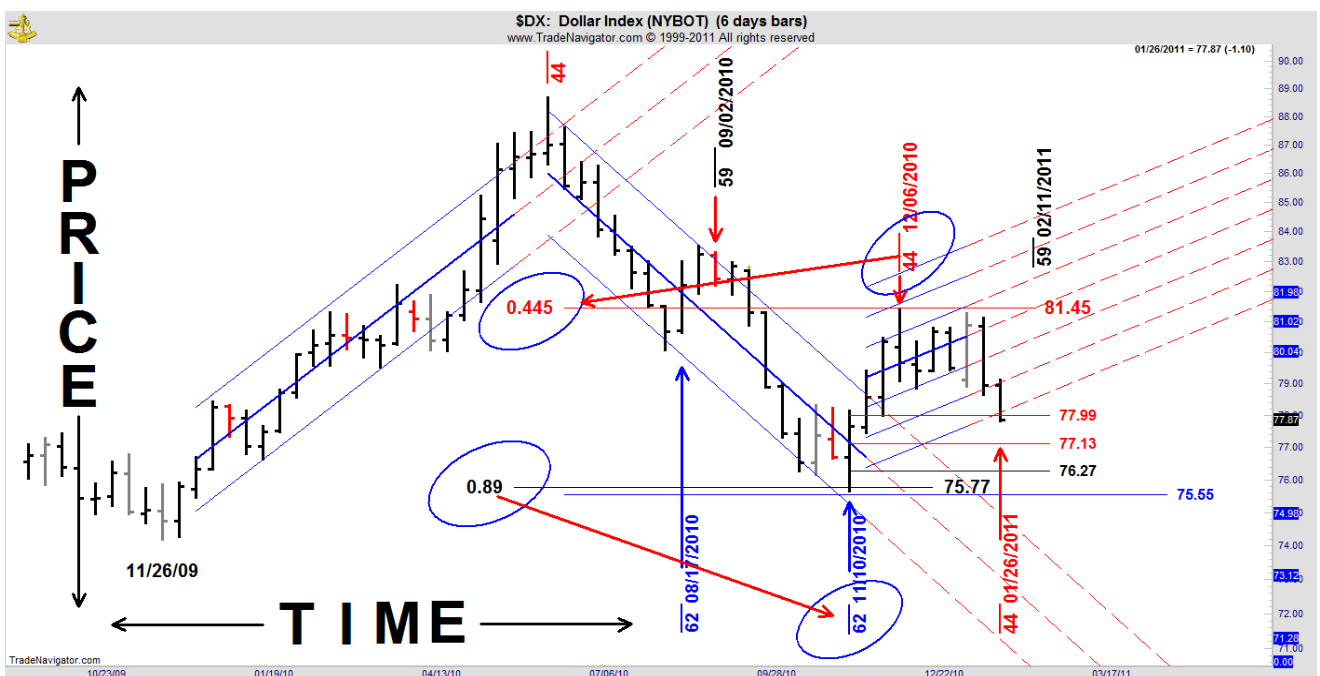
Hither and Whence-Revelations on the 4th Degree

Almost nothing you know or have read about markets is true. I know that will be a shock to many who dwell on the financial news, the pronouncements of talking heads and associated gurus or worse still, the hyperbole of that most awful of species economists. Not so long ago the Economics Faculty was reserved for those students who couldn't muster the grades for Law, Medicine, Engineering or other worthwhile endeavours. Nothing has changed in that regard except that in the largely spurious world of financial forecasting, these worthies are accorded a degree of respect and recognition wholly undeserved. Whilst fundamentals and statistical reports make good meat for a newspaper headline they are quite irrelevant to markets, because they lack that vital element "Time".

We can say with a degree of certainty that market Gnostics and economists are at opposite ends of the food chain, and any pretence to economics being relevant to market behaviour will fall away as you continue this journey of knowledge. To equip you for this journey through the 4th Degree of markets, I offer a recent price and time chart of the US Dollar Index, DX. Time and price are the 1st and 2nd Degree, Volume (less useful these days as markets are splintered and private pools multiply and flourish) are the 3rd Degree, and the 4th Degree is "An Angle". This is the truth of all markets. It doesn't actually sound earth shattering; but it is. Angles and the concept of "Time" and "Price" being squared, that is meeting at recognised Danielcode time and price targets (but not necessarily the same sequence) are at the heart of all market action. Get your head around this concept, and you will die a legend. And a wealthy one at that!



As we peer into the murky mists of the future in our attempts to divine the unknowable, we can start by making the necessary separation of "Engineered" and "Demand" markets. These divisions highlight the purpose and construction of markets and are a necessary bedrock to our understanding of future price movements. For every thing there is a Season and for every market there is a purpose. Some insights into that purpose will give you a better feeling for the probabilities and likely limits of market movements. I should confess my bias, that whilst Engineered markets should be anathema to purists, I for one lack that nobility of purpose and revel in the Engineers tricks.

Engineered Markets-I Government Bonds

The standouts in the Engineered category of markets are Equities and Government Bonds of all types. For Government securities, the logic is simple as these are the tools that Central Banks (CB)

use to signal policy settings to market participants. They are also the primary tools that Central Banks use to influence other markets, and create or drain liquidity from the banking system.

In the recent past we have seen the US Fed aping the Bank of Japan in creating a zero interest rate, the infamous ZIRP environment for the benefit of its special collection of zombie banks and other major financial institutions. The demise of Lehman Brothers in US, a major investment bank in September 2008 seems to have been a death too far for the US Fed. Since then we have seen direct funding of major US institutions by the Fed, a pattern copied extensively by UK and Europe.

The underlying resolve to maintain these tarnished institutions, ultimately at tax payer's cost is based on the belief that the "Too Big to Fail" clan are important and interwoven enough to constitute systemic risk, that is, the notion that others on the other side of the myriad deals created by modern derivatives, will themselves be threatened by a domino collapse if any of the biggies fall over

So we in essence have an ongoing two step tango in the Government side of the securities markets.

First we have the creation of ZIRP; then when that is deemed insufficient support, we have the unedifying arrival of QE or Quantitative Easing. This is code for Central Banks (ultimately the taxpayer) standing in the market to buy Treasuries and Bonds as principal with a view to manipulating the market to its own ends. Always upwards. Central Bank Governors have relatively short terms by market time and all want to be admired and loved for presiding over good times or better still, saving the world from the edge of a financial precipice as Gordon Brown, sometime Chancellor of the Exchequer and unelected Prime Minister of UK loved to claim. Add this to his other fantasies. With the standout exception of Paul Volcker, Central Bank Governors have never seen a bubble that they didn't love.

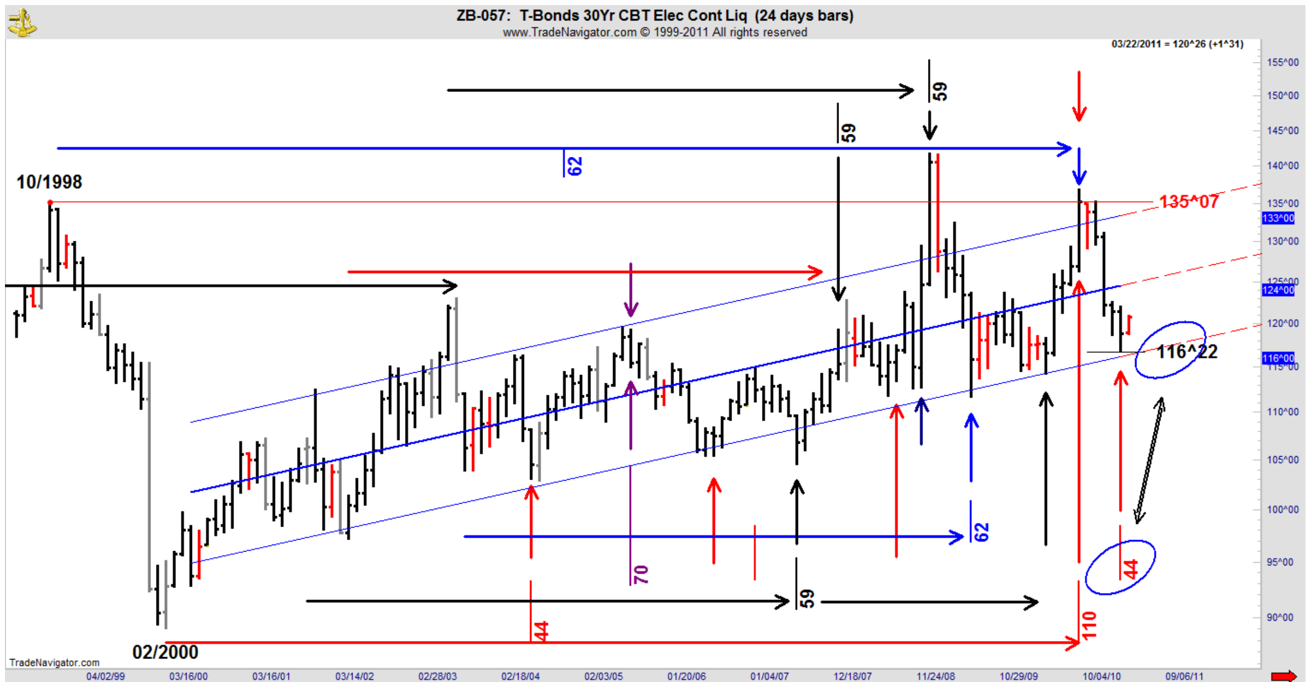
QE takes various forms, but hand in hand with this game is the even more pernicious event of Central Banks determining what security it will hold. Hence we see CBs buying junk bonds and sub prime mortgages in US and Europe's CB constantly in the market to control rising spreads of those EU countries threatened by insolvency, or at the least, unsustainable borrowing costs.

Market manipulation is illegal per se. The operation of free markets is the axiom of capitalism. For CBs however, not only are they exempt from any such thoughts, but it is indeed part of their specific mandate, though I doubt that buying assets that no sane private corporation would touch, was quite what the legislators had in mind when considering the various CBs mandate. So lose any illusions that markets for Government securities are free. They are subject to constant manipulation.

On the flip side of this argument, which causes constant and considerable angst to the financial blogging community, is the realty of market behaviour. One of the most effective tools that we have to analyse markets and project future price levels is the Danielcode regression channels. These have some special qualities in that a valid channel gives us not only an intimation of future price movements, but also a definitive trend analysis tool. Trend can never stand alone as it is always a function of the chosen time series. Since November '09 we have been subject to myriad reports that the Bond vigilantes have at last got to grips with the price of US Government securities, and the corollary is that US Fed, through it's current QE2 program is losing vast amounts of money on the face value of its Bond purchases.

Whilst that is certainly true on a day to day basis, and the modern cycle of 24 hour news certainly emphasises that immediate bias, the truth is entirely different. To put this in perspective we turn to much longer time cycle charts. This is a 24 day chart of US T Bonds, that is each bar is composed of 24 trading days. There are special reasons why all markets run their timing cycles on multiples of 6 day bars, and you are welcome to read about constructing market timing charts in the Articles section of the Danielcode website at www.thedanielcode.com .

If we step back to this more revealing view of the real trajectory of US 30 year T Bonds, the cornerstone of US Government financing, we can start to see that despite constant Government intervention and manipulation in this vital market, the dominant trend has been consistently up (higher Bond prices reflect lower interest rates) since February 2000, that is about half way through the sell off from the great Dot.com debacle. So despite the plethora of announcements and policy stances from the Fed, this market on a macro view has been constant for the past 11 years.



Note also the constancy with which this market has made its turns at the designated Danielcode time cycles. Every significant turn has come at one of the usual DC time cycles with only one exception in that whole period when the DC "Heathen" or 70 cycle made an unusual appearance in July of 2005.

So, far from the idea that Fed intervention creates dramatic changes in this market's behaviour, we can see that changes to major trends requires very dramatic policy input changes. To get a meaningful change in trend, that is real increases in interest rates, we require a trend change indicator in this time series and that is not apparent right now.

With all of these longer term engineered charts, the obvious take is that they are mean reverting. You see from the above chart that markets have a great deal of trouble closing above one standard deviation from the mean, let alone two standards as happened in December 2008, and those bursts of exuberance, are almost always followed by a correction to the bottom of the channel in this market at least. In less malleable markets such an event usually is usually followed by an application of the Third of Newton's Laws, viz "For every action there is an equal and opposite reaction." Thus the pure mathematical rules of Science and of markets is revealed to us.

What confuses our thinking about markets is the cacophony of noise from media and pundits trying to anticipate market trend changes. It can be done but only to a limited extent. Firstly you need to determine the time series that is of interest and benefit to you. Then within this discrete time series, a properly drawn Danielcode regression channel will forecast future price movements, until it doesn't. This sounds like double speak to most traders, but it is the immutable law of markets that a trend in place, particularly on these longer term charts, will remain the dominant force until Newton's First law "Every object in a state of uniform motion tends to remain in that state of motion unless an external force is applied to it" is activated. You should see from the dramatic change in settings in the 1998-2000 downdraft that the force inherent in major trends requires a significant event to trigger this law.

Going forward, there is no evidence to signal a change in the present forces ruling this market, so the highest probability is that the median is maintained through the end of the year, a completely

arbitrary time period, but beloved of those who contemplate these things. That means that best bet is for US T Bonds to end the year at 126^22.

I should add the caveat that markets cannot change trend on these largely mechanical charts without creating a failure signal. If that happens we will be the first to know about it.

Engineered Markets-II Equities

The Daddy of engineered markets are the Equity markets. These little darlings are the raison de l'existence for every broker, mutual fund and stock touter the world over. This is what harnesses the myriad of small and large investors who slavishly hand over their hard earned in the expectation of always upwards markets. Absent this impressive piece of market engineering the truth of market action would become obvious to the punters and that would destroy an industry.

The engineering of Equity markets is two fold. Firstly, the stocks that comprise the various indices are not constant. Companies that become insolvent are simply removed from the indices by the sponsoring body, and replaced with the hot new thing waiting in the wings. Companies that trade for a specified period below a nominated price are also removed from the index and replaced with another that is more attractive to punters. This action is known in the trade as “Rebalancing” or more properly called “Reconstitution” and usually follows a set and published timetable. Be assured that if one keeps replacing defunct or drastically damaged stocks with more celebrated members of the fraternity, an upward bias is inevitable.

Most Stock Exchanges use this engineered upward bias of indices as their primary marketing tool. Some years ago the Australian Stock Exchange headline the “Index always recovers” mantra as the prime reason to invest in stocks. Of course, it is argued that punters can match the reconstitution at the same time as the index, and this is what happens when index following funds undertake their periodic rebalancing.

At the same time, Governments of all ilks have an overwhelming ambition for markets to be healthy and upward trending. A seriously deflating major Equity index where so much of its citizen’s wealth is housed is a shortcut to a change in Government. Of more concern is that most pension funds that have exposure to Equity markets make assumptions about the rate of return to be achieved going forward. In some cases this is as much as 7-8% annualised. As these funds are gathering and disbursing money on a daily basis, a significant under achievement against the selected return leads to these funds being underfunded, a polite way of saying that they don’t have sufficient assets or earnings to meet their promised obligations. A stark example of this is currently playing out in Wisconsin, USA and other US States where years of over promising and underperforming returns, eventually cause a dénouement!

Last year, this state received $2Billion in Federal grants, and its rulers blithely set that against its growing State shortfalls to balance the budget. Now that Federal grants are slowing or not available, this State, likely the first of many, is being forced to actually take steps to reduce public employee pensions, and to a public weaned on positive spin and rubbery balance sheets, the first inklings of actual action to balance earnings to payouts is anathema. That’s what the unprecedented demonstrations are all about. In fairness to our American readers, I should say that there is an undoubted political agenda running through that story, but the baseline is that States and Countries are being forced to recognise that imbalances can only be fudged away for so long. At some stage reality bites and in these most interesting of times, reality in just a few sectors is starting to poke its head warily outside its shell.

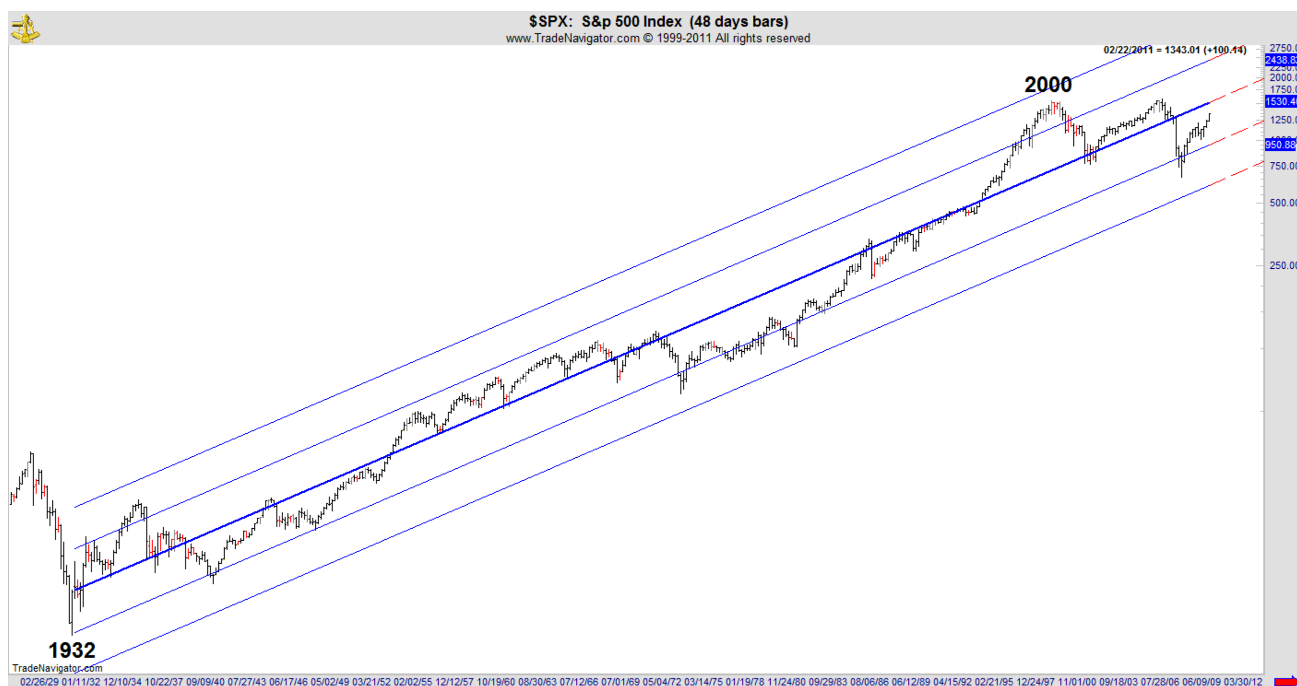
This has generally been a much despised posture by our political masters who long ago, rightly surmised that sugar and syrup were the only suitable food for a largely uneducated populace.

For most of my thankfully long adult life, the manipulation of Equity markets has been a well kept secret known only to the engineers and players. That has changed with the pressure that modern media brings to bear on some of the most obvious characters. The hapless Ben Bernanke, the current US Fed Governor, made a virtue out of necessity by declaring that the spill over liquidity created by QE II was having a beneficial effect on US markets as liquidity has to find a home and with miniscule yields from the Fed induced ZIRP (for practical purposes), Equities investment has returned as the less unpalatable of available choices. Bernanke rightly claimed that rising markets were good for the populace as it together with rising house prices was largely responsible for the wealth effect.

Given that none of the Governments actions from guaranteeing housing loans to effectively promoting miniscule deposits and long condoning spurious loans, has created demand to soak up the huge inventory overhang in US housing, goosing the Indices seems their only available option.

