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Journal of Banking & Finance 31 (2007) 3162–3182

Journal of BANKING & FINANCE

www.elsevier.com/locate/jbf

# Does sovereign debt ratings news spill over to international stock markets? ☆

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Received 29 September 2005; accepted 1 December 2006
Available online 25 January 2007

**Abstract**

The evidence here indicates that sovereign debt rating and credit outlook changes of one country have an asymmetric and economically significant effect on the stock market returns of other countries over 1989–2003. There is a negative reaction of 51 basis points (two-day return spread vis-á-vis the US) to a credit ratings downgrade of one notch in a common information spillover around the world. Upgrades, however, have no significant impact on return spreads of countries abroad. Closeness (e.g., geographic proximity) and emerging market status amplify the effect of a spillover. Downgrade spillover effects at the industry level are more pronounced in traded goods and small industries.


*JEL classification:* F30; G14; G15

*Keywords:* Sovereign ratings; Spillover effects; Stock market

## 1. Introduction

Does news about sovereign debt rating in one country impact stock markets in other countries? Our evidence indicates that negative sovereign rating news does spill over.

☆ We thank an anonymous referee, Amar Gande, and seminar participants at the University of Porto for helpful comments.
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0378-4266/$ - see front matter 
doi:10.1016/j.jbankfin.2006.12.006

We focus on the cross-country stock market reaction to Standard & Poor's (S&P) announcements of a sovereign credit rating or credit outlook change.

There is published research on this question. Brooks et al. (2004) study the own-country stock market impact of sovereign debt rating changes. They find that sovereign rating downgrades have a negative impact on the re-rated country's stock market (one-day abnormal returns of 197 basis points), but upgrades have an insignificant effect. Gande and Parsley (2005) find asymmetric international spillover effects on sovereign debt markets. Downgrades abroad are associated with a significant increase in sovereign bond spreads (12 basis points), but upgrades have an insignificant effect. Kaminsky and Schmukler (2002) show that emerging market sovereign rating news is contagious for bond and stock markets in emerging markets, particularly during periods of turmoil and particularly for neighboring countries.

The empirical question we address is whether sovereign rating news of one country is also relevant for other countries' stock markets. If market players see rating changes as a country-specific issue with no implications beyond country borders, little information impact would be expected. At the same time, either rational behavior due to liquidity constraints or irrational herding of investors and financial and real sector linkages across countries can act as transmission vehicles for country shocks (Dornbusch et al., 2000; Karolyi, 2003).

We extend the Gande and Parsley (2005) findings by investigating information spillover not only *across countries* but also *across markets*. That is, we focus on spillovers of credit rating or outlook of one country (the event country) to stock market return spreads (the return differential vis-á-vis the US) of all other countries (the non-event countries).

We consider a large set of countries, including not only emerging markets (18 countries) but also developed markets (11 countries), representing stocks totaling USD 4.9 trillion of market capitalization in 2002. We explicitly control for recent rating activity worldwide. We characterize the spillovers in economic terms, i.e., by including controls for capital flows and level of economic and financial development.

We also present several new results regarding cross-country and cross-market news spillover at the industry level. The evidence with regard to industry portfolios is of particular interest, given increasing investor perception that industry factors are becoming more important than country factors in explaining stock returns (see, for example, Cavaglia et al., 2000).

A sovereign credit rating represents a rating agency assessment of the capacity and the willingness of a sovereign obligator to meet its debt service payments in a timely fashion. They are understood by rating agencies as a forward-looking estimate of default probability; see Standard & Poor's "Sovereign Credit Ratings (2005)". In most cases, the sovereign ceiling doctrine applies; that is, the rating assigned to non-sovereign debt issues (or issuers) is the same as or lower than the rating assigned to the sovereign of the country of domicile. Thus, sovereign rating revisions also relate to non-sovereign debt instruments (Radelet and Sachs, 1998; BIS, "International Convergence", 2004).[1]

[1] The Basel II Accord provides examples of the sovereign rating ceiling doctrine. Under the standardized approach to minimum capital requirements for bank claims (option 1), all banks incorporated in a given country are assigned a risk weight one category less favorable than the risk assigned to claims on the sovereign of that country. For claims on corporations, no claim on an unrated corporation can be given a risk weight more favorable than that assigned to its sovereign country of incorporation.