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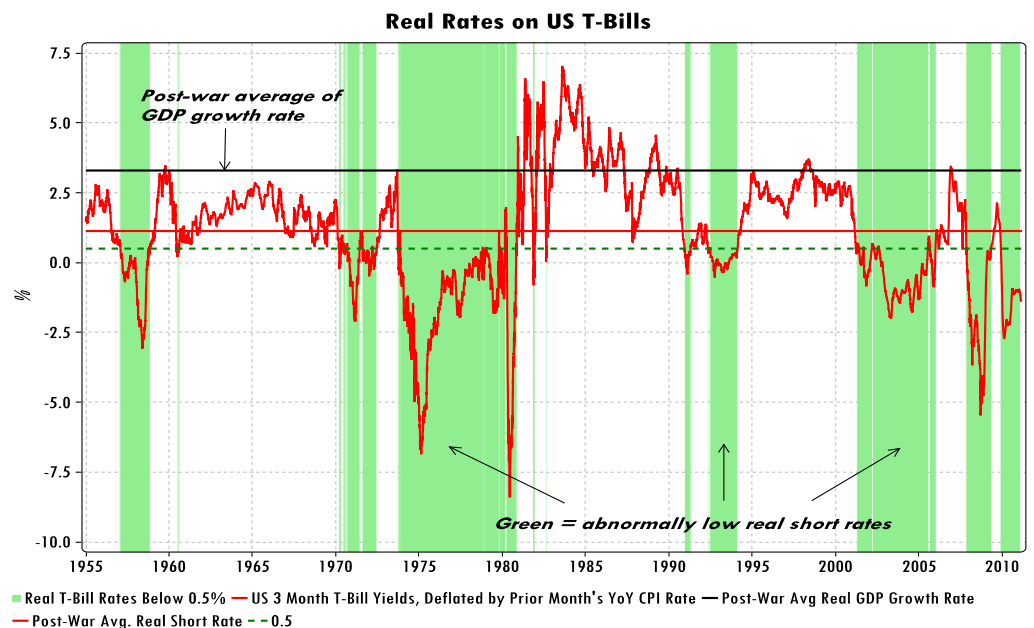
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The High Cost of Free Money

Perhaps the most famous economic law is the one that **there is no such thing as a free lunch**. By keeping US short rates at abnormally low levels beyond the financial crisis and as growth bounces back beyond the dreams of the wildest optimists, the Fed increasingly seems to be trying to ‘feed the US economy for nothing’. This is worrying for as we have reviewed before, extended periods of cheap money typically come back with a hefty price tag, namely higher unemployment, less efficient economic output, and stagnant financial markets (see [Ricardian Growth, Schumpeterian Growth & the Cost of Capital](#)).

Of course, this begs the question of what ‘cheap money’ means? Given that the post-war average real growth rate of the US economy has been above +3.3% per annum and that the average real rate on a three-month T-bills has been 1.1%, we would propose that if the real rate on 3m T-bills is *below 0.5%* (i.e., 280 basis points below the average growth rate and 60bp below the average real rate on T-bills), this will constitute a ‘cheap money’ period. Such periods are marked in green in the chart below. Apparently, two decades were dominated by ‘cheap money’, the 1970s and the 2000s; so we have at least two decently long data-sets to study the consequences of low real rates.



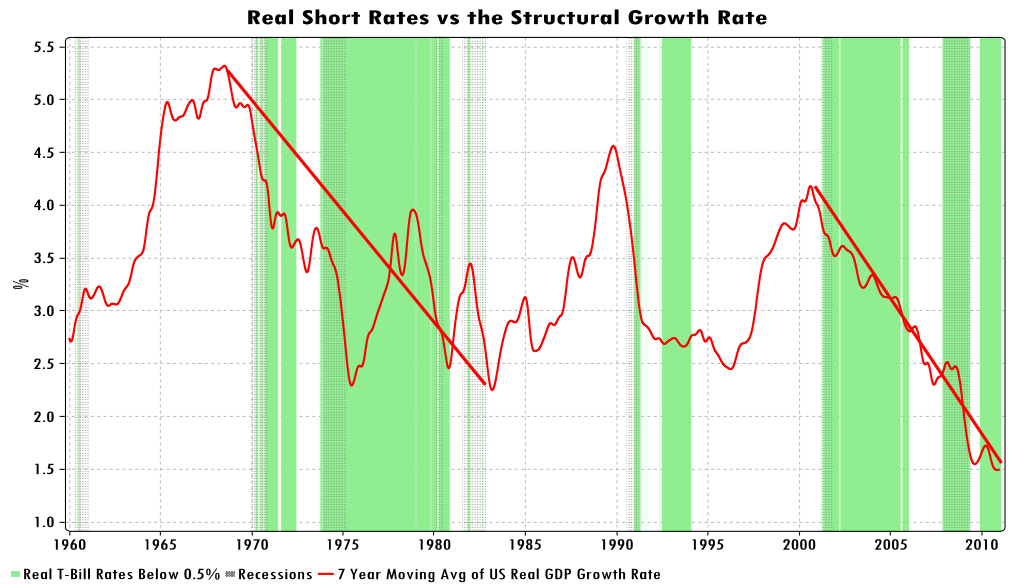
1- What Low Real Rates Do Not Achieve

Since 1968, the US has experienced seven recessions—and only once, in the early 1980s, actually experienced the dreaded “double dip” (and even this is debatable, as one could easily consider this to be two separate recessions). Once a recovery has started, it is nearly always “sustainable”. However, interestingly if interest rates remain abnormally low (green shaded areas on the charts), the structural growth rate of the economy (we use the seven-year moving average of GDP) does not accelerate but falls. From 1972 to 1981, the seven-year moving average of GDP growth fell from +4% annually to +2.5%; and from 2002 to 2011, structural GDP growth fell from +4% to + 1.5 % despite—or maybe because—

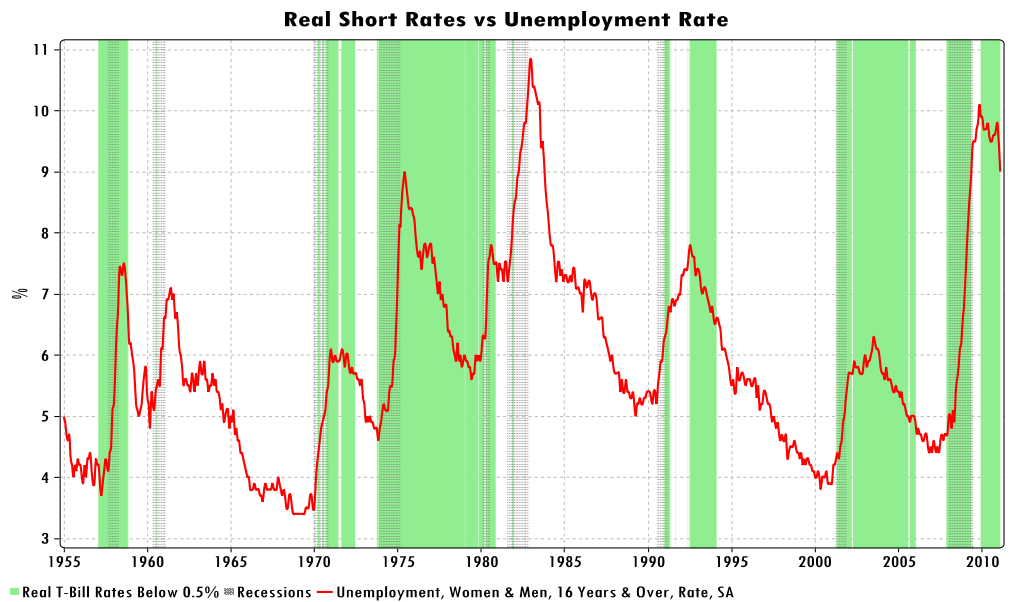
Low rates are often defended as necessary to combat unemployment. But when has this approach shown itself to work?

Another urban myth is that cheap money fuels stock market rallies. In fact the opposite occurs—perhaps because cheap money prevents creative destruction and allows zombie companies to stay in the game.

of very low rates. When short rates were “normal”, from 1982 to 2001 (unshaded areas on the chart), the structural growth rate rebounded, from a dismal +2% to a very good +4%. It is thus hard to point to a sustained period of abnormally low interests rates leading to a structurally higher economic growth rate; quite the contrary!



Today, the apparent rationale for maintaining short rates very low for an extended period of time is to combat unemployment; a laudable goal in itself. But unfortunately, the two periods of very low interest rates were shortly followed by new highs on the unemployment rate. In contrast, it seems that when capital has a real cost attached, unemployment rates tend to head lower.



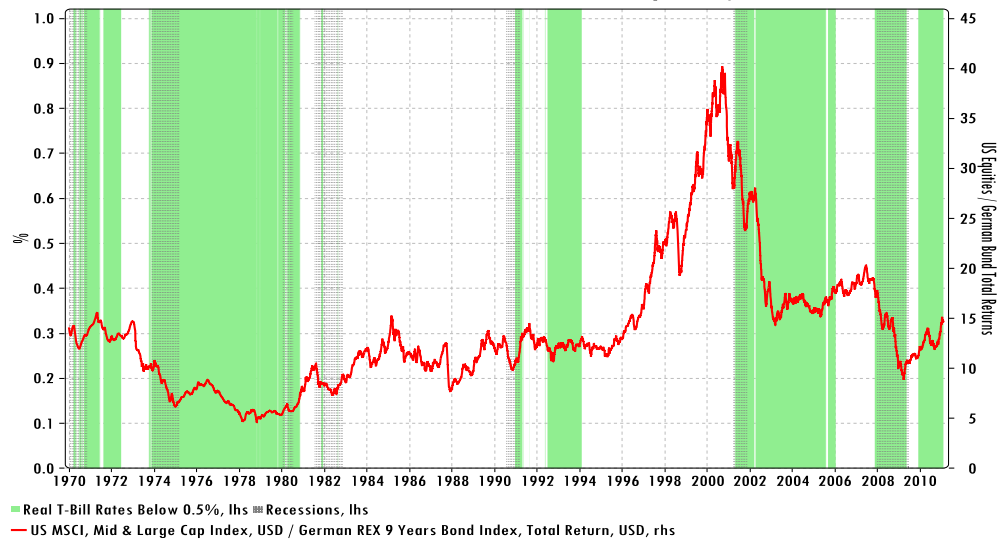
It is commonly believed that low real rates lead to bull markets in equities with shareholders about as smart a Pavlov’s dogs, rushing to buy companies on the promise of a very low cost of capital. However, as Japan has amply shown, cheap capital can be a double-edged sword in preventing creative destruction and allowing zombie companies to continue undermining the margins of the healthier companies, thus dragging them down their level. This might explain why, in the past, when the Fed has been excessively dovish, a defensive investment like German bonds has been a better investment than US equities:

Defensive German bonds are actually safer in times when the Fed is in a profligate mode....

....perhaps because stock markets do not like the volatility in GDP that results from super cheap money.

One thing we can say is that low real rates cause a decline in the US\$.

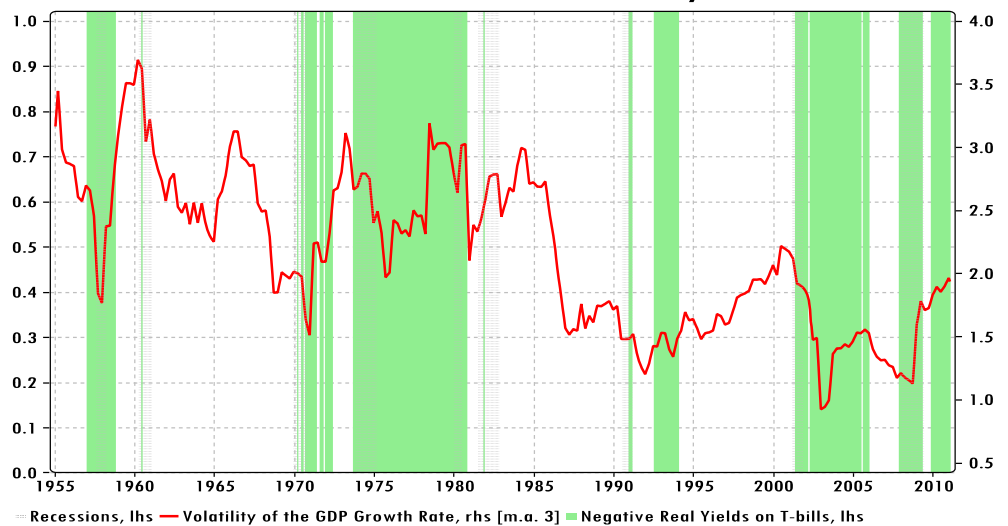
Real Short Rates vs Relative Performance of US Equities / German Bunds



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Another reason stock markets do not like low real rates may have to do with the fact that the *volatility* of GDP growth is much higher during these periods. And as we all know, if there is something that the stock market hates, it is unexpected shocks in economic activity.

