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Japan's debt trap: Who's in the trap?

Disentangling the public finance puzzle and its interaction with the JGB market

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Introduction

The cost of rebuilding following the earthquake and tsunami in Japan in March, and renewed concerns about the ability of Greece to repay its debt, have turned the attention of investors once again to the debt burden in Japan. Yoshi Sakakibara, Economist, and Dan Morris, Market Strategist, discuss the current fiscal situation in Japan and the potential impact of financing the reconstruction. (The following is a condensed version of a longer paper. For those wishing to learn more about Japan's public finance situation, please contact your J.P. Morgan Asset Management representative to obtain the full document.)

Dan: Yoshi, is the public's perception accurate that Japan's finances are already so bad that they could not support the additional debt issuance required to finance reconstruction?

Yoshi: Not really. While Japan's fiscal situation is clearly not good, I don't believe it is as bad as is widely perceived. Comparisons to Greece, which doesn't even have independent seigniorage, are particularly inapt. It is important to make the distinction between gross and net debt. As the IMF observes, gross debt is a better measure of rollover risks while net debt is more relevant when evaluating fiscal sustainability and the impact of debt on growth or interest rates. The figure most often cited of gross debt-to-GDP of more than 200% overstates Japan's problem.

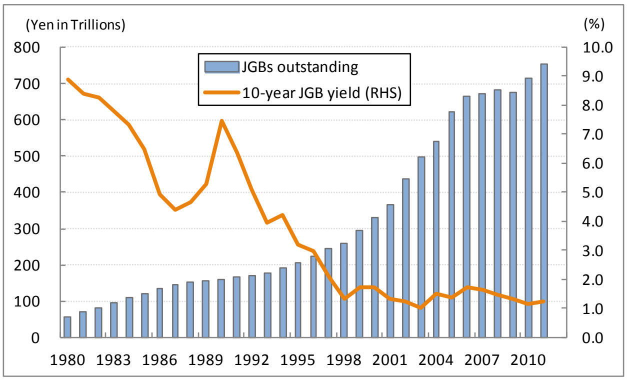
D: But even the net debt to GDP ratio at 100% is the highest among the advanced economies.

Y: True, but some experts argue that it is the amount of debt held by the public (as opposed to government-linked institutions) that is key as this better indicates the net borrowing requirement of the government from the private capital market. By this measurement, the ratio of Japanese government bonds (JGBs) held by the public to GDP is only about 50% (that is, excluding JGBs held by Bank of Japan, the National Pension Fund, and Japan Post).

D: But even if the current levels of debt are not as bad as people think, the government will need to issue substantial amounts to finance reconstruction following the disasters. Won't this put significant upward pressure on JGB yields?

Y: If we look at the relationship over the past 30 years between debt issuance and bond yields, we see bond yields have continued to decline even as debt issuance grew (see **Exhibit 1**). We don't expect that relationship to change.

Exhibit 1 – **Debt issuance and JGB yields**



Notes: The data for JGBs outstanding is as of March (ie the fiscal year end) while that for JGB yield is the yearly average of each month-end value except the figure for the year 2011, which uses the average through April. Sources: Ministry of Finance, Bank of Japan, J.P. Morgan Asset Management. Data as of May 2011.

D: The amount of proposed debt issuance, though, is quite large compared to the past. Won't this add to the required yield investors demand (the "fiscal premium")?

Y: It depends on the source of the fiscal premium. What are the risks for government bond holders?

D: The first thing that comes to mind is default risk.

Y: Certainly, but I don't believe many people would claim that the Japanese government is any more likely to default than the governments of the US or the UK. Over the last 200 years, Japan has defaulted just once, and that was during the Second World War[1]. Greece has defaulted or restructured its debt five times since 1800, and has spent more than 100 years out of the past 200 either in outright default or in the process of rescheduling. Japan's historical record is even better than that of Germany, which has defaulted or rescheduled eight times since 1800 (ibid).

