Eurobank Research
www.eurobank.gr/research
research@eurobank.gr

GLOBAL ECONOMIC & MARKET OUTLOOK

September 3, 2012

Eurobank

FOCUS NOTES

Research Coordinator:

Dimitris Malliaropoulos
Economic Research Advisor
dmalliaropoulos@eurobank.gr

Vasilis Zarkos:
Economic Analyst
vzarkos@eurobank.gr

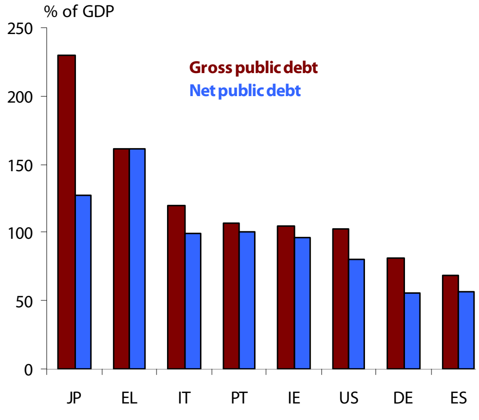
Japan: A sovereign debt crisis is not imminent but risks remain.

- Large financial surpluses of the Japanese private sector since the burst of the asset price bubble two decades ago, coupled with strong home bias, has helped finance sizable public budget deficits and a huge public debt. As a result, despite overstretched public finances, market concerns about sovereign risk remain muted.
- A depletion or reallocation of private sector's savings would force the government to turn to foreign lenders. Foreign investors would most likely require higher returns due to the size of the debt and to compensate for the currency risk, increasing the risk of a negative "snow-ball" effect on debt dynamics.
- While a sovereign debt crisis is not imminent, massive debt accumulation and adverse demographic developments threaten the stability of the sovereign bond market in the longer term. It is in Japan's interest to take advantage of muted investor's concerns and address sooner rather than later its fiscal challenges and structural weaknesses that constrain its growth dynamics.

The downgrade of Japan's credit rating by Fitch last May symbolizes market concern over Japan's over-stretched public finances. According to IMF data, Japan's gross public debt has risen to almost 230% of GDP in 2011[1], by far the largest among developed countries (Figure 1). The debt levels are expected to rise further as the country keeps producing large fiscal deficits (Figure 2). Much of Japan's debt is intra-governmental, i.e. governmental debt of one agency of Japan's government is held by another governmental agency as an asset. One reason why gross debt is so large is that gross debt figures do not consolidate within the government sector.

If we net out intra-governmental JGB holdings and deduce financial assets held by the government, we obtain Japan's net debt. It turns out that Japan is actually less of an outlier if net debt is taken into account, which provides a better measure of a country's long-run debt sustainability. Yet, net debt remains large compared to other major developed countries, while it exhibits a rising trend.

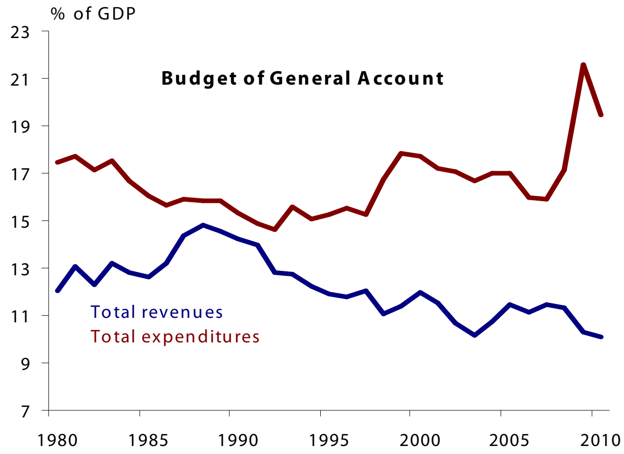
Figure 1



Source: IMF

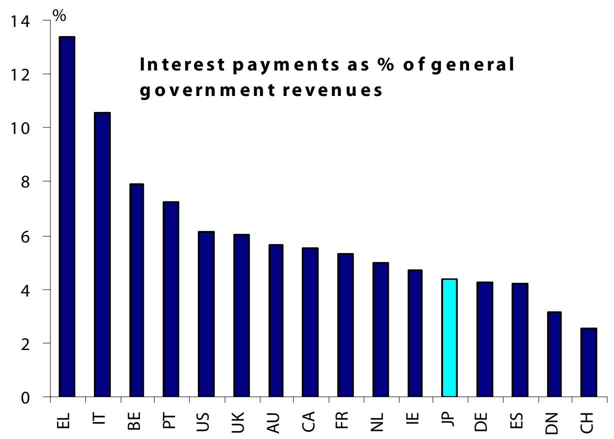
1. IMF debt figures include central and local government debt but exclude FILP bonds. Under the Fiscal Investment and Loan Program, the government provides funds to various government affiliated corporations for implementing public projects, such as for infrastructure (¥189tn outstanding amount at end FY2010). The general government debt excludes FILP liabilities based on the idea that they will be redeemed by future proceeds from investment rather than tax revenues.