US Real Rates on T-Bills & Volatility of GDP



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It is thus hard for us to shake the conclusion that extended periods of abnormally low real short rates do not boost economic activity, increase volatility, do nothing for employment, nor the stock market. In fact the reverse appears to be true. Of course one could argue that our sample (two periods of low rates) is too small. Or that the situation would have been worse should rates have normalized. Or that we are mixing up causes and effects. This brings us to the next section.

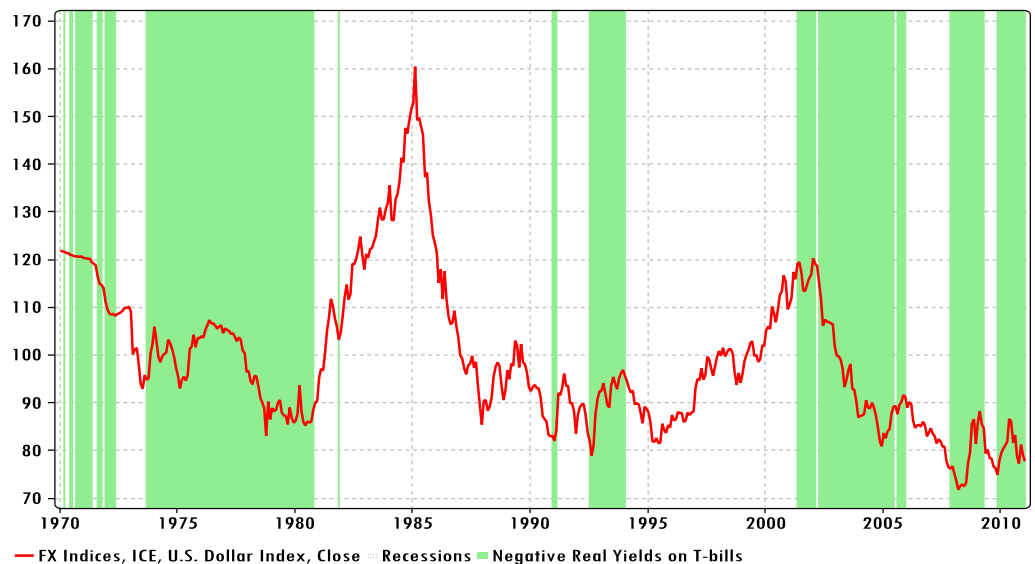
2-What Low Real Rates Do Achieve

The most obvious consequence of a period of abnormally low rates is a weak US\$. In 1970, the US\$ trade-weighted index stood at 120; after ten years of abnormally low rates, it had collapsed to 80. Then, as we all know, the policy changed drastically. Subsequently, from 1980 to 2000, the Dollar index climbed from 80 to 120 (although some of this impressive rise was linked to the Plaza Accord). Then, when real rates slumped again in 2002, the Dollar index resumed its long slide towards the current 76. And why not? One of the three key functions of a currency is to be a store of value. If real rates are negative, savers shift allocations to better currencies.

Governments see their funding costs decline when money is cheap—which leads to an increase in spending as a percentage of GDP.

With the Fed buying 100% of the deficit, why bother to find real solutions?

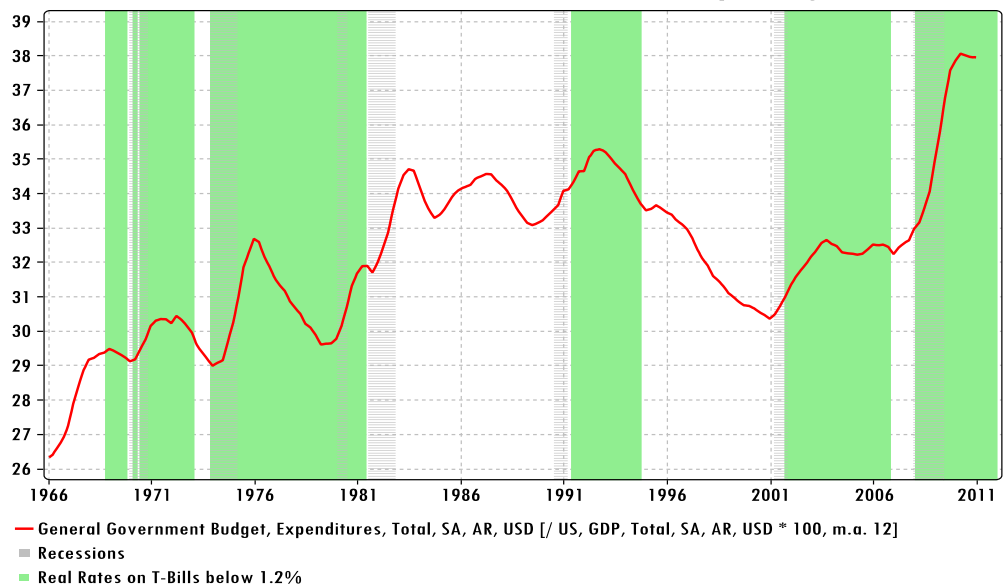
US Real Rates on T-Bills & US\$ Index



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Unemployment fears are often the main rationale for keeping cheap money pumping through the economy. And one way that cheap money creates jobs is by decreasing the government's debt load, which in turn allows for increased hiring of civil servants. Unfortunately over time, the result is that wealth-creation falters when the government crowds out the private sector (see [How the World Works](#)). **A bad monetary policy allows for bad budgetary policies, and this is always and everywhere bad news.** In the US today, for example, if interest rates were normalized, the President and the Congress would be forced to hammer out a real agreement that actually dealt with the key spending issues—the ballooning costs of entitlements such as Social Security—rather than just chipping away at non-discretionary items here and there. But with the Fed buying 100% of the deficit, why bother to find real sustainable solutions?

US Real Rates on T-Bills & Government Spending



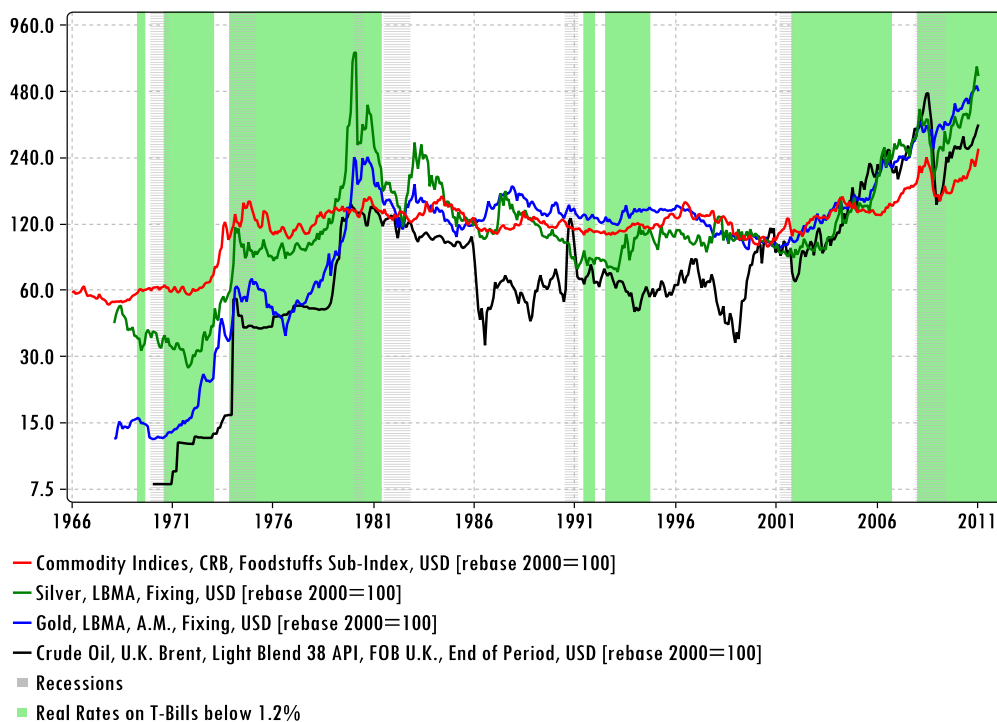
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But the larger problem is that when the US\$ no longer is a store of value, then the world's savers desperately seek alternatives—including the usual suspects such as gold, silver, oil, real estate, modern or ancient art, agricultural land, etc. In other words, anything that can be defined as “real”. In essence, investors buy “real” stuff when they cannot get “real” positive returns in short rates. The chart overleaf speaks for itself (gold, oil, silver, food prices, rebased at 100 in 2000):

Commodities also get a lift, as a devalued US\$ sparks a hunt for hard assets.

As we all know, there is nothing more dangerous for an economy than a central banker with a social conscience.

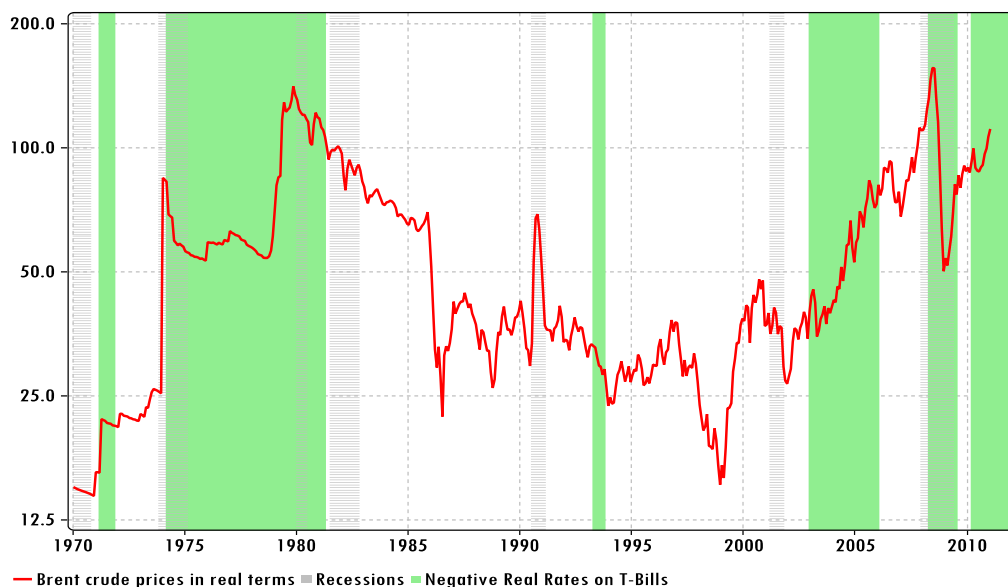
US Real Rates on T-Bills & Gold, Silver, Oil and Food



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As the chart shows, physical commodities tend to lose steam when real short rates are positive. To push the point a little further, the chart looks at the effect of abnormally low real rates on the price of oil in real terms. Should we be surprised that we are transferring ever more wealth to Russia, Venezuela, the Middle-East and other friendly places?

US Real Rates on T-Bills & Oil Prices in Real Terms



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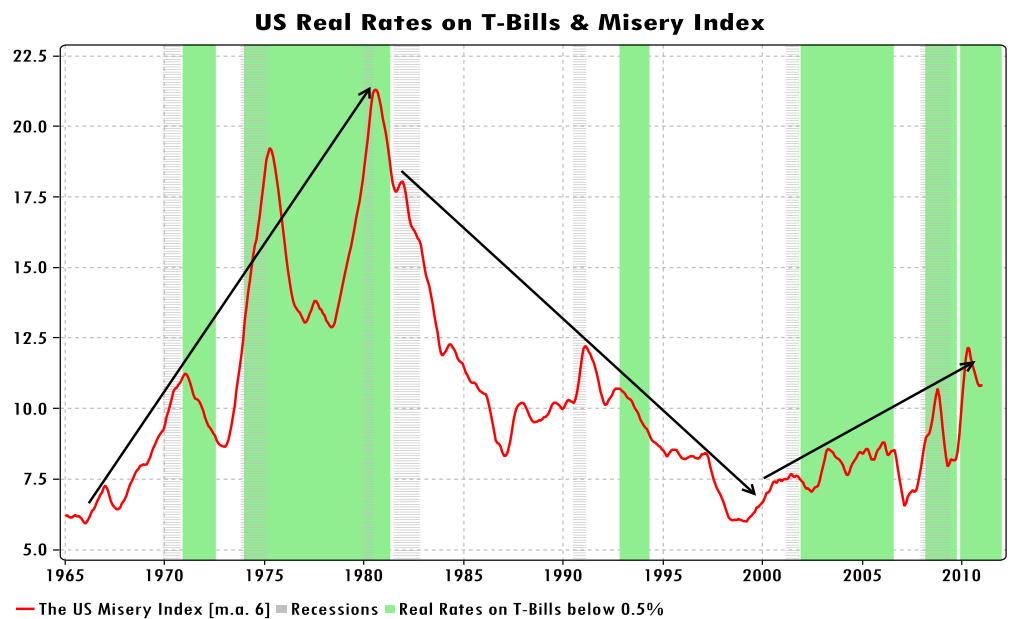
A rise in oil prices is a tax increase, especially on the poor. So what we ultimately end up with is that a policy aimed at helping the struggling and unemployed achieve exactly the opposite results with the jobless finding their small disposable incomes eaten away by higher food and energy prices, leading to greater misery all around.

