

## **Leithner Letter No. 184-187**

### **26 March-26 June 2015**

*America's Federal Reserve is headed down a familiar – and highly dangerous – path. Steeped in denial of its past mistakes, the Fed [and the Bank of England, European Central Bank, Bank of Japan and others] is pursuing the same incremental approach that helped set the stage for the financial crisis of 2008-2009. The consequences could be similarly catastrophic.*

*... This bears an eerie resemblance to the script of 2004-2006, when the Fed's incremental approach led to the near-fatal mistake of condoning mounting excesses in financial markets and the real economy. After pushing the federal funds rate to a 45-year low of 1% following the collapse of the equity bubble of the early 2000s, the Fed delayed policy normalization for an inordinately long period. And when it finally began to raise the benchmark rate, it did so excruciatingly slowly. Meanwhile, housing and credit bubbles were rapidly expanding, fueling excessive household consumption, a sharp drop in personal savings, and a record current-account deficit — imbalances that set the stage for the meltdown that was soon to follow.*

*The Fed, of course, has absolved itself of any blame in setting up the U.S. and the global economy for the Great Crisis. It was not monetary policy's fault, argued both former Fed Chairmen Alan Greenspan and Ben Bernanke; if anything, they insisted, a lack of regulatory oversight was the culprit.*

*... the Fed's incrementalism of 2004-2006 was a policy blunder of epic proportions. ... [Today] the Fed seems poised to make a similar — and possibly even more serious — misstep in the current environment.*

Stephen Roach

[The Fed Sets Another Trap](#)

Project Syndicate (23 December 2014)

## What Happens When Rates of Interest Rise?

"The Reserve Bank [of Australia] has lost faith in the economy staging a recovery," *The Australian* stated on 5 February 2015 ([RBA's Growth Warning as Rates Cut to New Low](#)). During the past three years it has halved its Overnight Cash Rate to the present 2.25%. Lower rates clearly haven't caused a recovery; will record low rates do so? It doesn't seem to matter: futures markets presently indicate that by mid-2015 the RBA will cut the OCR to 1.75%. During the past year, ever more people have extrapolated these unprecedentedly low rates far into the future. On 11 June 2014, for example, in [What If Interest Rates Stay Low for the Next 70 Years?](#) *The Daily Reckoning Australia* stated:

Rates have been going lower for years. In some [Western] nations, [the counterparts of the OCR have] now reached [0.5% in Britain and 0.25% in the U.S.], a situation that would have been hailed as impossible just a few years ago. What if interest rates were to stay low for the rest of the century? This is definitely a possibility.

*Money Morning Australia* ([What if Interest Rates Never Go Up?](#) 24 May 2014) went the whole hog: "is there a chance that interest rates will never go up? Is the world – including Australia – in a new era of permanently low interest rates? It's possible. In fact, it's probable." On 9 October 2014, Simon Read, personal finance editor at *The Independent*, reported some results from a survey of British mortgagees. One-fifth believes that their rate will never rise. (Another finding from the survey casts doubt upon this expectation: slightly more than half of mortgagees know neither the rate they're paying nor whether it's fixed or variable).<sup>1</sup> Finally, Alan Kohler, the avuncular face of the

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<sup>1</sup> In [More Evidence to Back Our Low Interest Rate Forecast](#) (28 July 2014), *Money Morning Australia* curbed its enthusiasm slightly: "For some time we've tried to convince you that interest rates are staying low. In fact, there's a good chance interest rates could go lower. It's not a popular view. Most people seem to think that interest rates must go higher one day. And they will. But that day won't be tomorrow, or next year. It won't be five years from now either, or 10 years. Our bet is that interest rates will stay low for at least another 20 years. ... Interest rates are staying low for the foreseeable future. By foreseeable future, we're talking 20-plus years."

I can't claim to see a couple of days into the future. How on earth can *Money Morning* credibly say that it can foresee the next 20 years? The dullest schoolboy knows the answer: it can't.

business and finance report on the Red Channel's 7pm nightly news, advised ("New Era of Deflation Is upon Us," *Business Spectator*, 10 December 2014):

I think it's possible that not only will Australian interest rates be cut [in 2015] and U.S. rates not rise, interest rates could stay at this low level for the rest of the decade. ... It's likely to be a period of rising asset prices and rising volatility ... (see also Frank Shostak, [The ECB Fears Deflation, But You Should Not](#), *Mises Daily*, 4 February 2015).

When the crowd backs one horse, it's prudent to ponder alternatives. "In financial markets," James Grant, the editor of *Grant's Interest Rate Observer* has repeatedly written and uttered during interviews, "everything has its season." This wisdom derives ultimately from the Book of Ecclesiastes (3:1-2): "There is an appointed time for everything. And there is a time for every event under heaven. A time to give birth and a time to die; a time to plant and a time to uproot what is planted. ..." From this principle it follows that there's a time for economic booms and financial bull markets, for busts and bear markets – and for high as well as low rates of interest. A caveat, which today's mainstream implicitly but nonetheless strenuously rejects, is that the anointed elite cannot perpetuate the boom. It can delay the bust (at the cost of eventually intensifying it), but it cannot abolish it. Monetary central planners cannot, in other words, permanently suppress rates of interest to artificially low levels; their repeatedly vain attempts to do so, however, always unleash unanticipated (that is, adverse) consequences.

Most people, when they reflect upon their lives and experiences, readily concur that neither ups nor downs persist indefinitely. Similarly, in economic and financial terms neither the crest of the boom nor the trough of the bust is permanent. Historically, events have often recurred; yet few people take history seriously and think in cyclical terms: instead, virtually everybody ignores the past and extends the present into the future. In particular, speculators who think they're investors extrapolate; genuine investors, on the other hand, whose numbers are very few, regress to the mean.<sup>2</sup>

Even worse, at extreme junctures the crowd is most prone to extrapolate the unrepresentative present into the indefinite future. The result is that the more

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<sup>2</sup> See also [Letter 90-92](#), [Letter 102-104](#), [Letter 120-123](#), [Letter 124-126](#), [Letter 148-150](#), [Letter 151-154](#), [Letter 159-162](#) and [Letter 163-166](#).

intense is today's craze, the more prominent are the intellects that insist it'll last. Financial history provides many examples: the dearer are stocks' valuations, the greater is the number of market participants – especially of “experts” – who insist that prices will continue to rise. In the late-1920s, late-1990s and mid-2000s, many people – including the world's most prominent and powerful (that's hardly the same thing as wise) central bankers – fooled themselves and others that all was and would long remain well. Each time, events soon demonstrated otherwise. From this point of view, it's hardly surprising that the longer is the period of time during which rates of interest fall and the lower the level to which they descend, the greater is the number of people (particularly of influential and vocal people) who believe – and the more fervent is their conviction – that rates will certainly remain extreme low and probably fall even further.

In sharp contrast, I wonder whether today's unprecedentedly and “permanently” low rates are no more a “sure thing” than were the “one-decision stocks” of the 1970s, “portfolio insurance” in the 1980s, dot coms in the 1990s and mortgages for virtually anybody with a pulse in 2003-2007. More specifically, I suspect that the conviction of today's mainstream that “rates will stay very low for very long” doesn't just reflect their worship of abstract models and fresh-and-blood central bankers, and their disregard of the historical record: it belies their hubris that the future is foreseeable and that our rulers, at least, can foresee it. I fear it's the old delusion (“it's different this time”) in a new guise. When the crowd celebrates the alleged exceptionalism of the times, it pays the genuine investor to investigate contrary possibilities. Rather than parrot the mantra that “rates will undoubtedly remain low,” it's more fruitful to consider the contrarian question: “what might happen when they rise?”

The decision on 16 January 2015 of the Swiss National Bank to remove the franc's peg to the euro provides a salutary example. Why as a result have some speculators (and their lenders) suffered such huge losses? According to Robert Wenzel ([Understanding the Swiss Central Bank Move and Its Implications for the Rest of 2015](#), *Economic Policy Journal*, 17 January),

Because of something known as the “carry trade.” With the [Swiss National Bank] printing so many francs, interest rates based in francs were very low. Thus, it made sense, *if you thought this policy was to continue*, to borrow low interest rate francs (that is, “short”

francs) and buy (“go long”) currencies where interest rates were higher. ... This trade worked well until yesterday. Then it went very, very bad. ...

Bottom line: what is seen regularly in markets is that *traders, instead of understanding the fundamentals of a situation, trade as though current trends will continue forever. When those trends reverse, the losses are enormous.* Because most markets are rigged by central bank manipulations, the potential for all kinds of reversals in trends is possible. Almost no trader believes these trends can be reversed quickly, but when everyone believes they can’t and the trend does reverse, ... it happens very quickly and the losses are massive. ... Currently very few [believe that rates of interest will rise, and virtually nobody considers even the possibility that they might rise soon and fast]. Because no one is expecting these things to occur, the bloodbaths [could be much more widespread than] the Swiss franc carry trade bloodbath we saw yesterday, if not much worse [italics added].

#### *What Does History Tell Us About Central Banks’ Rates and Bonds’ Yields?*

Is it really different this time? The historical record demonstrates convincingly that in one respect it undeniably is. Equally, there’s no reason to think that it’ll remain so – and several to conclude that it won’t. How to ascertain whether the present differs significantly from the past? The most sensible way, it seems to me, is to analyse long series of valid and reliable data. What’s the best way to consider central banks’ discount rates and the yield of “risk-free” sovereign debt? I believe it’s to put them into the longest possible context. What institution provides this context? The Bank of England does.

