HindeSight

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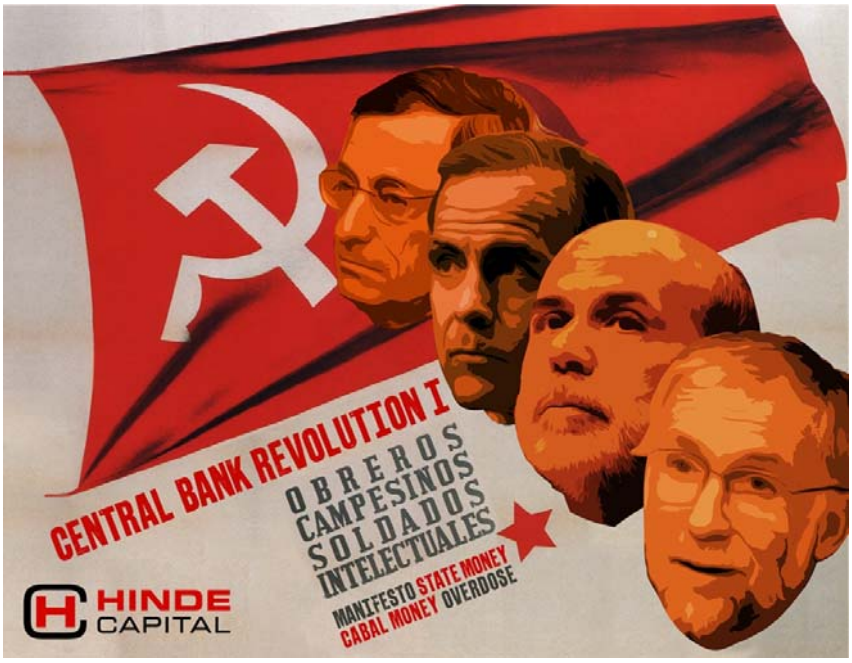
The Central Bank Revolution I – Well 'Nominally' So



Central Bank's Checklist Manifesto

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Escape Velocity and Un-NEUTRAL Money

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"There have been three great inventions since the beginning of time: fire, the wheel, and central banking…"

Will Rogers

"Victorians heard with grave attention that the Bank Rate had been raised. They did not know what it meant. But they knew that it was an act of extreme wisdom."

John Kenneth Galbraith

Central banks are the devil. They are like drug dealers except they administer regular doses of supposedly *legally* prescribed barbiturates to their addicts. The 'easy money' or 'credit' they create is an opiate and like all addictions there is a payback for the addicts, one exacted only in loss of health, misery and death.

The economic system is an addict, but that system is comprised of banks, corporations, non-profit organisations, small businesses all of which are communities. And what comprises communities, us, human beings - individuals. We are the addicts.

Popular economic academia understates *human action* in the economic equation of money. It is human preferences that determine our desire for goods and services and so in turn really determines the utility of money. Sadly the desire of the State to control money and administer it like a drug has left our economies unproductive and incapable of standing on their own two feet.

Our reliance on 'easy money' as facilitated by credit has become terminal. Like drug users we continue to attempt to find a heightened state of Nirvana. We continue to hark for the utopian days prior to the eruption of the post 2008 crisis, even though our well-being was fallacious and based on an illusion of wealth paid for by credit - *a creditopia*. The abuse of credit is what defined the Great Financial crisis and one that still defines our economic system and one which will define a much worse crisis to come.

Central bankers have begun a concerted effort to fight the global debt problem which has been stifling growth as tax revenues merely serve to finance debt servicing rather than addressing the repayment of principal outstanding. Omnipotent governors, Bernanke, Carney, Draghi, Svensson and Iwata or Kuroda (either are likely to replace Shirakawa) are to take a far more aggressive and activist role in pursuing a new framework for growth and inflation by seeking an alternative way to conduct monetary policy. It's called Nominal GDP Level targeting and it is in our opinion as significant a moment as Volcker's appointment to the Federal Reserve governorship in 1978.

Many will recall Volcker's moment was to engineer a swift monetary contraction and deceleration of the money velocity to try and reign in excessively high inflation and stabilise growth. It worked. Today we are witnessing an 'Inverse Volcker' moment, whereby the opposite is likely true.

The question remains are they all still 'inflation nutters' as Mervyn King, the BoE Governor glibly referred to those central bankers who focussed solely on inflation targets to the potential detriment of stable growth, employment and exchange rates.

Are central bankers merely expanding the boundaries of monetary largesse by focusing on a broader mandate and merely evolving the singular variable approach of inflation targeting or have they finally found a solution to eradicating boom bust business cycles? This is a question we need to answer as we are currently witnessing a *Central Bank Revolution* which could portend severe consequences for prices in our economies - and all the attendant misery that comes with very high inflation.

Nominal GDP Level targeting advocates believe they have a plausible case for a change of mandate by central banks and one which is being gradually adopted, but we believe that like central banks they have misdiagnosed the cause of the crisis by failing to examine the impact of credit creation in our global economy. Money matters less credit matters more.

It is our contention that central banks feel they need to maintain the balance of credit in the system as it currently stands by adjusting the money supply and monetary velocity (MV) but by doing so they merely circumvent the necessary adjustment in the economic system that comes about by market failure. If they don't allow this failure then any attempt to influence MV will only lead to higher prices (P) at the expense of output (T) in the famous monetary equation MV=PT.

Central Bank's Checklist Manifesto

At Hinde Capital we have attempted to codify both our objective and subjective observations of asset classes over the years and have naturally migrated to a checklist routine to try to eliminate any behavioural biases that lead to a misdiagnosis of events before an investment decision.

This line of thought was reinforced ever more so when the team read Atul Gawande's *The Checklist Manifesto – How to get things right*, a masterful book for its narrative and practical application. Gawande, an acclaimed surgeon based in the US takes us on a journey of how the simple checklist helps individuals deal with immensely complex situations, where risks can be calculated more often in lives lost – skyscraper construction, medicine and investment banking.

First introduced into the US Air Force to assist pilots, the humble checklist in all its simplicity has helped generations of pilots navigate the complexity of flying modern aeroplanes. Gawande himself has introduced the concept into operating theatres and hospitals around the world with astounding success. One area of impact has been the reduction in the incidences of infection and loss of life from such infections. Another human impact has been reduction on the reliance on one omnipotent individual to make critical decisions without any conferring, when under extreme conditions of stress. The checklists enforce a back-up to the surgeon and provide a team solution when confronted with an unusual event. This has been very empowering for individuals working at the periphery but who are still essential to a successful operation.

When considering how to guide a system as complex as the global economy with so many independent countries, and decision makers we often wonder what type of checklist a modern central bank would employ today. At the US central bank, the Federal Reserve, there is no doubt they observe a vast array of variables to try and determine monetary policy that they believe will provide an optimal outcome for growth, stable prices and employment levels. One need only have to look at the staff white papers, the St. Louis Fed research analytics and all the Federal Reserve board member communications to know there has to be a checklist of sorts.

The immortal phrase – "this has never been a problem before" until it is, or "this was an unforeseen once in a lifetime event" – is another phrase that has been used over and over in time immemorial as an excuse either for ineptitude, incompetence, or malevolence. Checklists can enforce verification, and a discipline of higher performance which can be applied as a solution to a genuine black swan. The crucial ingredient though is not only a checklist but the **correct** checklist.

We were infuriated with central banks in particular the Fed, whose omnipotent leaders, Greenspan and then Bernanke who claimed there was no housing bubble, that there was a productivity boom, that vendor-financing relationship of Asia and the US was born out of a savings glut and not an unstable equilibrium. They believed the business cycle growth of the first decade of the 21st century was a period of excellence – the goldilocks era of growth and stable low inflation, and employment was driving a period of deserved wealth as it had been engineered and steered by prudent monetary controls. But to any other observers with half an ounce of common sense it was evident that economies and markets were out of control. So what went wrong?

Right up until the implosion of equity markets in 2007 and 2008 Bernanke said there was no housing bubble, that inflation was benign, even though almost every asset price from equities to gold was trending in a succession of levitating new highs. So what checklist were they looking at?

In a hospital one of the most basic but effective checklists deployed since the 1960s as introduced by nurses was a vital signs chart – every few hours or so nurses would check the following:

- Pulse
- Blood pressure
- Temperature
- Respiration

Likewise a central bank observes certain vital signs to observe the state of the economy – their patient. To have an understanding of what the 'vital signs' checklist is for the Fed, let's look at their duties as outlined in their *manifesto* 'The Federal Reserve System – Purposes & Functions.'

> Federal Reserve's duties fall into four general areas:
>
> • conducting the nation's monetary policy by influencing the monetary and credit conditions in the economy in pursuit of maximum employment, stable prices, and moderate long-term interest rates
>
> • supervising and regulating banking institutions to ensure the safety and soundness of the nation's banking and financial system and to protect the credit rights of consumers
>
> • maintaining the stability of the financial system and containing systemic risk that may arise in financial markets
>
> • providing financial services to depository institutions, the U.S. government, and foreign official institutions, including playing a major role in operating the nation's payments system

Let's focus on the first point. The Fed's objectives include economic growth in line with the economy's potential to expand; a high level of employment; stable prices (that is, stability in the purchasing power of the dollar); and moderate long-term interest rates. So their vital signs checklist may go something like this:

- Growth
- Employment
- Inflation
- Interest rates

Alan Blinder, a former Fed governor and Vice Chairman (1994-96) wrote an insightful working paper called 'Monetary Policy Today: Sixteen Questions and about Twelve Answers'. These questions in many ways are a checklist questioning parts of the Fed manifesto. Blinder himself resigned as Vice Chairman under Greenspan as he was in disagreement with his diagnosis of the US and global economy.

Checklists need to be easily accessible and actionable with no room for interpretation especially relevant when time is a factor. The problem central banks have incurred is that they have often observed the wrong data, with measurements that were open to interpretation and provided the wrong insight into vital signs. Their checklist was flawed both in its compilation and implementation.

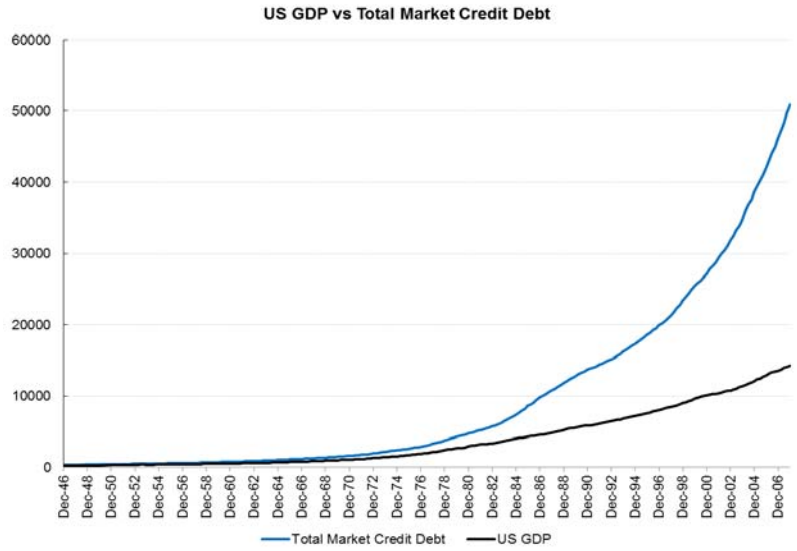
Central banks have tried to be omnipotent in guiding economic behaviour rather like a surgeon accustomed to holding centre stage in his 'operatic' theatre. The central banker can't enforce his will on agents in the economy because it does not allow for human beings subjective preferences on how to spend and live. Using a policy of market expectations to direct human action, based on assumption of some rational expectation has been proven to be flawed. Besides which, who leads - the market place or the central bank – the dog or the dog's tail?

