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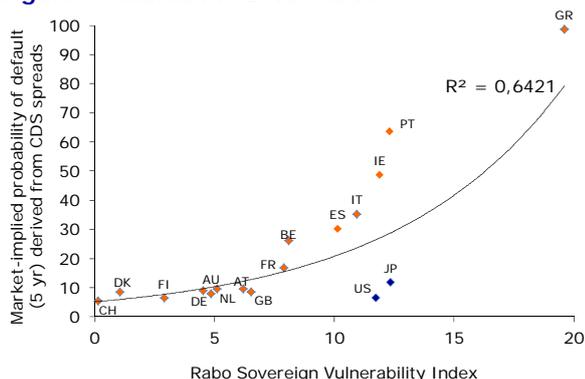
## Risk of debt crises in the US and Japan

*This article is part of a series of Special Reports that discuss the downside risks to the global economic outlook. In this piece, we take a closer look at the risk of sovereign debt crises in the US and Japan.*

### Assessing sovereign risk in US and JP

Suppose we had some visitors from Mars. If we were to show our Martian counterparts the fiscal variables of the advanced economies and then ask them which countries they thought were most susceptible to a sovereign debt crisis, which would they choose?

**Figure 1: Market IPD vs. RSVI**



Source: Reuters EcoWin, Rabobank

Knowing how aliens reason is impossible, of course, but given their unbiased decision we think that they would put Japan and the US somewhere on the top of the vulnerability list. Indeed, our own Rabo Sovereign Vulnerability Index (RSVI) shows that, based on eight leading indicators<sup>1</sup> of sovereign debt crises, Japan and the US score amongst the top 5 countries most susceptible to a debt crisis (see Rabobank Special Report 2011/07).

<sup>1</sup> Indicators included are: the interest rate-growth differential, the cyclically adjusted primary balance (% of potential GDP), interest payments (% of government revenue), net public debt (% of GDP), weighted average years to maturity, external debt (% of GDP), current account balance (% of GDP) and the Worldwide Governance Indicator (WGI). For a detailed explanation of these variables refer to Rabobank Special Report 2011/07.

According to the RSVI, both countries are more at risk of a crisis than Italy, Spain, Belgium and France (see figure 1). So the relatively benign treatment by market participants of sovereign bonds issued by Japan and the US do not fully reflect fiscal fundamentals.

### Much ado about nothing

As such, our Martian guests would ask us whether we are mispricing sovereign risk in these countries. That is probably the billion dollar question. There are good reasons to argue both ways. The optimists believe that the risk of sovereign default in these countries is completely zero, that's why their CDS spreads and long-term interest rates are so low. The argument goes as follows: the issuer of a sovereign currency (that is, a government that spends using its currency) is not operationally constrained and cannot be forced into default (Nersisyan and Wray, 2010). This means a nation operating with its own currency can always spend by simply crediting bank accounts, and that includes spending on interest. Thus, there is no sovereign default risk with regards to ability-to-pay. As De Grauwe (2011) correctly points out, when the euro members entered the monetary union, they changed the nature of their sovereign debt in a fundamental way, i.e. they ceased to have control over the currency in which their debt was issued. As a result, financial markets can force these countries' sovereigns into default. Since Japan and the US continue to borrow in their domestic currency, they tend to stay in the 'good' equilibrium for far longer. Investors know that the government will stand ready to utilise the money printing presses in order to avoid default. Given the very low probability of default, investors ask for lower interest rates. This, in turn, lowers the probability of default even more (i.e. ensures solvency) and hence results in a drop in interest rates. Countries borrowing in their own currency and having a

central bank that always stands behind their public debt often find themselves in such virtuous circle.

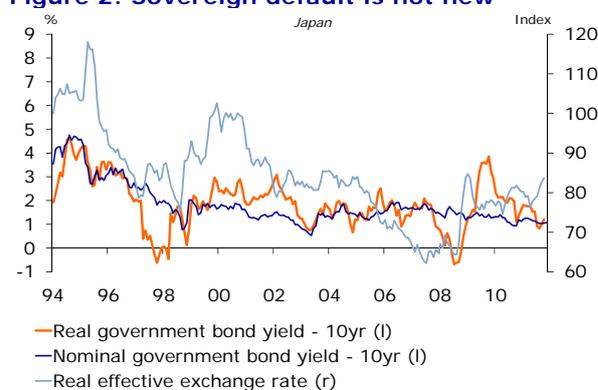
There are other reasons to be less worried about Japan and the US. For one, bonds issued by these countries have a *relatively stable investor base*. Institutional investors — including insurance companies, mutual funds, and pension funds— hold 24% of government securities in Japan and 12% of Treasury securities in the US. In addition, more than one-third of US Treasuries are held by other government agencies, including the Social Security Fund, and 20% of Japanese government bonds are held by Japan Post Bank (IMF, 2011). Secondly, *the lack of substitutable assets* forces market participants to hold onto public debt of these countries. Given the lack of sufficiently deep and liquid markets such as the US Treasury market, one can argue that Treasury investors are a captive investor base. Japan also seems to benefit from this since close to 95% of its public debt is held by domestic residents.

