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Authorities and markets continue to ignore real economy and act on textbook assumptions

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The last few weeks have been turbulent ones in terms of both policymaking and market action.

Stock markets saw sustained declines from the start of the year, apparently because of a slowdown in the Chinese economy and falling oil prices. In the forex market, USD/JPY slipped below 116 at one point as the yen strengthened against the dollar.

These developments were followed last Friday by the BOJ's shock announcement that it would introduce negative interest rates. The decision drove stocks sharply higher and lifted USD/JPY above 121.

Will negative interest rates become global trend?

The market's reaction to the BOJ's action showed that an overwhelming majority of people in the equity and forex markets—both in Japan and elsewhere—continue to hold textbook economic assumptions about how monetary policy will work in today's environment.

Moreover, the sharp reaction of overseas market participants to the BOJ's announcement suggests they see negative interest rates as a global trend.

Negative interest rates had been limited until now to the eurozone and a small number of European countries such as Denmark, Sweden and Switzerland. Now, they argue, Japan's decision to join them has transformed this into a global trend.

Some market participants even now think the US, which has shown signs of a slowdown since late last year, will eventually adopt a negative interest rate regime as well.

Negative interest rates an act of desperation driven by failure of past accommodation

In my view, however, the adoption of negative interest rates is an act of desperation born out of despair over the inability of quantitative easing and inflation targeting to produce the desired results. That monetary policy has come this far is a clear indication that both ECB President Mario Draghi and BOJ Governor Haruhiko Kuroda have fundamentally misunderstood the ongoing recession.

To begin with, despite the all-out efforts of central banks in Japan, the US, the UK and Europe, neither quantitative easing nor inflation targeting were able to achieve their initial objectives.

The BOJ has now pushed back the date when it expects to achieve its inflation target from "around the second half of fiscal 2016" to "around the first half of fiscal 2017," which would be fully four years into the Kuroda/Iwata era.

Failure of monetary easing symbolizes crisis in macroeconomics

This failure clearly demonstrates that the Japanese economy envisioned by Mr. Kuroda and Mr. Iwata at the time of their appointments when they pledged to step down if they failed to achieve 2% inflation in two years was very different from the reality. In short, their models were wrong.

The same mistake has been made repeatedly in the US, the UK and Europe. In each case the monetary authorities undertook extreme quantitative easing measures in an attempt to achieve inflation targets, yet price growth continues to run far below the target levels.

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See Appendix A-1 for important disclosures and the status of non-US analysts.

In view of the fact that some of the most talented, well-educated economists in these countries are working for these central banks, it is hard not to conclude that this global policy failure is less a reflection on the abilities of Mr. Kuroda and Mr. Draghi than a signal of a crisis in the discipline of macroeconomics itself.

Conditions in today's real economy do not conform to macroeconomic assumptions

The definitive difference between the economics that they (and we) studied as university students and the actual economic experience of the US and Europe since 2008 and Japan since 1990 is that traditional economics assumes the private sector is everywhere and always trying to maximize profit. But today the private sector is trying to clean up its balance sheet by *minimizing debt*.

In terms of financial markets, traditional economics means there will always be borrowers as long as interest rates are lowered far enough. In today's world, there are no borrowers no matter how low interest rates are taken.

Traditional economic theory and econometric models assume the private sector is always forward-looking and is always seeking to maximize profit. As such, there will always be someone willing to borrow money to invest as long as real interest rates are low enough. Given that assumption, the focus of economic policy is naturally going to be on the central bank's monetary policy.

And if we assume that the private sector is always trying to maximize profit, fiscal policy (under which the government borrows money to spend) wastes precious private-sector savings and raises the risk that the private sector—which can use funds more effectively than the government—will not receive all the money it needs. That is the primary reason why fiscal deficits are so unpopular.

Traditional economics never envisioned a debt-minimizing private sector

The private sector will always seek to minimize debt after the collapse of a debt-financed bubble. Yet traditional economics not only did not foresee this kind of situation, but does not even have a term to describe it.

Traditional economics did not envision the sort of world we have been living in since 2008 because such conditions were never observed in western economies between the 1940s, when the discipline of macroeconomics as born, and 2008.

Until 2008, in other words, there were always willing private-sector borrowers in the US and Europe who responded to changes in interest rates. In such a world, monetary policy is effective and fiscal stimulus generally frowned upon since it has the potential to crowd out private investment.

Interest rates no longer relevant once people start minimizing debt

But after a debt-financed bubble collapses, the debt remains while asset prices fall, leaving many borrowers technically insolvent or at least struggling.

This is a frightening situation for a company to be in, inasmuch as its banks can shut it down at any moment. After all, banks are not allowed to roll-over loans to bankrupt borrowers, and all financing, including trade credits could disappear once the creditors and suppliers realize the true state of the borrower's balance sheet. For a household, too, it is a dangerous state of affairs in which assets that had been set aside for emergencies or retirement suddenly disappear. The overriding priority for these businesses and households, therefore, is getting out of this situation as quickly as possible.

