Deflation, here we come?

Deflationary risks are rising in the advanced economies. This has made some worry that a Japan-style deflationary episode is awaiting us. In our view, these particular concerns are exaggerated. First, negative output gaps do not always commensurate with falling prices. Second, the burst of Japan's asset bubbles, which dwarfed the bubbles we saw in the current crisis, got underway when the country started ageing. Third, the yen's strong appreciation further posed downward pressure on domestic prices. Lastly, Japanese policymakers were somewhat late in responding to the country's economic woes. That said, the risks of deflation will not go away until the private sector deleveraging comes to an end.

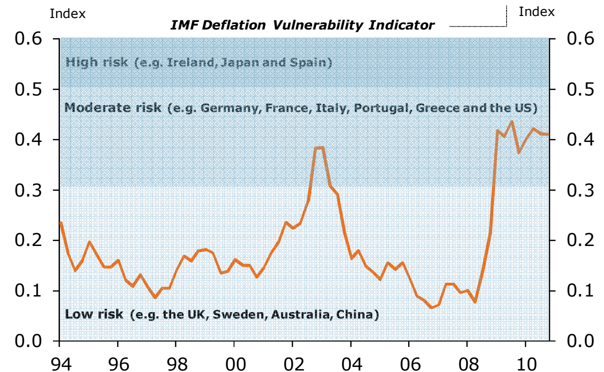
Why fear Japan?

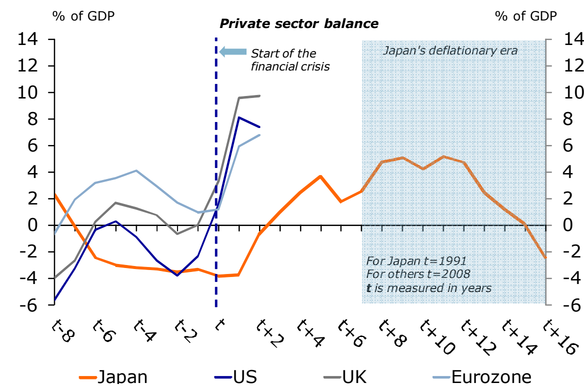
Negative macro news has made it quite fashionable for market participants to draw parallels between the current global macro-economic woes and Japan's "lost decades". In this report we will investigate whether the concerns are valid or not. This is particularly relevant for countries that are busy repairing their balance sheets. Falling into a vicious debt-deflation spiral could force many households and firms to throw in the towel, which would weaken banks' balance sheets further. The public sector will also face more difficulties in achieving debt sustainability.

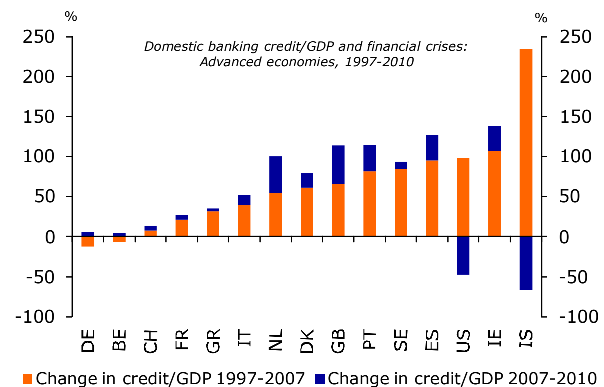
Reasons to be afraid

The IMF deflation vulnerability indicator (DVI), which covers a range of indicators[1] for major economies, shows that the risks of deflation has reached a record high – with some countries being especially at risk (see figure 1, top panel). Quite understandably, the private sector deleveraging process in the West (see figure 1, middle panel) after the burst of asset bubbles has weakened aggregate demand to such an extent that (core) inflation rates are falling below central banks' comfort zones.

Figure 1: Global deflation risks are on the rise







Source: IMF, EcoWin, Reinhart and Reinhart (2010)

What's even more troubling is that the deleveraging process has just got underway. The recent study of Reinhart and Reinhart ("After the fall", 2010) shows that domestic credit/GDP drops, on average, by 38% points – an amount comparable to the surge

[1] Various price indices; GDP growth and the output gap; credit growth; monetary aggregates; the real exchange rate and equity prices.

before the crisis (44%-points) – and lasts around 7 years. As such, we may expect a significant contraction of credit/GDP in the advanced economies going forward (see figure 1, bottom panel).

