

# Negative Interest Rates

## Symptom of Crisis or Instrument for Recovery

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A near-unprecedented turn to negative interest rates to trigger a recovery has characterised the monetary policy in several developed countries and in Europe. This is the result of a shift away from fiscal policy to an almost exclusive reliance on monetary policy, involving quantitative easing and low interest rates, in macroeconomic interventions across the globe. The failure of this macroeconomic stance has led to the phenomenon of negative rates in countries other than the United States, and the first sign of even a partial recovery in that country has been enough to set off a reversal.

A bizarre phenomenon has characterised several developed capitalist economies since 2014—negative interest rates. Depositors, principally banks, holding deposits with central banks in Europe, Japan and elsewhere, as well as retail customers holding deposits in PostFinance, Switzerland's fifth largest commercial bank owned by its postal service,<sup>1</sup> are being penalised rather than being rewarded when they hold deposits. This is unprecedented. Evidence collated by Homer and Scylla (2005) suggests that there is no observed instance of negative interest rates in the 5,000 years preceding its recent occurrence.

It is, of course, difficult for commercial banks to impose negative interest rates on their depositors, who may then choose to hold cash. So in the first instance, this penalty tends to be imposed by central banks which set policy rates on banks that choose to hold deposits with the former. The message sought to be sent out is that banks are supposed to use available resources to lend, and not to earn a small return from depositing that money with the central bank.

The process was triggered by the European Central Bank (ECB), which in June 2014 reduced its deposit facility rate to -0.1%,<sup>2</sup> to address stagnation and deflation in the region. Since then, many national central banks, such as those in Denmark, Sweden, Switzerland and Japan, have moved the interest "paid" on part of the deposits with them, to negative territory. This shows that the widespread trend observed after the Great Recession set in around 2008, for policy rates to be cut to stall and reverse the downturn, has gone so far in some countries that rates have breached the zero-barrier. The ECB itself has in three steps cut its deposit rate to -0.2%, -0.3% and -0.4% in September 2014, December 2015, and March 2016 respectively (Figures 1–3, p 54).

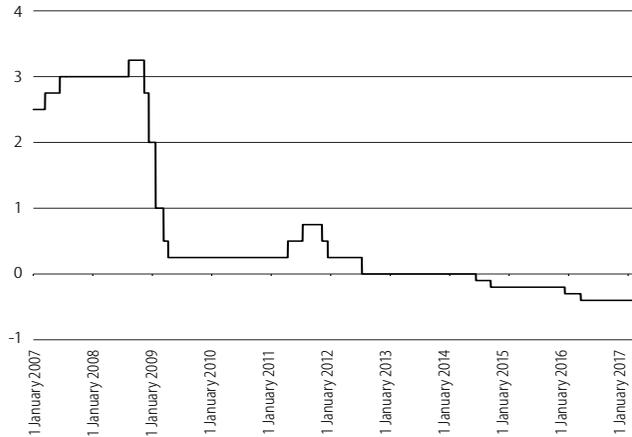
### Implications of Negative Interest Rates

The implications of negative interest rates are obvious. They discourage the holding of deposits by rendering them not just barren like cash, but going further and penalising those who chose to hold deposits rather than use the purchasing power that they represent. So this would push holders of purchasing power who do not want to immediately use it, to either hoard it in the form of cash or invest it in safe assets that offer a positive return. The first port of call for investments we should expect would be risk-free government bonds.

This results in another bizarre development. When depositors are pushed into investing their money in safe assets such as domestic and foreign government bonds that offer positive

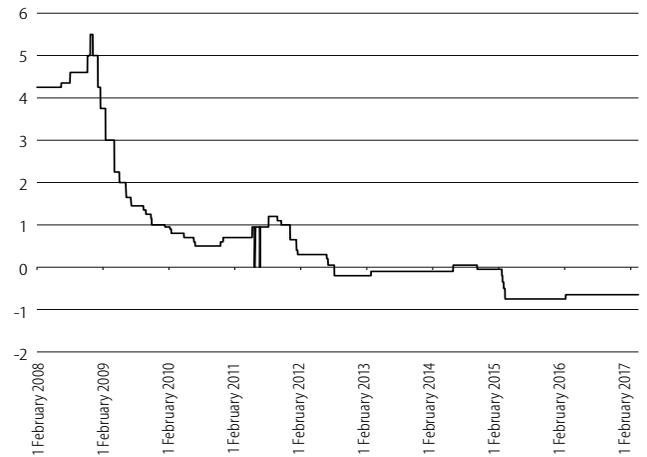
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Figure 1: ECB Deposit Facility Interest Rate (%)



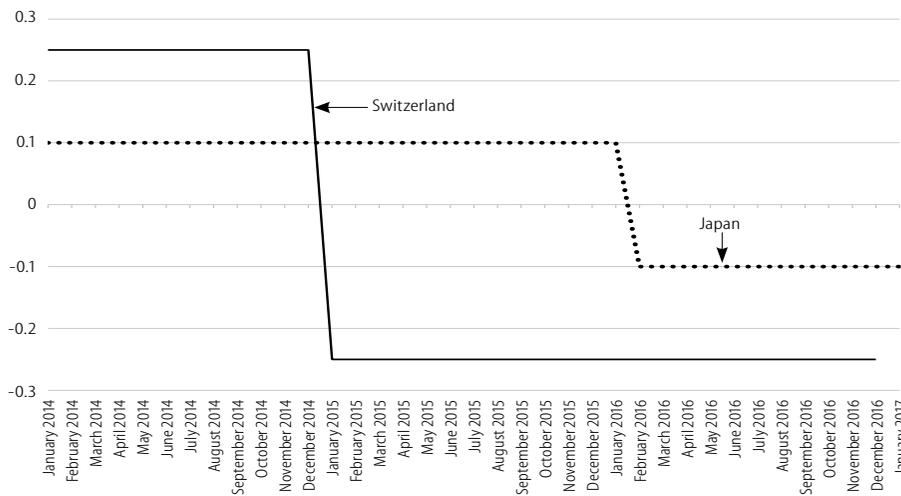
Source: [https://www.ecb.europa.eu/stats/policy\\_and\\_exchange\\_rates/key\\_ecb\\_interest\\_rates/html/index.en.html](https://www.ecb.europa.eu/stats/policy_and_exchange_rates/key_ecb_interest_rates/html/index.en.html).

Figure 2: Danmarks Nationalbank Rates—Certificates of Deposit (%)



Source: <http://nationalbanken.statbank.dk/nbf/99541>.

Figure 3: Policy Rates of Central Banks in Switzerland and Japan (%pa)



rates, this causes large increases in bond prices. On the one hand, the current yield on a bond, which is the ratio of a fixed annual coupon payment due on the bond to its current market price, falls as its price rises. On the other, when a bond is held to maturity, the bondholder is repaid not the prevailing market price, but the par or face value of the bond. So if an investor buys into a bond when its price is ruling high relative to its par value, its yield if held to maturity can be negative since the coupon payments due till maturity and the par value do not cover the high price paid for its acquisition. That is, bond yields turn negative as well. This condition is unprecedented. But bond preference has in recent months been so high that yields in countries like Japan, Germany and France entered negative territory, with investors paying the governments for borrowing from them if they hold sovereign bonds to maturity.

Three factors, among others, explain large investments in bonds in some Organisation for Economic Co-operation and Development (OECD) countries despite the promise of negative yields. First, the late adoption of central bank quantitative easing (QE) policies in Japan and Europe, involving large purchases of government bonds. These countries opted initially for interest rate cuts to spur recovery. This was especially true

in Europe, where some members of the monetary union considered it inappropriate for the ECB to buy sovereign bonds of member countries, as they feared it would encourage a lax fiscal stance. It was only in early 2015 that the bond-buying policy adopted by the United States (US) and the United Kingdom (UK) in the wake of the Great Recession was followed by the ECB, since it was clear that interest rate reductions had not been successful in addressing stagflation. When the Japanese central bank and the ECB shifted to buying bonds to infuse liquidity, the demand for bonds

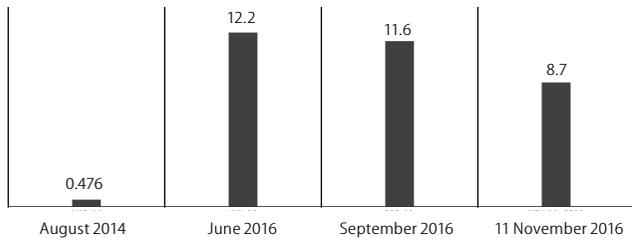
rose irrespective of yield, raising prices.

Second, the demand for bonds rose because of the uncertainty created by the recession, and the financial turmoil that followed was such that the cost and/or risk of holding deposits, or more cash, was seen as high enough to warrant turning to no-risk or low-risk government bonds and even to investment grade corporate bonds, despite their rising prices.

Third, inflation was at such a low that the real (inflation-adjusted) loss of holding negative-yielding bonds may not have been as large even when compared with losses that may have been suffered on positive-yielding bonds in high inflation periods.

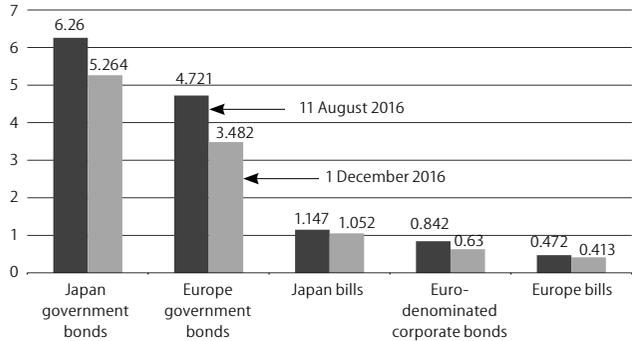
The rise in bond prices that results from the increase in demand for bonds leads in turn to a sharp rise in the volume of negative-yielding bonds, especially government bonds, being held by investors. By July 2016, Citi had estimated that around a third of developed country government debt was trading at negative yields (Karaian 2016). That figure was placed at 45% by October 2016 (Reuters 2016). This peculiar feature soon characterised some investment grade corporate bonds as well, as investors bought into them despite higher risks, because they offered a higher positive current yield than government