Emerging from this debt overhang requires businesses and households alike to focus on saving more and paying down debt. Whether interest rates are zero or even negative, people will continue minimizing debt until they have dug themselves out of the hole. The probability of their behavior changing because of a shift in interest rates is negligible.

When this state happens throughout the private sector, not only do private-sector borrowers disappear, but the private sector in aggregate may begin saving instead of borrowing.

Central bank cannot control inflation during a balance sheet recession

Once the private sector begins saving (and paying down debt) in aggregate, the money multiplier turns negative at the margin. The money supply—the money available for the private sector to use—not only does not increase but can actually decrease, regardless of how much base money the central bank supplies.

When the balance-sheet-constrained private sector chooses to minimize debt in spite of zero interest rates, the liquidity supplied by the central bank cannot come out of financial institutions and enter into the real economy due to lack of borrowers. I have dubbed this state of affairs a balance sheet recession, a term that is now heard quite frequently. Unfortunately, the vast majority of people—including Mr. Kuroda and Mr. Iwata—remain unaware of this economic malaise.

Those who do not recognize that balance sheet problems are keeping potential borrowers from borrowing believe the recession is attributable to insufficient monetary easing by the central bank. That leads them to espouse policies such as quantitative easing and negative interest rates. But no matter how far these policies are pursued, there is no reason why the economy should recover until the private sector overcomes its balance sheet problems and turns forward-looking again.

Professor Paul Krugman, who was the first to recommend that this state of affairs be addressed with inflation targeting and quantitative easing, has proposed that a 4% target should be adopted if a 2% target does not work. But the current situation is not one that can be addressed with such trivial adjustments. Interestingly, even Professor Krugman has come to admit that non-conventional monetary easing adopted up to now were "not a game changing tool." ("Krugman: 'Meh' is grade Fed gets on QE," published on Nov 9, 2015 on Market Watch.)

The theory that inflation is a monetary phenomenon that can be controlled by the central bank, since the central bank controls the supply of money, is valid in a world in which there is an ample supply of private-sector borrowers. But it is mere nonsense in the post-bubble-collapse world of a balance sheet recession, where this condition is not satisfied.

Gulf between real world and economy as envisioned by economists continues to widen

In that sense, the economies of Japan, the US, the UK and Europe now fall completely outside the realm of traditional economics, yet the vast majority of policymakers and economic agents continue to operate as though this were not the case, and the textbook world envisioned by economists still existed. This misunderstanding has complicated the situation greatly.

In other words, the equity and forex markets have responded directly to central banks' negative interest rates and quantitative easing, but businesses and households in these countries refused until quite recently to borrow any money at all. The implication is that the exchange rates and share prices set by these markets are on very shaky ground.

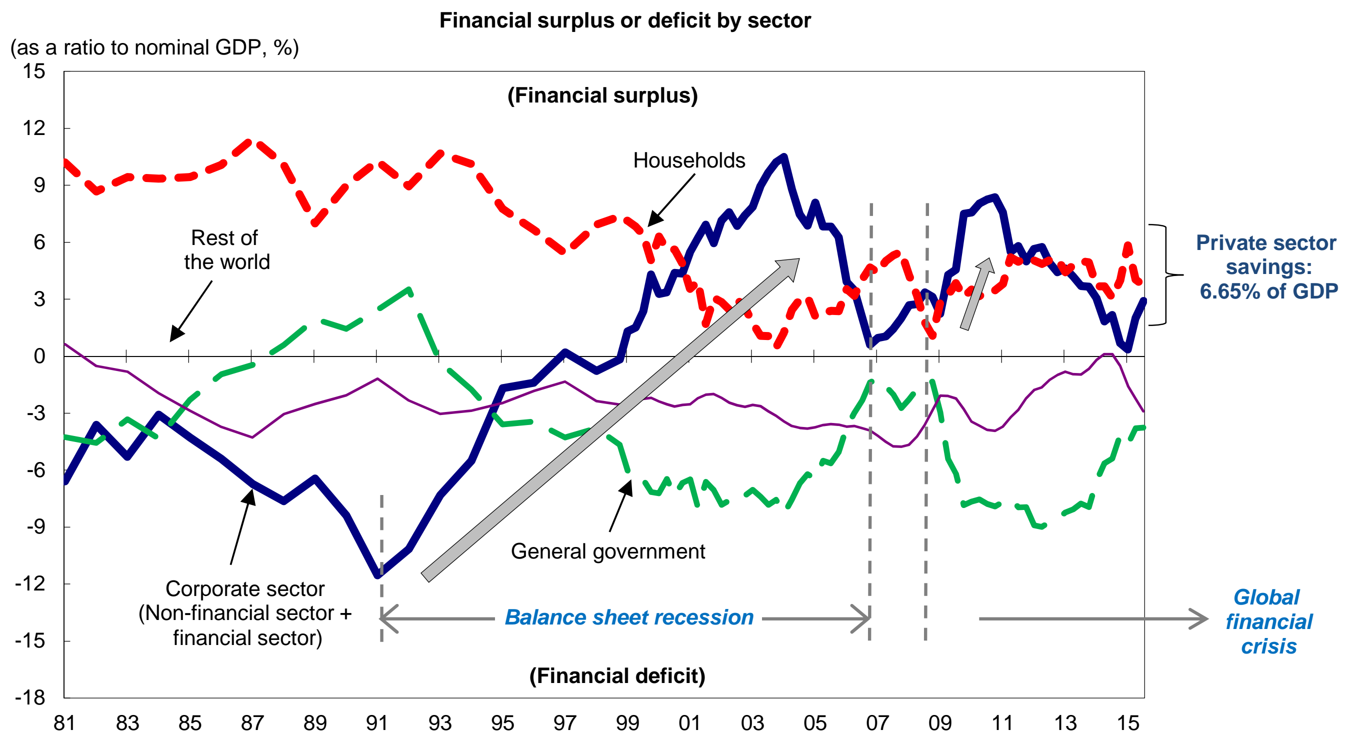
As noted in the last issue of this report, forex traders over the past seven years have orchestrated heavy sell-offs of the currencies of countries announcing quantitative easing programs based on the assumption that the money supply in those countries would increase far more than the money supply of non-QE nations. But in reality, the money supply in all countries has been essentially stagnant as businesses and households continue to pay down debt.

