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Is the world economy turning Japanese?

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For 25 years Japan has seen low growth, low or negative inflation and low bond yields. Is this malaise spreading? This note looks at the Japan experience and compares it with the US, Europe and China since the 2008 financial crisis.

"Japanese disease"

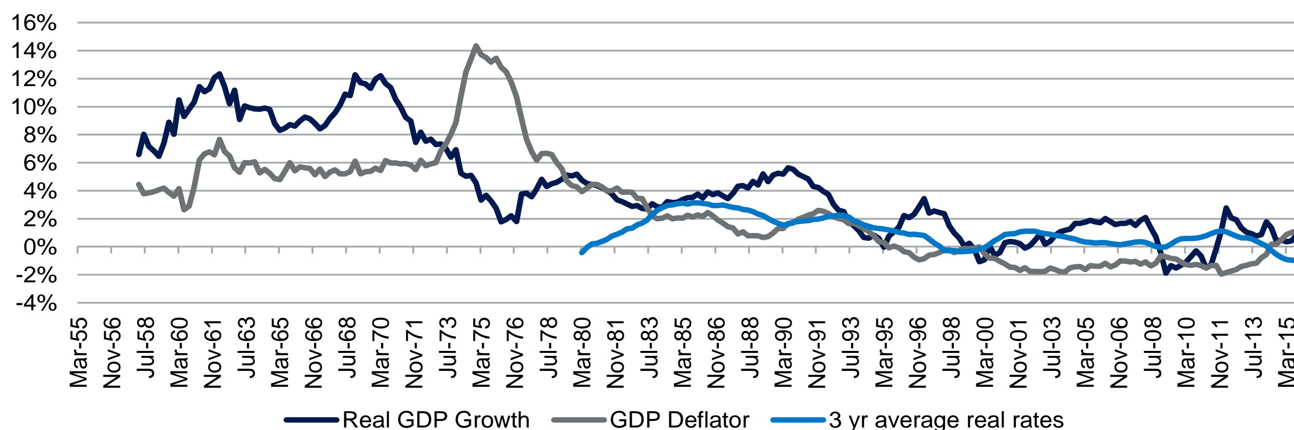
Japan enjoyed massive investment after World War 2 as the economy re-industrialised but investment and spending became over extended. An investment boom led to a debt boom as companies over extrapolated rates of growth into the future and over invested, mostly financed by debt. An asset bubble ensued in the late 1980s but burst in 1990 weighing on the economy and growth slowed to near zero by the end of 1992. As the 1990s progressed, Japan became a zero percent economy with inflation and real interest rates joining growth at around or below zero, where levels have since approximately stayed.

So, why are its effects still being felt? We have a lot of possible culprits, none of them entirely convincing as sole explanations. The full answer is probably a combination of effects. See the appendix for a full diagnosis of the ''Japanese disease'' but in short;

- Poor policy response; the authorities responded with expansionary monetary and fiscal policy but it was slow to be implemented and was ineffective.
- The response to increasing non performing loans was also slow and the ''extend and pretend'' strategy of rolling bad debts resulted in zombie companies reliant on bank forbearance.
- Political conservatism weighed on structural reform and little was done to boost productivity and economic growth.
- The situation was exacerbated by ageing demographics which entrenched spending and investment behaviours.

The chart below shows growth, the GDP deflator (as an inflation measure) and real interest rates. Three year averages are used to smooth the lines and show the trends better.

Figure 1: 3 year average Japanese growth, inflation and rates



Source: Schroders. Haver. Data to December 2015.

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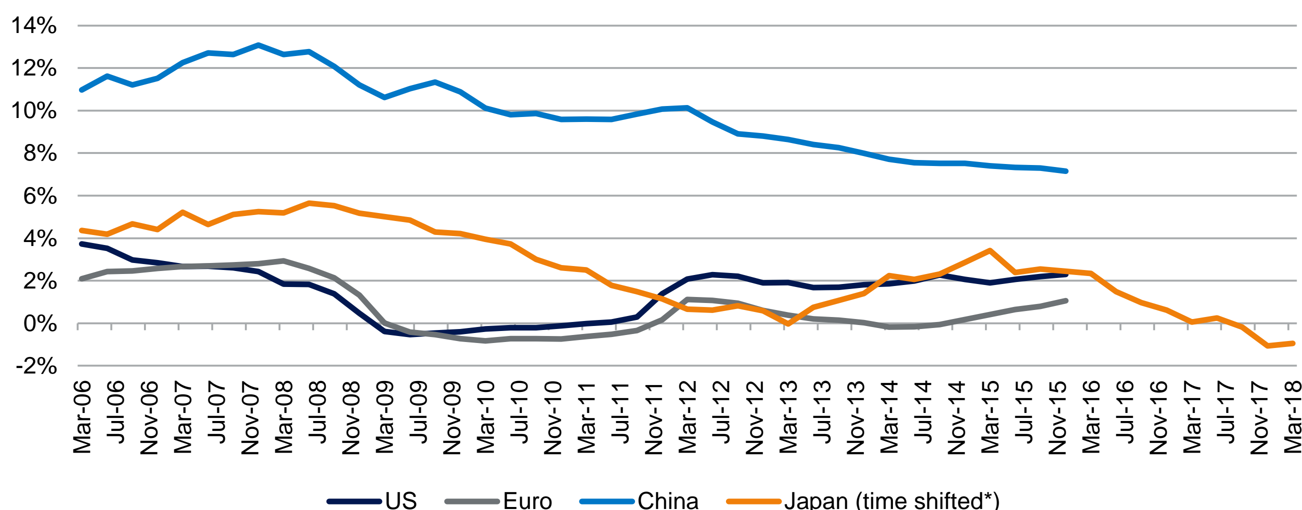
Is the world falling into a Japanese malaise?

We look at the US, eurozone and China.

Are we actually seeing the collapse of economic growth that we have seen in Japan? Figure 2 below matches the eurozone, US and China from just before the global financial crisis to now and compares it with Japan around its own crisis. For this comparison 2008 = 1990.