Central banks examining growth use primarily GDP and industrial production numbers of the economy but even allowing for compilation issues this past decade there was no understanding of what really drove growth. As we will demonstrate throughout this piece it was credit creation which fuelled unsustainable growth. This

is an important fact to comprehend, as this miscomprehension led to the wrong conclusion by central bankers when they tried to deploy monetary policy tools.

The Fed believed growth was sustainable and because their checklist on inflation consisted of looking at incorrect measurements of CPI and PCE. For instance they focussed on core numbers, ie excluding food and energy. These understated the inherent price levels and thus price risks building in the economy. They ignored price increases in assets which were exhibiting excessive levels of risk taken by participants.

If they had realised credit was driving the business cycle they would have comprehended that there was an inherent instability built into prices. The higher prices rose, the more it induced financial agents to invest and speculate in more borrowing; funding debt servicing costs with collateral of these higher valued assets – housing and equities. We could spend all day discussing discrepancies in checklists of economic health but one policy implementation of the checklist is the mechanism of monetary policy – flexible inflation targeting (IT). Rather like the surgeon's knife knowing where and how to wield it is crucial. We debate how the central banks scalpel incision making decision is flawed and the new revolution underway to provide a new checklist will be prone to the same compilation errors and misapplication.



Flexible Inflation Targeting

To comprehend *The Central Bank Revolution* we have at hand, we first need to remind ourselves of the mandate for a central bank. There are some variations between central banks but in essence a central bank uses its executive powers to stabilise the economy such that nominal gross domestic product (NGDP) grows along a stable and *predictable* path at all times.

In the Fed's case it is in charge of *monetary policy* which uses changes in the supply of money to help (in theory) stabilise the economy through the cyclical boom and bust of the business cycle. Its dual mandate is to maintain the maximum sustainable level of employment and keep prices stable alongside moderate long-term interest rates.

It is the Fed's belief that when prices are stable and believed likely to remain so, the prices of goods, services, materials, and labour are undistorted by inflation and serve as clearer signals and guides to the efficient allocation of resources and thus contribute to higher standards of living.

To begin to understand how central banks intend to reignite economic growth we have to understand that central bankers believe that changes in the quantity of money affect the price level, and for a short time, the level of economic activity ie output.

By examining a classic monetary equation which became the foundation of Milton Friedman's monetarism and central bank monetary policy we can see why there is potential for much more money printing.

MV = PT

M= money supply
V = velocity of money/ circulation
P = prices of goods and services/ price level
T = quantity of goods and services/ transactions or output

Irving Fisher termed this the quantity theory of money, and is often credited with this economic identity, but it was in fact the mathematician and astronomer Simon Newcomb who introduced this simple relationship; the equation of exchange, when he ventured into a new field of expertise with his book *Principles of Political Economy (1885*). Fisher's belief is upheld by central bankers today –

> "we find nothing to interfere with the truth of the quantity theory that variations in money (M) produce normally proportional changes in prices."[1]

MV=PT simply put means *the amount of money spent (MV) is always equal to the price of all things bought (PT)* in an economy over any given period of time. If MV is the quantity of money (M) multiplied by the number of times that money is used during any given period (V); and if PT represents the price (P) of each product multiplied by the quantity purchased or volume traded (T) then this must equal the *value* of everything produced and sold in an economy during a given period of time.

If we look again at the definition of nominal GDP - the sum of all the goods and services produced, counted in their quantity (the 'real GDP'), and then multiplied by their prices (the 'price index' or 'deflator'). Clearly this is the same as PT. Therefore **MV = PT = Nominal GDP.**

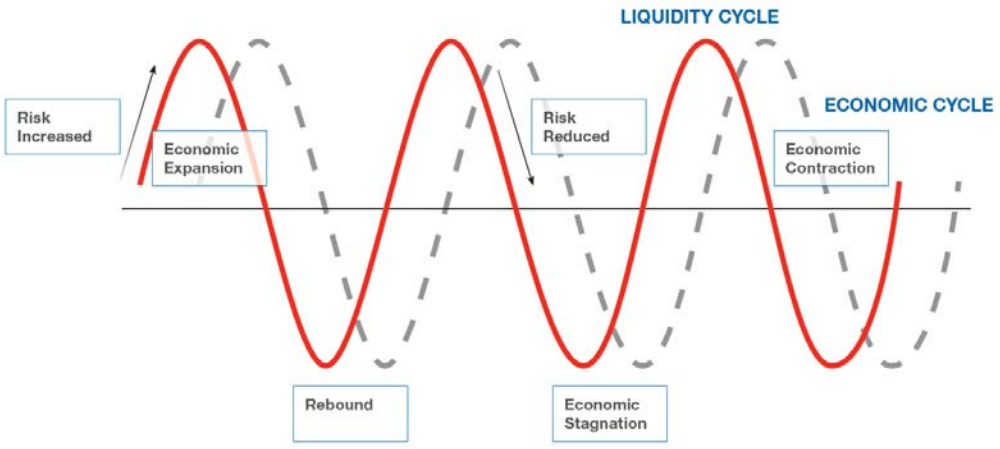
Let's hold this concept for later.

Money Matters, Credit Matters More

Global economies are still credit driven and Keynesian counterfeiting has merely arrested the collapse. The maintenance of heightened credit levels by financing of deficits with 'easy' money is beginning to see prices and output rise in the short term. In the long run only higher prices will remain whilst growth stagnates. A classic monetarist conclusion.

Hinde Capital has provided a long and consistent discourse on the relationship between credit and growth. Policymakers by now may well grasp that sustainable growth is not possible as nations still have an over-reliance on credit-based sectors, namely the F.I.R.E. sectors, (Finance, Insurance and Real Estate). This is an understatement as all sectors are now directly or indirectly underpinned by this false mammon called credit.

The Business Cycle is the Credit Cycle



Source: *Hinde Capital*

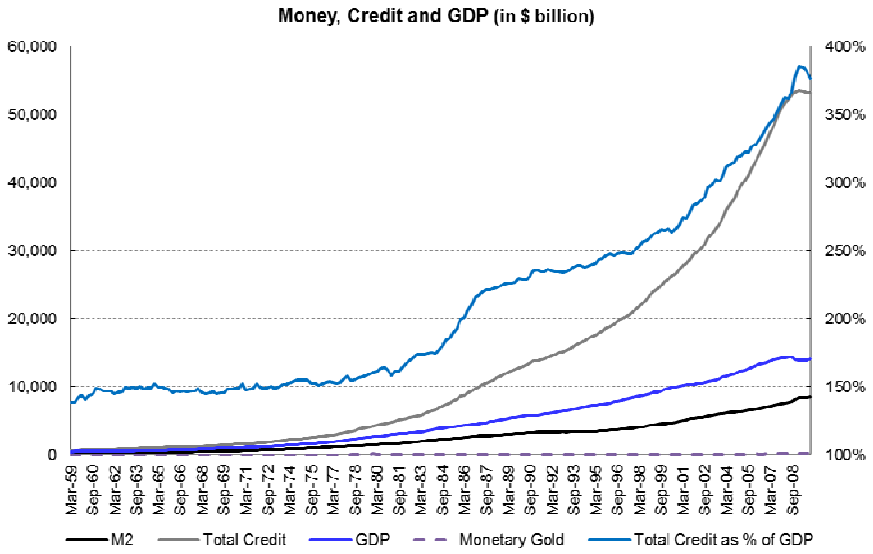
Once upon a time merely altering the levels of money in the economic system could help an economy expand and contract without creating excessive levels of inflation both in asset, goods and service prices. However as this fiat currency regime has grown older so has the ability of central bank policy to contain large swings in the business cycle.

Money always facilitated the creation and contraction of credit in the system via fractional reserve banking. For every $1 created it could be lent nine times over again and again throughout the banking system and hence economy. However there were two vital constraints which limited how much credit could be created in the US and as a consequence the rest of the world.

The first constraint was a legal requirement under the Federal Reserve Act of 1913 that dollars issued by the Federal Reserve should be backed to no less than 40% to gold (subsequently reduced to 25% in 1945), the second requirement was that commercial banks hold high liquidity reserves to back their deposits. It was the removal of these constraints during the last century that unleashed the ability of the financial system to create a proliferation of credit and why credit matters more today than potentially money matters in the business cycle.

So first of all in 1968 President Lyndon Johnson under the Gold Reserve Elimination Act called for an end to the requirement for Federal Reserve notes to be backed by gold:

> "The gold reserve requirement against Federal Reserve notes is not needed to tell us what prudent monetary policy should be - that myth was destroyed long ago. It is not needed to give value to the dollar - that value derives from our productive economy."



As one can see from the chart above total credit grew over 50 times from $1 trillion in 1964 under the printing presses of the US 'guns and butter' program to $55 trillion today. In 1968 just before the removal of the gold backing, the total credit to gold ratio was 120 times and by the peak of the credit cycle in 2007 this had grown to 4,000 times.

Once the gold window was completely closed under Nixon in 1971, a new monetary regime based on paper money was born. This became known as Bretton Woods II which we discussed at length in our HindeSight Letter October 2010 - The World Monetary Earthquake, The Dash from Cash. We include an excerpt here as this currency regime defined by the dollar was a key ingredient in the growth of credit.

> "BWII is where much of the world, primarily the Asian countries, has more or less informally pegged their currencies to the dollar, without the backing of gold. These countries do this in order to maintain their relative competitive ability to sell their products to the world and more specifically to the US. So the defining nature of this international and financial monetary system is that it finances the United States' enormous external deficit and the associated fiscal deficit at low interest rates.
>
> In 2005 we wrote to a prospective seed investor that we felt this new system that was advertised as BWII, a semi-fixed exchange rate system, was inherently more unstable than the Bretton Woods (that Hazlitt feared). It had created greater global imbalances and a much more speculative environment, as excess reserves floated around the globe. Why? Because there was no gold conversion restraint upon the reserve currency, under BW I the natural equilibrating mechanism of trade balance was the transfer of gold from one country to another. Even the BWI was a poor substitute for a true gold standard (but we have covered that elsewhere - see Gold Wars).
>
> China has pursued the classic mercantilist venture of export led growth in order to drive its industrialisation. China has the largest population in Asia and the peg of the RMB to the dollar is the main driver; so how China handles its foreign exchange has a significant impact on all currencies in the region. Most Asian nations, such as Korea, Malaysia, and Japan, for example, have to keep their currencies competitive with that of the RMB. So this RMB/US dollar peg is at the core of the BWII.
>
> China has maintained a cheaper currency to the West, but to protect their economy from overheating from the flood of dollars in exchange for their goods they have been recycling the dollars back into US assets, namely US government securities. By virtue of buying US government debt they are foreign lenders. They are the financiers of the US economy (and West) via the current account. This

> recycling allows them to artificially stimulate their manufacturing exports even more as the Chinese are helping to stimulate American demand for Chinese goods.
>
> How come? The purchasing of US debt supports the dollar, maintaining the undervalued RMB. Meanwhile interest rates have been driven lower than otherwise would have been without their purchases of debt. In addition to this the Chinese bought US mortgage backed and US corporate and agency securities. So US rates have been distorted lower than fundamentals would otherwise assume. This whole relationship has been termed vendor financing and resulted in lower rate, more affordable mortgages.
>
> **The 2008 and ongoing financial crisis was not caused by excessive mortgage lending to 'ownership' obsessed households in the US (and the rest of World), it was merely the symptom of these global imbalances created by this vendor-financing relationship of the Occident and Orient.** This relationship was more instrumental, by far, than the Clinton legislation passed for more affordable rates for less well-off Americans, which some apportion blame to for the subprime mess."

