Determinants of Emerging Market Spreads:
Domestic, Global Factors, and Volatility

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Summary

The aim of this study is to contribute to the literature on the determinants of emerging market bond spreads. One novel feature of this study consists of permitting volatility to directly influence yield spreads. This is done in two ways. First, the volatility index derived from the S&P 500 group of stocks, also known as the VIX, is added to the estimated specification. Second, I also estimate a modified pooled panel GARCH model (e.g., as in Cermeño and Grier 2005) to sovereign bond index spreads for up to 19 emerging market economies. Much of the extant literature relies on univariate time series analysis of bond spreads of the GARCH (1, 1) variety. Unfortunately, as is shown, none of the multivariate GARCH models considered produced satisfactory results. Part of the problem is the relatively small number of observations in each cross-section. Another potential culprit is the reliance on quarterly data. Alternatively, and given the improvements in the so-called economic fundamentals in many emerging markets (e.g., MacNamara 2007) especially since the early 2000s, one might well consider the possibility that the nexus between sovereign spreads and their volatility may be asymmetric in nature. This suggests, at least for univariate type specifications, that an EGARCH (1, 1) model might be preferable. Again, such models are not found to perform well. Instead, asymmetric effects possibly emerge elsewhere in the mean portion of the estimated specifications. Nevertheless, and more importantly, a clear link between volatility and yield spreads is established via the VIX.

Second, this paper also employs, in addition to the usual EMBI index data, yields derived from credit default swaps (CDS) for a subset of countries to investigate the role of economic fundamentals in explaining emerging market bond yield spreads. Relatively few studies have considered this possibility (Remolona, Scatigna, and Wu (2006), and Ammer and Cai (2007) are exceptions), and none to my knowledge in the panel framework. I also consider forecasts of inflation and economic growth as potential determinants of such spreads. It is surprising that such forward-looking variables have not been considered in the relevant literature. After all, economic theory suggests that sovereign bond spreads ought to contain a forward-looking component and there is, of course, a large literature that considers whether the slope of the yield curve can reasonably predict future inflation, output growth, or even the likelihood of a recession (e.g., see Hamilton and Kim 2002). Finally, it also pointed out that there is scope for non-linearities in the determination of emerging market bond yield spreads. This is illustrated by permitting certain key macroeconomic indicators to asymmetrically influence yield spreads.

The determinants of bond yield spreads for 19 emerging markets in the period 1998-2006 are considered. Three types of determinants are considered: domestic, external (a particular external source), and global factors. In addition, I consider the connection between volatility and bond yield spreads. All factors are found to be statistically significant. However, volatility is the only factor common to all countries examined whereas clear idiosyncrasies are found according to whether emerging markets are in Latin and South America, Europe, Asia or Africa.