



Contents lists available at ScienceDirect

Journal of Banking & Finance

journal homepage: www.elsevier.com/locate/jbf

Leads and lags in sovereign credit ratings

Rasha Alsakka^{a,*}, Owain ap Gwilym^b^a Bangor Business School, Bangor University, Bangor LL57 2DG, UK^b Bangor Business School, Bangor University, UK

ARTICLE INFO

Article history:

Received 5 November 2008

Accepted 6 May 2010

Available online 12 May 2010

JEL classification:

G15

G24

Keywords:

Credit rating agencies

Sovereign rating

Lead–lag relationship

Ordered probit model

Marginal effects

ABSTRACT

This paper analyses lead–lag relationships in sovereign ratings across five agencies, and finds evidence of interdependence in rating actions. Upgrade (downgrade) probabilities are much higher, and downgrade (upgrade) probabilities are much lower for a sovereign issuer with a recent upgrade (downgrade) by another agency. S&P tends to demonstrate the least dependence on other agencies, and Moody's tends to be the first mover in upgrades. Rating actions by Japanese agencies tend to lag those of the larger agencies, although there is some evidence that they lead Moody's downgrades.

© 2010 Elsevier B.V. All rights reserved.

1. Introduction

Rating agencies play an essential role in global financial markets through the production of credit information and its distribution to market participants. A wide range of parties, including issuers, investors and regulators use the information provided by rating agencies in their decision-making (Cantor and Packer, 1997; Duff and Einig, 2009; Stolper, 2009). Under the Basel II accord, banks and financial institutions can use credit ratings from approved agencies when calculating their capital requirements. However, the global financial crisis of 2007–2009 has triggered increased scrutiny of the performance of these agencies.¹

Credit rating agencies would rationally treat a rating adjustment by another agency as a trigger for reviewing their own ratings, and it could be viewed as cost-effective to follow up a competitor's rating action (Güttler and Wahrenburg, 2007). An issuer experiencing a permanent credit quality improvement desires this to be reflected in its ratings as quickly as possible in order to benefit from reduced borrowing costs and/or enhanced capital inflows. Investors value timely information about any change in

credit risk affecting their invested funds. An agency's credibility is enhanced by prompt rating actions (or rating leadership) following any permanent change in an issuer's creditworthiness (Ellis, 1998; Güttler and Wahrenburg, 2007).

Prior literature on lead–lag analysis of ratings is very limited. Johnson (2004) shows that S&P lags Egan-Jones (a small agency active since 1995) in downgrading corporates. Güttler and Wahrenburg (2007) analyse the lead–lag relationship in ratings of near-to-default corporates rated by Moody's and S&P during the period 1994–2005. They find that given a rating change by Moody's (S&P), the subsequent rating adjustment by S&P (Moody's) is of significantly greater magnitude in the short-term (1–180 days). Güttler (2009) examines the lead–lag relationship between Moody's and S&P for corporates during the period 1994–2005, and reports that previous upgrades (downgrades) by one of these agencies are associated with higher rating intensities for most one-notch upgrades (downgrades) by the other agency.

The focus of these three prior studies is on corporate ratings. However, there are significant discrepancies between corporate and sovereign ratings performance. Rating agencies apply different approaches and consider different inputs to evaluate the creditworthiness of corporate and sovereign issuers. Cantor and Packer (1996) and Alsakka and ap Gwilym (2009) show that rating disagreements across agencies are more frequent for sovereign ratings than for corporate ratings. Nickell et al. (2000) find that transition probabilities of sovereigns differ significantly from those

* Corresponding author. Tel.: +44 (0) 1248 383571.

E-mail addresses: r.alsakka@bangor.ac.uk (R. Alsakka), owain.apgwilym@bangor.ac.uk (O. ap Gwilym).

¹ Sovereign ratings have also been subject to earlier criticisms (e.g. see Fuertes and Kalotychou, 2007).

of equally rated (by Moody's) industrial corporates. These issues have considerable relevance to an analysis of lead–lag relationships for sovereign ratings.

The main goal of this paper is to investigate the presence of lead–lag relationships among sovereign ratings assigned by five NRSRO² agencies, namely Moody's, S&P, Fitch, Japan Credit Rating Agency (JCR) and Japan Rating & Investment Information (R&I). Specifically, we address three main questions: (i) do sovereign rating changes by one agency appear to be affected by prior actions by another agency? (ii) does any one agency demonstrate a lead in sovereign rating actions? and (iii) do the Japanese agencies have any information lead over the three largest international agencies. In general, we accomplish a relative comparison of the probability of a rating change by agency *A* conditional on a previous rating change by agency *B* (see Güttler, 2009).

This paper extends the methodology previously applied in the ratings lead–lag literature in three respects. First, we consider the economic significance of detected relationships by calculating the effects of changes in the independent variables (rating change by agency *A*) on the probability of rating upgrades and downgrades of one and more-than-one-notch by agency *B*, i.e., the marginal effects (see Livingston et al., 2008). Second, we investigate differences in the relationships for cases of upgrades versus downgrades. Third, we investigate lead–lag behaviour across five agencies rather than two. Further, we utilise a larger dataset than any other previously reported in the sovereign ratings literature.