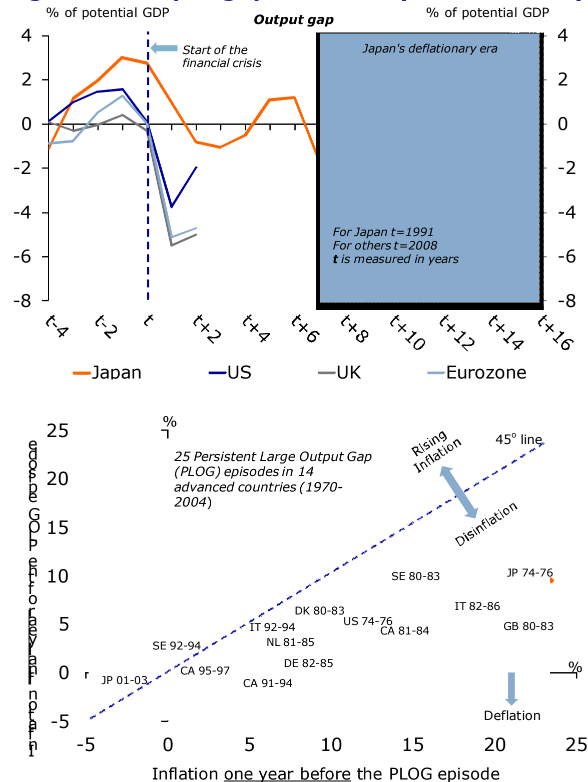
This time is different?

There are several good arguments for expecting the advanced economies to steer clear of a protracted period of falling prices.

Large output gaps are not always deflationary: Conventional wisdom dictates that massive output gaps in the advanced economies, which are larger than Japan's in the 1990s (see figure 2, top panel), will lead to downward price pressures.

But Meier (2010)[2] studied inflation dynamics during 25 Persistent Large Output Gap (PLOG) episodes[3] in 14 advanced economies (1970-2004) and found that, in all cases, inflation after PLOG episodes was *equal or lower* than inflation before the PLOG episode (see figure 2, bottom panel). In other words, disinflation has tended to taper off at very low positive inflation rates.

Figure 2: Output gaps not always deflationary

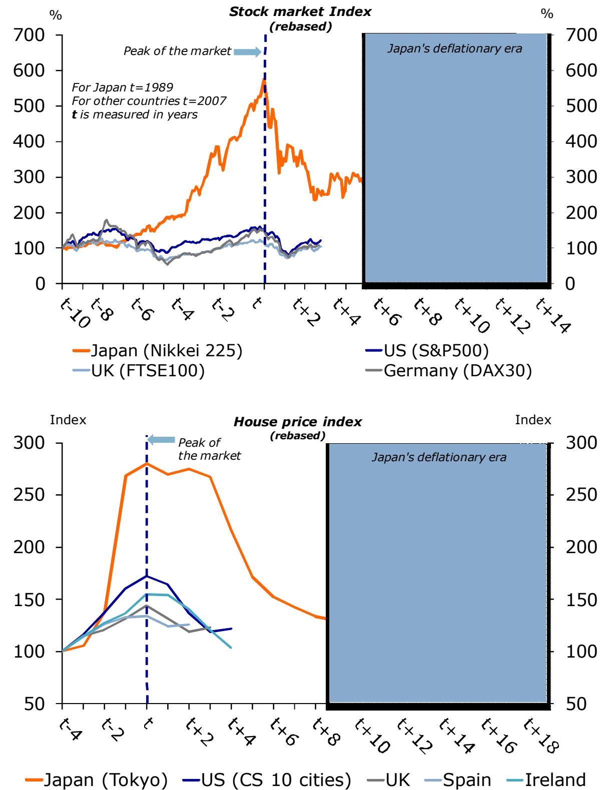


Source: Rabobank, Reuters EcoWin, Meier (2010)

The reason why countries did not fall into deflation partly reflects downward nominal wage rigidities (trade unions despise wage cuts). Well-anchored inflation expectations – thanks, in part, to central banks' higher inflation fighting credibility – helped too. Lastly, with more 'globalisation', inflation has become less sensitive to domestic spare capacity.

