet as noted the UK is catching up on that as well.
4. Any inference that this is due to a health care system difference is a clear non-sequitur.

Thus as one of the left leaning economists states:

If the US spends so much more on health care than the UK, why doesn't it produce better outcomes?

The authors of the study clearly state that the outcomes are childhood related and that is diet and not the health care system. In fact as we have argued for a long time this is the problem. Obesity. It is a choice issue and we then end up paying for that choice and its sequellae.

In my opinion this is classic economist logic, namely there is none. If all else fails one should read the words and look at the data. Namely for those things which our health care system works on, say cancer, the US is better, and for those which are personal choices, we are worse.

I have seen over and over again that economists tend to opine on health care matters when they know little if anything. They are truly reckless in many matters and this is dangerous sine people have been listening to them. It is a shame we have such poorly educated economists, then one just has to look at the economy!

Labels: [Economics](#), [Health Care](#)

TUESDAY, MARCH 8, 2011

[HAPPY WOMEN'S DAY](#)



My grandmother in 1916 third from the right just before being arrested by Wilson for protesting the War. With some of the "ladies". I did like the hats.

As per [Google it is Women's Day](#) and in New York they meet on the Brooklyn Bridge. Somewhat fitting, my great grand father was one of the first across it at its opening, his son, my grand father married Hattie Kruger above. Interesting set of confluences. So watch for my grand daughters!

Labels: [Commentary](#)

MONDAY, MARCH 7, 2011

[WELCOME SPRING 2011](#)



Snow drops coming out finally. Long and cold winter with snow still in cool spots. New Hampshire still has piles, may last till may. Oh well global warming should be here soon.

Labels: [Commentary](#)

[SIR EGWYN SQUIRREL AND THE GRAIL](#)

[Sir Egwyn Squirrel and the Grail](#) is a new tale in the Squirrel Tales. It describes the son of Padric Squirrel who came from Staten Island with Saint Brendan in the mid sixth century and who goes to England and meets Arthur and his court. It is a squirrel version of the Arthurian Legend.



Labels: [Squirrels](#)

SUNDAY, MARCH 6, 2011

[GREAT ANALYSIS OF HEALTH CARE COUNTER MOVE](#)

In the [Kaiser Health News](#) there is a great piece by a Cato analyst describing the strategy from the White House on their "openness" on allowing states the option to do their own thing. It provides added detail to what we said when it was announced a week ago.

As the article states:

Any waiver process that amends federal laws on a state-by-state basis -- such as proposal advanced in 2006 by the Brookings Institution and the Heritage Foundation and introduced as legislation by then-Sen. George Voinovich, R-Ohio, and current Sen. Jeff Bingaman, D- N.M. -- will inherently favor big-government proposals over free-market reforms. ObamaCare goes the extra mile by only allowing approaches that are more coercive than itself.

States seeking more-coercive approaches would have an easy time meeting whatever performance metrics the federal government sets. They can simply ramp up the mandates and subsidies until coverage levels or health plan offerings meet the targets. Since a free market

caters to consumers' preferences, which may deviate from the government's performance metrics, it would be far more difficult to get free-market approaches approved or renewed.

Indeed, beware Presidents bearing gifts!

Labels: [Health Care](#)

[COMMENTS FROM THE UNKNOWN](#)

One of my favorite blogs is [Worthwhile Canadian Initiatives](#), for they are clear, to the point, and do not seem to carry the strong one-sided political views of the American economists. The Canadians have a sense of balance, and somehow avoid the extremes. Thus I was saddened to see the need to ask for some sense of common decency, my words, in the comments posted.

Now I am not an economist, although I have my views on many, that is part of the patois, yet for the reason that they have requested a tone down is why I have deferred any comment. I did at the beginning but alas all too soon it reverted into alias name calling. When I say something I do so in my name, why hide, the only way to judge what I say is a combination of the argument and whatever credibility I gain from experience. I believe that both count. My best wishes to my Canadian friends, I hope, and perhaps demanding real names is a solution, with read return emails.

I do know I used my Irish wit, some may say otherwise, when I satirized the comments one of their contributors a few months ago but it was all in fun, besides I was in New Hampshire on Thanksgiving weekend and it was snowing, I had not a great deal to do that day other than wait for turkey. So again, keep moving forward to those folks just to the north!

Labels: [Commentary](#)

SATURDAY, MARCH 5, 2011

[THE BALOON PROPOSAL](#)

Now I do know something about cell phones, built a few networks and have kept my hand in for some fifty years. Even wrote a few papers and the like. So today when I read the Rand proposal in the [NY Times](#) I had to shudder!

They state:

Fortunately, there is an easy step the United States and its allies could take to help: deploying cellphone base stations on aircraft or tethered balloons. The calls could then be routed to Navy ships equipped with satellite communications terminals.

Base stations are small and cheap. Indeed, this kind of portable system, though not used, was already available in the aftermath of Hurricane Katrina, and in the years since the hurricane, the equipment has shrunk even further.

Ideally, a commercial cellphone operator would provide direct access to its network, and either the operator, the American government or the international community could foot the bill.

What's more, establishing such a network would present minimal risk to pilots, who could loiter safely over the Mediterranean and still provide coverage to the coast, where the overwhelming majority of Libyans live and where most of the fighting is.

Now let me present a few facts:

1. The effective radius of a hand held cell phone cell, a mobile phone outside the US, is at best 3 miles. Thus you need cell site centered about 5-6 miles from each other, consider the standard chess board. That is lots of cell sites.
2. Now cell sites need power, lots of power, there is lots of stuff there.
3. Cells need stable antenna, balloons are not generally stable platforms. They pitch, roll and yaw, and unless you find a way to stabilize them, like I did when I worked on Apollo launches using gyros, then you have a real tough antenna problem.
4. Then you need back haul circuits, that is quite complex, and eats up a ton of bandwidth!
5. Then you need replacement etc.
6. We assume no billing and we assume some smart radio so it carries multi band stuff and the like.
7. Then you assume that no one jams the stuff, or say shoots the balloon.

Frankly this idea was proposed a dozen or so years ago and did not get airborne then, in a benign environment. One wonders why this ever got in the Times, but then again it is the Times!

Labels: [Political Analysis](#)

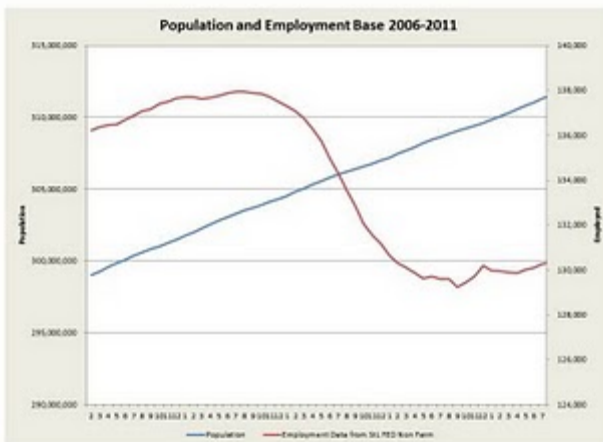
FRIDAY, MARCH 4, 2011

UNEMPLOYMENT: BETTER OR WORSE

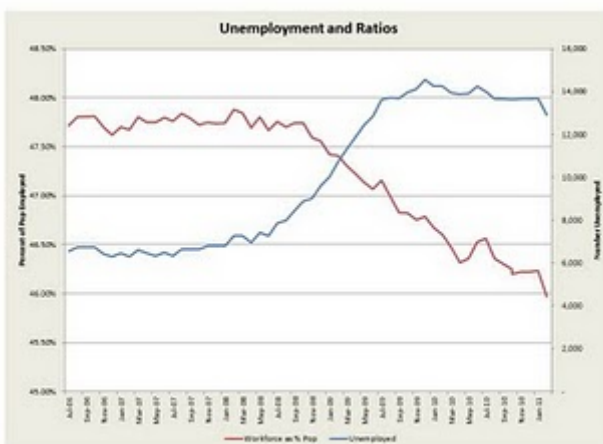
The [DoL has released employment](#) stats for February. Again a warning, they always are adjusted and the pattern seems to be the first release is always the most optimistic. Their summary is:

The number of unemployed persons (13.7 million) and the unemployment rate (8.9 percent) changed little in February. The labor force was about unchanged over the month. The jobless rate was down by 0.9 percentage point since November 2010.

Now we will briefly look at the data:

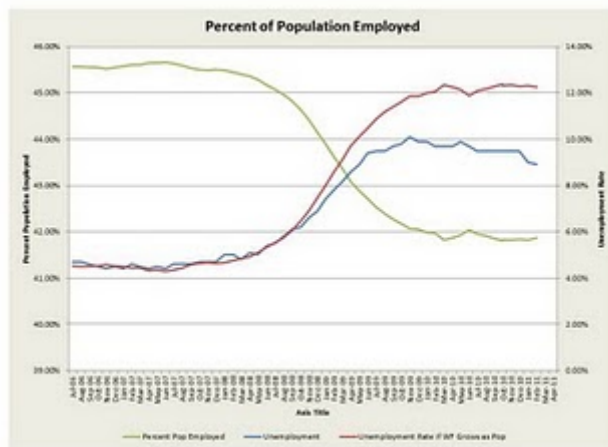


First the raw data of employed non-farm seasonally adjusted. It has continued to rise but so has the total population. It should be remembered we are using total population rather than 16 and over which is what DoL uses. We argue that although we get the same end results that the metric is a stronger reflector.



The chart above shows the workforce as a percent of the total population. It continues to decline. That is a major concern because it means that DoL is reducing the denominator and thus

allowing for lower unemployment rates. The difference is now quite material! On the other hand they show unemployed as decreasing but the problem here is that are adjusting for long term although they are now arguing that they somehow have accounted for them.



Finally we have the stats. One can see the DoL rates decreasing but the actual pegged rate is still above 12% and that means we are not getting rid of the problem.

Labels: [Economy](#)

WEDNESDAY, MARCH 2, 2011

AN INTERESTING PROPOSAL

The [WSJ](#) wrote about the two Senators who are requesting the opening of the Medicare Data Base so that fraud can be detected.

They state:

Last year The Wall Street Journal, together with the nonprofit Center for Public Integrity, obtained from the government limited access to the database. Despite severe restrictions on the data, the paper was able to mine it and expose through a series of articles how doctors and other medical practitioners appear to be gaming Medicare to increase their profits. One physical therapist identified by the Journal as having suspicious billing patterns was indicted last month on charges of defrauding Medicare....Republican Sen. Chuck Grassley of Iowa said he was prompted in part by the Journal's stories to introduce legislation Wednesday. That legislation states that the government must "make available to the public" data on Medicare "payments made to any provider of services or supplier...." The bill also includes other provisions designed to fight Medicare and Medicaid fraud.

So why not do the following:

1. Open the database so that fraud may be detected.
2. Offer a reward of say 10% like the IRS for any fraud detected.
3. Allow US entrepreneurial efforts seek out the fraud and make them wealth if they do.

This is the American Way, and by doing it in a non Governmental manner you get rid of the problem of slow working Government workers.

Labels: [Health Care](#)

OVER-DIAGNOSED; A REVIEW

[Over-Diagnosed](#), by Welch et al, is an interesting tale. At first I approached this with some concern as if it was just another one of those trend setting books by some physicians seeking to push the latest idea. After a few pages I was hooked and saw that Welch was in my opinion spot on. Yes there is too much diagnosis. As anyone who is in the medical area knows one of the most costly machines ever invented was the CAT scan. I recall that the second such machine went into Mass General I believe in 72 or 73, and was immediately put to use in determining if a stroke was a block or a bleed. In those days this was a real issue and the CAT scan allowed for a rapid and accurate determination and helped save lives. Then its use expanded. Today with a CAT scan as Welch states we can find things that we never ever suspected, and then what?

Chapters 1 and 2 set the scene for what the authors intend to present. Namely that there are lots of over diagnosis out there and for lots of reasons. Part of the author's presentation is that we have defined more disease. Take the example of Diabetes, it was fasting blood sugar of 140 and now we start treatment at 100! The reality is we should really look at the average over some period of time, using say HbA1c which is a metric measuring average blood sugar over 60-90 days. It is a good measure but still not perfect. We also should remember that HbA1c follows BMI, namely the fatter you are, the greater the chance of having Type 2 Diabetes, and then of course all the sequelae. The authors give a good overview of this idea.

Chapter 3 is the one which details the issue of if you look you shall find. I have seen many examples of this. Take a 70 year old woman, goes to her local physician with what may be described as a vague tightness in her abdomen. Off to the CAT scan. Then we see shading in the right ovary, then off to the OBGYN, then ultrasounds, looks like a cyst, and the CA 125 is low, so the scans are repeated, and CA125 redone, remains low, but he insists on a recent mammogram, which gets done with some questions, then for an ultrasound and follow up, then they find a nodule on thyroid, but it was there before, and then Endocrinologist fortunately had old records, ten years earlier and at that point everyone stopped and she went home told not to wear that tight belt anymore! How much did that cost! Welch has many tales like this. Then there are the ones he misses, what I have seen as a small industry, the Lyme Disease group, where they are getting gamma globulin transfusions at hundreds of thousands of dollars, adding to costs with questionable results. Thus Welch is understating the problem, but he is spot on!

Chapter 4 is the lynchpin chapter for several reasons. It is the prostate cancer chapter and here I may differ with the authors but not by much. The rule of thumb is that 50% of men in their 50s have prostate cancer, PCa, 60% in their 60s, 70% in their 70s and so on. This is a really rough rule of thumb but the author makes the point that most PCa is indolent, slow growing and not the cause of death. The problem is we do not know how to differentiate between slow and fast growing so we tend to deal with all of them assuming the worst. In addition the author on p 59 discusses the American and European Trials and he discusses their conclusions. If one were to look deeper into the trials one would see major defects. The American used a fixed 4.0 PSA over the 10 year period even though the number was shown during that period to require substantial age related adjustments. Thus the problem with the American Trial was that they asked the wrong question. The asked did a PSA of 4.0 show significant reduction in mortality? The proper question should have been; what level of PSA at what age brackets shows a significant reduction in mortality. The European Trial was defective in that measurements were also at 4.0 but the time between was considerable or not at all. Thus I would argue with the author that these results have merit. The other problem with PSAs is that they lead to biopsies which have some morbidity. But frequently we see HGPIN, which has been assumed a precursor to PCa but we also see HGPIN and then its total regression. Why? Genetics, immunological, a result of the first biopsy, or perhaps there was a PCa stem cell and they got it the first biopsy. Or a million other things. Notwithstanding the authors phrase the issues quite well.

Chapter 5 looks at several other cancers and screening. I will focus on one, melanoma. In the late 60s when we saw a melanoma we were ready to amputate a limb if that was where it was located. That generally was because it was detected late in the stage. However today with increased sensitivity to one of the deadliest cancers known, we can detect it earlier. On p 68 the authors show a curve which shows incidence and mortality versus time. Mortality is almost constant whereas incidence is increased. In the prior chapter on PCa the argument made is that we can now determine PCa at much lower levels and at levels where mortality is not changed. That is we are detecting non-lethal PCa. The author tries to make the same nexus here, not exactly, because he readily recognizes the deadly nature of melanoma, but to the casual reader it may look that way. There is a true increase in the incidence of melanoma due to lifestyles, excessive ultraviolet exposure, and the good news is mortality is slowly decreasing. That I believe is a point needing better clarity.

Chapter 9 is well done and hits a significant fact. Genetics which is expressed in your DNA is interesting but only in a small set of diseases is it the causative factor per se. Take obesity and diabetes, not discussed in detail by the author, but of significant interest since its costs are currently well over \$250 Billion per year in current 2011 medical costs. There is the desire on the part of many to find the genes which cause this. Obesity is in almost all cases a disease where the patient violates a law of nature, input less output equals net accumulation, they just consume too much. Type 2 Diabetes in more than a majority of cases is driven by obesity and its related inflammatory state. The attempt to blame genes may be fruitless. The same goes regarding say cancer. Vogelstein in a now classic demonstration showed twenty years ago that colon cancer was the result of 4 genetic hits. What caused the hits was unknown but they were almost always the same and always in the same sequence. Recent work on PCa has attempted to do the same there but it appears that PCa is a multi-hit cancer but sometime they are not the same set of hits, genes for PTEN, Akt, c-Myc etc are all affected but in a yet to be determined manner.

Chapters 10 and 11 speak towards facts and systems. The authors does a superb job here as well. Simply, it discusses the issues related to gathering data and looking at it systematically. This is more than just having electronic medical records and the like.

The conclusion is well done. What would have been useful especially since the author states he was trained as an economist, would be some detailed discussion regarding what costs could be saved by the recommendations he makes. That would be a major contribution to the overall discussion. The new health law for Medicare patients will be issuing multiple Comparative Clinical Effectiveness guidelines and these, albeit a potential rationing mechanism, may also be a potential cost increaser. It would be very useful if the author could put dollars to his recommendations. He has set out a well structure framework for that, it would be a great follow up.

Labels: [Health Care](#)

TUESDAY, MARCH 1, 2011

[WILL THE GOVERNMENT REPLACE UNIONS?](#)

Let me start by saying that my father was a member of the IBEW and my brother was in IBEW Local 3 in New York. Also once I write this someone in IBEW Local 3 will hist this page, good work guys, let's see if it takes more than three hours. My grandmother headed the Socialist Party in New York and ran for Senate and NY State Treasurer. So politically I have some exposure to the issues.

Now there is an article by a left wing economist in [The Fiscal Times](#) which states:

If unions aren't the answer in a global economy, then what is? Will global labor organizations replace domestic unions? Perhaps someday, but this would require global institutions that do not presently exist, and that do not look likely to materialize anytime soon.

The only institution powerful enough to protect workers now is government. By providing the things unions once fought for on behalf of workers, government can help to correct inequities and reduce the insecurity workers face. Ensuring that working-class households have the health and dental care they need, security in old age, a safe place to work, insurance against job loss, higher education that is essentially free, and the benefits of a tax policy that redistributes income so economic gains are shared more equitably would go a long way toward remedying what workers have lost since the 1970s

Now how is that for a mouthful! Get the Government to tell business what to pay people and furthermore ensure Government redistributes the wealth the people who took the risks created! Now unlike these non-productive academics I really started businesses and did so in Russia and throughout Eastern Europe. I did so on my own nickle and not with any corporate rubric. The result was wealth creation for many, including many old communists. When my old communist friends read this utter nonsense they wonder what has happened to the land of opportunity. Perhaps the oligarchs in Russia have it right. Perhaps we should annex Russia and elect Putin as a natural born citizen!

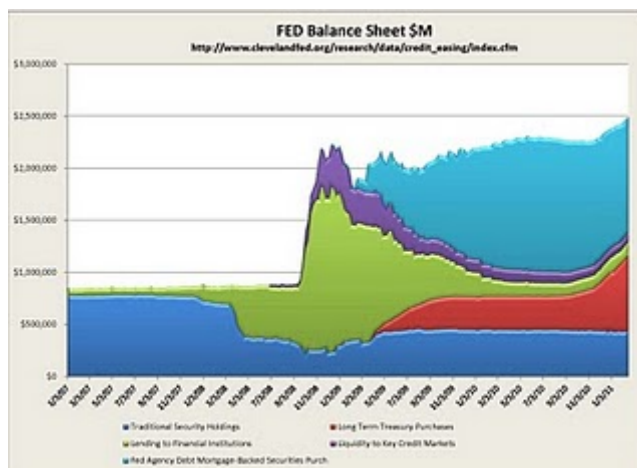
Entrepreneurs create wealth by taking substantial personal risk, total risk. I had a handful of plan tickets on my credit cards and went and built companies in 20+ countries. What if I had to tell the Russians, Greeks, Thais, Koreans, etc that the US Government would control my work conditions? No value creation. It is bad enough that we have the second highest corporate taxes, it drives business out of the US, I moved to the Czech Republic!

Yes workers need good working conditions, yes wages should be fair, but no, Government should not take the place of unions or be in the business of health care!

Labels: [Economy](#), [Politics](#)

MONDAY, FEBRUARY 28, 2011

THE FED BALANCE SHEET



A brief note on the FEDs Balance Sheet composition as of the end of February. It is still growing and in fact the major growth is Government Debt. There does not appear to be a turn around here. Simple facts:

1. Commodity prices in steel and other essentials are increasing at rates in excess of 25% pa
2. Unemployment is frozen well above 9% and based upon 2008 base number well above 12%.

3. Economic growth will decrease substantially as we see oil top \$150 a bbl again in the next three months.

4. Federal Debt hopefully will be abated but there needs to be leadership on both sides.

2011 does not look like a turn around year at this point.

Yet Dudley of the NY FED gave a [presentation today](#) detailing his optimistic view of the economy. We disagree with him on several points:

1. Yes the market is up mainly because the FED is holding interest rates low and this is the FEDs way of pumping money into the "backroom" so that the debt can be funded. The money as seen in M2 is not yet leaking into the front room.

2. As a result of that the equity play is the only place for the cash on hand to flow into. People still have 401K contributions and the like and this flow of funds is inflating equities. Again we may face inflation here rather than true growth.

3. He fails to note the recent 25% increase in steel, the 35% increase in fuel costs, and the pressure of food stuffs, which is reflected in corn and sugar futures.

4. The Beveridge Curve showing job vacancy rates versus unemployment rates has been a random walk for a while. Thus as we have already analyzed here before this is nonsense. Productivity is up significantly.

5. He fails to treat the issue above, namely the balance sheet of the FED and who owns the debt. The Chinese today announced an increase of almost \$250B in US debt holdings. [Dudley argues](#):

However, let me make two points. First, I am very confident that the enlarged Federal Reserve balance sheet will not compromise our ability to tighten monetary policy when needed consistent with our dual mandate goals. Second, I am equally confident that no one on the FOMC is willing to countenance a sustained rise in either inflation expectations or inflation.

Let me explain why our enlarged balance sheet does not compromise our ability to tighten monetary policy. Although our enlarged balance sheet has led to a sharp rise in excess reserves in the banking system, this has the potential to spur inflation only if banks lend out these reserves in a manner that generates a rapid expansion of credit and an associated sharp rise in economic activity. The ability of the Federal Reserve to pay interest on excess reserves (IOER) provides a means to prevent such excessive credit growth.

However we would argue that the explosion of the FEDs balance sheet should be viewed holistically across nations and indeed the Chinese will use it to their advantage as will any and all other parties.

Notwithstanding the above one of the most troublesome comments was at the end of his talk:

*Second, the Federal Reserve needs to continue to communicate effectively about its objectives, the efficacy of the tools it has at its disposal to achieve those objectives, and the willingness to use these tools as necessary. This is important in order to keep inflation expectations well-anchored. **If inflation expectations were to become unanchored because Federal Reserve policymakers failed to communicate clearly, this would be a self-inflicted wound that would make our pursuit of the dual mandate of full employment and price stability more difficult. If we consistently and effectively communicate our objectives and our strategies, we can avoid this outcome.***

The last two sentences are the concern. If things get unhinged, he is assuming that everything remains stable just with communications, and communications as the FED sees fit. That may be gross over expectations.

Labels: [Economy](#)

STEP ONE IN HEALTH CARE REFORM

[The Hill](#) reports that the current President has told the states that they no longer must comply with a key provision of the Health Care Bill. The frankly why sign it in the first place? This just gets curiouser and curiouser, as per the Cheshire Cat!

However, beware the spider web. This may be a move enticing the states to "participate" and yet it may become just another bait and switch. As the [NY Times](#) stated:

(the current President) said he backed legislation that would enable states to request federal permission to withdraw from the law's mandates in 2014 rather than in 2017 as long as they could prove that they could find other ways to cover as many people as the original law would and at the same cost. The earlier date is when many of the act's central provisions take effect, including requirements that most individuals obtain health insurance and that employers of a certain size offer coverage to workers or pay a penalty.

But what is inside the trap. If one waited until 2017 that would be during another Administration, not this one. By moving it forward they allow for preemption during a putative second term. This

can clearly be a Trojan Horse offer, filled with what the Administration wants. The solution is complete removal.

Labels: [Health Care](#)

IMMIGRATION REFORM

Congressman Issa has introduced a bill, [HR 43](#), which is stated to (see [Open Congress](#)):

Eliminates the Diversity Immigrant Visa Program, a.k.a. the Green Card Lottery, which gives out 50,000 permanent resident visas annually to persons from countries with low rates of immigration to the United States. These visas would instead be given to foreign-born individuals who have obtained a graduate degree in science or engineering from a U.S. university and whose employment is sought by a U.S. employer.

This means that the visas which have been given on a politically correct basis are now given on a rational basis to benefit the economy. Sounds like a good idea. The [Government tracking site](#) states its function as:

Amends the Immigration and Nationality Act to eliminate the diversity immigrant program and provide an equal number of annual immigrant visas (55,000) to certain employment-based aliens who obtain an advanced degree in the United States.

This is a positive move and perhaps the number of 55,000 may also be changed. There of course is always the issue of admitting non-threatening persons.

Labels: [Education](#)

SUNDAY, FEBRUARY 27, 2011

WHAT AM I MISSING HERE

I like [Judge Posner](#), I have read and relied upon his works especially in antitrust writing many years ago. But this time I think he may have gone off the rail. He states in a commentary on the excessive costs of health care the following:

Distinctive features of American culture include a strong commitment to business models of economic activity, a high correlation between income and prestige, competitive drive, and a rejection of fatalism. The medical profession, like the legal profession, has embraced a business as distinct from a professional model of service. In a business model, success is measured by profit. Physicians embrace opportunities for increasing their incomes by increasing the demand for their services.

The only folks I know who eschew the profit motive are mendicants. I know because I spent time in a Franciscan seminary where poverty, chastity and obedience were demanded. Never had a problem with the first two but it always was that obedience thing. Back to Posner. He seems to imply that physicians should do what they do for some charitable reason. Ever see what Harvard

charges per year recently! How about insurance rate recently. Rent, staff, and the list goes on Judge. So why denigrate the physician when it come to profit as a measure, we are in a capitalist country. As a physician you can't even get away with a parking ticket, except in NYC, where I really do not think many make house calls anymore.

Now as to the book he references, *Overdiagnosed: Making People Sick in the Pursuit of Health*, it is in my opinion a simplistic presentation with many good and ever so many weak points.

Let me make a few:

1. Prostate Cancer: I really love it when physicians recount their clinical experience without adequate understanding of the literature and I suspect this may be the case here. As we have argued and written the Prostate Cancer problem is one of a complex nature. I have seen patients with HGPIN regress to fully benign when statistically that almost never happens and usually 25% of the time the next biopsy is PCa. Why does this happen, well frankly we do not know, yet. The pathways are now better understood and their full identification and dynamics must be understood and then we hopefully will understand. The path forward is understood. Yet that fact seem lacking in both Posner and in the authors of his reference book.

2. Melanoma: Let's face it, this kills and kills quickly. If one has the slightest predisposition to the disease then it is mandatory for semi-annual dermatological examinations with dermoscopy at least and removal of any suspicious lesion with biopsy by a highly competent dermatopathologist. Otherwise you just will die a horrible death for want of a \$75 procedure and \$150 biopsy. Pay it out of your own pocket if necessary and do not listen to the Judge.

3. Colon Cancer: Colonoscopies work, especially if you have a first degree relative who had the disease. Get the polyp, one every 3-5 years, and it costs \$1500-\$2000 and that is less than five years of oil changes in one car!

4. Breast Cancer: Yes mammograms work! Need one say more.

As to the other measurements, the best advice is to stop smoking and lose weight. Those two things alone will reduce hundreds of billions from our health care. Let me give a simple example. A physician can have a significant influence on some patients, say those who are obese and have

Type 2 Diabetes due to their obesity. First the physician can recognize this and second if the physician will deal with the problem rather than the symptom, use their relationship with the patient to get the patient to reduce their BMI and thus rid themselves of the Type 2 Diabetes. The worst thing often is to treat the symptoms by using drugs and allowing the patient to migrate from metformin to insulin to kidney failure!

An set of examples where the philosophy proposed in the above mentioned book appears to be practiced, namely England and its medical establishment, results in the highest mortality rates from cancer in the developed world. A recent article in the [UK Mail](#) states:

A quarter of cancer sufferers are being sent away by GPs with their early warning signs dismissed as minor ailments, a study reveals today...Tens of thousands of patients are initially told that their symptoms are 'nothing to worry about' or advised to take painkillers or antibiotics for months....They have to make repeated trips to their doctor before being given a correct diagnosis, the report concludes.

My point is that we are in the midst of a drastic change in health care. Genetics using pathways and marker genes will play a dramatic role in diagnosis and staging. Being able to integrate those will be the essential factors. Then using genetic tools to treat the diseases will follow. Telling people not to go until you are passing blood rectally for six months or until that mole is 3" wide with an irregular border and bleeding will only send us back several hundred years. One need look say to Harrison's 5th in 1966 and see where we have come from! The Judge perhaps should also deal with facts in which he has some detailed demonstrated expertise, and perhaps this is not one of those areas, perhaps, I really do not know.

Labels: [Cancer](#), [Health Care](#)

[PSA AND THE PRESS](#)

Another example of how the Press gets things wrong. The [JNCI paper](#) we discussed before states:

Biopsying men with high PSA velocity but no other indication would lead to a large number of additional biopsies, with close to one in seven men being biopsied...We found no evidence to support the recommendation that men with high PSA velocity should be biopsied in the absence of other indications; this measure should not be included in practice guidelines.

Read this very carefully. Despite all the prior studies that are to the contrary, they state PSA velocity should not be the sole factor, specifically they state *high PSA velocity but no other indication*. Not that PSA velocity has no value at all. It is a conditional statement, so what are the conditions?

But the [NY Times](#) states:

The researchers, writing in the March 16 issue of The Journal of the National Cancer Institute, concluded that using P.S.A. velocity for prostate cancer detection is ineffective, that it leads to unnecessary biopsies and that references to it should be removed from professional guidelines and policy statements.

The Times continues:

Similarly, it is easy to demonstrate a statistical relationship between sharp rises in P.S.A. and cancer, but the correlation reveals no more information than is already available with a P.S.A. reading, a digital examination and a family history. It is irrelevant in deciding whether a biopsy is needed.

Not really folks! We had demonstrated on the basis of physiological, cellular and clinical data that one needs to track PSA over a long period. Looking at change is the concern. Change and rate of change are frankly the same! I know the concept is quite difficult for reporters, it is after all High School physics at best, but alas we are talking about a reporter, not even a High School Teacher, you know those folks who could not even major in education and went into communications or journalism.

The final quote is:

But at this point, he is firmly against biopsies on the basis of velocity alone. "If your P.S.A. is in the normal range, you shouldn't get a biopsy," he said. "Changes or spikes in P.S.A. are not something to worry about if your P.S.A. is still normal."

But wait a moment, what if you have 2 first degree relatives with an aggressive form of prostate cancer and who died in two years or less after diagnosis? Perhaps family history should play a part. Ya think!

Or is all of this a way to implement the comparative clinical effectiveness in the new health care law which means that by the time it is diagnosed your are dead, at least clinically!

Labels: [Cancer](#), [Health Care](#)

SATURDAY, FEBRUARY 26, 2011

[OBESITY, GENES, AND JUST EATING TOO MUCH](#)

As we have argued again and again, overeating leads to obesity and obesity leads to Type 2 Diabetes. In the [Globe and Mail](#) there is an interesting article discussing the theory of the gene which putatively leads to being overweight, the elusive thrifty gene, or the gene which allowed

certain people to live on few calories, but when eating a "normal" diet works against them. My usual response is nonsense, input less output equals net accumulation, a law of nature.

The article states:

A chronic condition, type 2 diabetes occurs when the body makes too little of the insulin it needs to metabolize glucose, its fuel source, or is unable to use the insulin properly. Obesity is a leading risk factor. Dr. Zinman says it was reasonable to search for the role that genes may have played....And former chief Harry Meekis, who helped to negotiate the research agreement, said at the time, "We didn't want to be known as the people with the third-highest rate of diabetes – we wanted to be the community that did something about it."...International press coverage of the finding at Sandy Lake helped to cement the thrifty-gene theory in the public consciousness – and spark a backlash from academics such as Prof. Poudrier. She was completing her PhD at Queen's University when she read of the discovery, and it drew her deep into the underpinnings of the famous Neel theory.

Now it seems the search may be in vain and the basic law of nature as articulated above may apply even to the tribal people. The article continues:

...evidence to support the theory was bountiful after Dr. Neel proposed it – a mouse with a mutated gene that led to obesity and diabetes, research surveys showing famines could kill off more than a quarter of a population and, most compelling, the sudden spike of obesity and diabetes in aboriginal communities where none had existed before...Aberdeen's Prof. Speakman feels it's easy to understand why the hypothesis has been so highly regarded. "Because it's a great idea: 'In times of famine, it's the lean ones who are gonna die.' It's a simple idea; it all makes sense."...Except that it's wrong, he adds. There is no proof that fatter people survive famines better than thinner ones. In fact, says Prof. Speakman, a specialist in how animals use energy, throughout evolution, "most populations would never see a famine. There's one every 100 years or so, but in those times, people only lived 25 or 30 years."

The theory of the thrifty gene seems to be totally disproved. In fact the article clearly states:

Jeffrey Friedman, the renowned Rockefeller University scientist who discovered the appetite-suppressing hormone leptin, has been hunting the thrifty gene since the mid-1990s on the Pacific island of Kosrae. Sixty years ago, its people were lean, living off the land and sea, but after the U.S. started shipping them soft drinks, Spam and processed foods, three-quarters of Kosrae's residents have become overweight, if not obese.

Namely if one sits around all winter with a more than adequate supply of calorie rich food, carbohydrates or fats, one ends up getting fat and then one gets Type 2 Diabetes. It is always

better for those politically correct to say it is a disease or there is some evil exogenous factor when in reality it is lack of will power, it is an individual's responsibility and not that of society.

Hopefully this tale will trickle down. It applies to American Natives, to the Canadian Natives, to Irish, Germans, and Chinese and Indians. Eat too much, you get fat, then your insulin supply is stressed and then Type 2 Diabetes, and finally all that follows. So just shut your mouth for a while perhaps.