**Figure 4: Value of Negative Yield Government and Investment Grade Corporate Bonds—Bloomberg** (\$ trillion)



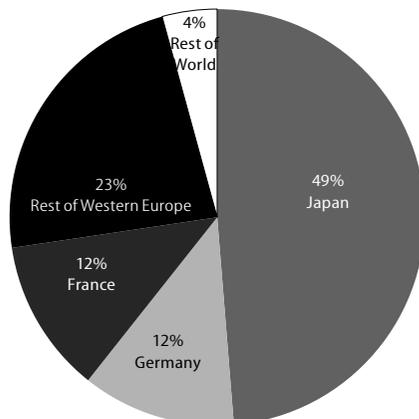
Source: Bloomberg from Kuntz (2016, 2016a).

**Figure 5: Value of Negative Yield Bonds by Type—Fitch** (\$ trillion)



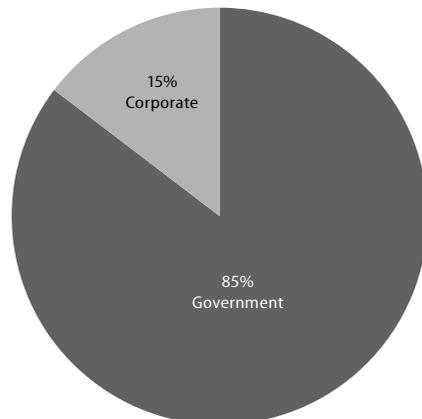
Source: Fitch Ratings from Samson (2016).

**Figure 6: Distribution of Negative-yielding Bonds by Location on 30 September 2016**



Source: Bloomberg from Kuntz (2016).

**Figure 7: Distribution of Negative-yielding Bonds by Type on 30 September 2016**



Source: Bloomberg from Kuntz (2016).

bonds. Estimates of the total market value of negative-yielding bonds vary, since estimation involves identifying such bonds based on some gauge of their prevailing market value (converted into a common currency, if necessary, at some exchange rate). Bloomberg, for example, reports that the total value of such bonds rose from \$476 billion in August 2014 to a peak level of \$12.2 trillion in June 2016 (Figure 4) (as quoted in Kuntz 2016, 2016a).

As is clear from Figure 5, most of these bonds were sovereign bonds, and had been bought in Japan, followed by Europe. As on 30 September 2016, of the total face value of \$11.6 trillion of negative-yielding investment grade bonds in the broad Bloomberg–Barclays index, \$5.7 trillion originated in Japan and \$5.5 trillion in Europe. Further, \$9.9 trillion of these bonds, or more than 85% were sovereign bonds (Figures 6 and 7) (Kuntz 2016).

Underlying this trend is a much more proactive role for monetary policy in countering deflationary trends. Thus, in

the March 2016 move by the ECB, besides reducing the interest it pays on deposits or the negative rate from -0.3% to -0.4%, it offered zero interest loans to banks, with the promise that if they use that money to lend 2.5% or more than they were previously doing, then the ECB would pay them the equivalent of 0.4% of what they borrowed from it as interest. In sum, the central bank is promising to pay banks that borrow from it, so long as they increase their lending to households and firms.

The motivation for negative deposit rates is clearly to pressure or persuade banks to lend rather than hold on to reserves with the central bank. This was not the first time that central banks have opted for such a policy (the Swedish Riksbank had flirted with it in 2009–10). But this time around, the tendency spread fast, with more countries adopting action along these lines.

**From Private Debt to Public Debt**

There are two questions to be answered here. The first is why this phenomenon that was initially seen as a freak occurrence—negative interest rates—has recurred across a wide swath of developed countries and persisted for so long. The second is why the us has been relatively free of this phenomenon, though us interest rates have been near zero for a considerable period of time.<sup>3</sup>

The answer to the first question seems to lie in two factors, which together account for the spread of the phenomenon across developed countries. One is the mechanism underlying the pre-2008 boom in industrialised countries and the resulting crisis. The other is the nature of the post-crisis stimulus in much of the developed world.

During the pre-2008 boom in the developed world, a financial surge triggered real economy growth based on a debt-financed explosion in housing investments and consumption, which fed on itself. Based on the premise that financial innovation led by securitisation

had managed to distribute risk and dissolve it, the financial sector not only substantially increased credit provision in the system but also did so by expanding the universe of borrowers and bringing into its ambit those who were unlikely to be able to bear the burden of that debt. In the event, the proportion of potential defaulters in the borrower universe increased substantially, leading to the bursting of the credit bubble. Once the crisis occurred, even if the banks were rescued, unless the government restructured the debt of borrowers, as opposed to only the balance sheet of the lenders (the banks and financial firms), demand would not revive. But little was done to restructure and reduce household debt, and restore employment, incomes and household balance sheets to the pre-crisis situation.