In the same way, stock prices have appreciated each time further monetary easing measures have been announced, based on the assumption that those measures would increase the money supply and lift the economy. But the money supply has not grown meaningfully in any of these countries.

Although the forex and equity markets responded sharply to the BOJ's negative interest rate announcement, the changes in the real economy that would justify such moves and nowhere to be seen. At some point, therefore, I would not be surprised to see a reaction in the forex and equity markets that helped to fill the gap between expectations and the real economy.

Japan's private sector continues to post large savings surplus
Using flow-of-funds data to examine the phenomenon of debt minimization and savings maximization, we find that Japan's private sector saved a net 6.7% of GDP in the twelve months through 2015 Q3, a period when interest rates were at zero (Figure 1).

Fig. 1: : Japan must now deal with exit from balance sheet recession



Note: Figures adjusted for the assumption of debt related to the Japan National Railways Settlement Corp. and national forest and field service special accounts (FY98) and for the impact of the FY07 privatization of Japan Post. Figures since end–1998 are trailing 4-quarter moving averages, and the most recent data points are for the four quarters through 2015 Q3.

Source: BOJ'S *"Flow of Funds Accounts, and Government of Japan"*, Cabinet Office's *"National Accounts"*

The balance sheets of Japanese companies were mostly clean by 2005, bank lending rates are at an all-time low, and companies see banks as being willing lenders, according to the BOJ's Tankan survey. That businesses continue to save in spite of these conditions underscores both the severity of the debt trauma and the dearth of domestic investment opportunities.

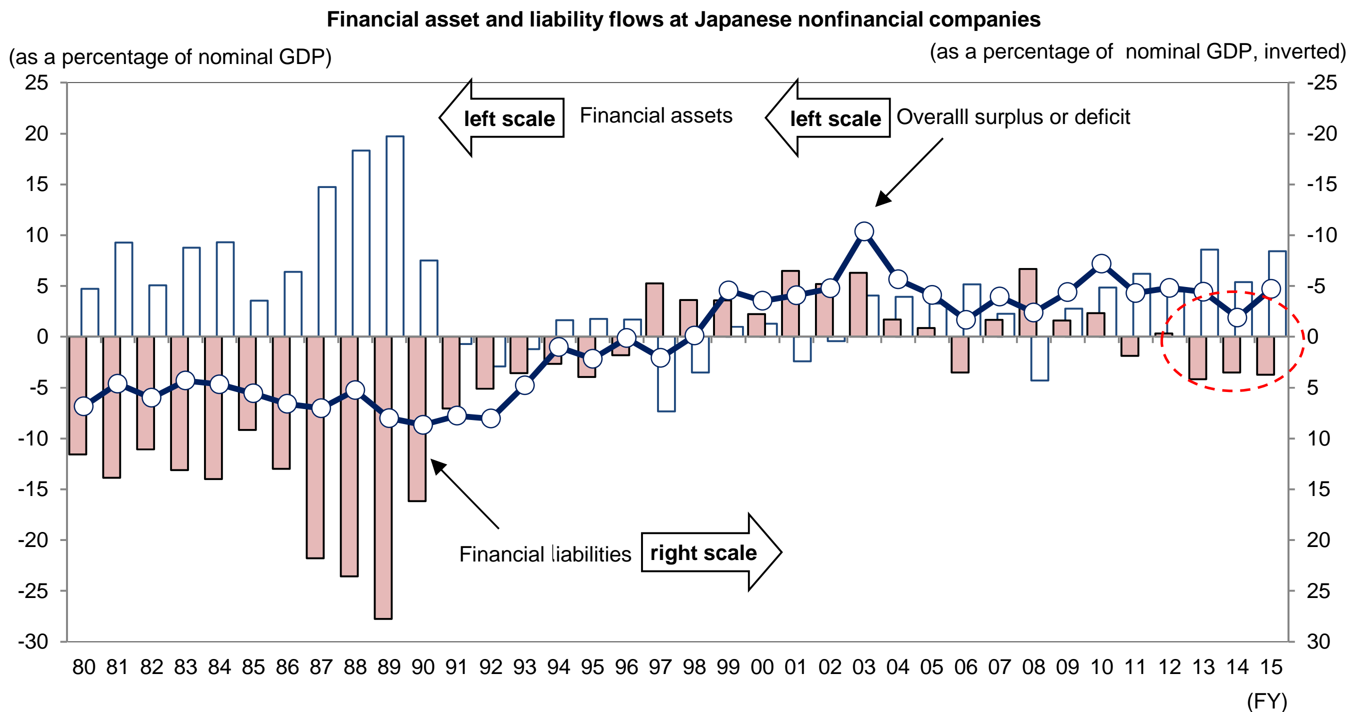
The "trauma" refers to the tendency for people who have experienced balance sheet problems to avoid taking on debt for the rest of their lives, a phenomenon also observed in the US following the Great Depression. I expect to see a similar sort of trauma emerge in the US and Europe in the years to come.

Tax breaks for investment need to continue until trauma is gone for good
This is a problem of degree, and there has been major progress in the behavior of Japanese companies compared with the situation ten years ago. As Figure 2 shows, for example, Japanese companies focused on trimming debt from 1997 to 2011, shown by the colored (shaded) bars (financial liabilities) rising above the zero centerline in the graph. Since 2012 they have stopped reducing debt and have gradually begun to borrow more. On the whole, however, they are still increasing their savings.

Overcoming this trauma will require major incentives for capital investment, such as allowing full amortization of such expenditures in the first year. Japan actually introduced such a measure in FY14, but it was nipped in the bud when the consumption tax hike that followed soon after tipped the economy into a recession.

Japan needs to adopt similarly bold incentives in a form that is easier for businesses to take advantage of, and it needs to keep those measures in place until it can be confirmed that Japanese companies have in fact recovered from their debt trauma.

Fig. 2: Japanese companies have resumed borrowing but continue to run a financial surplus



Note: Figures adjusted for the assumption of debt related to the Japan National Railways Settlement Corp. and national forest and field service special accounts (FY98) and for the impact of the FY07 privatization of Japan Post. Most recent data points are for the four quarters through 2015 Q3.

Source: BOJ'S *"Flow of Funds Accounts, and Government of Japan"*, Cabinet Office's *"National Accounts"*

Monetary accommodation is the only bold aspect of Abenomics

The creation of new investment opportunities depends on the structural reforms that constitute the third arrow of Abenomics, and the Abe government is pushing ahead strongly on this front. However, these are microeconomic, not macroeconomic, initiatives, and it will take a long time before they can produce macro-level improvements in the economy (the supply-side reforms initiated by President Ronald Reagan, for example, did not really flower until the Clinton administration 12 years later).

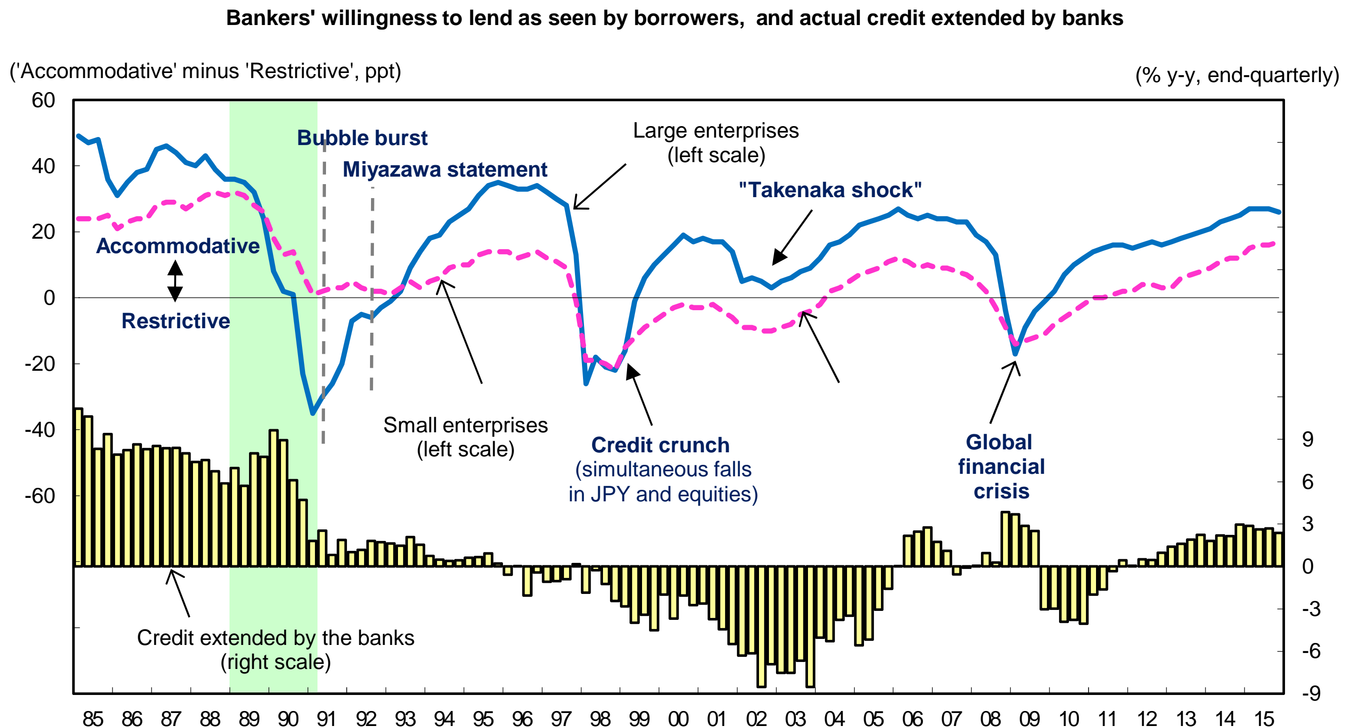
At the moment, the only arrow of Abenomics that is moving boldly is the first and least effective one of monetary accommodation. While some progress has been made on the other two arrows, which are far more important, I think the government needs to move faster and more decisively in these areas as well.

Further reductions in interest rates will lift funds demand only modestly

I suspect there are two reasons why the BOJ adopted negative interest rates. One is that it wants banks to become more active lenders. But while negative interest rates may have played a meaningful role in the eurozone, which was experiencing a severe credit crunch, I think little can be expected on this front in Japan.

In its Tankan business survey, the BOJ asks businesses for their views on the willingness of banks to lend. With the exception of 1997, when simultaneous yen weakness and share price declines took a sudden toll on the balance sheets of Japanese banks, and the period immediately following the collapse of Lehman Brothers, potential borrowers (businesses) have reported that banks have been active lenders (Figure 3).

Fig. 3: Japanese banks have been active lenders in all but three periods



Note: Note: Shaded areas indicate periods of BOJ monetary tightening.

Sources: Bank of Japan, *"Tankan"*, *"Loans and Discounts Outstanding by Sector"*

Outstanding commercial loans have not grown significantly (bottom half of Figure 3) in spite of banks' willingness to lend because borrowers—businesses—were not interested in borrowing. With the problem lying on the borrowers' side, there is little reason to think that demand for funds will dramatically increase simply because lenders take rates even lower from their current all-time lows.

The BOJ's survey of bank lending attitudes from a borrower's perspective is extremely important in determining whether the bottleneck to an economic recovery is on the lenders' or the borrowers' side. Indeed all central banks should conduct similar surveys.

Another aim of negative interest rates is to check the yen's rise, but Japan's trade balance is improving

The other major reason why the BOJ introduced negative interest rates last week was probably to check the yen's rise. A reversal of the weakness in the yen that was such a key driver of the Japanese stock market recovery three years ago would have severe implications for everything from corporate earnings to share prices.

On the other hand, falling oil prices and more competitive Japanese companies have nearly eliminated Japan's once huge trade deficits, as noted in my last report, and further improvements are possible if more of the nation's nuclear reactors come back on line.

Exchange rates depend on the economic and political situations in both countries, but now that Japan's balance of trade has improved substantially and has room to get even better, clinging to a weak-yen scenario may not be a good idea.

US economy clearly slowing

Recently we have seen clear signs of a slowdown in the US, which has the greatest bearing on Japan's exchange rate. The official statement from the January 27 FOMC meeting starts out with an admission that US economic growth "slowed late last year."

Real GDP grew only 0.7% q-q annualized in 2015 Q4 according to data released last Friday, off sharply from the Q3 result. It is quite possible that this slowdown was partly responsible for the yen's ascent against the dollar over the last few weeks.

The latest edition of the Fed's Beige Book survey of regional economic conditions also contains far more indications of weakness than the previous report, with expressions such as “mixed” and “flat” appearing more often.

In particular, roughly half the districts in the survey reported a decline in manufacturing output as a result of the strong dollar. Exporters of agricultural products also said they are suffering from the strong currency.

To the extent that a significant part of US manufacturing is tied to the energy sector, the sharp decline in oil prices has triggered a severe slump.