So 1968 marked the beginning of this current monetary regime, a fiat currency system, no longer derived from an asset (gold) with intrinsic value. It is now into its 5th decade.

The second restraint on credit growth was the removal of liquidity provisions. Since 1945 reserve requirements that ensured banks had sufficient liquidity to repay customer deposits on demand fell. This was further exaggerated by the revocation of the Glass-Steagall Act which in 1933 had separated commercial banking from investment banking. Once commercial and investment banking was reunited a host of financial innovation arrived enabling credit creation both inside and outside the banking system.

Banks relied more heavily on wholesale funding borrowed from other banks in the overnight markets, as well as euro-deposits and the commercial paper market. These gave them more access to funding at low rates by which they could lend out multiple times. Likewise they encouraged the growth of time deposits, where fewer reserves had to be allocated for. Over time reserve requirements have fallen to a level that is meaningless with regard to providing any provisions for depositors or lenders. This we refer to as 'inside' credit.

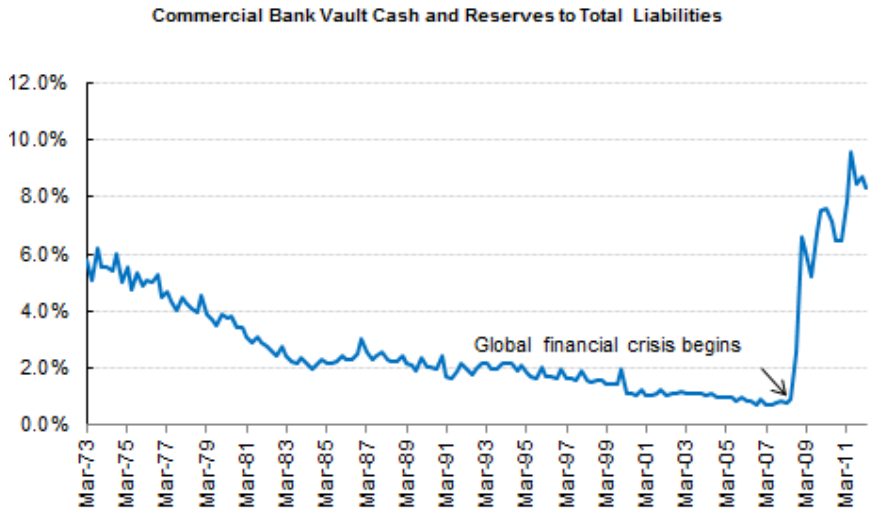
Another and perhaps as significant a development was the loosening of financial regulation which enabled non-bank entities to engage in credit creation; what we call 'outside' credit or the shadow banking system.

It is probably fair to say that the loosening of financial regulation in the US, as we will depict in a moment, would not have been facilitated on such a magnitude had it not been for the global vendor-financing relationship.

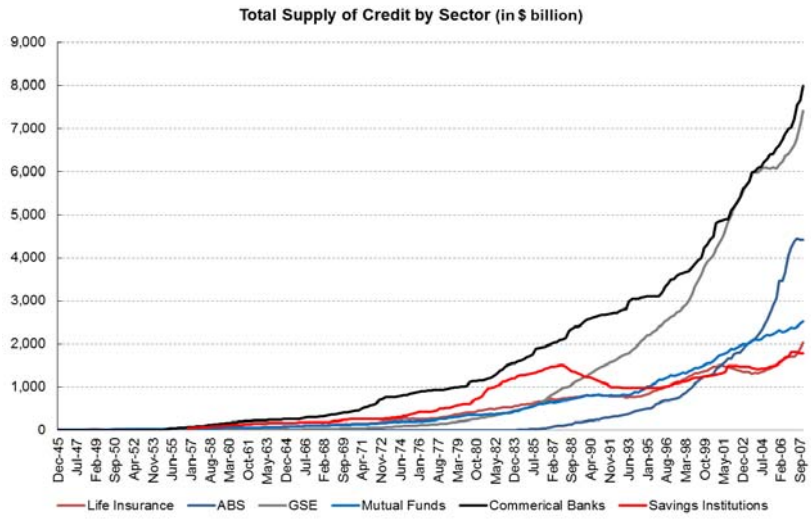
Principle amongst these new credit entities in the US were the government sponsored entities (GSEs) Fannie Mae and Freddie Mac. These were the main two units that aggressively supplied credit (they also borrowed it to provide themselves with leverage). Initially they were set up to make housing more affordable, borrowing funds at a cheaper rate than other borrowers due to their implicit government credit status; but in time they merely became a casino, using excessive leverage relative to their asset base to boost profits for their reckless and immoral executives' personal gratification.

Other suppliers of credit were issuers of asset-backed securities (ABS). These issuers acquired funding by selling bonds. They then used the proceeds from this funding to make purchases of various assets, namely mortgages, credit card and student loans, and then they bundled these together in varying means and vehicles by which to provide different levels of credit risk for investors who bought them.

This industry mushroomed into the CDO and CLO businesses which were underwritten by 'financial guaranty' insurers – monolines. These monoline insurers were so called as they tended to assure a sole line of insurance. All this served to reduce the cost of borrowing but the monoline business migrated into insuring residential mortgage-backed securities (RMBS) which comprised many CDOs and CLOs and left them woefully undercapitalised to meet a collapse in the real estate market.



Ultimately this lack of reserves held by both banks and these new financial companies meant there was more money than ever before entering financial markets and the economy. The inverse of the reserve requirement is the money multiplier; a vivid explanation if ever there was one. For multiply credit it did in the economy, producing the mother of all super credit cycles. In the end this lack of reserves left the financial system woefully exposed to losses and led to the Federal Reserve and Congress to find nearly $2 trillion to stabilise and re-capitalise the banks.



As you are probably tired of us saying, remember that credit and debt (or even money and credit) are but flip sides of the same (debased) coin. One person's debt is another person's asset. So when one begins to think about how assets are held in the financial system with little or no reserve provision, one begins to understand that a lot of assets are merely credit instruments used as collateral, which makes those assets highly suspect in quality and value as there are multiple claims on them. The financial economic system is hence no better or worse than a *ponzi* scheme just as Minsky had so eloquently illustrated in his life's work.

We have vocalised this thought many times we know but it's worth repeating in conjunction with our money equation which should be altered to reflect the impact of credit on GDP.

Others have suggested as we have that replacing (M) in MV = PT with (C) which is total credit outstanding would help redefine the true driver of GDP.

So CV = PT and PT = *nominal* GDP ergo CV = *nominal* GDP

In an era of paper (electronic) fiat money constraints have been removed fuelling credit expansion, which has been funnelled around the world by the BWII quasi peg system. Credit has clearly driven up NGDP.

Over the past decade policy makers talked of an end to 'boom and bust'. We recount UK Premier Brown's immortal words. Economists also talked of shallow business cycles within a larger trend of growth. The explanation for this was simple. Credit growth was so great that the volume of transactions (or trade) ie (T) in the economy rose and rose in value. Remember if PT is rising then *nominal* GDP is rising.

In our historical money equation M would produce a short term rise in *nominal* GDP but a lasting rise in the price level ie inflation; but the temporary rise in GDP was due to the retraction of money to combat higher prices and with it growth would fall synchronistically. Today 'outside' credit creation has enabled the economy to feed off imaginary savings as if they were actually created from production. This gives us a hint as to why such seemingly infinite growth is not sustainable even for super credit cycles. Eventually the traditional correction in the cycle occurs – except as it has gone on so long the excess values that have appeared with individuals committed to projects and assets at too high a price leads to a severe contraction.

Credit will eventually cease to expand when asset prices and industrial output becomes too egregious relative to the income of individuals and corporates. If wages cannot keep pace with both these variables of asset prices and industrial output then the private sector debt can no longer be serviced. Essentially output exceeds market demand and assets become unaffordable and then we have a catastrophic bust.

The (P) component in our equation did rise dramatically. Inflation came in the form of rising commodity prices from 2001 to 2008 and asset price inflation in housing and equity markets. What remained seemingly benign were goods and services inflation (CPI and PCE). The explanation for this was that unlike the great inflation of the 70s commodity prices couldn't fuel core CPI rates (CPI excluding food and energy) because wages were falling. If there were any wage demands they were not met because *globalisation* allowed the developing world to grow their trade outside their regions and they were highly competitive because they had a surplus of workers. This surplus forced the global marginal labour cost down by over 90%. Think about it, over one billion workers entered the global labour market. This neutralised any input costs that could have caused push-cost inflation.

If there had been an absence of this new workforce then the extraordinary credit growth we witnessed this past twenty years would have manifested in runaway inflation in the core CPI components. It is highly probable that hyperinflation would have manifested itself as the Fed has had no ability to control the outside credit creation.

Today governments have tried to arrest this major bust by essentially shifting the existing private sector credit (debt) burden onto the public sector (governments) balance sheet. Governments borrowed in the debt market to pay for bank bailouts to keep the credit transmission and the 'blood' (money) flowing through the economic system. They have only been able to achieve such borrowing due to the assistance of the central banks. They have embarked on large-scale government bond purchases onto their balance sheet as well as accepting the liabilities of many financial institutions in return for the money created.

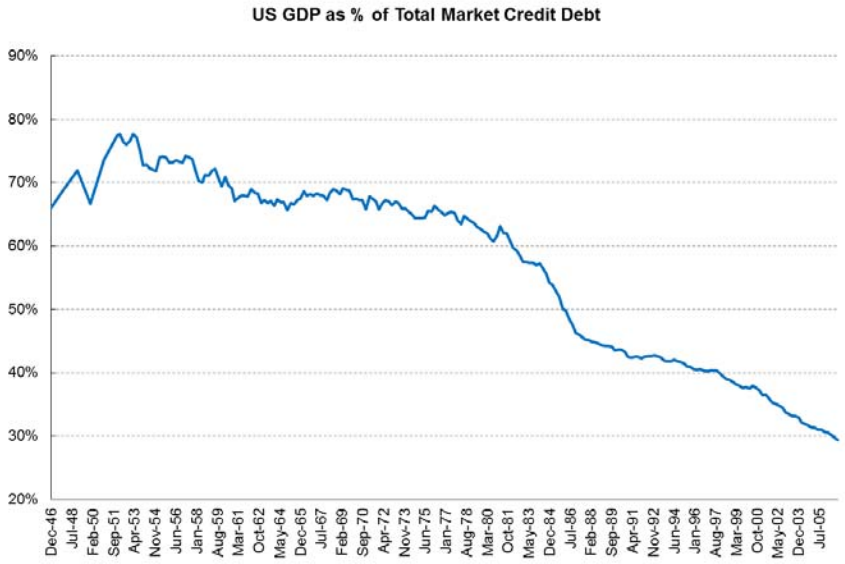
Shifting the debt composition and maintaining zero interest rates to spare entities a debt servicing cost merely forestalls a correction. Money creation will enable this, leading to high inflation in the system or alternatively we will witness a cessation to activist support and thus the collapse of money and with it credit creation, as rates will be too high to service the debt. So burdened with debt are every sector of the economy that there is no amount of revenue that can be sustainably earned from an expansion of credit today to help pay down this debt.

We have covered this topic in broad scope for the UK in our Eyes Wide Shut I and Eyes Wide Shut II series.

Economies with high incidences of debt, such as we witness in the developed today, have been associated with a rising incidence of default, or even restructuring of debt. However, a more subtle means of maintaining the 'debt affordability' is through a form of debt restructuring called financial repression whereby a central bank maintains rates below the natural market rate and performs purchases of government bonds (QE).

Today though there will be nothing so subtle about such actions. Bond purchases, and provisions of more credit for lending will escalate as central banks become 'fiscally dominated' by the need to purchase their respective government debt to help plug fiscal gaps and prevent yields rising, thus enabling governments to service their debts at lower rates, whilst the incidence of negative real rates erodes the real value of government debt.

