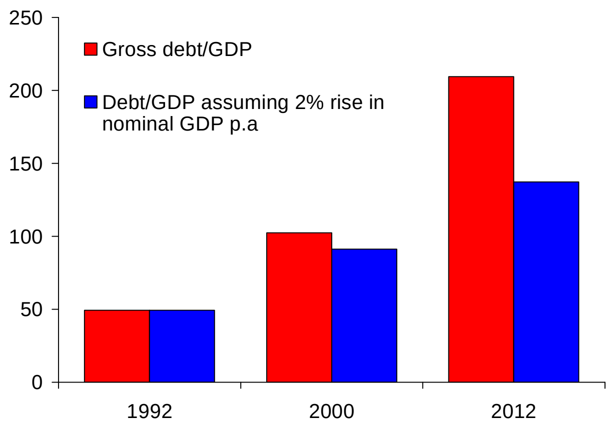
Will Japan restructure its debt?

- **High debt and deficit have sparked concerns of an eventual debt restructuring**
- **The fiscal situation is less alarming than it appears – but significant medium-term adjustment is needed**
- **A restructuring would be very damaging for the Japanese economy**
- **Getting out of deflation could be a significant positive for the fiscal situation**

Japan's fiscal position sparks fears of debt restructuring…

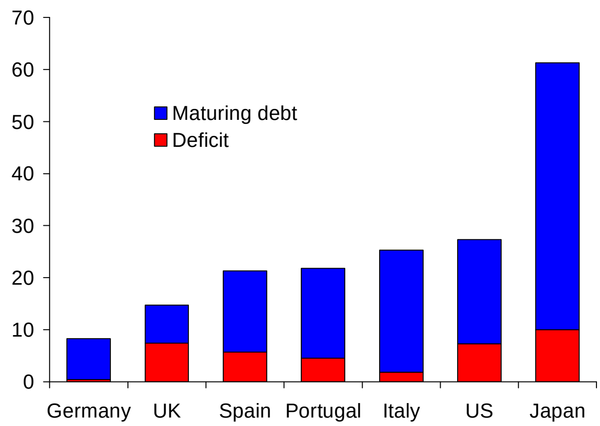
Japan's fiscal situation has attracted much attention over the last year, with high debt and deficit ratios sparking concerns in some quarters that the country might ultimately need to restructure its debt. The gross government debt to GDP ratio is estimated at 209% of GDP at end-2012, much higher than other industrialised countries – and has doubled since 2000. Meanwhile, the budget deficit was around 10% of GDP last year and is likely to be higher still in 2013 following the announcement of a modest fiscal stimulus in January. This implies the risk of a rapid further build up in government debt.

Japan: Effects of deflation on debt ratio
% of GDP



Source : Oxford Economics/Haver Analytics

World: Government gross financing needs
% of GDP, 2013



Source : Oxford Economics/Haver Analytics

Pessimistic observers also argue that the relatively short maturity of Japan's debt creates a substantial 'rollover risk' in case of a crisis of confidence, and that low economic growth and a deflationary environment make Japan's debt dynamics even more alarming. There is some substance to these arguments. Japan's annual government financing need (deficit plus maturing debt) is around 60% of GDP – again much higher than other industrial countries. And deflation has been a serious problem for Japan's debt dynamics over the last two decades –

indeed, had nominal GDP risen by 2% per annum from 1992-2012 instead of shrinking, Japan's debt/GDP ratio would be some 70% points lower (all else equal) than it actually is.

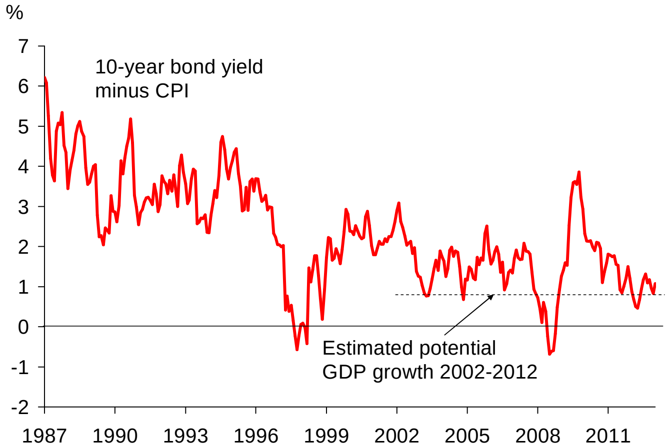
Japan's low potential growth rate of around 1% per annum, which is dragged down by very negative demographics (the working population is shrinking by around 1% per annum) also makes it hard for Japan to 'grow out of its debt'. This is an important difference between Japan's position and that of the industrial countries after WWII, a number of which faced similarly high debt/GDP ratios but which were able to get them down to manageable levels in large part due to strong economic growth.