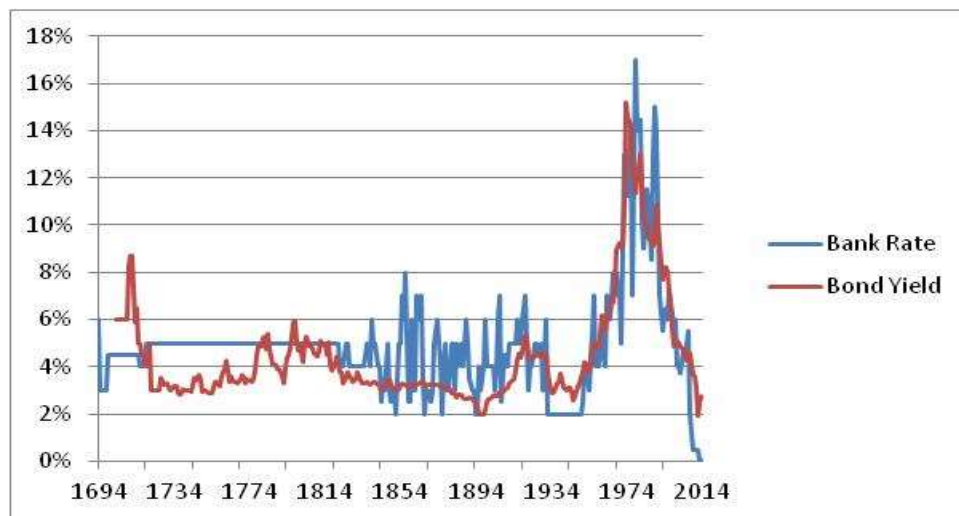
Using data from the BOE’s web site, Figure 1 plots the BOE’s base rate since October 1694 and the yield of HMG’s long-term bonds since June 1703.<sup>3</sup> Since 2006 the base rate has been known as the Official Bank Rate; in 1997-2006 it was the “Repo Rate” (short for Repurchase Rate) and before then it was the

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<sup>3</sup> It amuses me – you’ll learn why shortly – that bulls often tell me: “you can’t use data from the 17th and 18th centuries; economies and financial markets have changed incomparably since then.” For the same reason, bulls also reject the use of data from the 19th and early 20th centuries. By my experience, “modest bulls” very grudgingly consider data since 1945, and “rabid bulls” reject anything before the mid-1990s (of course, they also ignore 2008-2009).

Minimum Lending Rate. Whatever its name, it's the rate that the BOE charges commercial banks for secured (normally by British government securities) overnight lending subject to repurchase agreements. It's analogous to the RBA's Overnight Case Rate and the Fed's discount rate; as such, it strongly influences longer-term rates including mortgages, corporate bond rates etc.

**Figure 1:**  
**Bank of England's Base Rate and HMG's Long-Term Bond Yields,**  
**October 1694-December 2014**



Two things in Figure 1 are clear: never has the Bank of England pushed its base rate (1) remotely as low and (2) nearly as quickly as it began to do late in 2008. In October of that year, the base rate was 5%; in November, the Bank cut it to 3%; in December, to 2%; in February 2009, to 1%; and in March 2009, to 0.5%. Within six months the Bank did something that it had never done before: it slashed its base rate by 90% (that is,  $(0.005 - 0.05) \div 0.05$ ). Until February 2009, it had never set it below 2%; since March 2009, it's pinned it at a mere one-quarter of that level. The period since early 2009 has no historical precedent; in that sense, it is indeed fundamentally different this time.

Commenting on these rates, their counterparts in other countries and the policies that produced them, James Grant ("Monetary Activism Is a Virus That Infects Politics and Destroys Wealth," *The Financial Times*, 6 January 2015) said:

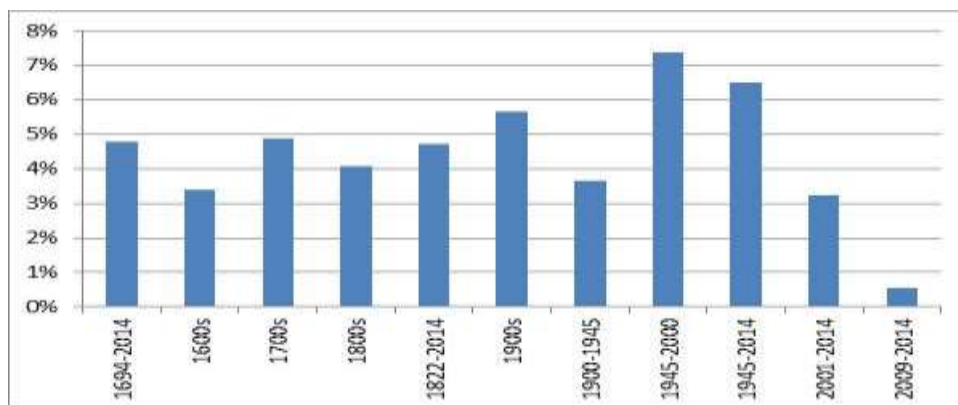
The virus of radical monetary intervention has entered the world's political bloodstream. In the U.S., the UK, the EU, Japan and



Switzerland, [effectively] zero per cent interest rates now pass for mainstream central banking doctrine.

Although the present is unprecedented, I suspect that the future (which, alas, I can't foresee) won't be: that is, since June 1822 the base rate has fluctuated erratically around its long-term mean – which from 1694 to October 2008 was 4.82%, and for the entire series (1694-2014) is 4.77%. What's a "normal" base rate? Figure 2 provides a range of means from which to choose. Whichever you prefer, the "normal" rate greatly exceeds the average since 2009.

**Figure 2:**  
**Bank of England, Average Base Rate during Various Intervals, 1694-2014**



Sometimes the base rate soared far above its overall mean: in particular, during most of the 1970s and 1980s it exceeded 12%. At other times it sagged well below its mean: during the 75 years after 1835 it averaged 3.7%, and during the 1930s and 1940s it averaged 2.3%. *Notice, however, that during these below-average periods both base rate and bond yield frequently spiked well above their overall averages.* In 1835-1910, for example, the base rate regularly exceeded 5%, sometimes exceeded 6% and occasionally approached 10%. Downward spikes occurred during the high-rate era of the 1970s and 1980s: for example, the base rate fell from 15% in October 1976 to 5% in October 1977, and from 10.38% in January 1992 to 5.88% in January 1993. In both instances, a year later it exceeded 10%.

Slightly above-average and slightly below-average base rates have prevailed for great lengths of time. Most notably, the rate remained constant at 4.5% for 17 years (i.e., from June 1699 to June 1716) and at 5.0% for an astounding 103 years (i.e., from April 1719 to May 1822). The bulls can indeed point to extremely long periods during which the Bank of England never changed its

bank rate. They can also cite extended intervals of below-average rates. Amusingly, however, given that many of today's bulls regard anything before the mid-1990s as ancient, inapplicable and irrelevant, in order to bolster their case that the rate cannot and will not change, at least not for many years, they must point for examples to the 17<sup>th</sup>, 18<sup>th</sup> and early 19<sup>th</sup> centuries! If they don't, then they must cite the inconvenient (since depression, war and post-war controls and austerity depressed rates during the) 1930s and 1940s.

Moreover, two inconvenient (for the bulls) facts remain. The first is important enough to repeat: at no time has the base rate ever fallen as far and as fast as it did in October 2008-March 2009. Second, at no time has it remained as low as it has since March 2009. A slightly below-average rate existed – albeit hardly continuously – for ca. three-quarters of a century after 1835; *but the record low which has prevailed since March 2009, or indeed anything like it, has never done so.* Hence our impudent question to today's bulls: if since 1694 it's never been different (in the sense that you intend), then why – apart from the lame reason that central banks must suppress their base rate in order to support the bacchanalia – should anybody expect that the next 70 (or even 20 or 10) years will be different from any other corresponding period between 1694 and 2008?

Eschewing the bulls' exuberance and bearing in mind that since 1822 the Bank of England's base rate hasn't over time conformed to a rigid, replicable and hence reliably and profitably predictable pattern, we can express our scepticism more specifically. Figure 1 shows that the base rate has tended, erratically but eventually, to regress from extremes towards its overall mean. So too the long-term bond's yield: lower yields eventually follow above-average ones, and higher yields follow below-average ones. If things aren't, after all, different this time, then it's reasonable to expect that at some point – alas, neither I nor you or anybody else knows when, but it'll likely take us all by surprise – not only will rates rise: they'll also revisit their super long-term average. When they do, I suspect that there will be hell to pay.

### **The Decrease of Rates Since the Late-1970s/Early-1980s**

Why, generally speaking in most Western countries, have rates of interest fallen almost continuously – and cumulatively massively – since the 1980s? What will happen when, as I expect at some point, they regress – that is, rise – towards their historical means? To consider these questions, let's begin with two obvious points. First, for better or for worse Britannia no



longer rules the waves: neither the Bank of England's base rate nor the yield of HMG's long-term bond is the thermostat of the world's financial system. Equally, for good and ill and from the mid-18<sup>th</sup> century until the end of the First World War, Britain was the world's pre-eminent economic and financial power. Although its fall from grace was swift and severe, since the Second World War it has ranked among the world's ten-largest economies, and press reports (such as *The Australian* on 24 December 2014) prophesied that in 2030 it'll rank as the world's fifth-largest economy. Better than any other measure, therefore, the Bank of England's base rate (and the yield, which 1760 has averaged ca. 6.5%, of long-term British government securities) provide the best very long-term measure of a low-risk – but hardly “risk-free” – rate of interest. These rates and their counterparts in other countries provide the benchmark which markets use to set higher-risk rates such as various categories of corporate debt, mortgages, etc.

**Figure 3:**  
**The Yield of Ten-Year Government Securities, Australia and U.S., 1969-2014**



The second point is that, if since the 1920s HMG has not provided the world's benchmark, since the Second World War the U.S. Government – again, for better or worse – has. (For how long will it do so? That's another matter.) Figure 3 plots the yield of 10-year U.S. Government and Australian Government bonds since July 1969 (when directly-comparable data became available). Why 10-year securities? They're a mid-point between the longest-dated “risk-free” debt (the 30-year U.S. Treasury bond) and its shortest-term counterpart (Treasury bills whose duration is one year or less). And as we'll shortly see, the 10-year has become the primary means whereby the Treasury finances the U.S. Government's deficit.

Both series in Figure 3 tell much the same story: yields rose in the 1970s, peaked in the early 1980s and thereafter have fallen almost continuously. In the U.S. since 1969, the ten-year yield has averaged 6.8% and in Australia it's averaged 8.5%. Treasuries' average yield since 1969 has differed little from British gilts' (which isn't shown); the average rate of ten-year Commonwealths, on the other hand, exceeds the gilts' and Treasury 10-years' average. Why is this? Two reasons will suffice. First, since 1969 the full faith and credit of the Australian Commonwealth hasn't been regarded quite as highly as the HMG's and the U.S. Government's; second, because it's an "agricultural and mining commodity currency" and not a reserve currency, the \$A has repeatedly gyrated suddenly and sharply. For these reasons, purchasers of Commonwealth Government bonds (the majority of whom are domiciled outside Australia) have usually required a higher yield (rate of interest) to compensate them for these risks.