Close examination suggests that as the response aimed at resolving the financial crisis unfolded, the ability of the system to address and deal with crisis of the real economy was subverted. As noted, an important characteristic of capitalist

growth in the late 1990s and the first decade of this century was that it was driven by debt-financed private investment (largely in housing) and consumption, riding on a series of asset price bubbles in stock, housing, and real estate markets. The bubbles, by making people feel that they were richer than anticipated, encouraged and fuelled debt-financed consumption. This, of course, served the interests of increasingly dominant finance capital, which could argue that it was serving as the engine of a new economy, while deriving huge returns in various forms from the process.

This trend was accompanied by an ideological push to legitimise the role of private capital in general and finance capital in particular, and delegitimise the role of the state that was increasingly portrayed as being over-intrusive, inefficient and responsible for inflation and slow growth. An important component of such advocacy was the position that the state should substantially limit its tendency to resort to debt-financed public expenditures, partly on the ground that this was inflationary. This had as its corollary, an appreciation of the role of financial expansion in spurring debt-financed private expenditure.

The resulting shift from public expenditure to debt-financed private expenditure as the stimulus for growth, and the defence of that shift in the form of an initially ascendant and now dominant neo-liberal ideology, has had important implications for the ability of the system to deal with the Great Recession. In the first instance, having opposed large unrequited public expenditures, especially bailouts, finance capital had to find ways of justifying the huge demand it had to make on taxpayers' money to save itself. Declaring the financial crisis as being an exceptional, unpredictable, and almost unprecedented event, financial firms (especially those located in the us) garnered for themselves huge support from the state, which in their view, was not supposed to intervene in markets. Even if taxpayers were to bear the burden of this systemic bailout over time, governments in the developed countries had, in the first instance, to borrow heavily, and central banks had to loosen their monetary strings.

This had two implications. On the one hand, public deficits and the public debt to gross domestic product (GDP) ratio shot up, as governments borrowed to finance "stimulus packages" that were substantial cash infusions to save financial firms. On the other hand, the financial firms being rescued, used access to this zero interest liquidity provided against worthless collateral to buy into this public debt with positive returns, and quickly returned to profitability. So governments got increasingly indebted and the financial firms being rescued accumulated a part of the bonds issued to finance debt. According to one estimate (Dobbs et al 2015), the total amount of debt incurred by governments across the world rose by a massive \$25 trillion between 2007 and 2014, with 75% of that increase occurring in the advanced economies. In sum, what was a private debt problem when the crisis began, turned into a public debt problem once the financial firms were saved from bankruptcy.

So long as debt was being incurred largely to save finance, all objections to excessive public borrowing were buried. Problems arose when, having saved the banks and financial firms, governments turned their attention to restoring growth and

strengthening safety nets for those who had been rendered unemployed and/or were hit badly by the crisis. At this point, the traditional hostility of finance against government deficits and public debt came to the fore, aggravated by the fear that at least some governments that were hit by the crisis might default on their debt.

### **Monetary Policy as Principal Instrument for Recovery**

What was surprising was that governments succumbed to the pressure not to use debt-financed fiscal spending as a means of stimulating a recovery. This made monetary policy measures, such as liquidity infusion and interest rate reduction, the principal instruments to combat recession and spur recovery. The us Federal Reserve (Fed) boosted its balance sheet from around \$800 billion to more than \$4 trillion by 2014. Capital was made available at extremely low, near-zero interest rates. Once the crisis spread to Europe, this policy was adopted there as well.

This turn in policy clearly ignored the lessons from the run-up to the 2008 crisis. As noted earlier, the crisis was the culmination of a trajectory of growth in which debt-financed private investment and consumption provided the demand-side stimulus for growth. As a result, private sector balance sheets were overburdened with debt that firms and households found difficult to service in the midst of a recession. It was unlikely that the private sector would once again be able to increase its borrowing substantially. What was needed, therefore, was more emphasis on raising demand with increased public expenditure, and not a return to monetary policies aimed at creating another bubble.

Implicit in the dependence on monetary policy is the idea that private debt at low interest rates would substitute for public debt to revive demand and growth. The problem is that this expected outcome is not being realised, partly because firms and households already overburdened with debt are not confident of raising earnings to levels needed to service additional debt. The flip side of this is that banks and other financial institutions are less willing to lend because of the fear of default. Since monetary policy is directed in the first instance at these institutions, the reliance on such policies even when they are not effective has had some bizarre effects (Chandrasekhar and Ghosh 2016).