Japan's fiscal situation is, however, less grave than it might first appear, for a number of reasons –

The gross debt ratio overstates the risk level. Japan's public sector also has substantial assets. If all financial assets are netted off, the net debt/GDP ratio comes in at 134% of GDP. This is probably going too far as some government assets, such as those held by the social security fund, are pledged for use to pay future social benefits and are not available for debt repayment. A more reasonable approach is to net off the government's liquid assets including foreign exchange reserves, which leaves an adjusted 'net' government debt figure of around 170% of GDP – rather lower than gross debt though again high compared to other advanced economies.

Financing costs are low. Despite the high level of debt, financing costs are relatively low. 10-year government bond yields are just 0.8% and government interest payments in 2012 were less than 2% of GDP. Due to falling prices, the real interest rate paid on Japan's debt is higher than the nominal rate and it has been argued that the real interest rate payable on Japanese debt has also been persistently above the economy's real growth rate – generally considered a sign of an unsustainable debt situation. This has indeed been true of much of the last decade, but recently the real yield on 10-year Japanese bonds has come broadly into line with estimated potential economic growth. This suggests there is little sign of any large risk premium existing in Japanese long-term yields.

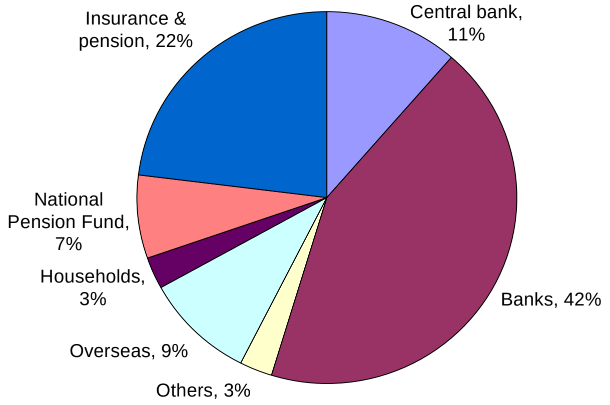
Japan: Real bond yields



Source : Oxford Economics/Haver Analytics

Japan: JGB holdings by sector

% of total, 2012Q3



Source : Ministry of Finance

Japan has a stable investor base for government debt. The risk of a sudden collapse in demand for Japanese government debt is greatly reduced by the ownership structure of the debt. Foreign ownership has risen in recent years, but the share of potentially footloose foreign investors remains low at less than 9% of outstanding debt. Over 90% of the debt is held by domestic institutions, dominated by banks (42%) insurance and pension funds (22%) and the National Pension Fund (7%), with a sizeable holding also for the central bank (11%).

Given an absence of inflationary pressures, there remains considerable scope for the Bank of Japan to buy up yet more government debt if necessary, to hold down borrowing costs. And the public sector's influence extends beyond this. If holdings of quasi-public entities such as the postal savings system and parts of the insurance industry are included, then the share of debt held by the public and quasi-public sectors could be as high as 50%. It seems unlikely that this large source of demand for government paper will suddenly dry up – indeed it could be argued that these institutions could rather be prevailed upon to step up their purchases if needed. So the scope for 'financial repression' to hold down debt yields is probably rather higher in Japan than in other advanced countries.

Demand from the domestic private sector also looks likely to remain robust, in the near-term at least. Despite low nominal yields, government bonds remain an attractive asset for banks. A large chunk of household savings (around 55%) are channelled into deposits, and with the corporate sector's demand for investment funds having declined in the last two decades these savings have been recycled into government bonds. An atmosphere of deflation and limited interest rate risk (with central bank rates stuck near zero for an extended period) has increased the attractiveness of this strategy for banks and for other investors such as insurance firms.