If central banks don't arrest this fiscal gap there is no other agent available to do so. Failure to plug this will lead to the sudden-stop of credit growth which has to be maintained so as not to expose the truth that the State underwriting private balance sheets has merely masked the true value of assets on the balance sheets of the banks, pension and insurance companies. (To give you a clue this true value is much lower than stated).



A new strain of monetarism called market monetarism argues that because velocity is unpredictable, the Fed should manipulate the money supply so as to offset fluctuations in velocity and maintain a fixed rate of growth in the level of aggregate demand. Successfully doing so, they maintain, would considerably mitigate demand-side macroeconomic fluctuations.

Market Monetarism

The two decades prior to the financial crisis of 2008 was known by economists as 'the Great Moderation', an acknowledgement of a period of low inflation and relatively stable growth, with only two relatively mild recessions.

Furthermore this stable period was attributed to the success of the Federal Reserve Bank (and many of the other world's central banks) adopting an inflation target. They decided on a preferred inflation rate and steered the economy towards it, adjusting interest rates lower when inflation fell below target and higher when inflation exceeded the target.

Then in 2008 the severest recession since the Great Depression undermined economists' faith in the ability of central banks to respond to crises as they were seemingly unable to prevent this major crisis. The search for alternative ways to conduct monetary policy began.

Inflation targeting was supposed to make the demand-side fiscal policy less relevant or even obsolete, as after all, both monetary and fiscal policy affect the same variable, total nominal spending (aggregate demand).

However the slump in nominal spending has had demonstrative effects as both public and private sector debt burdens have risen. Since both households and governments ability to service their debt depends upon their nominal incomes and revenues, a new monetary solution is being advocated that in encompasses the impact of fiscal policy. The solution that has risen to prominence is Nominal GDP level Targeting (NGDPLT).

NGDPLT was the hottest idea in monetary blogs over the last few years but has now migrated from the academic cloudscape to implementation. Central bank monetary policy setting across the G7 is adopting de facto or actual NGDPLT.

It was the Danish economist Lars Christensen of Danske Bank who coined the phrase 'Market Monetarist' in his working paper Market Monetarism - The Second Monetarist Counter-revolution. In it he refers to this economic school as the first to be born out of the blogosphere and in the abstract he defines the school as such:

> "Market Monetarism shares many of the views of traditional monetarism but unlike traditional monetarism Market Monetarism is sceptical about the usefulness of monetary aggregates as policy instruments and as an indicator for the monetary policy stance. Instead, Market Monetarists recommend using market pricing to evaluate the stance of monetary policy and as a policy instrument. Contrary to traditional monetarists -- who recommend a rule for money supply growth -- Market Monetarists recommend targeting the Nominal GDP (NGDP) level. The view of the leading Market Monetarists is that the Great Recession was not caused by a banking crisis but rather by excessively tight monetary policy. This is the so--called Monetary Disorder view of the Great Recession."

Proponents of NGDPLT believe it is better than inflation targeting, which to date has been used explicitly or implicitly by most central banks as a means of stabilising inflation and growth. Critics of inflation targeting centres around the belief that such a target provides too little flexibility to stabilise growth and/or employment in the event of an external economic shock.

The list of pro-NGDPLT is growing. It's worth highlighting some of them here for future reference: Scott Sumner, Christina Romer, Bruce Bartlett, Marcus Nunes, Nick Rowe, David Beckworth, George Selgin, Andy Harless, Josh Hendrickson, Tyler Cowen, Brad DeLong, David Eagle, David Glasner, Bill Woolsey and Michael Woodford.

The lead protagonist is arguably Scott Sumner, Professor of economics at Bentley University who adopted the motif of Market Monetarism having written extensively in his blog The Money Illusion to promote NGDPLT.

Sumner outlines nominal income or NGDPLT for the US in an article Re-targeting the Fed in *National Affairs*, Issue Fall 2011, and applies it to the UK in The Case for NGDP Targeting - Lessons from the Great Recession in a publication by the Adam Smith Institute in 2011.

NGDP and NGDPLT explained

Nominal GDP (NGDP) is the sum of all the goods and services produced, counted in their quantity (the 'real GDP'), and then multiplied by their prices (the 'price index' or 'deflator'). So NGDP combines a 'real' variable - one that measures something being actually produced and a 'nominal' variable, one which considers prices and not actual production.

Simply put NGDP is the sum or value of all spending in the economy, measured in US dollars, in the case of the US or Sterling, in the case of the UK etc; as you and I use them. It is the GDP figure that has *not* been

adjusted for inflation. For example if nominal GDP is 8% and inflation has been 4%, the real GDP has increased 4% (NGDP minus inflation).

NGDP Level targeting is where a central bank determines a path along which NGDP would grow, and uses its monetary policy tools to affect that end; either conventional or unconventional if at the zero bound.

In practice the central bank, say the Fed, would adopt an annual rate of nominal income growth of 4 to 5%, and commit to return to that trend line when spending falls short or overshoots. So if the target is 5% and NGDP comes in at only 4% one year, they would aim for 6% the next year.

In most developed countries inflation has been preferred at 2% and long term growth potential at 2 to 3% and monetary policy would react, as it does now, easing when NGDP growth was expected to be too slow and tighten when it was too fast. So if NGDP fell below the target growth rate in any one year then the central bank would seek to make up for that in subsequent years.

What one will see is that in any one year the components of NGDP will vary. If trend target growth is a 5% NGDP, in years where real GDP is 1% then the central bank will alter monetary policy to achieve 4% inflation or such inflation that is required over a number years to regain this trend path of 5%. **This as we discuss later is one the main criticisms of NGDPLT - that excessive growth in money supply could lead to higher inflation than is stable for long term sustainable output (employment).**

Arguments for NGDPL Targeting

Advocates of NGDPLT believe its overriding virtue is that it can address the dual concerns of macroeconomic policy by combining both employment and inflation into a single metric. It provides a way to address both inflation and output (employment) stability, without placing the central bank in the confusing situation of having to aim at two separate targets which require opposite action to achieve them.

When writing this section we tried to be neutral, (like money *apparently* is in the system), but our criticisms boiled over into withering disbelief. We apologise but we just see so many inconsistencies with this new disequilibrium monetary theory.

1. Prevents recessions caused by a decline in aggregate demand

Recessions usually occur because of a decline in aggregate demand not due to variations in the levels of resources available to us. If individuals believe there will be stable expectations of future demand, then nominal recessions and their antecedent costs of unemployment, lower output and higher government debt will not occur.

Criticism - This seems total nonsense to us. You can't influence expectations of demand in the long run as human beings ultimately exhibit a subjective time preference for goods, that a bank rate target or legislation merely represses or distorts. In other HindeSights we have debunked this expectation theory which provides the basis for the flawed efficient market hypothesis.

2. NGDPLT re-frames the debate about output versus inflation

The ‘politics of inflation’, a reference to the ideological opposition of the notion that increasing the money supply leads to higher inflation and this aversion to inflation comes in the way of any attempt to promote growth. NGDPLT adoption should help individuals view inflation through the prism of income. So that when aggregate demand is down central bankers would boost income by encouraging more liquidity (inflation) but the trade-off between employment and output is not an inflationary issue when in a deep recession. Fed **credibility** is thus considered to be aligned with the policy which will counteract the recession providing the market with an expectation of an outcome.

Criticism – To quote Sumner himself "one might object that there is something disreputable about the Fed’s trying to deceive the public by working to engineer higher inflation under the guise of ‘more income’". We couldn’t agree more with Sumner’s statement, all be it we have taken it out of his true context. The re-framing

of monetary policy is merely a bit of sophistry at best and inflation expectations could be potentially very hard to quell with adoption of existing or even new language. Again credibility cannot be garnered by being more transparent about an intent which looks like 'mutton dressed as lamb' to us.

3. Real GDP collapse due to negative supply shocks (nominal shock) would be handled better

A 'nominal shock' is where the economy witnesses a change in the availability of resources or productivity that was not due to monetary policy. For example if Iran cut off the Hormuz Straits then oil supply would be drastically reduced and the global economy would experience higher prices and a real output decline. Under NGDPLT the central bank would allow higher levels of inflation (above trend) by maintaining the status quo on interest rates. Since NGDPLT considers prices multiplied by real GDP (output) then NGDP would not be affected by a supply shock if demand remains stable. Under IT a central bank would potentially raise interest rates to tame prices but in doing so drive real output down further and with it NGDP.

Criticism – In practice under NGDPLT if rates were not raised, this would enable output to stabilise and in time inflation would fall, but as we saw in the 1970s the Oil shock led to a prolonged period of inflation which had to be quelled with higher rates shattering growth that was already anaemic.

Ironically Yellen who is pro-NGDPLT wrote this in a speech in Nov. 2012:

> "The history of oil price shocks is a good example to illustrate this point. In the 1970s, two large oil price shocks led to sharp increases in general inflation that were not met with prompt inflation-fighting actions by the Federal Reserve. This delay left the public unsure whether the Federal Reserve would act to reverse the increase in inflation, and expectations of longer-term inflation ratcheted up. When the Federal Reserve eventually did act to bring inflation down from double-digit levels, the consequence was the painful recession of 1981 and 1982."

This is completely at odds with the notion of doing nothing in the face of a supply shock. Yellen infers they should have hiked earlier - oh, but we get it - if they had told the public that they were committed to allowing incomes to rise and not inflation then inflation and wages would not have caused an inflation spiral. Really...is that how simple it would be. 'Hey ladies and gentlemen we will drop these billion dollars over Manchester and by the way prices will not go up...but your income will.'

4. Real GDP boosts due to positive supply shocks would be handled better

Is the preceding example a back-door method of allowing excess inflation? Sumner argues that under NGDP the argument is symmetrical. When the economy witnesses a positive rise in aggregate supply perhaps from a boost to productivity – such as the introduction of computers in the work environment – inflation tends to fall. Under IT the dilemma for the central bank would be should it cut rates ie ease monetary conditions at the point when real output is running at or above trend. Again if demand is stable under NGDPLT the central bank would not respond. So the growth variable is maintained but just shifts between the variable of real and nominal growth ie more real growth and less inflation or less real growth and more inflation.

Criticism - No need to repeat ourselves. We would contend Greenspan kept rates stable the entire time he was harping on about productivity gains, which were really a function of the globalisation effect of lower wages.

5. Avoids impotence at the zero lower bound of monetary policy – the liquidity trap resolved

If a Central bank has not been able to reinvigorate output before the zero lower bound (ie before zero 'nominal' interest rates) is met, traditional monetary policy is rendered ineffective at the exact point it is most needed. This is the 'liquidity trap' view. Under NGDPLT inflation would be encouraged to cut the 'real' interest rates (interest rate – inflation). Proponents of NGDPLT believe under IT central bankers were not more forward-looking in their guidance as Taylor rule does not allow for this.

Criticism - Live in the real world. This is exactly what is going on now and negative real rates are undermining savings and lessening purchasing power because inflation is far higher than official statistics.

Core PCE and CPI are statistically and serially abused ie these indices have been restated lower by altering component readings and adjusting calculation methodologies.

6. Stabilization of aggregate demand would occur enabling risk-averse firms to make investment by which to expand their production and help promote higher long-run *real* growth

Criticism - Where in practice do we observe looser monetary policy leading to sustainable long term real growth without prices reaping havoc in our capital structure? Surely this flies in the face of the great Monetarist Milton Friedman who persistently argued that the main reason still to have an independent central bank was that over the medium and longer term monetary forces influences only monetary variables. Other real ie supply-side factors determine long-term growth. So are Market Monetarist really now telling us that faster and higher inflation will generate sustainable long term growth rates and faster to boot. Really….

Flaws in the Market Monetarist case for NGDPLT

Market monetarists believe the incremental response by the Fed to the 2008 crisis left monetary conditions too tight and thus ineffectual to the collapse in nominal spending. They cite that the precipitous fall in asset prices - stocks, commodities and bond yields provides a strong indication that investors foresaw a sharp slowdown in spending.

1. Market reality and Market expectations

We would argue that it was the unwind of too much leverage and positions that led to such a fall rather than any foresight by investors on the state of the economy. It was a classic forced liquidation. It was an example of Irving Fisher's debt deflation theory in practice.

Market practitioner's will also recall that the Fed (and other world central banks) induced a masterful manipulation of markets, when shorts where banned on financials and margins raised on speculative instruments. At the time participants were largely short equities (financials) and long commodities (oil), as a safe haven response to monetary largesse. This forced unwind of bank positions led to a reduction of longs in the commodity sector as profits were erased overnight and losses fed on themselves exacerbating the reversal of prices. No foresight here, just a reaction to calculated intervention in the markets to try and rein in speculation in bank failure, and the concurrent systemic risks of contagion, whilst simultaneously hoping to curb inflation expectations. It almost worked.

2. Central Planning vs Free Markets (Human subjective preferences)

Just like the Taylor rule (flexible inflation targeting) any *mechanical monetary rule* that tries to dictate stable growth is like trying to find the Holy Grail, in this case, of monetary economics. We are sceptical that stable growth can be determined by central planning.

Cycles in human behaviour are born out every day; all the current monetary system has availed us with is an amplification of the business cycle by credit creation. The free market has been helpless to restore equilibrium in the value of money as a central bank has a state monopoly on the issuance of the reserve currency which has enabled government to finance a welfare system that would have defaulted much sooner had it not been for this ‘free’ money.

All 2008 did was mark the time at which even a system that creates unbridled amounts of money could no longer maintain incomes and revenue at a rate higher enough to meet the servicing of credit, which had mutated into a ponzi scheme of financing. In short, income was being used from borrowed money to service repayments on credit (debt) elsewhere.

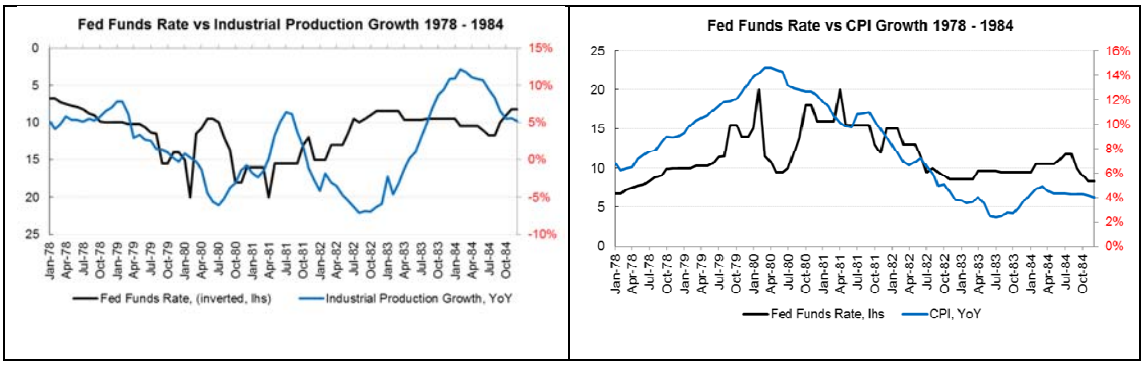
Sumner himself writes:

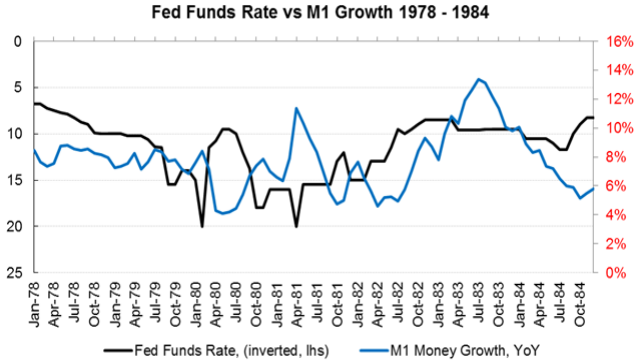
"Almost no one believes that boosting nominal GDP will permanently raise real output: If it could, then a poor country could develop its economy by simply printing more money. Zimbabwe would be the wealthiest country in the world. But for a little while, nominal and real GDP do move together." The operative phrase here is a 'little while'.

3. Volcker moment undermines Market Monetarism Bernanke comparison

Sumner makes a comparison between the recovery from the recession in the 1980s, where there was both a similar period of negative real GDP growth and likewise unemployment rates were of the same magnitude as 2007 - 09. He rightly points out that real GDP growth since 2009 has been equal to trend and so we have not closed the output gap created by the decline of 2008 and 2009. Nominal GDP is far lower and has not recovered as fast as it did in 1982 to 83.

Volcker Purges Inflation – Raising Rates to 20% & collapsing M1





This does not make the case for advocating increasing nominal GDP through increases in monetary aggregates. Recall Volcker crushed inflation with higher rates and forced default rates and delinquencies higher. Once the system was cleared of too much debt the business cycle began again. The current administration and Bernanke have merely circumvented this event by keeping rates lower. They have never allowed the system to clear.

Sumner accepts that in response to a ‘nominal shock’, government and central bank can boost nominal spending (aggregate demand) through deficit spending or monetary stimulus and the boost will lead to higher output (employment) and, in time, to higher prices. But he seems okay with higher prices for longer?

And if something is worth noting once it's worth noting it twice: "again it is not possible to make a country permanently richer by printing money. Stimulus is thus a short-term medicine, aimed at giving the economy a chance to stabilise and recover from a slowdown." (Sumner)

4. The Implementation of NGDPLT is potentially its biggest flaw

The single biggest problem for a NGDPLT is what is the *start* date from which to project a trend path for NGDP. If one recalls NGDP Level targeting is where a central bank determines a path along which NGDP would grow, and using its monetary policy tools to affect that end; either conventional or unconventional if at the zero bound.

Christina Romer, professor at the University of California, Berkeley in a NY Times article making the case for NGDPLT explained how it would work:

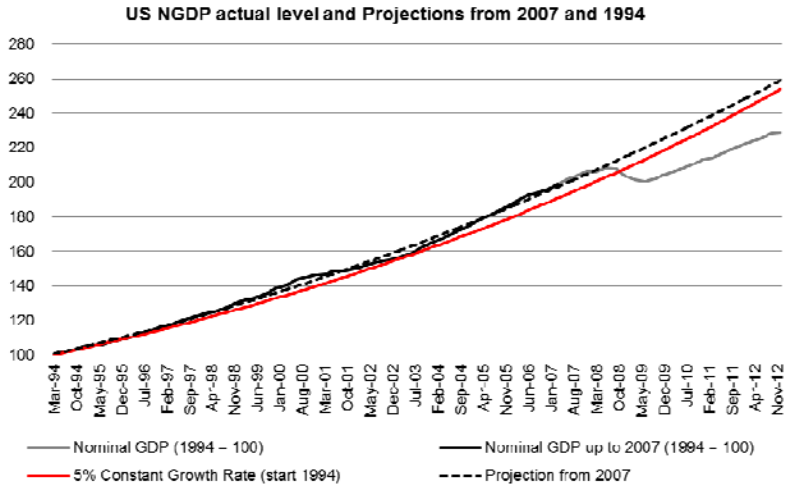
> "The Fed would start from **some normal year — like 2007** — and say that nominal G.D.P. should have grown at 4 1/2 percent annually since then, and should keep growing at that pace. Because of the recession and the unusually low inflation in 2009 and 2010, nominal G.D.P. today is about 10 percent below that path. Adopting nominal G.D.P. targeting commits the Fed to eliminating this gap.
>
> HOW would this help to heal the economy? Like the Volcker money target, it would be a powerful communication tool. By pledging to do whatever it takes to return nominal G.D.P. to its pre-crisis trajectory, the Fed could improve confidence and expectations of future growth."

The key phrase here is –

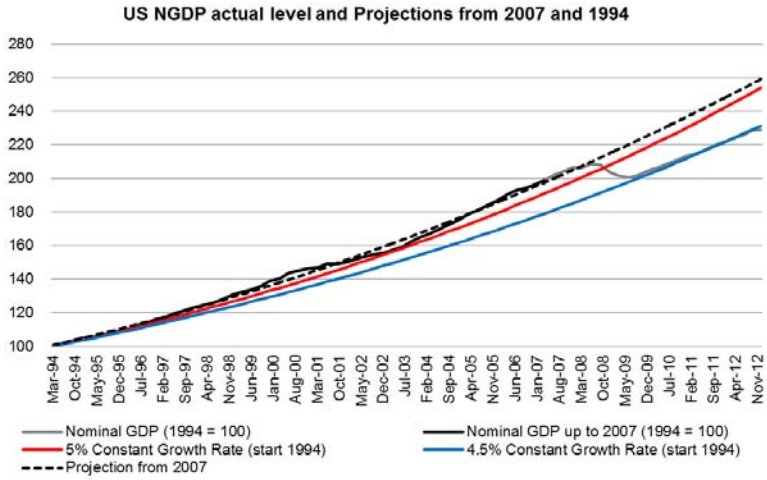
> "is some normal year – like 2007"

We nearly choked on our morning Weetabix when reading this comment. This encapsulates to us how market monetarists have totally misunderstood that we have witnessed a super credit cycle that culminated in a bubble blow off in 2007. Now this is hardly a year that we would term – 'normal.'

Normal is brushing your teeth before you go to bed, normal is filling your car with petrol because that is what provides the essential ingredient to propel it; normal is not 'gunning' your car at 200 mph down the motorway so you won't be late for a speeding offence, which would be somewhat analogous to starting the economy again at some excessive price rate of the likes we witnessed in 2007. This graph below illustrates beautifully how far we are away from Romer's concept of norm:



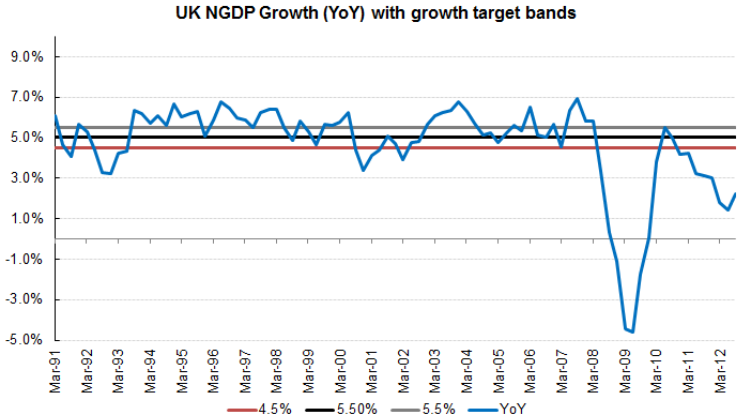
Our next graph illustrates that if we started with 1994 when the FOMC signalled base rate changes then one could argue that late 90s and early 2000s were over trending and 4.5% is the correct growth rate. This fits with our understanding of credit induced NGDP. We would emphasise that this suggests the Fed should do nothing more as it is at the target level, finally.



