Public Disclosure Authorized

Public Disclosure Authorized

WPS6105

Policy Research Working Paper 6105

Financial Globalization in Emerging Countries

Diversification vs. Offshoring

Francisco Ceballos
Tatiana Didier
Sergio L. Schmukler

The World Bank
Development Research Group
Macroeconomics and Growth Team
&
Latin America and the Caribbean Region
Office of the Chief Economist

June 2012

Policy Research Working Paper 6105

Abstract

Financial globalization has gathered attention since the early 1990s because of its macro-financial implications and growing importance. But financial globalization has taken shape via different forms over time. This paper examines two important, concurrent dimensions of financial globalization: diversification and offshoring. The diversification dimension refers to the increase in foreign assets and liabilities in countries' portfolios. Offshoring is related to the reallocation of financial activities to international markets. The former focuses on who holds the assets, the latter on where transactions take place. The authors find that globalization via the diversification channel expanded throughout the world during the 2000s, as domestic residents invested more abroad and foreigners increased their investments at home, generating more cross-border holdings. However, financial globalization via offshoring displays more mixed patterns, with variations across markets and countries. The paper also shows that the nature of financing through both diversification and offshoring has improved for emerging countries.

This paper is a product of the Macroeconomics and Growth Team, Development Research Group; and the Office of the Chief Economist, Latin America and the Caribbean Region.. It is part of a larger effort by the World Bank to provide open access to its research and make a contribution to development policy discussions The authors may be contacted at fceballos1@worldbank.org, tdidier@worldbank.org, and sschmukler@worldbank.org.

The Policy Research Working Paper Series disseminates the findings of work in progress to encourage the exchange of ideas about development issues. An objective of the series is to get the findings out quickly, even if the presentations are less than fully polished. The papers carry the names of the authors and should be cited accordingly. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the views of the International Bank for Reconstruction and Development/World Bank and its affiliated organizations, or those of the Executive Directors of the World Bank or the governments they represent.

Produced by the Research Support Team

Financial Globalization in Emerging Countries: Diversification vs. Offshoring*

Francisco Ceballos

Tatiana Didier

Sergio L. Schmukler

JEL Classification Codes: F36, G15, G20

Keywords: domestic financial markets, international financial markets, international financial integration, bond markets, equity markets

---

*All authors are with the World Bank. This paper derives from the background work prepared for the World Bank Flagship Report "Financial Development in Latin America and the Caribbean: The Road Ahead." We received very helpful comments from Augusto de la Torre, Alain Ize, Eduardo Levy Yeyati, Eswar Prasad, and Luis Servén, among many others, and participants at presentations held at the ADBI (Tokyo), American University (Washington), Casas das Garcas (Rio de Janeiro), the Central Bank of Brazil (Brasilia), the Central Bank of Colombia and the Global Development Network Annual Meeting (Bogota), the Chamber of Commerce (Lima), the IMF (Washington), the ITAM and the National Banking and Securities Commission (Mexico City), the NIPFP-DEA Workshop (Delhi), and the World Bank (Washington, DC). We are grateful to Luciano Cohan, Juan Cuattromo, Gustavo Meza, Julian Kozlowski, Lucas Nuñez, Paula Pedro, Virginia Poggio, Andres Schneider, Patricio Valenzuela, Luis Fernando Vieira, and Gabriel Zelpo for outstanding research assistance at different stages of this project. For help in gathering unique data, we thank the ADR Team from the Bank of New York, among many others. We thank the Office of the Chief Economist of the Latin American and the Caribbean Region, the SFLAP Trust Fund, and the Knowledge for Change Program (KCP) of the World Bank for financial support. The views expressed here are those of the authors and do not necessarily represent those of the World Bank. E-mail addresses: fceballos1@worldbank.org, tdidier@worldbank.org and sschmukler@worldbank.org.

1. Introduction

Starting in the early 1990s, as developed and emerging countries became more integrated within the global financial system and especially as international transactions seemed to grow, interest in financial globalization increased substantially.[1] Since then, many have questioned the links between financial globalization and economic growth and have revisited the overall costs and benefits of financial integration.[2] In principle, financial globalization should increase access to capital and lower its costs.[3] But financial globalization may also expose countries to foreign shocks and crises, thus raising several new macro-financial challenges, such as the regulation and use of domestic financial markets and the conduct of macro-prudential policies.[4]

Despite all the attention to financial globalization, its concept and extent have remained somewhat elusive. For example, different authors use, alternatively, net capital flows, gross capital flows, and country portfolios as measures of financial globalization.[5] Many also measure globalization through the participation of foreigners in domestic markets, while a number of other studies focus on the access of domestic firms and governments to foreign capital.[6] Moreover, while there is much discussion of increased financial globalization, little is known about whether the sharp globalization that took place during the 1990s continued during the following decade or whether the nature (or type) of financial globalization has changed.[7]

1. Obstfeld and Taylor (2004); Lane and Milesi-Ferreti (2007); Obstfeld (2012).
2. Rodrik (1998); Stiglitz (2002); Kose et al. (2010).
3. Foerster and Karolyi (1999); Stulz (1999); Errunza and Miller (2000); Errunza (2001).
4. Dornbusch, Goldfajn, and Valdes (1995); Calvo and Reinhart (2000); Allen and Gale (2000); Reinhart and Reinhart (2009); Kawai and Lamberte (2010); Calvo (2011).
5. Lane and Milesi-Ferretti (2001, 2007); Kraay et al. (2005); Devereux (2007); Gourinchas and Rey (2007); Reinhart and Reinhart (2009); Broner et al. (2010).
6. Forbes (2006); Kose et al. (2010); Henry (2007); Gozzi, Levine, and Schmukler (2010).
7. One exception is Levy Yeyati and Williams (2011).

In this paper we explore two dimensions of the financial globalization process of these decades.[8] The first is *financial diversification*, that is, the cross-country holdings of foreign assets and liabilities. As home bias is reduced, domestic investors increase their investments abroad and foreigners expand their investments at home. This first dimension of globalization is determined by *who* holds the assets and liabilities in domestic and international markets. The second dimension is *financial offshoring*, that is, the use of foreign jurisdictions to conduct financial transactions. In particular, we investigate how the use of foreign markets is associated with the use of domestic markets. This second dimension of globalization is determined by *where* assets are traded, irrespective of who is trading them.

Although we study evidence from around the world, including developed countries, we concentrate our analysis on emerging countries—which are perceived to be the ones that underwent the most significant financial liberalization since the early 1990s.[9] A large part of the literature focuses on the effects of globalization on these countries—and reaches very different conclusions. Our analysis is based on a sample of countries from a selected set of emerging regions in Asia, Eastern Europe, and Latin America for which the challenges associated with the process of financial globalization are particularly relevant. We also analyze trends in G-7 and other developed countries.[10] Moreover, we focus on the two decades in question because the extent of financial globalization before 1990 was rather limited, especially for the broad spectrum of emerging countries.

---

8. Before the Great Depression, several emerging countries had access to international markets. But that earlier globalization period seems more restricted than the one experienced after 1990.

9. Kaminsky and Schmukler (2008).

10. The following regions (countries) are included in our sample: Asia (Indonesia, Malaysia, Philippines, South Korea, and Thailand), China, Eastern Europe (Croatia, Czech Republic, Hungary, Lithuania, Poland, Russian Federation, and Turkey), G-7 (Canada, France, Germany, Italy, Japan, United Kingdom, and United States), India, Latin America (Argentina, Brazil, Chile, Colombia, Mexico, Peru, and Uruguay), and other developed countries (Australia, Finland, Israel, New Zealand, Norway, Spain, and Sweden).

Our findings suggest that, according to widely used de facto measures, financial diversification continued rising across emerging countries during the first decade of the 2000s when compared to the 1990s. Namely, the stock of foreign assets and liabilities (a stock measure) and capital flows by domestic and foreign agents (a gross flow measure) increased.[11] Interestingly, this trend is more accentuated in developed countries than in emerging ones. Despite starting from a higher level of financial diversification, developed countries experienced on average a greater expansion of flows as a percentage of GDP and a significantly larger increase in the stock of foreign assets and liabilities since the early 2000s. Therefore, while the notion that emerging countries became more financially globalized during the first decade of the 2000s seems correct, in relative terms they lagged behind the deeper globalization process observed across developed countries. Furthermore, this increased financial globalization was characterized by a two-way process that entailed a higher participation of both foreigners in local markets and domestic agents in foreign markets. Interestingly, the large expansion in cross-country holdings led by greater volumes of gross capital flows was not matched by an expansion in net capital flows.[12] Valuation effects were one of the drivers of this increase in financial diversification, especially for equity investments.

A noteworthy feature of the process of financial diversification during the first decade of the 2000s is the safer form of integration of many emerging countries, arising from the changing structure of their external assets and liabilities. More specifically, emerging countries typically became net creditors in debt assets and net debtors in equity assets. This contrasts sharply with

11. Note, however, that these measures of diversification capture only part of the financial globalization process, which also entails the ability to trade assets across countries, the ability of financial institutions to operate in different jurisdictions (most notably foreign banks operating at home), and the equalization of asset prices and returns across borders (even without actual transactions taking place). These other aspects of financial globalization are nonetheless beyond the scope of this paper, and some of them are related to de jure measures of financial globalization.

12. Broner et al. (2010).

the structure prevalent in the 1990s, when emerging countries held large debtor positions, especially in debt assets. This new structure of foreign assets and liabilities is particularly beneficial in times of turbulence, when balance-sheet effects work in their favor. For example, during global crises the local currency value of emerging countries' foreign assets tends to increase, given that they own hard-currency debt (which appreciates vis-à-vis emerging countries' currencies), while that of their foreign liabilities shrinks, given that they owe equity to the rest of the world. As observed during the global financial crisis of 2008-09, with the collapse in economic growth and asset valuations in financial markets, the local currency value of emerging countries' equity liabilities contracted. This seems to have substantially benefited emerging countries at the expense of some developed countries, particularly the United States, and might have helped strengthen their resilience to the global financial crisis.[13]

In contrast to the widespread expansion in international financial diversification during the first decade of the 2000s, we provide evidence of more mixed patterns regarding the evolution of financial offshoring. A large expansion occurred in the 1990s, mostly because it was basically nonexistent before (at least in recent history). But the relatively large offshoring of the 1990s was not widely sustained during the following decade, as its expansion varied significantly across countries and markets. For example, capital-raising activity in foreign markets through syndicated loans expanded around the world as a percentage of GDP during the first ten years of the 2000s, especially for developed countries. On the other hand, capital-raising activity through debt and equity issues as a percentage of GDP remained somewhat stable during this period and even declined in several countries. Moreover, offshoring remains highly concentrated—that is, not many firms participate in this process.

---

13. Gourinchas and Rey (2007); Lane and Milesi-Ferretti (2011); Kose and Prasad (2010); Didier, Hevia, and Schmukler (2011).