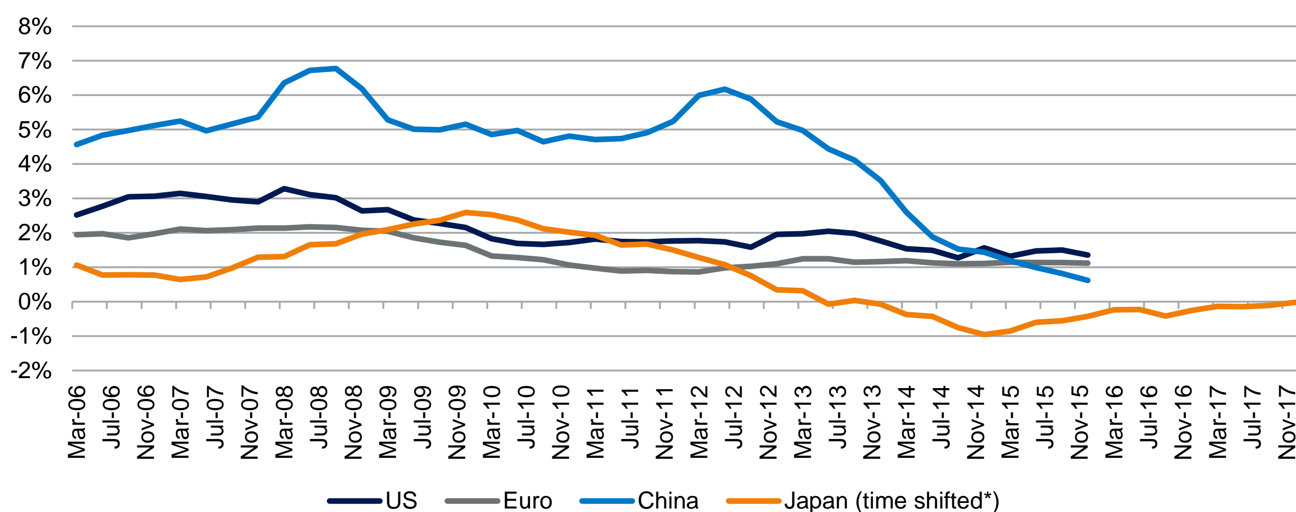
Figure 2: Real growth comparison 3 year CAGR



Source: Schroders. Haver. Data to 31 December 2015. Please note that CAGR stands for compound annual growth rate.
*Time shifted: Japan data from 1990s shifted to match global fiscal crisis (1990 = 2008).

Slowing growth is clearly a global concern. The pattern of growth in the US and eurozone does look a little different to Japan's – with a more rapid collapse and subsequent recovery. But the eurozone area seems to be plumbing even lower areas of growth than Japan did in the 1990s. China has been slowing continually. If Japan is any sort of model, then the recovery in Europe and the US will roll over and growth will struggle to recover again.

Figure 3: GDP deflators: 3 year CAGR

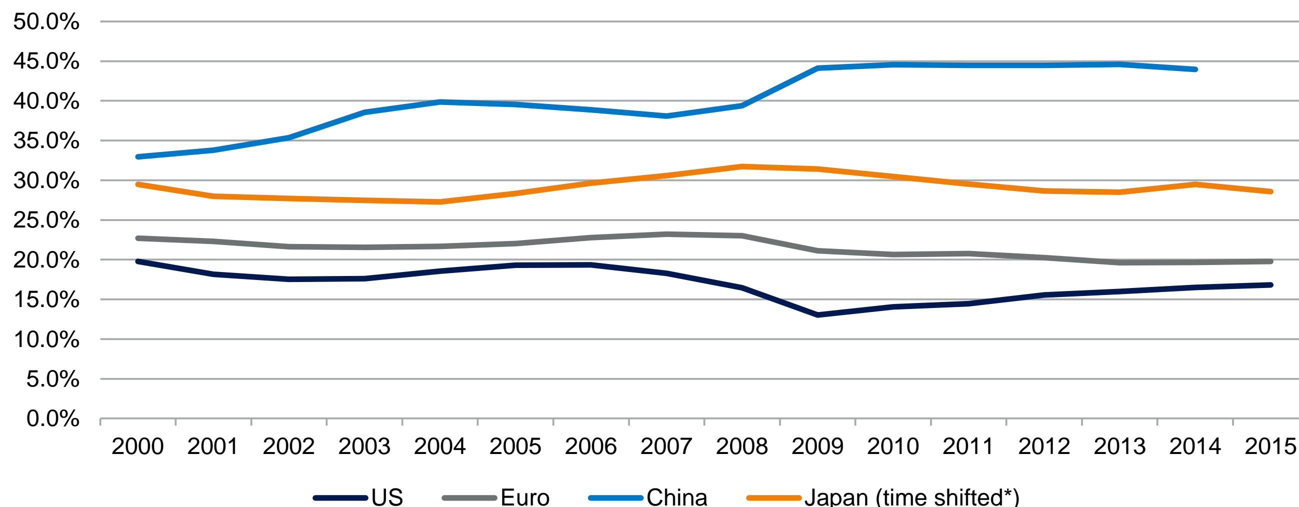


Source: Schroders, Haver. Data to 31 December 2015.
* Time shifted: Japan data from 1990s shifted to match global fiscal crisis (1990 = 2008).

There is a great deal of fear of deflation at present. GDP deflators are certainly showing low numbers. But there are some differences with Japan in the 1990s. At this stage, after its own crisis, Japan had moved to outright deflation. The US and eurozone appear to have stabilised at low but positive numbers. China may show a more worrying trend, with a rapidly dropping deflator and no signs of stability.

Were there any signs of an investment bubble before the global financial crisis? As in the charts above Japan has been time-shifted and 2008 = 1990.