Figure 2



Source: Ministry of Finance

Figure 4



Note: average 2005-2010 period

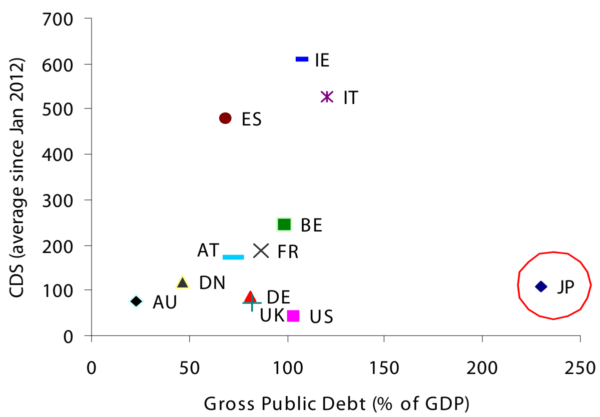
Source: OECD

Gross public debt was hovering at much lower levels during the 80's, with an average value of 65% of GDP. However, the collapse of the asset markets in the early 90's marked the origin of large increases in public debt, as the government was trying to boost stagnant economic growth through fiscal expansion. Despite governmental efforts, economic activity remained anaemic which, along with persistent deflation, deteriorated the public debt to GDP ratio. Following the global financial crisis in 2008, new fiscal stimulus has led to a sharp escalation of public debt. The March 2011 earthquake is expected to exert additional pressure on public accounts. According to the IMF, reconstruction costs are anticipated to increase public debt by around 3 percent of GDP.

Despite Japan's massive public debt, its long term borrowing cost has remained pretty stable. Even after the March 2011 earthquake, yields remained stable, defying fears stemming from the extra burden the reconstruction expenditures would place on public debt. Auctions have been met with stable demand, while investors' concerns as expressed by the cost of protection against a likely sovereign default are very subdued compared to other countries with lower public debt (Figure 3). Several past downgrades of Japan's credit ability have left the JGB market pretty much unfazed, with yields remaining stable or even declining after the downgrade. Clearly, the link between debt to GDP ratio and borrowing cost has broken in the case of Japan.

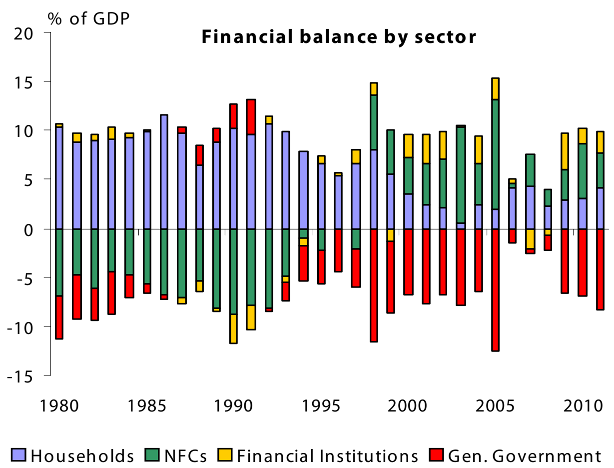
As a matter of fact, a country's fiscal stance should not be assessed only on the basis of its debt size but also on its ability to finance it. Looking at the interest payments as percent of general government revenues as a gauge to assess a country's ability to service its debt, Japan fares better that many other developed

Figure 3



Source: IMF, Bloomberg

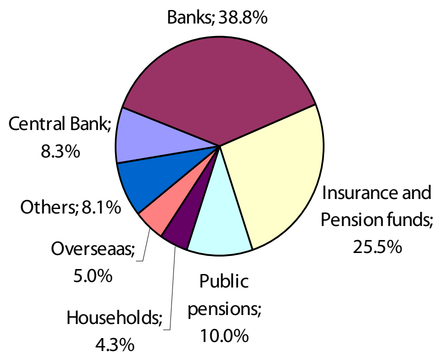
Figure 5



Source: Bank o f Japan, flow of funds

Figure 6

Shares of JGB holdings at end-2010



Source: Bank o f Japan

economies (Figure 4). Japan's ability to finance its deficits, despite its huge debt overhang is mainly attributed to the cash rich domestic private sector (Figure 5). The risk-averse nature of the Japanese households, along with a strong home-bias culture, has facilitated the financing of government debt. Households' financial assets are to a large extent held in cash and deposits, which are invested in government bonds directly or indirectly through the banking sector. Japanese firms are also cash rich. Subdued growth rates after the burst of the asset bubble and unwinding of capex excesses during the bubble period have resulted in corporations diminishing their investment expenditures, thus leading to large financial surpluses. Firms have stepped up their saving ratio from 16% in 1991 to 21% in 2009. High rates of saving coupled with constrained investment, has given rise to a current account surplus that facilitates the debt servicing.