Compared to domestic markets, there is also heterogeneity in the use of foreign markets. For example, in some emerging countries, and in developed countries more broadly, offshoring through corporate bonds gained in importance and foreign markets became relatively important as a source of new financing for the private sector. However, when equity markets are analyzed, this trend is seen to be limited to a much smaller set of countries, being particularly marked in China and in Latin America. In addition, for Latin American countries, the apparent migration to foreign equity markets by the private sector was accompanied by liquidity abroad increasing relative to domestic liquidity, suggesting a shift of equity trading to foreign markets. In contrast, public sector bond financing shifted away from foreign markets toward domestic markets for most countries in our sample, reflecting to some extent the authorities' attempts to reduce their dollar exposure and to develop their local currency public debt markets, which proved successful to some extent.

The nature of foreign financing changed too, in general toward the better across emerging countries. Mirroring changes in local bond markets is a reduction in credit risk in foreign markets through an increase in maturity and a lower degree of dollarization. For instance, foreign bond maturities at issuance were longer in the 2000s compared to the 1990s for both the private and public sectors in emerging countries. Moreover, some firms, as well as some governments, were able to place local currency bond issues abroad, although foreign placements typically remained almost exclusively denominated in foreign currency.

In sum, since the early 1990s there has been a broad-based increase in financial diversification through larger gross capital flows, tightening the linkages across countries. But this trend was not accompanied by a similar increase in financial offshoring through the use of foreign capital markets as a financing source or trading place.

The rest of the paper is organized as follows. Section 2 discusses in more detail the diversification and offshoring dimensions of globalization. Section 3 documents and provides a broad overview of where emerging countries stand on commonly used and simple measures of financial diversification. Section 4 examines financial offshoring, evaluating recent trends for both the public and private sectors in absolute and relative terms (i.e., the relative size of domestic and foreign capital markets for financial activities). Section 5 concludes with a discussion of possible further research on financial globalization.

2. The Diversification and Offshoring Dimensions

The diversification dimension of financial globalization is macroeconomic in essence. It relates to country-level capital flows and gross foreign positions in assets and liabilities—that is, domestic residents investing in foreign markets and foreigners investing at home. In theory, this process allows risk to be diversified more efficiently and provides opportunities for exploiting cross-border risk-adjusted return differentials, effectively exerting pressure to equalize returns across countries and instruments. In addition to enhancing the efficiency of resource allocation, increased financial diversification might play an important role in the development of local capital markets. It can enhance liquidity, boost research, improve the quantity and quality of information, increase transparency, and promote better corporate governance practices, thereby reducing agency problems.

Despite these positive effects, financial diversification might also have its downside. Over the years, volatile capital flows have led to more extreme booms and busts. In particular, surges in capital inflows to countries with shallow domestic financial markets and a limited menu of financial assets can generate systemic problems. Increased diversification of financial

systems can also be associated with a greater exposure to external crises through the financial channel. This channel often involves international investors (common creditors) in the financial centers who propagate shocks across the various countries in their portfolios in response to changes in, for example, liquidity or asset quality.[14] Thus a crisis in one country can prompt international investors to sell off assets or to curtail lending to other countries. To the extent that these patterns characterize the behavior of foreign investors more broadly, a greater dependence on foreign financing might bring additional volatility to domestic economies by importing the fluctuations of international markets. Furthermore, because foreigners tend to provide financing in foreign currency, their involvement can lead to currency mismatches. Similarly, while domestic residents' investments abroad might help smooth their consumption, such investments may also facilitate capital flight by causing conditions at home to deteriorate (due to risk of devaluation, default, or expropriation), which, other things equal, can reduce the capital available for domestic financing.

In contrast to the macroeconomic essence of financial diversification, the offshoring dimension of globalization is mainly microeconomic and is related to the functioning of the financial sector. This dimension is based on the use by local residents of offshore (or external) markets or the use of foreign intermediaries (rather than onshore ones). Instead of issuing a stock locally, a firm might prefer to list it on a foreign exchange. The trade-offs inherent in the use of domestic and foreign markets are somewhat different in nature than those implied by the diversification dimension, and hence they entail different dynamics. A number of reasons could

14. When leveraged investors such as banks and hedge funds face regulatory requirements, internal provisioning practices, or margin calls, they might rebalance their portfolios by selling their asset holdings in other countries. When the managers of open-end mutual funds foresee future redemptions after a shock in one country, they might raise cash by selling assets in other countries. See for example Kaminsky and Reinhart (2000); Martinez Peria, Powell, and Vladkova-Hollar (2005); and Cetorelli and Goldberg (2012) for the role of banks. Borensztein and Gelos (2003); Kaminsky, Lyons, and Schmukler (2004); Broner, Gelos, and Reinhart (2006); and Raddatz and Schmukler (2011), among others, discuss the role of mutual funds.

be behind offshoring, including access to markets with greater depth and liquidity as well as to better regulatory environments. The financial services provided offshore may also be cheaper or have specific features that make them preferable for specific transactions. Thus domestic and offshore markets may complement each other.[15] When domestic and offshore activities are complements, the correlation between financial development (understood as deeper domestic capital markets) and financial offshoring might be positive, as firms and agents use both markets for different purposes.

Nonetheless, domestic and international markets might also be substitutes, and the correlation between financial activities in these markets might turn negative. An emblematic case is the use of more developed financial centers by firms and agents from emerging countries with relatively unsophisticated financial markets. Furthermore, increased offshoring may also be associated with some negative spillovers. For example, increased trading activity in foreign markets might have adverse effects on the liquidity of domestic stock markets through different channels.[16] Issuing securities abroad may shift a firm's trading volume out of the domestic market, a so-called liquidity migration effect. Moreover, it may lead to a drop in the trading and liquidity of stocks of the remaining domestic firms.[17] Because not all companies can access international markets, the negative externalities to domestic firms can be sizable. In particular, as smaller firms typically remain limited to local financing sources, such a migration can reduce not

15. Henderson, Jegadeesh, and Weisbach (2006); Gozzi, Levine, and Schmukler (2010).

16. Levine and Schmukler (2007).

17. The negative effect on the remaining domestic firms might happen through two effects. The first one (negative spillovers) is linked with the increase in cost per trade at home due to fixed costs. The second effect (domestic trade diversion) follows from the fact that a firm's internationalization is related to improvements in its reputation, disclosure standards, analyst coverage, and shareholder base, which could induce investors to shift their attention away from firms trading onshore. Levine and Schmukler (2007) find empirical evidence of a significant negative effect of offshoring on domestic stock market liquidity. However, others argue instead that offshoring may enhance integration and thereby stimulate domestic trading and boost the liquidity of domestic firms. See for example Alexander, Eun, and Janakiramanan (1987); Domowitz, Glen, and Madhavan (1998); and Hargis (2000).

only the liquidity of the remaining firms in local markets but also their ability to raise capital, jeopardizing the intended broad-based nature of domestic capital markets.

3. Financial Diversification

The financial diversification dimension of financial globalization can be generally analyzed through both de jure and de facto measures. While the former is based on regulations and restrictions, including capital flow controls, the latter is related to the intensity of cross-border movements of capital. As these two types of measures are not necessarily closely correlated, some recent studies lean toward the more practical relevance of de facto measures.[18] We thus examine two commonly used de facto measures in the financial globalization literature: a stock-based one and a flow-based one.[19]

As documented in a number of studies, these de facto measures suggest an increasingly globalized world. Figure 1 shows the level of cross-border capital flows and the stock of cross-border assets and liabilities, scaled by GDP, for several emerging and developed regions during the 1980s, 1990s, and first decade of the 2000s. All regions witnessed an increase in financial diversification over this period, particularly during the latter decade. However, emerging regions still lag behind developed ones. The increase in financial diversification experienced by emerging countries, measured through either the stock or the flow measures, was considerably lower than that observed across developed countries. As a result, financial integration, in its diversification dimension, remains much more developed in developed countries than in emerging ones. For example, foreign assets and liabilities represented about 300 percent of GDP in developed countries in 2000-07, whereas in emerging countries they stood at less than half of

18. Kose et al. (2010).

19. The stock of foreign assets and liabilities was compiled by Lane and Milesi-Ferretti (2007) and a flow-based one (gross capital flows by domestic and foreign residents) was compiled by Broner et al. (2010).

that amount, around 130 percent of GDP in Asian, Eastern European, and Latin American countries.

This is a generalized process of two-way financial diversification, according to which not only have foreign residents invested more in local markets but also domestic residents have expanded their investments in foreign markets. Panel B of Figure 1 segments capital flows by the residency of the agents completing the transaction, thus distinguishing between capital inflows by foreign residents and capital outflows by domestic residents. The figure shows that cross-border flows by both domestic and foreign residents have been on the rise during the past decades in almost all emerging and developed regions. Perhaps the only exception to this broad trend is Asia during the first decade of the 2000s, where flows by foreign residents declined significantly as a percentage of GDP, though flows by domestic residents still grew considerably.

The expansion of financial diversification, as measured by these de facto indicators, reflects not only increased volumes of gross capital flows but also positive valuation effects, stemming from the re-pricing of assets and liabilities. As many argue, capital gains and losses on outstanding holdings of foreign assets and liabilities can be indeed sizable.[20] Figure 2 illustrates these valuation effects by showing the increase between 1999 and 2007 in foreign holdings of domestic equity, scaled separately by GDP (as in Figure 1) and by domestic market capitalization. In fact the increase in cross-border equity holdings (a component of the stock of foreign assets and liabilities in Figure 1) is significantly smaller across all emerging regions when the growth of equity prices (proxied by market capitalization) is taken into consideration, turning even negative for Latin American countries. This suggests that the evidence of financial globalization needs to be considered with some care.

20. Lane and Milesi-Ferretti (2001, 2007); Gourinchas and Rey (2007); and Gourinchas, Govillot, and Rey (2010).

In addition to this expansion in the size of foreign assets and foreign liabilities over the past three decades, their composition evolved in a significant way. Figure 3 presents the changes in the different components of the stock of external liabilities (panel A) and external assets (panel B) as a share of GDP during the 1990s and the years 2000-07. When focusing on the liability side (which captures the stock of foreign investments in domestic economies), equity investments—including foreign direct investment—increased on average across emerging countries during both decades.[21] Debt investments, on the other hand, generally declined during both decades for this set of countries, with the exception of Asia in the 1990s and Eastern Europe in the first decade of the 2000s. This last trend stands in sharp contrast to that of developed countries, where debt investments greatly expanded over the same period.

On the asset side (which captures the stock of foreign investments by domestic agents), emerging countries largely accumulated international reserves, a trend that has accelerated since the Asian crises of the late 1990s. This is an important feature underlying the emerging countries' improved macroeconomic and financial stances, albeit not the only one. The patterns of the other components of the stock of foreign assets are somewhat mixed. For example, Latin American countries increased their external asset positions mainly through equity investments in the first decade of the 2000s, while Eastern Europe did so through a large increase in debt investments. In the case of developed countries, debt investments capture the lion's share of the rise in their external assets during both the 1990s and 2000s, though the increases in equity investments and foreign direct investment are still sizable.

