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Information transmission between sovereign debt CDS and other financial factors – The case of Latin America

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ABSTRACT

This paper extends previous research by investigating the intertemporal causality relationships between daily Latin America sovereign credit default swap (CDS) returns and other financial sovereign debt spread determinants. The empirical results indicate that information in sovereign CDS can both lead and lag these financial determinants. Specifically, country financial variables, including exchange rates and lending spreads, and global financial variables including 10-U.S. Treasury yields, VIX and TED spreads, are important determinants for future sovereign CDS price movements. The findings provide investment implications for international financial markets.

1. Introduction

The years after the financial crisis in 2008 can be characterized by the turmoil of the sovereign debts issued by the European countries such as the nicknamed “PIIGS” (Portugal, Italy, Ireland, Greece and Spain), which have precipitated the volatility of the global financial markets. The increasing probability of default in the sovereign debts can be reflected in the widening sovereign debt spreads and CDS prices. These sovereign debt risks depend on the economic risk and the political risk of the issuing

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countries. Economic risk depends on economic fundamentals of the issuing country such as the level of the external debts and the fiscal conditions. Political risk includes the stability of the political regimes.

Literature concerning sovereign risk includes several aspects. First, several studies examine the determinants of sovereign debt yields. Among others, Baek, Bandopadhyaya, and Du (2005) conclude that the economic fundamentals as well as investors' attitude toward risk are important determinants for Brady bond yield spreads. Baldacci, Gupta, and Mati (2008) who conclude higher fiscal deficit and public debt lead to a significant increase in long-term interest rate, and the magnitudes of such effects depend on initial fiscal, institutional and other conditions, and the spillovers from the global financial markets. Bellas, Papaioannou, and Petrova (2010) conclude that, in the long run, economic fundamentals are significant determinants of emerging market sovereign bond spreads. However, in the short run, financial volatility is a more important factor. Caceres, Guzzo, and Basurto (2010) investigate how global risk aversion and country-specific risk factors affect sovereign debt spreads around the period of financial crisis. They conclude earlier in the crisis, global risk aversion is a significant determinant of sovereign debt spread. In the years after the crisis, the emphasis has shifted toward short-term refinancing risk and long-term fiscal sustainability. Bernoth and Erdogan (2012) study the determinants of sovereign debt spreads for 10 EMU countries from 1999 to 2010. They conclude that, at the beginning of EMU, government debt level and the general investors' risk aversion had a significant impact on the spreads. In the subsequent years, the market paid less attention to the fiscal position of a country. However, after 2007, the market's reaction to a country's loosened fiscal conditions has increased considerably again, suggesting the effects of pricing factors are time-varying. Maltritz (2012) applies the Bayesian approach to yield spreads from 1999 to 2009, and concludes fiscal variables such as budget balance and government debt and external variables such as terms of trade, trade balance and openness are significant determinants. Furthermore, global financing condition, indicated by the U.S. interest rate, and market sentiment, indicated by U.S. corporate bond spreads, also have significant impacts on sovereign yield spreads. Hilscher and Nosbusch (2010) use the sample of 31 emerging markets from 1998 to 2007 to examine how the economic fundamentals affect sovereign debt spreads. They have also identified several country-specific variables as well as global variables in sovereign debt determination.

Another strand of literature concerns the relationship between the domestic debts and the sovereign debt. A central government can issue its debts in the domestic market (internal debts) or the international capital market (external debts). A disadvantage of issuing debts in the domestic market is that it can crowd out the financial resources of the private enterprises. The international capital market can provide a large amount of funds and developing countries have used external public borrowings to supplement scarce domestic savings and thus finance public deficits without crowding out lending to the private sector or recurring to inflationary finance. However, the supply of external funds tends to be volatile, procyclical, and subject to sudden repatriation. This potential risk of relying on external capital can be manifested by the Asian crisis in 1997. Arellano and Kocherlakota (2008) argue that sovereign defaults are often caused by default pressures generated by large-scale domestic defaults. They conclude that avoiding sovereign defaults requires better internal institutions rather than external ones. Mehl and Reynaud (2010) also conclude that, given local bond markets' rapid development, monitoring risky public domestic debt compositions in emerging economies becomes increasingly relevant to global financial stability. Panizza (2008) argues that, in recent years, several developing countries adopted policies aimed at retiring public external debt and substituting it with domestically issued debt. Reinhart and Rogoff (2011) have used combined extensive datasets and find that domestic debts account for two-thirds of public debts and the traditional view that domestic residents are junior to external creditors does not find broad support. Waldenström (2010) finds that governments can choose strategically on which debt, the domestic or the external, to default on, and the decision is determined by the relative size of the political default costs.

Others focus the debt crisis on stock return, exchange rate and GDP growth. For example, Furceri and Zdzienicka (2012) find that debt crisis produces significant and lasting output losses, or 10% after 8 years, and debt crisis is more detrimental than banking and currency crises. Alsakka and ap Gwilym (2012) find that credit news from rating agencies have significant impacts on foreign exchange rates, and the size of the impact varies in developed versus emerging countries and in various geographic regions. Ferreira and Gama (2007) conclude that stock market decreases by 51 basis points in response