Special Report 2008/07

Uncovering country risk in bond spreads

When assessing risk in emerging markets, rating agencies used to apply the theory of the sovereign ceiling. This theory claims no private firm in a specific country can receive a higher rating than that of a sovereign entity. Nowadays, the sovereign ceiling policy is not strictly applied by credit rating agencies any more, a sovereign ceiling 'lite' is currently upheld. However, sovereign ratings still exert pressure on the rating private borrowers obtain raising financing costs. This report highlights the reason behind the rating agencies dropping the sovereign ceiling theory. Furthermore, it shows why investing in local companies at times is less risky than investing in the sovereign.

Sovereign ceiling theory

In general private firms are perceived as riskier than the governments in the same country. This stems from the fact that private firms have a historically higher rate of default. The main argument rating agencies have used to uphold this theory, is the power of the government. When a government encounters problems to repay its debt, it can take certain measures to overcome these problems. A sovereign can print money in order to repay its debt, but this will lead to upward pressure on inflation. The government may also raise taxes to increase its income. Furthermore, it can manipulate capital flows or use two-tiered exchange rates to their advantage. If the government manipulates the exchange rate in order to appreciate the local currency, foreign-denominated debt declines in value when measured in that local currency. The government can also simply restrict the country's capital outflows.
Firms situated in such a country are vulnerable to those actions. Rising inflation leads to more costs for companies, and so do higher tax rates. A manipulated exchange rate or the possibility of restricted payments to foreign creditors increases the risk of non-payment. All this leaves them with a difficult task hedging durations or foreign exchange future contracts for their liabilities. This is turn, lowers the firm's continuous solvency and repayment capabilities. A government thus may transfer their own repayment problems onto companies domiciled in their country.

Rules and implications

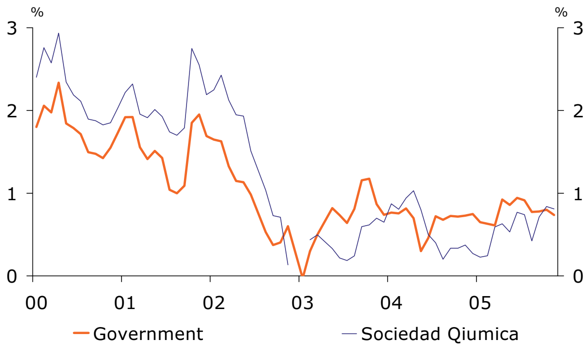
Companies whose ratings are constrained by a sovereign ceiling it has serious economic consequences. The volume of international private credit flows has been restricted as investment policies of pension funds and insurance companies are tied to credit ratings. Therefore, ratings determine the pool of capital available to invest in any particular bond.
Even apart from bond markets, investors' perception of country risk has important implications. Decisions about bank loans, foreign direct investment, and portfolio investment depend crucially on country risk. Therefore, the risk perception has significant consequences in terms of managing project costs.
Credit rating agencies had been using the sovereign ceiling rule as a justification for giving government bonds the highest rating in a country for a long time. They claimed when a sovereign defaults all firms in the same country should default as well. Until 2001, the three main rating agencies, Moody's Investors Service, Standard and Poor's, and Fitch Ratings, followed their sovereign ceiling policy strictly.

Were rating agencies right?

How international investors perceive country risk can be seen in bond yield spreads. For the sovereign ceiling theory to hold true sovereign bond yields should always exhibit lower yield spreads than their corporate counterparts. If private firms are always perceived to have a higher probability of default than the sovereign, the risk premium on their loans should also be higher. Thus when translated into yield spreads, the highest rated bond should display the lowest yield spread and vice versa. The sovereign ceiling for bond ratings then becomes a yield floor for loans. To witness the theory in practice, we have researched bond spread behaviour in several Latin American countries: Chile, Mexico and Brazil. By comparing spreads of sovereign bonds to bonds of firms situated in the same countries, we can see whether the sovereign ceiling holds in terms of yield floors. how international investors perceive country risk in corporate bonds.

In Chile, Celulosa Arauco Constitu (CAC) and Sociedad Quimica y Minera de Chile S.A. (SQM) both display spreads below the sovereign spread from October 2003 well into 2004. CAC is a wood manufacturer owning large areas of forest plantations, about 20%

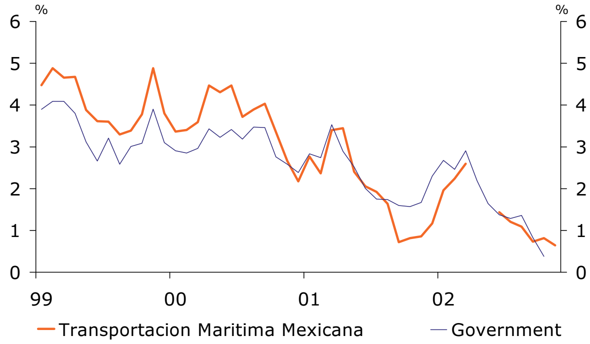
Graph 1: Chile yield spread comparison



Source: Bloomberg

located outside of Chile. SQM produces specialty fertilizers, iodine, and lithium. The company has customers in more than 100 countries and generates about 80% of its sales outside Chile. In this case, the lower spreads can be attributed to the fact that both companies attract the majority of revenues from outside of Chile. Investors reason that revenues from abroad mean companies are not entirely dependent of the same macro economic circumstances as the host government. This causes investors to have a lower perception of the country risk of the host country involved in the company.