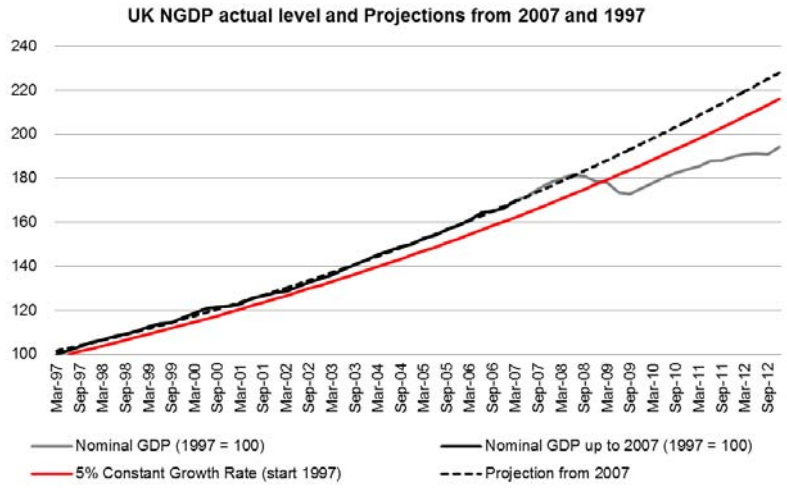
As Anthony J Evans of Kaleidic Economics, also an esteemed scholar from George Mason University put it so succinctly when examining UK NGDPL targets;

> "To economists that viewed the economy as fundamentally sound in 2007, and believe the recession is merely the result of bad monetary policy in 2008, this makes sense. But to economists that look at the structure of production, the capacity for malinvestment, the possibility for booms and busts- 2007 should be viewed as the final declaration of unbridled ecstasy and joy made by the office drunk at the Christmas party moments before he vomits into his own shoes and passes out. This was an economy growing beyond its natural rate that was on the verge of an inevitable recession."

If we examine our case of the UK and provide a number of growth target levels based on the BoE start date when it achieved independence in 1997 Q2, we can see that NGDP on average was in the 4.5% to 5.5% growth range, except in the 2008 crisis when it collapsed.

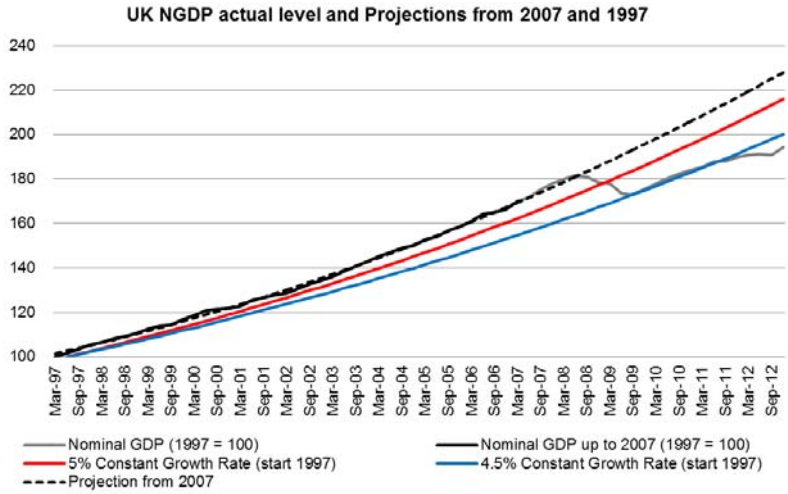


The next graph shows a NGDP growth level of 5% by which the BoE could signal its intentions. It is clear that prior to 2008 the UK NGDP was running a head of this pathway. One can see the gap that now exists – this is the output gap that policymakers like to refer to, and why market monetarists advocate that NGDP should rise by more than 5% to get back to its original trend path.



Anthony J. Evans illustrates that using a 4.5% NGDP target level extrapolated from 1997 shows the boom up to 2007 was significantly above trend. So depending on what target level one uses determines if you are back at trend levels or undershooting. And if you want to get back to a 2007 projection (M) will have to rise considerably and no doubt (P) will to. So what is the correct growth rate required to get back to trend levels? It all depends on a start point that is totally arbitrary.

UK 4.5% Target Level – Are we at the trend growth rate already?



So taking into account that policymakers have merely tried to underpin the existing credit levels, with central banks pumping money like mad through government bond purchases (conveniently arresting higher debt

servicing rates), and couple this with worsening developed world demographics (dependency ratios are rising) and a pause in technological productivity then why the hell would trend growth be at the 2007 levels.

Evans has a keen sense of humour when his observation on an extrapolated 2007 trajectory for NGDPL targets:

> "But by this logic we should believe that since Usain Bolt can run the 100 metres in under 10 seconds, he could run 600 metres in under a minute."

The next BoE governor, Mark Carney himself has intimated at this issue of starting dates when he made his bygone comment:

> "If yet further stimulus were required, the policy framework itself would likely have to be changed. For example, adopting a nominal GDP (NGDP)-level target could in many respects be more powerful than employing thresholds under flexible inflation targeting. This is because doing so would add "history dependence" to monetary policy. **Under NGDP targeting, bygones are not bygones and the central bank is compelled to make up for past misses on the path of nominal GDP….**
>
> However, when policy rates are stuck at the zero lower bound, there could be a more favourable case for NGDP targeting. The exceptional nature of the situation, and the magnitude of the gaps involved, could make such a policy more credible and easier to understand.
>
> Of course, the benefits of such a regime change would have to be weighed carefully against the effectiveness of other unconventional monetary policy measures under the proven, flexible inflation-targeting framework."

Further criticisms of Sumner's points:

1. **Structural employment issue**

> "It is almost inconceivable that the economy could grow at the 7.7% real rate of 1983-84 with nominal spending growing at only 4.3%, which is below even the trend rate of nominal GDP growth during the Great Moderation. There is an ongoing debate about whether the current problem is a matter of demand (i.e., not enough nominal spending) or whether it is "structural" (i.e. workers' lacking the right skills for the available jobs). But we will never find out until we actually see the sort of nominal spending that would be required to ignite a robust recovery."

This may well be the case but again it misses the point - the jobs that were created were all in areas that were reliant on excessive credit growth. Sumner presupposes that these areas grew based on savings and investment, they were not. These grew because of consumption fuelled borrowing.

We would add there is no doubt that globalisation had an impact on profit levels for developed countries as wage costs were considerably lower. If it hadn't been for this short-lived phenomenon it is highly likely that we would have experienced hyperinflation as a manifestation of the credit proliferation we witnessed. This was the only counterbalance, one which is being removed as China etc have begun to embark on wage reform - increases to help maintain purchasing power for disillusioned workers. This was implemented in the most recent 5 year plan.

2. **NGDPLT supports 'creative destruction' – allowing entities to fail**

> "NGDP level targeting is a way of making the world safe for laissez-faire capitalism. It becomes much easier to say we will not bail out General Motors if we have a monetary policy that assures that the failure of GM will not reduce aggregate spending, but will instead result in resources being re-allocated to other parts of the economy. It is easier to shed jobs in declining sectors if jobs are being created just as rapidly in booming sectors."

Again this argument that the market place exhibits rational expectations and that resources will just redirect appropriately has been shown to be flawed. The Federal Reserve managed to let the 'Dot-com' boom grow too far in spite of raising rates, which Market Monetarists might argue was inappropriate in a productivity boom. Having witnessed its collapse it cut too aggressively which provided the fuel for the housing boom which ignited within a matter of years. At no point was productive capital created from growth of capital goods to meet demand. Rather the capital structure exhibited classic capital misallocation.

3. NGDP Futures better representation of market expectations than Gold

> "Putting NGDP futures contracts on the market along a similar model would likewise create a stable price for those contracts, hence stabilizing expected NGDP growth. And stable NGDP growth would be more conducive to macroeconomic stability than a stable price of gold, especially in a world in which rapidly growing demand from Asia might distort the relative price of gold."

Surely the imbalance that exists due to BWII explains any distortion that can occur from growing Asian demand for gold. Due to the vendor financing relationship of the US and China the Asian countries have too high a surplus of foreign currency reserves which in an attempt to rid themselves of debased dollars is now being swapped for gold. The act of buying gold is not the distortion but rather monetary regime and policy that distort the value of paper money causes the prices of real assets to rise.

4. Market Monetarists are misguided on role of credit allocation in the economy

Lars Christensen at his blog site 'The Market monetarist' (Markets matter, Money matters...) states:

> "Another issue that might be distorting the discussion of NGDP targeting is the perception of the reasons for the Great Recession. Even many libertarian and conservative economists think that the present crisis is a result of some kind of "market disorder" – either due to the "natural instability" of markets ("animal spirits") or due to excessively easy monetary policy in the years prior to the crisis. The proponents of these positions tend to think that NGDP targeting (which would mean monetary easing in the present situation) is some kind of a "bail out" of investors who have taken excessive risks."
>
> …"Obviously this is not the case. In fact NGDP targeting would mean that central bank would get out of the business of messing around with credit allocation and NGDP targeting would lead to a strict separation of money and banking. **Under NGDP targeting the central bank would only provide liquidity to "the market" against proper collateral and the central bank would not be in the business of saving banks (or governments).** There is a strict no-bail out clause in NGDP targeting. …."

We bold the lines above. He writes this statement as if this is a fait accompli. Why the hell will they take 'proper' collateral now (proper collateral – an oxymoron of sorts if ever the truth be told) when they don't already? What the hell is 'proper' collateral with so many structures febrile in nature already, the waste product of credit proliferation is nothing but suspect collateral now exchanged from banks and other financial institutions onto the central bank balance sheets in return for liquidity (cough..solvency) injections such as LTROs.

The idea of NGDP futures ie the free market determines the pathway – sounds compelling but they have already suggested that if a central bank does not attain target they must settle out to the private sector – but what in "printed cash"? And what is to them stop stomping back and forth all over the NGDP futures market as it has with so many markets through the Emergency Stabilisation Funds.

5. Data fragility undermines forecasting determination of the NGDPL target

We have so many other questions that need answering; surely GDP data is not only unreliable arriving quarterly but it is then largely revised later. Likewise CPIs, core PCEs and GDPs are rife with imputed price components such as 'virtual checking accounts' and owner equivalent rents which failed to pick up the collapse in housing as rents didn't fall. Sumner cites this as a reason to deploy NGDPLT because a single

criteria mandate is open to such flawed indicators and thus makes IT too narrow in focus. It seems to us that it's the measurement that is the problem not the breadth of focus, especially as GDP is artificially boosted by the similar imputed price components.

How can this all be examples of what Yellen a pro- NGDPLT would call optimal control; they are not and here is an analogy, again, for you.

First the data suggests there is a wide output gap and then the revisions show you quarters later there was in fact a rather narrower output 'passage' – steering a NGDP path level is a bit like trying to steer an oil tanker through the Straits of Hormuz only to find Iranian mines bobbing all around you. The economy is actually by now red hot with inflation and stomping on the brakes before they blow up is no more easy than trying to stop the tanker before it hits a mine and blows the whole lot up.

Monetary policy is like driving any complex machinery whether it be a boat, plane or a car. A car is probably an easier analogy. Ordinarily we alternately press the pedal to accelerate and apply the break to decelerate; fluid, subconscious actions experienced drivers do over and over again without any mishaps.

We often misjudge our pace of acceleration, and we often don't take enough notice of changes to the environment, whether it be an oil slick on the road, a child running out from between cars or just a stationary car ahead, we underestimate our stopping time. Sometimes we misjudge by undershooting but more often than not we overshoot. Overshooting is often more terminal, as if we hit something or someone there will be serious outcomes - damage, injury and even death.

Like the controls of the car provide simple tools to cope with a complex driving environment both internal and external so the controls of monetary policy are used to direct the path of the economy.

Central bankers, like drivers of a car, are subject to making arbitary judgements on the correct path. Both are no more effective in dealing with exogenous and endogenous shocks to their own system. In the case of a central bank that system refers to the economy.

Market Monetarists, like traditional monetarists, believe that 'money matters' but in our opinion they have sorely understated the more significant impact of credit on the economy. The quite extraordinary expansion of credit has reduced the impact of the money supply as an important factor driving changes in the economy.