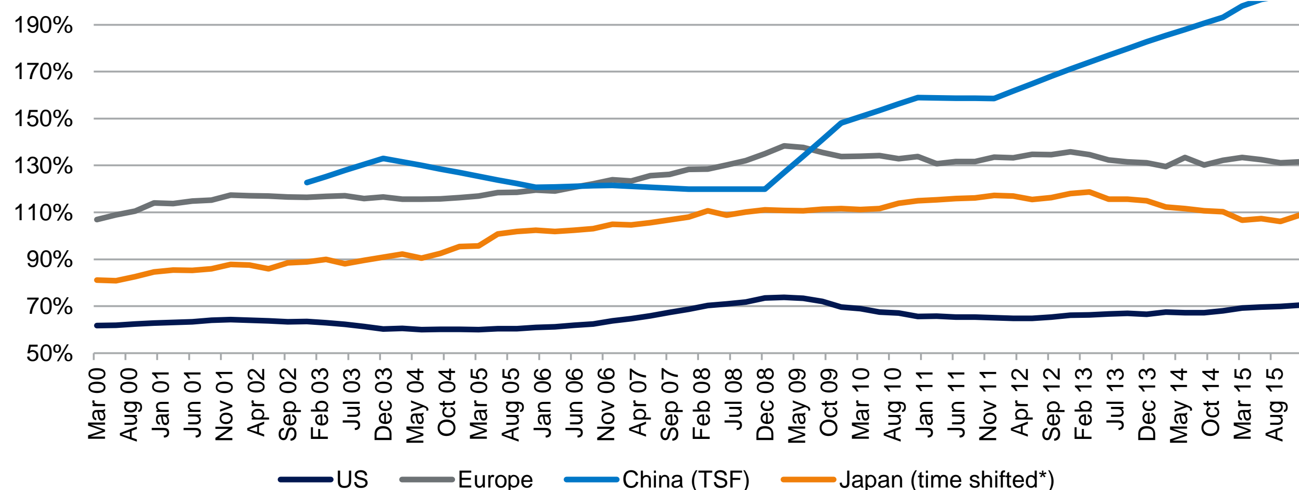
Figure 4: Investment/GDP



Source: Schroders, Haver. Data to 31 December 2015. *Time shifted: Japan data from 1990s shifted to match global fiscal crisis (1990 = 2008).

Japan saw an increase in the investment share of GDP in the mid 1980s. There was nothing noticeable in Europe before 2008 and a small pick-up in the US in 2003 – 2004. But both Europe and the US were investing much less than Japan. The stand out is China which is investing over 40% of its GDP. This is higher even than Japan reached in the 1960s. Is it matched by a debt build up?

Figure 5: Corporate debt/GDP

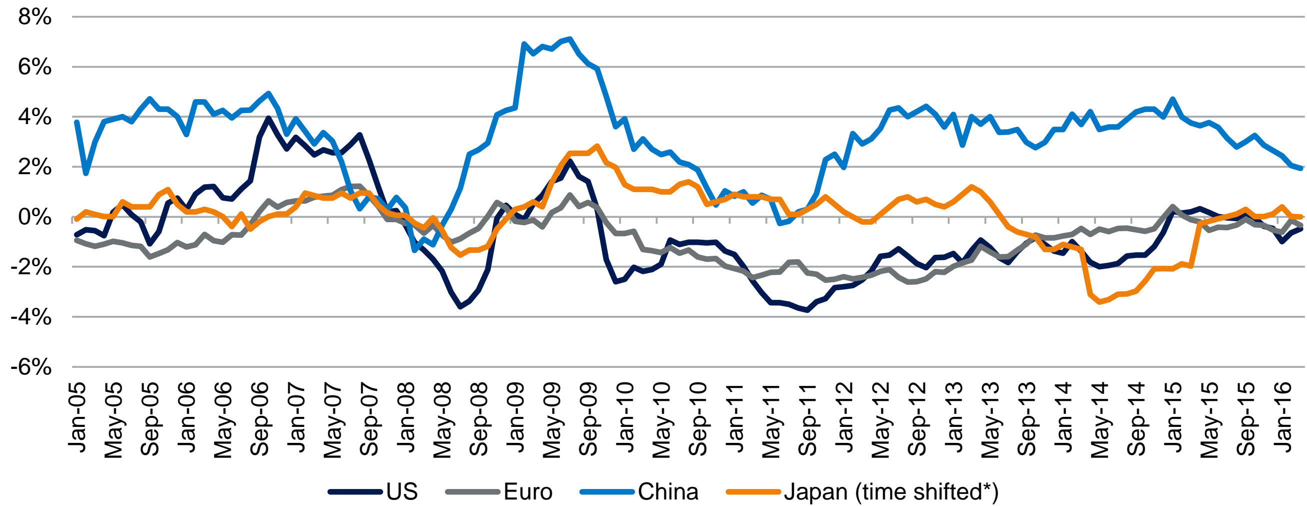


Source: Schroders, Haver. Data to 31 December 2015. *Time shifted: Japan data from 1990s shifted to match global fiscal crisis (1990 = 2008).

Figure 5 above shows there was a rise in corporate debt in the US and Europe before the crisis, although not as big as the rise in Japan. We do not have historical series for the breakdown of Chinese debt, so the numbers in the chart are for Total Social Financing, which includes all forms of debt. However, we do know from the few data points we have that the majority of the debt is issued by State Owned Enterprises (SoEs) and local government financing vehicles (the difference between the two is sometimes unclear). It is certainly fair to say that massive Chinese investment has been funded by debt.