These trends led to important changes in countries' overall positions as net creditors or net debtors. As discussed above, emerging countries typically experienced a decline in debt

21. Even though the increases in equity investments are larger than increases in debt investments, this trend may reflect to some extent larger valuation effects, as discussed above.

liabilities and an expansion in debt assets, especially when reserves are considered. Consequently, a number of them became net creditors with respect to the rest of the world as regards debt contracts. On the equity side, both assets and liabilities increased, albeit at different speeds. In net terms however, there has been a shift toward net debtor positions with respect to equity contracts among emerging countries; this has been increasingly so in recent years. Figure 4 shows the net foreign assets positions (that is, the difference between foreign assets and foreign liabilities) as a share of GDP for both equity and debt investments from 1990 to 2007. Asian and Latin American countries, together with India, became net creditors after the initial years of the 2000s as regards debt contracts, while China increased its already positive position as a net creditor. At the same time, they continued deepening their net debtor stances as regards equity contracts. This stands in contrast to the mixed patterns observed in developed countries.

This evolution in the structure of countries' external assets and liabilities might play a role in avoiding the downside risks of financial globalization. For instance, when the 2008-09 global financial crisis hit emerging countries, balance-sheet effects worked in their favor. In emerging countries' not too distant past, the exchange rate nominal devaluations that typically accompanied financial crises tended to increase the burden of foreign currency debt. In contrast, during the global financial crisis, the devaluations led to improvements in the external positions of emerging countries (when measured in local currency) due to their net creditor stances in debt contracts. Moreover, external liabilities were reduced when equity prices plummeted, thereby shrinking their net debtor equity positions. At the same time, the large pools of international reserves not only might have slowed down the appreciation of the domestic currency during the pre-crisis expansionary period but also might have later served as a self-insurance mechanism during the heightened turmoil period, deterring currency crises and banking panics. In fact many

countries held international reserves in excess of their stock of short-term foreign liabilities. This in practice eliminated concerns about debt rollover difficulties in many emerging countries, limiting investors' incentives to attack the domestic currencies.[22] In sum, this evolution of emerging countries from a net debtor to a net creditor position, vis-à-vis the rest of the world, in terms of debt contracts—along with a reduction of foreign currency and short-term debt liabilities documented below—might have made these countries more resilient to external shocks, thus giving rise to a safer form of financial globalization.

4. Financial Offshoring

As the wave of financial liberalization swept the emerging world during the 1990s, financial offshoring took off, with the use of foreign markets ranging from syndicated loans to equities and bonds. Such an expansion in offshoring contrasts sharply with the lack of activity abroad during the 1980s. Nonetheless, during the first decade of the 2000s, mixed patterns emerged regarding the use of foreign markets for financial transactions by emerging countries. In fact there was a marked heterogeneity in the extent of offshoring across markets and countries.

Regarding debt contracts, somewhat opposing trends have been observed in new capital-raising activity through syndicated loans and bonds abroad across emerging countries.[23] As shown in panel A of Figure 5, new syndicated loans continued to expand around the world over 2000-08. In contrast, as seen in panel B, the overall volume (as a percentage of GDP) of new bonds issued in foreign markets declined across a number of emerging countries, although it remained at relatively high levels. For example, bond issuance abroad fell from 3.2 to 2.4 percent of GDP a year for Asian countries and from 2.2 to 1.9 percent for Latin American countries in

22. Aizenman and Pasricha (2010); Aizenman (2011); and Frankel and Saravelos (2012); among others.
23. For more analysis on how firms use domestic and international bond markets, see Gozzi et al. (2012).

the first decade of the 2000s vis-à-vis the 1990s. Interestingly, this decline was concentrated on the new issuance of bonds by the private sector, as governments of countries in these two regions increased their issuance abroad as a percentage of GDP. Eastern Europe, however, stands as an exception, with bond issuance by its private sector actually expanding in foreign markets.

Mixed trends are also observed in capital-raising activity through equity issues in foreign markets as a percentage of GDP. As shown in panel C of Figure 5, the use of foreign markets for new capital-raising equity issues greatly expanded for firms in China and Eastern Europe and, to a lesser extent, in India. On the other hand, it declined for firms in Asian and Latin American countries. Contrasting trends are also observed across the developed world: while firms in G-7 countries increased their use of foreign markets, those in other developed countries reduced it.

Although the volume of new capital-raising activity abroad as a percentage of GDP did not show a consistent growth trend over the period 2000-08, private bond and equity financing in foreign markets still gained space relative to domestic markets in many—albeit not all—emerging regions. Panel A of Figure 6 shows the amount outstanding of private sector bonds in foreign markets as a share of total private outstanding bonds. Bond financing in foreign markets typically increased in relevance over the period 2000-09 for emerging countries, though this increase was significantly more for developed countries. Moreover, bond financing abroad represents more than half of total bond financing by the private sector for a number of emerging countries. For example, outstanding amounts in foreign markets represented more than 50 percent of total outstanding bonds in 2000-09 for Eastern European countries and India and about 46 percent for Asia. China however is an exception, with bonds in foreign markets representing only 8 percent of total outstanding bonds for the private sector in that period, down from 28 percent in the 1990s.

With respect to equity financing, there is more heterogeneity in the observed trends regarding the use of foreign markets relative to domestic markets. Panel A of Figure 7 shows the ratio of equity issuance abroad to total equity issuance. Asian and Eastern European countries, along with developed ones, relied more on domestic markets for new equity issues, which already accounted for the bulk of new capital-raising issues during the 1990s. For instance, only 32 percent of the issues from Eastern European companies and 6 percent of the issues from Asian ones took place in foreign markets during 2000-08. In stark contrast, Latin America and China saw a greater degree of offshoring through equity markets during 2000-08. Equity financing abroad in these countries gained space relative to domestic markets and has come to represent almost 50 percent of total equity issues, up from about 20 percent during the 1990s.

Foreign stock issuance by emerging countries typically takes the form of cross-listings through depositary receipts (DRs), which are particularly useful to analyze the dynamics of trading activity in domestic and foreign markets. Although DRs represent ownership of stocks listed in local markets, they are traded in stock exchanges abroad, mostly in financial centers such as the New York Stock Exchange, NASDAQ, and the London Stock Exchange. Panel B of Figure 7 shows the evolution from 2000 to 2009 of the average share of value traded abroad through DRs relative to total value traded (domestic plus abroad through DRs). A clear pattern emerges: the apparent migration to foreign equity markets by the private sector in China and Latin American countries was accompanied by increased trading abroad relative to domestic trading activity. In fact the share of trading activity abroad grew to represent the bulk of trading throughout 2000-09: 60 percent for Latin American countries and more than 30 percent for China. This trend suggests a shift of liquidity to foreign markets and a potentially diminishing

role for domestic markets in light of the increased offshoring of equity markets.[24] For most other emerging regions, however, trading in foreign markets accounts for a small share of total trading activity, at about 10 percent. Moreover, a stable balance in trading activity between domestic and foreign markets was maintained.

While the relevance of domestic markets in bond and equity financing relative to foreign markets declined for the private sector of many emerging countries during the first decade of the 2000s, the use of foreign bond markets by the government typically followed opposite trends. It actually increased for the public sector in most emerging countries. Public bond financing shifted toward domestic markets, though, as pointed out above, the issuance of public bonds abroad as a percentage of GDP increased during 2000-09. Panel B of Figure 6 shows the amount outstanding of bonds in foreign markets over total public sector outstanding bonds. It is clear from this figure that the relative importance of foreign bonds decreased during 2000-09 vis-à-vis the 1990s across all emerging regions. This trend was particularly sharp among Asian and Latin American countries, consistent thus with the significant expansion of local markets for government bonds in many of these countries. Despite this declining trend, emerging countries still tend, more than developed countries, to rely on foreign markets for the placement of their debt. While across G-7 countries about 6 percent of outstanding government bonds were in foreign markets during the first ten years of the 2000s, around 30 percent was observed across Eastern Europe and Latin America.

Notwithstanding these mixed trends in the overall degree of financial offshoring, the first decade of the 2000s witnessed some interesting changes in the nature of external bond financing across a number of emerging countries. While total bond issuance in foreign markets did not increase, on average, for these countries during this time period, a number of them changed the

24. See, for instance, Didier and Schmukler (2012a, 2012b).

nature of their bond financing, apparently in a conscious effort to reduce currency and maturity mismatches following the financial crises of the 1990s.

As a consequence, the maturity profile of both public and private sector bonds in foreign markets extended through the 2000-09 period, especially for Eastern European and Latin American countries, as shown in Figure 8.[25] For example, the maturity of bonds at issuance was lengthened by about one and five years for Latin America's private and public sectors, respectively. Asian countries however stand out as exceptions: both public and private sector bond maturities declined during 2000-09 relative to the 1990s.

Furthermore, many emerging countries have been able to issue bonds in local currency in foreign markets. The private sector of most emerging regions has succeeded in issuing some bonds in foreign markets in their own local currencies, while a few governments have also been able to do so. For example, Figure 9 shows that 7 percent of private sector bonds and 8 percent of public sector bonds issued abroad by Latin American countries in 2000-09 were denominated in local currency, as opposed to a virtually nonexistent amount during the 1990s. While these figures remain somewhat small, especially when compared to those of developed countries, they signal that emerging countries' have started to overcome the "original sin" (generally understood as the inability to issue local currency, long-term debt in foreign markets). Clearly, these are positive strides in the long road toward a more balanced issuance pattern.

Despite all these developments, the use of foreign markets is limited to few firms and thus remains a concern for many emerging countries, especially when contrasted with the observed patterns in developed countries. For instance, panel A of Figure 10 clearly shows that only a small number of firms from most emerging regions actually used foreign bond markets as

---

25. The long maturities could also be associated with relatively short durations if most of the debt is issued at floating rates. Currently, the data do not allow us to identify such effects.

a source for new capital during 2000-09, typically fewer than ten firms compared to more than a hundred in the G-7 countries. Moreover, the number of firms in Asia, China, and Latin America actually declined vis-à-vis the 1990s. In addition, markets remain largely concentrated, as top issuers capture a significant fraction of the total new bond financing abroad. For instance, panel B of Figure 10 shows that the amount raised by the largest five bond issues in foreign markets by the private sector in Asia, Eastern Europe, and Latin America represented on average about 75 percent of the total amount of bonds issued abroad during the 2000-08 period. In contrast, the largest five issues from firms of G-7 countries represented only 14 percent of the total amount raised through bonds in foreign markets. Strikingly, market concentration on issuance has in fact increased for many emerging countries. In other words, fewer and fewer firms seem to capture the bulk of the foreign market for bond financing.

As regards equity markets, the scope of offshoring also remains somewhat limited, in line with the trends observed in bond markets. As seen in Figure 11, the number of firms using foreign equity financing on a regular basis is rather small in emerging countries when compared to developed countries. For instance, on average only two firms in Asian, Eastern European, or Latin American countries issued equity in any given year during the period 2000-08, in comparison to over fifteen firms in developed countries. Similar to the patterns observed in the use of foreign bond markets, the average number of firms raising capital in equity markets abroad did not increase for many emerging countries during the period 2000-08. In contrast, over the same period this number rose for developed countries. Equity financing in foreign markets also remained highly concentrated on few issues. For most emerging countries, the largest five international issues represented around 90 percent of the market, though this is more in line with the levels of concentration seen in developed countries. Furthermore, the share of total amount

raised abroad by the largest five issues increased for a number of emerging countries. Finally, trading activity in foreign equity markets was also highly concentrated in few firms (panel C of Figure 11), with the top five firms in Latin American countries capturing more than 90 percent of the total trading activity in foreign markets. Note however that some emerging regions, such as Asia and Eastern Europe, show a reduction in trading concentration during the period.