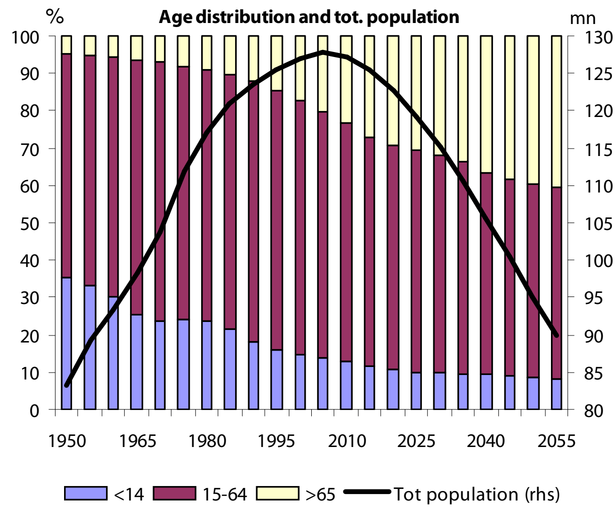
Private saving has provided the Japanese state with a broad domestic base for JGB purchases at low cost. In addition to the private sector, state owned financial institutions (i.e. Japan Post Bank, Japan Post Insurance and the public pension fund) have increased sizably their JGB holdings during the last 12 years. As a result, about 95% of total debt outstanding is held by in domestic hands (Figure 6). This shields the Japanese government bond market from the sovereign debt turmoil that rocks Europe, in spite of its worrisome fiscal stance and the rather leisurely approach of the government to bring public finances in a sustainable path.

Limited the sovereign debt risk as it is, it does not insure that Japan will always be able to borrow at such affordable rates. Several factors could potentially trigger turmoil in the Japanese sovereign bond market. First, the size of the debt in itself poses downside risks to the stability of the JGB market. The European debt crisis has dramatically shown that investors can lose fast their confidence in a country's creditworthiness. In such a case, Japan might find difficulty in regaining investors' confidence, given the magnitude of its public debt accumulation. Sizeable debt rollovers also pose a threat, as they could disrupt smooth absorption of debt, triggering a rise in borrowing costs.

In the event of a loss of confidence in Japan's ability to service its debt, domestic banks might hastily deleverage their JGB holdings to contain losses. As banks hold large amounts of sovereign paper (Figure 6), scaling back their public debt portfolio would fuel turmoil in the bond market, creating a feedback loop between higher rates and falling market confidence. Bank's appetite for government bonds may be reduced in the case of brighter growth prospects, as well. If demand for loans by firms and households surges, banks may find higher returns on loans to the private sector, thus shifting away from JGBs.

With respect to corporates, a decline in their saving ratio would deprive the JGB market of a funding source. Dissaving in the corporate sector would likely be triggered by higher growth

Figure 7



Source: National Institute ofPopulation and Social Security

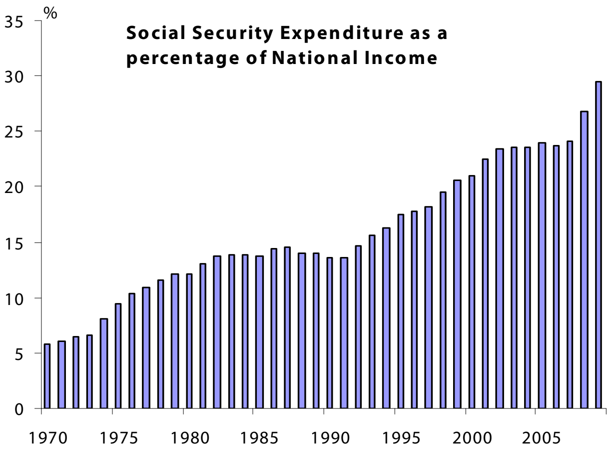
expectations, resulting in a surge in capital expenditures. A rise in trend growth would be positive for debt dynamics as most variables influencing debt dynamics (i.e. GDP growth, inflation and primary balance) would be positively affected. However, the aforementioned factors would improve the long term sustainability of public debt dynamics, whereas in the short term, a decline in the cash position of firms could disrupt smooth absorption of debt, thus raising the risk of a destabilization in the sovereign bond market.