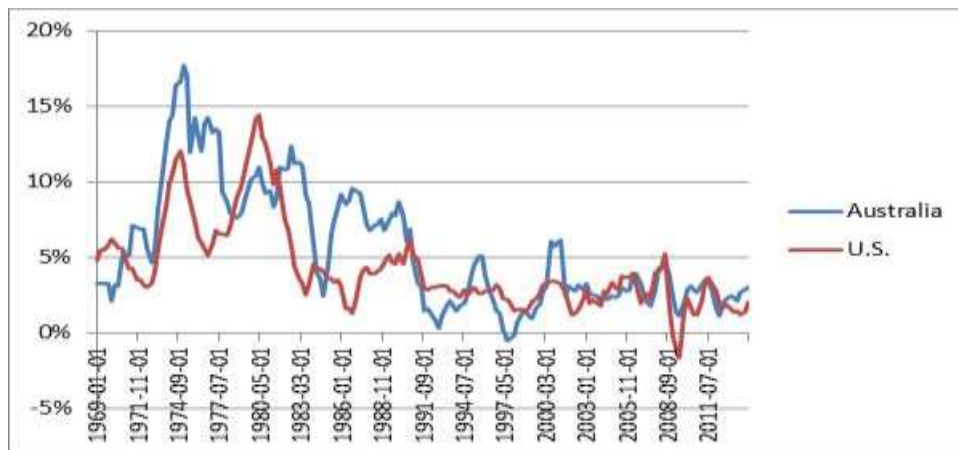
In the U.S. in July 1969, the ten-year's yield was 6.72%. Between 1969 and late 1972 it fluctuated between 5.8% and 6.9%; it rose above 7% in 1973 and above 8% in 1974; after pausing for a few years it then breached 9% in 1978, 10% in 1979, 11% and 12% in 1980 and 13% and 14% in 1981. It reached its post-1969 (indeed, post-1830) maximum, 15.32%, in September 1981. Since then the yield has decreased, almost continuously and sometimes precipitously. It fell below 2.0% for the first time in September 2011, spent most of 2012-2013 below 2% and reached a (so far) all-time minimum of 1.53% in September 2012. During the rest of 2014 it hovered just above 2% and early in 2015 sank below 2%.

In July 1969, the yield of the ten-year Commonwealth bond was 5.8% – lower than its American counterpart. As in the U.S., so too in Australia: during the 1970s and early 1980s, yields ratcheted relentlessly upwards. Indeed, they rose at an accelerating pace: the Australian 10-year yield reached its all-time high, 16.5%, in August 1981. It then fell, but much more slowly than its American counterpart: throughout the 1980s, the Australian's ten-year yield averaged 13.5%. In 1991-1993 it plunged, sharply reducing the disparity with the 10-year Treasury. In 1994, yields in both countries suddenly rose sharply (causing steep losses in bond markets). In 1995 the Australian yield recommenced its downward trajectory, and in 1997-2000 it almost equalled its American counterpart's. It reached its nadir, 3.0%, in October 2012. In September 2014, it was 3.4% – less than one-quarter of its size in August 1981.

## Why Have Yields Fallen So Far Since the Early-1980s?

The most significant (statistically, it explains more than one-third of the total variation since 1969) proximate cause of changes of rates of interest is the deceleration of the Consumer Price Index (CPI). Figure 4 plots the annualised increase of CPI in Australia and the U.S. since 1969. Like the 10-year yield, so too the CPI: it rose rapidly in the 1970s, peaked in the mid-1970s (Australia) and early-1980s (U.S.) and thereafter has decelerated almost continuously. In the 1970s, CPI averaged 6.9% in the U.S. and 9.2% in Australia; in the 1980s, it averaged 5.6% in the U.S. and 8.4% in Australia; in the 1990s, it averaged 3.0% in the U.S. and 2.5% in Australia; and since 2000 it has averaged 2.4% in the U.S. and 3.0% in Australia.

**Figure 4:**  
**CPI (Quarterly Observations), Australia and the U.S., 1969-2014**



Other things equal, an acceleration of CPI causes yields to rise and a deceleration causes them to fall. Consider as an example the investor who purchased a 10-year Treasury (let's assume a purchase price of \$100) on 1 January 1969. The yield on that date was 6.17%. Assume as well that the purchaser is a long-term investor rather than a short-term speculator; that is, he intends to hold this security until it matures. Accordingly, this investor would receive payments of interest of \$6.17 per year (let's assume one payment per year beginning on 1 January 1970) for 10 years. On 1 January 1979 the bond matures and the investor receives a cash payment of \$100. On 1 January 1970, the investor received his first payment of interest. During that year, however, the CPI rose 6.2%; accordingly, the purchasing power of his interest decreased 6.2%, i.e., to  $\$6.17 \times (1 - 0.062) = \$5.78$ . On 1 January 1971, the investor received his second payment of interest. During that year, the CPI

rose 4.8%; accordingly, the purchasing power of his interest decreased to  $\$5.78 \times 0.952 = \$5.50$ .

After 10 years, and in nominal terms, the investor received total payments of interest of \$61.70. Net of the effect of the rising – and during the late 1970s, strongly accelerating – CPI, however, he received just \$44.21. Similarly, when the Treasury redeemed the bond in 1979, he received principal whose nominal value was \$100 but whose purchasing power was just \$49.10. From 1969 to 1979, during which the CPI in the U.S. varied between 3.5% and 11.1% per year and averaged 6.8%, this investment's purchasing power decreased from \$100 in 1969 to \$93.31 (i.e.,  $\$49.10 + \$44.21$ ) in 1979. That's a "real" compound rate of return of -0.07% per year.

This result reminds us that it's false to regard sovereign debt like U.S. Treasury securities as "risk-free." Yes, it's highly unlikely that (say) *The New York Times* will one day carry the headline "U.S. Government Fails to Pay Interest on Its Debt." It's highly unlikely, in other words, that it'll default in *nominal* (that is, unadjusted for CPI) dollars. But will the CPI over time erode the purchasing power of interest and principal to the point where the return from the purchase of these securities becomes marginal or negative? It's certainly done so before and may be doing so now; hence the risk that it continues to default in *real* terms, I believe, remains appreciable (see also [Letter 87-89](#)).

Bonds' yields rise in response to an increase of CPI (more precisely, yields rise when lenders expect that the cumulative CPI during the duration of their loan will accelerate) because the increase of CPI erodes the future purchasing power of bonds' principal and payments of interest. In the 1970s, as CPI accelerated, long-term investors' "real" (net of CPI) returns from 10-year Treasuries fell. These and other investors began to expect that CPI would remain high and rise higher. In order to protect themselves against this erosion and to generate a positive rate of return, lenders demanded much higher rates of interest; accordingly, Treasuries' yields steadily rose.

Consider as a second example the fortunate (in retrospect; at the time, many thought she was foolish) investor who purchased a 10-year Treasury (again, for simplicity assume a purchase price of \$100) at its all-time maximum yield of 15.3% in September 1982. This investor received payments of interest of \$15.30 per year (again let's assume one per year beginning in September 1983)

for 10 years. Further, after 10 years (i.e., in September 1992) the bond expired and the investor received a cash payment of \$100. In September 1983, the investor received her first payment. During that year, however, CPI rose 3.2%; accordingly, its purchasing power decreased 3.2%, i.e., to  $\$15.30 \times 0.968 = \$14.81$ . In September 1984, the investor received her second payment. During that year, the CPI rose 4.2%; accordingly, the purchasing power of that payment decreased to  $\$14.81 \times 0.968 = \$14.14$ . After 10 years, during which CPI varied between 3.0% and 5.6% and averaged 3.8%, in nominal terms the investor received total payments of interest of \$153.00. Net of the effect of the low (relative to the late 1970s) and decelerating CPI, she received \$125.57. Similarly, when the Treasury redeemed the bond after 10 years, she received principal whose nominal value was \$100 but whose purchasing power was \$68.40. After these ten years, the investment's purchasing power thus increased from \$100 in 1982 to \$193.97 (i.e.,  $\$68.40 + \$125.57$ ) in 1992. That's a "real" compound rate of return of 6.85% per year.

In the early 1980s, investors feared that the rise of CPI might return to the levels (above 10% per annum) it had scaled just a few years before; accordingly, and in order to protect themselves against this possible severe erosion of their purchasing power and to generate a positive rate of return, they demanded compensating very high rates of interest. Conversely, once CPI's rise decelerated towards 3% per annum and investors became convinced that it'd stay there, they became willing to lend at far lower rates. With that thought in mind, let's consider matters as they stand today. In the year to 30 September 2014, the yield of the 10-year U.S. Treasury has averaged 2.53% and CPI has averaged 1.75%. Do you see the risk that its purchasers face? Let's assume (to the crowd it's an article of faith) that CPI accurately measures prices and their changes over time. Also assume (I doubt it, but who knows?) that this rate of change of CPI will remain constant during the next decade.

Given these assumptions, consider as a third example the investor who purchased a 10-year Treasury (again, for simplicity assume a purchase price of \$100) yielding 2.53% in 2014. After 10 years, if CPI increases at a constant rate of 1.75%, in nominal terms the investor will receive total payments of interest of \$25.30; net of the effect of the very low CPI, he'll receive \$22.97; and when Treasury redeems the bond in 2024, he'll receive principal whose nominal value will be \$100 but whose purchasing power is \$83.80. After ten years under these circumstances, the investment's purchasing power increases

from \$100 in 2014 to \$106.77 (i.e., \$83.80 + \$22.97) in 2024. That's a "real" compound rate of return of 0.66% per year.

*Even given rosy (I'd call them "aggressively optimistic") assumptions, the real rate of return the investor can realistically expect is less than 1% per year. Is that sufficient compensation for the risks he takes? What if even slightly less optimistic conditions prevail? If, for example, during the next decade CPI averages 2.4% (its average since 2000) the "real" rate of return decreases to -0.1% per year. Any average rate of CPI greater than 2.4% per year generates increasingly bigger losses. Under current circumstances, Treasuries don't seem to offer "risk-free" return; if anything (the phrase is James Grant's), they promise return-free risk! Who'd buy these securities under today's unappealing circumstances?<sup>4</sup> In order to protect against the risk that an unexpectedly high rate of increase of CPI erodes the purchasing power of their capital, and to generate an acceptable "real" rate of return, I suspect that at some point sooner than 10, 20 or 70 years lenders will demand more adequate compensation. What if, for example, they demand a rate of return (net of CPI) of 2% per year? Assuming that during the next decade CPI rises 2.5% per year, purchasers of 10-year Treasuries must demand a yield of 4.6% – which is much closer to its long-term historical average, and almost double its average during 2014.*

### **Why Has CPI Decelerated and Remained Stable?**

Since the early 1980s, rates of interest have fallen primarily because the CPI's rate of increase has decelerated. Why has its rate of increase slowed? Two sets of reasons: the first is largely market-based and therefore beneficial, legitimate and maintainable; the second is wholly non-market and hence harmful, illegitimate – and, I suspect, untenable.