Japan has scope for fiscal adjustment. Another reason for the surprising stability and low level of Japanese borrowing costs is the belief that Japan has considerable scope to improve the current fiscal position over the medium-term. Currently, total government spending is around 43% of GDP while revenues are around 33% of GDP. The latter ratio is rather low compared to other advanced economies and there is arguably significant scope for tax reforms that could raise it. The obvious step is to raise the consumption tax, which is currently low at just 5%. As a broad-based tax this would be quite effective at raising revenues. And the government does plan to increase it to 10% in two steps in 2014-2015 which we estimate could raise revenues by around 2.5% of GDP.

…but a forced default looks unlikely…

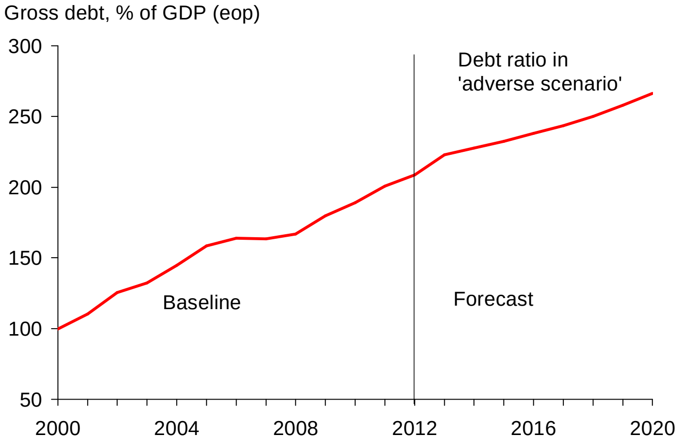
The low cost of borrowing and the stable investor base mean that the danger of Japan being faced in the short-term with a collapse of demand for bonds and a dramatic upward spiral in yields appears low. But there are medium-term risks. Japan can live with a rather higher debt ratio than many other countries given the special features noted above, but it cannot defy gravity forever - the current fiscal settings and economic environment, if unchanged, would mean a steep further rise in the debt ratio in the next decade.

In an 'adverse scenario' where deflation persists at 0.5% per annum, economic growth remains weak at 0.7% per annum and the planned consumption tax hike for 2014-2015 is cancelled, we estimate that the gross debt/GDP ratio would rise to around 270% by 2020 and the net debt/GDP ratio would exceed 220% of GDP. In our view such a further steep rise in debt would pose serious questions about Japan's long-term solvency.

Japan would also be at risk if there were a sudden rise in bond yields, for example connected to a big shift in domestic inflation expectations. If bond yields were to rise by 2% points above the level assumed in our baseline economic forecast, the debt/GDP ratio would be over 20% points higher (at 237% of GDP) by 2020.

Another risk is the danger that the hitherto strong domestic demand for government bonds might start to dwindle. This issue is usually discussed with reference to Japan's ageing society. As noted above, demand for government bonds has been supported by abundant household savings being channelled through the banking sector. But the household savings rate has been declining for some years and is now relatively modest at around 2%. As an ageing population starts to draw down assets in retirement this could fall further.

Japan: Debt scenario



Source : Oxford Economics/Haver Analytics

This problem is not an immediate one. The big decline in the household savings rate is now old news – it began more than a decade ago – and there have not yet been signs of this destabilising the bond market. Recently household deposits have been rising relatively quickly as well (by over 2% on the year in 2012Q3).

In addition, the decline in savings by the household sector has been offset by a rise in corporate savings, so that the total private sector savings rate remains high at an estimated 11% of GDP for 2012. So there remains considerable scope for private sector funds to be mobilised to purchase the flow of new government debt.

In the medium term, however, there could be problems. If government deficits remain large then this, combined with the negative impact of demographic factors, could see Japan's debt start to outstrip the capacity of the domestic economy to finance it. This would leave Japan reliant on foreign investors, who would be unlikely to accept such low bond yields. The very low starting point of foreign ownership means it would take some time for the influence of foreign investors to really build up, but it seems reasonable to assume that once their share of the debt market reached 15-20% they could exercise significant influence, especially if demand/supply conditions in the market were tighter than today.