Graph 2: Mexico yield spread comparison



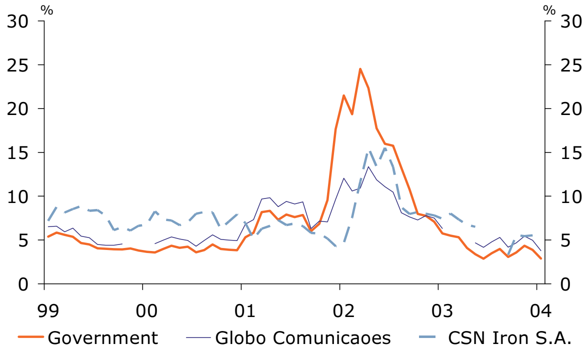
Source: Bloomberg

In Mexico we see additional reasons for lower than sovereign corporate yield spreads. Here we look at Transportacion Maritima Mexicana SA de CV (TMM). The reason investors attribute lower risk to TMM is due to foreign ownership of the company. TMM provides maritime and land transportation services, railway cargo, and storage/warehousing. The company transports to Central and South America, Europe and the Far East. In 1996 it signed an agreement via its subsidiary Transportación Ferroviaria Mexicana with Kansas City Southern Industries to acquire the privatized Ferrocarril railway company. It derives a part of its revenues from abroad but more important is the fact that it is largely in foreign hands. In 1999, the Dutch firm Vopak, which offers storage capacity and logistic solutions to the chemical- and oil companies, acquired sufficient shares in TMM to control four terminals. In 2003 it sold 51% of the shares in its subsidiary Mexrail to Kansas City Southern. The market expects that the foreign parent company will jump in to repay debt in time to prevent a default. This allows investors to mitigate country risk sending spreads lower.

The final example concerns Brazil. Graph 3 displays time series data for a period of five years for Globo Comunicaoes and CSN Iron S.A. compared to a sovereign bond. Globo

Comunicaoes is one of the larger players in the media market in Brazil. It owns and operates five television stations, which cover 99% of Brazillian territory and account for 73% of total tv advertising in Brazil. The company's revenues are generated in reais, while its debt is denominated in USD. CSN is a low cost steel producer due to its ownership of the Casa de Pedra mine, one of the world's largest, high quality iron ore mines. With an annual production capacity of 5.4 million tons of crude steel, CSN ranks as one the largest steel producers in Latin America. Both corporate bonds display lower than sovereign spreads for a certain amount of time, without the companies displaying any of the reasons for lower company spreads given in the Chilean and Mexican examples. The spread convergence is concentrated in 2002. That year, the elections triggered a confidence crisis in the government causing the real to plunge against the US dollar. Even though the spread behaviour isn't attributed to a firm specific cause, it is a prime example to witness how investors perceive country risk in bond yield spreads.

Graph 3: Brazil yield spread comparison



Source: Bloomberg

Conclusion

So even if all companies residing in emerging markets are riskier than their host government, this should be translated in yield spreads of government bonds always remaining below those of the corporate bonds. This is not the case for firms with large foreign revenue base or a foreign parent company. Although the examples mentioned here are few, it seems plausible other companies with similar revenue or ownership characteristics portray the same spread behaviour. One could say several private companies domiciled in emerging markets are rising out of the emerging market status. Even the 'lite' version of the sovereign ceiling policy still exerts pressure on private credit ratings. One wonders if this policy is in need for new consideration. Mostly since not all companies in emerging markets are subject to the same degree of country risk. Credit ratings have a huge influence on the total amount of inward capital flows for a country and the pool of capital available for private companies. Lower ratings imply higher financing costs meaning effects on the economic development of a country can be substantial as seen in Latin America. Therefore it is imperative to revise the way credit ratings are calculated. The ratings assigned by the agencies only assess the probability of default without for example considering the duration or the loss given default. Including such factors in their ratings would allow investors to price risk more accurately than they do today.

November 2008

Ashwin Matabadal (030 - 2161601)
A.R.K.Matabadal@rn.rabobank.nl

www.rabobankgroep.nl/kennisbank