ELSEVIER

Review of Financial Economics 16 (2007) 291 – 304

RFE
Review of Financial Economics

www.elsevier.com/locate/econbase

Foreign participation in local currency bond markets

John D. Burger [a,*], Francis E. Warnock [b,c,d]

[a] Sellinger School of Business and Management, Loyola College of Maryland, United States
[b] Darden Business School, University of Virginia, United States
[c] Institute for International Integration Studies, Trinity College Dublin, Ireland
[d] National Bureau of Economic Research, United States

Received 11 September 2006; accepted 18 September 2006
Available online 20 November 2006

Abstract

Countries that cannot attract foreigners to invest in their local currency bonds run the risk of currency mismatches that can result in painful crises. We analyze foreign participation in the bond markets of over 40 countries. Bond markets in less developed countries have returns characterized by high variance and negative skewness, factors that we show are eschewed by U.S. investors. While results based on a three-moment CAPM indicate that it is diversifiable idiosyncratic risk that U.S. investors shun, our analysis suggests that countries can improve foreign participation by reducing macroeconomic instability.

JEL classification: F30; G11; G15; O16
Keywords: Home bias; Emerging market debt; Diversification

1. Introduction

The ability to attract foreign participation in local currency bond markets has important benefits for industrial and developing economies alike. Two examples forcibly make this point. In the United States, foreign participation in the Treasury market has helped keep U.S. interest rates relatively low despite anemic U.S. savings rates (Warnock & Warnock, 2005). At the other end of the spectrum are developing economies, which presumably have a greater need for foreign capital but are unfortunately unable to attract foreign investors to their local currency bonds. This inability to attract foreign investors has led to a reliance on

* Corresponding author: Tel.: +1 410 617 5831; fax: +1 410 617 2118.
E-mail addresses: jburger@loyola.edu (J.D. Burger), WarnockF@darden.virginia.edu (F.E. Warnock).

1058-3300/$ - see front matter © 2006 Elsevier Inc. All rights reserved.
doi:10.1016/j.rfe.2006.09.001

foreign currency-denominated debt (Burger & Warnock, 2006; Eichengreen & Hausmann, 2005) and a concomitant currency mismatch that has been linked to the increased likelihood and severity of financial crises (Goldstein & Turner, 2004).

In this paper, we analyze the ability of countries to attract international investors to their local bond markets. Data on all foreigners' investment in local bond markets do not exist, so we rely on high-quality data on the cross-border holdings of one of the largest groups of international bond investors, U.S. investors. The data reveal very limited participation by U.S. investors in local currency bond markets overall, and especially limited in emerging markets. But there is significant cross-country variation, which leads us to investigate factors influencing U.S. investor portfolio decisions. We follow work by Kraus and Litzenberger (1976), de Athayde and Flores (2004), and Harvey, Liechty, Liechty, and Muller (2003) and sketch a model in which investors care about the mean, variance, and skewness of returns. The model predicts that if these characteristics are priced with respect to the U.S. investor, country weights in U.S. investors' international bond portfolios should be a function of bond market capitalizations and direct barriers to international investment. To the contrary, we find evidence that U.S. investors avoid local currency bonds that have returns with historically high variance and negative skewness. Decomposing these risks, we find that U.S. investors are avoiding diversifiable idiosyncratic risk, yet another indication of the home bias in portfolios.

Our finding that U.S. investors fail to diversify fully and avoid the most volatile bond markets represents a challenge for emerging economies. The unsavory returns characteristics in emerging markets are most likely tied to macroeconomic instability. Burger and Warnock (2006) demonstrate that improved macroeconomic policies increase the ability to issue bonds in local currency. The results in this paper suggest the same policies will attract greater foreign participation.

2. Risk and return characteristics of international bond portfolios

We are interested in understanding the extent to which global investors' cross-border holdings of local currency bonds vary across countries. Portfolio theory predicts internationally diversified portfolios, but it is well known that investors tend to exhibit a bias toward local or domestic securities.[1] Because the benefits of international diversification accrue through the returns characteristics of foreign securities, we begin this exploration by characterizing risk and returns in foreign bonds.

Not knowing the extent to which international bond positions are hedged, we form two sets of returns, each from the perspective of a U.S.-based investor. The first, Unhedged, is comprised of unhedged local currency bonds for developed countries. For emerging markets, where local currency bond indices have not generally been available, Unhedged is the sum of currency returns and bond returns from J.P. Morgan's Emerging Market Bond Index (the EMBI is composed of dollar-denominated bonds). Our second set of returns, Hedged, is comprised of hedged bonds for developed countries and returns on dollar-denominated bonds for emerging markets.[2]

For the 41 countries for which we were able to obtain historical returns data, Table 1 presents statistics on the mean, variance, and skewness of hedged and unhedged historical returns over the period

[1] Much of the extensive home bias literature has focused on international equities (see the surveys by Karolyi and Stulz (2003) and Lewis (1999)), but there is also a small literature on the potential diversification gains from holding international bonds (Levy and Lerman (1988), Jorion (1991), and Levich and Thomas (1993), among others).

[2] Recently, some emerging market local currency bond indices have been started, but they are very recent and hence do not have sufficient history to be included in this study. The reader should note that our Hedged series for emerging markets does not include hedging costs, which may be prohibitively high.