So we see engineering at play not only from the method of reconstituting the indices, but Government determination to support these markets.

Lets step back to our longer time frame charts to see the truth of US Equity markets. For international readers you can do the same exercise with your local Exchange. The chart below is a very long term chart of the S&P index starting from the celebrated 1929 crash. We have doubled the time scale of the previous chart to create a 48 day chart here. This chart has a semi log scale which distorts more recent market action as the trade off for balancing long ago price action when tick values were much higher and daily ranges much smaller.



From the perspective of history we can discern that Greenspan's "Irrational Exuberance" running into the 2000 Dot.com top was hardly irrational; merely a run to the next level of resistance. We can see reality more clearly from a closer perspective by cutting this chart in half and starting it from the 1974 low. Now in the chart below we can see the mean reverting characteristic of this market as it hugs the median (central line) for 74% of its journey with sallies above the standard deviation being matched by retreats to the opposite extreme.

The 4th Degree revealed-or as VP Joe says "This is a big f......g deal"!

What you see in the following chart is an exposition of the 4th degree of markets; an angle

A detailed discussion of the 4th degree of charts is outside the scope of this article, but it is a singularly important concept in market analysis, of which I have written previously. Apart from the observation of median adherence, the above chart doesn't advance the argument much. But wait. We still have the problem of semi log scale to deal with.

To this end we can now revert this same market with its unchanged DC channel, to its pristine linear state. Nothing has changed except everything has changed. And all on the touch of a semi log button.

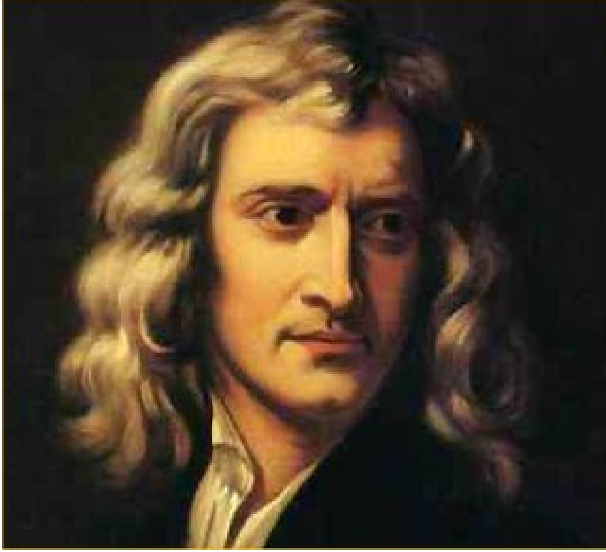
At last we have constructed a true 4th degree chart which will expose the real meaning of this important market. Voila!!

We have co-opted a seriously large fireworks picture to emphasise the enormity of the revelations that become apparent upon proper construction of these charts. Or to use a more modern idiom and paraphrase US VP Joe Biden when commenting to President Obama on passage of the Health Bill…This is a big f…… deal!!

And indeed it is because the chart below makes some clear mathematical observations that you likely haven't heard before:

- The 2000 tech bubble top was exuberance but not by any means irrational. We see markets going to two standard deviations of their Danielcode channel in many instances.
- The 2002 low appears as an aberration but it wasn't at the time as we shall see
- The 2007 high topped out at its standard deviation. Quite normal market behaviour. Why was everyone so surprised?

- The 2009 low was made at 666 just ticks from the bottom of the two standard deviation line. Remember that I reminded you of Newton's Laws earlier (which of course you were taught in Science classes)? This is just pure math and science from Newton's First Law. I knew with a high degree of certainty where the 2009 low would be made and called it to the day and a few ticks in a public forum. That's the power of the 4th degree and a proper understanding of the real construction of charts.

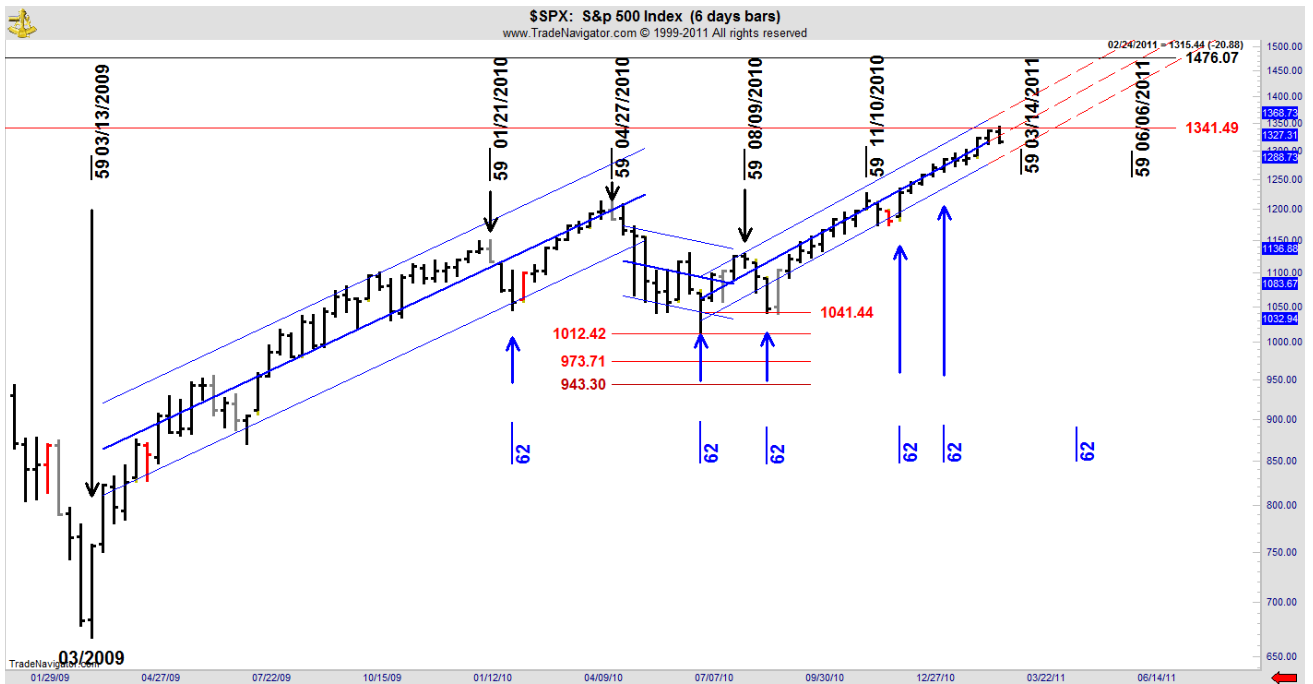


- A fall to 760 is not the calamitous event that nightmares are made of and which serious commentators and more than a few hedge funds away from the main stream are contemplating. Indeed, whilst it would undoubtedly be ruinous to punters and likely Exchanges already suffering huge volume impairment as the public rightly view share market investments as a shell game, and increasingly refuse to play (always a good sign for a Bull market), in our terms, and on this particular time series, it would be merely a retest of the support that has held this market since the 1932 low. It is an improbable event, but within the bounds of our known market range and undoubtedly great fun for traders were it to occur.