To illustrate this we take an approach similar to that in Hoshi & Ito (2012)[1], comparing Japan's net debt with the net financial assets of households (excluding shares) plus the corporate sector's holding of cash, deposits and government bonds. In 2012, the ratio of net debt to this definition of private sector financial assets was around 48%. If the budget deficit remains at 9% of GDP, while private sector financial assets continue to grow at their recent rate of 0.5-1.5% per annum then the debt/financial asset ratio could reach 100% in 2028-2035.

However, there is a risk that this ratio could be hit earlier as the pace of growth of private financial assets may decline due to Japan's ageing society – many households will start to draw down assets rather than building them up – and Japan's population decline is set to speed up from 2020 on current projections. If private sector financial assets were to decline by 1% per annum then the debt/financial asset ratio could reach 100% by 2024 – only a decade from now. And in practice, the 'crunch' would probably come before this point as some part of the flow of domestic savings would be invested abroad and because investors would foresee these negative dynamics and demand higher risk premia.

Projected dates at which net government debt exceeds private sector financial assets

	Growth of private financial assets p.a.			
	-1%	0%	0.50%	1.50%
Deficit at 9% of GDP	2024	2026	2028	2035
Deficit cut to 5%	2029	2035	2040	2066
Deficit cut to 2%	2041	2057	2074	n/a

Notes: projections assume nominal GDP growth of 2% per annum. Private financial sector assets are defined as net household financial assets minus equities plus non-financial corporate holdings of cash, deposits and government bonds.

If the authorities engage in fiscal adjustment, then the picture improves somewhat. If the budget deficit declines to 5% of GDP then the earliest 'crunch' year is 2029 (with a decline in financial assets of 1% p.a.) while with private financial assets growing at 1.5% p.a. the crunch would be delayed until 2066. If the deficit falls to 2% then the earliest crunch year is 2041 while with relatively strong growth of private financial assets the crunch point can be avoided entirely.

Other related risks include the possibility that corporates will increasingly channel their savings overseas rather than into the banking system (and thus into JGBs) or that demand from state institutions declines due to changes in investment policy or (in the case of the National Pension Fund) a need to liquidate assets to pay retirees. As noted earlier, however, we would argue that if pressures on the bond market did start to build up due to a reduction in demand from state and state-related agencies, there would probably be some official pressure to reverse or at least slow this process.

…and default would be economically very damaging

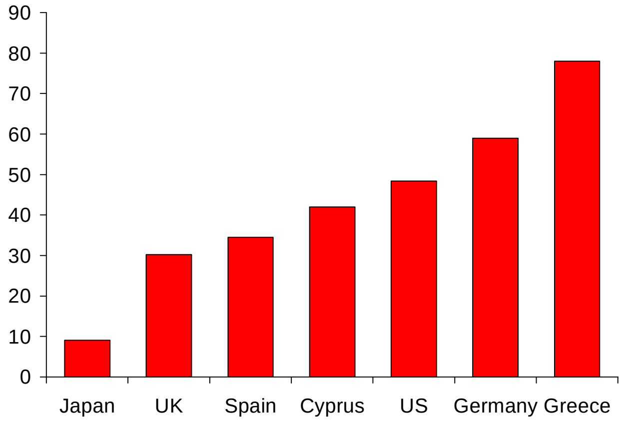
The analysis above suggests that while Japan cannot continue to allow its fiscal ratios to deteriorate indefinitely, it still has some breathing space in which to improve its finances, and that a 'forced default' is unlikely in the next few years.

[1] T.Hoshi & T.Ito 'Defying Gravity: How Long Will Japanese Government Bond Prices Remain High?' NBER Working Paper No. 18287, August 2012

It is also worth noting that a debt restructuring in Japan would be very economically damaging. There are cases where default can be a 'least worst' option, but a number of conditions need to be in place for this. Ideally, most of the debt should be owed to non-residents (minimising negative domestic wealth effects from the debt writedown) and the primary (non-interest) budget should be close to balance (removing the problem of borrowers being unwilling to lend fresh funds to the sovereign after the default). Neither of these conditions is met in the case of Japan.