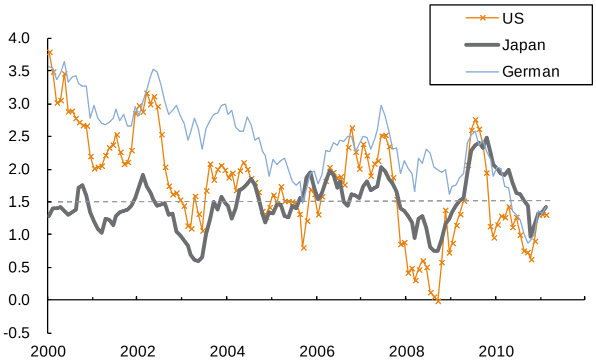
D: What about the risk of inflation?

Y: Runaway government spending can conceivably become inflationary, but given that the money will be dedicated to reconstruction it is unlikely in Japan's case.

D: If we agree that yields probably will not increase, that just means JGBs will continue to be a very unattractive investment as 10-year yields are around 1%.

Y: It depends. Nominal yields are admittedly low, but for Japanese investors (who hold about 95% of all outstanding JGBs), yields are appealing in real terms (see **Exhibit 2**). For outsiders, however, JGBs are much less attractive as the nominal yield is deflated by their own home inflation and they face exchange rate risks, without much cushion from the coupons or roll-down effects.

Exhibit 2 – **Real government bond yields**



Note: To get real yields, nominal yields are deflated by the so-called adaptive approach, which takes inflation expectations as the weighted average of the past performance, namely in this case, 10-year rolling inflation rates and contemporaneous year-on-year inflation rates.
Sources: Bank of Japan, Ministry of Internal Affairs (Japan), Federal Reserve Board, Department of Labor (US), Bundesbank, Federal Statistics Office (Germany), J.P. Morgan Asset Management. Data as of May 2011.

D: So the JGB market is almost purely domestic?

Y: Well, not quite. More than 60% of all JGB futures market trading (excluding inter-dealer's transactions) is conducted by non-Japanese investors. So non-Japanese investors are still involved actively in determining the price of JGBs.

D: Is there no risk of a spike in yields?

Y: We believe the risk is low, but one can never rule it out. There have been a few instances of yield spikes over the last 15 years: the so-called "TFB Shock" in 1998, the "VAR Shock" in 2003, and a small jump in 2010. They occurred

[1] This Time Is Different by Carmen Reinhart and Kenneth Rogoff

soon after nominal yields fell very low, so low that they no longer offered good value for even Japanese investors, but these spikes were all followed by an economic recovery phase.

D: What if interest rates rose anyway, perhaps because the economy begins to recover thanks to reconstruction, or because of contagion from Europe? Wouldn't the increased interest payments become a major burden on the government's finances?

Y: Interestingly, the latest budget assumptions by the Ministry of Finance include 10-year interest rates at 2%. So even an increase of this magnitude wouldn't change forecasted deficits. It is also worthwhile remembering that a rise in market rates would not affect interest payments on existing bonds. So the negative impact of higher interest rates on public finances would be fairly limited.

D: Even if the government can make the increased interest payments, doesn't the huge amount of debt outstanding mean that economic growth will continue to be low?

Y: This idea comes from the Reinhart-Rogoff Rule, which says that a gross debt-to-GDP ratio above 90% causes weaker economic growth. The idea has its detractors, however. Professor Paul Krugman has claimed that the relationship is actually the other way round, that weak growth causes a higher debt-to-GDP ratio. (See also "Government Debt and Economic Growth", Irons and Bivens http://www.epi.org/publications/entry/bp271/). Though many investors still fear the "bond vigilantes", nominal government bond yields are largely determined by economic growth prospects, inflation rates, and default risks, not by the amount of government debt.

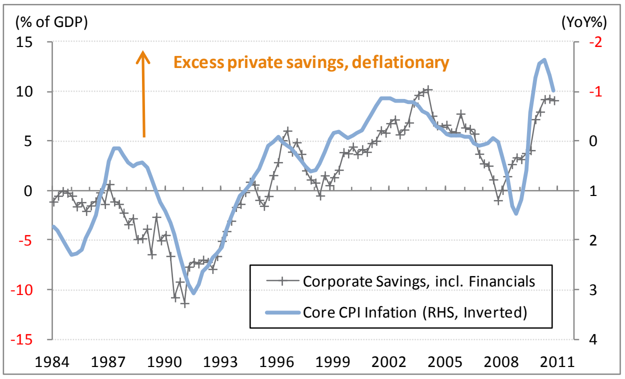
D: I'm under the impression that Japan's government is large and thus that its expenditures are high as well. Is that correct?