Speaking of misery, Arthur Okun in the late 1970s devised something called the ‘misery index’, which is really a simple addition of the inflation rate and the

Abnormally low rates drive up the “Misery Index”.

Trouble ensues when the market rate of money is out of sync with ‘natural rate’ (the structural growth rate).

unemployment rate. Since the Fed has a dual mandate (inflation and unemployment) it is a very good tool to monitor the Fed’s historic performance. Here it is below:



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The results are terrible for the Fed from 1970 to 1980 and again for the past decade. Since the advent of the new policy of low real rates in 2002, the misery index has risen +60%. Alarmingly, inflation has not even started to accelerate in the US... if it did, the misery index would likely shoot up!

3- Calling the Great Thinkers to the Rescue

So far, our work has tried to show that cheap money ultimately leads to wealth destruction. So why do policymakers insist on going down this route? Perhaps it may be useful to review the theoretical underpinnings of this paper’s findings in the works of Wicksell, Schumpeter, Rueff and others, in the hope of increasing our understanding of the underlying rationales of the various policies.

A) Wicksell and the natural rate

Knut Wicksell, the leading economist of the Stockholm School in the early 20th Century, had one major, yet beautifully simple, lesson: any economy reacts to two different interest rates:

- 1) The “natural rate,” which is the structural growth rate of the economy and thus the growth rate of corporate earnings (assuming that profits grow at the same rate as GDP). The natural growth rate is roughly the growth rate of the working age population + productivity gains.
- 2) The “market rate”, which is the cost of money in the economy, as determined by the supply and demand of money.

If market rates are way below the natural rate, everybody borrows, which finances a booming economy but drives up the cost of money in the process. When we arrive at a point where market rates move above the natural rate, then, on average, the borrowers will start to lose money. After a while, with losses accumulating, everybody stops borrowing, market rates collapse, and we are off to a new cycle. As Wicksell saw it, what creates the cycle is thus **the divergence between the market rate and the natural rate**. The role of the central bank is to make sure that the market rate is always as close as possible to the natural rate. The bigger the spread between the two, the bigger the misallocations of capital—and the bigger the ensuing financial crisis and rise in social misery.

Reviewing the last 45 years, the US economy enjoyed its most stable and prosperous periods in times when the market and natural rates were generally on par.

Interference with the creative destruction process can be caused by cheap money that keeps zombie companies afloat.

Moreover, there is very little that the authorities can do to change the natural rate, which is a function of population growth and productivity. With this in mind, let us look at the US monetary policy since the end of the 1960s:

- From 1966 to 1979, short rates (nominal) were on average 200 bps lower than the growth rate of the economy. The spread between the natural rate and the market rate was maintained artificially high—the results were abominable.
- From 1980 to 2001, the market rates were exactly on par with the average growth rate of the economy (natural rate), and the spread between the two was maintained very low throughout this period. The spread was on average 1/3 of what it was in the 1960 and 1970s and again since 2002. Results? The great moderation, the longest period of expansion in the US history: falling inflation, rising employment, misery index at an all time low.
- Since 2002, we are back to a huge spread and a huge volatility in financial markets. The misallocation of capital has been grotesque (houses in the California desert, boats in Florida...), unemployment is going through the roof, the US\$ has collapsed, and the solution proposed? More of the same....

B) Schumpeter and creative destruction

Joseph Schumpeter believed that wealth and growth is created as capital moves from weak hands to strong hands. This cannot happen if capital has no cost. We have seen this in Japan, where zombie companies can survive forever, thanks to cheap capital injections, and prevent the re-allocation of scarce resources (land, labor, capital...) to managers best able to maximize returns. In Schumpeter's world, the willingness to let inventions/more efficient operators kill obsolete businesses is key to societal progress (in our research we have called this *'The Dark Side of the Force'*).

However, once policy-makers decide that unemployment should be the only criteria for decision making, entire sectors that should disappear or be reformed get public support and government money (imagine, for instance, that the government decided that computers were a dangerous invention and that the typewriter industry has to be supported at all cost...). If the government interferes with the creative destruction process, the economy moves ex-growth and the law of unintended consequences ensures that the unemployment rate remains structurally high (see *Kate Welling Interviews Louis*).

C) Rueff and the notion of “false prices”

Jacques Rueff believed that market intervention from policymakers created false prices, which in turn ushered in damaging misallocations of capital. Today, the US Dollar is still the reserve currency of the world. The two most important prices are thus 1) US interest rates, which decide what should be consumed today and what should be saved for the future; and 2) the US Dollar exchange rate, which tells us how much should be produced in the US and how much abroad.

The Fed has been massively manipulating the interest rate structure for the past decade, and as a result its exchange rate is way undervalued. **But this means that the two most important prices on which the global pricing system is based are false prices.** Investors have thus lost their compass and have predictably fallen back to easily movable (and hide-able) short-duration assets (gold, copper, silver, modern art etc...), and few want to invest in longer-term, productivity enhancing projects (witness the dilapidation of infrastructure in the US, UK, etc.).

D) Irving Fisher and the debt deflation

Ben Bernanke is a great scholar on the Great Depression. And the best theoretical article even written on the depression was penned by Fisher in 1934: *The Debt Deflation Theory of Great Depressions*. Fisher made the point that if a large amount of debt was backed by assets instead of cash flows, and if the price of

Under the circumstances, sometimes we wish Bernanke had never heard of Irving Fisher!

We are reasonably optimistic that normalization of monetary policy is in the near future.

these assets started to go down, then we would enter into a deflationary spiral, which would take the banking system down, leading the velocity of money to collapse, leading to a collapse in prices and in volume... (remember $MV=PQ$, so if V collapses something drastic happens to either P or Q , or both...). Fisher argued that it was the central bank's responsibility to pump up M if V was contracting to fast.

So Bernanke, as a good student of debt deflation, has been desperately fighting to prevent M from going down in order to compensate for the death of the shadow banking system and the collapse in V . And up to nine months ago or so, he was doing a good job (though this still does not explain the Fed's policies from 2002 to 2006). But now, with velocity rebounding, commercial bank lending and $M2$ starting to normalize, commodity prices on a roll and the Dollar weakening again, the risk of another asset deflation leading to an economic depression looks very remote indeed.

The way we see it, we should waste no time and rapidly move from Fisherian monetary policy to a Wicksellian approach. After all, after three years of a very steep yield curve, one could make the assumption that the equity of the US banking system has been rebuilt (unless of course, Mr. Bernanke knows something about the US banking system that we do not know, or something about the assets that the US commercial banks have on their balance sheets ...).

4 - Conclusion

This analysis may have been too long for our poor reader—but, as it turns out, the investment implications are far simpler:

- If and when the Fed stops manipulating prices to create 'false prices,' then the long duration assets are going to go through the biggest bull market in our time, while the short duration assets will be massacred. So being the optimist that we are, our portfolios are weighted towards long-dated assets (e.g., growth stocks around the world).
- If the Fed does not normalize rates, rising commodity prices may well derail the current growth cycle. Our biggest fear now is that Bernanke uses the current spike in oil and food prices as a reason to embark on another round of quantitative easing (since oil hits growth). However, we want to believe that if he went down this path, either the board of the Fed or the US Congress would rebel. ...
- If Bernanke did go down the QE3 path in the face of higher commodity prices, Asian central banks would be forced to break away from their US\$ pegs. This would trigger a sell-off in UST and a sharp rally in Asian currencies. For this reason, we continue to believe that the only bonds worth holding are Asian sovereign bonds.
- When the Fed's tightening intent become clear, all the short dated alternatives to the US\$ (silver, gold, CHF, JPY...) should get hit hard.