The main results are as follows. Upgrade (downgrade) probabilities are much higher, and downgrade (upgrade) probabilities are much lower for a sovereign issuer with a recent upgrade (downgrade) by another agency. Evidence of interdependence across rating agencies is clear. Moody's seems to be the first mover in upgrading sovereign issuers, but S&P tends to lead Moody's rating downgrades. S&P also leads Fitch upgrades and downgrades to a greater extent than vice versa. Thus, S&P's actions appear to be those which are most independent of other agencies. The Japanese agencies are influenced by the rating dynamics of S&P and Fitch, but not vice versa. Moody's can lag rating downgrades by JCR/R&I, but to a lesser extent than these Japanese agencies lag Moody's actions.

The rest of the paper is organized as follows: Section 2 discusses the importance of sovereign ratings and their market impact, Section 3 describes the data, while Section 4 presents the methodology. Section 5 discusses the results, and Section 6 concludes the paper.

2. Rating agencies, sovereign ratings and market impact

The credit rating business is dominated by three global players: Moody's, S&P and Fitch. Moody's and S&P account for 80% of the market, while Fitch's share is 15%. Many observers have commented on the strong market position and profitability of Moody's and S&P (e.g. Duff and Einig, 2009). Some commentators and regulators advocate increasing competition in the rating business by encouraging new entrants. Formal regulation of the credit rating industry was introduced by the European Union in April 2009 (Duff and Einig, 2009), which aims for increased accountability, transparency, and competition. However, there is very little evidence on the performance of existing agencies other than the above "larger three".³ It is important to establish what informational contribution is offered by smaller agencies which are already recognised by

regulators (e.g. Japanese agencies). One of this paper's objectives is to provide additional evidence on this point.⁴

A study of lead–lag relationships obviously requires each issuer in the sample to have multiple ratings. Many factors motivate issuers and investors to employ multiple ratings. Ellis (1998) finds that many issuers believe that there is added value in multiple ratings. Baker and Mansi (2002) argue that issuers obtain multiple ratings to address any information gaps across agencies. Issuers seek increased credibility in the evaluations of their credit quality in order to achieve the most favourable borrowing terms possible. Rating agencies have varying experience in different countries, and differ in the methodologies used in judging the creditworthiness of a borrower. Differences across rating agencies could affect the time frame during which they react to any new information by adjusting the rating. Cantor et al. (2007) report that most fund managers (92%) and plan sponsors (67%) use ratings from multiple agencies in investment decisions.

This paper focuses on sovereign ratings for several reasons. Investors are increasingly focused on international diversification, and hence an understanding of sovereign credit risk is very important. Sovereign ratings represent a ceiling for the ratings assigned to financial institutions, corporates and provincial governments, although the ceiling is no longer applied in an absolute sense by the largest three agencies (see Alsakka and ap Gwilym, 2009). Duggar et al. (2009) reveal that 61% of defaults by rated corporates have occurred during sovereign crises. They also suggest that sovereign risk is a key factor in corporate defaults both during and outside sovereign credit events. Duggar et al. (2009) analyse the crises in Indonesia 1997–2002, Russia 1998–1999, and Argentina 2001–2002, and show how sovereign defaults can spillover into the corporate sector, driven by institutional and political factors. Further, sovereign ratings have a strong influence on borrowing cost and they are a stimulus for enhancing the capability of countries' governments and private sectors to access global capital markets, attract foreign direct investment, encourage domestic financial sector development, and support governments' efforts on financial and economic improvements and transparency, especially in emerging markets.

Sovereign ratings are the main factor driving the movement of sovereign bond spreads. Cantor and Packer (1996) show that bond spreads rise 0.9 percentage points for negative rating announcements and fall 1.3% points for positive announcements. Sy (2002) finds a similar negative relationship between sovereign spreads and emerging sovereign ratings. A one-notch upgrade decreases the spread on average by 14%. Sovereign rating changes also impact the returns of a country's stock market. Brooks et al. (2004) find that sovereign rating downgrades have a strong negative impact (1-day abnormal return of 197 basis points), but there is limited evidence of abnormal returns linked to upgrades. Further, sovereign rating actions also cause spillovers to other countries' equity and bond markets. Kaminsky and Schmukler (2002) find that sovereign ratings news causes reactions in bond and stock markets in emerging countries, particularly neighbouring countries. Gande and Parsley (2005) provide evidence of an asymmetric international spillover effect of a sovereign rating adjustment on the sovereign credit spreads of other countries. A sovereign downgrade significantly increases the sovereign bond spreads of other countries by 12 basis points, while upgrades have an insignificant impact. Ferreira and Gama (2007) reveal that sovereign down-

² Nationally Recognized Statistical Rating Organizations approved by the US Securities and Exchange Commission (SEC).

³ Li et al. (2006) is a rare example, and they report that rating downgrades by Japanese agencies (JCR and R&I) have a significant effect on the stock prices of Japanese firms.

⁴ The five agencies included in our analysis (Moody's, S&P, Fitch, JCR, R&I) have NRSRO status from the US SEC. As of summer 2009, five other agencies also have this status: A.M. Best, DBRS, Egan-Jones, LACE Financial Corp and Realpoint LLC. A.M. Best, Egan-Jones and Realpoint LLC do not rate sovereigns. DBRS launched sovereign ratings only in March 2006, while LACE Financial Corp assigns only a small number of sovereign ratings.

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات