Box 9

PUBLIC DEBT, SOVEREIGN RISK AND CORPORATE FINANCING COSTS: POSSIBLE SPILLOVER CHANNELS

Concerns about the adverse consequences of the deterioration of public finances in euro area countries have driven euro area credit markets since the publication of the December 2009 FSR. This box describes potential channels for a possible spillover of sovereign credit risk to corporate financing costs.

There are several channels through which the risks may spread from sovereign debt markets to corporate bond markets. First, deteriorating fiscal positions on account of rising public debt imply higher financing needs by sovereigns, and thus increase the risk of a crowding-out of financing for financial and non-financial firms.

Second, excessive fiscal deficits increase risks for inflation and inflation expectations, which could potentially lead to an increase in risk premia and long-term interest rates, resulting in higher funding costs.[1] In addition, some structural asset-pricing models of credit spreads predict higher credit spreads after periods of lower interest rates.[2]

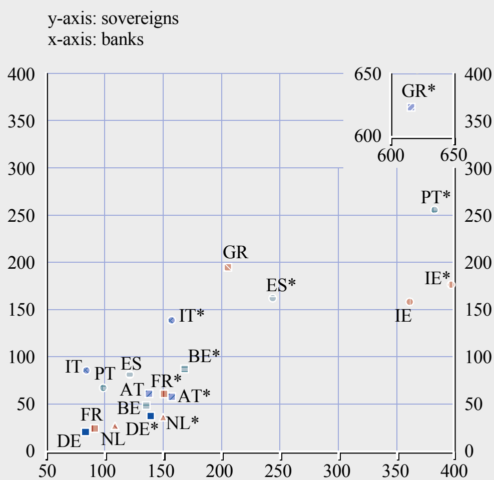
Third, corporate bonds and credit default swap (CDS) contracts are priced using a "risk-free" rate as a benchmark, and this "risk-free" rate is typically derived from a sovereign debt security with a corresponding maturity. Aside from some firm-specific cases, government bond yields would generally set a floor for corporate bond yields in the same country, in particular if the operations of this corporate are concentrated in this country. Hence, there could be a direct link between higher sovereign bond yields and potentially higher risk premia embedded in corporate funding costs. This risk premium should compensate investors both for increased credit risks and for other non-credit factors that may affect corporate bonds, such as, for example, relative illiquidity, the risk of higher corporate taxes or a more limited acceptance of corporate bonds than government bonds as collateral. Results of individual country regressions suggest that a widening of intra-euro area sovereign spreads by 100 basis points could lead to a further increase of, on average, about 10-20 basis points in corporate bond yields in the euro area as a whole, while estimates for countries that are potentially more prone to higher increases in sovereign bond yields lie well above that range.

1 This, however, is of less concern to a fiscally distressed country in a currency union than to a country with its own currency.

2 See F.A. Longstaff and E. Schwartz, "A Simple Approach to Valuing Risky Fixed and Floating Rate Debt", *Journal of Finance*, Vol. 50, 1995; and P.C. Dufresne, R. Goldstein and J.S. Martin, "The Determinants of Credit Spread Changes," *Journal of Finance*, Vol. 56, 2001.

Sovereign and bank CDS spreads

(first snapshot: 26 Nov. 2009; second snapshot (*): 19 May 2010; basis points)



Sources: Bloomberg and ECB calculations.
Notes: For each country, the CDS spreads of the five largest banks for which CDS quotes were available were used to calculate the average CDS spread of banks in that country. For some countries there were less than five banks with quoted CDSs.

Fourth, financial corporations, in particular banks, from countries with excessive deficits are typically large holders of government debt securities (see also Box 1 in Section 1.1). A fall in the value of government bonds would have an adverse marking-to-market impact on the banks' held-for-trading and available-for-sale securities portfolios. To put this into perspective, around 50% of the stock of long-term debt securities issued by euro area governments is held by euro area banks, some of which also have sizeable lending exposures to governments.

Worsening sovereign financial problems would thus have a potentially large adverse impact on the euro area banking sector, and would thereby also imply further adverse consequences for the real economy. Moreover, the banking sector support by euro area governments (which effectively transferred risks from the banking sectors to governments) led to bank and sovereign CDS spreads in the euro area becoming increasingly correlated. Since the yields implied in the CDS and cash bond markets tend to be closely linked, higher levels of banks' CDS spreads would, therefore, imply higher costs of funding for these banks (see the adjacent chart).

Fifth, another possible channel of sovereign-to-corporate linkages is the credit rating spillover channel. Rising sovereign risks in some fiscally troubled countries and the challenging macroeconomic environment associated therewith could induce rating agencies to review the ratings of corporations with major operations in these countries. Moreover, credit rating agencies have recently been using CDS patterns to derive market-implied credit ratings, i.e. ratings implied by the probability of default derived from CDS spreads. For some rating agencies, a marked discrepancy between current ratings and market-implied ratings serves as an early warning for detecting companies that may warrant a review of their credit rating.[3] While this is not necessarily a sign of a subsequent actual rating change, keeping in mind the high correlation between sovereign and corporate CDSs, this indicates that the likelihood of downgrades of corporations increases with rising sovereign risks.

All in all, excessive public deficits and rising debt-to-GDP ratios may pose upside risks for sovereign and corporate bond yields in the euro area. All of the channels described above have the potential to reinforce negative feedback loops between the financial and real sectors, with an adverse impact on economic growth and the stability of financial systems.

3 See ECB, "Credit default swaps and counterparty risk", August 2009.