However the trend still exists in the press to find excuses or create victims for Type 2 Diabetes. Namely it is not the patients problem because they eat too much but it must be some gene or some evolutionary mechanism. The article in [Science Centric](#) is a typical example. They headline and continue with:

New research suggests that obesity and diabetes are a downside of human evolution. As if the recent prediction that half of all Americans will have diabetes or pre-diabetes by the year 2020 isn't alarming enough, a new genetic discovery published online in the FASEB Journal (<http://www.fasebj.org>) provides a disturbing explanation as to why: we took an evolutionary 'wrong turn.' In the research report, scientists show that human evolution leading to the loss of function in a gene called 'CMAH' may make humans more prone to obesity and diabetes than other mammals.

This is the classic example of creating a victim, an excuse for bad behavior.
Labels: [Health Care](#)

FRIDAY, FEBRUARY 25, 2011

[PSA VELOCITY ISSUES](#)

There has been an ongoing debate regarding PSA and PSA velocity. We have argued elsewhere that both PSA and PSA velocity should be measured over time in order to adequately reflect the cellular growth. We have presented this in detail in our recent draft of a book on [Prostate Cancer Genomics](#).

In a recent article [Journal of National Cancer Institute](#) the authors reach the conclusion that PSA velocity has no merit. They state:

Results Incorporation of PSA velocity led to a very small increase in area under the curve from 0.702 to 0.709. Improvements in predictive accuracy were smaller for the endpoints of high-grade cancer (Gleason score of 7 or greater) and clinically significant cancer (Epstein criteria). Biopsying men with high PSA velocity but no other indication would lead to a large number of

additional biopsies, with close to one in seven men being biopsied. PSA cut points with a comparable specificity to PSA velocity cut points had a higher sensitivity (23% vs 19%), particularly for high-grade (41% vs 25%) and clinically significant (32% vs 22%) disease. These findings were robust to the method of calculating PSA velocity.

Conclusions *We found no evidence to support the recommendation that men with high PSA velocity should be biopsied in the absence of other indications; this measure should not be included in practice guidelines.*

As reported in [Eureka](#):

As expected, the authors found a statistical association between PSA velocity and biopsy outcome. But when they adjusted for other risk indicators, such as age, race, PSA levels, and digital rectal exam, there was virtually no association between PSA velocity and biopsy outcome. "There was little evidence that PSA velocity adds an important level of predictive accuracy to either standard predictors or to PSA alone," they write.

The authors also evaluated guidelines stating that men with a rapid rise in PSA should have a biopsy even if their PSA is low and there are no abnormal findings on a clinical exam. The vast majority of the men who fell into this category (about 80%) did not have cancer, suggesting that use of PSA velocity would lead to many unnecessary biopsies. PSA alone was a better predictor of biopsy outcome in these men than PSA velocity.

"In other words," they write, "if a clinician feels that the current PSA thresholds are insufficiently sensitive, he or she would be better off identifying patients to biopsy by using low PSA thresholds than by adding PSA velocity as a criterion for biopsy."

The authors conclude that PSA velocity should not be included in prostate cancer screening guidelines.

In an accompanying editorial, Siu-Long Yao, M.D., and Grace Lu-Yao, Ph.D., of the Cancer Institute of New Jersey agree that the findings suggest that PSA velocity does not help doctors and patients decide what to do about screening results.

"PSA velocity measurements take time to acquire, and recognizing that such data add relatively little information may help prevent inappropriate postponement of follow-up in affected patients," they write. "Avoiding the wait to acquire subsequent PSA values may also help reduce some of the anxiety associated with testing." They go on to say that the results of this study serve to "remind us that the use of PSA as a screening tool still leaves much to be desired."

We would argue that there analysis has certain issue requiring further analysis:

1. PSA velocity is a long measurement subject to substantial errors due to the variability in PSA measurements. For example, if we measure PSA over 20 years we may go through a dozen or more different assays and they each have substantial variability between each other. Also the PSA has its own variability depending on many personal factors independent of cellular type and density.

2. To obtain a reasonable PSA velocity one needs at least ten years or data taken on a yearly basis at least. Biases must be addressed by also knowing the assays.
3. The approach we have developed takes into account the dynamics of both cellular growth and PSA density. We believe that this temporal factor must be included.
4. PSA and PSA velocity should always be used with many other factors. Yet a biopsy is often worthwhile especially if there is a family history. Yet despite biopsies we also know that there is a 20-30% probability that a cancer may be missed. Thus a benign biopsy is not indicative of a non cancerous prostate.

Clearly more must be done here but a summary dismissal is less than productive in my opinion.

Labels: [Cancer](#)

FRIDAY, FEBRUARY 25, 2011

[A NEW AWAKENING](#)



The following are some principles with respect to a new view of what political thought should be focused on as we look towards the 2012 election.

The United States has gone through many changes in its very brief period of existence. As de Tocqueville had recognized in his journey through the very young country, America was built on a strong sense of individualism, but an individualism that engendered multiple associations of the people for a variety of purposes; charitable, economic, and political. There was a strong sense that anyone had the opportunity to take risks and follow an entrepreneurial spirit. It was this entrepreneurial individualism, unfettered by an excessive controlling central government, which fostered many of the innovative initiatives which launched the United States to a leadership position in the world.

The United States has always been concerned about its international relations, whether it was regarding the border countries of Mexico and Canada, or the management of its interests abroad and protection related thereto. The United States may have had its periods of isolationism but they have for the most part the country played a supportive and leading role in international relations. Many on the left bemoan that America has seen its best days and from here it is all downhill. These same people believe that the United States has a duty to transfer a tremendous amount of its people's hard earned wealth to other less well-endowed countries so that there is a form of global equality. The thinking of many of these people is that growth has limits and that it is all a zero sum game.

We dispute this and we strongly believe that the United States is a vibrant, energetic and opportunity-rich country which has developed a strong and lasting democratic heritage based on the individual rights and not class rights. It is a country of opportunity and flexibility, one where the Government, for the most part, has stood as a sideline assistant to those creating the wealth for all, and the Government acts primarily as a protector of those rights.



Foreign Policy

There are three areas of Foreign Policy which need substantial strengthening.

Affirm Stronger Relationships with China and Russia: China and Russia still remain strategic competitors to the long term security of the United States. Russia as the second strongest global power in nuclear weapons has continued to strengthen that position and in fact has renewed and expanded it. Despite the good wishes of the START Treaty, its burden is more on the United States while allowing Russia time and resources to renew their arsenal. The United States has tried to soften its position with Russia by weakening our relationships with our allies such as Poland and the Czech Republic. China is presenting an even stronger threat, both via military expansion and through economic dominance. As a result of the economic disasters in the United States, China has become emboldened and empowered to expand its sphere of influence in Asia as well as other areas such as Africa and South America, and has also expanded its military

competence into a “blue water” Navy, a sophisticated space program, the third largest nuclear arsenal, missile systems, stealth aircraft, and the largest army in the world.

Recognize and Take Affirmative Actions Against Global Terrorism: Global Terrorism today consists of several well defined threats, especially Islamist Terrorism. This requires first and foremost a clear and open recognition of the existence of such Islamist Terrorism for what it is and not to hide behind the façade of the politically correct. Islamist Terrorism is a fundamental threat to the very core existence of the United States and its founding principles. First it must be recognized and accepted as such, not ignored and swept under the carpet of political correctness. Second, it must be fought in a manner consistent with that of the terrorists, it must be relentless and using the full panoply of resources on a global scale strengthened by an intelligence community second to none. Our current intelligence community has expanded exponentially but with resources and assets which cannot be called upon to perform adequately, they are resources consistent with a Government which seeks representative breath rather than excellence in execution.

Strengthen Relationships with Long Time Allies: In an attempt to mollify those who would not necessary be our allies we have unfortunately weakened out ties to our long standing allies such as Israel. By not recognizing the threats for what they are we have taken positions with our long term allies that have weakened both them and the United States. Whether it be Israel, South Korea, Japan, Columbia, Poland, the Czech Republic, and many other strong strategic allies, we have again tried to mollify those whom have taken positions against our interest and our nation. We must take a clear position in recognizing those who will stand with us against tyranny, either of nations or of groups, and strengthen that bond and not weaken it.

Economic Policy

Entrepreneurial Efforts are the heart of a successful US economy. That means we must have an economic system that respects the individual first, and allows that individual to take risks, create opportunities and can then execute the businesses in a manner free from excess control, taxation, and interference.

The recent Government Over-reaching in areas of Regulation, Control, and Management has stifled economic activity. The recent Health Care Bill is an example of the excess of over-reach on the part of the Government, mandating who must buy what and what they must buy, thus setting a level of cost burden on both the employee and the employer which makes competition difficult.

. The current deficit and debt situation of the United States is untenable. The use of a Fiscal Stimulus package whose results were a total failure and the Government takeover of automotive companies, banks, and the continued support of GSEs such as Fannie and Freddie have just burdened future taxpayers with colossal debt. The policies failed, as has been clearly seen in the monthly unemployment reports. The White House’s CEA Head had predicted month by month improvement which never materialized. Their predictions and projections were totally baseless. The United States must deal with its debts by first resisting the notion that more spending will make things better. They clearly do not, they have not and they will not. In addition it will be

necessary to take difficult but reasonable stands on entitlements, both at the Federal and State levels, and changes will have to be made to them over reasonable periods.

Some Core Principles

Respect for the Individual: There is a trend to look at groups, minority and majority and fail to see the uniqueness of the individual and that our country was built upon individualism, the ability of a single person to set out and seek their fortune and success. Individualism means respect for all as equals, and that groups have meaning only as expression of those individuals in association with one another.

Support of the Free Market and elimination of "Too Big to Fail": The Free Market principle fundamentally has been a cornerstone of our country, it is a principle that each has a opportunity to succeed but with that comes the chance to fail. We learn from our failures. Having the Government intercede in a natural process of the market sustains inefficiencies and places the economic burden on those who did not prosper as a result. It is essential that our Government not take taxpayer funds to sustain automotive unions, despite the fact that at the same time the Government liquidated legal bond holders, and not sustain state employees and unions, who now make almost twice what the hard working worker makes, and banks and investment houses, whose employees exceed by orders of magnitude what any person may hope to earn in their lifetime. If the large banks were likely to fail, then they should resolve their problems and the Government, and the FED, should not, must not, give money away that is not theirs, and burden future generations so that a few may prosper to the extreme.

Respect for Property as an extension of the Individual: Concomitant with respect for the Individual and Individualism is respect for the individual's property, not just their land and goods, but their wealth and person. The Government should not and must not encumber the assets and property of individuals with regulations and laws which reduce substantially its value to society as a whole.

Value in our Economy is Created by the Private Sector and not by Government Employees: The US is currently in a position where there are almost 2 workers in the private sector for every 1 worker in the Government or public sector. In addition the Government employees are paid twice that of the people in the private sector. Simply stated we have reached a tipping point where we must decide as a nation if we want a bloated public sector destroying the basic and core engine of our economy.

Labels: [Political Analysis](#)

EVIDENCE BASED MEDICINE; COMPARATIVE CLINICAL EFFECTIVENESS

I just got a notice for the [18th edition of Harrison's](#). I still have the Fifth somewhere. I scanned through a section on EBM and they state:

In this era of EBM, it is tempting to think that all the difficult decisions practitioners face have been or soon will be solved and digested into practice guidelines and computerized reminders.

However, EBM provides practitioners with an ideal rather than a finished set of tools with which to manage patients. The significant contribution of EBM has been to promote the development of more powerful and user friendly EBM tools that can be accessed by busy practitioners. This is an enormously important contribution that is slowly changing the way medicine is practiced.

One of the repeated admonitions of EBM pioneers has been to replace reliance on the local "gray-haired expert" (who may be wrong but is rarely in doubt) with a systematic search for and evaluation of the evidence.

But EBM has not eliminated the need for subjective judgments. Each systematic review or clinical practice guideline presents the interpretation of "experts" whose biases remain largely invisible to the review's consumers.

Moreover, even with such evidence, it is always worth remembering that the response to therapy of the "average" patient represented by the summary clinical trial outcomes may not be what can be expected for the patient sitting in front of a physician in the clinic or hospital.

This is a nice way to say that you better deal with EBM but also you better find a way to treat the individual and not the average or norm. Yes EBM was meant to get rid of the "gray hair" who knows everything from experience. Sometimes they do. The real problem is twofold; the system and the hand off. One is reminded of the 1970 film, *The Hospital*, with George C Scott, timely for me in 1971, where a large NY city hospital is falling apart. Things have not really changed much, just different protesters and nurses do not wear uniforms and the docs dress worse than the trash handlers, and appear worse.

But as to the above:

1. The system fails all too often on hand off, especially with Medicare patients. They go from hospital to nursing home to hospital. Typical case, MI and goes to hospital, put on 12 meds, goes to nursing home, hypotensive crisis since no one read BP and then back to hospital. Costs, astronomical, patient quality of care, zero, frequency, all the time. There is no follow through.
2. Patients are all different. There are rules of thumb but all too often medicine deals with what and how and the why is too difficult.

Thus the back handed compliment for EBM is well phrased. It is being mandated but it is built with well phrased fatal flaws. In earlier versions of Harrison's they flaws would have been directly articulated. In the post new health care kingdom one must be careful of words.

Labels: [Health Care](#)

OBESITY AND GENES AGAIN

On an almost daily basis one can find another study attempting to link obesity, especially morbid obesity, eg BMI > 30, with a purely genetic cause. The latest is an EU study by its agency [CORDIS](#) that states:

Around 7 in every 1000 morbidly obese people are missing a section of their DNA (deoxyribonucleic acid) that contains around 30 genes, say the results of an EU-funded project published in the journal Nature. The authors of the study, from Imperial College London in the UK and 10 other European research centres, suggest that the missing DNA may have a dramatic effect on the weight of the affected people.

Previous research studies have already shown several genetic variations, mostly single mutations in DNA, which can change the function of a gene, but the new research is the first to demonstrate that obesity can be caused by a rare genetic variation. The role of the missing genes is not yet known, but past studies suggest that they may be associated with delayed development, schizophrenia and autism.

It was a year ago when we wrote the monograph on [Obesity and Type 2 Diabetes](#) and its conclusions were correct then and even more so now. Namely as a result of the laws of nature, input less output equal net accumulation. Simply eat more than you burn and you get fat, genes notwithstanding.

The discussion continues:

The researchers speculate that there may be other genetic deletions or mutations that increase the chance of obesity in certain people. Their aim is to use the latest research to develop tests to find the best way to treat morbidly obese people with mutated or missing DNA.

Commenting on the findings, Imperial College London's Professor Philippe Froguel said: 'Although the recent rise in obesity in the developed world is down to an unhealthy environment, with an abundance of unhealthy food and many people taking very little exercise, the difference in the way people respond to this environment is often genetic.'

How is it genetic for people to willingly eat more than they should. If it were illegal to have a BMI over 25 and one would be jailed than would that solve the problem? Why were the average BMI seventy years ago below 20! It is food, and lack of will power and not genes. The gene pool has not changed, much if at all. What has changed is that food in most western and advanced countries is cheap relative to incomes and it becomes a simple alternative to other "pleasures".

The writers end with:

The researchers now hope that the results of the study may be used to identify genetic influences on other diseases such as type 2 diabetes.

Well as we had written before, there is a causality between the two. Obesity is a major causative agent of Type 2 Diabetes. Yes there are a few who have a Type 2 Diabetes and who are not obese, those are the ones we should be focusing our attention on, for that is a disease not a life style choice.

[Eureka](#) also presents some recent research on the same topic:

Researchers at the University of California, San Diego School of Medicine and Rady Children's Hospital-San Diego say an evolutionary gene mutation that occurred in humans millions of years ago and our subsequent inability to produce a specific kind of sialic acid molecule appears to make people more vulnerable to developing type 2 diabetes, especially if they're overweight...The findings are published in the Feb. 24 online edition of The FASEB Journal, a publication of the Federation of American Societies of Experimental Biology...Corresponding study author, Jane J. Kim, an assistant professor in the UCSD Department of Pediatrics, a member of the Pediatric Diabetes Research Center and Rady Children's Hospital-San Diego, said the findings represent the first documented evidence linking the non-human sialic acid production to insulin and glucose metabolism problems associated with diabetes.

But we have argued in our monograph that based upon a plethora of prior research the obesity sets up an inflammatory response that appears to send out molecules binding to ligands that give rise to insulin suppression.

The authors continue:

*Sialic acids are molecules found on the surfaces of all animal cells, where they act as vital contact points for interaction with other cells and with their surrounding environment. All mammals studied to date produce two types: N-acetylneuraminic acid (Neu5Ac) and N-glycolylneuraminic acid (Neu5Gc)...Humans are an exception. For reasons lost in the mists of evolution, a mutation in a gene called CMAH occurred about 2 to 3 million years ago, inactivating an enzyme in humans that catalyzes production of Neu5Gc by adding a single oxygen atom to Neu5Ac. ...They then developed a mouse model with a human-like defect in the CMAH gene...Kim's group compared mice with a functional CMAH gene to mice with a human-like mutation in CMAH. **Both groups of mice were fed a high-fat diet. Mice in both groups became obese and developed insulin resistance. However, only mice with the CMAH gene mutation experienced pancreatic beta cell failure.** Pancreatic beta cells normally make and release insulin, a hormone that controls blood sugar level...Kim said the findings help refine understanding of **why obese humans appear to be particularly vulnerable to type 2 diabetes**, and also suggest that current animal models used to study diabetes may not accurately mirror the human condition. In clinical terms, she said further research to determine how sialic acid composition affects pancreatic beta cell function may reveal new strategies to preserve the cells, improve insulin production and prevent diabetes.*

The key observations in the above are:

1. The mice had to get fat first.
2. Lacking the gene the fat mice got Type 2 Diabetes.

Although not confirmatory it is supporting that there is a causal relationship. Apparently without the gene the mice still had to get fat!

Labels: [Health Care](#)

THURSDAY, FEBRUARY 24, 2011

[TEACHING HEALTH CARE POLICY](#)



There was a recent article in [NEJM](#) advocating the teaching of health care policy in medical school. The authors are apparently medical school students at Harvard for the begin by stating:

During our first year of medical school, we were fortunate to benefit from a comprehensive and mandatory 40-hour course on health policy. However, our conversations with peers at other medical schools made it clear that this was not a common experience. Given the importance of the subject, particularly in the context of the contentious and continuing debates over health care reform, we were curious to learn more about the current state of health policy education. Although many have brought attention to this field's increasing importance in medical education, surprisingly little is known about how exactly health policy is taught in medical schools.

Policy, health care or otherwise, is quite complex. The problem is that in today's market almost anyone can discuss policy despite the fact that they know nothing. To discuss policy intelligently one must have the knowledge of:

1. The Field: In this case one must know and have experience in the medical field. It helps to be educated in the field and it helps to have some daily or at least periodic exposure at more than the patient level.
2. Financial Competence: This means that one understands in detail what costs are, what drives costs and revenue, how to model these elements to both analyze and predict current and future costs. This is not economics. Frankly economists are clueless here, their methods are of little if any use. One must understand the facts, the financial facts, as if one were running the business.

3. Systems Knowledge: The delivery of any product or service is not done in a vacuum. It is a system with linkages and one must have a systems knowledge and not look at this in isolation.

4. Regulatory Understanding: One cannot approach healthcare without understanding the law, Washington, the states, and a plethora of other political factors. One should have some experience in Washington, or some similar state venue and not just think the law if the law. The sausage factory of the Hill must be understood at a visceral level based upon proximate experience and involvement.

These are just four of the essential prerequisites for starting out on policy. Lacking these the student will just listen and accept. The problem is that policy is always done in an adversarial world with varying world views. The Progressives versus the Conservatives versus the Libertarians versus the Individualists. It is extremely naive to assume that you can "learn" policy devoid of that sense of adversarial involvement. You do not just listen to some biased professor, you must challenge, because in the real world that is what is done. One must ask why, not just what and how.

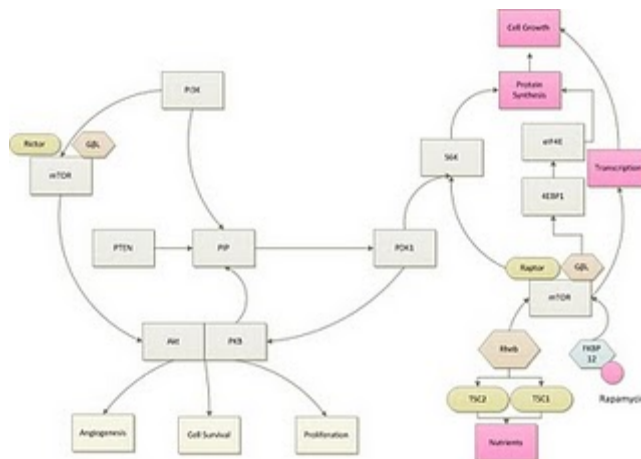
They conclude:

In order to provide comprehensive care for patients and effectively participate in health care reform, the medical community must be literate in health policy. Medical schools would never grant degrees without guaranteeing proficiency in the basic sciences and clinical skills. Similarly, health policy literacy should no longer be considered an ancillary skill, but rather a core competency of a 21st-century physician.

Is it essential for physicians to understand health care policy? For some yes, for many, they just will never have the predilection to deal with the challenge. It is essential for physicians to participate, but given the practicing physicians already overloaded schedule, this may be just a bit too much.

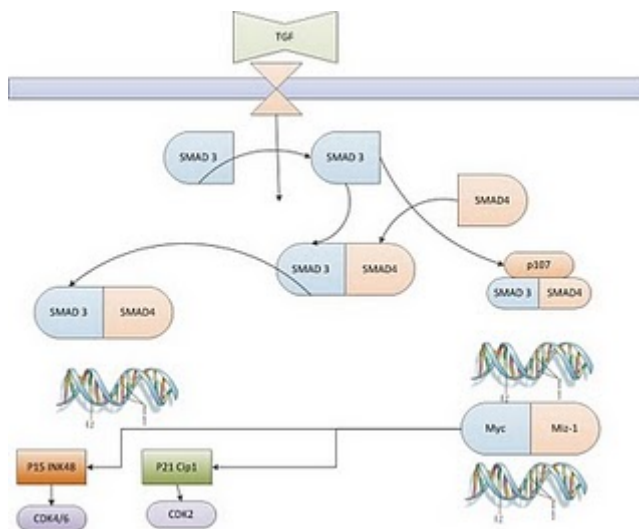
Labels: [Health Care](#)

SOME OBSERVATIONS ON THE NEW GENOMICS FOR CANCER SCREENING



There has been a flurry recently about many entities trying to promote gene testing to ascertain cancer growth and staging. The classic one is the determining of whether a detected prostate cancer is indolent or not. A recent one describes a test by some [Dana Farber scientists](#) who are targeting certain genes. The article from [Xconomy](#) in Boston states:

...studied the roles of specific genes—including cyclin D1, SPP1, PTEN, and SMAD4—in both mouse models of prostate cancer and tissue samples from human patients with the disease, finding that the four genes were predictors of lethal tumors that are hardwired to spread to other organs in the body



Now there are several concerns that one may have about such a statement:

1. PTEN is lost after the cell has lost its ability to control the Akt pathway. Namely it is lost late in the game.

2. Cancer Stem Cell theory may apply to the prostate and thus one should be looking at stem cells only since that cell controls the entire process.

3. One should, nay must, understand the pathways involved. Not just the products.

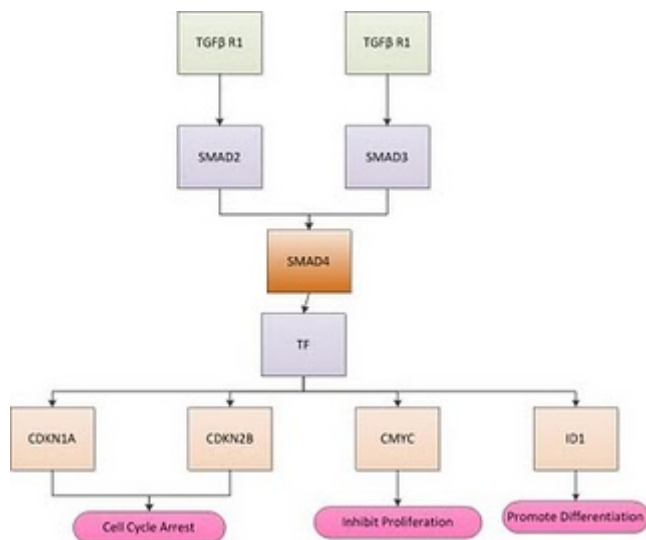
4. Every cancer is most likely a little different. Some pathways are blocked and lost and some are altered.

5. The epigenetic factors of miRNA and methylation also add a dimension of complexity to the pathways as aberrant factors.

6. Sampling can be done or should be done on a cell by cell basis, not just on the gross tumor. By doing tumor sampling we get too much noise.

7. After understanding the pathways, we should examine the tumor cells and then from that do a system identification to determine the specific pathway changes and then from that ascertain the aggressiveness of the tumor.

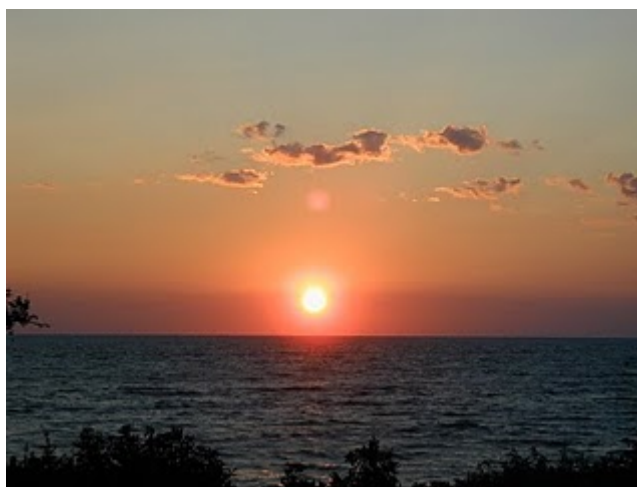
In conclusion, we are perhaps 5-10 years too early to deliver reliable tests.



Labels: [Cancer](#)

SUNDAY, FEBRUARY 20, 2011

[THE SUN: THE NEXT CRISIS?](#)



The [FT reports](#) that a group of scientists are now predicting a \$2 trillion cost to the next sun cycle and its crisis. You see the sun has an eleven year cycle of dormant versus active and we are slowly approaching the active cycle. Yet as any radio license holder know we always anticipate the active cycle since it enables long distance radio propagation. Yet despite the anticipation by amateur radio folks the FT states:

The sun is waking up from a long quiet spell. Last week it sent out the strongest flare for four years – and scientists are warning that earth should prepare for an intense electromagnetic storm that, in the worst case, could be a “global Katrina” costing the world economy \$2,000bn.

If we were not terrified of global warming, cooling, population bombs, we now have sun spots. They continue:

It caused some radio communications problems and minor disruption of civil aviation as airlines routed flights away from the polar regions, said Dr Lubchenco...A more extreme storm can shut down communications satellites for many hours – or even cause permanent damage to their components. On the ground, the intense magnetic fluctuations can induce surges in power lines, leading to grid failures such as the one that blacked out the whole of Quebec in 1989.

Frankly guys the ARRL and other radio Hams await the cycle, it allows for extensive long distance communications and as one who designed satellites for a living, Intelsat V for example, I find the fear that satellites will get messed up as a design flaw on the part of the designer! These things have been happening forever! No surprise.

One just wonders if these are just ploys to get me funding at a true time of financial concern.
Labels: [Space](#)

THURSDAY, FEBRUARY 17, 2011

[VISAS AND QUOTAS](#)

[Jeff Miron](#) posted a blog regarding the paucity H1B visas. He states:

None of the standard concerns regarding crime, welfare uptake, or failure to assimilate (as exaggerated as these are in general) can plausibly apply to this group; instead, these potential immigrants bring much needed talent in science, engineering, and finance. Why are we discouraging such immigration?

Having spent more than five years with my doctoral students at MIT, after their PhDs being funded by the US Government, and finally getting some H1Bs, the reason is simple, it is in my opinion the unions. They have allegedly lobbied so strongly in favor of limiting the visas so that they allegedly can ultimately try and unionize technical labor.

If you want to kill the United States there is just one thing you can do that will be certain, unionize the entrepreneur! What moron would ever do that? In my opinion and based upon my experience the unions would and are allegedly doing so via their malignant limitations of H1B visas. Walk the halls of DC and you hear this talk all the time. Listen to the chuckles of the union bosses and you may be able to hear it as well. In a perverse way, in my opinion the unions and their alleged attacks on H1B Visas are performing acts more malignant to the survival of our country than any enemy one could ever think of. We educate Chinese and then send them back to China where they produce. They create value there at the costs here! Why, because in my view the unions want control.

This will just continue to get worse in my opinion as we see the current Administration progress.
Labels: [Education](#)

THURSDAY, FEBRUARY 17, 2011

BROADBAND AGAIN

The [NY Times](#) had a piece today regarding the alleged lack of rural broadband. As usual the replies were almost all in favor of some magic hand delivering broadband to rural areas. As if there were no law of economics at play.

I was especially amazed at some alleged technical person who moved to Jaffrey, NH to be in the country and bemoaned the lack of broadband. The writer of the reply in Jaffrey states:

I live in southwestern New Hampshire. We built our home 6 years ago. Last month we finally got DSL. Before this we paid \$70 a month for hughes net service which was terrible and incredibly weather dependent. Not having high speed internet made my job very difficult as I was a telecommuter for a long time. It also made the work of a non-profit I was involved with very hard. A small non-profit really benefits from on-line services since we don't have full time staff and office space. Cloud based technology is wonderful for organizations like this. But try managing your donor database on a slow dial up, or satellite connection. It's horrible.

Now as anyone who has followed this Blog knows, I spent five years trying to get fiber to these towns. The problem, the town! Trying to get a franchise from a New Hampshire town is akin to pulling hen's teeth. Five years and zero franchise. Between town leaders who object to everything and Comcast and its ilk, you get no where. So to start this writer to the Times should get their facts straight. Take a look at our [Jaffrey proposal](#) from 2003, yes 2003, since we never managed a franchise. We battled in Hanover, Peterborough, and the list goes on. No luck.

Besides, where does this person think the money comes from, the current President, not really, it comes from taxing those who are already paying. One makes choices and those choices have benefits and costs. Pay the cost if you want it, and stop driving away those willing to solve your problem.

Labels: [Broadband](#)

TUESDAY, FEBRUARY 15, 2011

[IMAGINE IF WASHINGTON JUST CLOSED FOR BUSINESS](#)

Imagine for a brief moment that Washington just for a brief few moments closed its doors and went away, far away. What would happen. A thought experiment if you will, an out of body experience where we look at all the rest which comprises this great country except anything inside the 495 beltway just kind of disappears. What would really happen. Nothing personal, no politics intended, just one of those Einsteinian experiments.

Now the [Hill](#) recounts a news flash about the current President and the current House.

"If the president is presented with a bill that undermines critical priorities or national security through funding levels or restrictions, contains earmarks or curtails the drivers of long-term economic growth and job creation while continuing to burden future generations with deficits, the president will veto the bill," the statement said.

How surprising! We have dramatically opposing views and then it continues:

The White House said the cuts in the GOP plan "will undermine our ability to out-educate, out-build, and out-innovate the rest of the world."

Well frankly it is they collection of counter forces inside 495 that may most likely undermine all those good things. Entrepreneurs always find ways around, over, or through obstacles. I know, I have done it. In 20+ countries. And yes, oftentimes the US was the most difficult. The Czech Republic was great, Greece was impossible, Russia actually works if you know how, and the tales go on. But all too often we have this view based on some reality devoid of any true facts and experience. Than God they moved the capitol from New York to that swamp on the Potomac.

Labels: [Economics](#)

[THE RISKS OF BROADBAND: BE CAREFUL WHAT YOU ASK FOR](#)

There is an article in a [Wisconsin paper](#) indicating that the state is returning money to the Feds on the Broadband handout. They read the fine print. I went through the same some six years ago, but I had a loan, and liability was limited, the grants, the handouts, have strings that may go back to the creation.

As the article states:

State officials are returning \$23 million to the federal government, saying there were too many strings attached to stimulus money that was supposed to be for expanding high-speed Internet service in schools, libraries and government agencies.

The money was to have boosted broadband connections in 380 Wisconsin communities, including 385 libraries and 82 schools. It also could have been used to improve police, fire department and hospital communications in rural areas.

But state taxpayers would have been on the hook for the entire \$23 million if the state could not meet the grant's precise requirements, Mike Huebsch, secretary of the state Department of Administration, said in a memo to school and library associations.

"This is simply not an acceptable risk," Huebsch wrote.

This was a wise decision. Many of the recipients have no assets so the remedy is limited. But those with assets can see them all go away, not to mention finding themselves under the Feds examination for a long time. Many people saw this as a pure gift, but it is not really that, and some of the "winners" may eventually become big losers. I recall many a conversation looking at the details and seeing that under the covers was some nasty stuff.

Wisconsin was very smart to take this position. Others may have more hubris than brains.

Labels: [Broadband](#)

THE FUTURE OF THE BOOKSTORE

The [Christian Science Monitor](#) has a brief on the pending failure of Borders. The now classic big box book store has allegedly been smashed by E books. I wonder.

They state:

Borders is the third largest bookstore chain in the US, one of the original big box superstores that offered consumers thousands of books and music CDs in a single location....In addition to changing the way Americans shop for and read books, Amazon and e-books also undersell Borders' traditional bricks-and-mortar offerings, a double-whammy to the original big box superstore that once led the market....One possible upside? The demise of superstore booksellers could revitalize the neighborhood bookstore.

Let's look a bit at this.

1. I do not read E books, mainly because I use books to create not to just enjoy. I have not read a novel in a decade at least, yet read at least 400-500 books, in pieces, per year. Many are electronic but I need a markable copy. Electronic books are essential, and unfortunately the old books scanned in by Google in pdf are not readable or searchable pdf, real pity. But many of what I have are, and when I place a work in progress on line it is searchable pdf.

2. I get most new books from Amazon, almost all, and frankly a lot more recently. This past year has been a big jump. Remember to pay your sales taxes. I do. But that means also that Amazon sells milk as well as books, and lawnmowers as well as magazines. What will that do to say Home Depot as well as Borders.

3. I get most old books from ABEBooks, a great source to find the oldies. There are of course others.

4. I visit the used book stores, you never know what you may find. It let's you see things you have not even thought of, I wrote a whole book on the early 7th century from stumbling on a paperback in a great bookstore in Henniker, NH.

5. Local bookstores with new books are often rare as hen's teeth, just look at Harvard Square, it was once filled with them. Yet a few remain, there is a good one in Princeton.

6. Academic books are a menace to the economy. Why in God's name do we need a new edition of an economics book as touted by my second favorite economist from Cambridge. What has changed, they are still ignorant of how the economy works, so why issue a new edition, use Keynes, at least you are at the source, and frankly not much has changed. There should be no need for 30 pound college and high school texts.

So what is the future of a Borders, probably not much, they were a deer in the head lights. Pity.
Labels: [Books](#)

MONDAY, FEBRUARY 14, 2011

THE UNEMPLOYED: BELIEVE ME OR YOUR LYING EYES!

My [favorite New Jersey economist](#) has a posting regarding unemployment and he states that there really is no structural change, namely it is uniform. He states:

....that unemployment is about shifting workers out of construction. As Larry points out, the BLS provides data on the previous employment of the unemployed. There were 7.7 million more unemployed workers in 2010 than there were in 2007; of those extra 7.7 million, only 1.1 million had previously been employed in construction.

However as we have been showing for the past two years, using 2005 as a baseline we see a major shift in employment from manufacturing and construction and the private sector in general to government supported and government only employment. Just look at our monthly analyses for the past two years plus. The issue is employment not unemployment.

Oh well, I am just an engineer by training, I get so messed up with facts!

Labels: [Economics](#), [Economy](#)

COLLEGE COSTS: SUPPLY AND DEMAND A MONETRAY VIEW

As many know the costs of college has been exploding beyond any other inflationary costs in our economy. I read a book recently entitled [Why Does College Cost so Much](#), by Archibald and Feldman, two academic economists and I saw many reasons, not one described by the authors, but by the fact that the authors were clueless of why. The book is filled with poorly drawn Excel slides and for the most part the slides are comparing apples to oranges. In addition the authors present an argument of costs without ever discussing costs, a trick that would never work in the real world. Ah, academics and ones at a state school at that.

Now to the monetary policy issue. In today's [NY Times](#) they recount the proposal of the new Budget wherein Pell Grants should be cut back.

Pell grants for needy college students would be eliminated for summer classes, and graduate students would start accruing interest immediately on federal loans, though they would not have to pay until after they graduate; both changes are intended to help save \$100 billion over 10 years to offset the costs of maintaining Pell grants for 9 million students, according to administration officials.

Now frankly if all Government support were to be eliminated then schools would have to drop the price to meet the demand, a dramatically reduced demand. The Government has a mini monetary policy of pumping cash into secondary education which in effect is inflating its costs but in an insidious manner. There is almost \$2 trillion in debt for schools and growing. That is above and beyond the Government debt. When we look at comparing country debts we should for the US include all debt on a pari passu basis and thus if we look to compare ourselves to Greece we must add Federal, State and Student debts, thus seeing a total well in excess of \$20 trillion! That is we have already outdone Greece in debt!

The college debt is a real problem since it is burdening future generations with costs which in no way reflect the value delivered. What good is a fine arts degree in today's world, unless you are from an independently wealthy family and already have a secure future. Then again with all the Government loans flowing around, this just drives up the costs, with academic overhead and waste also exploding. Thus the Government should tighten the belt even more. That may help all around.

Labels: [Education](#)

SATURDAY, FEBRUARY 12, 2011

[SOME THOUGHTS FROM BRANDEIS ON BANKS AND BANKERS](#)

It is always worth a read from Brandeis; [Other People's Money](#):

BANKER AND BROKER

The business of the investment banker must not be confused with that of the bond and stock broker. The two are often combined; but the functions are essentially different.

The broker performs a very limited service. He has properly nothing to do with the original issue of securities, nor with their introduction into the market. He merely negotiates a purchase or sale as agent for another under specific orders.

He exercises no discretion, except in the method of bringing buyer and seller together, or of executing orders. For his humble service he receives a moderate compensation, a commission, usually one-eighth of one per cent. (12 ½ cents for each \$100) on the par value of the security sold. The investment banker also is a mere middleman. But he is a principal, not an agent.

He is also a merchant in bonds and stocks. The compensation received for his part in the transaction is in many cases more accurately described as profit than as commission. So far as concerns new issues of government, state and municipal bonds, especially, he acts as merchant, buying and selling securities on his own behalf; buying commonly at wholesale from the maker and selling at retail to the investors; taking the merchant's risk and the merchant's profits.

On purchases of corporate securities the profits are often very large; but even a large profit may be entirely proper; for when the banker's services are needed and are properly performed, they are of great value. On purchases of government, state and municipal securities the profit is usually smaller; but even a very small profit cannot be justified, if unnecessary.

HOW THE BANKER CAN SERVE

The banker's services include three distinct functions, and only three:

First: Specifically as expert. The investment banker has the responsibility of the ordinary retailer to sell only that merchandise which is good of its kind. But his responsibility in this respect is unusually heavy, because he deals in an article on which a great majority of his customers are unable, themselves, to pass intelligent judgment without aid. The purchase by the investor of most corporate securities is little better than a gamble, where he fails to get the advice of some one who has investigated the security thoroughly as the banker should. For few investors have the time, the facilities, or the ability to investigate properly the value of corporate securities.

Second: Specifically as distributor. The banker performs an all-important service in providing an outlet for securities. His connections enable him to reach possible buyers quickly. And goodwill—that is, possession of the confidence of regular customers—enables him to effect sales where the maker of the security might utterly fail to find a market.

Third: Specifically as jobber or retailer. The investment banker, like other merchants, carries his stock in trade until it can be marketed. In this he performs a service which is often of great value to the maker. Needed cash is obtained immediately, because the whole issue of securities can thus be disposed of by a single transaction. And even where there is not immediate payment, the knowledge that the money will be provided when needed is often of paramount importance. By carrying securities in stock, the banker performs a service also to investors, who are thereby enabled to buy securities at such times as they desire.

Whenever makers of securities or investors require all or any of these three services, the investment banker is needed, and payment of compensation to him is proper. Where there is no such need, the banker is clearly superfluous. And in respect to the original issue of many of our state and municipal bonds, and of some corporate securities, no such need exists.

WHERE THE BANKER SERVES NOT

It needs no banker experts in value to tell us that bonds of Massachusetts or New York, of Boston, Philadelphia or Baltimore and of scores of lesser American cities, are safe investments. The basic financial facts in regard to such bonds are a part of the common knowledge of many

American investors; and, certainly, of most possible investors who reside in the particular state or city whose bonds are in question.

Where the financial facts are not generally known, they are so simple, that they can be easily summarized and understood by any prospective investor without interpretation by an expert. Bankers often employ, before purchasing securities, their own accountants to verify the statements supplied by the makers of the security, and use these accountants' certificates as an aid in selling. States and municipalities, the makers of the securities, might for the same purpose employ independent public accountants of high reputation, who would give their certificates for use in marketing the securities. Investors could also be assured without banker-aid that the basic legal conditions are sound. Bankers, before purchasing an issue of securities, customarily obtain from their own counsel an opinion as to its legality, which investors are invited to examine.

It would answer the same purpose, if states and municipalities should supplement the opinion of their legal representatives by that of independent counsel of recognized professional standing, who would certify to the legality of the issue.

Labels: [Economy](#)

THURSDAY, FEBRUARY 10, 2011

INDIVIDUALISM AND HAYEK

As some readers may have seen I am a believer in the political philosophy of individualism, not a libertarian, but an individualist. I ran across the on line version of [Hayek's book](#) on the same, and thought it worth a comment.

As Hayek begins:

*The true individualism which I shall try to defend began its modern development with John Locke, and particularly with Bernard Mandeville and David Hume, and achieved full stature for the first time in the work of Josiah Tucker, Adam Ferguson, and Adam Smith and in that of their great contemporary, Edmund Burke-the man whom Smith described as the only person he ever knew who thought on economic subjects exactly as he did without any previous communication having passed between them. In the nineteenth century I find it represented most perfectly in the work of two of its greatest historians and political philosophers: **Alexis de Tocqueville and Lord Acton**. These two men seem to me to have more successfully developed what was best in the political philosophy of the Scottish philosophers, Burke, and the English Whigs than any other writers I know; while the classical economists of the nineteenth century, or at least the Benthamites or philosophical radicals among them, came increasingly under the influence of another kind of individualism of different origin.*

He continues:

*I can give no better illustration of the prevailing confusion about the meaning of individualism than the fact that the man who to me seems to be one of the greatest representatives of true individualism, Edmund Burke, is commonly (and rightly) represented as the main opponent of the so-called "individualism" of Rousseau, whose theories he feared would rapidly dissolve the commonwealth "into the dust and powder of individuality,"⁴ and that the term "individualism" itself was first introduced into the English language through the translation of one of the works of another of the great representatives of true individualism, De Tocqueville, who uses it in his *Democracy in America* to describe an attitude which he deplores and rejects.*

Now there are times that one finds Burke to be anything but an individualist, since he is so tightly bound to the English class structure. Then Hayek states:

*What, then, are the essential characteristics of true individualism? The first thing that should be said is that **it is primarily a theory of society**, an attempt to understand the forces which determine the social life of man, and only in the second instance a set of political maxims derived from this view of society. This fact should by itself be sufficient to refute the silliest of the common misunderstandings: the belief that individualism postulates (or bases its arguments on the assumption of) the existence of isolated or self-contained individuals, instead of starting from men whose whole nature and character is determined by their existence in society*

He then continues:

*I cannot better illustrate the contrast in which Cartesian or rationalistic "individualism" stands to this view than by quoting a famous passage from Part II of the *Discourse on Method*. Descartes argues that **"there is seldom so much perfection in works composed of many separate parts, upon which different hands had been employed, as in those completed by a single master."** He then goes on to suggest (after, significantly, quoting the **instance of the engineer drawing up his plans**) that **"those nations which, starting from a semi-barbarous state and advancing to civilization by slow degrees, have had their laws successively determined, and, as it were, forced upon them simply by experience of the hurtfulness of particular crimes and disputes, would by this process come to be possessed of less perfect institutions than those which, from the commencement of their association as communities, have followed the appointment of some wise legislator."***

Needless to say this is Hayek, never quite clear and direct, always bringing to the fore issue which are tangential at best. Understanding his individualism can be painful.

Labels: [Political Analysis](#)

WEDNESDAY, FEBRUARY 9, 2011

[UNLIMITED MOBILE TO MOBILE CALLING: IT'S THE FCC NOT MONOPOLY](#)

I am amazed by the lack of understanding on the part of some folks. In [Public Knowledge](#) there is a young man who states that the existence of free wireless to wireless calls is a sign that there is no competition. He states:

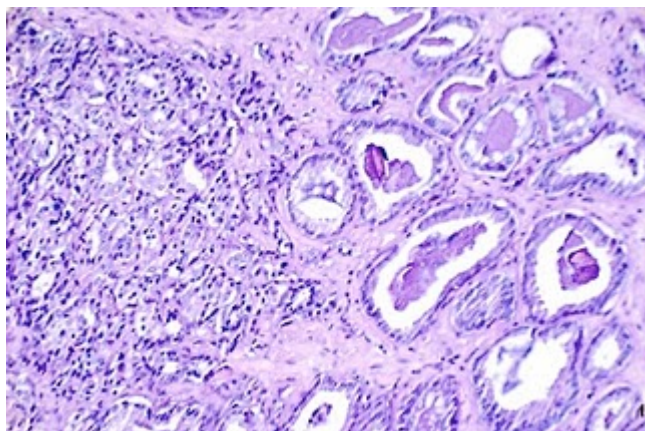
Today AT&T announced that it was offering a new feature to some of its subscribers: unlimited calling to any mobile number. This comes after the news that they were also offering free microcells (little boxes that boost reception in your home) to some iPhone users, and that Verizon was offering unlimited wireless data to its own iPhone subscribers. Why is this flood of enticements evidence that there is not very much competition between wireless companies?

He then goes on to explain what is not the real explanation. The fact is that the FCC has forced interconnection and access fees for fixed carriers whereas it never managed to mess up mobile that way, yet.

You see [I wrote of this](#) almost twenty years ago. I think I did this almost a dozen times in different venues. The issue is simple, it is the same as the Tier 1 Internet backbone players, they peer, they share traffic so the cost is balanced. The free market plays a role and when it does the consumer benefits. Here is a classic case of consumer benefit. I tried to do this in the early 1990s and the FCC tried to block me. Fortunately they got side tracked on PCS auctions and managed to screw that up with the Next Wave give away. But alas I digress. This is the free market and competition and not the lack of it, read the history young man, it may tell you something.

Labels: [Wireless](#)

[PROSTATE GENES AND CAUSE AND EFFECT](#)



The recent [Nature](#) paper elucidating the changes in patient's genes with prostate cancer is interesting. We have recently made some comments but believe that a few more are of note.

The authors note:

Here we present the complete sequence of seven primary human prostate cancers and their paired normal counterparts. Several tumours contained complex chains of balanced (that is, 'copy-neutral') rearrangements that occurred within or adjacent to known cancer genes. Rearrangement breakpoints were enriched near open chromatin, androgen receptor and ERG DNA binding sites in the setting of the ETS gene fusion TMPRSS2-ERG, but inversely correlated with these regions in tumours lacking ETS fusions. This observation suggests a link between

chromatin or transcriptional regulation and the genesis of genomic aberrations. Three tumours contained rearrangements that disrupted CADM2, and four harboured events disrupting either PTEN (unbalanced events), a prostate tumour suppressor, or MAGI2 (balanced events), a PTENinteracting protein not previously implicated in prostate tumorigenesis. Thus, genomic rearrangements may arise from transcriptional or chromatin aberrancies and engage prostate tumorigenic mechanisms.

Thus, besides the now well known PTEN deletion or suppression and fusion of TMPRSS2 and ERG, we have CADM2 and MAGI2. The details on the seven patients lays out a complex and varied pattern of genetic changes. There remains the following questions:

1. Cancer Stem Cells, CSC, are often viewed as the cope element of a cancer. If so do we have such in PCa and if so then what cells are we measuring gene changes in?
2. Pathways are key structure to understand causal relationships in cancer. We know PTEN and TMPRSS1-ERG fusion pathway effects but the complexity of other expressed genes if not as well known. We would argue that it will be necessary to understand the details of the pathways and that to effectively do so we will need hundreds of such detailed samples.
3. What causes the changes. What is the chicken and what is the egg? This will be a critical factor. Is there a sequence here that is followed or is there just random evolution of changes, and due to what?
4. What are random effects or secondary effects versus causal effects.
5. There was some methylation involved and one may ask if this is due to inflammation effects.
6. How did these gene changes change by cell type. Foe example if the patients had Gleason 7 or higher, then we had a mix of Gleason 2, 3, 4, and 5 cell clusters and if we had selected cells from each of those clusters how did the gene profile vary. Then is there a temporal progression as we go across the cells. This may elucidate the progression analysis.

This is an interesting first step but like so many reports it is exaggerated in the press.

All of the tumors sequenced so far have been from patients with high-risk tumors, so the team is not yet able to differentiate between aggressive and benign tumors. "It may well be that indolent tumors have much quieter genomes," Garraway said. "It raises the intriguing possibility that, if we were to apply this more widely, given the richness of the patterns we are seeing, there might be features we could sort out that would tell us [which tumors] are going to remain quiet and which are going to be bad actors."

These are useful results but for but seven patients and what appears to be based upon a collective of cells. It does raise the question that one may ask, namely, is prostate cancer, and most likely most cancers, really a collection of disparate genetic perturbations, or is there a core set of patterns and sequences that lead to understanding.

The main problem with many of these recent results is the proliferation of press articles which oftentimes state much more than the results, albeit useful and insightful results, bring to clarify our understanding.

The issues are all too often; what, when, and why. This in many ways adds to the what, the first of many questions. The when is a sequenced and networks set of answers which are in my opinion truly informative, and the why then leads to the ability to control, namely stop and reverse.

As [one of the authors](#) is quoted as saying:

"With additional studies and as we sequence more prostate cancer genomes, we may be able to distinguish benign from more aggressive prostate cancers and prevent unnecessary surgeries and treatments,"

However, it can be argued that what has been determined is the what of seven patients, useful, but a first step, of many. We have argued that what is required is a model for the controlling networks, one which shows critical paths and in turn what causes the path to diverge. For example, why did we get the PTN changes, what caused it to occur. We have outlined these in a [first draft of our recent work](#) on prostate cancer. As we have argued one must have a systems approach to this problem. Prostate cancer however is a rich area to work, mainly because of this very problem, namely the diversity of presentations, yet the similarity of result.

Take [Bloomberg](#) for example, they state:

A complete genetic map of prostate cancer has been charted for the first time by scientists, an achievement that may expand understanding of the disease and lead to new treatments.

Scientists looked at seven kinds of prostate tumors, using a technology that allowed them to sequence the full genetic plan, and compared them to sequences from normal tissue samples, in a study published in the journal Nature. The work was led by researchers from the Broad Institute of Harvard and the Massachusetts Institute of Technology in Cambridge, Massachusetts and Dana-Farber Cancer Institute in Boston.

This is frankly wrong. There complete map of prostate cancer was not charted. It was the gene mapping of seven patient each show substantial variability and no significant consistency. They did not look at seven different kinds of prostate cancer, they looked at seven patients, and more than likely there may have been dozens of "kinds" of prostate cancer. As to the findings, well they are as off as the first two paragraphs.

One wonders what responsibility the researchers have for getting the story straight. How much do you have to know to see that albeit good work this is not what the Press spells it out to be.

Labels: [Cancer](#)

THE COPYRIGHT SYSTEM IN THE US

[Public Knowledge](#) has a superb report on the Copyright Office. For those of us who often wonder why Government is such a mess one need look no further than the Copyright Office, and from a left wing group at that.

As PK states:

After only two years of operation, the eCO program now has a backlog of approximately 6 months. This backlog is tremendously shorter than that for the paper filing process, which currently has a backlog of 22 months. These backlogs only apply to properly submitted applications. If the application is not organized correctly, or is incomplete, it is sent back to the applicant and must be resubmitted.

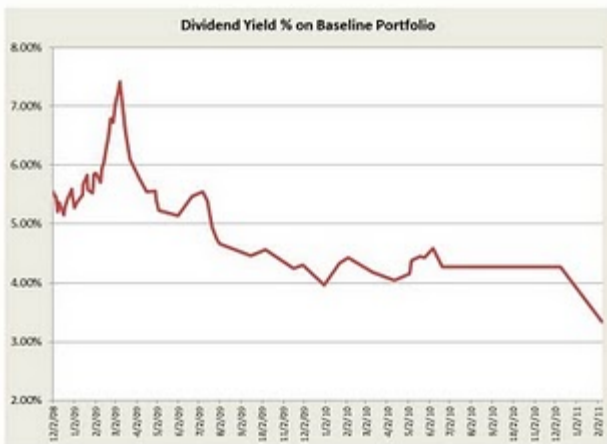
Yes, for any of you who have tried on line Copyright registration it is quicker to have 12th century monks transcribe your book on vellum than to get a copyright from the Government!
Good job PK!

Labels: [Books](#)

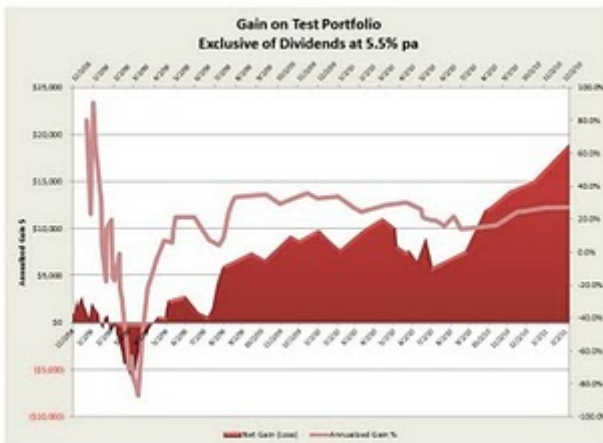
TUESDAY, FEBRUARY 8, 2011

BASELINE PORTFOLIO FEBRUARY 2011

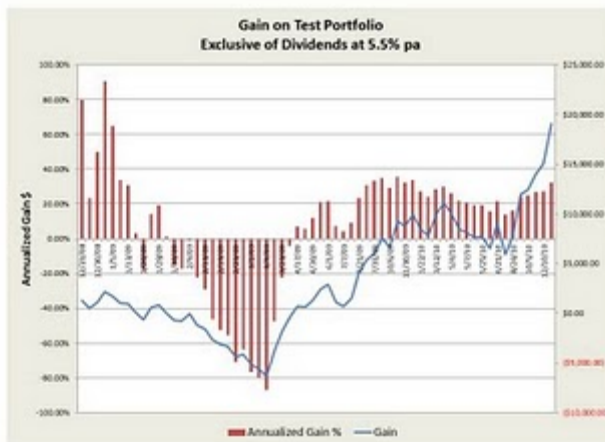
For over the past two years we have been tracking a baseline portfolio. It was in our belief a reasonable portfolio for the time and it yielded a 5.5% dividend yield at the time. Now we are down to a 3.2% dividend yield.



The above shows the decline in the effective dividend yield. It peaked in March of 2009 and then as the market improved it declined.



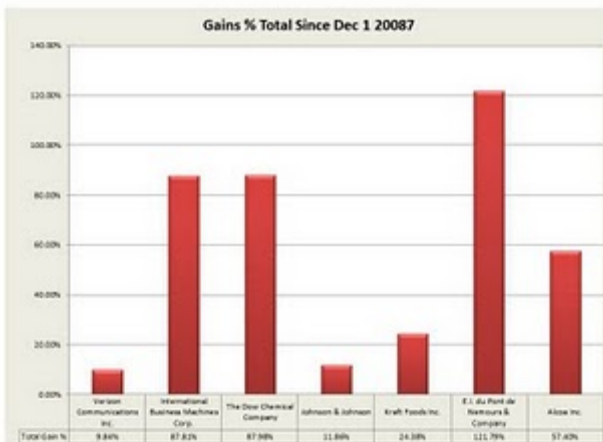
The above is the gain and percent gain over time. The market has been increasing at a rapid rate for the past year. We believe that amongst the stocks in this portfolio it is both a sign of recovery but also of inflation.



This is the same but a different view. We believe that the gains since March 2009 are reflective of the above two mentioned factors.



The above is the concern in that in the past few months we have seen less recovery and more inflation. One need look merely at the rates of increase with no down period.



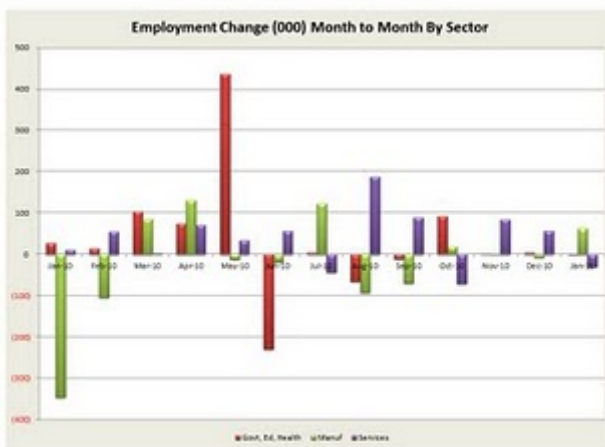
This is the total gain since December 2008 of each. Note IBM, Dow and DuPont are the greatest with Alcoa behind. Dow, DuPont and Alcoa are in effect commodity oriented and IBM is selling infrastructure support. Verizon has gone no where. It is not a commodity and it has stalled in price as has J&J as well as Kraft. Kraft is a value added processor and we have seen little intrinsic value. Verizon has added tremendous technology with no return. J&J is spot on in health care and has also stalled.

Labels: [Baseline Portfolio](#), [Economy](#)

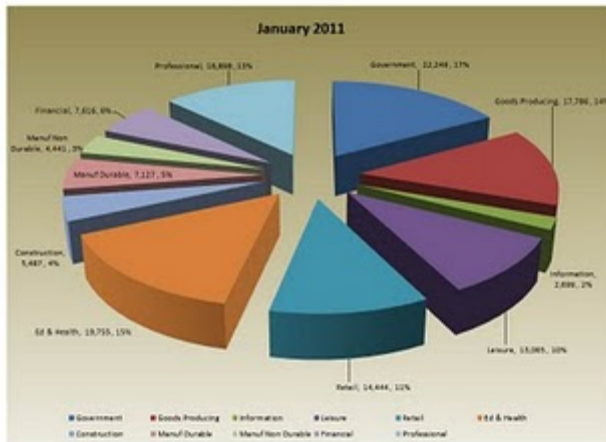
MONDAY, FEBRUARY 7, 2011

EMPLOYMENT DETAILS JANUARY 2011

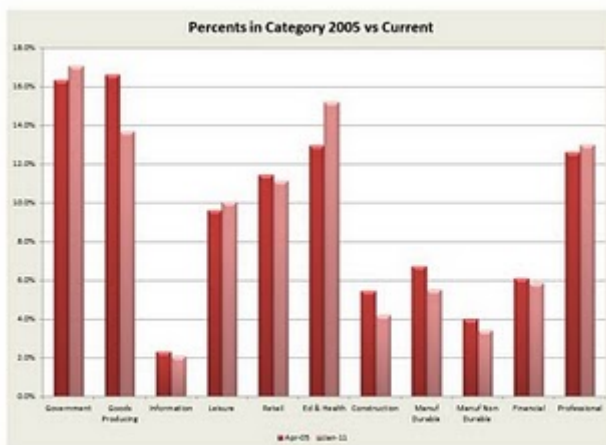
As we noted last week upon release of the employment stats the DoL has playing around with the numbers so frankly anything we do will be suspect. Garbage in garbage out. But here goes.



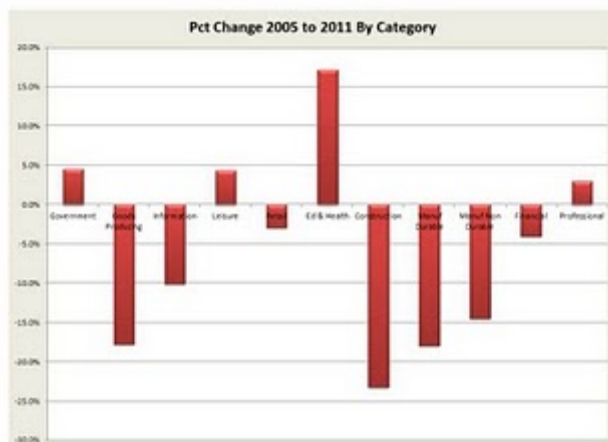
The above is a comparison by month of the change by the three major sectors on a month by month basis. One must also be careful because the DoL changes the numbers backwards for over a year with some complex smoothing algorithm which I would rather not explain. But last month we saw a growth in the manufacturing sector and a decline in services. The Govt and related sector seems to have remained constant.



The above shows the detail for January 2011 as to all major non farming sectors. We again should note the fact that a third of our economy is supported by the other two thirds. Also the third supported is paid twice what the two thirds supporting is. This imbalance must be remedied.



The above shows the percents by category comparing January 2005 to the present stats. Again the growth in the sectors which are Government related is clear. The goods producing and construction show the difference.



The changes by category from 2005 to present are shown above reaffirming what we have been saying.

Labels: [Economy](#)

[FCC, INTERNET AND UNIVERSAL SERVICE](#)

The [FCC Chairman](#) released a comment today seeking to dismantle the Universal Service Fund which in effect pays for Rural telephone companies, typically 250% of their profit, ie a subsidy. He states such things as:

Roughly one-third of Americans aren't online – that figure is under 10% in Singapore.

Has he ever been to Singapore, I have, it is an organized highly dense autocracy. This statement is like saying that 99% of the people have to walk more than 50 miles to get a subway! Yeah, yah think! Singapore is a city state, we in the US are a massive country! Still lots of trees.

He then focuses on the USF:

Today, I want to focus my remarks on this initiative to bring USF and the related Inter-carrier Compensation system into the 21st century.

Universal service has been at the core of the FCC's mission since the Communications Act of 1934 created the agency with the commitment to make vital communications services accessible to all Americans.

The program has helped connect virtually every American to our 20th century communications grid, first bringing basic telephone service to places where there was no economic case for service, and then extending the benefits of mobile phone service to more and more areas across the country.

Universal telephone service helped spur American success in the 20th century. Small business in our smallest towns suddenly had the country – and later the world – open up to them. Universal

service brought new life to Main Streets, driving commerce in all reaches of our land. And it strengthened communities, tying friends and families together.

In [1997 I wrote a paper](#) addressing just this issue. It is worth a re-read. I was opposed to the USB then and even more so now. It creates a cash flow for rural entities that in effect tax those in the cities so that those in the country can get near fee phone service but that the operators make tremendous profits in many cases!

He continues with the obligatory sob stories:

Americans like the 17-year-old girl in Alachua County, Florida who's doing her homework in the parking lot of the local library at night, because her family can't get broadband at home and the library's hot spot is her only option.

Americans like the residents of a rural community in Georgia that was being considered by a major airline as a site for a call center. Those jobs could have replaced some of the ones that left with the shuttered textile mill. But the airline eventually passed because the community didn't have adequate broadband access.

People make choices. They chose to live in rural areas, we manage Internet access to libraries and schools, but they resort to parking lots. I am certain there is a great deal more to that tale. I have seen towns in New Hampshire where people moved from New York because they want the solace and then complain that they cannot have 100 Mbps broadband at low prices! Where is the logic. People choose, they choose to live somewhere, they can choose differently, they can live where broadband is. We as a society do not have a duty to fund equality of access to those who made a personal choice which economically made the cost to them a higher one.

Labels: [Broadband](#), [FCC](#)

SUNDAY, FEBRUARY 6, 2011

[TO THE QUEEN OF HEARTS: CLUELESS](#)

In a reply to Prof Rajan one of the [left wing economists](#) states:

Spot commodity prices can't be forecast (EMH.) Spot commodity prices are highly correlated with the business cycle. Ergo, the business cycle cannot be forecast. Rajan's second point is exactly right. The other two are completely irrelevant. Someone please tell the Queen.

My father used to ask me when I arrived home late from a date on a Friday night when I was in secondary school, after some presenting him with some lame explanation: "What does the price of tea in China have to do with (my lame excuse)?"

This logic is worse than anything I could have attempted when a young teenager. We are not talking about the business cycle, we are talking about a profession which has no idea about

which they preach. Commodity prices are somewhat predictable, look at the old hog and corn cycle, one can watch leading indicators knowing what the inputs are to the process and then examining the demand equations which one also knows, then one can get a reasonable projection. Traders do that all the time, oil, metals, goods in general.

The observation that one should make here is that the totally unregulated hedge funds prospered! According to the anti-free market types like the above economists they should have collapsed. They did not. What did collapse were those with the Government at the hand of the tiller such as housing and sales to people who had no way of paying back.

The issue still stands, macro economists are apparently clueless when it comes to the economy. They are a bunch of political preachers who hide their political philosophy in a wad of equations. The problem is I wrote that book some 40-45 years ago. There are times I fell like Patton, looking at Rommel and saying, "I read your book!", but in my case I wrote the book. As such I know all too deeply its failings.

Labels: [Economics](#)

SATURDAY, FEBRUARY 5, 2011

[THE PROBLEM WITH ECONOMISTS](#)

I have read an interesting note today by [Prof Rajan](#) on what his view of the failings of economists is. He states:

I would argue that three factors largely explain our collective failure: specialization, the difficulty of forecasting, and the disengagement of much of the profession from the real world.

I would possibly offer another. Let me explain.

First, take physicians. In the field of medicine one can anticipate certain epidemics. For example, AIDS, a new and deadly form of a viral disease, at first catching everyone by surprise but eventually becoming an almost chronic disease. Take the monitoring of cholera in Haiti, H1N1 from China, the whole CDC structure was set up and works some what well on all fronts. Is there such an entity in economics, not even close, have there been cures such as polio, no way, how about monitoring outbreaks, not there. It is also not for want of data.

Second, look at engineers, civil engineers, they go out a inspect rotting bridges, like the Mianus Bridge in Connecticut which collapsed after many warnings, and there is a bridge on the Taconic over the Croton Reservoir which look rather weak, and the list goes on. There was the Tacoma Narrows but the civil engineers learned and made certain it would not happen again. The same applies across the engineering profession.

What is common in the professions that earn, adapt, monitor, warn, and fix the problems in their ken, well simple, they understand what the are talking about and deal with facts and take responsibility for the consequences.

So my alternative for the economists is perhaps that they have no clue what they are talking about. All the models and all the equations are for naught! Hey guys, it just does not work. Imagine having a CDC for economics, one would have thought it would have been the FED, no way, they most likely was part of the problem. It would like the CDC distributing TB bacillus free of charge to anyone eating at the local deli!

The truth may be close to this conjecture. It is not specialization, all professions have that. The difficulty of forecasting is just another way of saying you have no clue. Disengagement, that I find hard to believe given that every economist seems to have endless blogs telling everyone what they think. My favorite economist from just south of me here in New Jersey sends his words from Olympus several times a day. Did that do any good, and one would say he was engaged.

If medicine or engineering worked like economics we would all be dead from plague or crushed under collapsed bridges. Instead we are just broke. Thanks a lot guys!

Labels: [Economics](#)

[INTERNET USAGE BILLING](#)

There has always been the problem of billing in the telephone world and now in the Internet world. As one who has run phone companies I really hate billing, the costs are massive. You have to provide records of use, you get calls from irate customers, you need reconciliation and it adds 20-35% on the cost. I always suggested fixed fees and unlimited use since on the average we can predict the use to a fairly good number, on the average. So a few use little, they pay for if they want to and there are few hogs, there are always a few hogs.

Now in an [Ars Technica](#) piece they recount the changes in Canada. They will be billing by usage. The suggested fee is \$2 per GB per month. Now let us do a simple calculation:

1. There are about 2.5 million seconds in a month
2. There are 8 Billion bits per GB
3. That is an average data rate of 3 Mbps per month for \$2.
4. The ISP is most likely paying the Tier 1 carrier about \$20 per Mbps per month. So we have a deal already? No?

Somehow we have a problem here. But there is a bigger problem. If I download a Netflix like movie with say with an H.265 5Mbps 90 min movie I am downloading about 5000 seconds at 5Mbps or 25Gb or 3GB. Oops, that is already \$6!

Is this what they are proposing. Will I get real time billing or will I suddenly see a \$5000 bill unannounced appearing on my mailbox and have no recourse. I need itemized billing, and that in Internet space is a nightmare. How do I allocate it, by Google, by my blog, by my email. And all

that junk sent to me, how do I stop that, and not get billed, after all it is billed to both sender and receiver.

And if I have some allocation for work, how do I do that, if I have separate billable projects.

Then how do I correct billing errors!

Do they have any idea what they are getting into. I agree that there will have to be some usage billing but at the seller not the receiver. Let Netflix, if it is them, pay the carrier, which they do, and let me get billed accordingly! The alternative is a nightmare. But after all that is what we have politicians and the FCC for, to create just such nightmares.

Labels: [Internet](#), [Internet Neutrality](#)

[KEYNES AND THE FRENCH](#)

[Le Monde](#) had an interesting take on Keynes. Simple, direct and clear.

Le Monde pour le Monde.fr - Le 4 février 1936 était publié la Théorie générale de l'emploi, de l'intérêt de la monnaie, l'ouvrage majeur de l'économiste britannique John Maynard Keynes (1883-1946). Soixante-quinze ans après, l'économiste Jean-Marc Daniel, professeur associé à l'Ecole supérieure de commerce de Paris (ESCP), évoque l'influence d'un des ouvrages les plus importants du XXe siècle.

Le Monde : Quelles sont les idées-clef de la Théorie générale de Keynes ?

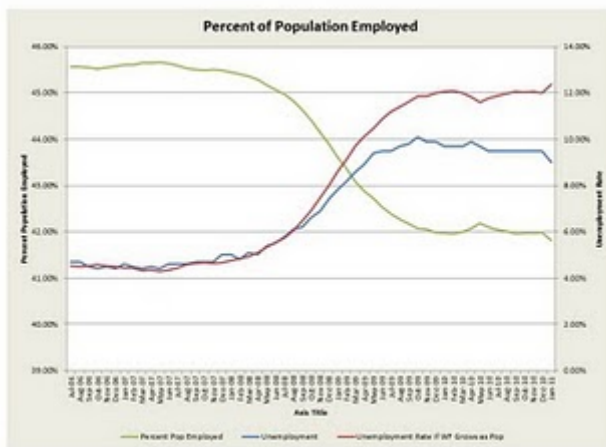
Jean-Marc Daniel : Keynes développe trois idées essentielles. La première : l'homme se réalise par la consommation. Les économistes libéraux classiques s'intéressaient davantage à l'épargne car elle conditionne l'investissement. Ensuite, Keynes affirme que la monnaie n'est pas neutre : les gens préfèrent avoir des liquidités pour pouvoir les utiliser à tout moment et ne se tourneront vers l'épargne que si elle est très bien rémunérée. La troisième idée forte, c'est que l'Etat a la capacité d'agir sur la production. En finançant par exemple des grands travaux, il crée des emplois, favorise la consommation, ce qui crée d'autres emplois. C'est le multiplicateur keynésien.

Keynes a la the French:

1. Man is self realizes by what he consumes
2. Money is not neutral
3. Government has the ability to drive the economy.

From this the Keynesian multiplier. Interesting. Sorry for the interpretation rather than a transliteration. I believe I captured the essence.

FRIDAY, FEBRUARY 4, 2011

UNEMPLOYMENT: ROMER WOULD BE PROUD

The [DoL](#) issued latest unemployment figures. We present the analysis of the top level here. We will do the segment later. The data is shown above. The announced rate is 9% but the actual constant percent employed is up to 12.5%. The problem as seen above is that the base has decreased significantly. If we want to keep the same percent of the population employed as in 2006 we need substantial change and what we have now is just getting worse. As for the old Romer Report, the numbers are well off from any reality.

Labels: [Economy](#)

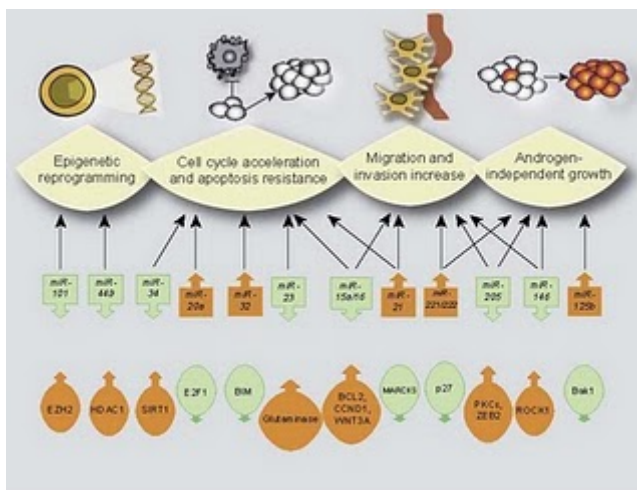
WEDNESDAY, FEBRUARY 2, 2011

PROSTATE CANCER AND TESTS: IS THIS PROGRESS?

In a recent announcement from [Dana Farber](#) in Boston, a paper has been prepared that indicates that testing for four gene products significantly improves the ability to determine an indolent Prostate Cancer from an aggressive form. The results also hit the news including a [WSJ](#) release.

The release from DF states:

The four-gene signature — Pten, Smad4, SPP1, and CyclinD1 — showed its effectiveness as a predictive tool for survival when researchers drew on data from the Physicians' Health Study, which has been tracking the health of thousands of U.S. physicians for nearly 30 years. When the investigators screened prostate cancer samples from study participants for the four-gene/protein signature, it was more accurate in predicting the ultimate course of the illness than conventional methods were.



We show some of the pathway elements above. A more detailed version is below.



The loss of PTEN has been known for years to be a sign that metastasis may very well already started. SMAD4, SPP1 and the Cyclin D1 are in pathways that also control the growth of the cell. PTEN is most often the one pathway element of most concern.

The driving factor in the result is:

The standard measure of prostate cancer's aggressiveness, known as the Gleason score (which is based on cancer cells' appearance under a microscope), is accurate about 60 to 70 percent of the time depending on the skill of the pathologist. The four-gene signature method alone was accurate 83 percent of the time. Combining the markers and Gleason methods produced an accuracy of approximately 90 percent.

Now the above result need some clarification.

1. Gleason scores are score based upon the histological presentation of the cells. Gleason 1 for example is low grade and shows the cells as small gland like structures but lacking gland architecture. Gleason 5 is a mass of undifferentiated cells clustered about the stroma, internal part of the prostate, with no structure. Gleason scores are the sum of the most prevalent cell type plus the next most prevalent so a 7 is a 4+3 or a 3+4. Clearly a 4+3 is more severe than a 3+4. But Gleason alone tells one little about the metastatic potential.

2. Genetic pathway changes are often the sine qua non for determination. But what genes and in what cells. The problem is the existence of the cancer stem cell idea, namely that one of the many cancer like cells is pluripotent and if this is true in prostate cancer then it is that cell we want. So perhaps in a biopsy we missed the killer cell, or it may have already escaped.

3. This procedure statistically takes us a step forward, now we can test to see if we do have some very bad cells. However one may ask if we are finding out when the cow has already left the barn. Namely what we may have is a test which confirms the fact that the patient's cancer is one of those very bad types so nothing much can be done. On the other hand we may have a patient with an aggressive form which is just a threshold below the bad level. Thus one need significant clinical tests.

4. The question then is; are there other pathway constituents that are prognostic enough to have a meaningful result in mortality, namely how well do we know the PCa pathways. What are the pathway dynamics between these four, we know some, and many are available through [NCI](#).

5. The results appear to have quite extensive, but causality and dynamics still need some filling in. What caused the change. In addition one may look at the HGPIN cases and see that we have HGPIN which all too often is considered as pre-malignant, but we know that HGPIN also regresses to a fully benign prostate. What happened..

As the WSJ states:

Dr. DePinho said the new study suggests a test based on the four genes, when added to current prediction protocols could improve the accuracy to about 90%...Charles Sawyers, a cancer expert and Howard Hughes Medical Institute Investigator at Memorial Sloan Kettering Cancer

Center in New York, said if it turns out that such a test is that effective, "it would have a huge impact." He wasn't involved in this research.

Dr. Sawyers cautioned that such gene signatures have been proposed to predict cancer progression in the past and haven't panned out. He said the genes the new research focuses on appear to have a functional role in regulating cancer development, but that more research will be necessary to validate whether a test would have value for doctors and patients... "We'll have to wait and see," he said.

Indeed one must wait and see. However this will be a challenge to Medicare, since so many of the patients are Medicare patients. How effective is this test? If the genes are all showing aggressive growth then we act? Or is it too late already. If the genes do not show aggressive growth do we deny the patient care even if the patient has strong family history of aggressive PCa? The issue is that all too often the family history dominates. Perhaps this creates more issues than it solves, however it is a step in a good direction, it may or may not be the right one.

Finally the WSJ states:

A test based on the findings is being developed and could be available within a couple of years to help determine how aggressively to treat early-stage cancer, said Ronald DePinho, director of the Belfer Institute of Applied Cancer Science at Dana Farber Cancer Institute, Boston, and senior author of the study... Closely held MetamarkDePinho said he has equity in the company.

One wonders what research funds were used in the testing. But notwithstanding welcome to the entrepreneur.

We have written a more detailed analysis that the reader may have interest in in one our [White Papers](#).

Labels: [Cancer](#)

[GLOBAL WARMING AND THE THREE FEET OF SNOW IN MY YARD](#)



Now as most know I am just an engineer, just facts, and see it it works. Use some logic, keep away from complex theories and then back to the facts.

Well the [Guru of Global Warming](#) has made a statement as follows:

Last week on his show Bill O'Reilly asked, "Why has southern New York turned into the tundra?" and then said he had a call into me. I appreciate the question.

As it turns out, the scientific community has been addressing this particular question for some time now and they say that increased heavy snowfalls are completely consistent with what they have been predicting as a consequence of man-made global warming:

*"In fact, scientists have been warning for at least two decades **that global warming could make snowstorms more severe. Snow has two simple ingredients: cold and moisture. Warmer air collects moisture like a sponge until it hits a patch of cold air. When temperatures dip below freezing, a lot of moisture creates a lot of snow.**"*

"A rise in global temperature can create all sorts of havoc, ranging from hotter dry spells to colder winters, along with increasingly violent storms, flooding, forest fires and loss of endangered species."

Now this is one of those, "Do you believe me or your lying eyes" type statement. Let me explain:

1. Snow is frozen water, true fact.
2. Yes warm air collects moisture, which is why there is so little snow in the Arctic. Too dry.
3. Here is where the train leaves the rails. Some how it has to hit a patch of cold air, that is what is happening, the Jet Stream has dipped so low into the US that it is cold in places it has never been cold before. So it that Global Warming or National Cooling or both. Somehow you cannot have it both ways. To get snow you need water and cold. The water can come from anywhere, it moves along fronts, but the cold is cold. Not warming. When the Jet Stream moves so far south as it has this winter then is this weather or climate. To Global Warming purists it is weather, to the Guru it is what it is not.

Or as my squirrel friend has just said, it is just snow stupid. And we throw them another few ears of corn!

Labels: [Global Warming](#)

TUESDAY, FEBRUARY 1, 2011

ANOTHER OXYMORON: GOVERNMENT ENTREPRENEUR

The current Administration has announced its intent to spend a few billions more but this time focusing on innovation and the entrepreneur. It is worth looking closely at what they propose as [Start up America](#), the program.

They state:

When signing the Small Business Jobs Act, and again when proclaiming the first-ever National Entrepreneurs' Day this past fall, (the current President) called on leaders from throughout the business, nonprofit, and university communities to join together with his Administration's efforts to promote the success of more entrepreneurs across America. The initiatives announced today are the initial response to this "call to action," uniting a range of public and private commitments to:

- *Expand access to capital for high-growth startups throughout the country;*
- *Expand entrepreneurship education and mentorship programs that empower more Americans not just to get a job, but to create jobs;*
- *Strengthen commercialization of the about \$148 billion in annual federally-funded research and development, which can generate innovative startups and entirely new industries;*
- *Identify and remove unnecessary barriers to high-growth startups; and*
- *Expand collaborations between large companies and startups.*

The market sets a demand, and the entrepreneur sees an opportunity. To be a successful entrepreneur the time of the development is one of the most essential elements. The dust bin of creativity is filled with great ideas whose time is yet to come. This program places the Government in the middle as arbiter. We know that such is doomed to failure. The Government research is a feeder to many areas of biomedical research out of NIH yet it is research and needs productization. It is not a product.

Then they state:

Top Administration Leaders Announce National Tour to Support Public Participation in Removing Barriers to Entrepreneurship: The President has issued an Executive Order and accompanying memorandums to federal agencies to identify and take steps to eliminate or reduce processes that are outdated or overly burdensome to entrepreneurs. As part of this effort to receive feedback from entrepreneurs on the front lines, the Administration will launch online suggestion tools for the public and go on the road to innovation centers like Silicon Valley and North Carolina's Research Triangle Park to hear from entrepreneurs about the challenges they face, share current Administration efforts to support entrepreneurship, and to streamline or eliminate the biggest barriers to startup growth.

The essence of the entrepreneur is their ability to overcome barriers, that is the steeling of the idea, the testing of the metal to see if it can withstand the challenge of the market. What challenge does an entrepreneur face, all of them. Finding money, finding people, executing, competing, and of course dealing with Government regulations. What does anyone who has been down that path think the Government can do, what advice can some career GS 11 provide, how to increase their Government benefits!

And oh by the way, why did they not include Boston and 128 area? Strange since it is all Democrats!

Labels: [Economy](#)

MONETARY POLICY AND THE BERNAK.

A bit long in the tooth but gets the point.

1. FED pumps money to Banks
2. Banks "invest" in Government, btw another meaning of investing
3. Interest rates are zero so the old folks on fixed incomes will burn out soon if the cuts in health care do not get them first
4. Investment Bankers make bundles on free money.
5. And guess who gets re-elected! Guess!

Labels: [Economics](#)

CHINA IS NOT JAPAN

China is not Japan. In the 1930s Japan was driven by military forces and there was still the strong mercantile interests that controlled the industrial elements. However Japan was short on natural resources, thus its expansion. Ultimately they aggressively expanded to south east Asia.

China is not Japan. They have a strong military, they have if you will a quasi mercantile industrial base, mercantile in the sense that there is strong state support, yet unlike a Japanese industry, and they are short many natural resources that they find amongst all places, Africa.

There is an interesting piece in [Project Syndicate](#) worth the read on China and Africa. As the author states:

Astutely, China has sought to place its African investments and diplomacy within the context of the old non-aligned movement and “Bandung spirit,” an era when many Africans viewed China as a brotherly oppressed nation, and thus supported efforts by the People’s Republic to gain a permanent seat on the United Nations Security Council, to replace Taiwan. And, of course, China offered firm backing for Africa’s anti-colonial struggles and efforts to end apartheid.

In trying to depict its current dealings with Africa as “win-win” cooperation, China deliberately seeks to portray Africa’s current relations with the West as exploitative. Unlike China, its leaders claim, the West continues to hold African countries hostage through a combination of unequal trade deals, lack of access to capital markets, aid dependency, financial deregulation and economic liberalization, budget austerity, crippling debt, political meddling, and military intervention.

What the Chinese are silent about is that their country’s growing engagement in Africa has created both opportunities and risks for African development. Although China’s trade, foreign direct investment (FDI), and aid may broaden Africa’s growth options, they also promote what can only be called a win-lose situation. For, excluding oil, Africa has a negative trade balance with China.

Africa is rich in natural resources yet is all too often unstable. That is the risk the Chinese face as they build their interests. The win-lose issue is one of real concern. China may very well further deplete existing weak countries and create even more instability.

Labels: [China](#)

MONDAY, JANUARY 31, 2011

[CALORIES AND THE GOVERNMENT](#)

The [USDA and the HHS](#) have issued a revised food guide. One of their key statements is:

The food supply has changed dramatically over the past 40 years. Foods available for consumption increased in all major food categories from 1970 to 2008. Average daily calories available per person in the marketplace increased approximately 600 calories, with the greatest increases in the availability of added fats and oils, grains, milk and milk products, and caloric sweeteners. Many portion sizes offered for sale also have increased. Research has shown that when larger portion sizes are served, people tend to consume more calories. In addition, strong evidence shows that portion size is associated with body weight, such that being served and consuming smaller portions is associated with weight loss.

If the increase was 600 cal per day then every 6 days you would gain a pound assuming that in 1971 you were balanced. The portion size is truly a significant factor. When I first had my Czech partners over here I took them out to a restaurant, some chain type, in Framingham, and the wife and daughter looked at me in almost terror as they saw the size of the plate and portion. It was colossal. That was ten years ago. In Prague at lunch we had a small plate of food, smaller than a US pie plate and the beer was 6 oz of beer. I never really drink beer so I passed on that. The issue is portion size, and people eating it all. Supersize is the real problem. From 8 oz cokes in glass bottles to 32 oz cokes in big gulp jugs the calories just add up.

The report is interesting but the problem is really what is being served. One should remember that in WW II the average male weight was 135 pounds. Try and find a normal 18 year old even close.

Labels: [Health Care](#)

SUNDAY, JANUARY 30, 2011

THE MYTH MAKERS

I am continually amazed about economists. The latest is [an economist](#) and his statement that people have not "earned" their Social Security and Medicare.

He states:

Myth: The elderly have "earned" their Social Security and Medicare by their lifelong payroll taxes, which were put aside for their retirement. Not so. Both programs are pay-as-you-go. Today's taxes pay today's benefits; little is "saved." Even if all were saved, most retirees receive benefits that far exceed their payroll taxes. Consider a man who turned 65 in 2010 and earned an average wage (\$43,100). Over his expected lifetime, he will receive an inflation-adjusted \$417,000 in Social Security and Medicare benefits, compared with taxes paid of \$345,000, estimates an Urban Institute study.

As [we have demonstrated in excruciating detail](#), this is FALSE, the Myth is TRUE! Now if a family earns \$43,100 pa now then going back some 40 years means that they were making about \$4,200 pa in 1970! That was minimum wage almost. If you take the lowest paid person and assume that their salary applies to all you are going to come up with the nonsense that the economist comes up with. Remember that Medicare takes its 3% of your GROSS, no limit like SS.

If one makes an assumption that leads to an erroneous conclusion, than garbage in and garbage out! The economist has apparently put garbage in, and of course there is garbage out. Indeed if one makes \$43,100 at age 65 then that person will be subsidized. That to a degree was part of Social Security and Medicare. That is why they call it an insurance and not a defined contribution plan, although it is also somewhat of that types as well.

One could suggest that the economist above do some simple calculations which I believe even an economist may have the simplest of tools to do, with the help of Excel perhaps, and reach a more reasonable conclusion.

What I find worse is that all too many economists will reach the same conclusion without examining the detail. The problem is that anyone who has effectively run a business understanding that details and facts are important, that theories and political views are less useful. It is a true shame that these economists seem to avoid the facts, the details, the results.

This example of the \$43,100 pa 65 year old is at the end of the financial spectrum, the bottom end.

The conclusion is simple. You cannot use the minimum contribution payer, ie lowest salary, and relate it to the highest distribution receivers, namely greatest benefit recipient, and call that an example for all. That is not only sloppy analysis it is, I believe, an outright misrepresentation.

However, having said this, I have also stated that both systems need significant reform. For example:

Social Security needs:

1. A change in eligibility ages to a moving number dependent upon average lifetime of its participants. Namely if expected life is 77 years then it should not start until 67 or ten years prior to end of life.
2. SS should be just that, not a catch all for every other type of program.
3. SS Funds should not be allowed to be confiscated as was started by the Democrats during the Johnson Administration.

Medicare:

1. Raise the 3% to 4%. Make the 4% apply to all types of income including capital gains. They have already done that to individual home sales so why not apply to investment bankers.
2. Move its eligibility as with SS.
3. Increase Part A and B deductibles, making them means tested.
4. Increase the monthly payment and make it means tested also.
5. Make Medicare payment acceptance mandatory otherwise there will be negative disintermediation. However allow over-rides if possible.
6. As with SS make the fund untouchable!

Just some thoughts.

Labels: [Economics](#)

AND THE BRITS WENT AFTER THE GRAYS, PERHAPS THEY THOUGHT THEY WERE IRISH!



In the [WSJ](#) they now state that the demise of the red squirrel in England is not due to the gray squirrel, some of whom are my best friends, but some virus to which the red are most sensitive but the grays are less.

The WSJ states:

The role of parasites in causing species to decline is often overlooked. Native European red squirrels, for example, have long been retreating in Britain at the hands of the American gray squirrel, which menagerie-owning aristocrats introduced in the 19th century. For years it was thought to be the competition for food that prevented the squirrels' co-existence, but now scientists place most of the blame on a parapox virus that causes a mild illness to the grays but kills the reds.

As this case shows, blaming a pathogen does not exculpate people. A new disease usually runs rampant because human beings have introduced it inadvertently—or, in the case of the rabbit disease myxomatosis, deliberately. A virus of native South American rabbits, "myxy" (as it is called) killed 90% of European rabbits when deliberately released in Australia and Europe in the 1950s. Resistance has since grown, but slowly.

It was just a couple of years ago that the Brits thought they should have an all out massacre of the gray squirrel assuming the American invader was the cause not a co-sufferer of the disease. A classic British response, kill them off.

Labels: [Commentary](#), [Squirrels](#)

SATURDAY, JANUARY 29, 2011

AN OXYMORON: GOVERNMENT INVESTMENT

Many of the left wing economists are praising the idea of Government Investment. One is in today's [Washington Post](#), surprise, surprise.

First, let us examine the term investment. It means simply taking assets today in a reasonable and well thought out anticipation of the return of those assets plus more, the return on the investment.

Thus one may invest in the stock market, and unfortunately may not see either the principal or the return. But let us take a simple example, say venture investment. Here is how it goes:

1. Some entrepreneur comes up with an idea.
2. They prepare a plan, develop a prototype or proof of principle, they get letters of intent from customers, they assemble a team, and
3. Then they go to an investor to show the investor what type of return they may get if the investor puts in money. Up to this point the entrepreneur has spent all their own funds. The investor does due diligence on the investment and the entrepreneur and only after significant investigation does the VC invest the money.
4. Then the VC sits on the Board and like a hawk watches the entrepreneur perform to the plan that he gave the VC. If the entrepreneur does not meet the plan he is toast! If he does then hopefully there is a liquidity event.
5. At the liquidity event, a sale or IPO, the investors are first to get their money back plus a return and then the entrepreneur shares.

Second, now is this what the Government does? No way. Let me give a few examples.

1. The Electric Car: DOE has been "investing" on the electric car since 1970! That is 40+ years. Billions and billions. Now would any rational investor do this! No.
2. Internet. DoD, namely ARPA invested in the initial net. It almost died in the 1980s, and it was saved almost single-handedly by Bob Kahn and Vint Cerf who managed to keep the non-DoD side afloat.
3. NIH, now this a research, not "investment" and it has been productive as a means to fund research. Research is not investment in the classic manner. It uses money for no particular financial return, that is NOT investment.

Third, the problems with Government investment are simply:

1. The investment decision makers are Government employees who have nothing at risk. If they had to bet their life, their incomes, perhaps we could start to call it an investment, yet they have no risk.
2. The Government never kills a dumb idea, the electric car! Thus unlike real investments which often go wrong, a Government investment just lives forever! Special interests are born and the "investment" becomes another drag on the taxpayers.

As the left wing writer in the Post states:

There is a similar emphasis on the private sector in the president's proposal for a National Infrastructure Bank, which will not only help to insulate the government's investment decisions from the political process but will focus on projects with demonstrable financial returns. Toll roads, smart grids, wind farms, freight lines and air-traffic control systems would compete for funding on the basis of their ability to generate user fees to repay the bank's bondholders.

In the energy sector, (the current President) expects to untap tens of billions of dollars in private investment with modest amounts of seed money and the right regulatory incentive - in this case a requirement that 80 percent of electricity comes from environmentally clean sources by 2035.

This is total nonsense. Let us briefly look at Air Traffic Control systems. The FAA has been spending billions on a 1940s vintage system and upgrades have been near impossible to deploy. The FAA is the problem and not the solution.

Private investment is ruthless, not like the Government. The worst disaster will be the Broadband program of NTIA and RUS which gives away billions to entities which for the most part have no demonstrable experience in doing what they were committed to. So the money is equal to that dropped by helicopters!

Did we not have almost a trillion in Stimulus, signs all over our highways with massive interstate traffic jams burning excess fuel while states paid government employees to sip coffee on the road sides! That is Government Investment, a total waste.

Labels: [Economy](#)

FRIDAY, JANUARY 28, 2011

EMPLOYMENT OF THE "OLD FOLKS"

I was reading a set of comments in the [Washington Post](#) to an article and was interested in what one, apparently, Democrat said:

There is lots that can be done. Most obvious: bring back the WPA. There is plenty of public work(s) to be done if private employers don't want to hire...Of course there's not much that will be done politically speaking....But you gotta say, the unemployed, under-employed and otherwise disadvantaged don't do themselves any good when they don't vote, or vote for those (i.e., Republicans) who are least likely do anything. Of course when (the current President) can't

muster the gumption to even talk about the problem, I guess there's not at present a whole lot to choose.

The article was bemoaning the high unemployment amongst the over 65 job seekers. So this Democrats suggest we re-institute the WPA and send Grandma to the Appalachian Trail to cut through some new paths along the Blue Ridge.

Here is the logical and obvious problems with this comment:

1. The problem discussed was the 65+ and older worker. So the WPA is to solve this? Does this person have any knowledge of history?
2. The WPA costs money and does not create value. Do any of these people who comment have any idea of money, others, not theirs. The problem is that we need new jobs created by private industry which is stalled as a result of Government actions.
3. So voting for a Democrat solves the problem, look how we got here in the last two years!

The advantage of the Internet is to see how many people have half baked factless ideas. Pity because we may eventually go back to the mess again.

Labels: [Economy](#)

SONGS AND THEIR MEANINGS

The White House Dinner had one of those moments, as seems to happen so often in the current Administration, when the Chinese musician one Lang Lang played a tune which was part of an anti-American collection from the days of the Korean War.

The words are from [China Daily](#):

My Motherland (Lyrics by Qiao Yu, Music by Liu Chi)

*A big river has broad billows
Winds sweep the paddy fields on the banks
My family lives on the shore
Accustomed to the whistles of the longshoremen
And to the white sails of the boats
Girls are beautiful like flowers
Lads have broad chests
To create a new world
We waken up sleeping mountains
And change the courses of rivers
This is my beautiful country*

Where I was born and grew up

*On this vast land
Everywhere has great scenery
Great mountains and great rivers
Every road is wide
When friends come we give wine
**But if jackals come
They'll be greeted with hunting guns**
This is my heroic country
Where I was born and grew up
On this ancient land
Everywhere has the power of youth
This is my strong country
Where I was born and grew up
On this warm land
Everywhere has bright sunshine*

Yet as China Daily states:

The movie Shangganling, released in 1956, experienced a surge in popularity during the post-"cultural revolution" (1966-76) years. People of my generation are familiar with the plot, a typical war picture, but the song comes at a telling moment, a hiatus in the battle when the soldiers are reminded of the beauty of the motherland, while a few lines refer to "greeting jackals with hunting rifles".

By Chinese standards the song is quite apolitical and lacks the propaganda vibe of the time. Rendered by the most popular folk singer of the day, the beautiful Guo Lanying, it was an instant hit and has since become a classic.

The writer in China Daily does state that the Chinese use subtlety in their dealings, and one experienced in the ways understands that quite well. There is never a direct confrontation, they are not Russians or if you will a New Yorker. Yet for one unskilled in the worldly ways, one would neglect to understand that, moreover, neglect is too subtle a word, one would be ignorant. If one is ignorant of this cultural manner than how is one to negotiate with China. This shows a great shortcoming in the staff who organized this.

One should always remember, prior planning prevents poor performance. Also, nothing is necessarily what it appears to be.

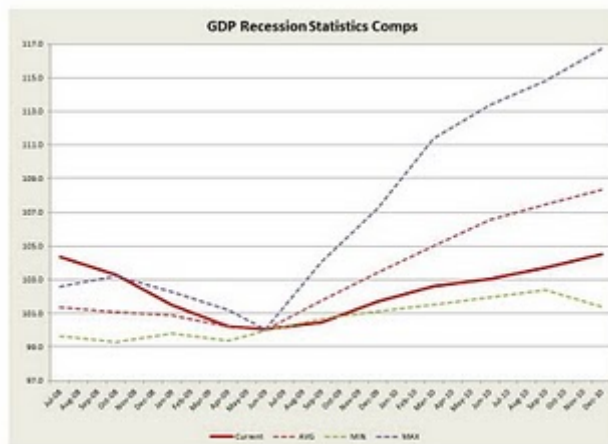
Labels: [China](#)

[RECESSION STATISTICS: JANUARY 2011](#)

We continue some detail on the Recession Stats as of the current release of the GDP data as of today and we rely upon the [St Louis FED data](#) as before.

GDP

First the GDP and its components. The GDP itself is as below:



The above is the GDP scaled to the minimum point of the Recessions as recorded by the St Louis FED. The Recessions used by the St Louis FED are:

Peak

November 1948

July 1953

August 1957

April 1960

December 1969

November 1973

January 1980

July 1981

July 1990

March 2001

December 2007

Trough

October 1949

May 1954

April 1958

February 1961

November 1970

March 1975

July 1980

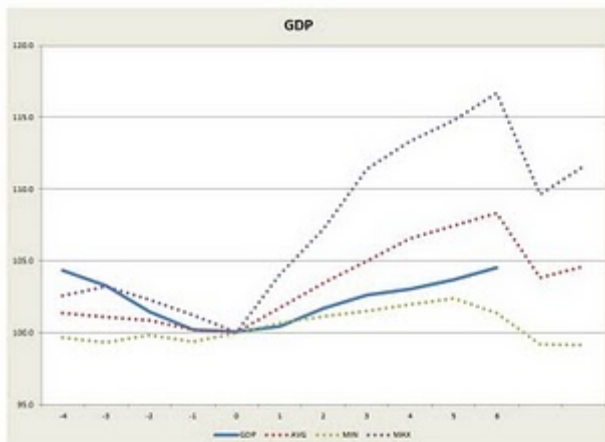
November 1982

March 1991

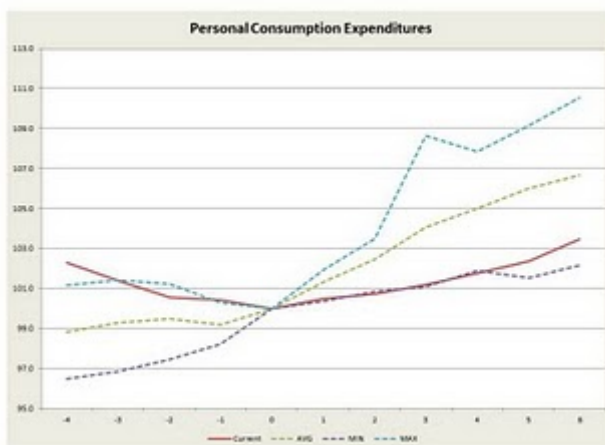
November 2001

June 2009

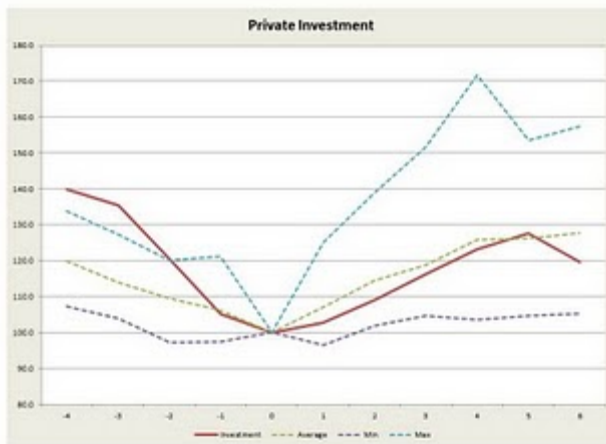
The GDP in periods before and after the nadir are shown as follows, in Quarters:



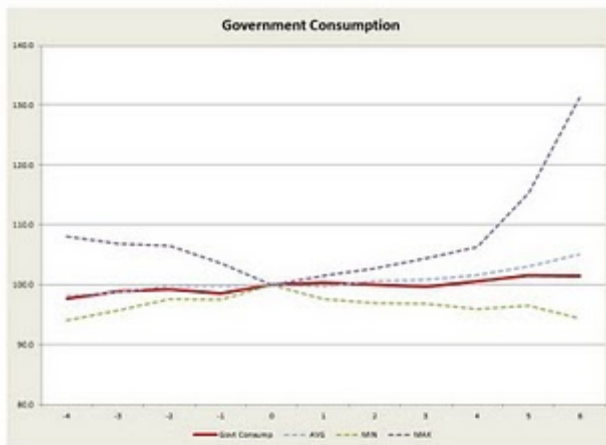
Note that we are near the bottom of upturns. One can make all sorts of arguments but the facts seem to still indicate that it has been the cumbersomeness of the current Administration that caused this.



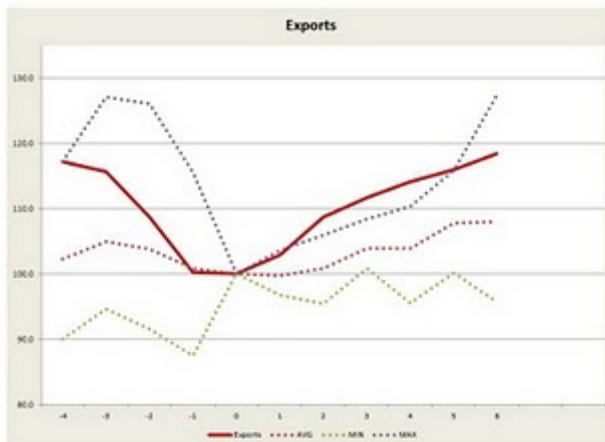
Personal consumption as above now seems to be becoming healthy. It was exceptionally weak after the drop and has lagged.



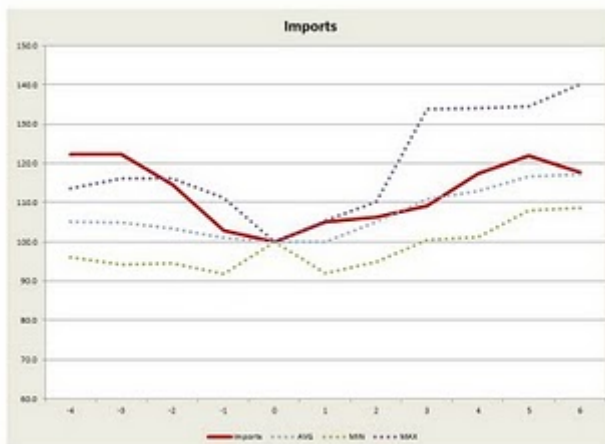
Private investment had been running along at an average rate but the drop in last quarter is a concern to GDP growth going forward.



Government consumption had been average but with the change in Congress we anticipate a drop here. Frankly that is a good sign since it was exploding and taking money from private interests.



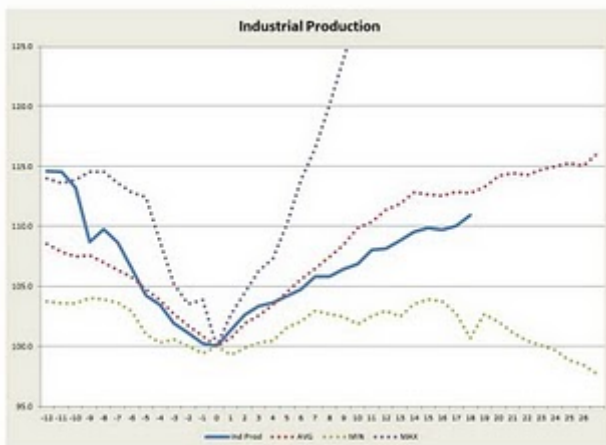
Exports are above average and below we show the same for imports.



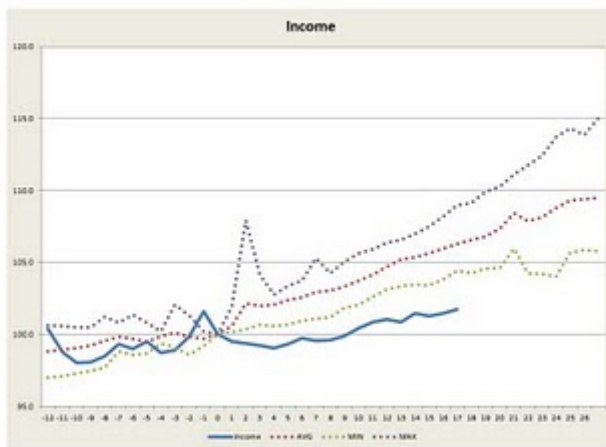
The above are the GDP and its elements. There are no truly exceptional signs here so we do not anticipate a rapid move from the Recession.

Other Data

Now we have a few other stats. First is Industrial Production which seems healthy:

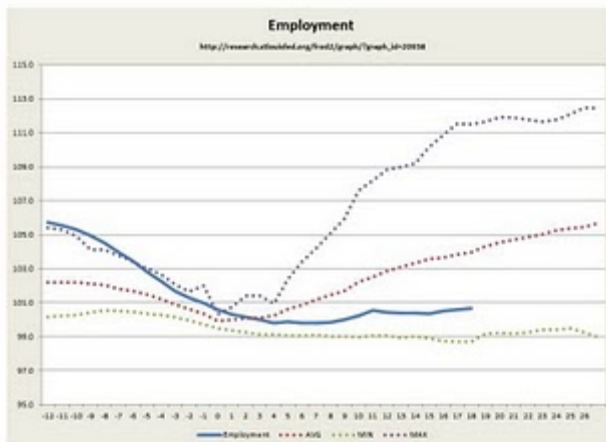


Then we have personal income which is quite a serious problem. This will be the major factor. While Wall Street is walking away with billions funded by TARP we have Main Street doing worse than ever. Wall Street should really worry about this, but as usual they are ignorant of it in toto.



The above is the personal income data we spoke of. It is well below the worst recession data available!

Now we can look at employment data, and we see the weak recovery.

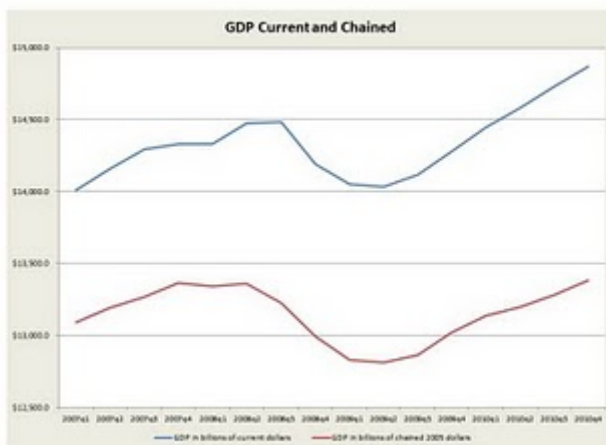


Finally retail sales has shown some signs of life as we see it climb to above average levels.

The real concern is the income number and this will most likely hold back the economy.

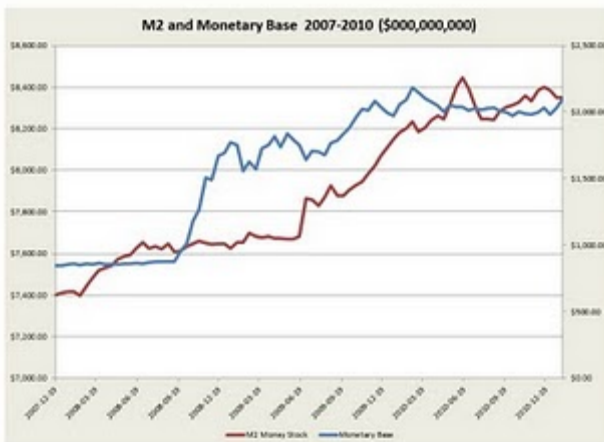
Labels: [Economy](#)

[GDP, INFLATION, M2 AND THE ECONOMY](#)

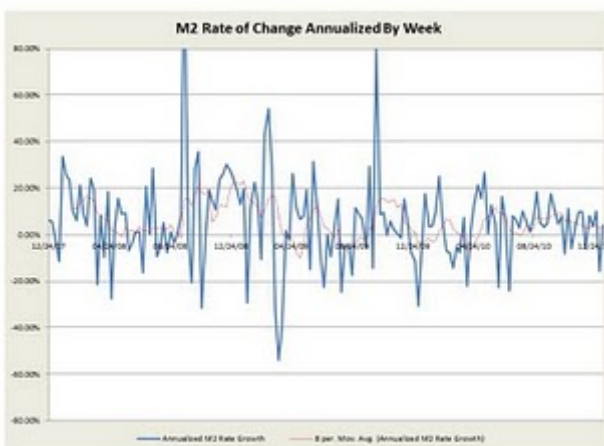


The [Government issued](#) the recent Q4 GDP estimates. First GDP grew about 3.6% on an annualized basis. We show the GDP and Chained GDP above. From this one may assume that GDP is now consistently growing at a more normal rate.

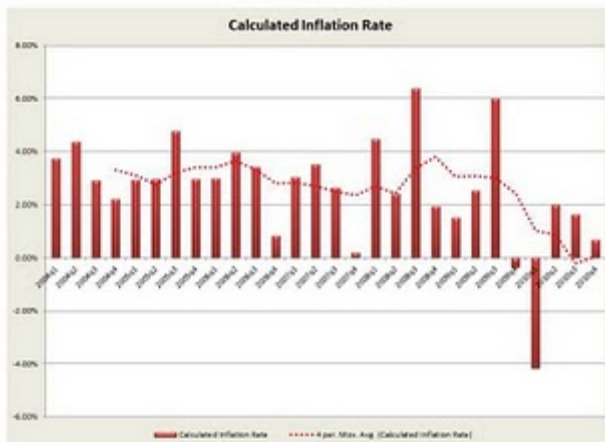
As is usual, [Krugman](#) notes that the GDP chained to 2005 has returned to what it was just when the economy tanked. That is obvious from the above.



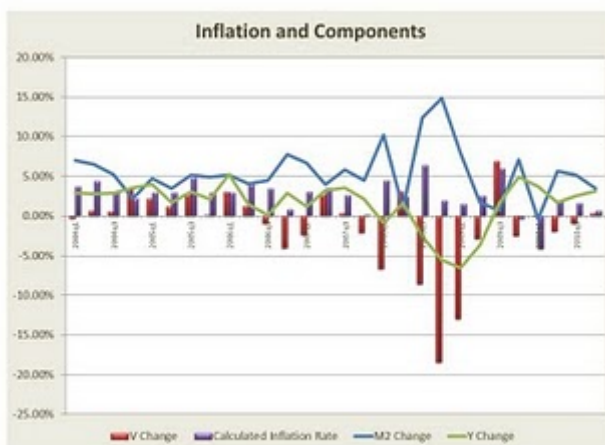
The concern is of course inflation. Above we show M2 and the Monetary Stock. The MS has stabilized and M@ is growing but not at any rapid rate which would be of concern. Clearly the banks have absorbed all the money and it is merely circulating to pay for non-productive Government programs. As they say, if not for that it would have been worse.



The M2 annualized growth is quite small and thus should not as of now be a concern



We calculate inflation from the standard equation and it appears to be slowing. M2 growth is easily balanced by GDP growth so that what we see is a low velocity of money and thus a low inflation.



Finally we depict the components of inflation above and this give a quantitative view of the elements and our argument above.

Conclusion: GDP is growing slowly but growing and inflation seems still at a distance. So far so good.

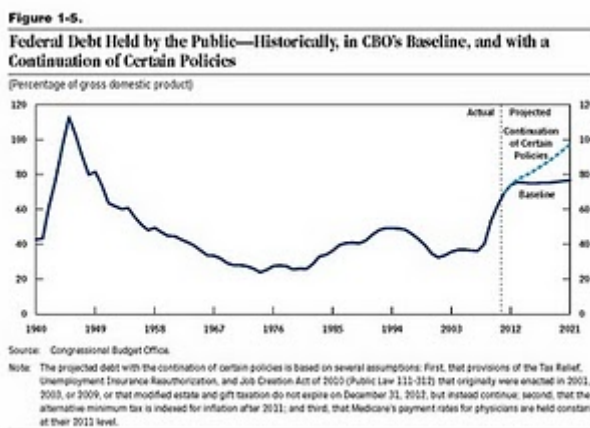
Labels: [Economy](#)

THURSDAY, JANUARY 27, 2011

HAPPY BIRTHDAY MOZART

Mozart was born some 255 years ago. He is worth listening to on a snowy day with breaks of sunlight. This is a public domain photo reproduction.

Labels: [Commentary](#)

CBO AND CURRENT POLICIES

The [CBO report](#) shows the debt, public held only, as percent of the GDP. Note that this is really worse than WWII since the debt then was just the public debt since Congress has been purloining the SSI and Medicare funds in addition, so we will be well over WWII numbers.

I often think what would happen if this was a start up company and we were on the Board. Would we ever allow the management to continue in this clueless fashion. No! They would be

replaced. We will soon exceed, if not already, all previous debt levels. And they keep driving over the cliff!

Labels: [Economy](#)

[GLOBAL WARMING: CLIMATE VS WEATHER](#)



Now there is the debate that there is a difference between weather and climate. What you see is the weather and what the folks from East Anglia and Penn State say ex cathedra is climate. Well just what do you believe, your lying eyes or the charts!

Another two feet plus of snow, and it is occurring almost every five days! We may have a day respite and then back again.

As the squirrels sit warming themselves at the fire and as they drop the peanut shells in the bowl, they just turn and giggle, weather, climate, it is just snow!

Labels: [Global Warming](#)

TUESDAY, JANUARY 25, 2011

[INTERNET NEUTRALITY AND CONGRESS](#)

There is a [new bill](#) running around Congress concerning Internet Neutrality. It was issued by Senator Cantwell and it is interesting in many ways. First it is a bit naive in its wording when describing the Internet. In many ways it appears to be written, from the technical side, by someone who just took one of those executive courses on telecommunications. They got the jist of some of the words and enough just to be dangerous.

The key words seem to be:

A broadband Internet access service provider **may not unjustly or unreasonably—**

“(1) **block, interfere with, or degrade an end user’s ability to access, use, send, post, receive, or offer lawful content (including fair use), applications, or services of the user’s choice;**

“(2) **block, interfere with, or degrade an end user’s ability to connect and use the end user’s choice of legal devices that do not harm the network;**

“(3) **prevent or interfere with competition among network, applications, service or content providers;**

“(4) **engage in discrimination against any lawful Internet content, application, service, or service provider with respect to network management practices, network performance characteristics, or commercial terms and conditions;**

“(5) **give preference to affiliated content, applications, or services with respect to network management practices, network performance characteristics, or commercial terms and conditions;**

“(6) **charge a content, application, or service provider for access to the broadband Internet access service providers’ end users based on differing levels of quality of service or prioritized delivery of Internet protocol packets;**

“(7) **prioritize among or between content, applications, and services, or among or between different types of content, applications, and services unless the end user requests to have such prioritization;**

“(8) **install or utilize network features, functions, or capabilities that prevent or interfere with compliance with the requirements of this section; or**

“(9) **refuse to interconnect on just and reasonable terms and conditions.**

“(d) **REASONABLE NETWORK MANAGEMENT.—**

“(1) **IN GENERAL.—**Nothing in this section shall prohibit a broadband Internet access service provider from engaging in reasonable network management.

“(2) **REASONABLENESS PRESUMPTION.—**For purposes of this section, a network management practice is presumed to be reasonable for a broadband Internet access service provider only if it is—

“(A) **essential for a legitimate network management purpose assuring the operation of the network;**

“(B) **appropriate for achieving the stated purpose;**

“(C) **narrowly tailored; and**

“(D) among the least restrictive, least discriminatory, and least constricting of consumer choice available.

There are so many holes in this set of statements that one could drive all the trucks that GM makes through it. What do the words mean? Litigation would ensue for decades while costing the consumer billions to pay for it while delaying any progress to the development of service. The market will play this one out. There are tons of competitors and with wireless just peaking its head up with 4G, LTE et al, then just let the market work!

Labels: [Internet Neutrality](#)

MONDAY, JANUARY 24, 2011

[HHS AND HOME HEATING](#)

Now [HHS Secretary](#) has announced that the Department is "releasing" also known as spending some \$200 million for home heating.

The Press Release states:

U.S. Department of Health and Human Services ... announced today the release of \$200 million in emergency contingency funding to help eligible low-income homeowners and renters meet home energy costs. These Low-Income Home Energy Assistance Program (LIHEAP) contingency funds will provide states, territories, tribes and the District of Columbia with additional assistance to pay heating and other home energy costs.

It is interesting to see that HHS is spending our money for fuel oil, since I never imagined how far the new health care plan really stretched!

Labels: [Economy](#), [Health Care](#)

[STRATEGIC INVESTMENT AND NASA](#)

When I was back in corporate America there was a phrase tossed about frequently, "Strategic Investment" which was a euphemism for, "we really want to spend this money but have no idea if it will ever make a return". I spent time at NYNEX cleaning up quite a few prior "Strategic Investments". They are investments because one spends money and "Strategic" because no one had the faintest idea as to how it will ever make a return. "Strategic Investments" are corporate waste. In the case of the current Administration their "Strategic Investments" are just outright squandering of taxpayer funds.

Now where does NASA fit in? Simply, in my early years I spent a few on NASA programs at MIT. They took valuable assets, intellectual talent, and wasted it sending a man to the moon. We could have allowed the economy to work its way and have entrepreneurs, instead we had moon landings. NASA has been a colossal waste of taxpayer money for decades. It continues to be

such. DOD launches its own spacecraft, why use NASA. So is what is being proposed nothing more than an extension of that waste? Most likely so.

Labels: [Economy](#)

MIRNAS AND CANCER: SOME THOUGHTS

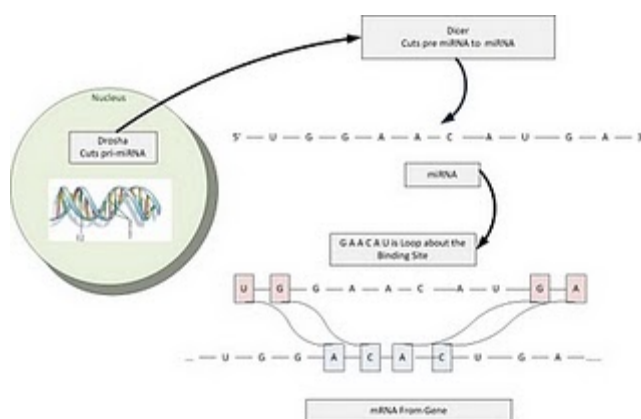
Micro RNAs are an interesting recent discovery which have been found to control cancers by making them stop or making them grow faster.

We first look at micro RNA and its process and its impact on prostate cancer (PCa). Micro RNAs, miRNA, are small single stranded RNAs which when in the cytoplasm may often bind to other RNA on complement binding sites and thus change or incapacitate the mRNA to which it binds from being translated into a protein. Craig Mello was awarded the Nobel Prize in 2006 for the discovery and his Nobel Lecture provides an excellent overview of the early stages of miRNA investigation.

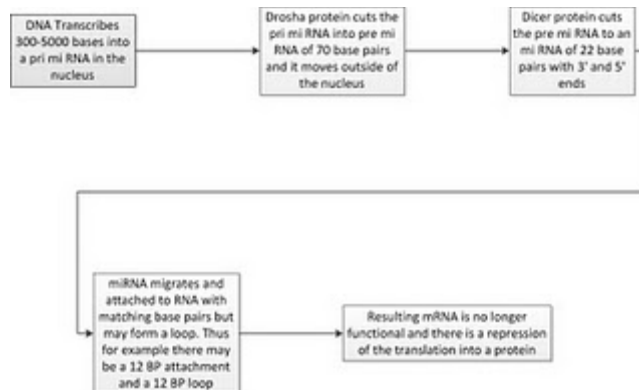
We now briefly examine the miRNA production and action. This is graphically demonstrated below. From segments of the DNA, segments not containing genes, a long segment called a pri-miRNA is generated and it is then cut to a shorter segment called a pre-miRNA and transported to the cytoplasm outside of the nucleus. Then another protein called Dicer cuts up the pre miRNA into about 22 base single-stranded pair segments which are the miRNA,

Then as we show below the small miRNA can bind to mRNA at complement sites, and in fact the binding may allow for a loop which extends out from the binding sites composed of non-complement base pairs. This binding then inactivates the mRNA and prevents its translation to a protein.

The process continues as follows (See Garcia and Miska in Appasani):



The process is described in some detail below. Here we describe the steps one at a time as is currently understood (an alternative view of this is in the paper by He and Hannon, 2004).



It is also possible for the miRNA to target more than one mRNA since the miRNA may bind in its complement binding with many other such sites on other mRNAs. It is currently not clear what the affinity of binding is for an miRNA and any possible mRNA.

Also miRNA may be obtained from introns as well as exons. The former is called intronic and the latter called exonic. Now the exonic miRNA goes through the pri and preprocess whereas the intronic miRNA is cut directly to a pre miRNA segment (see Ying et al in Appasani).

miRNAs have been identified and currently there are well over 1,000. They are named in a simple numerical order such as miRNA 34.

miRNA is a single stranded product of the process above. An alternative double stranded product is called small-interfering RNA or siRNA. siRNA usually trigger mRNA degradation whereas miRNA may cause degradation or suppression of translation to proteins. For this section we shall not focus a great deal on the siRNA functions.

Now there may be some dynamics associated with this miRNA process as well. The model above assumes a simple one to one matching of miRNA and mRNA. However the generation of the two RNAs can be continuous and we should be looking at the concentrations. Thus is we define:

$[miRNA]$ to be the concentration of the miRNA

and

$[mRNA]$ the concentration of the targeted mRNA

then we have a dynamic process. Namely we can see a process such as follows:

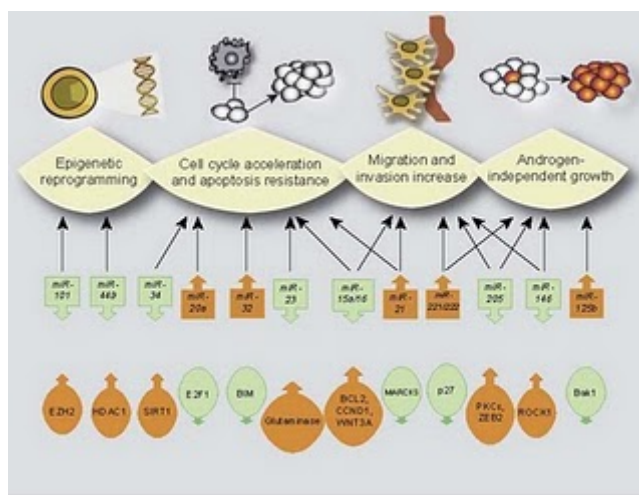
If $[miRNA] < [mRNA]$ then there will be excess mRNA and its product protein P will have a $[P] > 0$. Otherwise the miRNA will bind to all mRNA and there will be no resultant protein.

One may view miRNA as a buffer agent which controls the $[P]$ of its associated $[mRNA]$. One can see in dynamic form of a dynamical model. Now since the binding is not necessarily 1:1,

namely the miRNA may bind to several mRNA, then we may want to expand the above as follows:

There has been a great amount of research regarding the impact of miRNA on cancer and especially on PCa. miRNAs may downregulate tumor suppressor genes such as PTEN. This has been seen in miRNA 21. Colin and Croce have provided several review article regarding miRNA and their influence on cancers. They argue that miRNA alterations are heavily involved in the initiation of many cancers. Their focus had been on CLL, chronic lymphocytic leukemia, and its initiating miRNAs, miR 15 and miR 16. Coppola et al (2010) provide a detailed summary of miRNAs and PCa.

The graphic from Coppola et al is shown below where it depicts a collection of miRNAs which impact various parts of the PCa process.



For example miR34 can cause the activation and recapitulate p53 which in turn induces cell cycle arrest and apoptosis. Loss of the miR34 can result in the impairment of the p53 control of apoptosis and permit the cells to proliferate. Coppola et al perform a detailed analysis of all of the above related miRNAs and their resultant impact on PCa. miR-21 up-regulation leads to PTEN loss and thus is an oncogene.

Recent work by Poliseno et al have shown that PTENmiR-106b. It had already been known that PTEN could be down-regulated by miR-22, miR-25 and miR-302. Their work demonstrated that miR-22 and miR-106b are overexpressed in PCa miR-106b is an intronic miRNA. The work of Poliseno thus has demonstrated a proto-oncogenic miRNA dependent network that regulates PTEN and thus can have a significant role in initiating PCa.

Micro RNAs are regulators of mRNA, the post transcriptional result which is then used to generate via translation the operative protein. Currently there are nearly 1,000 identified miRNAs. They are generally 22 nucleotides long, short segments, and they usually target specific mRNA and silence it. Each one of the miRNA may act upon many mRNAs.

As He and Hannon state:

Non-coding RNAs participate in a surprisingly diverse collection of regulatory events, ranging from copy number control in bacteria to X-chromosome inactivation in mammals. MicroRNAs (miRNAs) are a family of 21–25-nucleotide small RNAs that, at least for those few that have characterized targets, negatively regulate gene expression at the post-transcriptional level.

*Members of the miRNA family were initially discovered as small temporal RNAs (stRNAs) that regulate developmental transitions in *Caenorhabditis elegans*. Over the past few years, it has become clear that stRNAs were the prototypes of a large family of small RNAs, miRNAs, that now claim hundreds of members in worms, flies, plants and mammals.*

The functions of miRNAs are not limited to the regulation of developmentally timed events. Instead, they have diverse expression patterns and probably regulate many aspects of development and physiology. Although the mechanisms through which miRNAs regulate their target genes are largely unknown, the finding that at least some miRNAs feed into the RNA INTERFERENCE (RNAi) pathway has provided a starting point in our journey to understand the biological roles of miRNAs.

miRNAs are simple yet complex entities and key players in the epigenetics which control gene expression.

It is clear from the above that miRNAs can positively and negatively impact many elements in the pathways we have considered in HGPIN and PCa. Coppola et al review several of the key ones. For example:

- miR-146: Down regulates the AR.
- miR-34: Can recapitulate p53 resulting in apoptosis and arrest.
- miR-23: can result in c-myc overexpression and cell proliferation.

In a recent paper by Poliseno et al they have identified several others:

- miR-106b: Down-regulates PTEN and triggers PIN in murine models.
- miR-22, miR-25, miR-302: Down-regulating of PTEN.

Similarly the papers by Petrocca et al and that by Calin and Croce detail many of the miRNAs and their impacts on many cancers. As seen in the above graphic these are but a few in the overall targeting of PCa control genes. As Coppola et al state:

The hypothesis that miRs can be regarded as new broad-spectrum oncogenes or tumor suppressor genes has opened a revolutionary field of research with exciting diagnostic and therapeutic perspectives.

The compelling hint of a widespread miR deregulation in cancer pathogenesis came from the analysis of the genomic distribution of 186 miR. In this study, it was demonstrated that more than half of them mapped in cancer-associated genomic regions, namely in chromosomal sites

prone to deletions, amplifications or recombinations. These aberrations can result in miR down- or up-regulation, conferring selective advantages to mutated cells.

Additional mechanisms of miR deregulation include altered expression of miRs as a consequence of excessive or deficient processing; aberrant transcription of the precursors by epigenetic silencing of miR promoters or as a result of the activity of oncogenic transcription factors; and more rarely, point mutations in mature miRs or in target sequences that can interfere with normal target recruitment

The problem that we will have in any modeling of HGPIN and PCa is not only do we have issues regarding the somewhat well-known genes but the impact of the epigenetic factors is unknown, complex, and possibly random.

Furthermore miRNAs can act in a positive or negative manner depending upon the cell and the activated networks in the cell. From Croce (2009) we have:

Importantly, miRNAs should not be described as oncogenes or tumor suppressor genes, unless the tissue or cell type involved in their action is specified. For example, miR-221 and miR-222 target an oncogene, KIT, and inhibit the growth of erythroblastic leukaemia³⁰, and therefore function as tumor suppressors in erythroblastic cells. but they also target at least four important tumor suppressors — phosphatase and tensin homologue (PTEN), p27, p57 and tissue inhibitor of metalloproteinases 3 (TIMP3) — and function as oncogenic miRNAs by suppressing these tumor suppressors in various human solid tumours³¹ (TABLE 1). Therefore, before describing an miRNA as a tumor suppressor or an oncogene, it is necessary to specify in which cell or tissue, as cellular context is crucial for the function of miRNAs....

Recent work on miR-34 has demonstrated its impact on p53 (Rokhlin et al) and the fact that miR-34 significantly mediates the role of p53 in apoptosis in AR dependent PCa.

As we have indicated elsewhere, the concept of the cancer stem cell has received significant attention. There has also been a great deal of work on the area of linking miRNAs and the stem cell model for PCa. In a recent work by Liu et al (2011) the authors demonstrate the nexus between miR-34a and its ability to inhibit PCa stem cells by directly repressing CD44. They observe that cancer stem cells have been observed in many solid cancers by using the fact that CD44 adheres to the cell surface. PCa stem cells with enhance clonogenic and tumor initiating and metastatic capacities are often enriched with CD44+ cell population. The work of Liu et al demonstrated that the administration of miR-34a to PCa cells inhibited PCa metastasis and inhibited PCa regeneration. This is one of the first uses of miRNA as a tumor suppressor.

In a recent paper by Xia (2008) the author states:

The key characteristics of stem cells are that they are capable of self-renewal and differentiation. The mechanisms by which stem cells maintain self-renewal and differentiation are complicated. In the past years, protein-coding genes had been broadly investigated in stem cell self-renewal and differentiation. Recent studies indicate miRNAs as one of the most abundant classes of post-transcriptional regulators proved to be crucial in a wide range of biological processes, which

suggest that miRNAs may also play essential roles in stem cell self-renewal and differentiation. Disruption of Dicer function in murine ESs influences miRNA processing and greatly impairs their ability to differentiate ...

Cancer stem cells (CSCs) are the cells within a tumor that possess the capacity to self-renew and to produce the heterogeneous lineages of cancer cells that comprise the tumor. CSCs can thus only be defined experimentally by their ability of self-renewal and tumor propagation.

The implementation of this approach explains the use of alternative terms in the literature, such as “tumor-initiating cells” to describe putative CSCs. ...

The identification of growth and differentiation pathways responsible for CSC proliferation and survival will help in the discovery of novel therapeutic targets. Previous studies have shown that many signal pathways may participate in regulating CSC functions, including Wnt/ β -catenin, Notch, and Sonic hedgehog homolog (SHH). The canonical Wnt cascade has emerged as a critical regulator of stem cells and activation of Wnt signalling has also been associated with various cancers ...

CSC maintenance is dependent on β catenin signaling. Moreover, because Wnt/ β -catenin signalling is not essential for normal epidermal homeostasis, such a mechanistic difference may thus be targeted to eliminate CSCs and consequently eradicate squamous cell carcinomas. It is therefore hypothesized that inhibition of Wnt signaling may provide an effective way to reduce the unwanted stem cell renewal which results in cancers.

Inhibition of Wnt signalling may prove to be an effective road to inhibit the uncontrolled cell renewal that drives cancer. Acting as novel and pivotal regulators of protein-encoding genes, miRNAs will have great potential in regulating CSCs' biological functions by targeting CSCs-related signal pathway molecules.

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Labels: [Cancer](#)

SUNDAY, JANUARY 23, 2011

[ECONOMICS FROM ROME](#)



The [Catholic News Agency](#) reports that the Vatican apparently opposes Keynes and Government control. It states:

Current fiscal and monetary policies in the United States and Europe risk increasing government control over national economies, resulting in weakened political strength throughout “the whole of the western world,” the Vatican’s top banking expert said.

Ettore Gotti Tedeschi has been head of the Vatican's bank, known as the Institute for Religious Works, since 2009. He has a long career in finance, having served as the head of Banco Santander, the largest private bank in Europe, as well as on the boards of some of the continent’s leading financial institutions.

He is known as a staunch capitalist with a deep concern for the Church’s social teaching. He is also a former professor of financial ethics at the Catholic University of Milan.

Writing in the Jan. 14 edition of the Vatican newspaper, L'Osservatore Romano, Tedeschi warned of the growing influence of “Keynesian” economic theory on both sides of the Atlantic. John Maynard Keynes was a prominent 20th-century economist whose theories were widely embraced by world powers to jump-start their economies after World War II.

Tedeschi cited a 2009 book, "Where Keynes Went Wrong: And Why World Governments keep creating Inflation, Bubbles and Busts," by the American economist and philosopher Hunter Lewis.

He said Lewis had spelled out the "doctrinal errors and practical disasters" of Keynes' theories. In simple terms, Keynes taught that in times of economic crisis, consumer demand must be stimulated by government investment and an "attitude of saving" must be discouraged, Tedeschi wrote.

He said Keynes' crisis-averting tactics can be seen in the U.S., where government economic policy has focused on increasing public expenditures – and public debt – in order to stimulate private economic activity, including consumer demand and employment.

In addition, also following Keynesian wisdom, the U.S. is printing more money and has looked at increasing taxes in an effort to generate more public revenues.

And I thought I had problems. This may send many back to Church. All kidding aside, it seems well thought out. I look forward to what the Left thinks of this one. One for the Vatican!

Labels: [Economics](#)

GOVERNMENT AS THE ENTREPRENEUR?

The entrepreneur is one who takes chances, albeit educated and calculated, to try and deploy a novel and potentially profitable new product or service. The entrepreneur will work for nothing, spend their own resources, go 24 by 7 and do this with total risk, no insurance, no safety net. I know since I have been there a few times.

Now the new proposals from the current Administration to have Government sponsored and managed and institutionalized innovation, not only having the Government fund it but also have it in the Government itself is fruitless. It will be a total waste of funds.

However NIH has over the years managed to do some good research. Not entrepreneurial but good research. The Vietnam War in a strange sort of a way was a great stimulus. Any MD avoided the draft or at least going to Vietnam by going to NIH is they could not find a VA Hospital to hide in. Today some of the best minds can find a good post doc slot there, pay is good, and some great minds still left over from the late 60s and early 70s.

The new proposal to have [NIH create a pharmaceutical development company](#) may be a stretch. If industry is falling behind as viewed by the Administration perhaps the reason is Government and NOT the industry and the solution is less Government and not more.

The challenges going forward say in cancer is understanding how to deal with all the new knowledge rather than just pumping out standard drugs. For example if miRNAs are a major issue then how do we deal with them. That is a university and industry issue and should not be subsumed under a new power grab by the Government.

Labels: [Health Care](#)

FRIDAY, JANUARY 21, 2011

[THE ENTREPRENEUR AND BIG BUSINESS](#)



The current President does not understand the engine of the US economy. It was and still is the entrepreneur. It was Edison and not GE. GE is at best a mere shadow of what Edison did. Edison created the value, and frankly he prospered a bit but no where as much as did GE. GE creates large engines, the basic value element was created by the entrepreneur, not GE.



Edison tried one thing after another, creating many great inventions and so many more dogs. He did so with extreme risk, ups and downs. This is the entrepreneur of the 19th century and we need the same in the 21st century. We do not get that from GE.

I remember when I finished my PhD and a few other degrees, GE wanted to interview me and before that could happen I had to take a test to see how well I would do at designing a refrigerator. Needless to say I did not waste my time on that! The question is who did, and the result is a large company which makes diesel engines. Valuable but frankly even the Chinese can do that. What is new of sustainable value?



It is worth a trip through Edison's Labs, to see how many times he tried something. He was not well educated, yet he had persistence and was dogmatic in his approach. What are we doing to enhance and leverage that entrepreneur. GE perhaps is the last player we should look to emulate, why just look at NBC, and yes they are dumping that dog.