Rates

Figure 6: Real rates

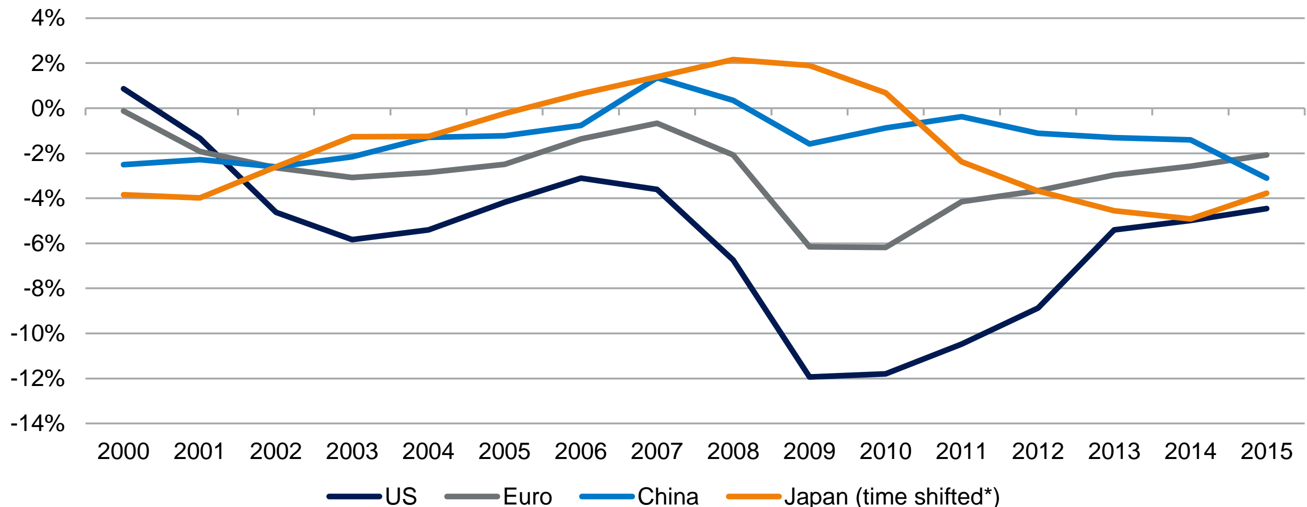


Source: Schroders, Haver, Bloomberg. Data to March 2016. *Time shifted: Japan data from 1990s shifted to match global fiscal crisis (1990 = 2008).

Real rates in the US and Europe dropped to negative levels in 2008 and have stayed there since (apart from a brief period where base effects on inflation sent them positive). However China may be making the same mistake as Japan and has kept real rates high despite its slowing economy and debt build up. So the US and eurozone have shown a better policy response to the global financial crisis than the Bank of Japan showed to their crisis. However the fact that real rates are still negative almost 8 years after the 2008 crash suggests that growth expectations are still weak and investment demand is low. It is interesting to note that real interest rates in the US and Europe have gone negative despite inflation remaining positive, suggesting even more pessimism than was seen in Japan.

Fiscal

Figure 7: Fiscal deficits

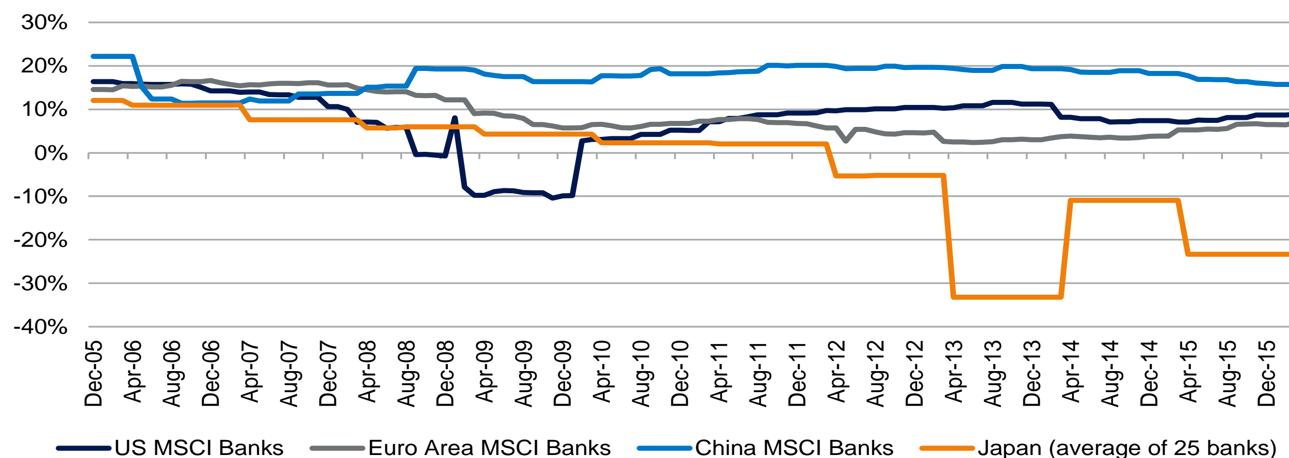


Source: Schroders, Haver. Data to 31 December 2015.
*Time shifted: Japan data from 1990s shifted to match global fiscal crisis (1990 = 2008).

The US and eurozone moved much more quickly to large deficits than Japan. The question, particularly in the eurozone, was whether the stimulus was removed too soon. Austerity in Europe has led to more pressure on the European Central Bank (ECB) to loosen policy, which, due to the zero lower-bound, is difficult to do. China has yet to respond fiscally. That gives it scope to act when it feels it is reaching a crisis. Of course some would argue it is already in one.

Banking

Figure 8: Return-on-equity (RoE) for banks



Source: Schroders, Haver. Data to March 2016.

After the shock of 2008, we can see that banks in the US returned to profitability. Europe took longer, with RoEs still very low in 2012. China has probably unsustainably high ROEs. The policy response has been different in each case. The US launched a forced injection of equity into the banks in 2009, which seems to have been effective; Europe fell into a major crisis of sovereign debt in 2010-2013 which impacted its banking system. It took a long while for the ECB to gather a consensus to provide extensive liquidity to the banks and force private sector recapitalisation. Even now, doubts remain. Progress has undoubtedly been made in peripheral countries such as Ireland and Spain, but less so in Germany, for example. Italy is currently attempting to clean up banks' loan books but is struggling to get agreement from others in Europe to be able to fund the inevitable recapitalisation fiscally. China is still not recognising bank non-performing loans and hence the need for recapitalisation. We can also see that the Japanese response was uniquely bad.

Structural Reform

Here we have very different responses

The US needs less structural reform than other countries as it already has a very flexible labour market and functioning bankruptcy rules etc.