It follows that the 2009 low was not a "crash" in the terms adopted by most. It was merely one of the earliest and most important rules of the Science of Motion playing out exactly as Newton described in Philosophiæ Naturalis Principia Mathematica, first published on July 5, 1687. A close two standard deviations above the mean eventually begets a close two standard deviations below the mean. QED Sir Isaac!!

Nothing in these charts tells us whether 2007 was *the* top, but our observations of the past show that when engineering is possible, mountains can be climbed. And that means that "Higher ever Higher" should be always the bias going forward, but we know not when, at least on this time scale.

Let's come down now to our basic timing chart of the S&P. The calls and development of this DC timing chart go back a long way, but suffice it to say that these Long Term Trend Charts (LTTCs) are posted free to all at the Danielcode website on an almost regular basis. For those who have been confused by precepts of market timing, I can merely say that all of the time sequences on this chart were posted before a discerning audience weeks and often months before their due date, and as you can see, every important turn in this monster Equities market has been made at a Danielcode time cycle.

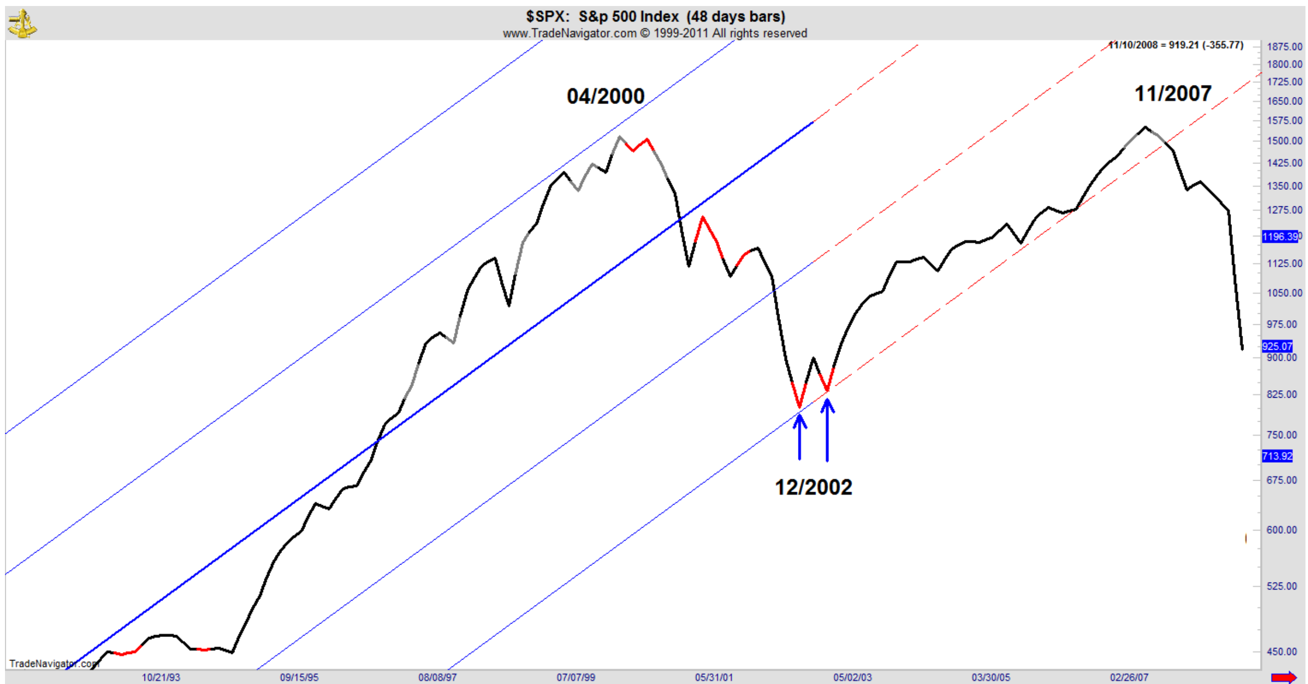


So if you combine the knowledge of the DC regression channels which we explored above, with the creation of high probability turning points from our 6 day timing charts, you should surmise that markets are mathematically exact, orderly and sometimes predictable.

And that's why the DC daily trade signals run at an 86% strike rate and have returned 7.4% *per month* for the past year.

In summary we see in these markets the constant and deliberate hand of Government interference, not to mention the lunacy of HFT and other tricks that by their essence deny a fair and fully informed market. And these are not mere foibles of fate. They are deliberate Exchange policy designed to maximise revenue and they have had plenty of publicity with the flash crash and other misunderstood phenomenon and yet......Science, math and market lore prevail. Markets know and recognise all of the DC time and price levels that others do not see. I hope that this short introduction to the marvels of the 4th degree is serving to help the scales fall from your eyes.

Before we leave this wonderland of engineered markets, I told you earlier that whilst the 2002 low in S&P appeared to be an aberration, it was in fact mathematically correct, and appeared exactly where time and price were squared, that is the point where market turns become nigh inevitable. Here's the chart at the time. We are back to semi log scale to account for the fact that the regression channel starts in 1974, and this time I am showing you a close only chart. Danielcode target recognition can be achieved on the more usual high/low basis but also on the close only chart. In this instance the latter format shows you the precision of the 2002 low. On target and on time!



Our published LTTCs of 11/08/09 called for S&P to be at 1390 0n 9/11/11. That chart is below:

We have called this market up, every week since the August '09 retest low. We are now looking for a March correction from an overbought condition and then a continuation of the advance which would have it at 1408 by year's end. The risks to a bullish forecast are many, but with Presidential elections due in 2012, what a wonderful magic trick it would be to make the masses' losses whole before then. Already this market has amazed many by claiming the 74% retracement, a number well known to DC aficionados and the last level of resistance is then at 1476 a mere 100 points away from the old high!

The possibilities in Engineered markets are indeed amazing, are they not?

Demand Markets

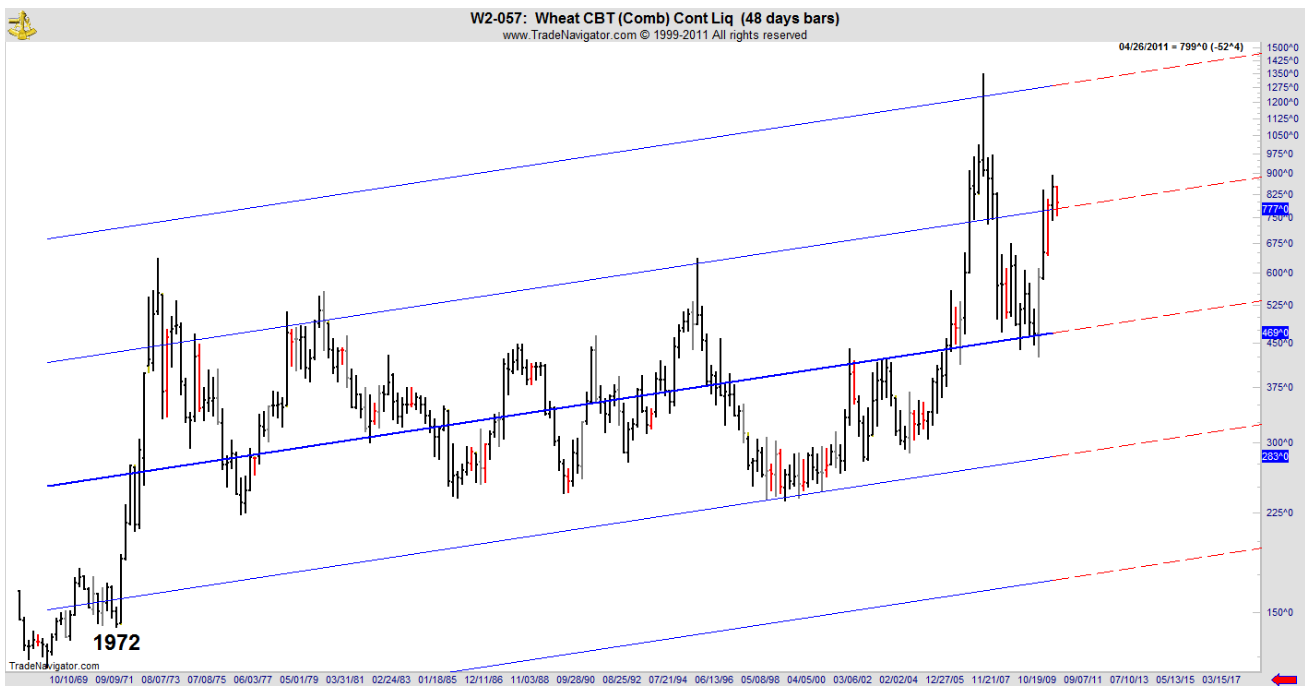
Demand markets are so called on the premise that demand is relatively stable if adjusted for inflation and therefore supply provides the price levers. I am not convinced that this is a true account of these market forces but it will serve as a shorthand way to distinguish these markets from "Engineered" markets.

These are the great commodity markets of Gold, Silver and the Agricultural complex, which have been the outriders in the liquidity and inflationary storm sweeping through commodities.

Agriculturals

We cover Wheat, Soybeans and Corn at the Danielcode. They all act in much the same way, but sadly, they are not as responsive to our usual timing mechanisms as are some other markets. Perhaps that is because I haven't obsessed over them enough. To me, these markets lack drama and romance, so I have to admit to them being something of a stepchild.

Here is the long term chart for Wheat. As it spends 89% of its life within one standard deviation of the DC mean, it's an easy bet that it will be around 475^ at the end of the year.



Gold

Everyone's favourite Gold, oozes sex appeal. This is our gift to goddesses and glamours alike. For most, nothing rouses the senses like a robust rally in Gold or Silver. Whole forests of news print and terra bytes of the ether are devoted to its every turn and whole communities maintain their rage and resolution to embrace every conspiracy story that can be conjures. A whole lot of people have a whole lot of their lives and wealth invested in the never ending rise and rise of Gold and Silver.

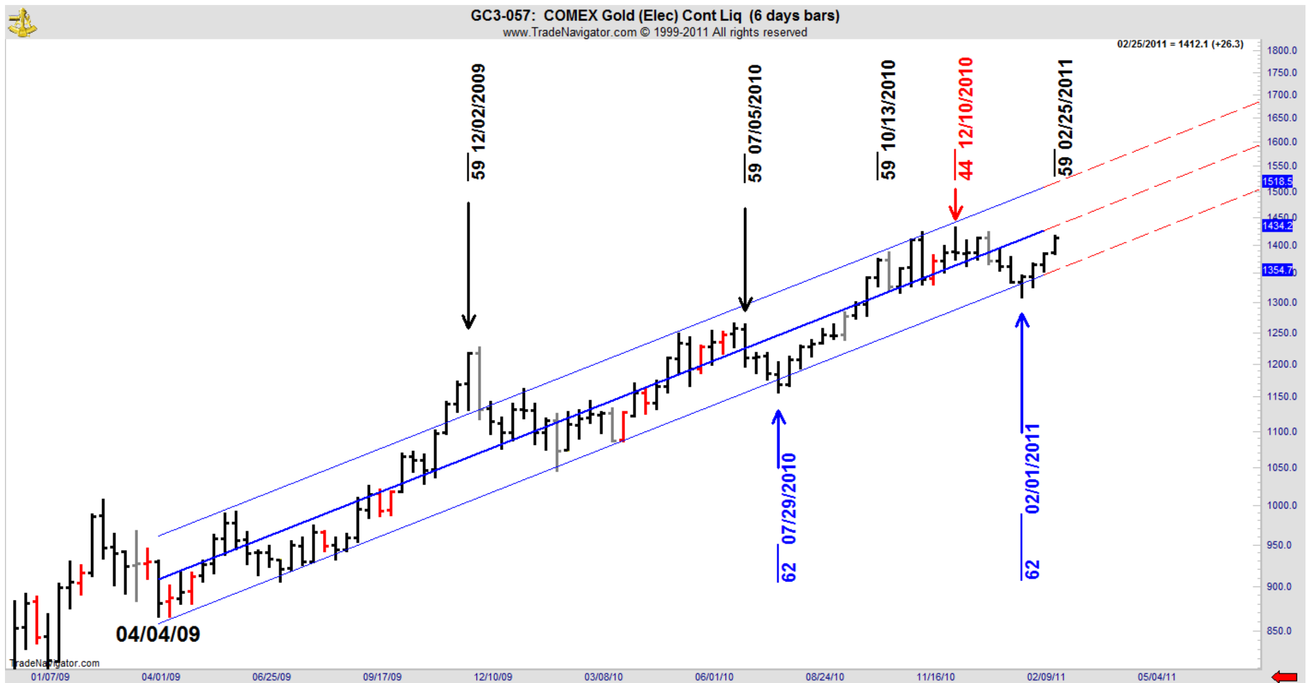
Gold bugs are not merely a group; they are a whole belief system. And those supplying their lust for trinkets, coins or bullion are the real rent collectors from this marvellous and now sustained burst of marketing hype.