5. Conclusions

The topic of financial globalization continues to receive extensive attention. In this paper, we discuss what this means for emerging countries, how much it has expanded, and to what extent its nature has shifted over time. In particular, we distinguish between two aspects of financial globalization: financial diversification (i.e., the cross-country holdings of assets and liabilities) and financial offshoring (i.e., the use of international financial markets by firms and governments to perform their financial transactions). The former focuses on who holds the assets, the latter on where assets are transacted.

We show that, during the first decade of the 2000s, emerging countries continued their process of financial globalization through diversification. Foreign assets and liabilities increased, as domestic residents invested more abroad and foreigners invested more at home. Moreover, the nature of the integration into the global financial system changed in several important respects. Emerging countries in particular reduced the extent of credit risk, making themselves less vulnerable to external financial shocks.

Despite this increase in diversification, the extent of offshoring did not expand as consistently across markets or across emerging countries. Whereas in the 1990s emerging countries increased their use of international markets for their financial transactions, in the

following decade mixed patterns were observed. There is significant heterogeneity in the trends regarding the use of foreign markets as a percentage of GDP as well as relative to the use of domestic markets. For example, while the corporate sector of many countries increasingly used foreign debt markets, governments started using domestic debt markets more intensively. Domestic equity markets in some regions, but not in others, also gained more relevance. Furthermore, the positive developments in domestic markets in terms of the nature of financing were matched by similar developments in foreign markets.

The continuing integration of emerging countries into the global financial system poses many questions to policymakers. What are the net effects of globalization? On the one hand, it allows agents to diversify risk and tap into other investment opportunities. It also allows firms and governments to reduce the cost of capital by accessing funds that would otherwise be hard to obtain. On the other hand, globalization has several potential negative spillovers, which need to be understood in more detail (let alone netted out from the benefits). One possible negative spillover is the migration of activity to international markets, thereby reducing the financing and trading activity at home. Since not all companies can access international markets, this migration can generate negative domestic spillover effects. However, the underdevelopment of local markets is unlikely due to the globalization process alone.

Does financial globalization entail more risk? On the equity side, the answer appears to be negative. On the debt side, globalization might entail exchange rate risk, though in some cases it might reduce maturity risk. Hence to reduce exchange rate risk, domestic markets seem to play an important role. Moreover, what is the relation between domestic and international markets? Do domestic and international capital markets act as complements or substitutes? This paper argues that the evidence suggests that they are complementary.

More broadly, though, what is the driver of the globalization process? Is it just a search for more and cheaper capital from segmented markets? Is it a quest for better corporate governance? The literature puts forward arguments supporting both, and some evidence suggests that the former cannot be rejected. Furthermore, because several of the trends documented in this paper are similar across countries, what is the role for domestic policymaking given these secular forces? These questions remain unanswered and call for further research.

References

Aizenman, J., 2011. "The Impossible Trinity." In *The Encyclopedia of Financial Globalization,* edited by G. Caprio. Amsterdam: Elsevier.

Aizenman, J., and G.K. Pasricha, 2010. "Determinants of Financial Stress and Recovery during the Great Recession." Forthcoming, *International Journal of Finance and Economics*.

Alexander, G., C. Eun, and S. Janakiramanan, 1987. "Asset Pricing and Dual Listing on Foreign Capital Markets: A Note." *Journal of Finance* 42(1): 151--58.

Allen, F., and D. Gale, 2000. "Bubbles and Crises." *Economic Journal* 110: 236--55.

Borensztein, E., and G. Gelos, 2003. "A Panic-Prone Pack? The Behavior of Emerging Market Mutual Funds." *IMF Staff Papers* 50(1): 43--63.

Broner, F., G. Gelos, and C. Reinhart, 2006. "When in Peril, Retrench: Testing the Portfolio Channel of Contagion." *Journal of International Economics* 69(1): 203--30.

Broner, F., T. Didier, A. Erce, and S. Schmukler, 2010. "Gross Capital Flows: Dynamics and Crises." Working Paper 1039. Bank of Spain.

Calvo, G., 2011. "Capital Inflows, Liquidity, and Bubbles." School of International and Public Affairs, Columbia University.

Calvo, G., and C. Reinhart, 2000. "When Capital Flows Come to a Sudden Stop: Consequences and Policy." In *Reforming the International Monetary and Financial System,* edited by P.B. Kenen and A. K. Swoboda. Washington: International Monetary Fund.

Cetorelli, N., and L. Goldberg, 2012. "Follow the Money: Quantifying Domestic Effects of Foreign Bank Shocks in the Great Recession." American Economic Review: Papers and Proceedings.

Devereux, M., 2007. "Financial Globalization and Emerging Market Portfolios." *Monetary and Economic Studies* 25: 101--30.

Didier, T., C. Hevia, and S. Schmukler, 2011. "How Resilient and Countercyclical Were Emerging Economies to the Global Financial Crisis?" Policy Research Working Paper 5637. Washington: World Bank. Forthcoming, *Journal of International Money and Finance*.

Didier, T., and S. Schmukler, 2012a. "Financial Development in Latin America: Stylized Facts and the Road Ahead." Washington: World Bank.

Didier, T., and S. Schmukler, 2012b. "Financial Globalization: Some Basic Indicators for Latin America and the Caribbean." Washington: World Bank.

Domowitz, I., J. Glen, and A. Madhavan, 1998. "International Cross-Listing and Order Flow Migration: Evidence from an Emerging Market." *Journal of Finance* 53(6): 2001--27.

Dornbusch, R., I. Goldfajn, and R. Valdes, 1995. "Currency Crises and Collapses." *Brookings Papers on Economic Activity* 2: 219--93.

Errunza, V., 2001. "Foreign Portfolio Equity Investments, Financial Liberalization, and Economic Development." *Review of International Economics* 9: 703--26.

Errunza, V., and D. Miller, 2000. "Market Segmentation and the Cost of Capital in International Equity Markets." *Journal of Financial and Quantitative Analysis* 35: 577--600.

Foerster, S., and G.A. Karolyi, 1999. "The Effects of Market Segmentation and Investor Recognition on Asset Prices: Evidence from Foreign Stocks Listing in the United States." *Journal of Finance* 54: 981--1013.

Forbes, K., 2006. “The Microeconomic Evidence on Capital Controls: No Free Lunch in Capital Controls and Capital Flows.” In *Emerging Economies: Policies, Practices, and Consequences,* edited by S. Edwards. University of Chicago Press.

Frankel, J.A., and G. Saravelos, 2012. “Can Leading Indicators Assess Country Vulnerability? Evidence from the 2008–09 Global Financial Crisis.” *Journal of International Economics* 87(2): 216--231.

Gourinchas, P.O., N. Govillot, and H. Rey, 2010. “Exorbitant Privilege and Exorbitant Duty.” IMES Discussion Paper 10-E-20. Bank of Japan.

Gourinchas, P.O., and H. Rey, 2007. “International Financial Adjustment.” *Journal of Political Economy* 115(4): 665--703.

Gozzi, J.C., R. Levine, S. Martinez Peria, and S. Schmukler, 2012. “How Firms Use Domestic and International Corporate Bond Markets.” Working Paper 17763. Cambridge, Mass.: National Bureau of Economic Research.

Gozzi, J.C., R. Levine, and S. Schmukler, 2010. “Patterns of International Capital Raisings.” *Journal of International Economics* 80(1): 45--57.

Hargis, K., 2000. “International Cross-Listing and Stock Market Development in Emerging Economies.” *International Review of Economics and Finance* 9(2): 101--22.

Henderson, B.J., N. Jegadeesh, and M. S. Weisbach, 2006. “World Markets for Raising New Capital.” *Journal of Financial Economics* 82: 63--101.

Henry, P.B., 2007. “Capital Account Liberalization: Theory, Evidence, and Speculation.” *Journal of Economic Literature* 45: 887--935.

Kaminsky, G., R. Lyons, and S. Schmukler, 2004. “Managers, Investors, and Crises: Mutual Fund Strategies in Emerging Markets.” *Journal of International Economics* 64(1): 113--34.

Kaminsky, G., and C. Reinhart, 2000. “On Contagion, Crisis and Confusion.” *Journal of International Economics* 51(1): 145--68.

Kaminsky, G., and S. Schmukler, 2008. “Short-Run Pain, Long-Run Gain: The Effects of Financial Liberalization.” *Review of Finance* 12(2): 253--92.

Kawai, M., and M. Lamberte, 2010. *Managing Capital Flows: The Search for a Framework.* Cheltenham, UK: Edward Elgar.

Kose, M.A., and E. Prasad, 2010. *Emerging Markets: Resilience and Growth amid Global Turmoil.* Brookings.

Kose, M.A., E. Prasad, K. Rogoff, and S.J. Wei, 2010. “Financial Globalization and Economic Policies.” In *Handbook of Development Economics,* vol. 5, edited by Dani Rodrik and Mark Rosenzweig, chapter 65. Amsterdam: Elsevier.

Kraay, A., N. Loayza, L. Servén, and J. Ventura, 2005. “Country Portfolios.” *Journal of the European Economic Association* 3: 914--45.

Lane, P.R., and G.M. Milesi-Ferretti, 2001. “The External Wealth of Nations: Measures of Foreign Assets and Liabilities for Industrial and Developing Countries.” *Journal of International Economics* 55: 263--94.

Lane, P.R., and G.M. Milesi-Ferretti, 2007. “The External Wealth of Nations Mark II: Revised and Extended Estimates of Foreign Assets and Liabilities, 1970--2004.” *Journal of International Economics* 73: 223--50.

Lane, P.R., and G.M. Milesi-Ferretti, 2011. “The Cross-Country Incidence of the Global Crisis.” *IMF Economic Review* 59(1): 77-110.

Levine, R., 2001. "International Financial Liberalization and Economic Growth." *Review of International Economics* 9: 688--702.

Levine, R., and S. Schmukler, 2007. "Migration, Liquidity Spillovers, and Trade Diversion: The Effects of Internationalization on Stock Market Activity." *Journal of Banking and Finance* 31(6): 1595--612.

Levy Yeyati, E., and T. Williams., 2011. "Financial Globalization in Emerging Economies: Much Ado about Nothing?" Policy Research Working Paper 5624. Washington: World Bank.

Martinez Peria, M., A. Powell, and I. Vladkova-Hollar, 2005. "Banking on Foreigners: The Behavior of International Bank Claims on Latin America, 1985--2000." *IMF Staff Papers* 52(3): 430--61.

Obstfeld, M., 2012. "Financial Flows, Financial Crises, and Global Imbalances." *Journal of International Money and Finance* 31: 469-480.

Obstfeld, M., and A. Taylor, 2004. *Global Capital Markets: Integration, Crises, and Growth.* Cambridge University Press.