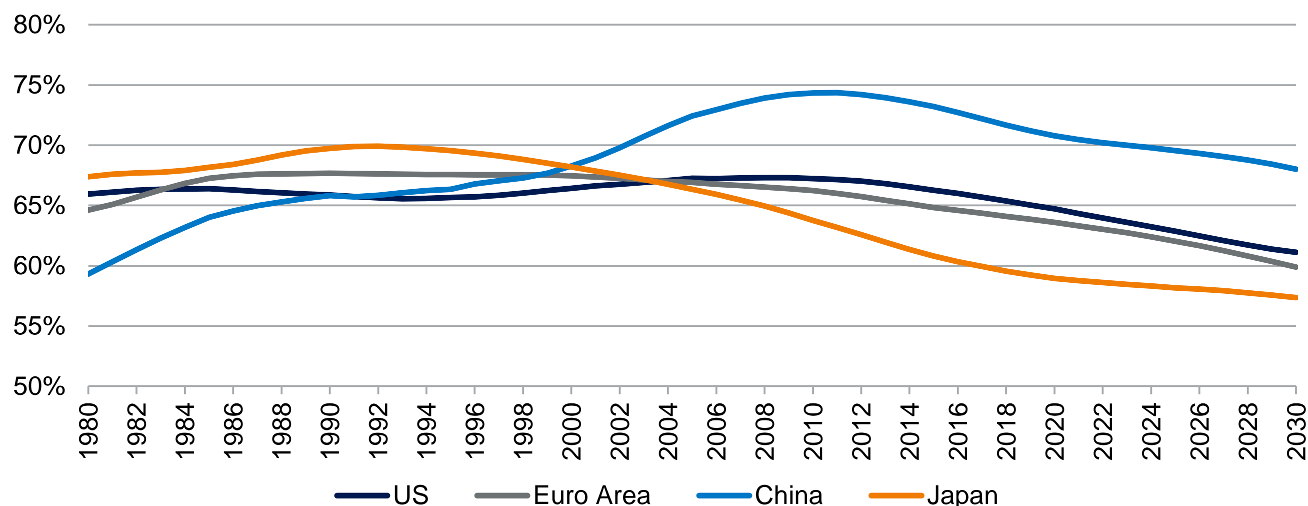
The eurozone response has been patchy. For example, some of the countries severely affected by the eurozone crisis have made significant reforms. In the case of Spain, it may well have done enough. In Greece much has been done, but the rest of Europe still wants more. In Germany there has been little recognition of any need to make changes, following the labour market reforms of the 2000s. However reforms to the banking sector are almost certainly needed.

China is in a different phase of development from other economies. Its main problem is over capacity in a few key industries. Some recognition has been made of this but plans to address the problems are gradual.

Demographics

This chart uses the UN population database to project numbers out to 2030.

Figure 9: Working age/total population (%)



Source: Schroders, Haver. Forecasts to Dec 2030 from UN Population database.

Demographics look poor everywhere.

Summary

In a whistle stop tour like this, it is impossible to give full flavour to the complexities of a crisis and the response to it. Even assuming the comparison with Japan is valid we are making some assumptions about when exactly on the Japanese timeline the US, Europe and China are. It looks as though China is still in the pre-bubble and collapse phase in terms of investment levels and ongoing debt build up, for example. So the conclusions are necessarily broad. But here is an attempt to summarise them.

Japanese Features	Eurozone	US	China
Low Growth	YES	NO	NO (but decelerating)
Deflation	NO	NO	NO (but below 1% and dropping)
Investment bubble	YES/NO (periphery only)	YES	YES
Corporate Debt Build Up	YES/NO (periphery only)	NO (but household debt)	YES (SoEs + local gov't)
Ongoing banking problems	YES/NO	NO	YES
Monetary policy response too slow	YES/NO	NO	YES
Negative Real Interest Rates	YES	YES	NO (but low and falling)
Fiscal policy too tight	YES	YES/NO	YES
Demographics deteriorating	YES	YES	YES
Structural reform too slow	YES/NO	NO	YES

YES= Similar to Japan

Source: Schroders. April 2016.

Now we need to tie all this back to deflation. So far, the US is not in deflationary territory and neither, by and large, is Europe although some parts are worrying. Looking at the comparison list it is China and Europe that seem most likely to suffer Japan sickness. The US appears to have enough differences to suggest that deflation is not going to become the default state. In Europe, the combination of tight fiscal policy and a central bank that may be reaching the limit of its ability to loosen is putting pressure on the European economy. The fact that Europe has negative real rates without deflation highlights the risks. Also, part of Japan's problem was shocks to the system becoming entrenched in behaviour. All of the three big economies are potentially big enough to provide that shock to the other two. So there are risks.

More generally, it seems that deflation is not inevitable. But it is more likely if you don't allow capital to recirculate. When policy does not allow for bad debts to be recognised and banks restructured, more pressure is put on monetary and fiscal policy in the longer term. Add in demographic pressures and banking problems become a trap you don't escape from. But In the end this is all a political decision. The reluctance to accept the winners and losers that stem from a restructuring ultimately backfires. But the gradual nature of the decline may make that a politically easier option. That is the choice confronting China over the next few years.

What needs to happen

If deflation is a threat, not yet a promise, what needs to happen to avoid it?

US: probably not much. Labour market is flexible, banks are functional. Should threat grow, government can consider using fiscal side through debt forgiveness (e.g. student loans).

Eurozone: Germany has a solid fiscal position and is underinvested in public infrastructure. Fiscal constraints are hampering Italian efforts to clean up and recapitalise their banks. If fiscal policy is crimping demand and stopping structural reform then it is too tight. The question for Europe is whether the politics and institutional framework of the eurozone, can allow for a reversal and accept an expansionary fiscal policy

China: In some ways, China looks like Japan in the 1970s – coming off its investment boom, but a long way from a bubble and crisis. In other ways it looks as though it is succumbing to Japanese disease in terms of its declining growth and inflation. China has overcapacity in some industries which is driving deflationary pressure. It needs to address this overcapacity. Given the deflationary pressure it probably also needs looser monetary policy. That is difficult to do without also leading to a weaker currency, which is politically difficult.

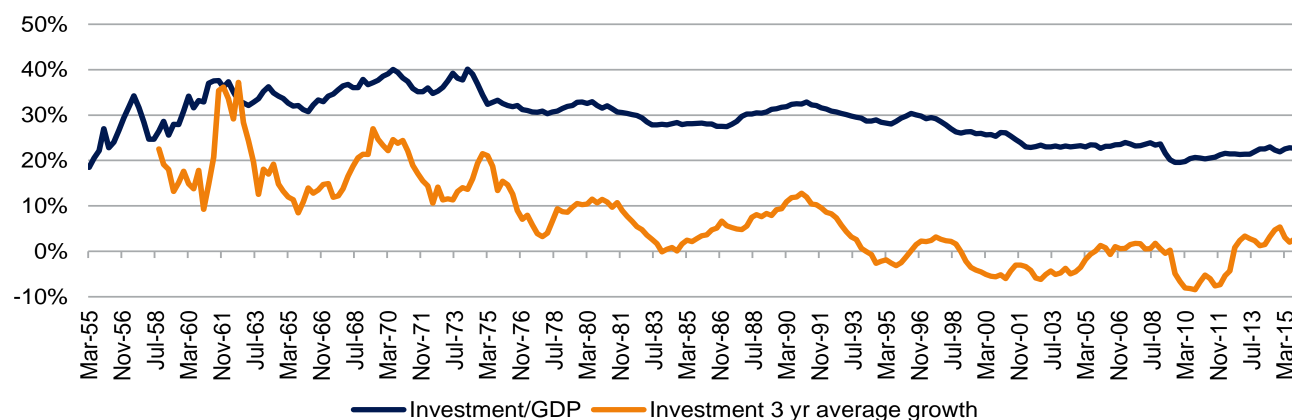
The overarching conclusion is that there are certainly things that can be done to alleviate deflationary pressure. But many of them would be considered quite radical and necessitate some considerable political movement in both China and Germany.

Appendix

"Japanese disease"

Japan enjoyed massive investment after WW2 as the economy re-industrialised.

Figure 10: Japan investment trends



Source: Schroders. Haver. Data to December 2015.

The investment boom peaked in the 1960s with investment nearly 40% of GDP and growth in investment over 20%. During the 1980s investment was still over 30% of GDP. For comparison the GDP share of investment in the US has rarely got above 20% since 1950, with 3 year annualised growth rates peaking at 15%.

Japan was obviously devastated after WW2 and in need of major investment. But there comes a point when your economy has all the roads, airports, ports, schools, hospitals and so on that it needs. At this point, depending on monetary and fiscal policy settings, there is a risk of a financial bubble – essentially, business and government extrapolate historic investment trends beyond their need. Of course, this is exactly what happened in Japan.

To show the extent of the bubble, here is a chart of the price-earnings (P/E) ratio of the Topix share index, with the S&P 500 shown for comparison.

Figure 11: Japan and US PE ratios

Source: Schroders. Morgan Stanley. Bloomberg. Data to March 2016.

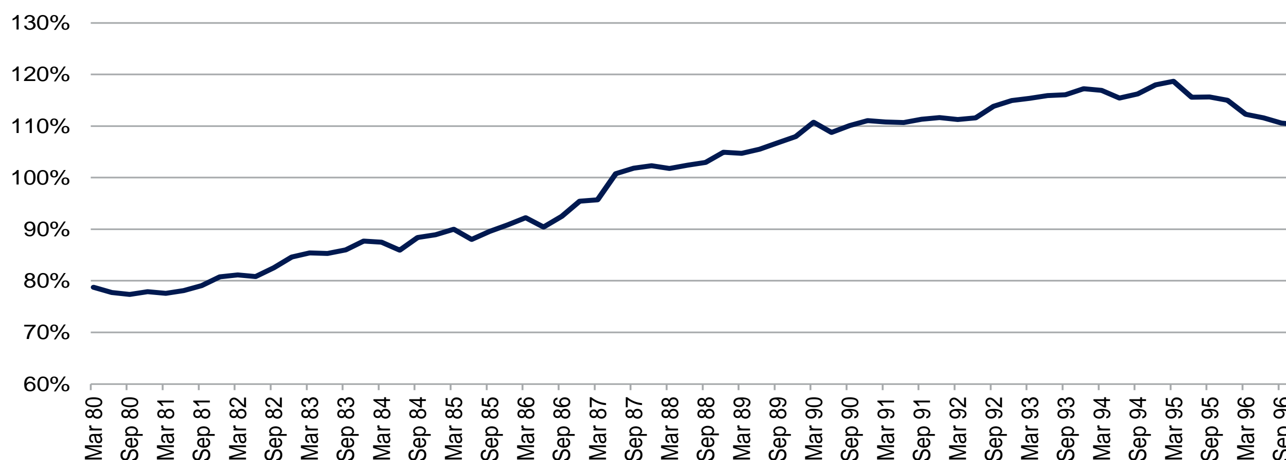
The Topix had spent two years or so with historic P/E ratios of near or over 60 in the run up to the bubble (they were even higher after the collapse as share prices dropped more slowly than earnings). In contrast, during the Nasdaq bubble of 2000 the S&P 500 only managed a multiple of 40.

Other asset prices were extended too. There is no reliable price series for aggregate Tokyo land prices. However, the most expensive district in Tokyo – Ginza – peaked at about $220,000 per square meter using exchange rates at the time. In contrast Manhattan apartments were selling for about $2,000 – 2,500 per square meter. The average land prices for the six biggest cities in Japan quadrupled in the ten years up to 1990.

So far, we see a Japan which invested heavily and successfully up until some point in the 1980s and then continued to invest heavily when it was no longer a good idea. A bubble and collapse ensued. But the real question for Japan is not why there was a bubble and collapse; it is why are the effects of that collapse seemingly still being felt 25 years later?

Commensurate with a bubble led by an investment boom, there is almost always a debt boom. The essence of the bubble is that companies over extrapolate rates of growth into the future and over invest to meet the supposed higher levels of demand and this investment will inevitably be mostly financed by debt. We can certainly see that in Japan in the 1980s.