There are two, possibly three things that are anathema to a gold bug, and that you should never utter. The first is the Australian standard measure of civility: Never tell a man that his dog is ugly. Second, don't remind folks that Gold is a mere commodity. Commodities don't have deities and priests. Gold has legions of both. And finally, never state the obvious that properly organised futures markets have standard contracts and margin. And that for every buyer there is a corresponding seller. This final point is, of course, death to the conspiracy stories of forced price suppression by major brokers/bankers/other deviates in Comex markets. Take your pick.

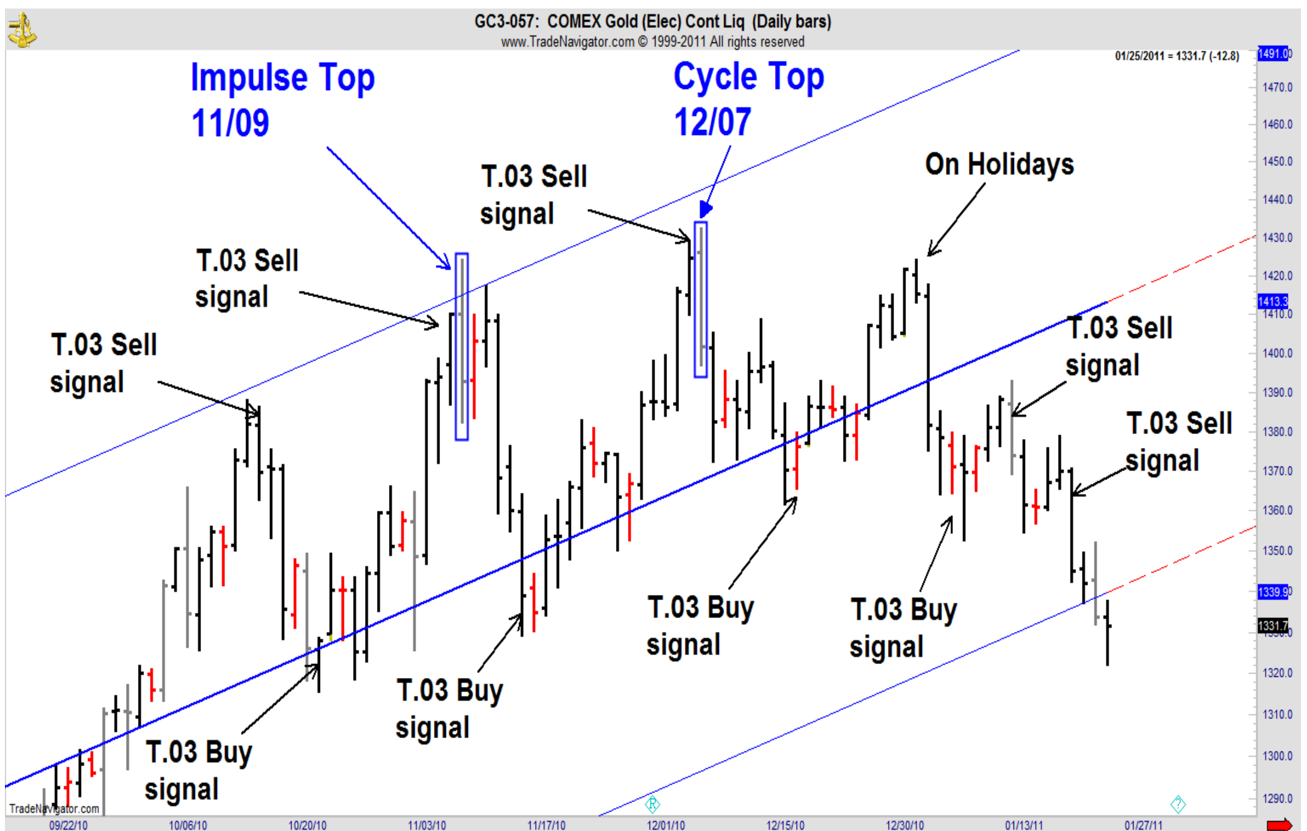
Not surprisingly Gold is one of our better trading markets. It is responsive to the Danielcode time and price signals alike.

Here is a recent LTTC published at the DC website. The intermediate top in Gold made in the week of 12/10/10 came at the DC 44 week cycle as shown in red. This time cycle was posted on the

LTTCs (free to all) on 17 October 2010. If you didn't know, you missed a great trading opportunity. Just as predictably the supporting 62 DC cycle and the 4th degree of DC channels provided support to direct our minds to the long side once again. This cycle too was posted months ahead of the due date.



From these longer term signals we take out the fractals to create our daily buy and sell signals in US, German and Indian Equity markets, Grains, T Bonds, Oil, Gold and Silver and 16 forex pairs. Here are some recent DC signals in Gold, created by the Danielcode Trade Program for Members. These signals are posted about 3 hours after US markets close, so you don't need to observe the various markets' open and other such vagaries.