One such effect is the movement of rates to negative territory, reflecting the desperation of governments, which find that deep rate cuts have not had the desired effects of stalling the downturn and ensuring a recovery. One form the tendency takes is for central banks to set their policy rates, which signal their monetary stance, below zero. Thus, negative rates are the consequence of policymakers betting on interest rate cuts to drive growth through multiple channels. To start with, they expect bank lending rates to come down and encourage households and firms to spend and/or invest more, raising demand. Second, investors not wanting to pay governments for holding their money are expected to turn to asset markets like the stock market. That would raise financial asset prices and trigger the oft-cited "wealth effect." With the value of paper or real assets rising, holders of those assets would be encouraged to spend more today rather than add further to accumulated

wealth, spurring demand. Finally, since low and negative interest rates in a country would discourage foreign investors from investing in bonds and financial assets in the country concerned, the currency can depreciate, improving the competitiveness of exports.<sup>4</sup>

As noted, these expectations are not being realised. Households and firms being still burdened with debt are wary about borrowing more, and banks are cautious of increasing their exposure to them even if pushed by the central bank. Recent evidence suggests that consumers have increased their savings and reduced their debts in Denmark, Sweden, and Switzerland (Pozen 2016). In Japan too, consumers are reportedly saving more. One reason could be that negative interest rates may be seen as a signal of bad times ahead, encouraging individuals and households to forego consumption today to insure themselves against impending hardships. Moreover, lower interest rates are not the best instrument at driving investment, and definitely not during a recession. A study of corporate investment in the US over 1952–2010 has found that: “Investment grows rapidly following high profits and stock returns but, contrary to standard predictions, is largely unrelated to recent changes in market volatility, interest rates, or the default spread on corporate bonds,” and that adjusting the interest rate by 1% or 2% does not generate a change in the investment behaviour of corporations (Kothari et al 2015).

Finally, even the expectation that capital flows out of a country that is adopting a policy of pushing interest rates below zero, could depreciate its exchange rate, improving export competitiveness and assisting growth, has also been belied. With many countries relying on interest rate cuts, the effective depreciation of currencies, while significant vis-à-vis the dollar, is more or less the same for each of them against the dollar. That neutralises the competitiveness benefits from depreciation relative to the dollar, with little chance of an export boom.

While interest rates cuts, which take them below the “zero-barrier” have had limited or no effect, there is concern about the effect that negative rates can have on financial markets. They could trigger a shift to stocks away from bonds and set off another speculative spiral in stock markets. Negative rates are likely to adversely affect bank profits as well. While banks need to pay depositors a reasonable rate to attract their savings into deposits, the low interest environment and pressure to lend requires them to cut rates they charge their borrowers. The result is a squeeze on margins. The effect this could have on financial markets is still uncertain. In short, there are grounds to believe that, while negative rates, being the result of the ineffectiveness of interest rate reduction as a means to spur recovery, are themselves ineffective, they can lead to financial instability.

### Why Take This Unusual Stance?

Why then are central banks and governments opting for this unusual stance? It is partly because they are trapped by their own macroeconomic stance. In his famous 1943 essay on the “Political Aspects of Full Employment,” Michal Kalecki had argued that the opposition to government spending in capitalist economies leads to dependence on stimulating private investment

through other means such as reducing interest rates or cutting taxes. But this, he noted, can have bizarre consequences. If, for example, the rate of interest or income tax is reduced in a slump (to counter it) but not increased in the subsequent boom (to keep it going),

the boom will last longer, but it must end in a new slump: one reduction in the rate of interest or income tax does not, of course, eliminate the forces which cause cyclical fluctuations in a capitalist economy. In the new slump it will be necessary to reduce the rate of interest or income tax again and so on. Thus in not too remote a time the rate of interest would have to be negative and income tax would have to be replaced by an income subsidy. (Kalecki 1943–71: 143)

In the current context, the problem is not that the interest rate that was reduced during the slump was not raised during an ensuing boom. The problem is that large reductions in policy interest rates when they were in positive territory did not counter the slump. But since governments have forsaken completely the option of relying on the fiscal lever to manoeuvre a recovery, they have no choice but to continue reducing interest rates, which have finally entered negative territory. But that too seems unlikely to trigger growth in the foreseeable future. It is only increasing the prospects of another financial bust.

Yet there are leading advocates of negative interest rates. Some even have a reason why they make the case, but with no real justification based on how it would work. In a November 2013 speech, Lawrence Summers argued against the “zero lower bound”—the perception that interest rates once at zero, cannot be reduced further. To quote a summary of his view, “in a typical slump, the Federal Reserve encourages borrowing by reducing the interest rate to substantially below the rate of inflation, so people are effectively being paid to take out loans. (In econ jargon, that’s a ‘negative real interest rate.’) But interest rates can’t be much below inflation when the inflation rate itself is close to zero, as it is now” (Coy and Philips 2013). Since in Summers’ view the interest rate would need to be 2 or 3 percentage points lower than the inflation rate to get the economy going, “when the inflation rate was just 1.2% and the federal funds rate was kept in the range of zero to 0.25%, the economy was bound to be stuck in a rut” (Coy and Philips 2013). Hence, in his view, “it may be necessary to deal with a world where the zero lower bound is a chronic and systemic inhibitor” (Coy and Philips 2013). Ben Bernanke (2016) too has expressed similar views, arguing in fact that raising the inflation target may not be a good alternative for negative interest rates.

