

# What is sovereign risk and how to measure it?

## Fixed Interest and Credit Research

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Amid the intensifying global market volatility of late, the term 'sovereign risk' was prominent in media and analyst commentary. The prevalent view was sovereign risk was a new development in markets, something that fund managers needed to develop new skills to deal with.

Contrary to this belief, sovereign risk factors have always been an integral part of making sound investment decisions. What seems to have happened, however, is that many investors had become complacent about sovereign risk assessment, particularly in the eurozone. Simply assuming that all members of the single currency region would pursue improved public finances and fiscal strategies because they were obliged to under the Maastricht criteria has proven to be a mistake.

This note therefore discusses the meanings of the term 'sovereign risk' and how market participants consider and measure it.

### **What is sovereign risk?**

'Sovereign risk' refers to the risk that a government may default on its debt obligations. In general, when governments have bonds that are due to mature, they don't have sufficient tax receipts on hand to repay all the debt, so they re-enter the market to raise further money via a bond issuance. Sovereign risk thus includes 'refinancing risk', when a government is unable to raise sufficient new debt in the market (i.e. at reasonable market prices and in sufficient volume) to repay upcoming bond maturities. Sovereign risk can also be used to refer to a country imposing regulations, restricting the ability of issuers in that country to meet their obligations, such as foreign currency restrictions.

In terms of the current issues in Europe, the term sovereign risk has been used to widely categorise the large budget deficits and very high government debt levels of a number of countries, especially Greece, Italy, Ireland, Portugal and Spain. These countries, especially Greece, have both very high net debt levels and very high budget deficits, which are adding substantially to their debt burden. This ongoing accumulation of large deficits and debt is causing many in the market to question whether there is a higher risk that these countries may at some point not be able to repay bonds as they mature. A borrowing country that has higher budget deficit levels over a long period of time accumulates large government debt levels, giving that borrower less financial flexibility to borrow in the future. This makes these two indicators the key ones to watch when assessing sovereign risk.

### How to measure sovereign risk?

A common measure of sovereign default risk used by many investors is the sovereign risk rating that rating agencies such as Moody's, S&P, and Fitch assign to each borrower. Similar to the well known corporate bond credit ratings, sovereign risk ratings are based upon an assessment of both the ability and the willingness of a country to service its debt. These ratings take into account criteria that include the key economic and socio-political attributes of sovereign entities. The assessment considers solvency and liquidity factors in evaluating the economic ability to pay, while political criteria such as development level of government and institutions, the degree of integration into global financial networks, and constraining forces such as social unrest are all important in assessing the willingness to pay. Sovereign risk ratings are thus based mainly on economic factors, however, a country's history as a borrower on global markets and political (governance) factors are also important.

The market is heavily influenced by rating agency actions because of their impact on actual investor behaviour, through the need to adhere to risk limits in portfolios, and because of their impact on general market psychology. Hence, the recent downgrade of Greece by S&P from investment grade to high yield was a big contributing factor in its government bond yields rising very sharply, despite the EUR 110bn aid package agreed with the EU and IMF at the end of April. Many investors simply have to sell out of non-investment grade bonds. For other investors, the decision to sell may have been made on the basis of a decline in sentiment toward Greek bonds.

In addition to uncertainties that still remained around the aid package in the near term, the market turned its attention from Greece's immediate ability to refinance its redemptions to its medium term structural problems and its ability to resolve them. A higher risk of default was thus priced in, which was reflected in borrowing rates rising sharply.

Sovereign risk premium is essentially the yield premium that the market demands to hold a government's debt. Government borrowing rates, or bond yields, are a synthesis of a wide range of factors, including economic factors (inflation expectations, output gap, interest rates, debt to GDP ratio etc), political/social factors, credibility, transparency and so on. When market participants take a less favourable view of a nation its bond yields are pushed higher. The increase in borrowing costs may in turn give rise to further deterioration in the country's finances, thereby creating a negative feedback loop for the country and its ability to borrow funds.

When sovereign risk premiums increase, the market is in effect penalising the issuer of the debt for deteriorating conditions in the factors that go into yield valuations. Essentially, the driver of rates is the economy. But fundamentals can take a backseat when the market demonstrates 'herd behaviour' and/or irrationality due to uncertainties and lack of trust in a government to tackle its problems.

Risk of default increases by:

- deteriorating fiscal conditions
- deep recession/depression
- wars
- political risk
- social unrest
- deflation
- losing control over one's sovereignty (including monetary policy and the ability to print its own money)

There is a distinction between regulatory risk and credit risk. The term 'sovereign risk' has recently appeared in the media not only in relation to the issues with Greece and other European peripheries, but also in discussing Australia. For the former, it's a default probability related issue; for the latter, it's a matter of perception about how certain are the 'rules of the game' for doing business in Australia. The Resource Super Profits tax has been represented by some commentators as an example of heightened sovereign risk in Australia. We believe this is a misuse of the term, but in any case it needs to be clearly distinguished from the more common use of the expression as they are very different concepts.