Figure 12: Non-financial corporate debt % GDP



Source: Schroders. Haver. Data to December 1996.

Corporate debt picked up sharply in the years leading up to the peak of the bubble.

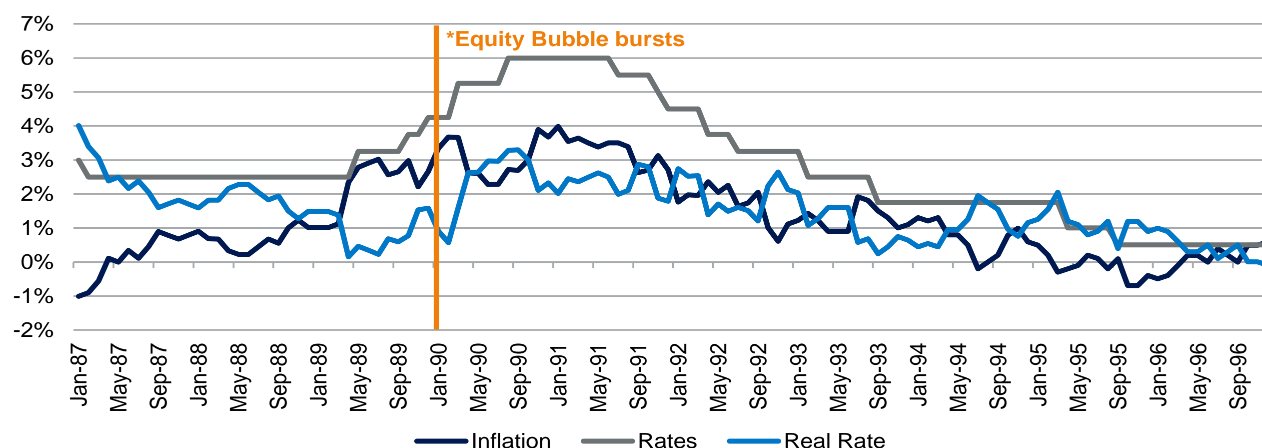
The collapse of the bubble reduces the asset values that backed the debt and hence a lot of it goes bad. This, in turn, hobbles the banking system which becomes capital constrained and unable to lend, and also massively increases the demand for public sector (i.e. safe) debt. These "balance sheet recessions" often take a long time to work out. But surely not 25 years. So what turned the stockmarket collapse into a permanent state of affairs?

A number of reasons have been put forward for the longevity of Japan's malaise.

Poor monetary policy

Can poor monetary policy cause an extended slump? The argument is that if policy is wrong for an extended period of time you fundamentally change perceptions in the economy and move it to a new low growth equilibrium – essentially people stop spending and investing because they believe that economic growth will remain low, thus creating a self-fulfilling prophecy. The chart below looks at interest rates, inflation and real rates (the difference between the two) up to and just after the bubble.

Figure 13: Japanese rates and inflation during the crisis



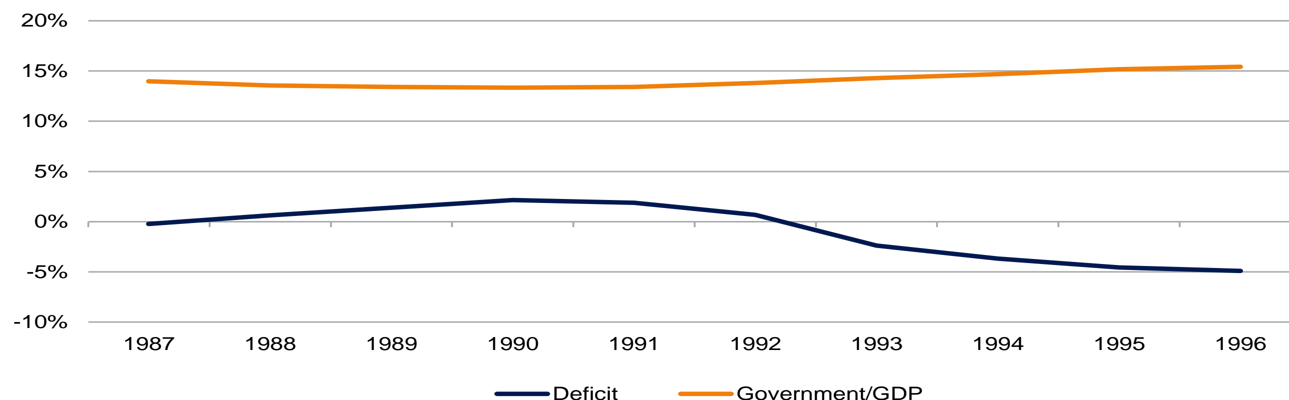
Source: Schroders, Haver, Bloomberg. Data to December 1996.

The Bank of Japan did not start cutting interest rates until more than a year after the bubble peaked at the end of 1989, during which time the stockmarket had fallen more than 40%. Real rates did not reach zero until 1996. Once rates reached zero they stayed there, as the chart at the start of this piece shows. Low real rates failed to generate any significant pick up in demand, because – as stated before – there was a large investment overhang and high corporate leverage reinforced by deteriorating demographics.

Poor fiscal policy

For a fiscal boost to have a chance to work, it needs to involve more spending than there was before and for that spending to be financed by debt. That means spending and deficits rising. The chart below shows Japan did both these things, but in 1992/1993 – two years too late.