Raddatz, C., and S. Schmukler, 2011. "On the International Transmission of Shocks: Micro-Evidence from Mutual Fund Portfolios." Working Paper 17358. Cambridge, Mass.: National Bureau of Economic Research. Forthcoming, *Journal of International Economics*.

Reinhart, C.M., and V. Reinhart, 2009. "Capital Flow Bonanzas: An Encompassing View of the Past and Present." In *NBER International Seminar on Macroeconomics 2008.* University of Chicago Press.

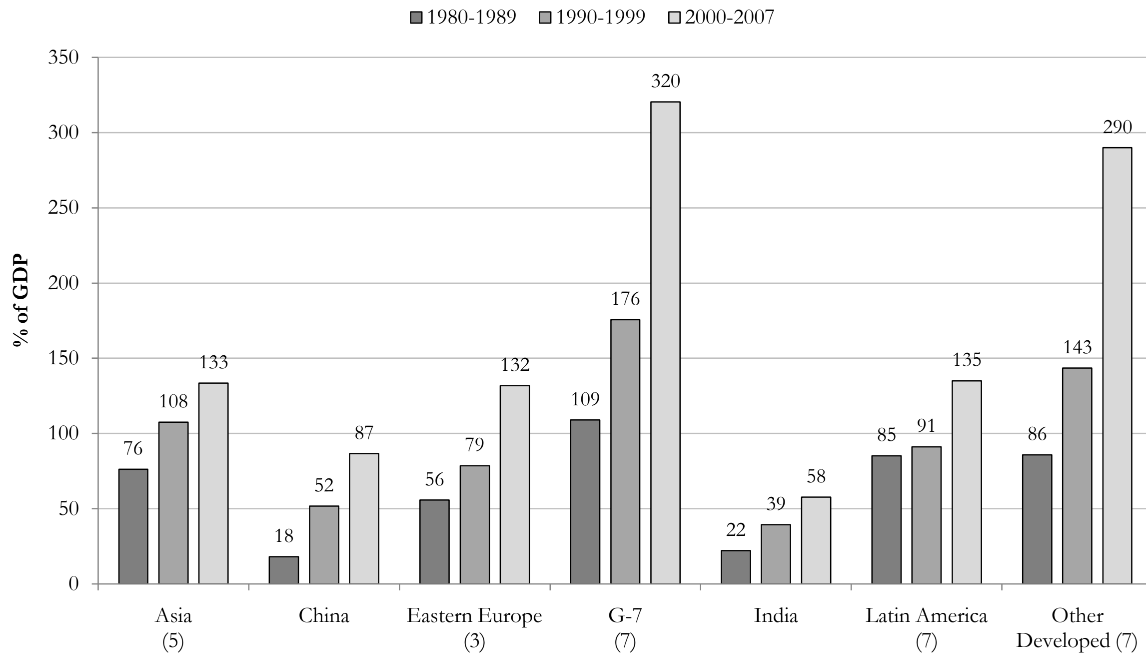
Rodrik, D., 1998. "Who Needs Capital-Account Convertibility?" *Essays in International Finance* 207: 55-65.

Stiglitz, J., 2002. *Globalization and Its Discontents.* New York: W.W. Norton.

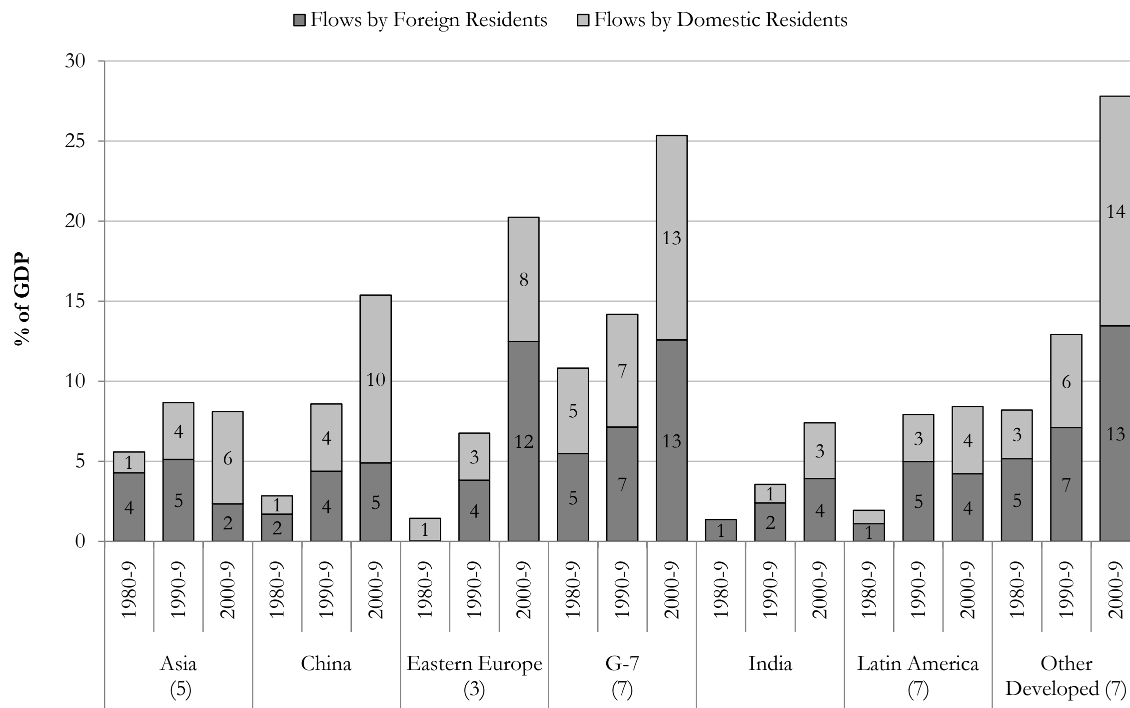
Stulz, R., 1999. "Globalization of Equity Markets and the Cost of Capital." Working Paper 7021. Cambridge, Mass.: National Bureau of Economic Research.

Figure 1
De Facto Financial Diversification

Panel A. Stock of Foreign Assets and Liabilities

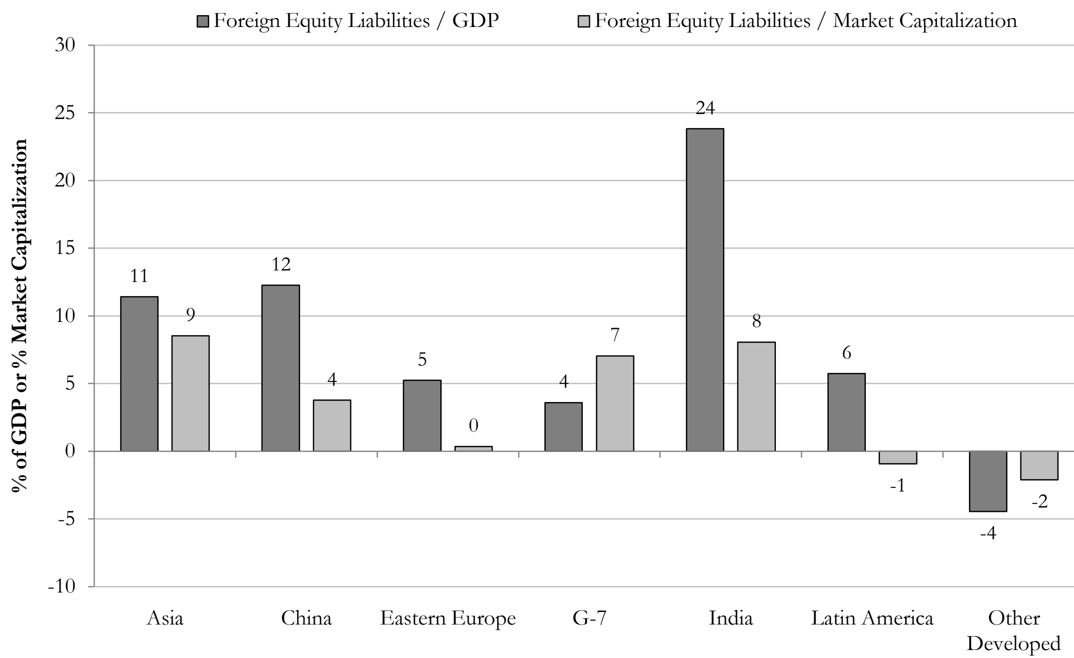


Panel B. Gross Capital Flows



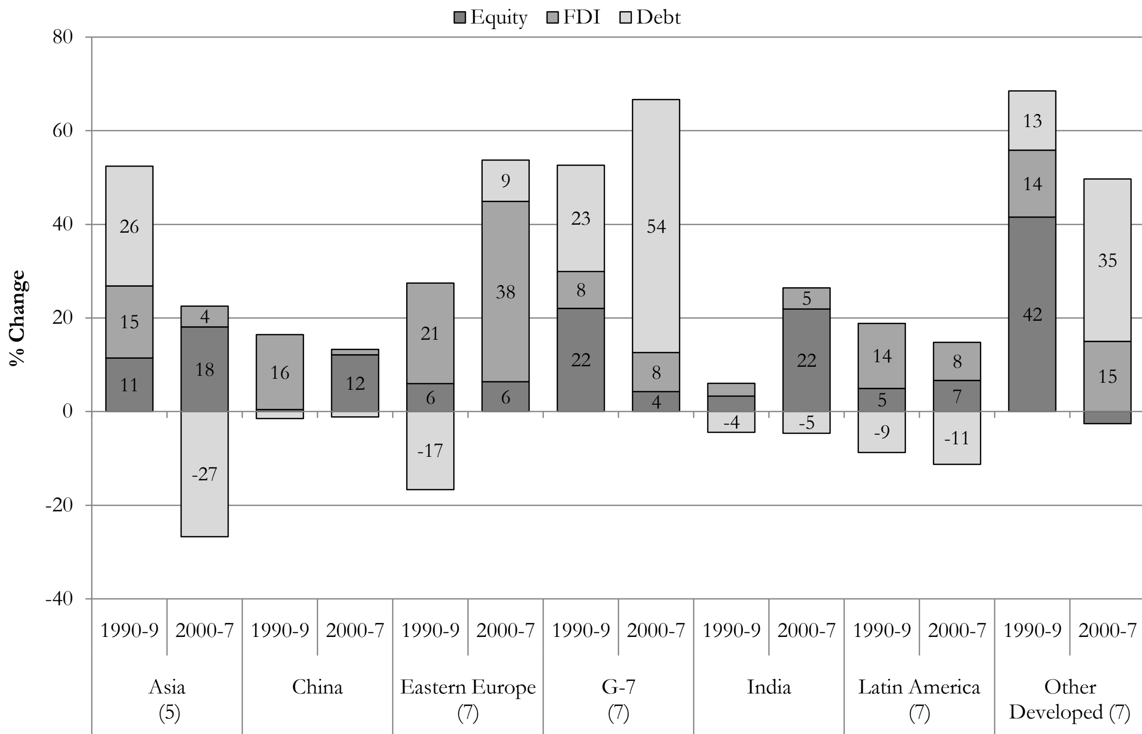
This figure shows two *de facto* measures of financial diversification during the 1980s, 1990s, and the first decade of the 2000s. Panel A shows the stock of foreign assets and liabilities as a percentage of GDP. Panel B shows gross capital flows by foreign and domestic residents as a percentage of GDP. Numbers in parentheses show the number of countries in each region. The data sources are the IMF's Balance of Payments Statistics (BOP), the World Bank's WDI, and Lane and Milesi-Ferretti (2007).