Unquestionably NGDPLT tolerates higher inflation and the debate is whether this is a good thing or not. But we feel this masks the true question being asked by policy makers - is it appropriate for central banks to engage in massive increases in monetary easing beyond that which have already occurred? They want the answer to be yes as the government has no other means of funding deficits; this is why in the UK and Japan particularly they have personally appointed governors so as to maintain fiscal dominance over their respective central banks.

We appear to have learnt nothing from the travails of the 1960s and 1970s. Sustainable growth cannot be achieved by monetary expansion, not in the short-, medium- or long-term. Not ever. The opposite will be true, growth will be undermined as corporate and household income margins will be eroded and the cost of servicing debt in the medium term will rise (a function of Tanzi law); the exact opposite the governments would wish for its debt problems.

Central Bank CAnniBALism

So are the central banks really embarked on a more aggressive form of monetary policy? We believe firmly that they are and that it is a loosely coordinated effort between G7 members. We will show this is the case. Central banks realise this crisis is a global phenomenon and that the credit (or debt) edifice can only be offset by public debt growth (in the absence of private sector growth) which can only be funded by newly printed money.

Where new money is printed in a country with a free floating exchange rate there is a tendency for currencies to depreciate in value as supply rises and demand wanes in response. Currency devaluations come at the

expense of another nation's currency, so if they all embark on devaluation, they can take it in turns to systematically devalue their currencies. Now if they all agree to work within a set framework of devaluation nobody will lose out too much with regard their trade balance growth.

Coordinated currency devaluations invariable become currency wars. Just as in gaming theory and the prisoner's dilemma so it becomes evident that it may be beneficial for one country to devalue faster than another so as to gain some competitive advantage. In the end such 'beggar thy neighbour' devaluations are a zero sum game but one party will be hurt more than another.

As it will become clear there is a central bank 'cabal' intent on pursuing the same misguided framework of using money levers controlled by the state to control the natural state of human preference. It doesn't work. Individuals determine when and how they want to save and spend.

Knocking or Yellen' at hEaVen's Door

In December of 2012 the FOMC provided a new framework for communicating monetary policy using specific rule based targets. The Federal Reserve will now not tighten monetary policy until the economy 'recovers' past a certain predetermined threshold:

The Fed will keep short-term interest rates near zero as long as unemployment remains above 6.5 percent and the inflation it expects in one to two years is no higher than 2.5 percent.

Market monetarists will say it's not quite NGDPLT but close enough for government work. The Fed now has a relatively clear defined target and will implement its changes via changes in the monetary base.

This policy adaptation has been dubbed the Evans rule and 'hEaVAN' sent by many who feel the Fed has not done enough to signal its intentions. Chicago Fed Governor Charles Evans suggested in various speeches that the Fed should ease monetary policy (expand the monetary base) until unemployment dropped below 7% or core PCE inflation increases above 3%. So bearing in mind the labour participation rate has fallen off the edge of the cliff, and whilst at times this has led to a lower unemployment rate as less participants in the labour pool ironically elevates the number working as a ratio; not withstanding this misleading signal of employment, it is clear QE will go on longer and be larger. For as we have delineated growth and unemployment cannot be engineered in a global economy still burdened by too much credit. **But as money is not neutral prices will rise in a destructive manner in sectors less encumbered by stale credit.**

As an aside maybe Evans thinks he can save man-kind with these 'printing ideas' and when the time comes he will enter through the Pearly gates with a free pass.

What is very clear is this change of tactics has strong support amongst the governors. A potential candidate to replace Bernanke in 2014, Janet Yellen, the Vice Chair has been very vocal about the need for providing better communication of the Fed's intentions. in April 2012 to the Money Marketeers of New York University which provided us with some inkling that a concerted policy change was in the offering from the Fed:

> "One approach I find helpful in judging an appropriate path for policy is based on optimal control techniques. Optimal control can be used, under certain assumptions, to obtain a prescription for the path of monetary policy conditional on a baseline forecast of economic conditions. Optimal control typically involves the selection of a particular model to represent the dynamics of the economy as well as the specification of a "loss function" that represents the social costs of deviations of inflation from the Committee's longer-run goal and of deviations of unemployment from its longer-run normal rate. In effect, this approach assumes that the policymaker has perfect foresight about the evolution of the economy and that the private sector can fully anticipate the future path of monetary policy; that is, the central bank's plans are completely transparent and credible to the public."

When Yellen speaks about controls it is reminds us that complex machinery needs a checklist, but it would seem they had been using the wrong checklist. They had eradicated M3 from their list. The one insight they possibly had into the impact of rising credit? So on to another in an attempt to prevent another crash. Another complimentary approach to optimal control techniques she went on to say was that:

> "In my view, rules specified along these lines can serve as useful benchmarks for gauging the stance of policy and for communicating with the public about the rationale for our policy decisions."

This section of the speech signalled to us that policy could be more stimulative, especially as Yellen saw the rise in employment as a rebound effect but was slowing and the that the high unemployment rate still indicates a substantial degree of slack in the economy:

> "While the Taylor (1999) rule can serve as a useful policy benchmark, its prescriptions fail to take into account some considerations that I consider important in the current context. In particular, this rule does not fully take into account the implications of the zero lower bound on nominal interest rates and **hence tends to understate the rationale for maintaining a highly accommodative stance of monetary policy under present circumstances.**"

By November 2012 at the Haas School of Business, California she was practically Yellen'g about the coming Central bank revolution in a speech funnily enough titled - "Revolution and Evolution in Central Bank Communications."

In it she sounded very much like a market monetarist. The December FOMC announcement lays testimony to this. They now all sound and walk like market monetarists.

Yellen discusses Lucas's Rational Expectations theory as the cornerstone for Fed communication. If the Fed communicates its stance on inflation and growth with openness and forward guidance it thus believes it will influence individuals' expectations for outcomes on these two variables. It suggests it will be more credible. We repeat if their checklist manifesto is wrong in the first place no amount of credibility can be garnered, irrespective of whether you believe in the theory or not.

> "Clarity on longer-run goals, due to the important role of expectations, can itself help reduce short-run fluctuations. In the words of the January consensus statement, "communicating this inflation goal clearly to the public helps keep longer-term inflation expectations firmly anchored, thereby fostering price stability and moderate long-term interest rates and enhancing the Committee's ability to promote maximum employment in the face of significant economic disturbances.
>
> Put differently, the purpose of providing greater clarity about the FOMC's longer-run inflation goal is to anchor inflation expectations more firmly. These more firmly anchored expectations in turn free the Committee's hand to more actively and effectively stabilize short-run fluctuations in economic activity."

Yellen discusses the *'balanced approach'* concept which tries to alleviate the conundrum that market monetarists observe that **dual mandates lead to policy incoherence; what should the Fed do if both inflation and unemployment are above target?**

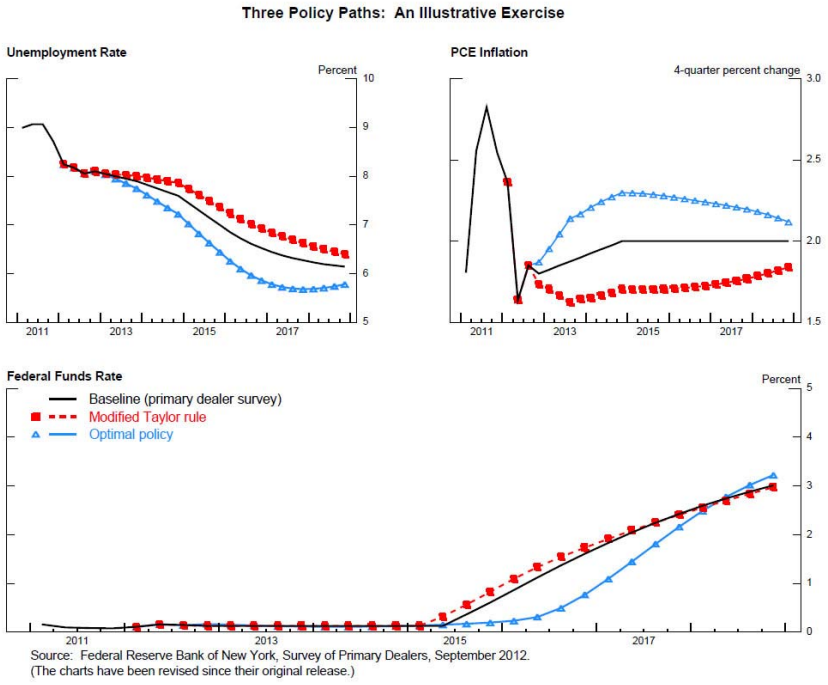
> "The essence of the balanced approach, is that reducing the deviation of one variable from its objective must at times involve allowing the other variable to move away from its objective. In particular, reducing inflation may sometimes require a monetary tightening that will lead to a temporary rise in unemployment. And a policy that reduces unemployment may, at times, result in inflation that could temporarily rise above its target.
>
> To derive a path for the federal funds rate consistent with the Committee's enunciated longer-run goals and balanced approach, I assume that monetary policy aims to minimize the deviations of inflation from 2 percent and the deviations of the unemployment rate from 6 percent, with equal weight on both objectives. In computing the best, or "optimal policy," path for the federal funds rate to achieve these objectives, I will assume that the public fully anticipates that the FOMC will follow this optimal plan and is able to assess its effect on the economy."

Yellen outlined in full the likely future path of Fed behaviour in this speech when she said:

> "Could the FOMC go further in enhancing its communications? One logical possibility would be for the Committee to publish forecasts akin to those I've presented in figure 1. That is, the Committee could provide the public with its projections for inflation and the unemployment rate together with what it views as appropriate paths both for the federal funds rate and its asset holdings, conditional on its current outlook for the economy. Over time, these projections would be revised in response to incoming data that alters the Committee's economic outlook or, instead, because the Committee decides to alter its policy stance. Several inflation-targeting central banks, such as those in Sweden and Norway, publish forecasts of this type. Such a forecast could be highly informative, and, in recent months, the FOMC has explored whether it might be achievable.
>
> Another alternative that deserves serious consideration would be for the Committee to provide an explanation of how the calendar date guidance included in the statement--currently mid-2015--relates to the outlook for the economy, which can and surely will change over time. Going further, the Committee might eliminate the calendar date entirely and replace it with guidance on the economic conditions that would need to prevail before liftoff of the federal funds rate might be judged appropriate. Several of my FOMC colleagues have advocated such an approach, and I am also strongly supportive. The idea is to define a zone of combinations of the unemployment rate and inflation within which the FOMC would continue to hold the federal funds rate in its current, near-zero range.
>
> For example, Charles Evans, president of the Chicago Fed, suggests that the FOMC should commit to hold the federal funds rate in its current low range at least until unemployment has declined below 7 percent, provided that inflation over the medium term remains below 3 percent. Narayana Kocherlakota, president of the Minneapolis Fed, suggests thresholds of 5.5 percent for unemployment and 2.25 percent for the medium-term inflation outlook. Under such an approach, liftoff would not be automatic once a threshold is reached; that decision would require further Committee deliberation and judgment."

The Fed firmly believes that by trying to influence inflation expectations through open communication, (which we do welcome by the way) it can in some way influence sustainable growth in the economy. It thinks that pulling this lever there and pushing this button here there and everywhere can in some way direct the economy smoothly back to glide path. This is delusional and dangerous in the extreme.

> "I support this approach because it would enable the public to immediately adjust its expectations concerning the timing of liftoff in response to new information affecting the economic outlook. This market response would serve as a kind of automatic stabilizer for the economy: Information suggesting a weaker outlook would automatically induce market participants to push out the anticipated date of tightening and vice versa."