Figure 14: Japan fiscal dynamics around the crisis



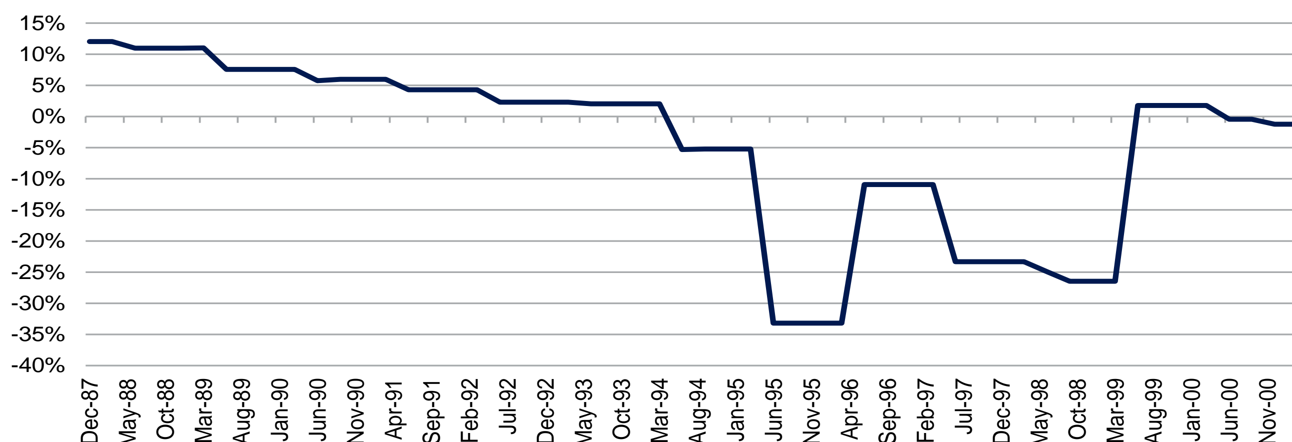
Source: Schroders. Haver. Data to December 1996.

Banking

When a financial bubble, fuelled by debt, collapses it usually leaves behind a mess in the banking system. A large amount of bad loans puts pressure on banks' capital and leads to an unwillingness to lend. That can hobble an economy for years if not dealt with. And dealing with such problems is not easy – it usually involves capital injections to the banks from the government/central bank which can be politically difficult. Indeed, the incentives for Japanese banks were often pointing in the opposite direction. It was politically convenient for a bank not to ask for capital and the easiest way to do that was to deny the existence of non-performing loans by rolling them over instead. This so-called "extend and pretend" strategy led to the existence of "zombie companies" – companies which could only be kept alive with bank forbearance.

Japan did not adopt a framework for bank bailouts until 1997 – 1998 and did not launch a major bank recapitalisation until 2003. Perhaps the easiest way to see this is a chart of the return on equity of Japanese banks.

Figure 15: RoE for Japanese banks



Source: Schroders. Morgan Stanley. Data to March 2001.

This chart is a simple average of 25 major Japanese banks (not all of whom survived). RoEs dropped below 5% in 1991 and stayed substantially negative for much of the time. This is a period when Japanese banks would not be lending.

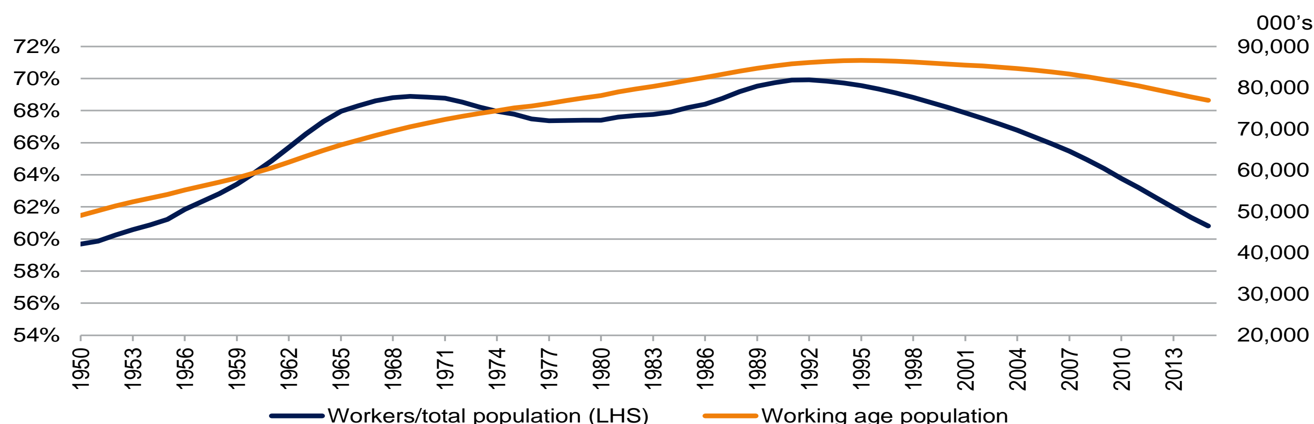
Structural reform

Japan did little after the crisis to boost productivity and potential growth. Japan has been dominated politically by one political party – the Liberal Democratic Party (LDP) – which has built strong links with large business and the agricultural sector. Japan is famous for government intervention in all sorts of business via regulations, subsidies and permitting. External commentators identified the need for Japan to adopt labour market reform, deregulation and reform of corporate management and a host of other reforms too. Former Prime Minister Junichiro Koizumi tried some reforms in the early 2000s, but until incumbent Shinzo Abe's "third arrow" approach, the need for major reform was not really recognised. Even now, three years after Abenomics began, not a lot has happened.

Demographics

Was the propensity to invest and consume fundamentally changing in Japan anyway due to demographics? The early 1990s was the point when both working age population and workers as a percentage of total population began to drop.

Figure 16: Japan demographics



Source: Schroders, Haver. Data to December 2015.

People are generally in their peak spending years in their 30s to 50s as they look to establish households and provide for children. As a population ages there will be fewer of these ‘big spenders’ and so GDP begins to drop. Demography is more predictable than many trends, so when ageing becomes visible, expectations move accordingly reinforcing spending and investment trends.

Why has nothing worked?

We have a lot of possible culprits for Japanese low growth since 1990, none of them entirely convincing as sole explanations. The full answer is probably a combination of all of the effects. A late response to the bad debt problems in the banking system may not have been insurmountable, zombie companies and all, except that overall demand in the economy was suffering too due to poor monetary and fiscal policy. As time went by the demographics entrenched spending and investment behaviours, political conservatism meant there was no reform to break the cycle and so when policies in other areas finally were pointing in the right direction, they were less effective. If the answer to the question of the Japanese malaise is “a bit of everything”, then assessing the rest of the world is going to require a look at all of these factors.

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