No signs of pick-up in wages or prices

Prices and wages, meanwhile, remain relatively stable, and while many districts reported labor market tightness, only two of the twelve—New York and San Francisco—reported a pick-up in wage inflation.

Prices are seen as being almost unchanged as a result of the strong dollar and falling prices for energy and other commodities. Bumper harvests of certain crops have also helped depress prices.

While inflation in wages and general prices has not picked up significantly, real estate prices continue to rise briskly in many districts, and have trended firmly in spite of significant volatility in global stock markets over the last six months.

Drop in oil prices following Plaza Accord saved global economy

A decline in oil prices of this magnitude should ordinarily be a major positive for the developed economies. In 1986, for example, it was said that the drop in the price of oil below $10/bbl was what enabled the rebalancing of the global economy under a stronger yen and German mark and a weaker dollar, a trend that began with the Plaza Accord in September 1985.

Those lower oil prices helped save the economies of Japan and Germany, which were already confronting a sharp rise in their currencies. In the US, where it was feared a rapid depreciation of the dollar might trigger sharply higher inflation and interest rates, lower oil prices obviated the need for monetary tightening and prevented a rise in long-term interest rates.

In that sense, it was cheap oil that made possible the Plaza Accord-triggered correction in USD/JPY from 240 to 120.

Fallout from lower oil prices includes reduced investment

This time, oil prices collapsed just as the shale revolution was driving heavy US investment in the energy sector. Saudi Arabia is actually said to have engineered a drop in prices to prevent a loss of market share to US shale producers.

As a result, the US economy lost a major source of demand as heavy investment in the shale sector suddenly dried up.

In short, the shale revolution helped the US substantially reduce its dependence on foreign energy sources, but consequently most of the energy-related firms hit by the plunge in oil prices were domestic operators.

Private-sector balance sheet adjustments have offset “tax cut” from low oil prices

Even so, lower oil prices should have the same positive impact on ordinary consumers as a tax cut. But this time their reaction has been muted at best.

A similar phenomenon has also been observed in Japan and Europe, which makes this time very different from past periods of falling oil prices.

I think a major reason is that businesses and households in Japan, the US, the UK and Europe are all trying to repair and strengthen their balance sheets by increasing savings at a time of zero interest rates.

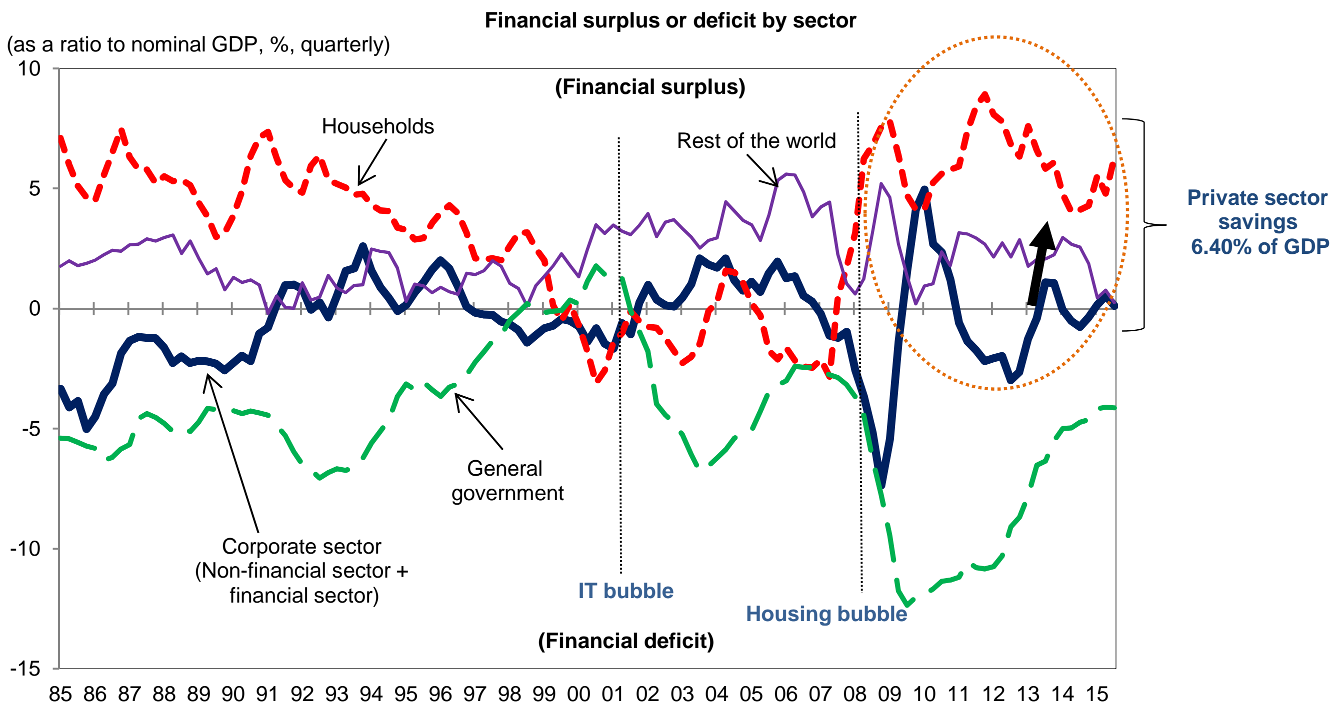
When the private sector's first priority is to repair balance sheets damaged in the collapse of an asset bubble, most of the money saved as a result of tax cuts tends to be used to pay down debt and increase savings.