Asset bubbles were bigger in Japan: Equities did not appear to be (significantly) overvalued ahead of the financial crisis in the advanced economies. Price-earnings (P/E) ratios of the US S&P 500, the UK FTSE 100 and the German DAX 30 in Jan 2008 were 17.9, 10.7 and 10.8, respectively. In Japan during the late 1980s the P/E ratio was hovering around 50 before the stock market collapsed.

Figure 3: Asset bubbles in Japan were huge



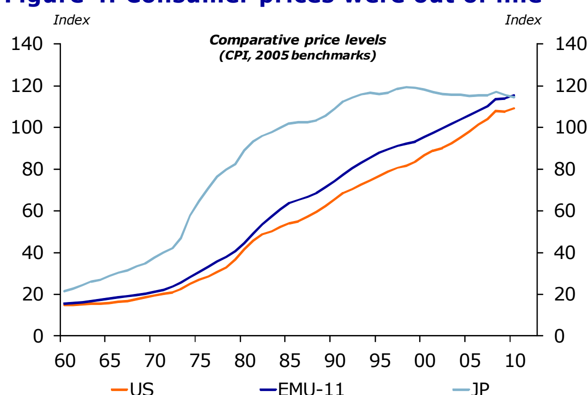
Source: Rabobank, Reuters EcoWin

[2] Still minding the gap. *IMF Working Paper 189*.
[3] Defined as 8 quarters of negative output gaps exceeding 1.5%.

Equally, the bubble in the Japanese property market dwarfed that of the US, the UK, Ireland and Spain. The anecdote that the Imperial Palace in Tokyo was valued higher at one point in time than all the real estate in the state of California is well-known. The burst of asset bubbles in Japan, therefore, brought about a far larger and protracted negative wealth effect for the private sector (see figure 3).

Rise in consumer prices was not justifiable: Not only did asset prices rise spectacularly, consumer prices in Japan were also very high (see figure 4). Part of the rise in prices can be explained by a surge in credit prior to the crisis. Between 1982 and 1996, credit/GDP rose 67%-points and then started contracting sharply. This event goes a long way in explaining the impressive rise in the consumer price index in Japan. In that period, emerging markets were *not* flooding the world with cheap goods. So the rise in inflation could go unchecked for many years.

Figure 4: Consumer prices were out of line

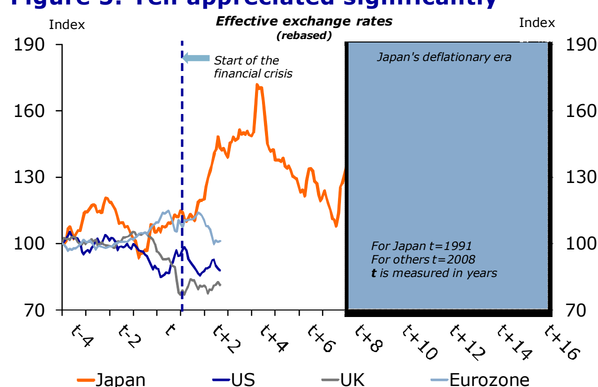


Source: Rabobank, Reuters EcoWin, IDB, EC

Japan entered the crisis with a poor demographic structure: Japan's working age population peaked in 1995, at 87.3m, and has now fallen to roughly 81.5m. Simultaneously, the older population (65+) has risen from 18.3m to 29m. The ageing of Japan's population brought about an increase in the dependency ratio, which in turn contributed to deflation amid weak aggregate demand growth. The countries that faced some of the biggest asset price corrections in the current crisis (e.g. UK and the US) have significant positive population growth and don't face an ageing population to the same extent.

Significant yen appreciation was a major headache: Following the burst of asset bubbles, the yen appreciated significantly on a trade-weighted basis, mainly because of the country's current account surplus. This acted as an extra downward drag on Japanese domestic prices. The current experience of advanced economies is very different (see figure 5).