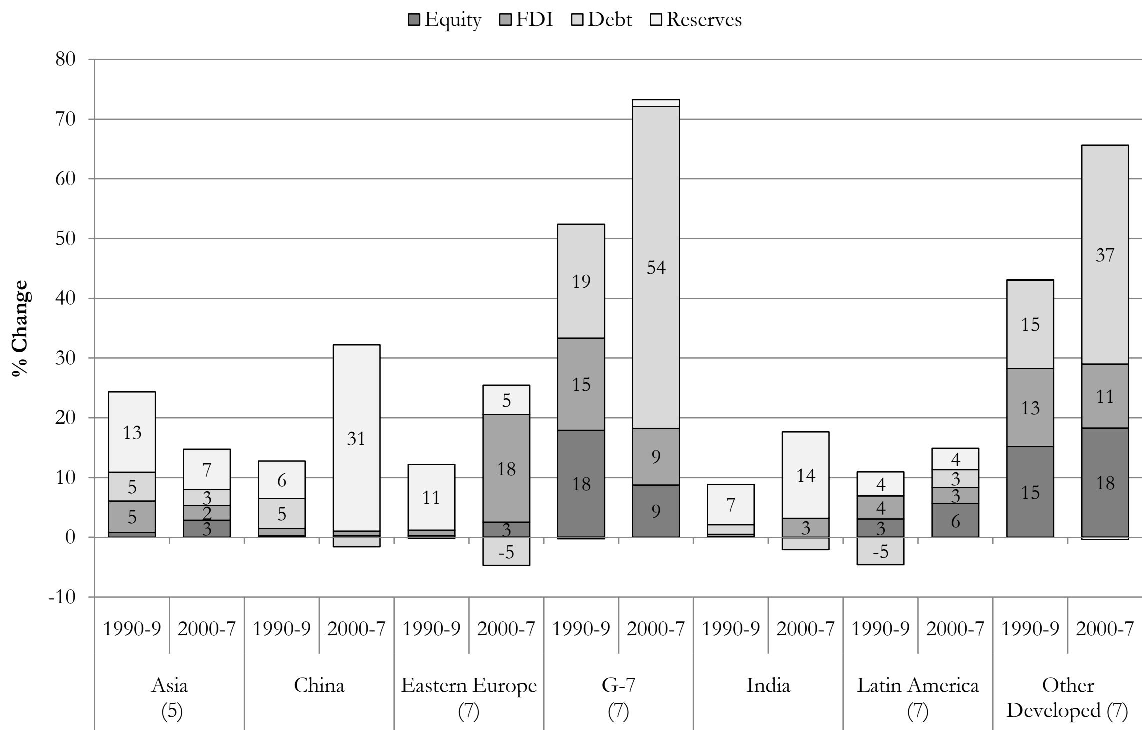
Figure 2
Financial Diversification: Valuation Effects
Foreign Equity Liabilities scaled by GDP and by Market Capitalization



This figure shows the percentage change between 1999 and 2007 of the level of foreign holdings of domestic equity scaled, alternatively, by GDP and domestic market capitalization. The data sources are the World Bank's WDI and Lane and Milesi-Ferretti (2007).

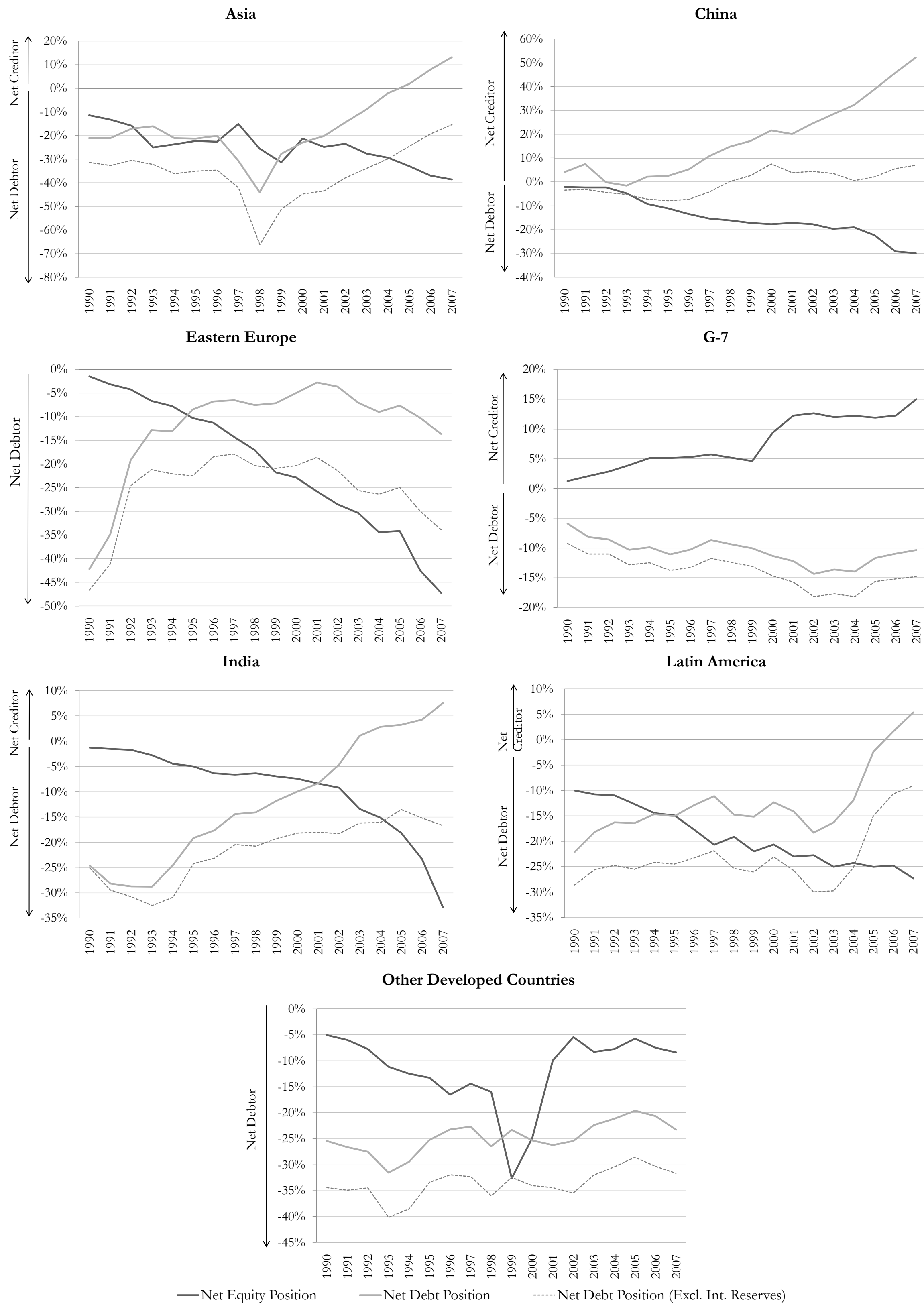
Figure 3
Structure of Financial Diversification





This figure shows the percentage change between 1990 and 1999 and 2000 and 2007 of the different components of the stock of foreign liabilities (Panel A) and foreign assets (Panel B) as a share of GDP. FDI stands for foreign direct investments. Numbers in parentheses show the number of countries in each region. The data sources are the World Bank's WDI and Lane and Milesi-Ferretti (2007).

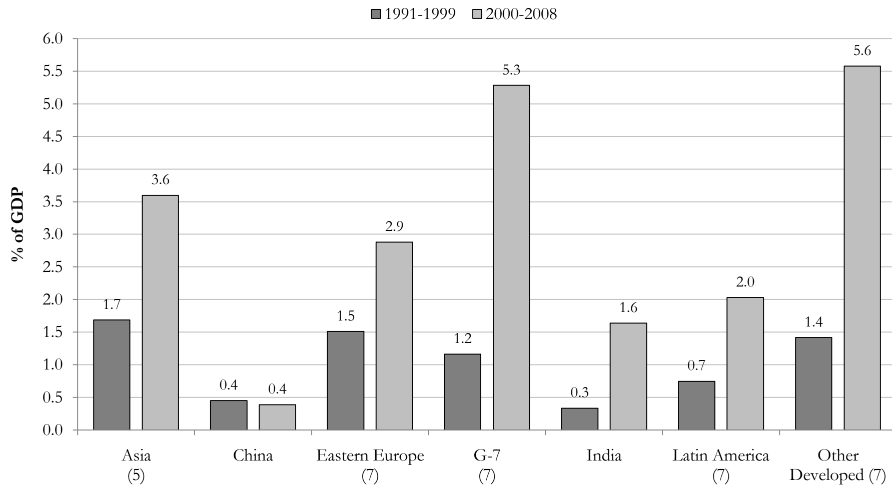
Figure 4
Net Foreign Equity and Debt Assets
As a Percentage of GDP



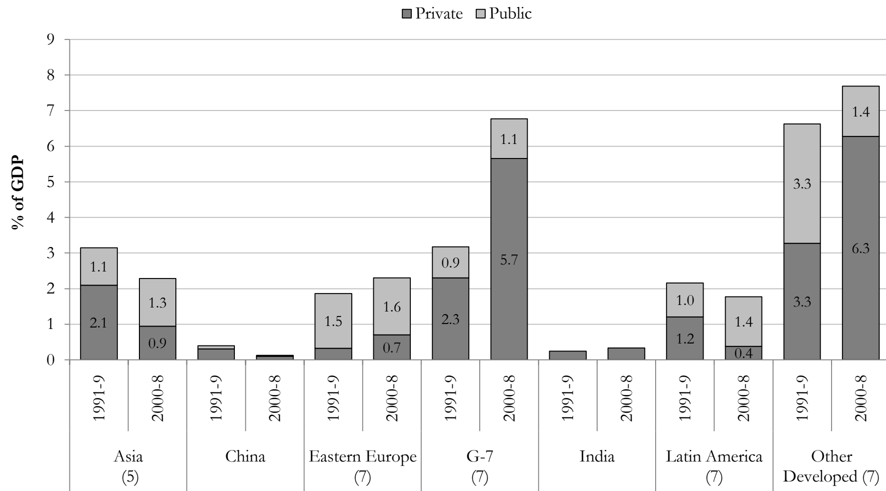
This figure shows the evolution of the stock of net foreign equity assets and net foreign debt assets (with and without international reserves) as a percentage of GDP across regions between 1990 and 2007. The data sources are the World Bank's WDI and Lane and Milesi-Ferretti (2007).