I have argued for almost 20 years that economic packages during a balance sheet recession should focus on expanding government spending, which always adds to GDP, rather than on tax cuts, which can be used instead to increase savings or pay down debt. I think the current decline in oil prices is equivalent to a tax cut for ordinary consumers, and a substantial portion of the savings has probably been earmarked for balance sheet repairs.

Financial surplus of US households has actually increased

Even in the twelve months through 2015 Q3, when oil prices had already declined significantly, the US private sector was saving a net 6.4% of GDP, roughly the same as Japan's private sector, in spite of zero interest rates (Figure 4).

Fig. 4: US in balance sheet recession

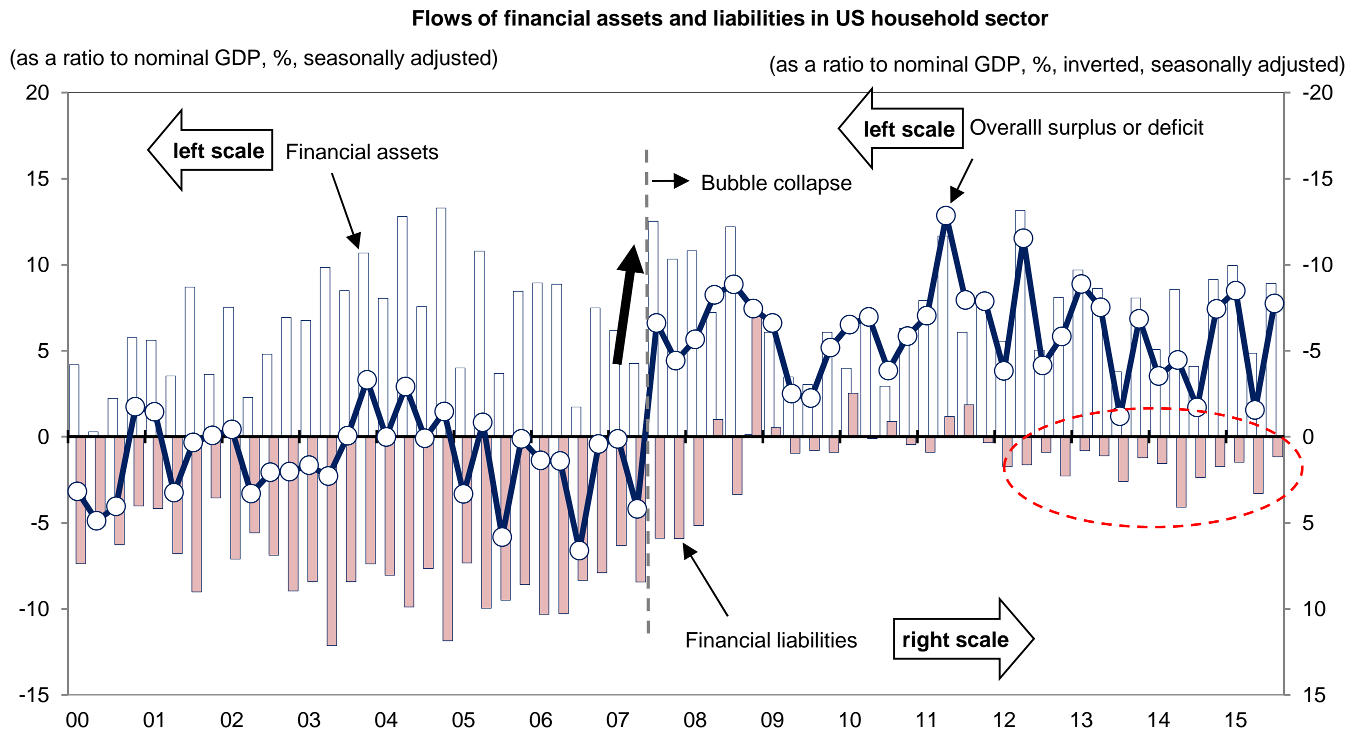


Note: All entries are four-quarter moving averages. Latest figures are four-quarter averages ending in 2015 Q3. In typical flow-of-funds data, non-financial sector, financial sector, households, general government, and rest of the world sum to zero.