Figure 5: Yen appreciated significantly



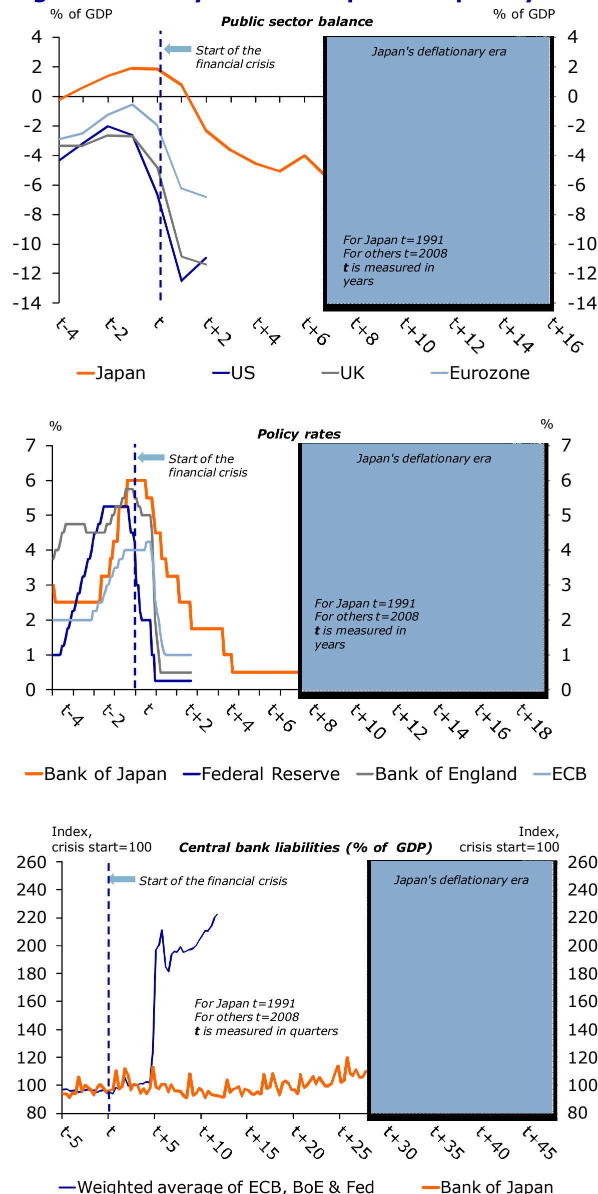
Source: Rabobank, Reuters EcoWin

Japan's slow and muted policy response was a mistake: When crisis made landfall in Japan, fiscal policymakers were rather slow in providing stimulus for the economy. In the current crisis, leaders of the Western world quickly realised that the hesitance of Japan in the 1990s and the US during the 1930s was a mistake. So they not only allowed automatic stabilisers to operate in full, they took a number of policy measures to stimulate their economies (see figure 6, top panel). The flip side of this bold fiscal policy in the advanced countries was quicker deleveraging of the private sector. Put differently, households and firms in the West did not postpone repairing their balance sheets like their Japanese counterparts.

Another notable step taken by advanced countries was addressing the problems of the

banking sector early on. Over the period 08Q1-10Q2 around 50% of capital raised by banks in the UK and the eurozone was through direct government support. Japanese authorities, on the other hand, allowed zombie banks to roam for far too long.

Figure 6: Policymakers responded quickly



Source: Rabobank, Reuters EcoWin, Meier (2010)

Monetary policymakers also stepped in to compliment loose fiscal policies. In a highly coordinated manner, central banks managed to slash policy rates far earlier than the Bank of Japan (BoJ) managed in the early 1990s (see figure 6, middle panel). Since the policy rates were constrained by the zero-bound, central bankers also quickly realised that unconventional support measures (i.e. quantitative easing) are necessary. In a matter of months, the balance sheets of the Fed, the Bank of England (BoE) and the ECB expanded rapidly while it took the BoJ a decade to come up with similar measures (see figure 6, bottom panel).

Conclusion

Deflation risks in the advanced economies have risen against a weak economic backdrop and still large output gaps. This does not necessarily mean we are going to fall into a protracted period of falling wages and prices like Japan. The asset bubbles we saw in the current crisis were large, but were nowhere near as big as the ones Japanese authorities had to deal with. Bashing Japanese policymakers has become a popular pastime of sorts, but next to the advantage of hindsight, Western policymakers were simply dealt a better hand to begin with. What's more, most advanced economies are not ageing as fast as Japan did since 1995. Finally, none of the major currencies appreciated as strongly as the yen did during the 1990s.

We aren't out of the woods yet. Sovereign debt concerns have forced most governments to head for the exit even though the private sector still has trouble standing on its own feet. Central bankers are fast running out of meaningful ammunition. A deflationary threat lingers until the private sector deleveraging comes to an end. Yet Japan's experience isn't the compass to go by and overstates the deflation risks we face.

October 2010

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