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Emerging market sovereign bond spreads and shifts in global market sentiment☆,☆☆

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ABSTRACT

The paper studies how the relationship between emerging market sovereign bond spreads, economic fundamentals and global financial market conditions differs across three regimes of global market sentiment. Following the identification of periods characterized by low, medium and high volatility in financial markets, we analyze the behavior of spreads from three different angles. First, we demonstrate that the cross-country correlation of spreads increases in high-volatility regimes, implying that countries cannot fully decouple from developments in other emerging markets during periods of distress. Second, using the interactions of several domestic and global variables with the probabilities of each regime prevailing in a given period as the explanatory variables of spreads, the fixed effects panel estimation shows that while country-specific fundamentals are important determinants of spreads in each regime, the importance of global financial conditions increases in high-volatility periods. Third, we show that countries can benefit from stronger fundamentals in the form of lower exposure of their sovereign spreads to unfavorable regime shifts in global market sentiment.

1. Introduction

Since the onset of the global financial crisis in 2007, financial markets have gone through several shifts between periods characterized by low and high risk aversion. A distinction between 'risk on' and 'risk off' periods is essential for the understanding of the behavior of emerging market sovereign spreads since the

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relationship between spreads, country-specific fundamentals and global factors could differ across these periods.

The identification of market sentiment regimes and the understanding of possible differences in the behavior of sovereign bond markets across regimes are important for both markets and policymakers. First, several papers showed that regime shifts affect optimal asset allocation and risk management decisions. For example, a large number of studies found evidence of increasing correlation between financial assets in bear markets and high-volatility periods that reduces the gain from diversification that is based on unconditional correlations,[1] while others showed that the composition of the optimal portfolio changes if asset allocation decisions consider regime shifts.[2] Second, it is important for policymakers to understand the possible consequences on financial assets of a shift in global market sentiment. The prevalence of favorable market conditions should not prevent them from focusing on reducing vulnerabilities, as weak fundamentals, which may be "overlooked" by investors during tranquil times, can amplify the negative effects on their economies of an adverse shift in global sentiment. As El-Erian and Spence (2012) note, it is important for policymakers to have an appropriate design and use of both ex ante and ex post circuit breakers that could "prevent the evolution of structures that amplify feedback loops and break the serial contamination of expectations, the real economy, and market linkages, thereby interrupting the often disruptive dynamic that leads to a sequence of bad equilibriums".

In this paper, following the identification of low-, medium- and high-volatility regimes, we investigate the behavior of emerging market sovereign bond spreads from three different angles. First, we analyze whether the cross-country correlation of spreads increases during high-volatility periods. Second, we regress the spreads on the interactions of the regime probabilities with several country-specific and global variables with the aim of understanding whether the relationship between spreads and their determinants is different across regimes. Finally, we assess the impact of the strength of country-specific fundamentals on the exposure of spreads to adverse shifts in global market sentiment.

The remaining part of the paper is organized as follows. Part two reviews the literature on the behavior of emerging market sovereign bond spreads. Parts three and four describe the data and the estimation methodologies, respectively. Part five contains the estimation results. Part six analyzes the forecasting performance of the model, while part seven draws the policy implications. Part eight concludes.

2. Related literature

The analysis of the relationship between emerging market sovereign spreads and country-specific fundamentals/global factors has been the subject of a large number of empirical studies.[3] The literature has established several explanatory variables, both global and country-specific, which affect spreads.

Applying panel estimation, the seminal paper of Edwards (1985) finds that key drivers of spreads are country-specific fundamentals such as external debt, debt service and investment ratio.[4] In addition to the effect of country fundamentals, Eichengreen and Mody (1998) show that the external interest rate environment is also an important determinant of spreads. Luengnaruemitchai and Schadler (2007) and Hartelius et al. (2008) further expand the list of global factors and county-specific fundamentals that have significant effect on spreads. As regards global factors, in addition to the level of international interest rates they find that the uncertainty about the level of rates and global risk aversion are also important determinants of spreads. Specifically, they find that an increase (decline) in either the level or the volatility of the U.S. Federal funds futures rate and a higher (lower) global risk aversion are associated with higher (lower) country risk premium. As regards country-specific factors, they find that country fundamentals–as captured by economic, financial and political indicators–as well as the sovereign credit rating outlook also significantly affect spreads. Jaramillo and Tejada (2011) also find credit rating to be a significant determinant of spreads even after accounting for fundamentals, with movements across the investment

[1] See, for example, Ang and Bekaert (2002), Cappiello et al. (2003), Chua et al. (2009), Erb et al. (1994), Longin and Solnik (1999).

[2] See, for example, Ang and Bekaert (2002), Chow et al. (1999), Chua et al. (2009), Das and Uppal (2004), Erb et al. (1994), Kritzman et al. (2012).

[3] For a more comprehensive literature overview, see Csonto and Ivaschenko (2013).

[4] Investments have an impact on spreads through their impact on growth outlook. However, as the coefficient of debt and investment is of roughly the same magnitude in the bank loans spread equation, it is also concluded that debt-financed investments do not result in lower spreads.