Source: Federal Reserve, US Department of Commerce

Source: FRB, US Department of Commerce

Fig. 5: US households have gradually resumed borrowing



Note: Latest figures for 2015 Q3.
Source: FRB, US Department of Commerce

The US household sector, which felt the impact of the housing bubble's collapse full on, did not borrow at all in the four years following the collapse (Figure 5). However, the US was able to maintain a policy of moderate fiscal stimulus thanks to repeated warnings from then-Fed Chairman Ben Bernanke and current Chair Janet Yellen about the danger of falling off the "fiscal cliff," and that stimulus eventually led to a recovery. In the last few years the US household sector has gradually resumed borrowing.

Still, the household sector as a whole continues to run a substantial financial surplus, saving 7.7% of GDP in 2015 Q3 in spite of zero interest rates.

At least some of the 7.7% that was saved came from the money that did not have to be spent on gasoline. In short, falling oil prices during a balance sheet recession are likely to speed up private sector balance sheet repairs but will probably not provide much boost to the economy.

Fed faces tough policy challenge: should it opt for current or future stability?
The question of how the Fed should respond during this phase is surprisingly difficult, inasmuch as the answer depends to a large extent on whether the central bank decides to place first priority on current or future stability.

Global markets have been in turmoil since the Fed raised rates last December, and the dollar has strengthened even as the US economy has slowed, with severe implications for domestic manufacturers.

Complicating matters further is the fact that the reverse portfolio rebalancing effects prompted by the Fed's tightening have driven down the value of the CNY and other emerging market currencies along with emerging market assets, creating major obstacles for economic policymakers in these countries. All in all, I think the reasonable conclusion is that the Fed should shelve additional rate hikes for the time being.

Is Fed willing to accept "small messes" in order to avoid "big mess" of surge in long-term interest rates?

However, the Fed has its eye on the future as well as the present, and its first priority is avoiding the sort of "big messes" described by Vice Chairman Stanley Fischer.

As explained in detail in my last report, the Fed must avoid at all costs giving markets the impression that it is falling behind the curve on inflation, which could spark a sharp rise in long-term interest rates, inasmuch as it has supplied enough liquidity to the market via quantitative easing to increase US money supply by 16 times.

I suspect Fed officials are of the view that they should resign themselves to accepting a certain amount of "small messes" in order to avoid the "big mess" of a surge in long-term rates.

Otherwise there would be no need for Mr. Fischer to go out of his way at the beginning of the year to tell market participants that they were being too dovish in their expectations for the pace of future rate hikes.

Fed rushing ahead with normalization to avoid "big messes"

Avoiding "big messes" will require the Fed to proceed with the normalization of monetary policy *before* private-sector demand for funds recovers in earnest. As long as loan demand remains weak, the probability of a steep rise in long-term rates as the Fed normalizes policy can be reduced.

I suspect the Fed's decision to begin tapering when inflation was only 1.1% and to raise rates when it was at just 1.3% reflects a desire to normalize monetary policy before private-sector funds demand recovers in earnest.

It would ordinarily be out of the question for the central bank to hike rates at a time when the private sector is still saving 6.4% of GDP (with interest rates at zero) in a lingering symptom of the balance sheet recession. But if the Fed is to avoid the big messes it is concerned about, it should probably push ahead with normalization *now*, when the private sector is still saving 6.4% of GDP a year.

The Fed still faces an extremely difficult decision inasmuch as the recent tendency has been for "small messes" to develop into "big messes" quite easily. The Fed's projection in last week's FOMC statement that economic conditions will "warrant only gradual increases in the federal funds rate" probably reflects this dilemma.

Global economy became tangled up in QE trap last year

In contrast, central banks that did not engage in QE have no need to mop up tremendous amounts of excess reserves—all they must do is to sit back, relax, and facilitate a normal economic recovery. In that sense, central banks that implemented QE face an exponentially more difficult decision when the economy starts to recover than those that opted against quantitative easing.

I have previously referred to this difficulty as the "QE trap," and the global economy was caught in it starting last year. Not only will this problem drag on, but the central banks of Japan, the UK and Europe will also have to confront traps of their own making.

Since this type of policy normalization is unprecedented, history offers few guides. I suspect market volatility will persist inasmuch as the monetary authorities and the markets will need to remain in trial-and-error mode. And that volatility may ultimately end up correcting valuations that were formed based on the incorrect models of traditional economics.

BOJ's exit from QE may be more difficult than Fed's

The Fed is paying close attention to its communications to ensure its policies do not come as a surprise to market participants. Even so, Vice Chairman Fischer's decision earlier in the year to express his real views on the pace of rate hikes in order to avoid future surprises ultimately ended up creating further market turmoil.

In contrast, the current BOJ governor seems to like using the element of surprise to maximize the effect of his easing announcements. This approach may be viable when a central bank is easing, but when it starts tightening it could create a situation in which the market no longer believes anything the governor says.

Given the credibility of Mr. Kuroda's statements and the current level of long-term rates in Japan, I suspect Japan's exit from quantitative easing may be far more arduous than the Fed's.

Appendix A-1

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