Y: Actually, they are not that high. According to the OECD's *Economic Outlook* (November 2010), Japan's general government outlays as a percentage of GDP are the fourth lowest among the 31 member counties. And Japan's social security expenditures as a percentage of GDP are among the lowest in the group, despite having a rapidly ageing society.

D: So it's not necessary for the government to cut expenditures?

Y: Cutting fiscal spending to improve the public finances would more likely backfire in Japan under the current circumstances. While people tend to focus on public deficits, it is deflation combined with the excess savings of the corporate sector which is hindering growth. In a normal, mildly inflationary economy, corporations would spend the cash on their balance sheets and so support growth. But in a deflationary economy, cash tends to be hoarded, exacerbating deflationary pressures (see **Exhibit 3**). To break the cycle, public spending is necessary as it hopefully promotes inflation.

Exhibit 3 – **Corporate savings and inflation**



Note: For the corporate savings data, transfers of entities between the private and the public sectors due to privatisation etc. have been adjusted for comparison purposes in the continuity. For CPI, the effects of special one-off factors, including consumption tax hikes, have been excluded. Sources: Bank of Japan, Ministry of Internal Affairs, UBS Securities, J.P. Morgan Asset Management. Data as of May 2011.

D: But wouldn't increased public spending result in even larger public deficits?

Y: Perhaps, but it would probably not change the aggregate level of savings and investment in the economy. As government deficits increase, corporate savings should fall, further spurring economic growth. As growth increases, corporate profits will grow, increasing tax revenues, leading to a reduction in public debt. So in order to end deflation, the government needs to help by kick starting the economy with aggressive fiscal spending. The reconstruction following the disasters should help.

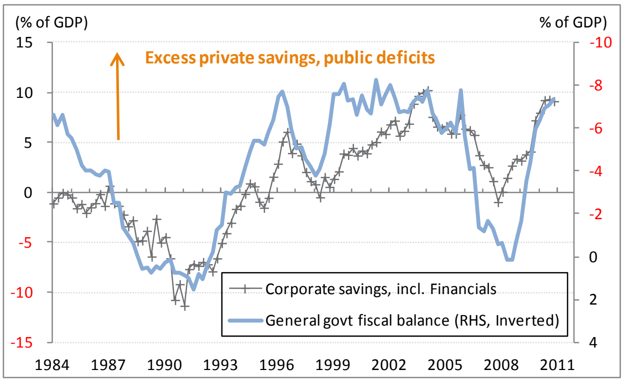
D: What is your expectation for the markets?

Y: If Japan's long bond yields rise meaningfully over the next few years, it will not be due to the government's debt burden but due to the end of deflation as a result of a sustained economic expansion, which will also benefit equity markets.

Conclusion

In our view investors' perceptions that Japan is woefully over indebted, that it will inevitably find itself in the same situation as Greece with skyrocketing bond yields and risk of default, are mistaken. Japan's debt levels are not as high as widely believed, and there is adequate scope for the government to issue more debt in order to finance the post-quake and tsunami reconstruction. While ultimately an end to deflation is a prerequisite for a sustained economic recovery, the stimulus from the spending package should help hasten deflation's demise. Ultimately an end to deflation is a prerequisite for a sustained economic recovery. Whether it is financed by new debt or by tax increases that shift income from the consumption-averse private sector to the shovel-ready government, stimulus from the spending package should help hasten deflation's demise.

Exhibit 4 – **Corporate savings and government deficits**



Note: For the corporate savings data, transfers of entities between the private and the public sectors due to privatization etc. have been adjusted for comparison purposes in the continuity. Sources: Bank of Japan, Ministry of Internal Affairs, UBS Securities, J.P. Morgan Asset Management. Data as of May 2011.