### Is there such a thing as market-proof countries?

So far, so good; or so it might seem. The question one needs to ask is whether we can expect these two countries to defy market forces forever? No one in their right mind can expect debt ratios to hit 1000% without witnessing a sovereign debt crisis in these nations. Consequently, the widening crisis in the eurozone should serve as a cautionary tale for Japan and the US. Recent developments in Spain and Italy demonstrate how swiftly and severely market confidence can weaken and how even large advanced economies can be sucked into the crisis amid changes in market sentiment. The good news is that there are few signs of flight from American or Japanese sovereign debt up to this moment. But this can change in a heartbeat. The eleventh hour agreement over the debt ceiling, which has already been raised over 70 times since the 1960s, served as a plain warning for US bond

investors that even though the American officials can always resort to printing dollars to repay nominal debt, they might actually not be *willing* to do so anymore. Some of the Tea Party representatives even flirted with the idea of sovereign default just to support their ideological case for 'smaller government'. More of these hair-raising episodes will eventually lower trust in America's resolve in paying back its debt and this will entice investors to exit the US Treasury market *en masse*.

Figure 2: Sovereign default is not new

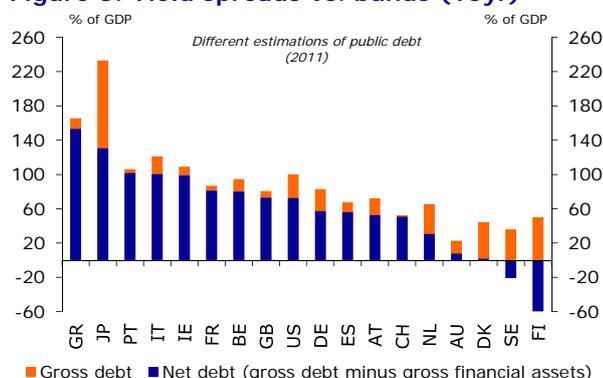


Source: Reuters EcoWin, Rabobank

As for Japan, given that more workers will retire and liquidate their holdings of government bonds (e.g. through their pension funds), the share of non-resident holdings of public debt may need to increase significantly in the future. This might push long-term interest rates upwards. Domestic investors have been content with the very low long-term interest rates because the deflationary environment meant that they made a positive return adjusted for inflation (see figure 2). However, foreign investors will not care about Japan's deflation because they will repatriate the returns to their own country. What matters is the direction of the exchange rate. If the yen starts depreciating, then, all else equal, foreign investors will ask for higher interest rates to compensate. Figure x shows that the yen had depreciated by 32% between 00Q3 and 08Q3 without having any upward effect on nominal interest rates. The Japanese government is unlikely to be so fortunate when foreign investors own a

larger portion of their debt. Mind you that debt servicing costs will skyrocket given that net public debt ratio (see figure 3) will be heading for 167% in 2016, according to the IMF.

**Figure 3: Yield spreads vs. bunds (10yr)**



Source: Reuters EcoWin, Rabobank

Another problem with greater exposure to foreign funding is that it can be a risky strategy. Historical evidence shows that the share of public debt in foreign hands tends to be a good predictor of liquidity crisis because 'footloose' foreign investors rush quicker for the exit when panicked in comparison to their domestic counterparts (Fuertes and Kalotychou, 2007; Manasse, et al. 2003). There are two reasons for this. First, foreign investors usually have less knowledge of a country's 'true' macro fundamentals. Second, countries are generally less inclined to default on their debt if it is held by domestic residents because of the severe macroeconomic and political repercussions (Reinhart and Rogoff, 2010). Thus, the Japanese bond market has been relatively immune to sudden shifts in global sentiment until now, but the authorities cannot count on this to happen in the future when their domestic investor base will be shrinking.

**Bottom line:** Borrowing costs in Japan and the US remains very low despite adverse shocks to the public finances of the former resulting from the earthquake and tsunami and the credit rating downgrade of the latter following the political impasse during the debt ceiling negotiations. The danger is if these two countries

begin to feel 'market-proof'. Without more ambitious fiscal consolidation in the medium-term, a sudden rise in government bond yields, leading to a sovereign debt crisis, remains a distinct possibility. It goes without saying that this will be extremely painful for both countries. According to recent research of Furceri and Zdzienicka (2011)<sup>2</sup>, debt crises produce significant and long-lasting output losses, reducing output by about 10% after eight years. What's more, debt crises are found to be more detrimental than banking and currency crises.

Our base case scenario is that that both countries will realise that complacency will be eventually punished. It is only a matter of 'when' rather than 'if'. Should these countries choose not to change course, a major global financial crisis will be in store. Its timing is anyone's guess.

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Shahin Kamalodin (+31) 30 - 2131106  
S.A.Kamalodin@rn.rabobank.nl

[www.rabobank.com/economics](http://www.rabobank.com/economics)

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<sup>2</sup> The authors use an unbalanced panel of 154 countries from 1970 to 2008.