Labels: [Economy](#)

FRIDAY, JANUARY 21, 2011

[INDEED, WHAT IS HEALTH CARE REFORM?](#)

I wrote recently about a small proposal regarding the debate in health care. In an [explosion of the blogs](#) amongst the [macroeconomists](#) I find the following:

1. Not a one has done any detailed analysis of the current situation
2. Not a one has identified the key elements of costs
3. Not a one has detailed the explosion of costs in the new laws
4. Not a one has made a detailed proposal as an alternative

Any reader here would not I have done all. For better or worse, numbers and facts count. You can object to my facts with other facts and counter my numbers with other numbers. But if you have done none of the above what in God's name are you even speaking for!

It is akin to a small Irish bar in the hinterlands with no radio or TV, sometime in the 17th century, where the most a person traveled was say 10 miles. They all have opinions, even several each, and after a few turns of the elbow they get into a fight for no reason, they even conflict with themselves. Perhaps if they had brought some facts to the table it may help.

As you say to your little puppy, Silly Economists! Silly Economists! Now Sit!

Labels: [Health Care](#)

THURSDAY, JANUARY 20, 2011

[THE BATTLING MACROECONOMISTS](#)

The macroeconomists have gotten us in enough of a mess on the financial side of the equation and not these fellows are walking into health care. You see, they really have demonstrated a global sense of ignorance in this area in prior attempts. I have repeatedly come to the conclusion that they think top down and not bottom up. To be successful you really must think both ways, kind of like an engineer, which is why China has so many in its government.

Now there are a few of them battling today on the stupidity of the health care bill. Yes it is a stupid bill, no I believe that universal health care is essential, and yes I have a solution which is laid out in detail last year. And yes there is a minor problem with the universal mandate but it can be worked around, and yes the very last entity you want controlling anything is the Federal Government, States are worse but we assume they get no where near this.

The boys are out there throwing stones, on the [Left](#) and on the [Right](#), not my right but the political right. I try not to use names since then they just read my writings and remains as clueless as before so why even try.

Here is the start of this argument. A Right faculty member stated that if he were given a billion dollars and if the Government were to tax everyone three billion at the same time because of the billion gift, there would be no deficit. Namely if we tax at a rate of three times our expenses we would not have any deficit, and most likely no economy and then, well you see the argument.

The Left then gets upset because they see this as a gift to some rich academic fellow, especially someone who they see on the Right, whereas they believe that the Government is providing valuable health care to those who have been denied such. In reality they are getting care now, nothing really changes, except the Government has taken control and taxes are considerably more. Remember the new almost 4% tax on the gross sales price of your home when you sell it! That means the realtor gets her 6% and the Government gets 4% for a total of 10% and the house price is already down 30% because of this mess so you have lost almost 50% of your equity, and frankly a lot more if you have a mortgage! That is what the Left should be really talking about, and add to that the CER controlling procedures to those over 65 and you get more dead folks as well, but dead ones where we are already pushing down costs.

As the left states:

To equate the good that comes from covering people with health insurance -- insurance that the private market will not provide for them itself -- with giving X a handout of a billion dollars is pretty silly. He knows better. Apparently he doesn't have a plan to accomplish the same good for less or he would have told us about that instead of trying to add fog to the debate. Or, perhaps he does have a plan, but his view is that the benefits from helping people do not cover the costs, so it wouldn't be worth it -- hence the charge of callousness. In any case, the important question has nothing to do with the deficit per se, it's whether correcting for this market failure in health insurance markets produces social benefits that exceed the costs. If he believes the benefits of extending health care coverage to people who cannot get it any other way are small, he should say so directly. If he doesn't believe that, then stop the fog machine, actually use the thinking cap, and give us the alternative plan.

No it is not pretty silly. The principle is the same. You see we are not taking anything away or really giving them anything. We are using the ploy as a means to tax people throughout a 2000 page document and at the same time create a massive new set of Government agencies. Silly Left! Silly Left!

Labels: [Health Care](#)

[HOW TO LEARN: TAKE A TEST?](#)

There is an interesting paper in this week's [Science](#) regarding how to learn. To best understand this article one should also read the brilliant 1987 work of [Winograd and Flores](#), and then perhaps there would be a confluence.

The authors of the Science article state:

Here, we show that practicing retrieval produces greater gains in meaningful learning than elaborative studying with concept mapping. The advantage of retrieval practice generalized across texts identical to those commonly found in science education. The advantage of retrieval practice was observed with test questions that assessed comprehension and required students to make inferences. The advantage of retrieval practice occurred even when the criterial test involved creating concept maps. Our findings support the theory that retrieval practice enhances learning by retrieval-specific mechanisms rather than by elaborative study processes. Retrieval practice is an effective tool to promote conceptual learning about science.

Now for engineers like me, reading anything by psychologists must require translation. Retrieval practices means taking tests on what you studied. Testing yourself they conclude enhances retention and more importantly, if I translate them correctly, understanding.

Winograd and Flores took this a step further, by a hands on approach we learn the true meaning. Thus in Medicine, one can study a disease as much as you like but it is the case of Mr. Brown or Mrs. Green that sticks in your mind, you remember almost viscerally all the elements. In engineering it is the first build it and test it to see if it works, because you will inevitably make errors from which you will learn the most, you correct them and that process leads to understanding, not just retention.

That is the essence of the Winograd and Flores understanding.

The question posed is one which asks if multiple choice exams, such as Board exams, serve a purpose, since when one studies them one memorizes, and in today's Board exams purportedly one also infers from the memorized fact.

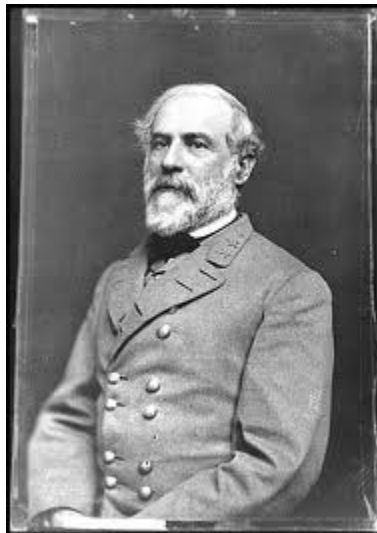
But the practice may use the facts but it is the hands on experience from which true understanding flows.

Finally teaching it also is worthwhile, especially if your students are motivated to test your understanding to the limit. At MIT an instructor would always be tested. The student was always trying to find a mistake that you made. In contrast when I taught business finance at Columbia, I often wondered if they had a clue. Was it Columbia, business school, or both?

Labels: [Education](#)

WEDNESDAY, JANUARY 19, 2011

[ROBERT E LEE: BIRTHDAY GREETINGS](#)



Today is Robert E Lee's birthday for those of us north of the Mason Dixon. Only reason I remember is it is also my father's birthday and during WW II the coincidence did help a Yankee with a mostly Southern crew.

Labels: [Commentary](#)

TUESDAY, JANUARY 18, 2011

[THE CANCER STEM CELL](#)

There is an interesting article in the [Guardian](#) regarding the theory of cancer stem cells. Simply stated, the cancer stem cell theory states that there exists a certain class of cells within a cancer which account for the ongoing malignant behavior, and that most if not almost all the cancerous cells are secondary and not involved in the ongoing reproduction.

As Weinberg notes, there is the theory of clonal development of cancer which states that the cancer cells are pluripotent and have developed from a single source and that they have the capability of reproducing and do so in an autonomous manner (see Weinberg, *Cancer*, pp 416-417). Then there is the theory of the cancer stem cell, the theory which states that there is the equivalent of a stem cell as we know in blood cells, which have the capability but that the majority of malignant cells do not necessarily have that capacity.

In an NIH report they define cancer stem cells as follows:

A consensus panel convened by the American Association of Cancer Research has defined a CSC as "a cell within a tumor that possesses the capacity to self-renew and to cause the heterogeneous lineages of cancer cells that comprise the tumor." It should be noted that this definition does not indicate the source of these cells—these tumor-forming cells could hypothetically originate from stem, progenitor, or differentiated cells.

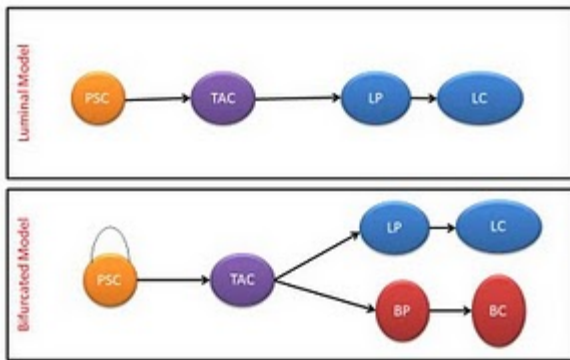
As such, the terms "tumor-initiating cell" or "cancer-initiating cell" are sometimes used instead of "cancer stem cell" to avoid confusion. Tumors originate from the transformation of normal cells through the accumulation of genetic modifications, but it has not been established unequivocally that stem cells are the origin of all CSCs.

The CSC hypothesis therefore does not imply that cancer is always caused by stem cells or that the potential application of stem cells to treat conditions such as heart disease or diabetes, as discussed in other chapters of this report, will result in tumor formation. Rather, tumor-initiating cells possess stem-like characteristics to a degree sufficient to warrant the comparison with stem cells; the observed experimental and clinical behaviors of metastatic cancer cells are highly reminiscent of the classical properties of stem cells.

The stem cell theory, and there seems now to be significant evidence of its validity in prostate cancer, is principally that the clonal theory has merit to a point but that the development is more complex and the cancer stem cell plays a critical role in fostering growth of the cancer cells, most of which has less aggressive a growth characteristic if any at all.

Lawson and Witte present a recent overview of this concept as applied to the prostate and PCa. Recent studies apparently indicate that the cancer stem cells, CSC, are necessary to sustain later stages of the development of the malignancy. Only a small subpopulation of the cancer cells, the CSC population, has a demonstrated ability to maintain the malignancy as well.

Lawson and Witte present two theories of this CSC process. One is called the stochastic theory which is that all cells are equally malignant. The other theory, the one for CSC, called the hierarchical theory is that only the CSC has the ability to multiply. These two are graphically depicted below. The CSC or in this case the PSC, prostate stem cell, yields a TAC, or transition amplifying cells, then yield progenitor cells, LP or BP, and then finally a luminal or basal cell. This is slight contrast to the Goldstein model. This model applies for both benign as well as cancer cells, at least as viewed by Lawson and Witte.



1/18/2005

Lecture 3 A Simple Model

59

Now if one looks at the CSC theory, then we see a CSC has progeny, and yet those progeny may not have the ability to multiply. Thus the explosive exponential growth of cancer is not as clear in a CSC model, because almost all of the progeny of the CSC are non-reproducing progeny. Thus the growth models for a CSC based malignancy are more complex and are dependent on limited CSC reproduction and non-CSC reproduction.

However the CSC model also argues for there being some CSC support for the progeny which are not CSC. The dynamics of cell growth then becomes quite complex here, for the stem cells replicate themselves at a slow rate but are replicating other cells at a higher rate. However the other cells do not replicate themselves they just go through a standard cell process. If the cells are benign then they go through apoptosis as seen in red blood cells and the skin keratinocytes.

As the Guardian states:

An emerging, although highly controversial, answer to this question is that cancer's immortality, too, is borrowed from normal physiology. The human embryo and many of our adult organs possess a tiny population of stem cells that are capable of immortal regeneration. Stem cells are the body's reservoir of renewal. The entirety of human blood, for instance, can arise from a single, highly potent blood-forming stem cell (called a haematopoietic stem cell), which typically lives buried inside the bone marrow. Under normal conditions, only a fraction of these blood-forming stem cells are active; the rest are deeply quiescent – asleep. But if blood is suddenly depleted, by injury or chemotherapy, say, then the stem cells awaken and begin to divide with awe-inspiring fecundity, generating cells that generate thousands upon thousands of blood cells. In weeks, a single haematopoietic stem cell can replenish the entire human organism with new blood - and then, through yet unknown mechanisms, lull itself back to sleep.

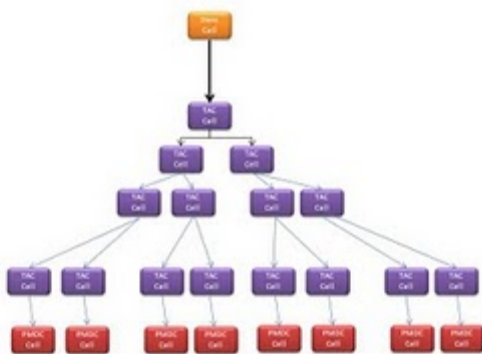
Something akin to this process, a few researchers believe, is constantly occurring in cancer – or at least in leukaemia. In the mid-1990s, John Dick, a Canadian biologist working in Toronto, postulated that a small population of cells in human leukaemias also possess this infinite self-renewing behaviour. These "cancer stem cells" act as the persistent reservoir of cancer – generating and regenerating cancer infinitely. When chemotherapy kills the bulk of cancer cells, a small remnant population of these stem cells, thought to be intrinsically more resistant to death, regenerate and renew the cancer, thus precipitating the common relapses of cancer after chemotherapy. Indeed, cancer stem cells have acquired the behaviour of normal stem cells by activating the same genes and pathways that make normal stem cells immortal – except, unlike normal stem cells, they cannot be lulled back into physiological sleep. Cancer, then, is quite literally trying to emulate a regenerating organ – or perhaps, more disturbingly, the regenerating organism. Its quest for immortality mirrors our own.

Now we can view the stem cells as shown below. There is a stem cell which can give rise to a new stem cell or ultimately a Post Mitotic Differentiated Cancer Cell. The PMDC cannot replicate, whereas the stem cell can. For metastasis it is thus necessary to send out a few stem cells, not PMDC cells.



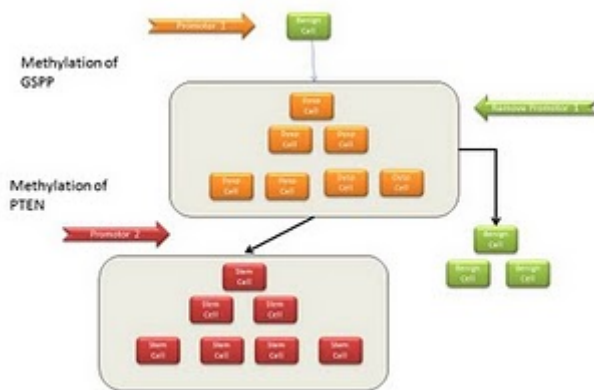
PMDC Cell: Post Mitotic Differentiated Cancer Cell

Then there is a cascade of these cells into a Transit Amplifying Cell and then finally the Post Mitotic Differentiated Cancer Cell.

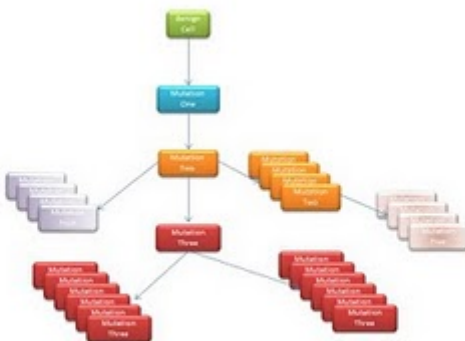


TAC: Transit Amplifying Cells

Then we can see the stem cells replicating as follows:



And finally we have:



To better understand we quote Lawson and Witte as follows:

Models of prostate epithelial differentiation. The traditional model for prostate epithelial differentiation proposes that PSCs residing in the basal cell layer give rise to intermediate, transit-amplifying cells that produce large numbers of terminally differentiated secretory luminal cells This model implies a linear differentiation scheme in which basal and luminal cells comprise one lineage and basal cells are essentially luminal cell progenitors ...

This hypothesis is supported by the existence of cells of intermediate phenotype that express both basal- and luminal cell-specific cytokeratins in both fetal and adult stages of prostate development ... Intermediate cells can also be identified in in vitro cultures of primary prostate epithelium ... Several studies have also suggested basal cells can differentiate into luminal cells in vitro ... Alternative theories for prostate epithelial differentiation propose basal and luminal cells may represent separate epithelial lineages ... This is similar to prevailing models for epithelial differentiation in the mammary gland, a tissue that is anatomically and functionally analogous to the prostate ...

Now there have been several others who have examined the stem cell model for PCa. Another of recent merit is that of Hurt et al. They summarize their work as follows:

Recent evidence supports the hypothesis that cancer stem cells are responsible for tumor initiation and formation. Using flow cytometry, we isolated a population of CD44+CD24- prostate cells that display stem cell characteristics as well as gene expression patterns that predict overall survival in prostate cancer patients. CD44+CD24- cells form colonies in soft agar and form tumours in NOD/SCID mice when as few as 100 cells are injected.

Furthermore, CD44+CD24- cells express genes known to be important in stem cell maintenance, such as BMI-1 and Oct-3/4. Moreover, we can maintain CD44+CD24- prostate stem-like cells as non-adherent spheres in serum-replacement media without substantially shifting gene expression. Addition of serum results in adherence to plastic and shifts gene expression patterns to resemble the differentiated parental cells.

Thus, we propose that CD44+CD24- prostate cells are stem-like cells responsible for tumor initiation and we provide a genomic definition of these cells and the differentiated cells they give rise to. Furthermore, gene expression patterns of CD44+CD24- cells have a genomic signature that is predictive of poor patient prognosis. Therefore, CD44+CD24- LNCaP prostate cells offer an attractive model system to both explore the biology important to the maintenance and differentiation of prostate cancer stem cells as well as to develop the therapeutics, as the gene expression pattern in these cells is consistent with poor survival in prostate cancer patients.

Jordan et al characterize cancer stem cells as having three characteristics:

1. Self-Renewal: at the end of mitosis of the stem cell, either one or both retain all the characteristics of the parent. The stem cell goes through a mitotic doubling and when it does it always retains one or two stem cell daughters.

2. Capability to generate multiple lineages. This means that a stem cell can generate offspring which can become anyone of many cell types.

3. Potential to proliferate extensively. The cell can keep replicating, it has no limitation within reason and thus contains the elements ultimately for metastasis.

A normal stem cell may mutate to a cancer stem cell or a normal progenitor cell may morph back to a cancer stem cell.

As Delarbra et al state:

Although monoclonal in origin, most tumors appear to contain a heterogeneous population of cancer cells. This observation is traditionally explained by postulating variations in tumor microenvironment and coexistence of multiple genetic subclones, created by progressive and divergent accumulation of independent somatic mutations.

An additional explanation, however, envisages human tumors not as mere monoclonal expansions of transformed cells, but rather as complex tridimensional tissues where cancer cells become functionally heterogeneous as a result of differentiation.

According to this second scenario, tumors act as caricatures of their corresponding normal tissues and are sustained in their growth by a pathological counterpart of normal adult stem cells, cancer stem cells.

The statement starts with the accepted monoclonal hypothesis and then departs to a polyclonal alternative view. It retains the CSC, cancer stem cell, paradigm for solid tumors as well. In the context of HGPIN we see a change in the cells and we have heard the argument that they have made one or several of the unchangeable steps towards PCa.

Thus using the CSC theory one would expect that it would be from one or several of these cells that PCa would arise. In addition, we could assume that there is no unique pathway mutations or changes which result in PCa but a plethora of them. Simply stated, cancer is complex, it finds ways to migrate forward no matter what the path.

A [recent study](#) has focused on the stem cell and its dynamics. They state:

The method, published in the online journal PLoS ONE in January, may rev up efforts to develop stem cell therapies for Alzheimer's, Parkinson's and other diseases. It may also help get to the root of the cancer-stem cell theory, which puts forth the idea that a tiny percentage of loner cancer cells gives rise to tumors.

"Math is going to be the new microscope of the 21st century because it is going to allow us to see things in biology that we cannot see any other way," said Brent Reynolds, Ph.D., an associate professor of neurosurgery at UF's McKnight Brain Institute and a member of the UF Shands Cancer Center. "Stem cells and the cells that drive cancer may be as infrequent as one in 10,000

or one in 100,000 cells. The problem is how do you understand the biology of something whose frequency is so low?"

Inspired by a 2004 essay by Joel E. Cohen, Ph.D., of The Rockefeller University and Columbia University that described the explosive synergy between mathematics and biology, Reynolds and postdoctoral associate Loic P. Deleyrolle set out to build an algorithm that could determine the rate stem cells and cancer stem cells divide.

High hopes to treat or prevent diseases have been pinned on these indistinguishable cells, which are often adrift in populations of millions of other cells. Scientists know stem cells exist mainly because their handiwork is everywhere — tissues heal and regenerate because of stem cells, and somehow cancer may reappear years after it was thought to be completely eliminated.

This should be an interesting area to follow.

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Labels: [Cancer](#)

THE PSA CONTROVERSY AGAIN

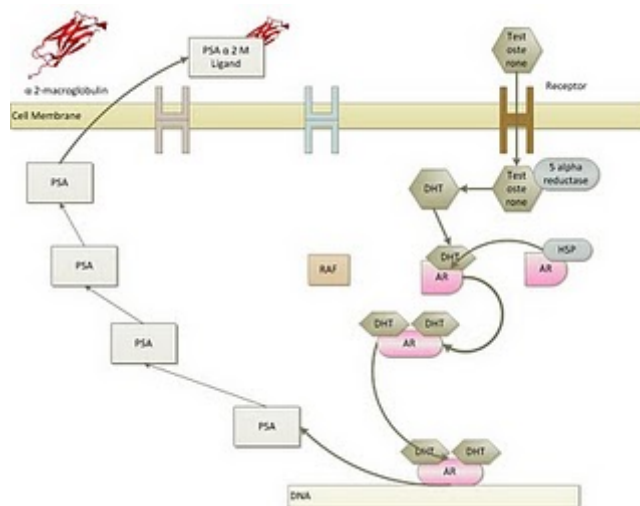
In view of this week's vote on health care and my ongoing concern regarding the current bill which empowers some corpulent marginally educated GS-9 to decide who gets what procedure, and yes that means lives or dies, via the rubric of comparative clinical effectiveness, I will present an interesting update on the PSA issue.

You see, in the past year we have had all types of folks saying that PSA is ineffective, breast mammograms do not work, and that "watchful waiting", the euphemism of just sending you home, has reached the top of the list for the current Administration. Somehow they think that we know everything and that we can now make decisions. Yet every week something new comes out.

Let me address the PSA issue in the context of a paper which came out last week. The question is why does the PSA increase and more importantly why with PCa does the % Free PSA drop. This paper gives some insight.

In the normal course of prostate cell homeostasis, PSA is produced by the binding of Testosterone to the ligand on the luminal cell and the resulting transformation to DHT and its binding to the Androgen Receptor which acts in turn as a transcription factor for PSA. PSA exists mostly in complexed and inactive form; bound to alpha 2 macroglobulin and alpha 1 antichymotrypsin. 40% of the bound is with alpha 2 macroglobulin. Half-life PSA is 2.2-3.2 days. The baseline may takes weeks to return to normal after certain procedures.

We show this process below (See Feldman and Feldman, 2001):



In the above the PSA is released and then is free, it may bind with alpha 2 macroglobulin or with alpha 1 antichymotrypsin. In a benign configuration there is generally 35% of the PSA remaining free and unbound.

Now in a recent paper by Misra et al (2011) they discuss the impact of GRP78 in cancerous cells. In a recent write-up of the work the authors state (see Gore, Eureka):

Using human prostate cancer cells in a laboratory culture, the team found that an antibody reacts with a cell surface receptor called GRP78 on the cancer cells to produce more PSA. The PSA arises inside of the cancer cell and then moves outside of the cell, where it can bind with the same antibody, called alpha2-macroglobulin ($\alpha 2M$).

The PSA forms a complex with the antibody that also binds to the GRP78 receptor, and that activates several key pathways which stimulate cancer cell growth and cell movement and block cell death.

The study bolsters the case for measuring PSA as a marker of tumor progression, as well as for monitoring for $\alpha 2M$ antibody levels.

That is the release of GRP78 enforces the release of PSA, bound to alpha-2-M which increases PSA total and reduces PSA free. The GRP78 is then an added marker for excess cell growth, and thus a putative marker for PCa and putatively PSA total and percent free than has substantially increased significance for monitoring PCa.

Also this is a positive feedback loop, the link to the enhancement of Akt then is an enhancement of cell proliferation and growth even with the negative influence of PTEN if present.

GRP78, a well characterized chaperone in the endoplasmic reticulum, is critical to the unfolded protein response. As Lee (2007) states:

The glucose-regulated protein GRP78, also referred to as BiP (immunoglobulin heavy-chain binding protein), was discovered in the late 1970s together with GRP94 and GRP58 as cellular proteins induced by glucose starvation. Residing primarily in the ER, GRP78 belongs to the HSP70 protein family, which plays critical roles in the stress of oncogenesis.

In addition to facilitating proper protein folding, preventing intermediates from aggregating, and targeting misfolded protein for proteasome degradation, GRP78 also binds Ca^{2+} and serves as an ER stress signaling regulator. In nonstressed cells, GRP78 binds to ER transmembrane sensor proteins PERK, IRE1, and ATF6 and maintains them in an inactive form. When unfolded proteins pull GRP78 away from them, these pathways are activated, sending signals to the nucleus to trigger the UPR.

As Pootrakul et al state:

The glucose-regulated proteins (GRP) were initially identified as such in transformed chick embryo fibroblasts growing in glucose-deprived medium. The most well studied member of the GRP family is Grp78, a 78-kDa protein also recognized as immunoglobulin heavy-chain binding protein (BiP). Normal functions of Grp78, which resides in the endoplasmic reticulum (ER) lumen, include proper folding and assembly of other polypeptides leading to formation of functional proteins, retention of unassembled precursors to the ER, targeting mis-folded protein for degradation, ER Ca^{2+} binding, and the regulation of trans-membrane ER stress inducers.

The involvement of Grp78 in enhanced cell survival is suggested by the remarkable elevation of GRP78 transcription rates under various stress conditions.

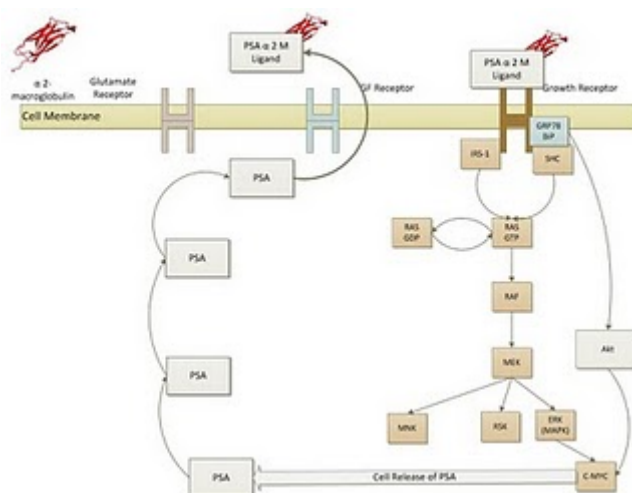
Recently, Grp78 has been shown to directly interact with intermediates of the apoptotic pathway, blocking caspase activation, where Grp78 induction results in increased cell survival and inhibition of apoptosis.

More recently, it has been identified on the cell surface, where it has many roles. On cancer cells, it functions as a signaling receptor coupled to proproliferative-antiapoptotic and promigratory mechanisms.

In the current study, Misra et al (2011) demonstrate that:

1. Ligation of prostate cancer cell surface GRP78 by its natural ligand, activated α_2 -macroglobulin (α_2M^*),
2. Results in a 2–3-fold up-regulation in the synthesis of prostate-specific antigen (PSA).
3. The PSA is secreted into the medium as an active proteinase, where it binds to native α_2M .
4. The resultant α_2M -PSA complexes bind to GRP78, causing a 1.5–2-fold increase in the activation of MEK1/2, ERK1/2, S6K, and Akt,
5. Which is coupled with a 2–3-fold increase in DNA and protein synthesis.

PSA is a marker for the progression of prostate cancer, but its mechanistic role in the disease is unclear. The present studies suggest that PSA may be involved in a signal transduction-dependent feedback loop, whereby it promotes a more aggressive behavior by human prostate cancer cells. We demonstrate this below:



Thus what does this tell us? Simply, there is now a well defined mechanism for PSA and % Free PSA and we can relate it to the pathways for PCa. This further strengthens the use of PSA despite what the Administration may say. Science is a strange thing at times, really!

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Misra, U., [Ligation of Prostate Cancer Cell Surface GRP78 Activates a Proproliferative and Antiapoptotic Feedback Loop: A Role for Secreted Prostate-Specific Antigen](#), Jrl Bio Chem 2011, pp 1248-1259.

Pootrakul, L., et al, Expression of Stress Response Protein Grp78 is Associated with the Development of Castration Resistant Prostate Cancer. Hum Can Bio 2006 pp 5987-5993.
Labels: [Cancer](#), [Health Care](#)

MONDAY, JANUARY 17, 2011

[JUST HOW OPEN IS CHINA?](#)

The [People's Daily](#) today has an interesting overview of the Chinese dependence on the US. It states:

Since the beginning of the new year, American companies one after the other have proposed their new policies of investing in China. General Electric Company (GE) will invest more than \$2 billion to sharpen its research and development in China with several new innovation centers and joint ventures; P&G has announced that they will in five years add another \$1 billion in China; Ford Motor Company said they would further expand their production this year; Caterpillar Inc will build new joint ventures to boost their spare parts business in China; Starbucks has confirmed that their coffee shops in China will reach as many as 1,500 by 2015; The Carlyle Group will raise money specially to be used in China.

Intel China is no exception. According to Ge Jun, Executive Director of Intel China, the Chinese government is pushing the integration of the "three nets" (namely, telecom, computer and cable TV networks) and the development of Internet of Things (IoT). This undoubtedly will provide new opportunities to the US IT industry. Since Intel's settlement in China in 1985, China has become its second largest market outside of its homeland.

According to statistics from China's Ministry of Commerce, by the end of 2010, the US had invested in more than 59,000 projects in China with a total of \$ 65.22 billion. China is becoming a "money spinner" to US companies. A survey by the Chinese American Chamber of Commerce said that 71% of the US-funded ventures made profits in 2009 and 46% of them gained a higher profit ratio in China than they did in any other country.

Since joining the World Trade Organization (WTO) 10 years ago, all the 100 service institutes China pledged to open have accepted US investment. In areas such as accounting, banking, insurance, security and commerce, US companies are making big money and are running very well.

Currently, China is the second largest trade partner and the top growing export market of the US. According to Chinese Customs, the volume of Sino-US trade in 2010 was \$385.34 billion with a nearly 30% annual increase. In 2010, China's import volume from the US was \$102.04 billion with an increase of 31.7% year-on-year.

This clearly a sweetening of the rhetoric before the visit next week. The \$100 billion import number is projected for 2010, update awaiting. The exports are still almost 4 times the imports.

The trade issues are inconsequential compared to the PLA issues.

Yet in contrast there is also a discussion regarding the yuan. [They state](#):

The year 2010 was bumpy for Sino-US relations. On the political front, the United States has been irritated by what it sees as an "overly confident" China. On the economic side, China's revaluation of the yuan cannot satisfy some Americans' appetite for a buoyant rise of the yuan in the range of 20 to 40 percent.

Against this background, some Americans, especially people on Capitol Hill, see President Hu Jintao's state visit to the US this week as an opportunity to increase pressure on China to make bolder progress on the yuan issue. On the Chinese side, however, no giant steps will be taken; the yuan is already on the revaluation track.

To a large extent, the Chinese leadership's cautious attitude toward the yuan is understandable. Many people in the US, including a number of China experts, have failed to realize that like its American counterpart, the Chinese leadership, too, puts employment at the top of its agenda. In the US, the motive is votes. In China, it is social stability.

The revaluation of the yuan, however, may not have a great effect on employment in China. Researchers at the China Center for Economic Research and the National School of Development in Peking University did a simulation study on the effects of the yuan's revaluation on the Chinese as well as the US economies.

Again a deflection from the real issue namely the expansion of the PLA.
Labels: [China](#), [Economy](#)

MONDAY, JANUARY 17, 2011

WIRELESS CARRIERS AND STANDARDS

In the [NY Times](#) today some author is commenting on the ATT iPhone mess and standards. Well let me make a few comments since he could probably blame me.

It was 1989 and I was then head of R&D at NYNEX. We saw that the analog cellular systems were soon to run out of capacity and we needed to go digital. We needed to do this change quickly. This was a time when we had no single R&D group, Bell Labs was gone, and historically they were always too slow. We had to now rely on American entrepreneurial leadership, a change for the regulated telephone world.

Irwin Jacobs, from Qualcomm, my former advisor from MIT some 25-30 years earlier came pitching CDMA. This was an elegant and doable approach which solved so many problems. I saw the potential immediately and became "Paul on the road to Ephesus". Sitting besides by biblical horse I went about selling the idea.

But, ATT, and especially SW Bell, now ATT, had chosen a TDMA standard and Jacobs and myself and a few others chose to go CDMA, because it was clearly better.

The SW Bell folks were adamant, and wrong. They chose TDMA.

Thus there was a war on amongst the cellular carriers in the US.

Meanwhile, slowly the Europeans were developing a different standard, GSM, but mobile was slower to develop in Europe yet we had a real problem in the US, cellular was growing faster and we had introduced portable phones at lower power. Thus we saw portable phones, more users, greater demands and a need to get out of analog before it was impossible to do so. You see the FCC had mandated auctions which made getting more spectrum impossible in the short run.

Thus we in the US had to make a decision earlier. And decide we did.

By late 1990 I became COO at NYNEX cellular and my prime task was clearly to sort out this mess. I brought all carriers together in September 1991 in California and we got a significant agreement, five of the 7 agreed on CDMA. SW Bell, now ATT, was the prime hold out, they stuck with TDMA. They later bought a company which had GSM, which is why they are GSM now. So many accidents of history.

One thing we, the carriers, did not want was the FCC saying or doing anything. The FCC, incompetent as usual, would have taken longer and made the wrong choice.

The Times states:

The continent's system is looser in part because Europe settled on a single technological standard for wireless carriers 20 years ago. Countries there wanted to ensure that their citizens' phones would work as they traveled throughout the Continent. No such agreement was reached in the United States, which had recently deregulated its telephone industry, and carriers built their networks on separate technologies.