Figure 5
Financial Offshoring: Capital-Raising Activity in Foreign Markets

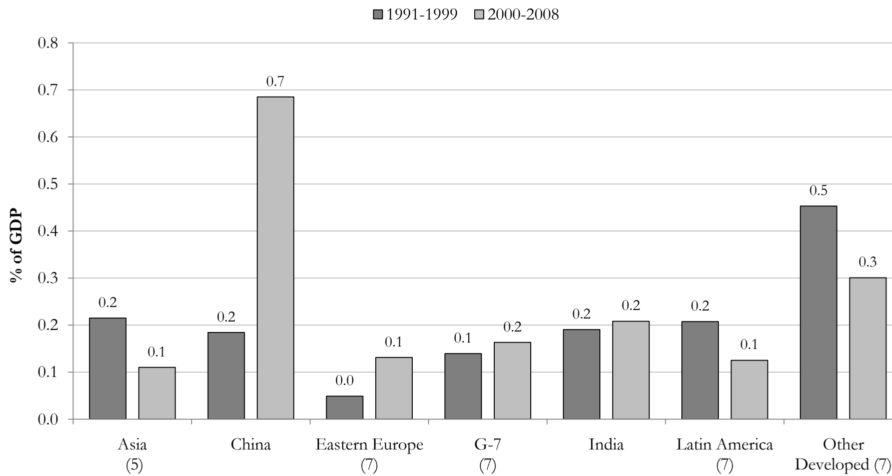
Panel A. New Syndicated Loans



Panel B. New Capital-Raising Bond Issues by the Private and Public Sectors

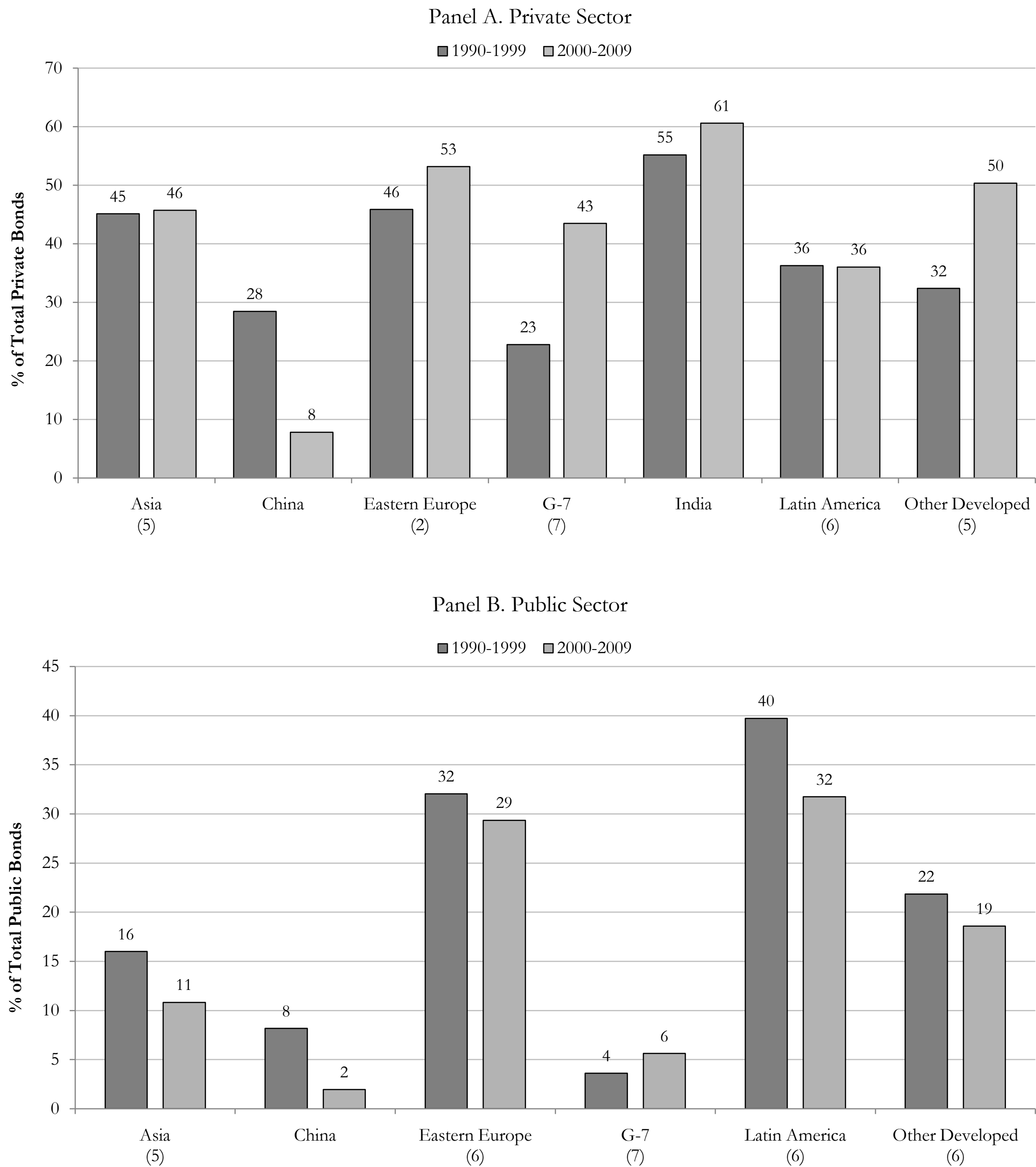


Panel C. New Capital-Raising Equity Issues



This figure shows the average capital-raising activity in foreign markets per year through syndicated loans, bonds, and equity during the 1990s and the first decade of the 2000s. Panel A shows the amount of new syndicated loans in foreign markets as a percentage of GDP. Panel B shows total bond issuance abroad by the private and public sectors as a percentage of GDP. Panel C shows total capital-raising equity issuance in foreign markets as a percentage of GDP. Numbers in parentheses show the number of countries in each region. The data sources the World Bank's WDI and Thomson Reuters' SDC Platinum.

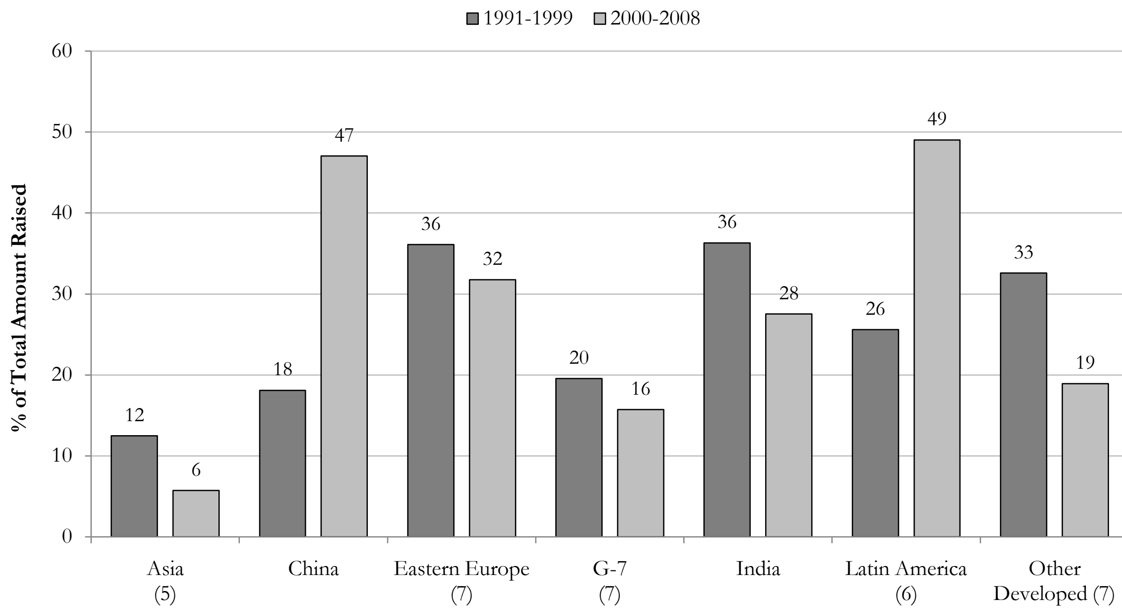
Figure 6
Relative Size of Foreign Bond Markets
Amount Outstanding in Foreign Markets as % of Total Amount Outstanding



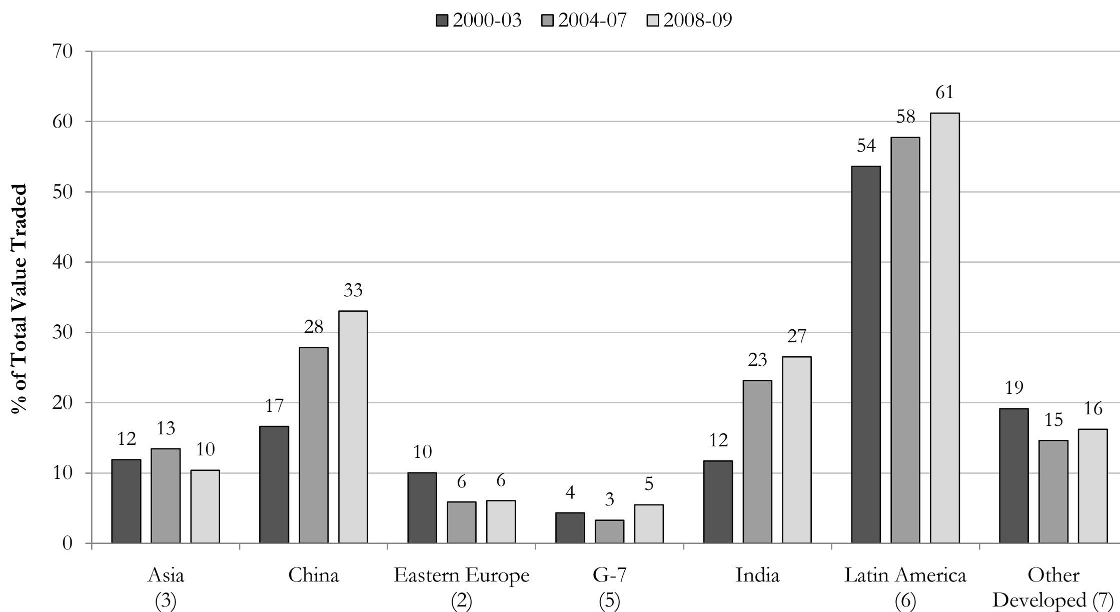
This figure shows the relative size of foreign bond markets for the private and public sectors during the 1990s and the first decade of the 2000s. Panel A shows the average ratio of outstanding bonds in foreign markets by the private sector divided by the total outstanding (domestic and foreign) private bonds. Panel B shows the average ratio of outstanding bonds in foreign markets by the public sector divided by the total outstanding (domestic and foreign) public bonds. International debt securities are defined as those that have not been issued by residents in domestic currency or targeted at resident investors. Numbers in parentheses show the number of countries in each region. The data sources are the World Bank's WDI and Bank for International Settlements.