#### *Three Largely Market-Based Reasons*

Deng Xiaoping – China's leader from 1978 until his retirement in 1992 – symbolises the first reason. Of course, he didn't single-handedly cause the

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<sup>4</sup> Speculators (who believe that rates and CPI will continue to fall) do so. Commercial banks must hold sovereign debt so that they can post it as collateral in repurchase transactions. Bearish investors buy Treasuries – not because they wish to hold them to maturity, but in order to "park" billions of dollars until they can invest it permanently at sensible prices. Meanwhile, their objective is not to generate fleeting gains; it's to avoid permanent losses. Above all, and for reasons we'll describe shortly, Asian central banks have sought Treasuries..

CPI's rate of increase in Australia, the U.S. and elsewhere to slow. Beginning in 1979, however, he commenced a series of economic reforms which have expanded and accelerated over the years and whose cumulative scope and consequences have no precedent. Hundreds of millions of Chinese peasants began to manage and own the land they cultivated and to sell their output on domestic markets. At the same time, China's economy quickly opened to foreign trade and investment. As a result, since the late-1970s its imports of food have plummeted and its exports of ever more advanced goods (produced by scores of millions of people who've migrated from the countryside to rapidly-growing cities) have exploded. Never before, surely, have so many risen so quickly from such abject poverty.

China and other "emerging economies" have become the world's biggest producers and primary suppliers to Western nations of a vast number of ever more advanced goods which Westerners were once the leading producers. Not just because their labour has been quite inexpensive (but progressively less cheap over time) by Western standards, but also because their technology has usually approached and sometimes exceeded Western standards, the emergence of China and other developing countries as major forces in the international economy has increased the supply of goods and services relative to the supply of money. Developing nations' rise to prominence in a more integrated ("globalised") world economy has (and other things equal) caused CPI in Western countries to increase less rapidly than it otherwise would.

Why since the early 1980s has the CPI decelerated? Bill Gates symbolises a second reason. Neither he nor Steve Jobs or any other CEO single-handedly caused its rate of increase to slow. They do, however, epitomise the IT revolution, dating roughly from the late 1970s, which has enhanced the productivity of production, transport, marketing and distribution. Better IT enables a given amount of output to occur at lower cost (or more output at the same cost). Other things equal, these advances of productivity increase the supply of goods and services relative to the supply of money, and thereby place downward pressure upon the prices of goods and services. Nowhere has this phenomenon been more apparent than in the computing and IT industries.

Sir Roger Douglas and Paul Keating (the Treasurer, not the PM) provide a third reason. As much as anybody, and more than most, each promoted reforms that commenced in all Anglo-American countries (but later and much



less thoroughly in Western Europe) in the late 1970s. These reforms, which by the late 1980s had become near-orthodoxy, have enhanced domestic competition for goods, services and labour. More vigorous competition, in turn, has (again, other things equal) tended to place downward pressure upon prices.

*Two Non-Market Reasons: Heavy Purchases by Foreigners and the Fed*

How does the government affect rates of interest? Specifically, how does its fiscal policy (namely the size of its budget's deficit or surplus) affect rates? "The conventional view," say Douglas Elmendorf and Gregory Mankiw ([Government Debt](#), Federal Reserve Board, *Finance and Economics Discussion Series*, 1998-1999), "is held by most economists and almost all policymakers. According to this view, the issuance of government debt ... 'crowds out' capital and reduces national income in the long run." Fifteen years later, that remains the mainstream's assessment. It's not wrong: in plain English, *and assuming that the deficit is financed solely from domestic savings and holding constant the policy of central banks* (which are vital caveats which we'll revisit), the government finances a deficit of (say) \$1m by borrowing \$1m – that is, by issuing to the general public securities of whose total face value is \$1m.

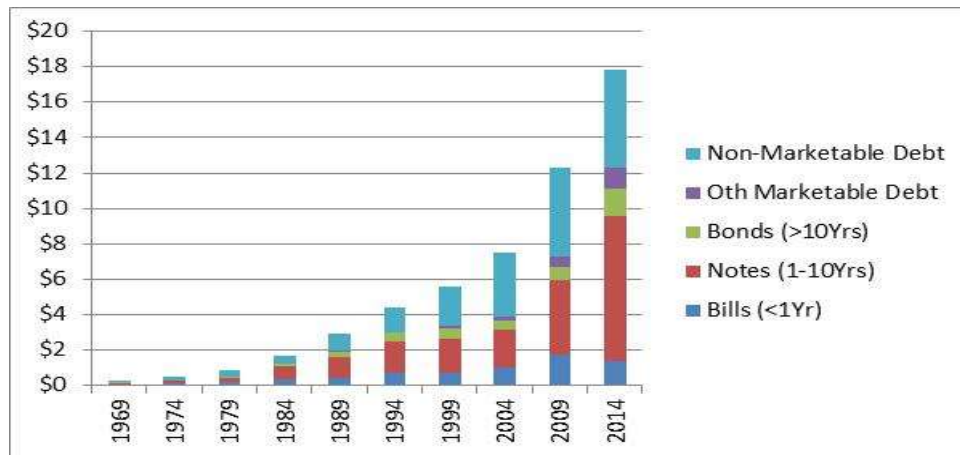
Private investors exchange this amount of cash, which the government then spends, for the government's newly-issued bills, bonds and notes. The cash which private investors use to buy these debt securities cannot, of course, simultaneously be put to other uses – such as the purchase of private sector bonds, shares and other securities. *The government's deficit thus reduces the total quantity of investable funds but leaves unaffected private entities' demand for these funds.* The greater is the size of the government's deficit relative to the private sector borrower's demand for funds, the more the government's demand for finance "crowds out" the private sector's.

Like a game of musical chairs in which the number of contestants exceeds the number of chairs, the unchanged private demand for a diminished (after the government's issue of securities) supply of funds increases competition for these funds. How do private borrowers ensure that they'll win a seat (i.e., obtain funds) before the music stops? They offer more attractive terms and conditions – namely higher rates of interest – to lenders. Unless domestic savers suddenly increase their propensity to save, or the private sector's demand for investable funds subsequently decreases, or the government finds

some alternate source of finance, given the aforementioned assumptions a government which consistently runs deficits will place upward pressure upon rates.<sup>5</sup>

The phrases “America’s national debt” and “total face value of the U.S. Treasury’s outstanding securities” are synonyms. Figure 5a stratifies the U.S. Government’s debt obligations according to their duration: the Treasury’s bills are short-term debt (repayable less than one year); its notes are medium-term (repayable in 1-10 years); and its bonds are long-term (payable in 11-30 years).<sup>6</sup> Figure 5b expresses these categories as percentages of the total debt.

**Figure 5a:**  
**The U.S. Government’s Debt Obligations,**  
**Total and Major Components (\$US Trillion), 1969-2014**

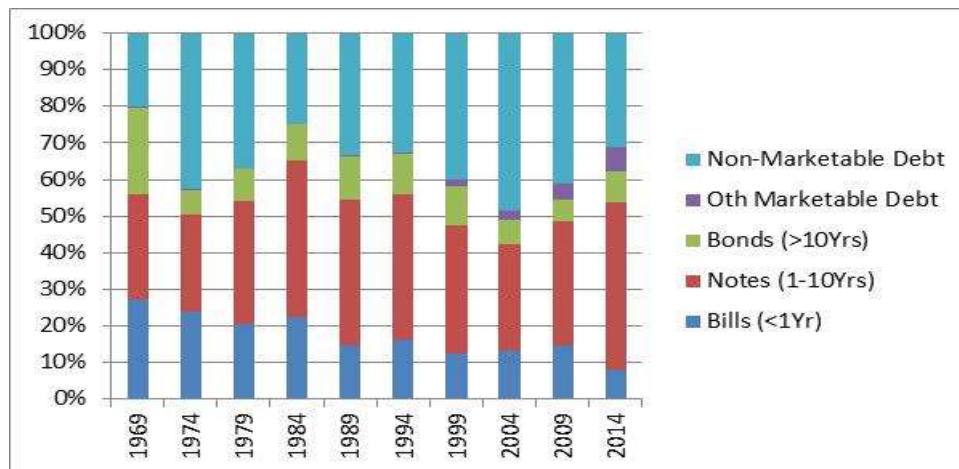


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<sup>5</sup> See Edward Nelson and Jason J. Buol, Budget [Deficits and Interest Rates: What Is the Link?](#) *Central Banker*, Federal Reserve Bank of St Louis, Summer 2004; and Yong Hong Yan and Shane Brittle, [Reconsidering the Link Between Fiscal Policy and Interest Rates in Australia](#), *Treasury Working Paper 2010-04*, September 2010.

<sup>6</sup> “Other marketable debt” largely comprises Treasury Income-Protected Securities (“TIPS”) whose payments of interest and repayment of principal have been indexed to CPI. “Non-marketable debt” comprises Treasuries which other federal agencies own. How can and why would the U.S. Government owe money to itself? The Social Security Administration (SSA), for example, currently receives more revenue from payroll taxes than it pays as pensions. Rather than stuff this surplus cash under a giant mattress, it buys U.S. Treasuries. These purchases effectively transfer agencies’ excess cash to the government’s general fund, where other agencies spend it. Of course, one day the SSA and other agencies will seek to redeem these Treasuries for cash. When they do, the government must either raise taxes or issue more debt.

**Figure 5b:**  
**The U.S. Government's Debt Obligations,**  
**Total and Major Components (Percentages of Total), 1969-2014**



Debt has grown from \$259 billion in 1969 to \$17.829 trillion in mid-2014. That's a compound rate of growth of 9.9% per year. The size of America's economy, measured by Gross Domestic Product (GDP) in nominal dollars, has increased from \$1.02 trillion in 1969 to \$16.77 trillion in mid-2014. That's a compound rate of growth of 6.7% per year. If only parenthetically and rhetorically, it's nevertheless worth asking: whether for an individual, household, corporation or government, can debt indefinitely grow more quickly than gross income (revenue)?

