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Asian emerging-market currencies in the international debt market (1994–2014)☆

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ABSTRACT

This paper investigates the increasing presence of Asian emerging-market currencies in the international debt market over the last two decades. I use the "original sin" index developed by Eichengreen et al. (*The pain of original sin.* ⟨http://elsa.berkeley.edu/~;;eichengr/research/ospainaug21-03.pdf⟩ (August, 2003) to measure the use of an economy's home currency in international debt relative to the total international debt of its residents. The relative reliance on home currency debt is seen to have increased markedly in a number of economies. Using a random effects Tobit model, I examine factors underlying recent changes for a sample of nine Asian emerging market economies. The results suggest the importance of economic size, strength of institutions, and financial market development.

1. Introduction

This paper examines the increasing presence of Asian emerging-market currencies in the international debt market. It presents illuminating findings on the rise of these currencies as vehicles for international financing and investment. The use of Asian emerging-market currencies in the international debt market comprises an important aspect of the currencies' roles in international lending and has far-reaching macroeconomic consequences. Researchers have shown that the low acceptance of most Asian currencies in international borrowing contributed to the reliance of Asian financial institutions and corporations on foreign currency-denominated debt before the 1997–1998 financial crisis (Eichengreen & Hausmann, 1999; Johansson, 2008). High dependency on foreign currency debt is associated with the risk of currency and debt crises, especially in emerging and developing economies (e.g., Bordo, Meissner, & Stuckler, 2010). In Asia, governments have actively encouraged the wider use of their currencies in international borrowing since the regional financial crisis of 1997.

This paper focuses on Asian emerging-market currencies in the international debt market during the period 1994–2014. I use the "original sin" index developed by Eichengreen, Hausmann, and Panizza (2003) to measure the use of an economy's home currency in the international debt market relative to the total international debt of its residents. The results show that the use of a number of Asian emerging-market currencies in the international debt market has increased rapidly.

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A number of factors have been highlighted in the literature to explain the difference in performance of currencies in the international debt market. Bordo, Meissner, and Redish (2005) and Eichengreen et al. (2003) have suggested the importance of external factors, such as wars, massive economic disruption, and the emergence of global markets in determining the varied use of currencies in international lending. Other research has stressed the domestic factors that restrict the use of emerging-market currencies in the international debt market. For example, Reinhart, Rogoff, and Savastano (2003) suggested that institutional weakness and inflation were significant contributing factors. However, empirical evidence on the relative importance of domestic factors in affecting the use of currencies in the international debt market is rare in the literature.

In this paper, I seek to examine factors underlying the recent change of Asian emerging-market currencies in the international debt market, using a random effects Tobit model for a sample of nine economies. The results suggest the importance of economic size, strength of institutions, and financial market development.

The remainder of this paper is organized as follows. Section 2 reviews the literature. Section 3 examines Asian emerging-market currencies in the international debt market. Section 4 presents the model and describes the variables. Section 5 summarizes the data. Section 6 discusses the results. Finally, Section 7 concludes.

2. Literature review

Classical economists identified the three functions of money as a medium of exchange, unit of account, and store of value. The international use of currency is the extension of these three functions from the domestic to the international realm (e.g., Cohen, 1971; McKinnon, 1979; Kenen, 1983; Krugman, 1980). Later research added another dimension to the international use of currency by distinguishing between private and official purposes where the official purpose involves the holding of reserves by central banks (e.g., Chinn & Frankel, 2005). Krugman (1984) identified six roles of an international currency which fall under headings of vehicle, intervention, invoice, peg, banking, and reserves.

Many studies have focused on aspects of the international use of different currencies, with the lion's share of attention directed at the US dollar and the euro. Recent examples include Goldberg and Tille (2008) on vehicle currency; Bacchetta and Wincoop (2005) on trade invoicing; the ECB (2014) on exchange rate anchoring; and Papaioannou, Portes, and Siourounis (2006) on reserves. Despite a multitude of studies on the international use of a currency as vehicle, invoice, peg, and reserves, research on the international use of currency for the intervention and banking dimensions of Krugman's categorization is limited, which impedes full understanding of the topic.

An alternative to Krugman's schema for delineating international currency functions highlights market development with respect to five aspects: foreign exchange reserves in connection with exchange rate anchoring, international debt markets, foreign exchange trading, international trade financing, and parallel currencies (e.g., ECB, 2014). Specifically, the focus on the international debt market provides a perspective on the international use of a currency in capital markets.

The literature on the international use of Asian emerging-market currencies is thin because until recently these currencies mainly circulated domestically and their international use was low. Most Asian emerging-market currencies gained little entry into the international debt market because domestic markets for debt were so poorly developed (e.g., Bhattacharyay, 2013). In fact, low acceptance of countries' own currencies in international financing and investment is widely observed in the developing world (Eichengreen et al., 2003; Burger & Warnock, 2007). Eichengreen, Hausmann, and Panizza (2007) argued that such a phenomenon serves to hinder the free flow of capital across countries because governments use macroeconomic and regulatory policies to limit borrowing in foreign currencies. Alternatively, these governments may resort to foreign reserve accumulation, but this strategy is also costly.

Recent evidence suggests that currencies from Asia are gaining strength. Surveys during 1998–2013 reported that the use of Asian emerging-market currencies in foreign exchange markets increased quickly measured by turnover. This is particularly true for the Chinese renminbi, the Hong Kong dollar, the Singapore dollar, the Thai baht, and the Indonesian rupiah (Bank for International Settlements, 2013). As economic development continues, financial markets are gaining momentum in the region. Although many Asian emerging-market currencies remain minnows in the international monetary system, recent changes in the international use of these currencies are worth studying.

Asia is now home to many flourishing economies that are becoming important players in the global economy. This research seeks to determine whether the continued economic vigor of Asian emerging markets has transformed the use of their currencies in the international debt market. Furthermore, the prospect of the Chinese renminbi as an international currency has been widely discussed recently (e.g., Chey, 2012). This paper may also complement the literature on the international use of the renminbi.

3. Asian emerging-market currencies in the international debt market

The international debt market has grown rapidly over the last two decades, with growth accelerating from the beginning of the 2000s until the recent global financial crisis (Appendix, Fig. A1). Total volume reached US$ 22,319 billion in the third quarter of 2014, almost 17 times that of the early 1990s.

The international debt securities market is dominated by a small number of currencies. In fact, just five – the euro, the US dollar, the pound, the yen, and the Swiss franc – have accounted for approximately 95 percent of total international debt outstanding over the last two decades (see Appendix Table A1). Within the remaining narrow wedge, Asian