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# The role of country, regional and global market risks in the dynamics of Latin American yield spreads☆

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ABSTRACT

We analyze the joint impact of country, regional and global market risks on daily changes in yield spreads of Mexico, Colombia and Brazil. In contrast to previous studies, we consider a homogenous set of liquid Eurobonds which are representative of current emerging bond markets. All risk-factor groups are significant but country-specific differences exist. Spread changes of all three countries are mainly driven by global risk. The second most important contributor to spread changes is country risk for Mexico and Brazil but regional risk for Colombia. The sensitivity of spread changes to risk factors varies with bond maturity.



## 1. Introduction

Emerging market sovereign bonds have had a turbulent history over the past 20 years when periods of declining yield spreads often ended abruptly. A significant fall of yield spreads in the early 1990s ended in 1994 with the beginning of the Mexican Peso crisis and the tightening of U.S. monetary policy. The subsequent period of declining emerging market yield spreads lasted from 1995 to early 1997 and ended in a market-wide turmoil which was triggered by the crises in Asia, Russia and Brazil. The latest sustained significant fall in emerging market yield spreads occurred between mid 2002 and 2006;

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the yield spreads remained low throughout most of 2007. Unlike in previous periods, yield spreads continued to decline despite increasing U.S. short-term interest rates between April 2004 and August 2006. Emerging markets also weathered well the global financial crisis in 2008–2009.

Several emerging countries considerably improved their credit quality and debt structure during 2002–2005 and, consequently, received higher credit ratings. The weighted average credit rating of emerging market borrowers in the EMBI Global bond market index increased from B+ in 2002 to BB in 2004 (IMF, 2004a). During this period, the emerging market Eurobond market also experienced a significant increase in the inflow of capital which was generally attributed to abundant global liquidity and low interest rates in major financial markets. Some analysts considered the emerging bond market oversaturated by 2004, claiming that yield spreads are too low to be justified by improvements in economic fundamentals (e.g., IMF, 2004b, 2006; Sløk and Kennedy, 2004). An adverse change in global market conditions was predicted to cause an abrupt reversal of capital flows and lead to turmoil in emerging markets. At the onset of the global credit crisis in 2007–2008 IMF (2008) reported a sharp reduction in global liquidity and of short-term capital flows to emerging markets; a much higher risk aversion of investors; and a rising cost of credit for emerging markets. These risks, however, remain as emerging markets are still facing the consequences of the crisis: large financial and corporate writedowns, continuing deterioration of fundamentals in some countries and potentially limited credit availability in the coming years (IMF, 2009a,b).

The role of global market factors versus country risk in explaining yield spreads in emerging markets has been studied in Ferrucci (2003), Sløk and Kennedy (2004), Hartelius et al. (2008) and Ciarlone et al. (2009). Diaz Weigel and Gemmill (2006) point out that a third group of factors which is related to investors' regional sentiment and common regional market co-movements might be more important in driving emerging market bond prices than the global and country-specific factors. They find country-specific factors to contribute only 8% to the explained variance of the distance-to-default of Brady bonds. The impact of regional investor sentiment is also emphasized by Kamin and von Kleist (1999) and Eichengreen and Mody (1998) who find marked differences between the pricing of debt issued in Latin America and Asia.

This paper contributes to the debate on the importance of country-specific vis-à-vis regional and global market risk factors in driving emerging market yield spreads. To this end we study the joint impact and relative importance of these groups of factors by incorporating corresponding market-based measures in an empirical model of yield spread changes. We follow the methodology in Manzoni (2002) and Batten et al. (2006) to account for volatility clustering and autocorrelation effects which are present in daily spread changes.

In contrast to the above literature, this paper analyzes changes in yield spreads on zero-coupon Eurobonds rather than coupon-paying bonds, Brady bonds (which are issued with collateral) or bond market indices (which include a range of debt instruments with different characteristics). Only straight liquid Eurobonds with no call options, collateral or other special features are employed in our analysis which allows avoiding the complexity that these additional features introduce. Most emerging market bond indices include a range of debt instruments with various characteristics which alter the bond pricing relationship. Eurobonds are representative of the current structure of the external emerging markets' bonds market while Brady bonds, who dominated this market in the 1990s, have virtually disappeared. EMTA's Debt Trading Volume Survey (http://www.emta.org) shows that the share of Brady bonds within traded emerging market debt fell from 61% (U.S. $1.68 trillion) in 1994 to about 2% by 2005. Most Brady bonds were redeemed or exchanged for other instruments by most sovereign borrowers.

We also contribute to the understanding of the question whether the bond maturity affects the exposure to both country-specific and external risk factors by studying the sensitivity of yield spread changes in three maturity groups (short, medium and long) to these factors. Yield spreads are likely to have different sensitivities to both country-specific and external factors depending on the bond maturity. Though the importance of the debt maturity profile for the vulnerability of emerging market debt to external shocks has been underlined by practitioners (e.g., Cassard and Folkerts-Landau, 1997), this issue has received little attention in the academic literature.

Understanding the factors that drive emerging market yield spreads – as well as their interaction with bond maturity – are important issues for asset pricing, portfolio allocation and credit risk man-