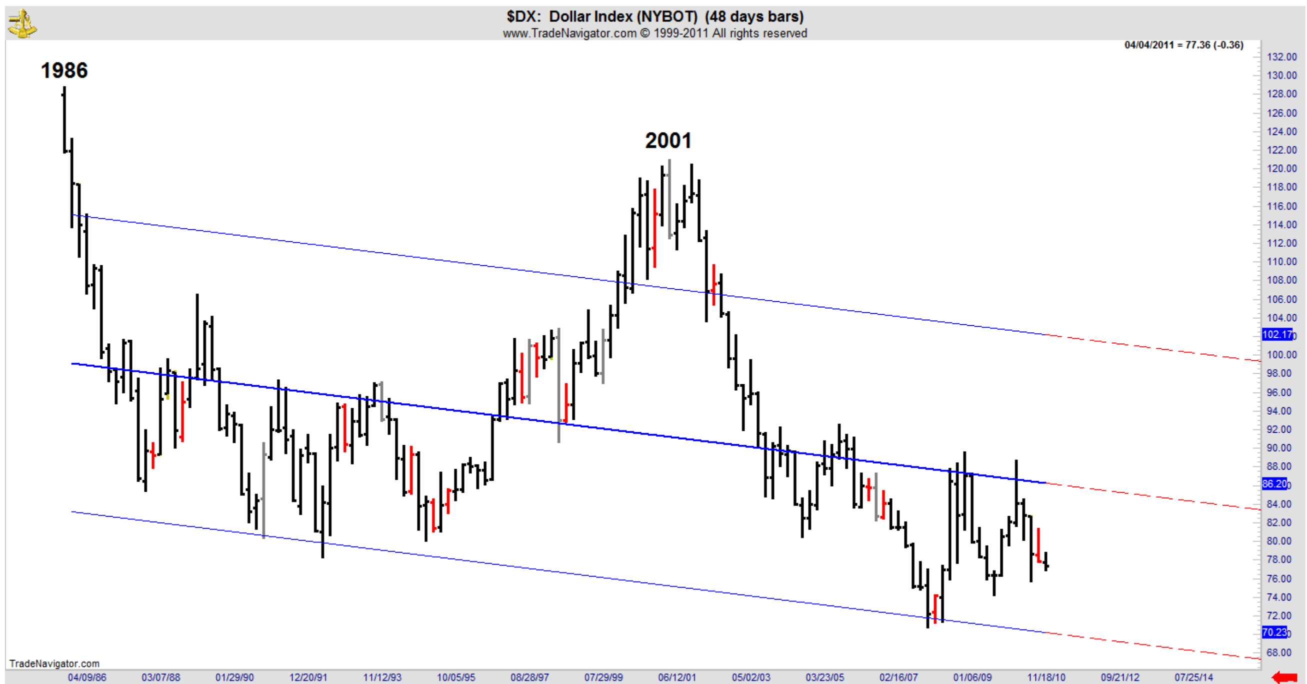


Gold's days are numbered, like any bull market, but as yet, we know not when. On its present trajectory it will be above 1500 on Comex by the end of the year. Keep an eye on the free LTTCs to see the developing time cycles. The highest probability is that the final top of this epic bull run will come on a 44 DC cycle. The red one. For more understanding of why 44 is the number for Gold (all

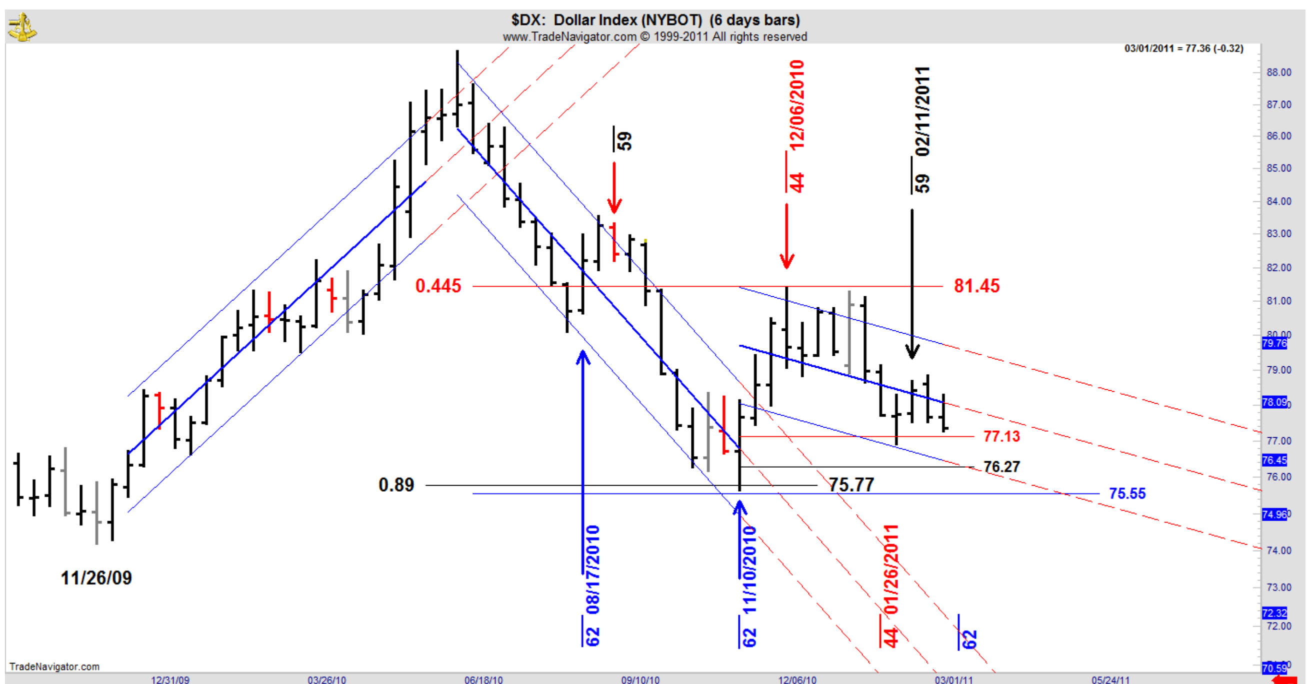
markets have a discrete number), see “Master Class II-Timing Gold” under the Articles tab at the Danielcode website.

Currency Futures-DX

Lastly we must bring the steely eye of our long term cycles to bear on this wonderful trading market, the US Dollar Index. Truly this futures contract is a constant gift to Gnostic traders. Here is its longer term chart. It’s a sad sight and charts the fall from grace of the most powerful mercantile empire that the world has seen.



On a more immediate basis we switch to the 6 day timing chart and find that this market is tracking a new downward sloping trend line. Soon DX faces its date with destiny at the DC Black line at 76.27. A close and confirmation below this price level foretells a fall to 73.77 by Christmas. That will make for expensive Christmas shopping for our US friends and unhappy US Bond holders in Asia



Currency debasement is a contested concept. Manufactures and exporters long for an ever weaker currency as it increases profit. Most Governments oblige if they are not constrained by treaties that shackle them to a fixed standard as many Euro countries are finding out. For these, inappropriate policy settings (code for we will do what’s best for the most powerful countries) has lead to calamity

as Ireland, Greece and Portugal are now finding. For the great debtor nations like US, its obligations to creditors and hopes for future funding mitigate against the British disease of straight devaluation. For DX, devaluation by stealth, or sporadic rallies followed by retracements are the only option.

If you would like to learn more about the Danielcode and the practical output from the 4th Degree of charts, I invite you to visit our website and request a free trial of the DC Trade Program. For busy traders who have time constraints, our new Auto Trade GENIE may interest you. It takes the daily DC signals and creates all required orders, stops, target recognition and exits, and does all of that in seconds. Then it continues to move your stops and manage each trade to the prescribed exit. And we will be happy to arrange a trial of that also.

If you are frustrated with markets, or lack clarity in your analysis, remember, markets are mathematically exact, orderly and sometimes predictable, if only we consider them from the correct perspective. What you have seen here in the macro we can do in the micro. In fact we do just that for DC members every day.

Isa 43:18 Remember ye not the former things, neither consider the things of old.
Isa 43:19 Behold, I will do a new thing; now it shall spring forth; shall ye not know it? I will even make a way in the wilderness, *and* rivers in the desert.

JC Needham
25 February 2011.
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