

# Good Policies or Good Fortune: What Drove the Compression in Emerging-Market Spreads?

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Sovereign spreads for emerging markets have fallen considerably over the past five years. In 2007, the EMBI Global Composite declined to the lowest level ever recorded, and even though emerging-market spreads have risen during the recent financial turmoil, they have remained well below their historical averages. It is important to consider whether this relative stability on the part of emerging markets will be sustained.

Two hypotheses have been advanced to explain the compression in emerging-market spreads. First, since the Asian crisis, many countries have strengthened their macroeconomic policy frameworks and have undertaken structural reforms. Consequently, macroeconomic outcomes in terms of growth and inflation have improved greatly, resulting in a reduction in spreads on emerging-market debt. The second explanation, while acknowledging the improvements in macroeconomic policies and outcomes, notes that risk spreads have fallen globally for virtually all asset classes, not just for emerging-market debt. This could indicate that other factors besides country fundamentals are responsible for the sharp fall in risk premiums. Specifically, it has been argued that high prices for energy and non-energy commodities, and favourable global financial conditions—characterized by low interest rates and low volatility in stock markets in advanced economies, as well as an abundant supply of liquidity—have fuelled the compression of spreads. Hence, it has been argued that the compression in spreads on emerging-market debt is primarily driven by exogenous factors, such as changes in the willingness of international investors to hold risky assets.

Against this backdrop, our study (Maier and Vasishtha 2008) examines the factors influencing movements in the yield spreads on emerging-market debt from 1998 to 2007.<sup>1</sup> This issue is addressed in two stages. First, factor analysis is used to examine the degree to which spreads in different asset

classes exhibit similar patterns. Second, we use the common factor (computed from the first stage) in a panel framework to analyze the degree to which the narrowing in spreads is driven by better macroeconomic fundamentals.

## METHODOLOGY

In a seminal work in the literature on lending behaviour in international markets, Edwards (1984) derives the following relationship for sovereign spreads:

$$\log(s_{i,t}) = \alpha_i + \sum_{k=1}^K \beta_k X_{k,i,t} + \varepsilon_{i,t} \quad (1)$$

where  $s_{i,t}$  is the yield spread for country  $i$  at time  $t$ ,  $\alpha_i$  is an intercept coefficient,  $\beta_k$  denotes the slope coefficients,  $X_k$  denotes  $K$  macroeconomic fundamentals, and  $\varepsilon_{i,t}$  is an i.i.d. error term.

Our aim is to analyze the effect of global conditions, along with macroeconomic fundamentals, on sovereign spreads. To this end, we use factor analysis, a statistical technique used to detect structure in relationships between variables (Tsay 2005). A simple way to think about a principal factor is that it represents a pattern in the data that is observed in all countries or variables over which the principal factor is estimated. We estimate two principal-factor models:

- The first model uses data on different U.S. bond classes. The factor extracted from these series is labelled the “global factor.”<sup>2</sup>

1. Our choice of this time period is driven by the availability of data. The sample comprises Argentina, Brazil, Bulgaria, Chile, China, Colombia, Ecuador, Hungary, Malaysia, Mexico, Morocco, Panama, Peru, the Philippines, Poland, Russia, South Africa, Thailand, Turkey, and Venezuela.

2. To compute the “global factor,” we use data on investment-grade bonds, high-yield bonds, and bonds rated AAA, AA, A, and BBB (all bond-equivalent yields to maturity).

- The second model uses spread series from individual countries. The factor we extract from these series is labelled the “emerging-market factor.”

Having identified these two principal factors, we use them in a panel setting to examine their relevance in explaining the compression in emerging-market spreads. In the most general form, we estimate the following panel specification:

$$\log(EMBI_{i,t}) = \beta_{0,i} + \sum_j \beta_{j,i} PF_{j,t} + \sum_k \beta_k X_{k,i,t} + \sum_l \beta_l Y_{l,t} + \epsilon_{i,t} \quad (2)$$

where  $EMBI_{i,t}$  denotes the *EMBI* spreads series for country  $i$ , and  $PF_{j,t}$  denotes the principal factors (the global factor or the emerging-market factor).  $X_{k,i,t}$  denotes  $k$  country-specific exogenous variables,  $Y_{l,t}$  denotes  $l$  global variables, and  $\epsilon_{i,t}$  is a normally distributed error term. The country-specific variables used in the estimations include GDP growth, inflation, the ratios of short- and long-term debt to GDP, exports to GDP, reserves to GDP, and the fiscal balance to GDP, etc. The global variables included are oil prices and growth in global GDP.

## RESULTS

Results from the factor analysis show that the global factor and the emerging-market factor are quite different. This indicates that spreads for emerging markets reflect distinct developments, suggesting that improvements in the macroeconomic fundamentals in emerging markets may have played an important role in explaining the compression in spreads.

Panel estimations reveal that changes in emerging-market spreads are positively related to the global factor, but the magnitude of the global factor is too small to account for the large compression in spreads. Similar results are found for the emerging-market factor. Our results suggest that the reduction in inflation, but also higher GDP growth, lower long-term debt-to-GDP ratios, and lower budget deficits, are associated with the reduction in spreads. Lastly, we find that oil prices and global GDP growth are also associated with the reduction in spreads, and so are institutional improvements, such as the adoption of inflation targeting.

Our results support the hypothesis that strong macroeconomic fundamentals were a key factor in enabling emerging markets to attract financing at favourable rates. Similar findings are reported for sovereign credit ratings by Butler and Fauver (2006), and for gross debt issuance by Fostel and Kaminsky (2007), although the latter study finds that favourable global economic conditions have started to play an

important role since 2003. Our results highlight the importance of macro fundamentals in determining sovereign spreads, which, in turn, provides an explanation as to why the effect of the recent credit market turmoil on emerging-market spreads has been relatively contained.

## REFERENCES

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