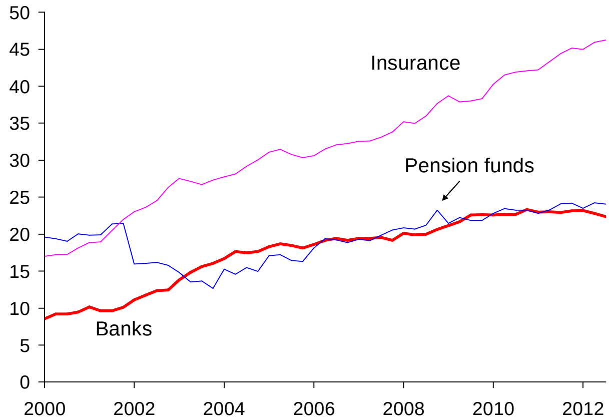
First, the primary deficit is large at around 9% of GDP. With no bond inflows to finance this, the only alternatives would be either dramatic fiscal tightening or monetary emission – the latter on a scale likely to lead to very rapid inflation.

World: Foreign debt holdings
% of total



Source : Oxford Economics/Haver Analytics

Japan: Government debt holdings by sector
% of total assets



Source : Oxford Economics/Haver Analytics

Second, with the bulk of Japan's debt held by domestic financial institutions, a default would wreak havoc on their balance sheets and risk a dramatic credit crunch and/or the need for large scale recapitalisation of these institutions by government.

The situation is especially risky in the case of the banking sector, which now holds some 20% of assets as government bonds – an unusually high level for an industrial country. This amounts to around six times the sector's capital so even a relatively moderate writedown of Japan's debt would risk wiping out the banks' capital base. And the damage would not end there, as pension funds hold a similar share of their assets in government debt and insurance firms an even higher share of over 40%. In this respect Japan is very different indeed to Greece where the bulk of losses from debt default fell on non-residents given their high level of ownership of Greek debt.

The likely endgame – fiscal adjustment, modest inflation and financial repression

In conclusion, we take the view that while Japan's current fiscal settings are unsustainable in the longer term, the risk of a forced debt restructuring in Japan in the next few years is low and that a default in Japan would be very economically damaging.

Japan's fiscal situation is less alarming than it appears, due to high levels of government assets, scope for fiscal adjustment and an unusually stable domestic investor base for government debt. Japan also has scope to offset market pressures on bond yields to some extent, in particular through 'financial repression'; state and quasi-state entities can be prevailed upon to continue buying debt and the Bank of Japan can increase its holdings further, financing this with monetary emission if necessary – though there is clearly a limit to how far the latter option can be pushed.

Nevertheless, there are medium-term risks due to negative demographics, which will erode the capacity for the deficit to be financed domestically and on easy terms. In a very negative scenario with no fiscal adjustment and declining private sector financial assets, it is possible that Japan could cease to be able to fund its debt domestically in about ten years. In practice, if Japan is still accumulating debt at the current rate towards the end of this decade and the growth of domestic financial assets to fund this dries up, a crisis would probably occur before this point is reached.

Using more optimistic assumptions, Japan's capacity to fund its debt domestically is likely to remain high for somewhat longer than a decade. But this relies in large part on Japan achieving significant medium-term fiscal adjustment. Our baseline case is that Japan gradually manages its fiscal problems down through a mixture of fiscal adjustment, a return to moderate inflation and continued exploitation of financial repression and 'home bias' among domestic investors.

Achieving moderate inflation is a key part of this. Our analysis shows the potential importance of breaking out of the entrenched deflation of recent years for arresting the deterioration of Japan's finances. Deflation has been responsible for a large share of the rise in the debt/GDP ratio, and even a shift to moderate price rises could over time contribute a great deal to stabilising this ratio. In this respect, the recent decision by the new Japanese government of PM Abe to shift to a rather more aggressive policy of monetary loosening makes sense – not only might this policy boost short-term economic growth but it might also break the deflationary cycle.

Abe's government has also announced a modest fiscal stimulus this year, with the intention of boosting economic growth. This is perhaps more contentious given the state of the fiscal accounts, but it makes more sense to try this now than to wait several years by which time the situation may have deteriorated even further and such a policy would be riskier still. And to the extent that this fiscal stimulus helps break the cycle of weak economic growth and deflation, it could have long-term fiscal benefits as described above.