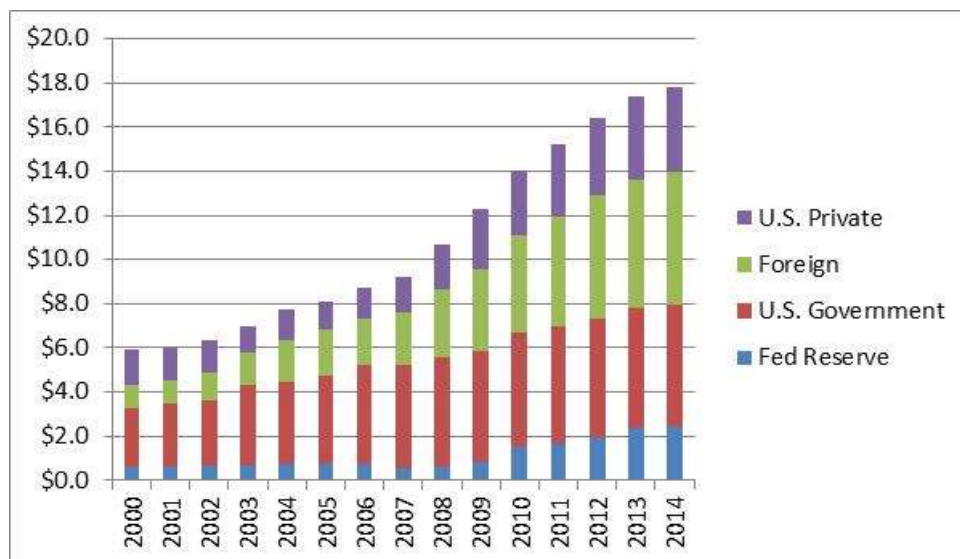
Since 1969, the composition of America's national debt has "lengthened" in the sense that Treasury bills have comprised a steadily decreasing percentage of the total debt (27% in 1969 versus 8% in 2014). It's also "shortened" in the sense that bonds have comprised a steadily decreasing percentage of its total debt (24% in 1969 versus 9% in 2014). Notes have constituted an increasingly larger share (29% in 1969 versus 46% in 2014). America's national debt has become less diversified in a second sense: obligations held by the U.S. Government ("non-marketable debt") have increased from 20% of total debt in 1969 to 31% in 2014.

At first glance, the analysis to this point disconfirms the contention that large and rising deficits place upward pressure upon interest rates. Not only has the U.S. Government generated deficits virtually without exception since 1969: its cumulative deficit – that is, the national debt – has grown exponentially. *Yet these large and rising deficits clearly haven't impeded the almost continuous decrease of rates of interest since the early 1980s.* Much lower rates have accompanied far

bigger deficits. How can this be? Recall the two assumptions: first, domestic savings provide the sole source of deficit finance; and second, central banks' policies remain constant. In 1969, these assumptions corresponded roughly to reality; by 2014, however, both had long ceased to do so.

Figure 6 disaggregates America's national debt into four categories of ownership (directly-comparable data are available only for the years since 2000). Figure 7 expresses them as percentages of total debt. In 2000, private American entities (such as insurance companies, investment funds, etc.) owned ca. one-quarter of all Treasury securities. This percentage had fallen from more than one-half in 1969. By 2014, this percentage fell further, to ca. one-fifth. Private American investors, in other words, were once the U.S. Government's primary source of finance; but since at least 2000, they no longer do so. The government's deficits no longer "crowd out" private investors because it now has other – and more significant – sources of finance. Who are they? Foreigners – specifically, foreign central banks.

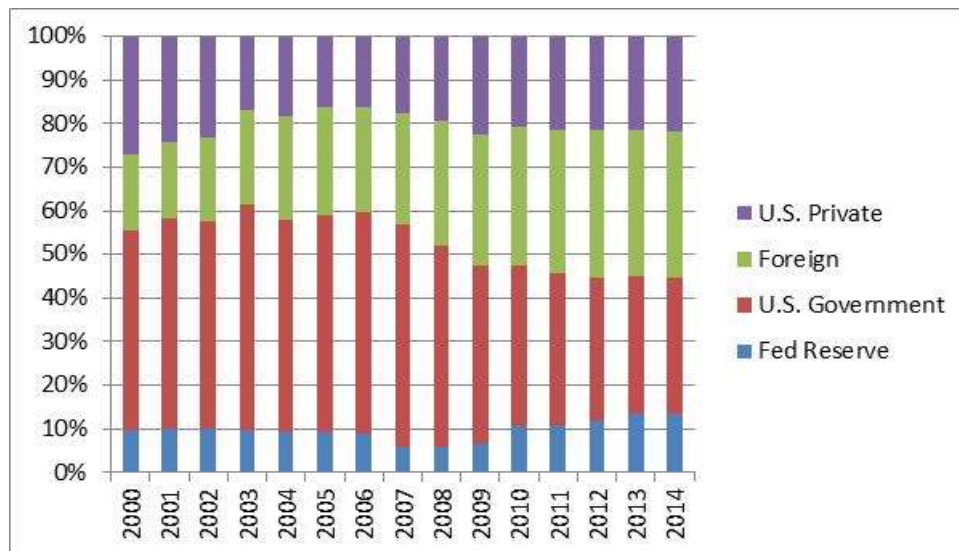
**Figure 6:**  
**Who Owns the U.S. Government's National Debt?**  
**Major Components (\$US Trillion), 2000-2014**



In 1969, foreigners owned a negligible percentage (less than 5%) and amount (\$6 billion) of Treasuries; of these, private (including corporate) investors in Britain, Canada, France and Germany comprised most of this amount. By 2000, foreign holdings had skyrocketed to ca. \$1 trillion (15% of the total) and in 2014 to \$6 trillion (33%). Particularly noteworthy are China and Japan: in

each country in mid-2014, central banks owned ca. \$1.4 trillion of Treasuries (relative to their populations, South Korea and Taiwan are also big holders).

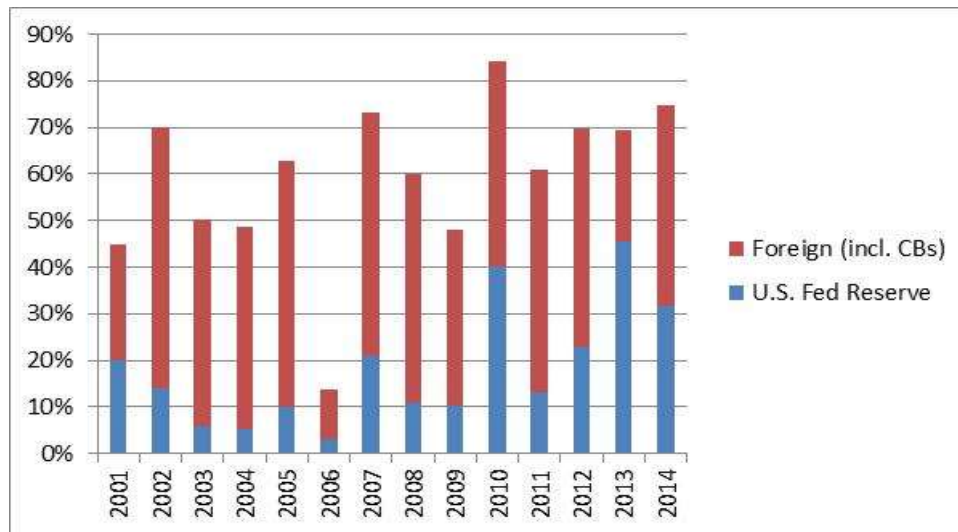
**Figure 7:**  
**Who Owns the U.S. Government's National Debt?**



Why have foreigners, particularly the People's Bank of China and the Bank of Japan, become (apart from the Fed and U.S. Government) the biggest holders of Treasuries? Asian central banks, using domestic currency they've conjured out of thin air, have long purchased huge amounts of \$US. These transactions have decreased the demand for their currencies relative to supply; they've also boosted demand for \$US. As a result, central banks have depressed these currencies' rates of exchange vis-à-vis the \$US – and cheapened the price in \$US of their exports to the U.S. These central banks have then used significant quantities of their vast \$US reserves to buy Treasuries. These purchases, in turn, have accommodated America's skyrocketing budget deficits. Because they've become the biggest buyers of Treasuries, Asian countries' strong demand has boosted Treasuries' prices and thereby suppressed their yields. Asian central banks have become and remain such eager purchasers of Treasuries (see also Figure 8) that the U.S. Treasury has been able to sell them under increasingly advantageous (to the Treasury) terms and conditions. Yet these terms and conditions also suit Asian central banks: since Treasuries' yields provide the benchmark for other rates, Asian central banks' voracious appetite for Treasuries has also suppressed the yields of sovereign and corporate debt in China, Japan, Korea, Taiwan and elsewhere.



**Figure 8:  
Who Buys U.S. Government Debt?**



How does the government affect rates of interest? Specifically, how does its central bank's monetary policy affect rates? Figure 8 provides an indication – albeit inexact – of the increasingly powerful influence of foreign central banks' and the Fed's purchases of Treasuries. It expresses the year-on-year increases of their holdings as percentages of the year-on-year increase of the quantity of securities that the Treasury issues. In 2001-2006, the year-on-year increases of foreigners' and the Fed's purchases comprised ca. 40% of the total year-on-year increase. Since 2007, foreigners and the Fed have comprised a strong majority – ca. 70% – of the total; and of this total, moreover, foreigners have demanded the lion's share. *Since 2007, in other words, the U.S. Government has depended primarily upon the Fed and major foreign central banks to finance its growing deficits.* These central banks' strong demand for Treasuries has increased their prices and thereby suppressed their yields.

### **What Have the Fed and Other Central Banks Wrought?**

What happens if and when these central banks decide to decelerate the rate at which they accumulate Treasuries – or even decrease their holdings?

Assuming that it continues to run big deficits, either the Fed must buy (monetise) more debt or the U.S. Government must offer significantly better terms and conditions – that is, materially higher rates of interest – in order to entice other borrowers. What's the likelihood that China's demand for U.S. Treasuries will abate? For a decade, studies have found “evidence that some types of investment are becoming excessive in China, particularly in inland

provinces.” In these regions, economic activity has become more dependent upon superabundant and hence wasteful capital investment, whose object is the export of consumer goods and whose impact is short-lived,

necessitating ever higher levels of [wasteful] investment to maintain economic activity. By contrast, private consumption has become more self-sustaining in coastal provinces, in large part because investment here tends to benefit household incomes more than corporates. ... Thus, investment should not be indiscriminately directed toward urbanization or industrialization of Western regions but shifted toward sectors with greater and more lasting spill-overs to household income and consumption.<sup>7</sup>

In short, if China’s economy successfully evolves from heavy concentration upon capital investment and the export of goods towards greater focus upon domestic consumption of goods and services, then its dependence upon exports, the People’s Bank of China’s need to suppress the currency’s rate of exchange – and thus the Bank’s need to buy U.S. Treasuries – will all lessen. Perhaps something along these lines has begun to occur: in November 2013, the PBC announced that it intends to decelerate its accumulation of foreign currencies (including \$US). According to *Seeking Alpha* ([People’s Bank of China Announces End of U.S. Treasury Buying](#), 22 November 2013), its purchases of Treasuries will therefore slow.