Source: Federal Reserve

It is clear what they think works for a time clearly has never been in their control in the first place. We need an intrinsic stabiliser such as a hard asset, as a yardstick for restraining excessive credit creation. The monetary system will be reset it's just whether one achieves it in the least damaging way possible or the most.

ABEnomics or is that ABLEnomics

This portmanteau of Abe and economics refers of course to the new Japanese premier Shinzo Abe's stimulative monetary and fiscal policy to try and restore growth. He has repealed the independence of the BoJ so as to ensure a political fiscal dominance. This means that he can use his newly adopted 'flexible inflation targeting' implemented by radical QE to guarantee government debt and government sponsored public infrastructure projects are funded. His protestations that he is addressing excessive yen appreciation which has hurt exporters and with it Japan's growth, doesn't hold sway. Japan REER was above 120 for decades and there was still no growth. The reality is far more stark, without BoJ bond purchases then there is not enough buyers to help fund past and future government spending needs.

Abe knows he that by 'enABlEing' inflationist monetary economics - aka money printing - he will escape the inevitable deflationary collapse that arrives when a nation can no longer afford to fund its debt. He just hopes that by garnering some short term inflation he can revive output high enough to restore some balance to the fiscal coffers. In truth this is not tenable and it is highly likely this will only propel long term inflation and possibly hyperinflation.

This has been a constant theme for us and one we will cover again in future HindeSights to bring us all up to date on why Japan is the poster child for the demise of all fiat currency based nations. For a recap you can re-acquaint oneself with our World Monetary Earthquake piece.

Devil InCARNEYate himself

Like Shinzo it appears policymakers are meddling in the dark arts of money printing, hoping that just a little bit more will do the trick. However to liken central bankers to the devil seems harsh even if the new BoE Governor has the 'Mark' of the devil InCARNEYate about him. Such a label infers that they are ethically immoral and that are 'hell bent' on extracting central control of money so as to perpetuate a stream of wealth confiscation from ordinary citizens to themselves and other autocrats (bankers, corporations etc). Oh wait a minute that's exactly what the outcome has been.

This outcome may be true but their motivation all be it less sinister, is perhaps more worrisome. They seem a little too arrogant, ironically too inflexible to pursue a misguided route. For central bankers appear to have a resolute belief that they hold the panacea to solving all our economic ills. They believe they are right.

As Investment Managers when we believe we are right, we are invariably given a healthy dollop of humble pie, as exacted by the market place. When you become the market as central bankers have to day that dollop of humble pie can be held at bay; but not forever. It is rather the impact of this arrogance and misdiagnosis of the problem that has manifested itself in the defrauding of each nation's wealth as inflation has wrought havoc on income and enriched the *uber*-wealthy.

Carney's activism was on display Jan. 26 at the World Economic Forum's annual meeting in Davos, Switzerland, when he described in a similar mode to Janet Yellen how central banks worldwide have room for more stimulus **through communications and other tools**. He suggested economies like the U.K. that face budget cuts can be flexible in allowing interest rates to stay low even if inflation is above target.

Carney's comments came off the back of a December speech where he outlined the Market Monetarists - NGDPLT approach, but he has since tried to understate these views. His recent performance at the Treasury Select committee was masterful and worthy of the grinning diablo himself. We only jest. I am sure he is very earnest and well-meaning as most Canucs seem to be. He played smart politics - was respectful of the committee, (a tough job we would grant), and although he downplayed QE he did state that:

> "while I don't start from a position of looking for a dual mandate, I do start form a position of considerable monetary stimulus to take up the slack."

So whilst we suspect he has introduced the idea of more 'easy' money for longer via a form of NGDPLT it would not surprise us if he mentioned this more radical departure from usual practices just so he could maintain what we all once would have considered reckless and irresponsible, but seem quietly inured to now. Yes printing money is just that – reckless. Lest we forget his final Davos comment he does mean business:

> "There continue to be monetary-policy options in all the major economies," he said. The task for policy makers is to "achieve escape velocity."

Escape Velocity

Physicists refer to the *escape velocity* as the speed needed to 'break free' from a gravitational field without further propulsion.

Mark Carney has clearly hinted more and more at the fact that policy makers must use other options to ensure 'escape velocity' for their economies. Unlike the physicists' 'escape velocity' he recognises that the economies' credit largesse, the equivalent of Newton's apple, weighing on our heads is in need of further propulsion to lift it.

The relationship between growth in money and the growth in nominal GDP, known as the 'velocity' can vary, often unpredictably, and this uncertainty has led to difficulties in using monetary aggregates as a guide to policy.

There is no escape velocity for growth; far from it, the only 'escape' mechanism will be the hot air of central banks playing down inflation expectations whilst continuing their time honoured tradition of trying to reflate

the economy. This particular contraction was a monster and any attempts to offset it will have severe consequences for higher prices.

For probably the first time ever we agree with an observation given by Paul Krugman when he said the Fed:

"needs to credibly promise to be irresponsible." Our observation is not that they need to rather that is what they will do.

He is advocating for more from the Fed along the lines of Michael Woodford who at the Jackson Hole Central banks annual meet and greet presented parts of a paper effectively coming down in favour a move to NGDPLT. He implied a move to it along a gradual continuum starting with something like the Evans Rule. Funnily enough the FOMC has now adopted that.

So the idea of Woodford's getting behind is making a credible promise not to raise rates until a clear moment that will occur well after the recovery has really gathered steam and one which entails allowing inflation to rise by growing the monetary base.

UnNeUTRAL Money

In modern societies, when governments or central banks increase the supply of money, they do not do so in a way that affects everyone equally. Instead, new money is created by the government or by banks to be spent on specific goods and services. The demand for these specific goods rises, thereby raising their prices first.

In a Misesian economy as money holdings increase, the marginal utility of money declines so that certain goods are revalued ahead of money via subjective preference scales, pushing the prices of these goods upward. Gradually the new money ripples through the economy, raising demand and prices as it goes. Income and wealth are thereby redistributed to those who receive the new money early in the process, at the expense of those who receive the new money later, or those who live on fixed incomes and receive none of the new money.

It is this impact that has divided developed nations and exacerbated the need for an over inclusive welfare state, which is also a beneficiary of this monopoly of issuance, because monies redirected to fund welfare gaps bolster political re-election to boot.

We would call again on Richard Cantillon' work, as he was the first to understand the result of an increase in the stock of money would never be uniform across the economy, but rather would cause prices to rise at uneven rates in different sectors, thereby changing relative prices in the process. Ergo, unnatural money with no intrinsic backing is not neutral.

Hayek's Rule of Hyperinflation

Frederick A Hayek, the Nobel Economic prize winner was a man who developed his economic theories on the works of such men as Cantillon. Hayek recognised that central banks should not be involved in the issuance of money and was more interested in free banking solutions. He understood that excessive central bank issuance of money led to heightened booms with a poor allocation of resources driven by cheap access to credit rather than savings led production.

He long advocated that the best way to deal with asset bubbles was not to allow them to occur in the first place. Hayek had witnessed first hand the ravages of hyperinflation in Austria after World War II. It clearly shaped his life's work and understanding of the risks of too much money creation. So it was of interest to us that just as we were finishing this piece when we came across a paper by Marius Gustavson titled The Hayek Rule: A New Monetary Policy Framework for the 21st Century. Time being an issue we had a cursory glance through the piece, but what we initially saw we liked. This was a piece that highlights how policymakers identified the wrong markers (wrong checklist) which led to incorrect understandings of causations and hence their conclusions led them to pursue policies that exacerbated the boom of the 2000s not mitigate it. Like us Marius explains how monetary policy helped fuel the credit boom not correct it, where we do not seem to be aligned is in his conclusion.

Gustavson argues that Hayek recognised the value of adjusting for nominal income by keeping money in circulation constant in the face of nominal shocks. This is essentially a version of NGDPLT. It was as if Austrians had found some counter to Friedman, McCallum or Taylor rules with a Hayekian Rule. In light of his later work Denationalisation of Money: The Argument Refined we would argue that he would likely not have entertained NGDPLT as a viable idea, other than it might well have been the best of a number of bad ideas utilised by central banks. He would not have advocated a central bank in the first place.

Fast forward to the present where central banks as an institution are very much alive and kicking, (remarkably so despite a complete miscomprehension of events), and one can see that recent central bank policy direction is not so much a radical shift of policy but a natural extension of their inflationist ways - an evolution of inflationism. It's their last ditch effort to maintain their position as sole issuer of currency. For let's be real - their very institution is under scrutiny in a manner perhaps not seen since the Great Depression.

The Take-away

The 'inflationist nutter' list is complete. The Fed have joined the Swedes long tradition of open monetary architecture whilst Mario has flexed his inflationist muscles with his 'whatever it takes' speech. 'Abenomics' embodies how central banks are all enforcing inflationary enslavement on their nations' people as Abe holds his hand firmly on the new BoJ governor's controls. As the film Lincoln is being aired to some acclaim one cannot help but feel the US's original Abe would be alarmed at the ripping up of the 13th Amendment. And now, finally a new alchemist with the charm and dexterity of the devil himself, Mark Carney, has skilfully positioned the BoE to exercise the Cabal's revolution.

The central bank revolution lies in the belief that central banks can raise both M and V in MV. All will continue with QE (both qualitative and quantitative) to increase M whilst using forward guidance such as the Evans Rule; some 'hEaVAN'- sent rule for an inflationist based institution, to create inflation expectations and encourage a rise in V - hoping individuals begin to be less fearful of an inflationary outcome from spending.

However almost no one believes that boosting nominal GDP will permanently raise real output: if it could, then a poor country could develop its economy by simply printing more money. Zimbabwe would be the wealthiest country in the world. But for a little while, nominal and real GDP do move together.

The relationships between real GDP, nominal GDP, and inflation bring forth a standard model of macroeconomics. To recover from a nominal shock, the government can boost nominal spending (or "aggregate demand") through deficit spending or monetary stimulus, and the boost will lead to higher output and, in time, to higher prices. In the long run, however, only the effect on prices will last: again, it is not

possible to make a country permanently richer by printing money. Stimulus is thus short-term medicine, aimed at giving the economy a chance to stabilize and recover from a slowdown.

When criticising central banks it seems easy to pick holes in the prose of economic doctrine, and quite rightly many have asked what would you do? Not an easy answer. We have offered areas of debate and ideas for a solution in our Eyes Wide Shut pieces and Monetary Singularity?

Central banks, more than governments, are framing the solution to our economic ills and one can debate the extent of political dominance over such institutions. In many ways it is less relevant as central banks clearly have a coordinated agenda. Their mandate is to de-lever the banking system by driving reserve creation faster and higher. They recognise the risk of "too big too fail banks".

The problem is the market place has and will see through this policy escalation and leveraged paper assets will suffer from the fear of monetary debasement as their underlying collateral's worth erodes in value. The current loosely coordinated rotation of currency devaluations administered by QE of fiscal gaps will have to be become rigidly defined in a re-monetisation of the global economy. As we have stated before it is completely feasible that this will involve the backing of all the un(backed)reserve banking obligations becoming partially or fully reserved by a hard asset such as gold. We will develop this more at the end of the *Central Bank Revolution II – Chasing the Dragon* piece where we outline a pathway we believe is potentially underway by policymakers towards a new monetary system.

The central banks are succeeding in achieving their aims although they may not be compatible with our own desires. Price rises will be the ultimate outcome, which will underpin leveraged assets in the main, but won't encourage economic activity.

The irony is *the central bank revolution* could easily kick off a global revolution against authorities, (and plutocrats) and with malevolent forces likely to escalate, seeking control in the name of the people, we may lose the opportunity to implement sound monetary finance before it is too late.

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