"I'd call it the culture of competition," said Alex Hills, a professor of engineering and public policy at Carnegie Mellon, explaining why a single standard was not set in the United States. "There was interest in allowing the standards to compete with one another, and let the market decide who would win."

It was not a culture of competition. As the one who worked the problem it was the exploding market growth and the fact that the technology was changing rapidly and there were people in the system who "felt" their way was the best way. Was CDMA better, yes, is GSM good as a standard, yes, is GSM better, as a single standard yes, not as a technology.

We now are entering 4G which because of the advances in technology uses a much more efficient standard. Hopefully we will not see the Tower of Babel here, but the reason is not because we did not have enough regulation, if we had we would still be using auto based luggable phones.

Labels: [Wireless](#)

SUNDAY, JANUARY 16, 2011

[CHINA, THE PLA, AND RISK](#)

There is an interesting write up today in the [NY Times](#) regarding the potential loss of power of the Chinese political leadership, now apparently taken over by the PLA.

The Times states:

By any measure, Mr. Hu is the most constrained Chinese leader in modern times. The notion that he could engineer a sweeping policy change the way that Mr. Deng threw open China's economy three decades ago is unthinkable; more often he is a negotiator, brokering deals in a collective leadership where he never seemed to fully consolidate power.

Any China watcher would for years have seen that the PLA has its hands in many pots, industrial, military, financial, and as such has also stretched itself far and wide with interests in many of the countries in which one observes China's reach.

This poses a significant set of risks that we never saw in Russia. The Russian Army was under the control of the folks in Moscow, and they had no separate sources of revenue from their own businesses. They did not control telecommunications, the press, and many other key elements of their economy as the PLA does.

The position of the PLA has rarely been spoken of as what it is, a shadow government, and one whose path seems to be diverging from the apparent government. The challenge to the US will be to assure that we do not see another 1941 where a strong Army decides to go off on its own.

The Times continues:

The rise of state-owned corporate behemoths, independent power centers in their own right, has also changed the politics in China and made it harder to address disputes with the United States and other big trading partners.

But behind the behemoth is the PLA in many cases. And we are not talking with the PLA, and when we seem to approach them they stretch their wings and show their talons.

The Times then states:

China's ban on exports of crucial rare earth minerals, cast by the government as a corporate decision made without state direction, is the most recent example of the tensions this drift toward

state control has raised. But there are others: China Mobile, which dominates the nation's vast wireless market, is pressing phone makers to adopt a Chinese standard for wireless communications that ignores the accepted global standard.

If you have 1.2 B people then who cares about a wireless standards especially if what you design allows for widespread access by the PLA and its agents. In addition when you manufacture devices and chips used elsewhere, you may make the Iranian software issue pale by comparison. We have discussed the rare earth issue several times before, well before the national press. This is a small issue which the US can overcome by just opening the mine in California if the EPA would let us. Albeit not a problem for the PLA it could become a strategic issue for the US.

We never had to negotiate with two countries with Russia, we may when dealing with China.

SATURDAY, JANUARY 15, 2011

[VOICE FROM THE PAST](#)

It was two years ago on January 11, 2009 that the former head of the CEA told the world what their plan would do. As we tracked it during her time in office never once did it ever get close. So why would one ever listen to her again, just go back and teach and educate some more economists who have no idea what they are doing.

But no, today she blurts out in the [NY Times](#) what should be done:

*One important provision of the law was the creation of the **Independent Payment Advisory Board**, which must propose reforms if [Medicare](#) spending exceeds the target rate of growth. But the legislation exempted some providers and much government health spending from the board's purview. The president should work to give the board a broader mandate for cost control.*

*The fiscal commission recommended that **military spending** — which has risen by more than 50 percent in real terms since 2001 — grow much more slowly in the future. It also proposed thoughtful ways to slow the growth of [Social Security](#) spending while protecting the disabled and the poor. And it recommended caps on nonmilitary, non-entitlement spending.*

*President Obama needs to explain that while these cuts will be painful, there is no way to solve our budget problem **without shared sacrifice**. At the same time, **he should give a ringing endorsement of government investment in infrastructure, research and education**, which increases productivity and thus improves both our standard of living and the budget situation over time. And, following the fiscal commission, he should ensure that spending cuts not fall on the disadvantaged.*

Finally, the president has to be frank about the need for more tax revenue.

Now after her performance why does she not just go home and fix California!

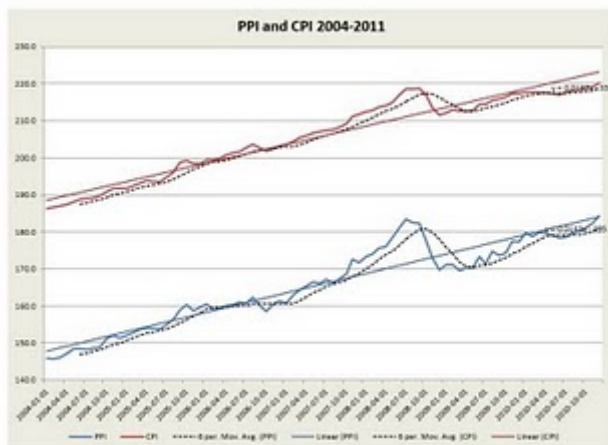
Now the Medicare Board as we have discussed at length is the rationing board that everyone has been worried about. They way they do it is via CER, the comparative effectiveness ploy, telling physicians what procedures are approved. She seems clueless as regards to the impending threat from China, we have been following that closely. What do we think China will do, South China Sea hegemony, threaten Thailand and Malaysia, threaten Japan and South Korea, and then feed the North Koreans with more nuclear weapons!

As for more infrastructure spending, look at the mess last time, it just fed state workers till they blubbered up, and finally, well just tax everyone.

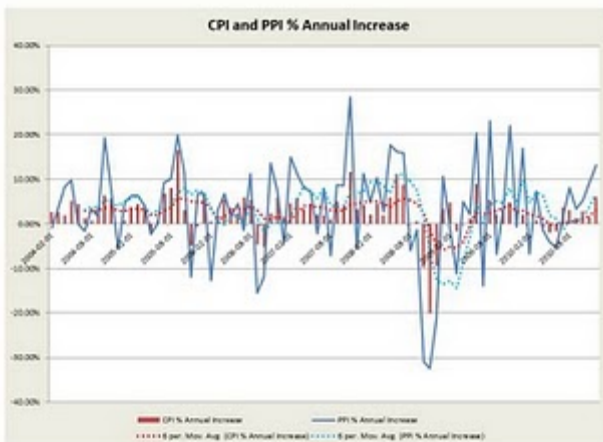
She seems ignorant of the entrepreneur, the core of creativity in this country. She seems to feed at the trough of the taxpayer in California and Washington, perhaps she should find a real job!

Labels: [Economy](#)

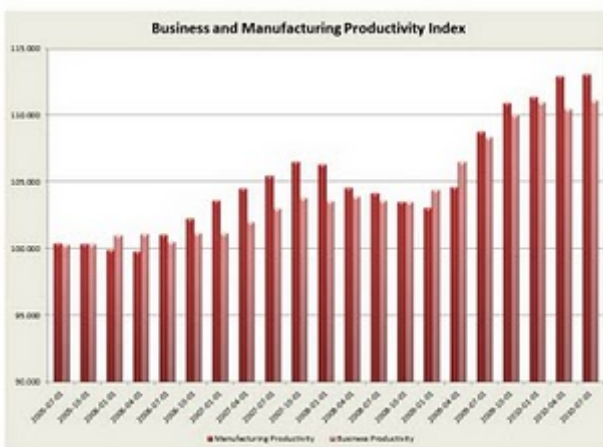
[CPI, PPI, PRODUCTIVITY AND LABOR COSTS](#)



The CPI and PPI are shown above. We can see the dip in both at the bottom of the recession and we can also see clearly the rapid expansion just before the burst. Also not the PPI seems to be getting above the trend line again indicating upward price pressure seems to be returning. However the CPI remains below the trend line perhaps for reasons we will see later.



The above is the annualized changes in PPI and CPI and we have plotted a six month running average. PPI has remained at a positive growth level for the past year and runs about 5% over that period. CPI appears to be lower.



The productivity indices for business and manufacturing are shown above. We see a continued rise in manufacturing. This is most likely a clear indicator of systemic unemployment in a bloated manufacturing sector. Business is also high.



Finally above we show the unit costs in business and manufacturing. We can see the build up to the burst and then the drop. Manufacturing has dropped a bit and business and manufacturing are now on a par.

Labels: [Economy](#)

FRIDAY, JANUARY 14, 2011

THE REAL PROBLEM IS HARD

In December 1951, I went on an annual Christmas visit to Willowbrook Psychiatric Hospital on Staten Island with the Cub Scouts. I was somewhat aware as an astute 8 year old as to what I was getting into because my grandmother's roommate from Med school, Louise Despert MD, was at this point a close family friend and a well know psychiatrist on Park Avenue, treating wealthy psychotic children, a somewhat correlated event at the time. She often spoke with me under the assumption I was normal. I hope I have never disappointed her.

The experience at Willowbrook was somewhat shocking. I can remember it still today as if it had just happened. It was one of those events which had quite strong limbic valence. We were all in our neat Cub Scout uniforms and we had Christmas decorations and we had small wrapped presents for the patients in the ward. The wards were immense halls, no walls, with beds stacked one upon another with bright lights overhead.

The smell of urine was pervasive and the patients wandered aimlessly around in some state of confusion in white tied gowns, the steam heat was high, steam heat with the hissing of the steam and the increase humidity it brings to intensify any and all smells. There were well over a hundred or more inmates, yes they were called inmates as if they were in prison, in the hall. This was the group we were to bring presents to and sing our well prepared Christmas carols. I often wondered what drove the patients there; parents, the police, the courts, just what was the driving factor. That was eight.

Segway to the late 60s and McLean Hospital in Belmont, the Harvard affiliate institution for psychiatry. Meds were being used and it was much cleaner with many people with depression and bipolar disorder, fewer paranoid schizophrenics. Smaller rooms, better care, less of a smell. Patients were confined in "group" sessions. But there were meds, and to understand psychiatry, you learned the meds, what to use to quiet them down, to sedate them and pretend that they were back to normal. The meds with the side effects which at times could be just as bad.

From 68 to 72 when the meds came on in full force the institutions were then closed one by one. The Willowbrook facility was considered Medieval and was shut with the help of the New York Press. I often wondered where they all went, those people twenty years earlier who we had given gifts to, but in no time the streets became crowded with "homeless", and the faces became all too familiar again.

There is a quote from Martin Kelly MD which states:

“When chlorpromazine was first introduced in the United States in 1956, the number of patients in mental hospitals was steadily rising, and 50% of all hospital beds were devoted to psychiatric patients. Since that time the population of patients chronically hospitalized for psychiatric reasons has steadily declined. Forty years ago in Massachusetts there were 20,000 to 25,000 patients in mental hospitals; now there are fewer than 2,000. This remarkable decrease can be attributed primarily to the use of antipsychotic drugs.” (by Martin Kelly, MD, Psychiatry in Brunwald and Rose, Review of Internal Medicine, Harvard Med School, 1993.)

So in this short period of time we saw tens of thousands sent out on their own, assuming that the meds would “cure” them, namely would just allow them to exist quietly in society. Unlike the statements made by many “television docs”, it was not Reagan and the 80s, it was meds and the 60s which drove these folks out. As physicians one could now write script for quieting meds, assuming that the patient was compliant. That was the nub, compliance.

Then came the rights of people, of patients, so that committing someone became a difficult process, something which required judges and lawyers to prove that they were an imminent harm to themselves and others. Which gets us where we are today, with those random “rocks from heaven” which fall on the rest of us, it is not the John Wilkes booth of Lincoln, but the madman who shot Teddy Roosevelt, and if not a gun, then a bomb, as we have seen from so many terrorists.

It is not a simple problem with a simple answer. Sometimes family members never really recognize the problem for what it is, even if the family member may be trained to do so, it is often the frog in the pot syndrome, the heat rises slowly and the frog never sees the bubbles of boiling coming its way. Thus for problems with no real easy answer, we should not expect easy solutions. That is the real problem. It is a hard problem, but a problem.

Labels: [Commentary](#), [Health Care](#)

WHERE DO SOME PEOPLE GET THEIR IDEAS?

In the [NY Times](#) today there was a piece by some English teacher at a local public college in Brooklyn. Now English and Brooklyn together should set the stage, no one ever thinks that English is used in that Borough, I should know, both my parents were born there, and to this day despite six languages and 26 countries of residence, I still say "huh" for her, but not "earl" for oil, nor "urnyun" for onion. And certainly not "udder" and "muddah" for other and mother, or "moyne" for mine.

So why am I surprised that this writer apparently admits to purloining someone's property and then is clueless as to what value it has.

The writer states:

Paying for Internet access, after all, isn't like paying for cable TV, where cable providers pay cable networks in turn. My establishing a new network instead of sharing with neighbors does nothing to benefit the Web sites whose content benefits me and whose value to advertisers is based on views and visits.

Nor is it like paying for phone service, where the physical object that makes and receives calls is inseparable from your unique number. My e-mail address is utterly portable: it's not bound to an I.P. address or one computer — and, like the vast majority of the Internet's services and information, it's free

Let me try and explain. First nothing in life is free. Even I, from lowly Staten Island, home of the Jersey Shore family, albeit I left well before the bridge went up to Brooklyn, know that. Any user of the Internet is using something, they are getting bits and sending bits over someone's network, and that network is connected to someone else's. So who pays for that? Is it free?

Second, the cable company or the telco built out a network to someone's home and this network is delivering the Internet connection. That network costs money. Third, the network connects to a backbone, they charge a fee to carry your bits from and to some one at the distant end. Lots of costs add up. Thus the fee.

Let me add some specifics from reality:

1. The capital per subscriber can be roughly \$2500 and we can assume a loaded monthly repayment of 1.5% which is \$32.50 per month. Okay, okay, if you share that with cable TV perhaps we can cut it in half, but then again it may be as high at 2% so let's split the difference and say \$25 per month.
2. The cost to connect to a backbone is \$20 per Mbps per month. What that means is that if you had transmitted 1 Mbps continuously for a month. That further means that since there are 2,592,000 sec per month you can send 2.5 Tb per month on the system for \$20.
3. But let us look at a download of a movie. That assumes an MPEG4 or H.264 download at 5 Mbps for say 2 hours, or a total of 36 B bits, or 1.5% of that \$20 cost. That is \$0.30 per movie. Just keep going and pretty soon you are costing quite a bit.
4. Thus using a few facts the costs, not prices for a friend in Brooklyn, are well into the \$30+ per month. Now the CATV company charges \$50 but that includes some other stuff like network management and repairs and billing and the like. Even profit.
5. Thus, you are purloining if you take what you have not paid for!

So let us return to the Times piece. Now let us read this teacher's logic. The very first sentence admits cable has to pay someone, well they still do dear teacher, they still do! As to the second sentence, what does this teacher think those wires are? Chopped liver? They are capital assets and they cost, yes dear teacher, they cost money. Oh and yes, there is a franchise fee and taxes and all that stuff which is going to pay your salary to teach, I believe writing.

Part of writing, unless it is all fiction, is dealing with facts. Perhaps learning about them first would be useful.

Labels: [Internet](#)

INDIVIDUALISM: A THIRD WAY?

In the [NY Times](#) today my "favorite economist" from down south has pronounced from on high his view of the dualism of our current political environment. This dualism he describes as follows:

One side of American politics considers the modern welfare state — a private-enterprise economy, but one in which society's winners are taxed to pay for a social safety net — morally superior to the capitalism red in tooth and claw we had before the New Deal. It's only right, this side believes, for the affluent to help the less fortunate.

The other side believes that people have a right to keep what they earn, and that taxing them to support others, no matter how needy, amounts to theft. That's what lies behind the modern right's fondness for violent rhetoric: many activists on the right really do see taxes and regulation as tyrannical impositions on their liberty.

He fails to understand the very concept of individualism, the principles that we founded this country on. Individualism respects the primacy of the individual, each individual is equal, with equal rights, and that the individual may own property to which the individual has a true and valid interest and the purpose of the Government is to protect the rights of the individual and their property. Slavery was always a gross and immoral aberration of that view, as was the acceptance of a class society. Individuals were able to enter into associations freely and these associations could be fluid and flexible. Government is Coasean in its actions, arbitrating disputes based in property rights and doing so with minimal transaction costs.

The "favorite economist" see two other world views; first his which is communal Government controlled state as morally superior. The other is a Spencerian-Darwinian survival of the fittest environment. The Individualist would reject both. For the communal state denies the individual and the individuals rights, whereas the Spencerian view denies the very objective of association.

He continues:

There's no middle ground between these views. One side saw health reform, with its subsidized extension of coverage to the uninsured, as fulfilling a moral imperative: wealthy nations, it believed, have an obligation to provide all their citizens with essential care. The other side saw the same reform as a moral outrage, an assault on the right of Americans to spend their money as they choose.

As we have demonstrated, universal health care has economic benefit. What was objected to was the central Governmental control. From an individualist perspective, equality of opportunity demands equality of health care, equality of access, at a fair and equitable price to each. The Libertarian would most likely be the Spencerian at the extreme. To my "favorite economist" there is no middle ground. That seems to be his mind set. There is indeed a middle ground, a place for the individual to become the engine which made our society the best. It was and is individualism which drives the entrepreneur. It is the entrepreneur which has made the US what it is. The communal Group mindset is that of the left.

It is not strange wonder therefore that my "favorite economist" is an Asimov fan. For in Asimov's world there are no individuals, all are part of the state, there are no entrepreneurs, there is only a large communal universe, a future of drone like existence, excited from time to time by robots, a metaphor perhaps of what we would become in his world view.

Individualism has been a part of American for centuries, it was observed by de Tocqueville in his writing so eloquently, especially in contrast to the communal, Government controlled, class based societies of Europe. Perhaps that is the world my "favorite economist" wants us to return to, an Asimovian past, not a future.

Labels: [Commentary](#)

THURSDAY, JANUARY 13, 2011

[CHINA AND FINANCIAL GAMES](#)

In [China Daily](#) they state that China is now demanding ahead of the State visit that the US provide it with assurances that their money is safe in the US. They are questioning the good faith and credit of the United States, perhaps a first.

They state:

Beijing on Wednesday asked Washington to assure the security of its financial assets in the country, as the United States is likely to further press China to revalue its currency during President Hu Jintao's visit there next week.

"Regarding the security of China's assets in the US, if the US side can offer a positive statement on that then of course we'd welcome that. It's an issue we're paying attention to," Vice-Foreign Minister Cui Tiankai said at a news briefing on Hu's visit.

The US government and politicians have pressed Beijing for years to allow the yuan to rise more rapidly to help US exports to China, a policy they claim would create more jobs.

The White House said President Barack Obama will press US complaints about what it terms China's currency controls that critics say keep the yuan undervalued and swell its multibillion-dollar trade surplus.

On Wednesday, US Treasury Secretary Timothy Geithner pressed China again on the currency issue, saying it is one of the major concerns for the US during Hu's visit.

This is clearly posturing ahead of the meeting but is posturing in an attempt to get what they want and to put the US on the defensive, and possibly with some reason.

This should be an interesting state visit. Most likely nothing will occur of any merit but China is now exercising all of its power; military, economic, and otherwise. As we have been saying for

the past few years, especially during this economic crisis, the US has been put in a weak position and the current administration has not really helped the problem with its spending. China wants to see just how far it can push and right now it holds most of the cards.

Labels: [China](#), [Economy](#)

WEDNESDAY, JANUARY 12, 2011

WHAT IS COLLEGE WORTH?

The [National Inflation Association](#), NIA, has a recent entry regarding college education. They address the college bubble, an area we have been speaking to for a couple of years now. College tuition has risen twice the rate of inflation and it is the only priced item which has not dropped. Loans from students are in the trillions and most likely will be paid at the cost of future US productivity.

As I had noted before, when I went to college the tuition in 1961 at MIT I believe was \$700 per semester. Now it exceeds \$25,000. Nothing has increased that amount in the same period. A 1961 four bedroom home was \$12,000 and now may be \$240,000. That is 20 times as compared to 40 times for college tuition. In my experience no college president has a clue as to the meaning of this problem, the keep draining funds from the alumni.

NIA states:

College is the only thing in America that never declined in price during the panic of 2008. It actually rose in price substantially. The annual tuition for a private four-year college was \$21,235 in the 2005-2006 school year. Despite Real Estate beginning to collapse in late-2006, college tuition rose by 4.6% in the 2006-2007 school year to \$22,218. Despite the stock market beginning to collapse in late-2007, college tuition rose by 6.7% in the 2007-2008 school year to \$23,712. Despite oil and other commodities collapsing in late-2008, college tuition rose by 6.2% in the 2008-2009 school year to \$25,177. Even after the Dow Jones crashed to a low in early-2009 of 6,469, college tuition still rose by 4.4% in the 2009-2010 school year to \$26,273.

Now MIT grads generally add substantial value to society, as scientists and engineers, and than God we do not have a law school, too many out there already. But there are millions of other people in liberal arts programs which are for the most part baby pounds for pampered kids who have no direction in life. We always need a few philosophers and historians, but not the number we purport to educate. Again as I have often said I have hired High School grads over college educated people, they are bright, they learn, and the do not have an entitlement attitude.

As for the cost rise NIA alleges with some merit:

*The college tuition bubble has been fueled by the U.S. government's willingness to give out easy student loans to anybody who applies for them. If it wasn't for government student loans, the free market would force colleges to provide the best quality education at the lowest possible price. By the government trying to make colleges more affordable, they have actually driven prices through the roof. **Colleges have been encouraged to spend recklessly on wasteful construction projects, building new libraries, gyms, sports arenas, housing units, etc. Colleges spent \$10.7 billion on construction projects in 2009.** Although this is down from an average of \$14.7 billion per year colleges spent on construction projects from 2005 to 2007, colleges are still struggling to pay off their old construction related debt. When interest rates start to rise, it will add further upside pressure to college tuition prices.*

I would agree with the construction issue. Consider the Gehry disaster at MIT which replaced the wooden WW II Rad Lab buildings. Why spend so much and also add to operating costs, when a more plebeian building is better and less costly. One always wonders how much collective hubris drives these decisions. The NIA fails to also account for the explosion of overhead due to Government mandate programs and the like.

Bottom line, the world needs electricians and plumbers, you really can't outsource them, nor can you get one when you need them. Thank God my father made me work as an apprentice electrician, helped at MIT and helps at home.

Labels: [Education](#)

TUESDAY, JANUARY 11, 2011

[ECONOMIC MOBILITY AND INCOME REDISTRIBUTION](#)

There is a recent [Report](#) on income mobility in different countries and it contends that the US has the least. They have some chart which alleges to plot the correlation between father and son incomes and that in the US and the UK the correlation is high, implying that if you are rich your kids will be rich and if you are poor your kids will be poor.

Nonsense, one must look at it genetically, there are a lot of dumb rich kids and by the third generation they are broke. One could argue, based solely on my observations in New York, that most of the big winners are street smart kids, the Princeton Degree may at best get you lunch. Just look at traders, they have a gut to trade, yes there is some math behind the scenes but they become the risk takers.

The report contends that Denmark and Norway have the least correlation of generational economic stickiness. Now I have spent a great deal of time in both, they are fundamentally stable middle class socialist countries, with Norway subsidized by oil money. The US is not a class society, if you think otherwise go to the UK or India. Mao had to destroy the class structure in China by brutal means. So in a class structure society, namely who were your ancestors, where

you went to school, and especially your accent, that determines your future and that is fairly unchangeable. Not so in the US.

Now my [favorite economist](#) chimes in. He states:

*So when you hear conservatives talk about how our goal should be equality of opportunity, not equality of outcomes, your first response should be that if they really believe in equality of opportunity, they must be in favor of radical changes in American society. For our society does not, in fact, **produce anything like equal opportunity (in part because it produces such unequal outcomes)**. Tell me how you're going to produce a huge improvement in the quality of public schools, how you're going to provide universal health care (for parents as well as children, because parents in bad health affect childrens' prospects), and then come back to me about the equal chances at the starting line thing.*

*Now, **inequality of opportunity is only one reason for the inequality in outcomes we actually see**. But of what remains, how much reflects individual effort, how much reflects talent, and how much sheer luck? No reasonable person would deny that there's a lot of luck involved. Wall Street titans are, no doubt, smart guys...., but there are surely equally smart guys who for whatever reason never got a chance to grab the 9-figure brass ring.*

Outcomes is NOT a measure of input equality. Any starting geneticist would see right through their specious ad hoc propiter hoc tautology. Balderdash! Improve public schools, simple, close them. My grandson just switched from a private school to a public. He was doing two hours plus a night in the private and now none required for the public. So is there a problem. Yes, the public school.

Inequality of opportunity assumes implicitly, as the good economist from just south of me here in New Jersey states, leads to inequality of outcomes. Nonsense, to anyone who has ever held a real job, who has employed people, who has created wealth, that is wrong, you take your own chances, use your own wit, and work with your team to seek success. Failure is always an option, but the true entrepreneur has a "burn the boats" mentality and there is no way but forward.

Wall Street has always been a money maker, not the entrepreneurial life. One has a better chance at the gold ring in basketball sometimes. Wall Street, it has been a club, but a club that oftentimes allowed entry from the mail room. Thus the above two references are abjectly wrong, they based their arguments on false assumptions. The relationships between father and son are complex, and one may look at the data and then one must ask why? Genetics has a strong role, not just that dad was poor. There are quite a few millionaires from poor drunks and I suspect that there are a lot of poor drunks from a wealthy dad.

Labels: [Economics](#)

MONDAY, JANUARY 10, 2011

[GOOGLE AND SEARCH](#)

As one who relies upon Google for searching and obtaining professional papers, I am not a general Google searcher, I was interested in [Brad DeLong's](#) brief on Google. He has hit upon a very powerful point, namely that any entity, Google included, always evolves, and if you are not careful it may evolve in the wrong direction.

Thus if one is searching for a product, one should go to Amazon, and they have almost anything from rabbits and mile, to well books and snow blowers. Will the utility of Amazon change, will they become too greedy to make the value they provide disappear, probably not too quickly, unless by pure arrogance, which so far they have managed to avoid quite well.

Now to the Google issue, a general search as DeLong observes, and as his reference also note, are trying to maximize income so the results are for the most part income generators. If on the other hand you search as I do by delimiting to edu sites and pdf documents, you can cut through a lot of the ads. It is not that from time to time that I use them, but what has happened is the Google is raising the user cost of access, the cost of the user filtering through all the junk, akin to the Yahoo screen, and thus if any alternative arises it would place Google at risk. A point noticed by DeLong. Customers are fickle things, that only sign I had behind my desk, **"If all else fails listen to the customer!"** has lasting merit.

Now what you cannot do readily on Google is the classic full text detailed search hat one could once do on Dialog, the database search company I used thirty plus years ago, an off shoot of Lockheed. It can morph somewhat in that direction but not quite. Perhaps Google should do two things, let off a bit on pushing ads and enhance the service with added features, even at a fee!
Labels: [Google](#)

SUNDAY, JANUARY 9, 2011

LAMBERTVILLE, NJ 2011



Lambertville, NJ is just a bit north of where Washington crossed the Delaware. January there is scenic, an annual trip, cold, clear, and you can see the large blocks of ice coming down the Delaware River and imagine what Washington went through at the beginning of the Revolution.

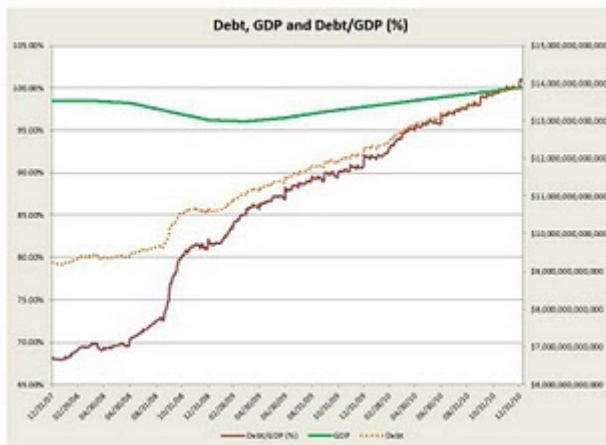


This statue is in Morristown, and most people are totally unaware of the fact that Washington spent most of the War here. Unlike Massachusetts which prides itself on the Revolution, frankly they all left after Bunker Hill and came to my backyard here, battle field after battlefield, decision after decision.

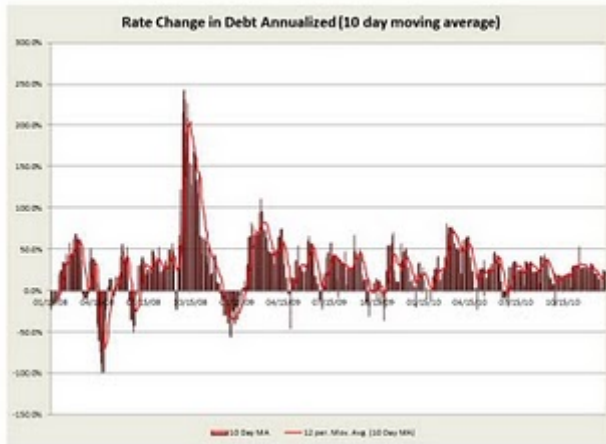


George and his officers spent the winters here, just a small ride from my homestead, and the place has been fairly well preserved. Worth a journey if one ever gets here. It is not the New Jersey Turnpike.

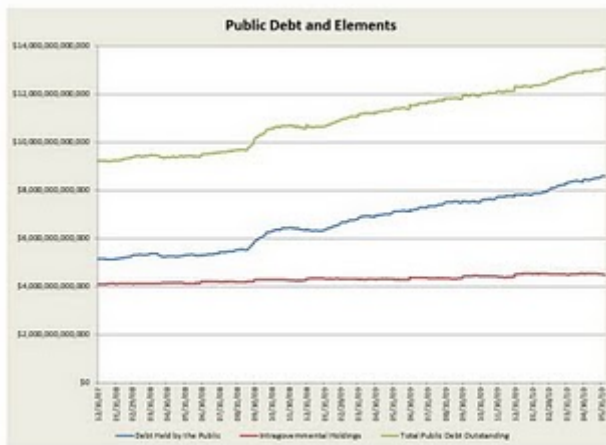
[PUBLIC DEBT: JANUARY 2011](#)



The Public Debt and GDP are shown above as of Friday, January 7, 2010. We are now well above the 100% level as we had predicted. It continues to grow unabated and despite the "predictions" from our economic engineers from Berkeley, Harvard, Princeton and the like, we keep sinking deeper.



This is a depiction of the growth we are having. We are flatlining at 10%+ annual growth in debt and from this base that is terrifying.



Despite all the complaining of SSI and the like that portion is growing slowly, it is the payments to unions and special interests which dominate the numbers as we see above.

Hopefully 2011 sees some improvement.

Labels: [Economy](#)

BP & ALASKA: LOSS OF PRODUCTION

BP has just announced a loss of its oil production in Alaska. The [FT](#) states:

*Oil markets were braced on Monday for the impact of the loss of up to 15 per cent of US crude after a pipeline leak forced **BP**, the UK-based oil company, to shut down 95 per cent of production from North America's biggest field...The development, at the Trans-Alaska Pipeline System that carries oil from the Prudhoe Bay field, comes as BP is still grappling with the fallout from the [oil spill](#) in the Gulf of Mexico. A prolonged shutdown would cut into BP's output and could undermine earnings.*

They continue:

The pipeline carried an average of 642,261 barrels per day in December, higher than the monthly average last year of 620,000 barrels...The Marine Terminal at Valdez has 18 storage tanks, with total capacity of more than 9m barrels. But only 14 of those tanks are in operation. On Sunday morning, Alyeska said they still held 35 per cent of their inventory, or about 2.5m barrels of oil. There is no significant storage on site to make up for a prolonged outage..

This will most likely send shakes throughout the US economy as well. One wonders what types have been managing BP.

Labels: [Energy](#)

SUNDAY, JANUARY 9, 2011

THE END OF THE BOOKSTORE

[Prof Becker at Chicago](#) has posted an piece on the end of bookstores. He starts by saying:

The traditional bookstore is doomed by e-readers and online sales of hard copy books. I use the word "doomed" in the same sense that online digital sales of movies and music have doomed movie rental stores, movie theatres, and stores that sell albums of music. Doomed does not mean that these stores will quickly, or ever fully, disappear, but that they have received deadly blows from Internet competition.

I agree but I must add a comment on college text books. These will keep the monopoly of the college book store going and it will continue to provide a heft income stream to those professors who produce the version after version of text books.

Let me look at a simple set of examples:

Calculus: You may just as easily get a 1930 copy of a calculus book off used book web site ABE since frankly not much has changed. In fact the book has fewer pictures if any and is often clear and to the point. Why spend \$245 for a Calculus text, I picked the top one on Amazon. What in the good Lord's name is worth that much in a calculus book. In my opinion that is almost highway robbery if the price is truly what they say. Nothing has changed, it is all the same, and you would be better off with a half dozen used old books and comparing sections and methods of explanations, that is what real life is about.

French: Now I have a real issue here. This has not change much in a few hundred years. Same verbs, idioms, grammar, even the classic authors, and I read Le Monde each day on line! Why spend for beginning French \$140 which is first on Amazon! There must be dozens of French books in every used books store and millions on ABE, actually 868,733, close.

Economics: Why not select witchcraft, but let's stay here. Not much has changed in fifty years with the intro course, same graphs, same arguments, and besides its usually knowing the political bent of the instructor rather than any facts in economics. Here on Amazon the top seller is \$239. Now what do you get for that, I gather it is some later edition, and they just probably purged the stuff that was wrong last few times and included stuff that is most likely still speculative.

Now to engineering. Well, at the top schools you get handouts, and web based materials. The faculty I know are always at the edge and thus the students have no cost unless they decide to print it out. Now engineers become productive day one out of school, and the costs of books at the school bookstore can be de minimis. Does that say something.

Now back to Becker. The school bookstore does not seem to be going anywhere. It is a confiscatory monopoly for some. Remember that an author gets about 15% of the gross, so if your book is \$250 then you get \$32.50 each one sold. Sell 10,000 and you get \$325,000 per year! That is another cost to the poor student and their family.