Figure 9, which quantifies the rapid growth of the size as well as the change of composition of the Fed’s balance sheet, summarises another potential source of trouble. In particular, it shows the effects of Quantitative Easing (QE) upon its balance sheet. Figure 10 expresses these categories of assets as percentages of the Fed’s total assets.

The Fed’s assets have grown from \$870 billion in 2007 to \$4.29 trillion in mid-2014. That’s a compound rate of growth of 22% per year – much faster than the national debt’s rate of growth, and even more rapid than GDP’s. Before 2007, other assets (mostly foreign currencies the Fed buys and sells in order to manipulate the price of the \$US) comprised 10% or less of total assets, and do so today. In 2007-2008, however, other assets (purchased as part of the bailout

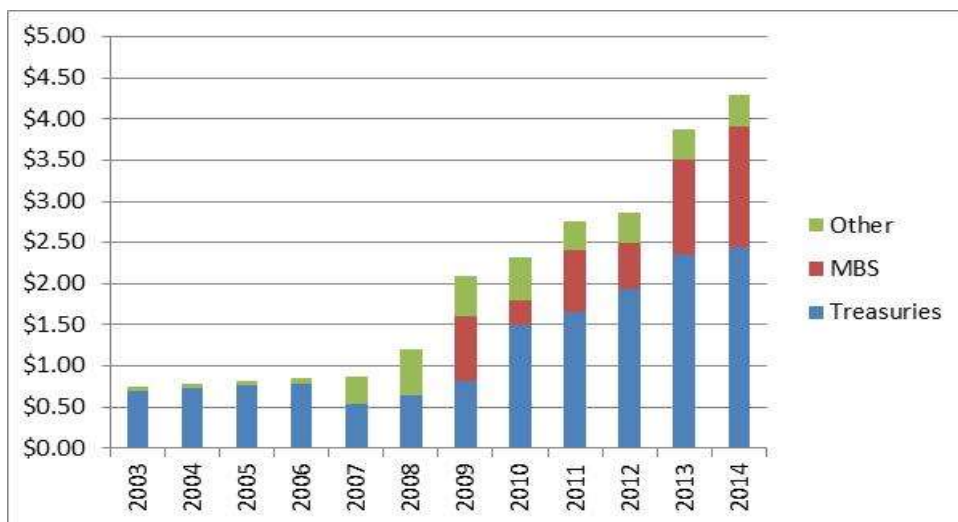
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<sup>7</sup> Il Houngh Lee, Murtaza Syed and Liu Xueyan, [China’s Path to Consumer-Based Growth: Reorienting Investment and Enhancing Efficiency](#), IMF Working Paper WP/13/83, March 2013.

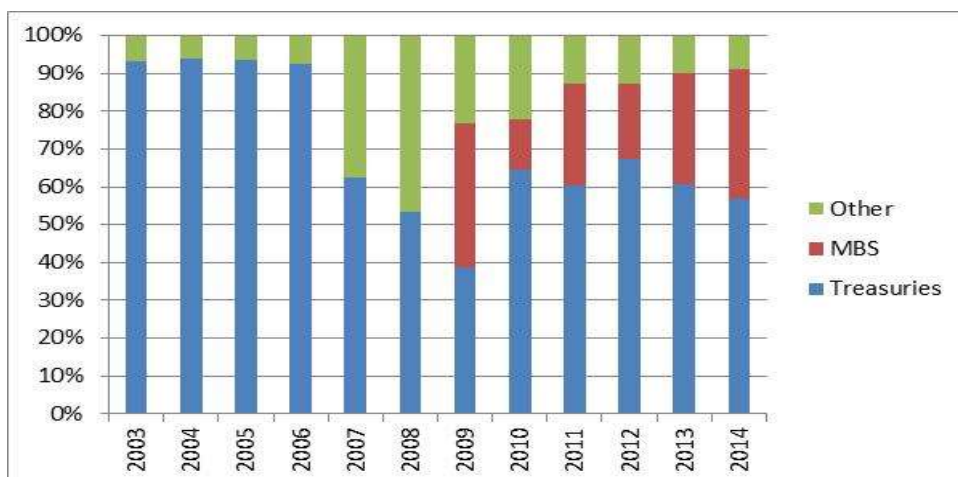


of the mega-insurer AIG, etc.) exploded to ca. \$1 trillion and 40% of the balance sheet. Since then, as these assets have been sold and unwound, the “other assets” category has returned to ca. 10% of the total. Traditionally, and as late as 2006, Treasuries comprised virtually all (90%) of the Fed’s assets. Since 2007, these assets zoomed five-fold (from \$0.5 trillion in 2007 to \$2.5 trillion in 2014). Yet their relative importance has diminished to ca. 60% of total assets in 2014. Why is this? It’s a result of the sudden purchase of trillions of dollars of Mortgage Backed Securities (MBSs), which in turn stems from the Fed’s policy of Quantitative Easing (QE).

**Figure 9:**  
**U.S. Federal Reserve’s Assets, Total and Composition**  
**(\$US Trillion), 2003-2014**



**Figure 10:**  
**U.S. Federal Reserve’s Assets, by Composition**  
**(Percentages of Total), 2003-2014**



What is QE? On the Red Channel's 7pm news, Alan Kohler has repeatedly dubbed it "money printing" and, apparently satisfied that he's informed the general public, proceeds without elaboration to his next chart. Virtually every commentator has been equally vague. They're not completely wrong: in order to implement QE, central banks do indeed conjure currency out of thin air; but they also do so in order to consummate many of their conventional policies. QE is unconventional policy that major central banks (particularly the Federal Reserve and Bank of Japan) have grasped because conventional policy has by their criteria become ineffective or insufficiently effective. Its purpose, Ben Bernanke and Janet Yellen have alleged in sworn testimony to Congress, is to stimulate the economy. It's very easy to demonstrate from first principles that it cannot do so.<sup>8</sup> (The truth, of course, is that QE's goal – like that of central

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<sup>8</sup> John Maynard Keynes, in *The General Theory of Employment, Interest and Money* (1936), as well as today's central banks' "stimulus," ignore Say's Law and thus contradict elementary logic. J.-B. Say, a French economist of the 18<sup>th</sup> century, demonstrated that money is a mere conduit or intermediary that facilitates the exchange of real goods and services. The farmer apparently buys a car with dollars; actually, however, using money as a conduit, he exchanges a certain quantity of his output of beef, wheat, etc., for the car. Likewise, the baker buys shoes with his bread and the barber buys bread in exchange for haircuts. The farmer, baker and barber can purchase desired goods and services only *after* producing something that others value. *Consumption, in other words, follows – and does not because it logically cannot precede – production.* It is simply impossible to consume a good or service unless and until somebody has first produced it.

Keynes and his legions of followers don't demonstrate – they simply assert and assume – that consumption precedes production. Keynes famously insisted, completely seriously, that governments should pay people to dig holes and then refill them in order to put money into the hands of the unemployed, who'd then spend the proceeds and thereby allegedly "stimulate" production. But Keynes' hole-diggers do not produce any good or service that consumers demand and value in the market. Nor does central banks' monetary "stimulus:" it has conjured trillions of dollars, but not a single additional good or unit of service, into existence. Only diligent saving and astute entrepreneurship can do that.

"Keynesian aggregate demand theory," says Patrick Barron ([Why Central Bank Stimulus Cannot Stimulate an Economic Recovery](#), 20 May 2014), "is nothing more than a justification for counterfeiting. It is a theory of capital consumption and ignores the irrefutable fact that production is required prior to consumption. Central bank credit expansion is the best example of the Keynesian disregard for the inevitable consequences of violating Say's Law. Money certificates are cheap to produce. Book entry credit is manufactured at the click of a computer mouse and is therefore essentially costless. So, receivers of new money get something for nothing. The consequence of this violation of Say's Law is [malinvestment of capital], the opposite of the central bank's goal of economic stimulus. Central bank economists make the crucial error of confusing a GDP spending frenzy with sustainable economic activity. They are measuring capital consumption, not production." Central banks, in short, can conjure money but they can't produce goods and services. Hence they can't create prosperity but can and do cause penury.

banks more generally – is to benefit a privileged élite at the expense of the benighted masses, i.e., to inflate the prices of stocks and bonds and to accommodate the government's deficits and debts by slashing its borrowing costs.)

In order to understand QE's basics, at least roughly, it's important to grasp central banks' usual policy – the purchase or sale of government bills in order to maintain key short-term interest rates within some target range. If (say) the Fed wishes to reduce its funds rate, it buys Treasury bills in the open market. Other things equal, this action reduces the available supply of bills relative to the demand for bills. It thereby increases bills' price in the market and decreases their yield. If, on the other hand, it wishes to increase its funds rate, then it sells bills into the market. This action boosts the supply of bills relative to demand and partly "crowds out" other short-term borrowers; both effects tend to decrease bills' price and boost their yield.

Since 2007, major central banks such as the Bank of Japan, European Central Bank and Federal Reserve, through their so-called Zero Interest Rate Policy (ZIRP), have pushed their conventional policy to its "logical" (if that's possible for an inherently crazy policy) limit. But what if, notwithstanding this and earlier failed "stimulus," conditions in a nation's credit market aren't stimulatory enough to suit its central bank? It implements QE by buying a specific *quantity* of the government's long-duration bonds (as opposed to its short-duration bills) and other financial assets. The goal is greatly to *ease* monetary conditions (i.e., vastly to increase the money supply, which commercial banks can then lend, at artificially low rates of interest, and thereby allegedly to spur economic activity) rather than to decrease the inter-bank discount rate (which cannot be decreased further because the central bank's previous policies have already suppressed it close to 0%).

