Cost of sovereign debt and foreign bias in bond allocations

Bibek Bhatta\textsuperscript{a,}\textsuperscript{*}, Andrew Marshall\textsuperscript{b}, Chandra Thapa\textsuperscript{b}

\textsuperscript{a}Division of Accounting, Finance \& Economics, Dundee Business School, Abertay University, DD1 1HG, United Kingdom
\textsuperscript{b}Department of Accounting and Finance, Strathclyde Business School, University of Strathclyde, G4 0QU, United Kingdom

\textbf{Article Info}

\textbf{Article history:}
Received 11 July 2016
Accepted 12 September 2017
Available online xxxx

\textbf{JEL classification:}
E43
G12
G15

\textbf{Keywords:}
Cost of debt
International risk sharing
Foreign bias
Eurozone sovereign debt crisis
Natural experiment

\textbf{Abstract}

Finance theory suggests that markets where foreign bond portfolio investors overweight their portfolio relative to the prescribed theoretical benchmark should experience higher international risk sharing. Correspondingly, the cost of debt in such markets should be lower compared to markets facing a lower degree of international risk sharing. We empirically examine this prediction using a panel data set of sovereign bond yield spreads and a measure of suboptimal foreign bond portfolio allocations for 50 emerging and ten developed markets. Consistent with theory, our results show higher levels of foreign bond allocations – relative to the theoretical benchmark – are negatively related to the cost of debt. These results have important policy implications as a country's cost of debt could potentially be lowered by encouraging foreign portfolio investors to hold their optimal allocation.

\section{1. Introduction}

In this study we investigate whether the investment preferences of foreign bond portfolio investors, relative to the theoretical prescription, influence the host country's cost of debt. Finance theory suggests that foreign portfolio investors should follow the benchmark country allocation prescribed by the International Capital Asset Pricing Model (ICAPM). However, it is well established in the literature that barriers to international investments induce portfolio investors to ignore the normative prediction of the ICAPM and discriminate between countries by either under-weighting or over-weighting their investments relative to the prescribed optimal benchmark (see Cooper et al., 2012 for a review). With respect to foreign investments, such suboptimal allocation is known as foreign bias. Theory further notes that varying degrees of foreign biases should differentially affect market integration and thus international risk sharing (Stulz, 1999; Bekaert and Harvey, 2000).

The theoretical framework relating sub-optimal foreign investments and cost of capital is well established (Lewis, 1999). It states that when markets are perfectly integrated and barriers to international investments are absent, a country's expected return on a portfolio of tradeable assets is determined by the covariance between its return and that of the world market portfolio (Adler and Dumas, 1983). At the other extreme, for a severely segmented market, the expected return of a portfolio is a function of the covariance between the portfolio return and the local market return. Investors investing in a highly segmented local market require a higher return to compensate for the lower level of global risk sharing between domestic and foreign investors (for a mathematical derivation see Lau et al., 2010). When a market is partially integrated with the world market, the country's expected return on a portfolio is determined by the weighted average of the covariance
of the portfolio with the local market and the covariance of the portfolio with the world market, the weight being the level of market integration with the world market (Bekaert and Harvey, 1995). Consequently, it follows that higher levels of foreign bias (i.e. over-allocation relative to benchmark) towards the domestic market should enhance global risk sharing (higher integration) of domestic assets, which in turn should lower the cost of capital (Stulz, 1999). However, empirical studies investigating the implications of suboptimal foreign allocations are scarce, and mainly limited to equity. To the best of our knowledge, no prior study examines the impact of suboptimal foreign investments (i.e. foreign bias) on the cost of debt. We address this gap by examining whether biases observed by foreign bond portfolio investors, compared to the theoretical prescription, have any implication for the host country's cost of debt. Specifically, we argue that a higher level of foreign bond bias (relatively higher weighting against the prescribed weight) should result in lower cost of debt.

Our study on the implication of foreign bias on cost debt is also motivated by the importance, development and characteristics of the bond market that are different from equity market. Comparatively, the size of global bond markets is roughly twice the size of equity market. The bond market has significantly grown in the past decade since debt financing has become one of the important sources of funding for governments, financial institutions and corporations. However, despite such substantial growth increases in cross-border bond investments studies reveals that bond investors are sub-optimally diversifying (Fidora et al., 2007). Our study provides implication of such sub-optimal diversification on the cost of debt.

We test our research question using panel data sets from multiple sources reflecting suboptimal foreign bond allocations, and sovereign debt yield spread as a proxy of cost of debt. Specifically, we use the yield spread, over US Treasury bonds, of the comparable sovereign debt of emerging markets. We also use the sovereign bond yield spread, over similar German bonds, for Eurozone (economic and monetary union (EMU)) countries as a measure of cost of debt for developed European markets. Consistent with theory, we find that the cost of debt across our sample countries is strongly and negatively related to foreign bond portfolio investors' foreign bias. Our results provide evidence that varying degrees of foreign bias have significant implications for the cost of debt in a host country.

This key result remains qualitatively unchanged when we address the issue of endogeneity using different robustness tests, including vector auto-regressive models and instrumental variables. Our results are also consistent when we use data from different sources such as JP Morgan Emerging Market Bond Indices (EMBI) series, Thomson Reuters, Coordinated International Portfolio Survey (CPIS) and EPFR Global Inc. Further, the recent Eurozone sovereign debt crisis offers an ideal experimental set-up to observe whether any difference in foreign bias observed between the group comprising the five most affected countries (i.e. Greece, Ireland, Italy, Portugal and Spain, hereafter referred to as GIIPS) and the group constituting five relatively less affected Eurozone countries differentially impacts the cost of debt.

Our study contributes to two different strands of the finance literature. First, we add to the limited but growing literature that investigates the implications of suboptimal international allocations. To the best of our knowledge, this is the first study which investigates the link between the theoretically inconsistent phenomenon of foreign bias and cost of debt. This study has similarities to that of Lau et al. (2010) who examine the effect of suboptimal international equity allocations on cost of equity capital; however, we differ in a number of important areas. The cost of equity is only one part of the overall cost of capital and it is important to understand whether foreign bond holders’ deviation from the theoretically prescribed benchmark affects the cost of debt. Also, rather than investigating how home investors’ suboptimal investments in their home market affect cost of debt, we examine how foreign investors’ theoretically biased investment decisions influence the cost of debt. Finally, we also apply a more rigorous research approach by addressing the possibility of endogeneity using country fixed effects, vector auto regression, instrumental variable estimation and by exploiting a quasi-natural experimental set-up. Second, our study also adds to the finance literature investigating the determinants of sovereign bond spreads, i.e. credit risk (Longstaff et al., 2011; Cruces and Trebesch, 2013; Bekaert et al., 2014). Our paper differs from these studies by considering the idea that suboptimal foreign allocation (i.e. foreign bias) is also related to the cost of sovereign debt. A number of existing studies also explore the relation between foreign bond investments and spreads. Our study is conceptually dif-
دریافت فوری
متن کامل مقاله
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