Kenneth Rogoff (2016) also agrees, and his book *The Curse of Cash* is focused on finding ways of mitigating the “zero bound” or “taking it off the table.” The zero bound in Rogoff’s view is now a major problem, since negative interest rates are the only way of restoring post-recession growth given the consequences (errors?) of monetary policy and the global environment. One of these consequences is the collapse in inflation, because of “inflation-targeting evangelism,” with central banks coalescing around an inflation target of around 2%. This brings down inflation expectations as well, making it difficult to get real interest rates down without breaching the zero bound. Another is a substantial increase in economic volatility in contemporary capitalism, which

requires governments to resort to negative interest rates when recessions are deep, as was the case after 2008. A third is that a “global savings glut” of the kind Bernanke popularised, with blame attributed to China and other emerging markets, which has brought “normal” real interest rates lower the world over. Using the interest rate mechanism to affect other variables will therefore require reducing nominal rates below zero.

The misuse of the notion of a savings glut to explain the crisis caused by financial deregulation and the speculative frenzy it triggered has been dealt with elsewhere (Patnaik 2010) and need not detain us here. Besides that, the argument seems to be that the volatility generated by the rise of finance and the single-minded dependence on monetary policy should be addressed through monetary measures such as shrinking cash transactions and doing away with the zero bound that can increase instability even more. This is advocated despite the fact that monetary measures that were sacred to neo-liberal macroeconomists such as “inflation-targeting evangelism” have proved to be a part of the problem and not the solution.

**The US Puzzle**

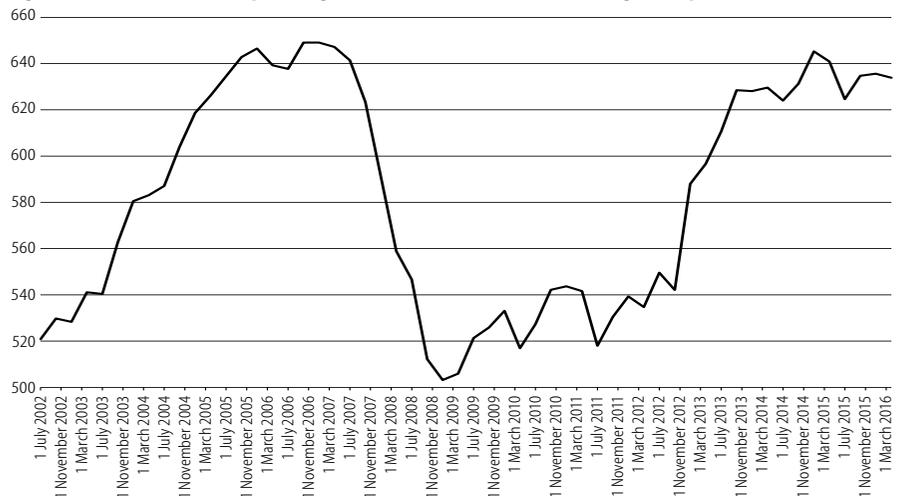
This brings us to the second question raised earlier as to why the us has not had the same experience as Japan and Europe of being pushed into breaching the zero bound. While the us too has seen a long period during which huge volumes of liquidity have been pumped into the economy and interest rates kept at near zero, unlike Europe and Japan, it has not had to reach a stage where interest rates had to turn negative. This is partly because of the fact that though the 2008 financial crisis broke in the us, and then spread to Europe and elsewhere, it is the one country so affected that has been able to stall the downturn and even ensure a slight recovery.

According to the June 2016 survey of the us economy, the OECD (2016) estimates that relative to the pre-crisis peak (in 2008 Quarter 1 or Q1), US GDP in Q4 of 2015 was 10.6% higher. Over the same period, the euro area’s GDP was 0.06% lower and Japan’s 0.37% lower. However, even in the us, not all sections have benefited from the recovery. Writing in June 2016, Baker (2016) argued:

Employment rates are down from prerecession levels even among prime age (25–54) workers with college and advanced degrees. In spite of strong recent job growth, the labor market remains weak. The weakness shows up in wages. The high unemployment of the recession years led to a huge income shift from wages to profits.

This together with the fact that the balance sheets of households and firms are still burdened with debt means that reducing interest rates is not likely to raise demand significantly. However, the access to zero interest credit has not only stabilised the banking system, but set off a boom in the financial assets markets. That boom has been strengthened by the flight to

**Figure 8: Households and Non-profit Organisations—Net Worth as a Percentage of Disposable Personal Income**



Source: Federal Reserve Bank of St Louis at <https://fred.stlouisfed.org/series/HNONWDPDI>.

safety to dollar-denominated assets of the world’s wealth holders and the appreciation of the dollar that followed.

This would trigger an increase in household wealth and affect consumption and investment decisions because as the OECD (2015: 37) notes:

Overall, there is potential for a more important household spending channel for QE in the United States than elsewhere, as financial instruments are larger and held by more households, although their ownership is still highly concentrated.

The us has possibly benefited from this in terms of growth, reducing the pressure to take interest rates to negative territory. The ratio of net worth to disposable income of households and non-profits in the us, which had fallen sharply from its peak in late-2007, has more or less regained its pre-recession peak (Figure 8).

In fact now, low inflation and changed expectations on growth in the us have encouraged the Fed to not just go back on QE, but to raise interest rates as well. On 14 December 2016, the Fed raised the federal funds rate by one quarter of a percentage point, taking its target band for short-term interest rates to between 0.5% and 0.75%. More importantly, it signalled a change in the stance of monetary policy by suggesting that there are likely to be three more rate hikes over 2017, and predicting that the long-term interest rate, which has been in decline, would rise to 3%.

There has been a growing consensus that the Fed has continued with a loose monetary policy, with near zero interest rates and ample liquidity, for far too long. Yet macroeconomic policy in the us has remained trapped in its monetary mire. But politics seems to have offered the Fed an escape route (Chandrasekhar and Ghosh 2017). The real reason that the Fed has chosen this time to go the way it should on the interest rate front is the perception that political circumstances have shifted focus from monetary to fiscal policy when it comes to spurring growth. The source of this conviction is the Donald Trump campaign that promised to cut taxes and boost infrastructural spending to stimulate growth.

If the economic platform that promised such a stimulus, which gave Trump his victory, is implemented, it would amount to a major reversal in the macroeconomic stance adopted by

developed countries for quite some time now. Trump claims that what needs to be done is to stimulate demand and incentivise private investment with tax cuts, and drive growth and jobs with substantially enhanced infrastructural spending. The logic of how this strategy could be pushed without a runaway increase in federal deficits and public debt, which financial investors and many in Trump's team would object to, is nowhere near clear. There is little reason to believe that Trump himself would want to displease finance capital by allowing deficits to widen.

That generates much uncertainty on what the economic policy would really look like under the Trump administration. The Fed Chair Janet Yellen underlined this when she said:

All the (Federal Open Market Committee) participants recognise that there is considerable uncertainty about how economic policies may change and what effect they may have on the economy. (Schneider and Dunsmuir 2016)

Despite that uncertainty, and leveraging the evidence of recovery in the us, the Fed has clearly decided to hand over the task of sustaining and building on that recovery to the fiscal policy that would be pursued by the treasury under Trump. There are no guarantees, however, that the Trump's spending programme will be implemented, and whether it will make any difference to the performance of the economy if it is.

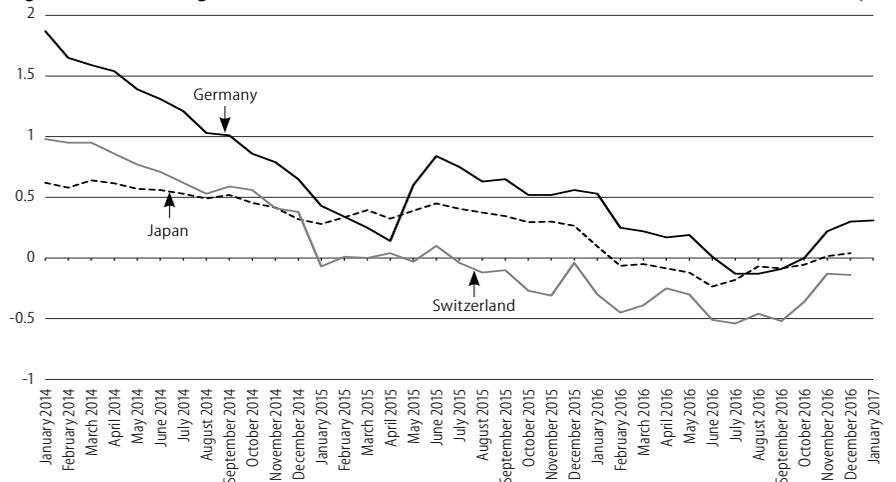
Meanwhile, however, the unprecedented medium-term trend of investment in negative-yielding bonds has reversed itself in recent months, influenced initially by changing Fed perceptions on holding down interest rates and the Brexit vote, but gaining momentum especially after the election of Trump as us President. Principally, taking a cue from the Fed, central bankers elsewhere seem to withdrawing support to negative interest rates in bond markets. Central banks in Japan and Germany have signalled that they were not continuing with their bond buying spree, even when private investors are walking away from these markets where prices are seen as too high.

As Figure 4 shows, the Bloomberg estimate of the total value of negative-yielding bonds, which had declined marginally from its peak of \$12.2 trillion in June 2016 to \$11.6 trillion in September 2016, stood at a much lower \$8.7 trillion on 11 November 2016, having fallen by \$1.4 trillion from 4 November 2016. Bloomberg's Phil Kuntz (2016), reported:

The market value of the world's negative-yielding bonds plunged 14% last week to \$8.7 trillion as investors dumped government debt at a record clip after Donald Trump's upset win stoked speculation that his ambitious fiscal plan would flood the market with new Treasuries and boost inflation ... The Bloomberg Barclays index of the prices for such debt worldwide fell 3.2% last week, the biggest decline since at least 2000, as far back as the data goes.

As was expected, the bond sell-off was concentrated in government bonds (Figure 5). But this was not because there had been any change in the policy rates that were being charged by

Figure 9: Yields on Long-term Government Bonds



Source: CEIC.

central banks (Figures 1–3). Rather it was because of the changed policy on QE which triggered a sell-off that reduced prices and has begun increasing yields on long-term government bonds (Figure 9). As a result, yields on 10-year sovereign bonds have entered positive territory in Japan, German and Denmark since November 2016, coinciding with the election of President Trump. In Switzerland this had begun even earlier.

Yields have risen across the board, led by the us as investors anticipate substantial fiscal stimulus next year under president-elect Donald Trump. The 10-year treasury yield has jumped 0.57 percentage points from the summer lows to 2.4%. In turn, 10-year German Bund yields clocked in at 0.33% on Monday, from as low as -0.189% this summer, while Japan's benchmark bond yield has climbed from -0.287% to 0.041% over that time. (Samson 2016)

One implication of this is that bond trades, prices and yields are not driven by the policy rate alone, but by speculation regarding the role that fiscal policy will play. Clearly, expectations are that the Trump era would be one in which debt-financed state expenditure on infrastructure and related areas would be an important instrument to raise growth. This would mean that (i) central banks may choose to retreat from low interest, easy money policies; (ii) new issues of Treasury bills would increase sharply, reducing bond prices and raising bond yields; and (iii) demand and prices in the real economy could turn buoyant, heralding a new phase of goods-price inflation. If these expectations are realised, many of the factors underlying the surge in the demand for bonds and in bond prices may unwind. In addition, opportunities for investment in the real, commodity producing sectors would increase, providing the basis for the rapid exit from negative-yielding bonds.

All this suggests that there is a difference in the factors driving negative policy rates affecting banks, and negative yields in bond prices, with the latter not merely the result of the transmission of the effects of the former. One the one hand, negative policy rates are being adopted by central banks to address the persistent recession in the global economy, and are supported by governments that see this (as opposed to fiscal policy) as the preferred instrument to engineer a recovery. Trump's rhetoric questions this perspective, and has called for a greater reliance on expenditure measures, though how they would be financed is still unclear. Negative bond yields, on

the other hand, are a fallout of the deflationary environment (rather than the means to address it).

The mere expectation that Trump's ascendancy could trigger a spending surge, and provide the space for the Fed and possibly other central banks to retreat from their failed monetary stance, which has for too long now been based on QE and low or negative interest rates, shook up bond markets. However, the initial sell-off seems to have abated, and what happens next would depend on whether Trump translates his rhetoric into actual policy.

**Implication for the World Economy**

The problem here is not only for the us. It is for the rest of the world economy—especially Europe and Japan that are still mired in recession, and emerging markets that have lost their post-crisis buoyancy. The immediate impact of the rate hike has been continued strengthening of the dollar against all other currencies, extending the gains it has made when differential economic performance and the flight to safety had increased investments in dollar denominated assets. This trend has now gone far enough to take the euro to below \$1.04 per unit, reviving discussion of euro-dollar parity. Elsewhere, Japan has seen a considerable weakening of the yen as well, reflecting similar tendencies.

The trend to euro-dollar parity is the result of the contrary policy direction in the us and the Eurozone. While in the former, moderate growth has led to a reversal of the low interest rate regime, in the latter, worsening economic conditions have led to the adoption of a negative nominal interest rate regime

with multiple rounds of quantitative easing or loose monetary policy. The same is true of Japan, where the government is struggling to get inflation up to a targeted 2%.

Under normal circumstances, this should be a positive development for the slowly growing economies within the OECD, since a weakening currency relative to the dollar can make their exports more competitive. However, two factors are likely to limit this benefit. First, since currencies of countries outside the OECD are depreciating as well, the benefits of a strong dollar in terms of enhanced exports from counterparty countries could flow to them rather than the beleaguered European economies. Second, having won an election on a platform that promised to increase jobs in America and keep them away from migrants, the Trump administration would be under pressure not to hand over the benefits of an improving economy to foreigners. If the rising dollar does lead to falling exports from the us, protectionism is a real possibility. That would only increase uncertainty in the world economy, as predictions of policies implying “de-globalisation” turn true.

Despite all this, an unusual debate has been triggered by Summers, Bernanke, Rogoff and others, who argue for formally accepting negative interest rates as a legitimate instrument of macroeconomic policy. This only reflects the complete absence of alternatives to the interest rate as *the* instrument to deal with the long recession in the reasoning of its advocates. But neither are their arguments right, nor is their belief that negative interest rates can reverse the current recession.

**NOTES**

- 1 See Atkins (2016).
- 2 Negative rates were to apply also to average reserve holdings in excess of the minimum reserve requirements.
- 3 At one point, even Janet Yellen told a Congressional hearing, that the Fed would, if it found it necessary, consider this option. See Smialek (2016).
- 4 Rogoff (2016), who as discussed later is a votary of doing away with the “zero bound” on the interest rate, also sees the advantages of negative rates being delivered through these routes.

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