Clearly, however, to the extent that the central bank purchases securities that are riskier than the government's bonds, it also lowers those assets' yields. If, for example, it purchases MBSs aggressively then it will suppress their yields – and perhaps keep afloat mortgagees, or at least the owners of the mortgages, who borrowed too much (and the banks that lent too much). QE thus tends to boost the prices of certain financial assets and to lower their yields, while simultaneously increasing the monetary base in an attempt to spur much greater borrowing and lending.<sup>9</sup>

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QE “has been an amazingly bold policy initiative,” said Stephen Grenville, a former Deputy Governor of the RBA, in [QE Unwind Must Be on the Money](#) (*Business Spectator*, 18 April 2013). It can be “justified only by the intractable nature of this crisis, where conventional monetary policy has been pushed to the limit and [responsible] fiscal policy has been sidelined ...” Thus it’s risky:

The longer the abnormal price signals of low interest rates persist, and the more balance sheets are distorted by QE, the more disruptive the unwinding of [QE] will eventually be. It is building confidence and buying time for other policies to work, but in most cases this time is being frittered away without addressing the basic problems: unsustainable debts in Europe which need to be written off rather than rescheduled, fiscal deadlock in the U.S. and unaddressed structural problems in Japan.

Looking ahead, does unwinding QE present concerns? ... Risk number one is that ... central banks will be slow to raise [the very short-term interest rate they control] when the time comes. This is a serious issue, but not imminent. The more serious concerns centre on

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<sup>9</sup> In mid-2008, the Fed held on its balance sheet ca. \$700-800 billion of Treasury securities. In late November 2008 it began to buy \$600 billion of other assets. By March 2009, it held \$1.75 trillion of bank debt, MBSs, etc., and this amount peaked at \$2.1 trillion in June 2010. It halted further purchases when (it proclaimed) economic and financial conditions had started to improve, and resumed them in August 2010 when it decided that these conditions hadn’t improved enough. After the halt, as the Fed’s holdings of alternate assets fell as some of the debt matured, it projected that these holdings would fall to \$1.5 trillion by 2012. That quantity, the Fed decreed, wasn’t sufficiently stimulatory. Accordingly, it revised its goal: henceforth it sought to hold \$2 trillion of non-Treasury assets. In November 2010, it announced a second round of quantitative easing (“QE2”); by the end of the second quarter of 2011, it had purchased \$600 billion of Treasuries. (The round that preceded QE2 became known retrospectively as “QE1.”)

On 13 September 2012 the Fed announced a third round of quantitative easing (“QE3”). Specifically, it launched a new (\$40 billion per month and open-ended) program to purchase MBSs created by Freddy Mac and Fannie Mae. Additionally, the Federal Open Market Committee (FOMC) announced that it would maintain the federal funds rate near zero “at least through 2015.” Given its open-ended nature, QE3 has been dubbed “QE-Infinity.” On 12 December 2012, the FOMC announced an increase of its target quantity of open-ended purchases from \$40 billion to \$85 billion per month. On 19 June 2013, Ben Bernanke announced that the Fed would (subject to continued positive economic data) “taper” QE. Specifically, the Fed would abate its purchases of bonds from \$85 billion per month to \$65 billion a month. Bernanke also estimated that QE would conclude by mid-2014. Although he didn’t decree that rates of interest must rise, he did suggest that if CPI obeyed the Fed’s dictates (that is, rose no more 2% per year) and the rate of unemployment decreased to 6.5% (in September 2014, conventional measures fell below 6%), the Fed would likely raise rates.

how the economy would react to a higher interest rate, having gone so long (five years and still counting) with historically very low interest rates. It's not just the short-term policy-determined interest rates that would go up. Long-term interest rates are extraordinarily low in many countries ... Where would the damage occur? When longer-term interest rates rise, bond-holders make a capital loss. A 1% rise would cut the value of the Fed's bond portfolio by 8%. ...

What has QE wrought? The Fed now owns many of the "toxic assets" that bankers created in 2003-2007. These assets' losses (ca. \$360 billion in mid-2014) could conceivably reduce the value of the Fed's assets below the value of its liabilities, i.e., bankrupt the Fed. Under these circumstances it "would need an injection of capital from the Treasury" – that is, a bailout (see in particular Norbert Michel and Stephen Moore, [Quantitative Easing, the Fed's Balance Sheet and Central Bank Insolvency](#), *Heritage Foundation Backgrounder* No. 2938, 14 August 2014). If the Fed is potentially bankrupt and might require a bailout from the Treasury (which is bankrupt in the sense that it cannot meet ca. \$200 trillion of liabilities at 100 cents in the dollar as and when they fall due), then, in effect, two bankrupts are underpinning the solvency of the economy and financial markets. How "sustainable" is that?

Figure 11, which uses data compiled by the Congressional Budget Office, plots actual (2013) and projected (2014-2023) net payments of interest on the "marketable" portion (held by entities other than the U.S. Government) of the U.S. Government's debt. In 2013 it paid \$223 billion, and in 2023 the CBO projects that it will pay \$823 billion in constant 2013 dollars. That's a compound rate of growth of 14% per year for ten years.<sup>10</sup> Interest on the debt

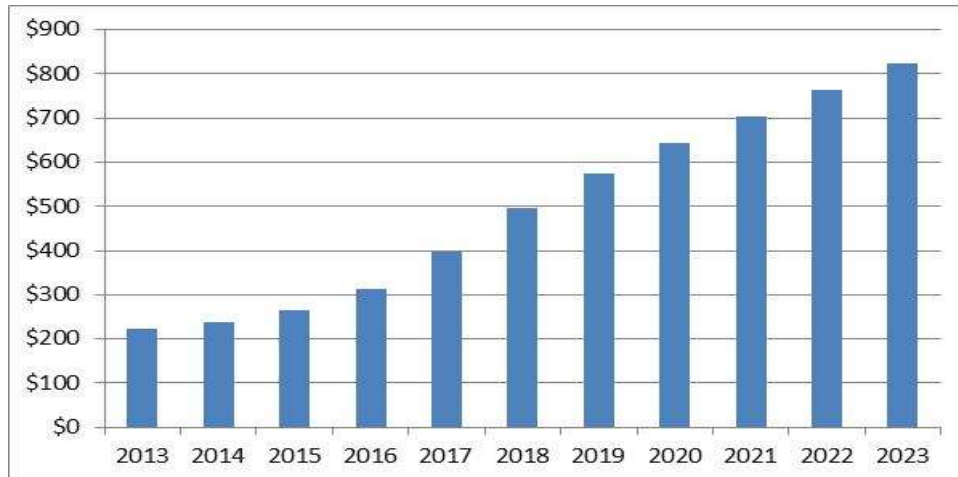
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<sup>10</sup> What a difference a decade makes! In 1997-199 the mainstream foresaw budget surpluses "as far as the eye can see." On 29 January 1999, *The Washington Post* ([\\$800 Billion 10-Year Surplus Projected](#)) reported: "the Congressional Budget Office plans to unveil dramatic new budget projections today that forecast surpluses of nearly \$800 billion over the next 10 years in non-Social Security accounts ... The new numbers mark an extraordinary turnaround from CBO's forecast from last [autumn], when the agency projected not a surplus but a cumulative, 10-year deficit of some \$9 billion over the same period. ... Counting the money generated by the excess payroll taxes being collected to prepare for the onslaught of baby boomer retirees in the next century, the federal government's 10-year surpluses amount to a staggering \$2.6 trillion."

Yet by 2003 CBO projected rising deficits – but still underestimated by \$10 trillion the actual debt in 2013 (see [The Budget and Economic Outlook: Fiscal Years 2004-2013](#), CBO, January 2003, particularly Table 1-4, "CBO's Projection of Federal Debt under Its Adjusted Baseline"). Given the innate difficulty of forecasting the U.S. Government's debt, maybe the bulls are right

is one of the government's fastest-growing major categories of expenditure – and, if the CBO projection is correct, by 2023 will be the largest bar none.

**Figure 11:**  
**The U.S. Government's Net Interest Obligations,**  
**Billions of \$US, Actual (2013) and Projected (2014-2023)**



What will be the impact of the rising burden of payments of interest on the U.S. National Debt? According to the CBO's [\*Long-Term Budget Outlook\*](#) (2013):

The increase in [the national] debt relative to the size of the economy, combined with an increase in marginal tax rates (the rates that would apply to an additional dollar of income), would reduce [national] output and raise interest rates relative to the benchmark economic projections that CBO used in producing the extended baseline. Those economic differences would lead to lower federal revenues and higher interest payments. . . . *At some point, investors would begin to doubt the government's willingness or ability to pay U.S. debt obligations, making it more difficult or more expensive for the government to borrow money.* Moreover, even before that point was reached, the high and rising amount of debt that CBO projects under the extended baseline would have significant negative consequences for both the economy and the federal budget [italics added].

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– perhaps it won't rise as rapidly as the CBO projects. On the other hand, since the 1920s it's never decreased on a year-on-year basis; further, during the past decade the CBO and others' forecasts have erred on the side of over-optimism. For that reason, I'd guess that the CBO and others are more likely to underestimate than to exaggerate the extent of the troubles to come.



How significantly negative? Consider the CBO's full range of scenarios from 2013 to 2038. Only in three of 13 – two of which imagine sharp cuts of spending or stiff increases of taxation, which is hard to imagine – does the national debt shrink from its current level (close to 100% of GDP). In all the others, it increases to as much as 190%. Assuming that politicians behave as they always have, raising spending more than taxation, this latter percentage is plausible. “Only a fantasist,” said Niall Ferguson ([The Shutdown Is a Sideshow: Debt Is the Threat](#), *The Wall Street Journal*, 4 October 2013),

can seriously believe “this is not a crisis.” The fiscal arithmetic of excessive federal borrowing is nasty even when optimistic assumptions are made about growth and interest rates. Currently, net interest payments on the federal debt are around 8% of GDP. But under the CBO's extended scenario, that share could rise to 20% by 2026, 30% by 2049, and 40% by 2072. By 2088, the last date for which the CBO now offers projections, interest payments would – absent any changes in current policy – absorb just under half of all tax revenues. That's another way of saying that policy is unsustainable.