Another way the market expresses its view of sovereign risk is via sovereign credit default swaps (CDS). A CDS is a contract between two parties whereby the buyer of protection makes periodic payments to the seller, and in return receives a contracted amount if there is a credit event (such as a default). The buyer of protection may be an investor who owns a government's bonds and, rather than selling them to the market prefers to 'hedge' the risk by buying a CDS. CDS are designed to offset risks such as defaults and bankruptcies. A protection buyer is similar to a buyer of insurance who buys protection against a future unknown event.

The amounts of the regular payments that have to be made under a CDS are expressed in basis points. Hence, if CDS levels are increasing, the market is telling us that it worries more about default probabilities and the protection against such event becomes more expensive. This is exactly what happened with Greek CDS levels which have been on the rise since February.

### Sovereign risk and our portfolios

As part of our process, we have been monitoring and analysing these risks. Our bond valuation models include a component of the real yield that reflects sovereign risk, with higher yields required in more risky countries than in the 'safe haven' markets.

While sovereign risk concerns are creating market volatility, they also create opportunities to actively manage portfolios across issuers, currencies and specific stocks.

Our concerns regarding the sovereign risk of Greece intensified following the results of the 2009 elections. The new centre-left government was elected on 4 October 2009 and shortly thereafter released significantly revised estimates for the 2009 deficit. As a result of the revised forecasts, we changed our internal credit rating and downgraded Greece on 16 November from 'a' to 'a-/negative outlook.' At the time, S&P announced that there was no change to their rating of 'A-/stable' following the election announcement and Moody's placed their sovereign rating of A1 on watch negative. We sold out of our Greek exposures in November 2009 in the Colonial First State Wholesale Global Bond Fund as we did not see enough compensation for the risks associated with Greece.

In late December, S&P downgraded the rating on Greece from A- to BBB+, at which time our internal rating was revised again downwards to 'bbb+/negative outlook' due to continuing concern regarding spiralling levels of government debt. Moody's also revised their rating on Greece in January 2010 to 'A2/negative outlook', which remained two notches above our internal rating. Concurrently, we reviewed our only Greek exposure in OTE Plc in the Colonial First State Wholesale Global Credit Income Fund, to make sure the security still compensated us for the risk taken. We concluded that the issuer offered an attractive return per unit of risk at that time. We subsequently sold the security in February because it had performed quite well and its yield no longer represented an attractive return for the risk involved. The deterioration in the country's sovereign risk was an indirect factor in this assessment, but the credit of the company was not changed.

Rating agencies further cut their ratings and S&P downgraded Greece from investment grade to high yield in early May as the budget deficit projections further deteriorated. Consequently we also downgraded Greece to 'bbb' in April and to 'bbb-' in May.

Sovereign risk issues came to the forefront back in November 2009, when Dubai World announced that it will not pay the interest due on some of its debt. The market was reminded that systemic risks are still a concern in this fragile recovery. Details of known exposures in the region were prepared, and concluded that no individual bank had significant exposure to Dubai World, therefore the reported US \$60bn of Dubai World debt was shown to be well-spread amongst global financial institutions. It did not affect any of our investments.

Currently we do not have any exposure to Irish or Greek securities in our Global Funds. Greece's rating is now below the minimum limit for the Fund so we are prevented from buying back that exposure even if we wished to do so. In risk terms, we are currently underweight Portuguese, Spanish and Italian sovereign debt versus its benchmark. In terms of absolute exposures, as at 30 April 2010, we have a 1.85% exposure to Portugal, a 7% exposure to Spain, and an 8% exposure to Italy.. This reflects our view that the short term probability of these three sovereigns defaulting is well compensated from a risk return perspective.

Our initial reaction to the EUR 750bn stabilisation package announced over the weekend of 9 May is positive for the peripheral European economies. It demonstrates a clear commitment by the European authorities to the euro and seems to signal that greater efforts will be made in the future to develop the eurozone from a currency bloc into a more fully fledged federal system.

Credit risks have also been rising as sovereign risks intensified. We have a rigorous and in depth credit research process in place to monitor daily developments in all our exposures across all of our funds. In the Global Credit Income Fund we have a 1% exposure to Spain, a 0.23% exposure to Ireland and a 0.95% exposure to Italy. Individual exposures include Italian utility Enel and Spanish bank Santander. All of these issuers are investment grade global businesses not totally reliant on their domestic economies, with spreads that we find attractive relative to their credit matrix. Our exposures are based on the credit quality of companies and their diversification benefits for the portfolio, with risks under constant monitoring. A more stable outlook for these countries would be required before we added more exposure in these countries.

We continue to be vigilant in our risk analysis, including sovereign risk analysis. This is part of our overall risk assessment process.

## For further information

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