Deteriorating demographics (Figure 7) is a key structural issue which is expected to affect adversely the private sector's funding ability of public budget deficits. Japan's population is among the most rapidly ageing populations in the world, with negative repercussions on households' saving rate. According to the life cycle theory, the saving rate is high in the working segment of the population, while the elderly consume by drawing down their financial assets. The effect of an aging society is already apparent in the households' saving rate, which has dropped from 8% in 1991 to 3% in 2009. As the population of elderly is bound to rise, households' saving rate is likely to decline even further. Hence, a reduced stock of deposits will be available to be invested in government bonds.

If public debt consumes all savings of the private sector, then the government will need to turn to foreign markets, which most likely will require higher returns due to the size of the debt and to compensate for the currency risk. Absent radical reforms aiming at increasing the country's output from the scanty 1.1% annual real GDP growth rate (average value for the period 1992-2007), higher interest payments may increase the risk of a negative "snow-ball" effect on debt dynamics. Since 2008, the deterioration of the debt-to-GDP ratio due to the "snow-ball" effect has been 16.5pps cumulatively, mainly attributed to GDP contraction. According to our calculations, in an adverse scenario where we assume that long-term borrowing costs double from current levels to 2%, real annual GDP growth remains subdued at 1%, deflation persists at -0.5% and primary balance is set at zero, the "snow-ball" effect itself would raise the debt-to-GDP ratio from 230% in 2011 to above 300% in the next twenty years.

Besides the negative impact on the saving ratio, the ageing of the Japanese society is expected to increase the need for pension layouts to the retirees. Higher social security payments would increase the burden on the public expenditure side, as well as reduce pension funds' capacity to absorb new government bond issuance. Social security spending has more than doubled in the last two decades, accounting for about 30% of national income (2009 data) (Figure 8). Moreover, a rising dependency ratio implies that these expenditures have to be covered by a shrinking pool of workers. On the revenues side, a shrinking working population may lead to lower income taxes, affecting adversely revenues. Overall, both developments will likely obstruct future governments' efforts to put a lid on budget deficits.

Figure 8



Source: National Institute ofPopulation and Social Security

Declining and ageing population could combine with political hesitation for structural reforms to exacerbate public finances in the future. Recent approval on a consumption tax hike from the current 5% to 8% in April 2014 and to 10% in October 2015 is a move in the right direction. Yet, to bring debt on a downward path more revenue and spending cut measures will be required. An inflow of immigrants is likely needed to increase the working population of the country. However, this may prove a challenging task given the relatively closed nature of the Japanese society. Moreover, reforms to increase future growth prospects might conflict with political interests, as redirection of bank deposits to firms' investment initiatives would reduce available funds for JGB purchases, which, in turn, would increase the urgency of unpopular fiscal measures.

In conclusion, we do not believe that a sovereign debt crisis is imminent in Japan. However, a credible debt management policy is required in order to reverse excesses in the country's fiscal stance. Bold action is needed to address fundamental problems of the Japanese economy, most notably the rapid ageing of the society. Japan should take advantage of the muted concern over its public finances and adopt sooner rather than latter fiscal consolidation measures and structural reforms aiming at increasing its long term potential output and reducing its debt burden.

Research Team

Editor, Professor **Gikas Hardouvelis**
Chief Economist & Director of Research Eurobank Group

Financial Markets Research Division
Platon Monokroussos: *Head of Financial Markets Research Division*
Paraskevi Petropoulou: *G10 Markets Analyst*
Galatia Phoka: *Emerging Markets Analyst*

Sales Team
Nikos Laios, Head of Sales
Vassillis Gioulbaxiotis, Head of International Sales
George Petrogiannis, Head of Shipping Sales
Yiannis Seimenis, Ioannis Maggel, Corporate Sales
Stogioglou Achilleas, Private Banking Sales
Alexandra Papathanasiou, Institutional Sales

Economic Research & Forecasting Division
Dimitris Malliaropulos: *Economic Research Advisor*
Tasos Anastasatos: *Senior Economist*
Ioannis Gkionis: *Research Economist*
Vasilis Zarkos: *Economic Analyst*
Stella Kanellopoulou: *Research Economist*
Olga Kosma: *Economic Analyst*
Maria Prandeka: *Economic Analyst*
Theodosios Sampaniotis: *Senior Economic Analyst*
Theodoros Stamatiou: *Research Economist*

Eurobank EFG, 20 Amalias Av & 5 Souri Str, 10557 Athens, tel: +30.210.333 .7365, fax: +30.210.333.7687, contact email: Research@eurobank.gr