Perhaps the FTC may look at this some day, or Antitrust. But do not hold your breath. Becker may see the closing the Borders but the old college book store seems to be prospering beyond the wildest of dreams.

Yet as [Posner](#) just posted he states:

The question then becomes whether the loss of point-of-sale services that bookstores provide will hurt publishers (and therefore authors, whose prosperity is linked to that of publishers) more than it will help them by reducing their distribution costs. That too is doubtful. As technology continues its forward march, online booksellers will find it increasingly feasible to duplicate and indeed improve on the point-of-sale services that bookstores offer. Bookstores will decline, and perhaps vanish when the current older generation, consisting of people habituated to printed books (as to printed newspapers), dies off. Yet this may well represent genuine economic progress, just as department stores and supermarkets represent progress though they cause the demise of countless small retailers.

He reminds me of how thirty years ago when I tried to get Warner Cable into two way, we posed it as an electronic marketing and distribution channel. We saw two way interactive cable with our real time video on demand as a game changer. Yet we were too early. Yet we were right, it is a game changer, and it is a marketing and distribution channel change.

Labels: [Commentary](#), [Economy](#)

SATURDAY, JANUARY 8, 2011

[SHE'S BACK! THE CHINESE MOTHER](#)

The [WSJ](#) has an article written by Amy Chua in praise of her Chinese mothering. Now as I gather she is a Yale Law Professor. I once got a fellowship at Yale and drove to New Haven from Cambridge and never found Yale, well before GPS. I turned around and drove back to Cambridge. Best decision I ever made, although Yale has a club in New York and MIT I think meets under the El somewhere up town on rainy nights. So much for class.

Yet, as for mothers, one should ask Mrs. Feynman, Mrs. Wiener, Mrs. Von Neumann, Mrs. Einstein and the list goes on. Guilt works well also. But the hubris of having Chinese motherhood is hardly the only way to move civilization forward. I wonder how well Mrs. Mao did?

Chua states:

What Chinese parents understand is that nothing is fun until you're good at it. To get good at anything you have to work, and children on their own never want to work, which is why it is crucial to override their preferences. ... Western parents tend to give up. But if done properly, the Chinese strategy produces a virtuous circle. ... Once a child starts to excel at something—whether it's math, piano, pitching or ballet—he or she gets praise, admiration and satisfaction. This builds confidence and makes the once not-fun activity fun. This in turn makes it easier for the parent to get the child to work even more.

What some parents have done it to say that fun of any type is a waste of time, work is the only solution. The old Pilgrim way. Parents who spend time making their children happy and being their children's friends often find a conflict when discipline is needed when the child cannot accept boundaries, after all the parents made them equal. Chua, one thinks perhaps, has a great publicist and in many ways one could say that her approach has certain superiority overtones devoid of substantial historical fact.

I keep thinking of all the kids in New York at the end of the 1950s and their overall competitiveness. I remember Saturday, yes Saturday, classes at Bronstein and Wiener's SAT Prep, kids not satisfied with 700 or 720, going for not only 800 but finding the mistakes on the SAT, yes the game was to find out what they screwed up on ... and who got the letter off first ... a Feynmann like trick ... in a sense the New York way ... and after the class back to work with dad or uncle Harry, and if lucky after Sunday dinner you had a few hours off.

So perhaps there are some who have managed to prosper without a Chinese mother.

Labels: [China](#), [Commentary](#)

THE INTERNET AND THE RIGHT TO BE LEFT ALONE

In 1997-1980 I was Vice Chairman of a Presidential Committee at the [NAS to study the evolution of the Internet](#). One of the issue I brought up was the idea of being anonymous, being left alone.

As Warren and Brandeis write in their famous text, The Right to Privacy, in 1890:

*Then the "right to life" served only to protect the subject from battery in its various forms; liberty meant freedom from actual restraint; and the right to property secured to the individual his lands and his cattle. Later, there came a recognition of man's spiritual nature, of his feelings and his intellect. Gradually the scope of these legal rights broadened; and now the right to life has come to mean the right to enjoy life--**the right to be let alone**, the right to liberty secures the exercise of extensive civil privileges; and the term "property" has grown to comprise every form of possession-- intangible, as well as tangible...*

Recent inventions and business methods call attention to the next step which must be taken for the protection of the person, and for securing to the individual what Judge Cooley calls the right "to be let alone." Instantaneous photographs and newspaper enterprise have invaded the sacred precincts of private and domestic life; and numerous mechanical devices threaten to make good the prediction that "what is whispered in the closet shall be proclaimed from the house-tops." For years there has been a feeling that the law must afford some remedy for the unauthorized circulation of portraits of private persons; and the evil of the invasion of privacy by the newspapers, long keenly felt, has been but recently discussed by an able writer. The alleged facts of a somewhat notorious case brought before an inferior tribunal in New York a few months ago, directly involved the consideration of the right of circulating portraits; and the question whether our law will recognize and protect the right to privacy in this and in other respects must soon come before our courts for consideration.

The "right to be left alone", albeit not in the Constitution expressly, was what Warren and Brandeis were getting at. Thus one of the things I was asking for the folks to consider a decade ago was the right to just look at something without having to identify myself. When I buy a NY Times on the street no one asks for my ID card. They do now in every building in New York, and that is somewhat reasonable, it is private property, but the news stand is not.

In a recent story on CNET it appears as if the current Administration is seeking to get every one's Internet ID so that at the drop of a hat or otherwise they can find out what each of us has done, seen, looked, at, bought, and the like, apparently without any prior cause, no Constitutional protection. It is as if the Internet was now a Government building, and if you want to enter you must show ID. It no longer is the corner news stand.

[CNET](#) states:

President Obama is planning to hand the U.S. Commerce Department authority over a forthcoming cybersecurity effort to create an Internet ID for Americans, a White House official said here today.

It's "the absolute perfect spot in the U.S. government" to centralize efforts toward creating an "identity ecosystem" for the Internet, White House Cybersecurity Coordinator Howard Schmidt said.

They continue:

"We are not talking about a national ID card," Locke said at the Stanford event. "We are not talking about a government-controlled system. What we are talking about is enhancing online security and privacy, and reducing and perhaps even eliminating the need to memorize a dozen passwords, through creation and use of more trusted digital identities."

The Commerce Department will be setting up a national program office to work on this project, Locke said.

Details about the "trusted identity" project are remarkably scarce. Last year's announcement referenced a possible forthcoming smart card or digital certificate that would prove that online users are who they say they are. These digital IDs would be offered to consumers by online vendors for financial transactions.

Schmidt stressed today that anonymity and pseudonymity will remain possible on the Internet. "I don't have to get a credential, if I don't want to," he said. There's no chance that "a centralized database will emerge," and "we need the private sector to lead the implementation of this," he said.

In fact the right to be left alone may very well be infringed. The issue is the assignment and tracking of IDs. Why the Commerce Department, a front, a charade for another entity, well there was NTIA but Commerce was always technically the least astute entity involved in any way in telecom. NSA would make sense but it would be illegal, the FBI, but they are really cops, the CIA would be illegal, the FCC, all lawyers, so where. Well it's the current Administration so set up a new Department, why not.

Labels: [Cyber Warfare](#), [Internet](#)

[QE2: A CHINESE VERSION](#)

There is an interesting piece in [China Daily](#) as to how China may take advantage of the FED's QE2. It states:

The recent announcement by the US Federal Reserve that it will print more dollars raises fears of an impending currency war. Can the threat of a currency war be transformed into something more benign? Better still, can it stimulate fresh ideas and moves that lead to robust global economic recovery? The answer is yes if we pursue win-win business deals with imagination and goodwill.

Put simply, the proposal is for China and other Asian countries to buy European technologies and assets. With the money, European companies can then buy technologies and assets from elsewhere, including the United States. This will provide a benign environment for growth in the real economy, because it will reduce the global trade imbalance and help the dollar to recover.

At the heart of the issue are US trade deficits and the huge buildup of foreign reserves held by other economies in US dollars. One obvious solution is for these countries to increase their imports from the US and to buy into US assets. But what happens if the US restricts sales of goods and assets that foreign companies want to buy? The US has banned high-tech exports to China and has blocked takeover bids by Chinese companies.

The US has not limited takeover bids in the strongest sense. China has and continues to take position in US entities. Yet it has not taken the extreme position that Japan did in their peak period in the 1980s.

And China is not alone in such matter. A Middle East country was not allowed to buy a port facility. The reason? The US does not consider these countries as friends and therefore does not trust them.

But why should the US deny trade with countries that overtly threaten its security. Would we want to arm Iran and allow it an easier path? This is perhaps a weak excuse on the part of China.

Let us for a moment ignore the question whether it is wise for the US to impose such restrictions. Let us instead ask if there are other ways to solve the problem. Europe has many things that the US has. But unlike the US, there is no unified will to restrict exports of a given technology or to disallow the sale of assets to foreign buyers. This provides a more favorable environment for buyers from Asia.

Then does Europe become just a pass through to US exports.

China, with its vast pool of engineering and scientific expertise, does not always need to buy the most advanced technologies. There are two advantages of not going for the very best - one is the cost advantage, the other is that it faces much less official restrictions on exports. China can then use its technical skills to improve on these no-longer new technologies, as it has done in the case of its high-speed railway.

So does this mean China wants to disintermediate the US?

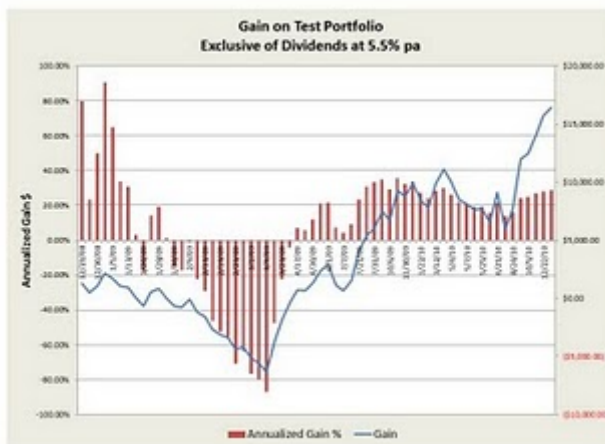
Labels: [China](#), [Economy](#)

BASELINE PORTFOLIO: JANUARY 2011



In December 2008 we prepared a simple Baseline Portfolio to measure the markets core response to the then incoming Administration. The stocks were selected to each yield a dividend in excess of 5.5% pa and we paid little attention to capital gains, it was a pure dividend play. The above shows the results by date of that portfolio. It demonstrates a consistent 20% annual return since June 2009 and has changed very little. The stocks were also selected to be core economy stocks.

The same as above we show below for a different view:

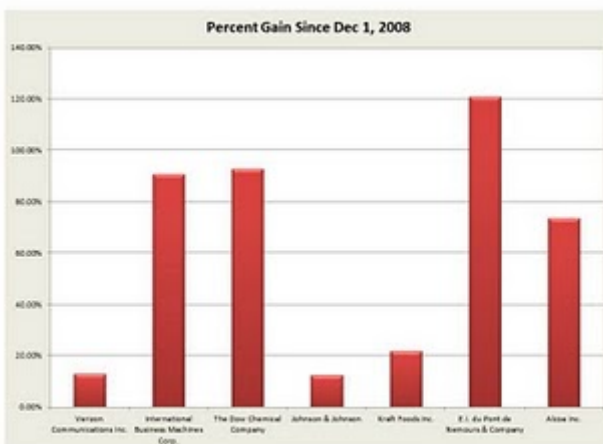


We also calculate the percent daily change by day and we show that below:



One can see the volatility in early 2009 and then it has settled down considerably for the past six months.

Finally we show the total gains by each stock selection below:



This was surprising. Here DuPont is a core grower followed by Dow and then IBM. Despite all the high tech issue one wonders if these are market leaders and are predictors of growth in other segments. J&J and Verizon have gone no where, the Verizon return has recently been bolstered since late last year it was near zero. The sector returns may very well be predictors of a recovery. Labels: [Baseline Portfolio](#), [Economy](#)

[NORBET WIENER: A POOR DESCRIPTION](#)

I read [Zero Hedge](#) from time to time because they often have some sharp edged observations and lead one to think in another direction. Yet today they besmudged Norbert Wiener, and that I cannot stand still on.

The writer states:

This stands in stark contrast to Norbert Wiener's approach to constructing a view of the world. He was the first to rigorously characterize Brownian motion, but he exclusively used a (then) challenging and formal measure-theoretic construction. Wiener avoided drawing connections to probabilistic methods because probability theory had a bad reputation among mathematical colleagues of the day. Probabilistic intuition and measure theory reinforce each other: many who could have benefited most by the advance were left out of the discussion.

The author just does not know Wiener at all. Yes he was first a Mathematician, but he was also a tinkerer. There is a fantastic bio on Norbert by Masani and also one can read Wiener's own bios. He did stuff, really stuff, for example he and his team designed one of the first closed loop dynamic tracking systems used on MIT Rad Lab radars, just below my first faculty office in old Building 20. He was the fellow who created the first Boston Arm, the first prosthetic which actually worked, and the first with McCulloch to design neural networks.

Wiener was a genius, somewhat burdened with the weight of such, Von Neumann was also a genius but a self possessed and elegant gentleman who adapted to the post war way of dealing with institutions. Wiener was and remained the independent thinker, the leader of small groups, the mind of the type which existed for centuries, not the group mind of Neumann.

As such I believe the writer was quite unfair to Wiener and mis-spoke on what he had accomplished, you see I knew the man, and he was not what the author portrays, at least amongst the many he knew him and understood his accomplishments.

As to math in finance, my famous concern on Black Scholes was that in reality the approaches always suffer from instabilities due to the unknown. Look at LTCM, it went unstable because they linearized everything. Thus the conclusion is correct yet picking on Wiener is a poor touch.

Labels: [Commentary](#)

[RESKILLING?](#)

I enjoy Prof Rajan's ideas regarding the understanding of the economy and unlike so many others he is not the polemical position promoter we see in those who spend their lives telling others how to do things they have not the slightest clue about in reality. However in a [recent post by Rajan](#) I take some considerable exception.

He states:

The lesson for policymakers is clear: instead of constantly trying to boost spending and potentially creating problems for the future, a more sustainable way to improve job growth is to facilitate the “re-skilling” of the unemployed, especially those who were in construction-related jobs. Eventually, better labor-force supply will create healthy and more sustainable demand.

The problem is that I know a great many construction types, I grew up in a family of electricians, plumbers, carpenters, I worked as an electrician and our oldest is one as was my brother. The mere idea of reskilling these people in general is impossible. For example, if you take a union crafts person, they have developed a mindset of the type that they are owed more than anyone else and they owe no one else anything. I have seen this close up again and again, one need just look at the trade unions in New York, they in my opinion make the Mafia look like the Elks Lodge at time. What jobs would you send these people to, and try and find an electrician, they are more scarce than hen's teeth, no unemployment there.

Thus the point he seems to be making has weak foundations. First, for craft union types they are not re-trainable, for independent contractor types, if they are good and self motivated they still have more work than they can handle, for those with no work, they most likely could not be hired no matter what, they just will not perform. Thus the three categories; (i) union types, they fell entitled and are arrogant, (ii) self employed, they have no need, (iii) unemployed, often of their own making.

In addition there is the simple question, train them for what? You cannot say train them and the jobs will come. There must be a need, a demand, and then you fill it. Train them as an engineer, well Prof Rajan is a grad of IIT, the most highly respected engineer school in the world, and it takes a fraction of a percent of the graduates. If these folks could be so trained it would have happened decades ago, it is too late.

This sector, the construction types, are either self sustainable or potentially lost until the economy is willing to use the marginal worker.

Labels: [Economy](#)

FRIDAY, JANUARY 7, 2011

MCLUHAN

I have always enjoyed McLuhan. There is a new book out and praised by the [NY Times](#). However I do they and the author may have missed a critical point.

As I wrote some twenty plus years ago, Peter Drucker, in his biographical sketches of his contemporaries, remarks on his first encounter with McLuhan. It was during a presentation that McLuhan was making on the results of his doctoral studies. His presentation reflected upon the impact that the printing press has had upon the university system in the late Middle Ages. He contended that the modern university came into being in the sixteenth century because of printing, which changed not only the method of instruction but, more importantly, what the university intended to teach. He further contended that the cultural results of this period had little to do with the Renaissance and was all a direct result of the printing press.

To quote Drucker, who paraphrased McLuhan;

"Did I hear you right," asked one of the professors in the audience, "that you think that printing influenced the courses that the university taught and the role of university all together." "No sir," said McLuhan, "it did not influence; printing determined both, indeed printing determined what henceforth was going to be considered knowledge."

Thus this led to McLuhan's famous phrase that the medium is the message. Specifically, as we developed a new medium for human communications, we dramatically altered the nature of the information that was transferred and the way in which the human perceived what was "truth" and what was not. The television generation of the 1960's was an clear example of the impact of television versus film in portraying the war in Vietnam as compared to the Second World War.

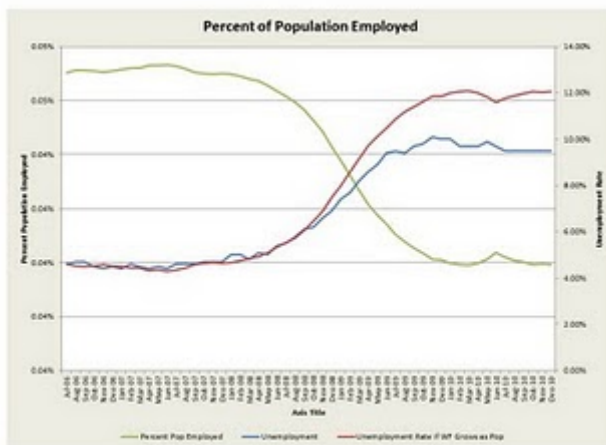
The perception of these two events was determined by the difference of the two media that displayed them to the public masses. Television allowed for a portrayal that molded more closely to the individual human's impact of the events as compared to films overview of the groups involvement's. Both media deal with the same senses but they are different enough to have determined two different outcomes of the wars. This conclusion is a McLuhanesque conclusion but is consistent with the changes that McLuhan was recounting in the 1960's in his publications.

As we start to see the ongoing complexity of media stuff, the echoes of McLuhan should resonate more loudly. Of all the quotes that I have used over the years I am drawn back to the one above, for as we change media we change knowledge. It is also a question then how quickly do we change our culture.

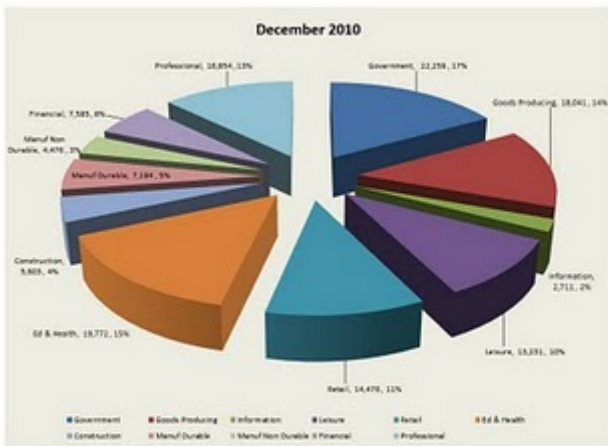
Labels: [Commentary](#)

[EMPLOYMENT STATS: DECEMBER 2010](#)

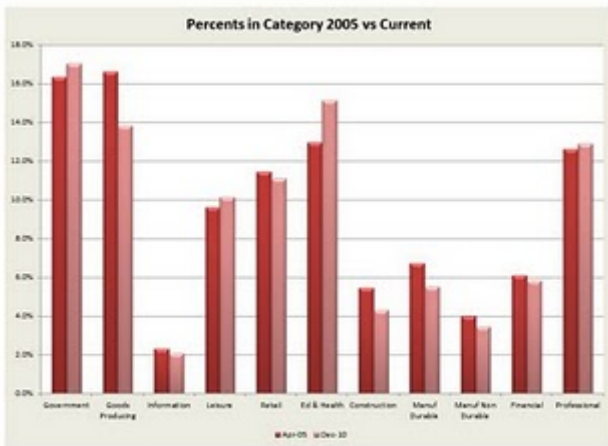
As is the usual case one must look at the data in some detail. Here goes:



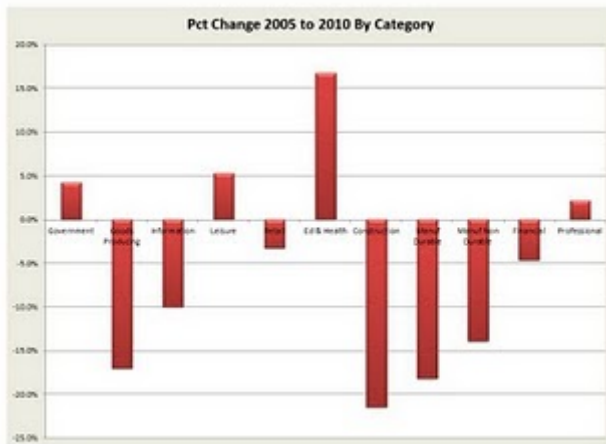
This is the unemployment reported and unemployment based on the constant 2005 rate. There is a slight drop but the actual unemployment still hovers at 12% and that is not including the chronically unemployed.



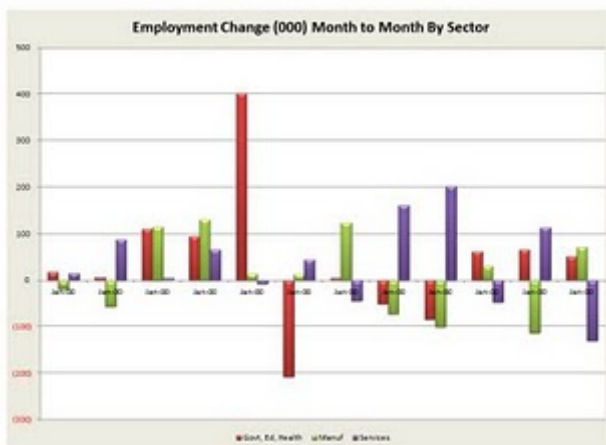
This is the employment by sector. Again we point to the fact that Government plus Health and Ed accounts for 33% of the population when rounded up. Again that means that there are 2 real employees for every one on the Government dole. As usual we assume that both health care and education are in effect Government supported.



The above shows the percent of total in each category for January 2005 and December 2010. Construction has decreased as has manufacturing, Retail, Information, Goods producing, but Government, Ed&Health have health up ticks and so does Leisure and Professional. The Leisure we cannot explain.



The above then depicts the percent changes by category. This shows a 16-17% increase in health and education. Look at the drop in Production and Construction! This is the core problem. Things are getting worse and not better. We have more people in non-productive jobs and less creating things.



The above shows the month by month change by sector. We have the blip due to the mid year census employment and then we see generally a positive growth in Govt and Health & Ed and average zero swings in Manufacturing and Services. This seems to be an Administration Goal of boosting up the payrolls but in the end it is less real taxes and more expenditures. Hopefully the new Congress can stop this quickly.

Labels: [Economy](#)

BATTLING ECONOMISTS?

Battling Economists, yes indeed, there are a few out there that I just wonder about, especially a few on the West Coast, and yes even here in New Jersey.

I have been following the duel between one [in the DC area](#), a libertarian, if I read it correctly, who has positions that generally are classic libertarian but do make considerable sense, a Hayek follower, and as such one who values the individual and is concerned about the excesses of the Government.

The battle is with one of those Berkeley types. one of that collection of what appears to be quite chubby, one may even say tending towards the morbidly obese, collection of academics from that institution, along with "Chuckles", the former in my opinion rotund economics prognosticator whose second anniversary of the announcement of "happy days being here again" comes on January 11th, not!

I do not see engineers, physicians, even lawyers doing this type of back and forth, perhaps because they are professionals with a profession whereas the economists are almost believers in cults, the cult of the left or right. They have plastered the cults with equations, but a cult is still a cult.

As for the problem at hand, the limits on natural resources, this is akin to the discussions in the early 1970s by the Limits of Growth and Club of Rome folks. They all have the hubris that they know the truth and that those dumb engineers over there will never come up with a solution. And time and time again the engineers come up with solutions. Perhaps that is why China is run by engineers, or is there some cause and effect that even runs deeper?

Labels: [Economics](#)

GOING BACK: ON HEALTH CARE

The [Health Care Repeal Bill](#) is out, short and clear and to the point.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the “Repealing the Job-Killing Health Care Law Act”.
January 3, 2011 (5:41 p.m.)

SEC. 2. REPEAL OF THE JOB-KILLING HEALTH CARE LAW AND HEALTH CARE-RELATED PROVISIONS IN THE HEALTH CARE AND EDUCATION RECONCILIATION ACT OF 2010.

(a) JOB-KILLING HEALTH CARE LAW.—Effective as of the enactment of Public Law 111–148, such Act is repealed, and the provisions of law amended or repealed by such Act are restored or revived as if such Act had not been enacted.

(b) HEALTH CARE-RELATED PROVISIONS IN THE HEALTH CARE AND EDUCATION RECONCILIATION ACT OF 2010.—Effective as of the enactment of the Health Care and Education Reconciliation Act of 2010 (Public Law 111–152), title I and subtitle B of title II of such Act are repealed, and the provisions of law amended or repealed by such title or subtitle, respectively, are restored or revived as if such title and subtitle had not been enacted.

A good start but what next?

Labels: [Health Care](#)

WEDNESDAY, JANUARY 5, 2011

BOOKS AND THEIR COVERS

I have to admit that I am one of those people who remove dust jackets, I like the binding, and I read the contents. I thought of this today when I read a piece in the [NY Times](#) about designer dust jackets. I keep the jackets, in large dusty boxes and I know what is where. You see I have over 10,000 books, all neatly arranged, my biographies are alphabetical, compulsive, no, my lovely wife was a librarian, and an organized mind is well something.

The statement which was to amaze was:

Mr. Hermann designed a glassy Neutra-like house with a 60-by-14-foot shelving system, which has room for 4,000 books, he said.

“But who has 4,000 books?” he said. “I always stage my houses, so it was up to me to fill the shelves.” He ordered 2,000 white-wrapped books from Mr. Wine and deployed them in tidy, horizontal stacks (watch for the white-wrapped book to become this year’s version of the deer head).

But at 4,000 one is just starting. You see they are all neatly organized, with my little yellow tags from when they were read and used as a reference. I know every book, I personally selected it, and knew where it would fit on both the shelf and the knowledge base.

Would I ever buy a Kindle, hardly, a great deal of what I have is electronic, some ends up on paper, and used as reference materials. But some of those old books, 150-200 years ago, are true friends. I have a history book used in grammar school in 1807, in New Jersey, and surprise, there were still slaves, in New Jersey. Somehow that fact never came up before.

Then there are the books with names in them, from people I actually knew decades ago, and one wonders what trip this book took to get to where it is now.

So books are not decorations, although I am somewhat surrounded by them and dust jackets are like Greek statues with the private parts hidden by drapes. The true beauty is what is in the book and it should sit there and shout it out, not be hidden behind some chi chi cloak.

Labels: [Commentary](#)

TUESDAY, JANUARY 4, 2011

[MONEY FOR WASHINGTON?](#)

The [Christian Science Monitor](#) reports on the European states confiscating private pension plans.

People's retirement savings are a convenient source of revenue for governments that don't want to reduce spending or make privatizations. As most pension schemes in Europe are organised by the state, European ministers of finance have a facilitated access to the savings accumulated there, and it is only logical that they try to get a hold of this money for their own ends. In recent weeks I have noted five such attempts: Three situations concern private personal savings; two others refer to national funds.

Possibly this will give some ideas to the folks in Washington.

Dreadful thought, but then there is the Tea Party it may not happen ...

Labels: [Economy](#)

[INCOME INEQUALITY AND REDISTRIBUTION: A MARCH TOWARDS THE OLD SOVIET UNION](#)

One of the [left wing's economic voices](#) wrote today that re-distribution is essential to have the economy recover. The idea is that if one looks at the ratio of highest income to average income then at some point the economic rate of growth reaches a peak and then declines.

Namely the assumption is that more money goes to the very wealthy and that they somehow are stashing it away somewhere so as to be non-productive. That means that the very wealthy have found some Shangri La for investments which has no nexus to the US economy, yet manages to get returns, perhaps they are stuffing the money into Mongolia, yak farms?

This economist states:

Inequality is already high, and if it continues to grow it could reach the point where it becomes morally intolerable, and there is evidence that social ills grow as inequality widens. But there is an economic reason to care, as well.

There is an equivalent of a Laffer curve for inequality, but the variable of interest is economic growth rather than tax revenue. We know that a society with perfect equality does not grow at

the fastest possible rate. When everyone gets an equal share of income, people lose the incentive to try and get ahead of others. We also know that a society where one person has almost everything while everyone else struggles to survive – the most unequal distribution of income imaginable – will not grow at the fastest possible rate either. Thus, the growth-maximizing level of inequality must lie somewhere between these two extremes.

But somehow one wonders if there is any truth to this. The really rich still live here if they are paying the alleged low taxes and thus must be spending or investing via some let us assume legal vehicles. These folks think that Government is a wiser investor of capital, that the smarts that allowed people to make the money somehow are redistributed to some GS 9 in DC after they get it and that the GS 9 can be more adept at placing it for economic return. Why should the person who made it be allowed to decide where to invest it?

Somehow the mindset of these economists is without any understanding of the entrepreneur. The ivory towers of academe are without any touching point with reality. These are the same folks who got us in the mess we are in now, and they want more. Knowing that an opportunity is there to be had is what drives innovation.

If you get just a medal from the GS 9 in DC then you are back in the Soviet Union. What good are medals as rewards, to academics perhaps, but not to those creating the true value in society. Labels: [Economics](#)

MONDAY, JANUARY 3, 2011

[THE CANCER CHIP](#)

There was a Press Release today covered in [Technology Review](#) regarding the chip which will catch cancer cells in the blood. The Tech Review states:

The prototype, developed by Mehmet Toner and collaborators at MGH, consists of a business-card-size silicon chip dotted with tens of thousands of microscopic posts. Each post is coated with a molecule that binds to a protein unique to cells from a specific type of tumor, such as breast, lung, or prostate cancer. As blood flows through the chip, tumor cells stick to the posts. In 2007, the researchers first showed that the chip could capture these rare cells--which make up just one in a billion cells in blood--in high enough numbers to analyze them for molecular markers.

The ultimate goal is to use the device to tailor cancer treatments to individual patients by monitoring cancer cell counts and by identifying the molecular attributes of an individual's cancer. For example, specific markers can highlight a more aggressive form of cancer or a tumor that will respond to specific cancer drugs, while genetic changes in the tumor might signal the need to change treatments. MGH and four other research institutions, have already received a \$15 million grant from the organization Stand Up to Cancer to test the prototype. But that technology is expensive and complicated to use, with each chip costing about \$500, according to the [Boston Globe](#).

There are however some concerns:

1. By the time the cancer cells are freely circulating they may most likely have metastasized. Take a prostate cancer, PCa, which may be Gleason 5 to 7, and it is most likely still encapsulated. It must generally get to an 8-10 to met. At that point there are PCa cells circulating. If so, what is the benefit, because the PSA most likely is well over 10.
2. There is the conundrum of the stem cell theory of cancer, namely that there are stem cells and these are the cells which will spread the cancer. Can we distinguish stem cells from plain old cancer cells. Not yet clear we can do it if we have them, no less looking in the blood stream.
3. A cell which may be cancerous, say morphologically with large nucleoli and other markers must be examined in more detail. Say PCa, can we see if it has no PTEN, what of mTOR, c-myc, and the list of other genes, and what of the miRNAs which we may now suspect to be markers as well. We have to look at a single cell. May be tough, since it is already tough in a path study.

Not that this is not a good idea, but the Press seems to have said more than is there. Shame, since if it does not deliver to the level expected that in itself is negative. Nano technology has greater potential possibly, since with it we can send them through organs with surface collectors and look for the cell markers.

Labels: [Cancer](#)

[MEDALS OR THE MARKET](#)

When I ran my company in Central Europe I was invited to a partner's home once to talk of the past. He was a highly respected member of the community and had reached the pinnacle of his profession. I thought highly of him and he was a tremendous performer. He was a former member of the Communist Party and educated at the University of Moscow and a member of the Russian Academy.

On that day we went through his attic to get something and in the process I saw a box filled with medals. He dragged them out and he described that the Soviets would award medals for this and that, since true monetary rewards were forbidden. He had a box overflowing with medals.

I was reminded also of Admiral King during the beginning of WW II who frankly disliked the Brits, yet recognized the importance of working with them, and his main issue was they was the British Navy wore so many medals on their uniforms. Then, in the US Navy, wearing medals was far and few between, and generally for official dress uniforms only. The award by the state of something of that type was somehow un-American.

Combining these two historical facts I was surprised when I saw the [White House and its Reward](#) program. They state:

The America COMPETES Act passed by Congress today provides all agencies with broad authority to conduct prize competitions as called for by President Obama in his 2009 [Strategy for American Innovation](#). By giving agencies a simple and clear legal path, the America

COMPETES Act will make it dramatically easier for agencies to use prizes and challenges to spur innovation, solve tough problems, and advance their core missions.

In a world of widely dispersed knowledge, prizes and challenges are an essential tool for every agency's toolkit. As the co-founder of Sun Microsystems Bill Joy once famously said, "No matter who you are, most of the smartest people work for someone else." This fact calls for a fundamental shift in the way an institution solves problems. Prizes and challenges are part of the solution.

In the Free Market we have prizes, it is called economic wealth. Anyone in the US is allowed to risk it all for that prize and many make it. If you want a pension and lots of awards for work well done, become a Government worker. If you want to contribute to civilization, start a company. This idea of there being some Government GS 9 who selects based on some Beltway Bandit consultant's report who should get an award and reward for doing something is nonsense. Again, the market makes that selection. The Sun folks saw that first hand, as did Google, and then again as did Enron on the flip side.

The Government should stay out of the way. Americans, unlike Brits, Russians, French, Italians, etc do not wear medals on their clothes, except perhaps for a Medal of Honor recipient. We have no royalty dispensing goodies, or do we?

Labels: [Economy](#)