Yet Janet Yellen, Ben Bernanke's successor as the head of the FOMC, isn't merely unfazed: she's upbeat. She “doesn't see ... the risk that the extremely low rates [of recent years] could destabilise the financial system” ([Yellen Sees Little Threat to Stability](#), *The Australian*, 3 July 2014). Moreover,

In her remarks on Wednesday at a conference sponsored by the International Monetary Fund, Ms Yellen disputed criticism that the Fed had contributed to the 2008 crisis by keeping rates too low earlier in the decade. She acknowledged that financial stability risks “escalated to a dangerous level in the mid-2000s” and that policy-makers, including herself, overlooked the vulnerabilities in the financial system that would make the subsequent decline in home prices so destabilising. “Policy-makers failed to anticipate that the reversal of the house price bubble [whose very existence her predecessor emphatically denied!] would trigger the most significant financial crisis in the United States since the Great Depression.”

... Ms Yellen spoke one day after the Dow Jones industrial average set a record for the stock market. Some critics of Fed policies have warned that the central bank could be setting the stage for another



dangerous bubble by keeping rates so low for so long. But in her speech, Ms Yellen said she didn't see dangerous excesses in the financial system. She said that there were "isolated areas of increased risk taking" but that those could be dealt with through regulatory changes rather than by raising rates.

Like the butcher who becomes a vegetarian, Guy Dobell, an Assistant Governor of the RBA, finds "it somewhat surprising that the market in aggregate is willing to accept the central banks at their word and not think so much for themselves," adding that there's as much uncertainty now as there was in the past about the future path of rates. "While there is more forward guidance from central banks than in the past, investors don't have to believe it" ([Sell-off Will Be Violent, RBA Tells Investors](#), *The Australian*, 15 October 2014).

### **First a Gold Standard, Then a Brass Standard, Now a Central Planners' Standard**

Janet Yellen points to today's tiny rates of interest as evidence that the Fed's "stimulus" since 2008 has succeeded. So does Ben Bernanke ([Bernanke Tells U.K.'s King: "We Saved Our Economies"](#), *MarketWatch*, 29 December 2014). In sharp contrast, I regard them as dangerous experiments whose consequences (namely reckless lending, borrowing, investment and consumption) will cause havoc when rates revert towards their long-term means. Easy money today merely defers harder decisions to tomorrow. Stephen Roach agrees. In [The Lemmings of QE](#) (*Project Syndicate*, 28 January 2015) he concludes: "like lemmings at the cliff's edge, central banks seem steeped in denial of the risks [they've created]." Do these experiments and "emergency" (that was the rationale in 2008-2009) rates prove that central banks are credible – or that the herd is gullible? Central bankers regard debt as a mere entry on a balance sheet. In my view, it's much more: not only does growing and unpayable debt pose a fiscal danger; it facilitates corruption and reflects moral decline. Am I crazy or is Janet? Am I too cautious or is the mainstream too confident? Are the bulls right to boast that rates *won't* rise? Or, deep down, do they really fear that they *mustn't* rise because the consequences will be so dire?

James Grant has recounted that, in order to enlarge his circus empire, early in the 20<sup>th</sup> century the legendary American showman, P.T. Barnum, stretched himself to the financial limit. A friend asked Barnum how he intended to

finance these transactions. "With brass," he replied irreverently, "for silver and gold I have none." Were he alive today, he'd feel right at home. Since the late 1970s in most Western countries, indebtedness (whether corporate, household or government) has exploded. Yet because rates of interest have cumulatively plunged, the burden of debt has eased. We can summarise the era's conventional wisdom: "Long-term saving and entrepreneurship is for chumps; borrowing, speculation and get-rich quick is for champs." Events in 2007-2009 dented this alleged wisdom but haven't overturned it. The updated (post-2009) version might read: "In a bull market, the way to wealth is debt. In a bear market, debt is the way to oblivion; alas, the bear can arrive suddenly and seemingly (to the crowd) without warning. Nobody can reliably ring a bell which announces the end of the bull and the start of the bear."

Debt is often called "leverage" because it magnifies financial results. It facilitates the sale of businesses, cars, houses, etc., to buyers who otherwise couldn't afford them; it thereby makes the boom broader and longer than it otherwise might be. But when the cycle turns the process reverses. Marginal transactions, which debt financed, must be unwound through foreclosure or bankruptcy; the prices of assets, which debt boosted to unrealistic heights, must fall – and a chain reaction crimps the prices of other assets. When over-extended borrowers reap the whirlwind of what they've sown, debt proves to them, conclusively, that they couldn't afford these things after all.

Debt is thus the fair-weather friend *par excellence*. It's your best mate on the upside and your worst enemy on the way down. Ever more experts and market participants are regarding the events of 2008-2009 as an inexplicable aberration rather than the consequence of profligate causes; hence they're striking it from their memories. As they see it, so long has the financial sun been shining that the skies will never darken. But if you're prepared to stand apart from the crowd and can acknowledge at least the possibility of an extended spell of inclement financial weather, it'll behove you to reflect upon the indebted American (and Australian, British, Canadian, Chinese, European, Japanese, etc.) condition, and to consider the likelihood that one day debt – and the central banks that have spawned it – may become just as reviled as it's now revered. As Grant put in on 6 January 2015:

The heirs of today's bondholders will read with amazement the history of post-2008 monetary policy. They will marvel at the faith of a non-churchgoing people in the mystical powers of central bankers.

They will mourn the destruction of the wealth their forefathers entrusted to feckless governments at barely positive rates of interest – or, in the cases of Switzerland, Germany and Japan, negative.

I've long pondered how investors might avoid – and even profit from – this course of events. Not only does the severe recession, vicious bear market and precipitous increase of rates that occurred during the 1970s figure heavily in my thoughts: so too does a specific event that occurred in Stockholm little more than 40 years ago. On 9 October of 1974, the Bank of Sweden Prize in Economic Science in Memory of Alfred Nobel (commonly and falsely known as “the Nobel Prize in Economics”) was co-awarded to a scholar who believed that the prize shouldn't exist. In his acceptance speech on 11 December, the Austrian-born and Austrian School economist, Friedrich Hayek (1899-1992), noted that regarding economics as a science fuels “the pretence of knowledge” – that is, élites' dangerous conceit that society is putty that they can mould into a shape that conforms to their desires (and their models' parameters).

Hayek, in contrast, contended that society is far more complex than we realise, and certainly far more than a team of Ph.D.s with arcane models, huge amounts of data and powerful computers can possibly manage. For Hayek (his mentor, Ludwig von Mises, used different premises but reached a comparable conclusion), the insuperable problem of the central planner is the saving grace of those whom he seeks to plan. Knowledge is only partly explicit and systematic; it's mostly tacit, and comprises numberless pieces dispersed among countless acting individuals. Hence “the curious task of economics,” Hayek famously concluded (*The Fatal Conceit: the Failures of Socialism*, University of Chicago Press, 1988), “is to demonstrate to men how little they really know about what they imagine they can design.”

Government interventions of recent years – ZIRP and QE are merely the tip of a vast iceberg – indicate that our rulers really do believe, despite common sense and recent experience, that they can plan and manage the economy. Alternatively, perhaps they've become desperate because they simply don't know what else to do. Gosplan (central planning of the Soviet economy by the Politburo), they readily concede, failed. But our rulers stridently reject the very possibility that, for exactly the same reason, central planning of Western economies by central banks will also collapse.

The elite's ignorance-garbed-as-hubris backfires, always and usually spectacularly, bringing in its wake what Hayek dubbed "unintended consequences." *The unprecedentedly extreme policies hastily enacted to extend the boom of 2003-2007 and to quell the crisis of 2007-2009 have, I suspect, merely set the stage for and lit the fuse of yet another crisis.* When will it erupt? Alas, if only I could see the "foreseeable" future! Were he here today, it's unlikely that central bankers' recklessness would either surprise or impress Hayek. "Instead of furthering the inevitable liquidation of the maladjustments brought about by the boom during the last three years," he wrote in 1932,

all conceivable means have been used to prevent [the] readjustment from taking place; and one of these means, which has been repeatedly tried though without success, from the earliest to the most recent stages of depression, has been this deliberate policy of credit expansion [and suppression of interest rates]. ... To combat the depression by a forced credit expansion is to attempt to cure the evil by the very means which brought it about; because we are suffering from a misdirection of production, we want to create further misdirection – a procedure that can only lead to a much more severe crisis as soon as the credit expansion comes to an end (see the Preface to *Hayek's Triangles: Two Essays on the Business Cycle*, Laissez-Faire Books, 2013).<sup>11</sup>

Little – least of all our rulers' hubris – surprises Bill Bonner, president of Agora Publishing and co-author of *Empire of Debt: The Rise of an Epic Financial Crisis* (John Wiley & Sons, 2006). "The Fed's EZ money policies," he says,

will either succeed or fail. Either way, it will be a disaster. If they succeed, interest rates will rise ... and America's debt-addicted economy will get the shakes. If they fail, the Fed will double down with further acts of reckless improvisation – including

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<sup>11</sup> "The artificial prosperity cannot last," Hayek's mentor, Ludwig von Mises, said in 1946, "because the lowering of the rate of interest, ... not corresponding to the real state of the market data, has misled entrepreneurial calculations. It has created the illusion that certain projects offer the chances of profitability when, in fact, the available supply of factors of production was not sufficient for their execution. Deluded by false reckoning, businessmen have expanded their activities ... They have underrated the degree of the scarcity of factors of production and overtaxed their capacity to produce. In short: they have squandered scarce capital" (see "The Economic Consequences of Cheap Money," in *The Cause of the Economic Crisis, and Other Essays Before and after the Great Depression*, Mises Institute, 2006).

bigger doses of credit – until the whole thing blows up ([Interest Rates: Something Wicked This Way Comes](#), *The Daily Reckoning*, 9 July 2013).

Interventionists' attempts to plan the economy centrally have repeatedly failed dismally. Have we any reason to expect that "it's different this time" – that is, that ZIRP, QE and all the rest won't, like all other interventions, trigger unintended negative consequences (first economic stagnation, finally financial crisis)? Were he here today, Hayek would counsel more humility and hence *finis* to interventionism. "We shall not grow wiser before we learn that much that we have done was very foolish," he wrote in *The Road to Serfdom* (1944). That book's early warning and enduring lesson is that central planners' errors (if we're lucky) and catastrophes (when we're not), which stem from their pretence to knowledge, make the rest of us poorer and less free.

I don't blame monetary central planners because they repeatedly give us the wrong rate: I criticise them because they presume to know the right rate. If only they'd spare us their artificially *low* rates by abdicating and letting unfettered private buyers and sellers discover *true* rates. Then, at last, we could put our affairs into proper order. Alas, there's absolutely no reason to believe that any such change of mindset is imminent. In that critical respect, it's indisputably – and very unfortunately – not different this time!

*Chris Leithner*