Figure 7
Relative Size of Foreign Equity Markets

Panel A. Amount Raised in Foreign Markets

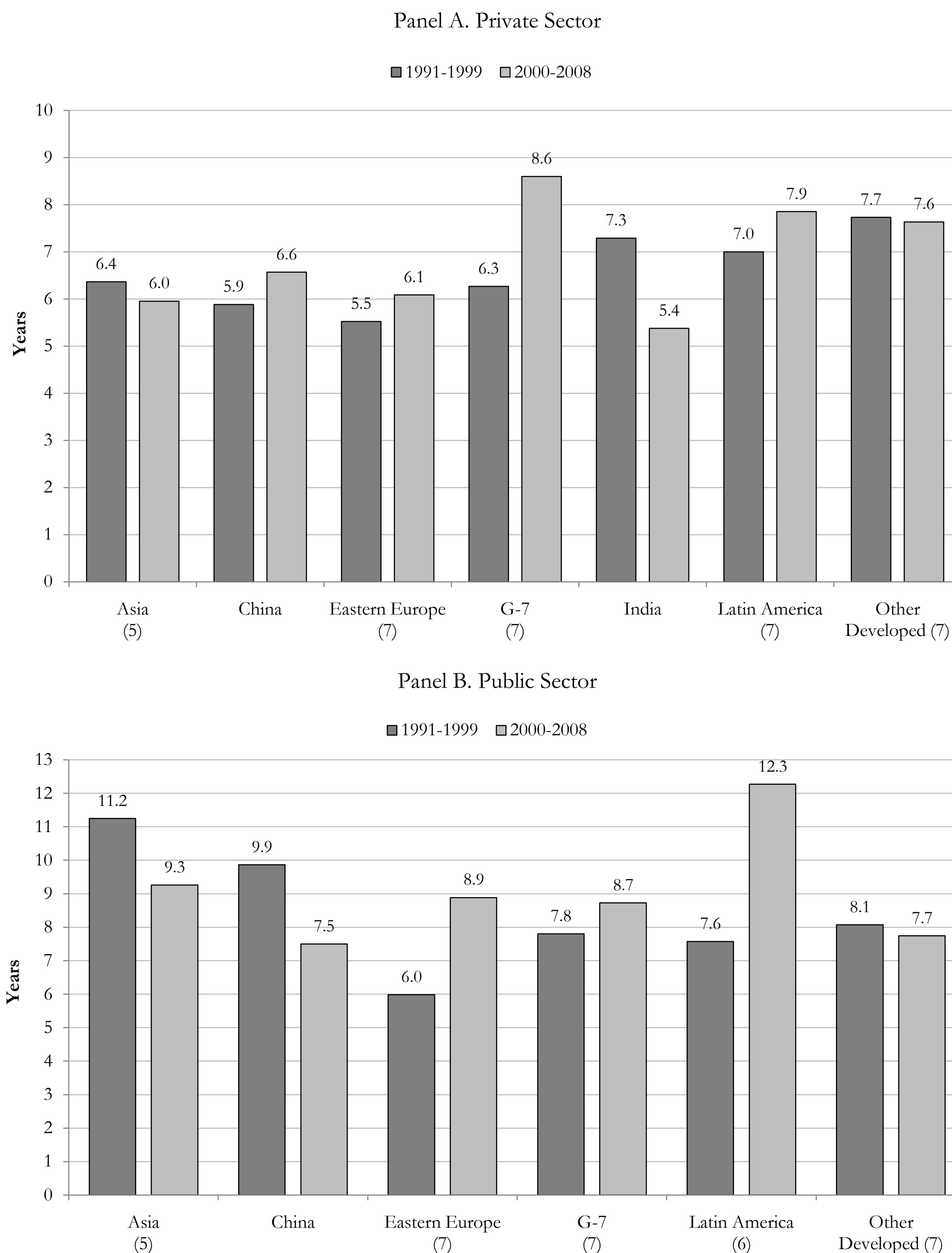


Panel B. Value Traded in Foreign Markets



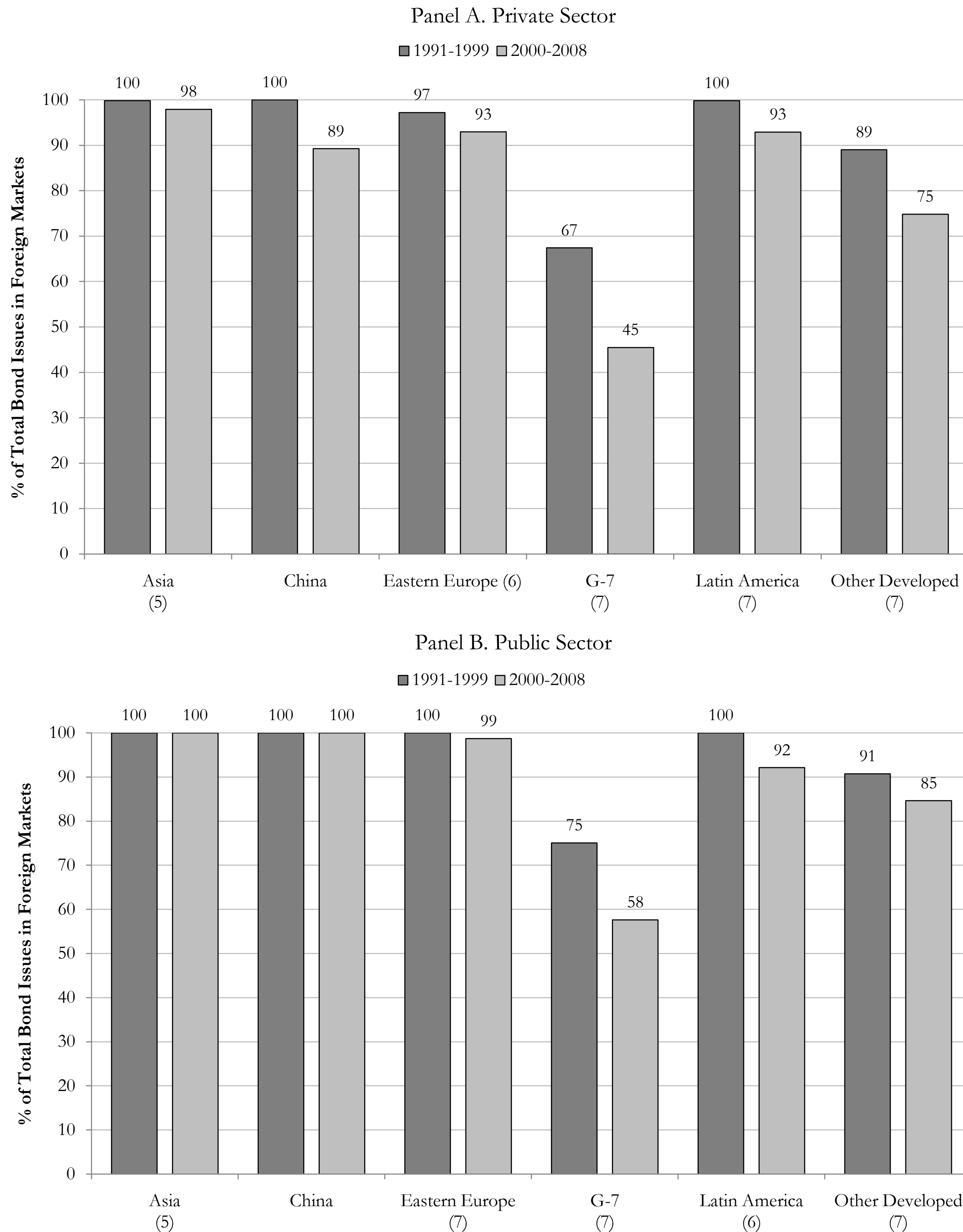
This figure shows the relative size of equity capital-raising activity and equity trading in foreign markets. Panel A shows the average amount raised through new equity issues in foreign markets over the total (domestic plus foreign) equity amount raised on a yearly basis during the 1990s and the first decade of the 2000s. Panel B shows the firm-level average ratio of value traded abroad in depository receipts (DRs) over total value traded (in domestic markets and DRs) on a yearly basis during the first decade of the 2000s. Only firms with DR programs identified in the DR Directory of the Bank of New York and with trading data reported in Bloomberg are considered in Panel B. Numbers in parentheses show the number of countries in each region. The data sources are Thomson Reuters' SDC Platinum, Bank of New York, and Bloomberg.

Figure 8
Average Maturity at Issuance in Foreign Bond Markets



This figure shows the average maturity (in years) of new bonds issued in foreign markets by the private and public sectors during the 1990s and the first decade of the 2000s. Panel A shows the average maturity of foreign private sector bonds at issuance. Panel B shows the average maturity of foreign public sector bonds at issuance. Numbers in parentheses show the number of countries in each region. The data source is Thomson Reuters' SDC Platinum.

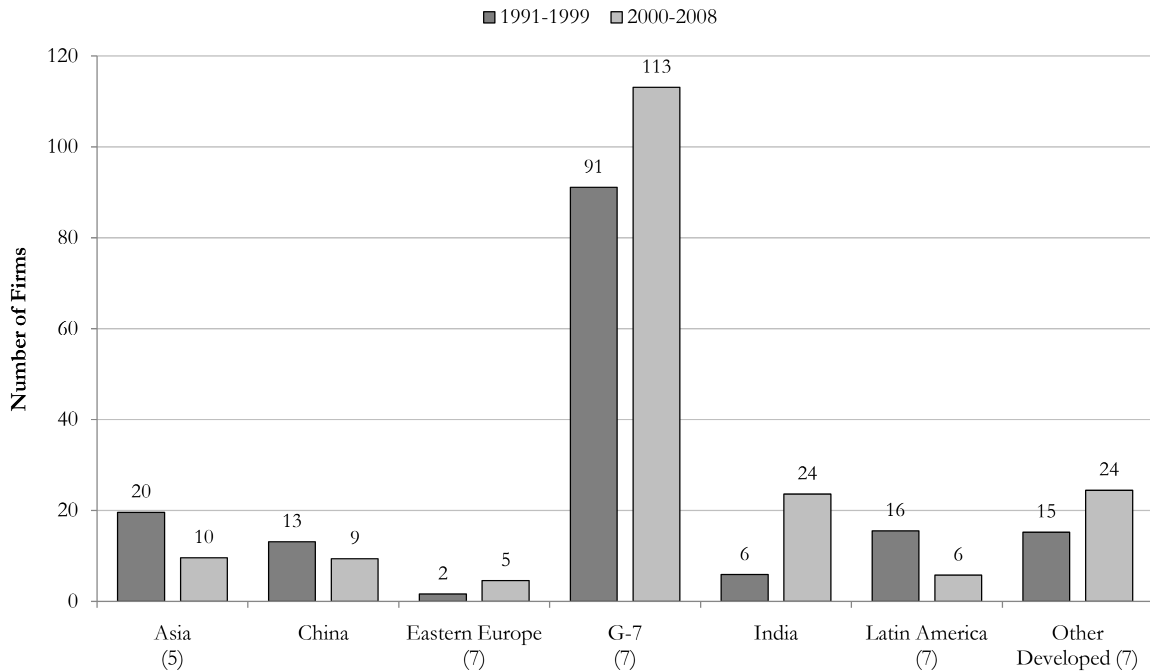
Figure 9
Currency Denomination at Issuance in Foreign Bond Markets
New Foreign Currency Issues as % of Total Issues in Foreign Markets



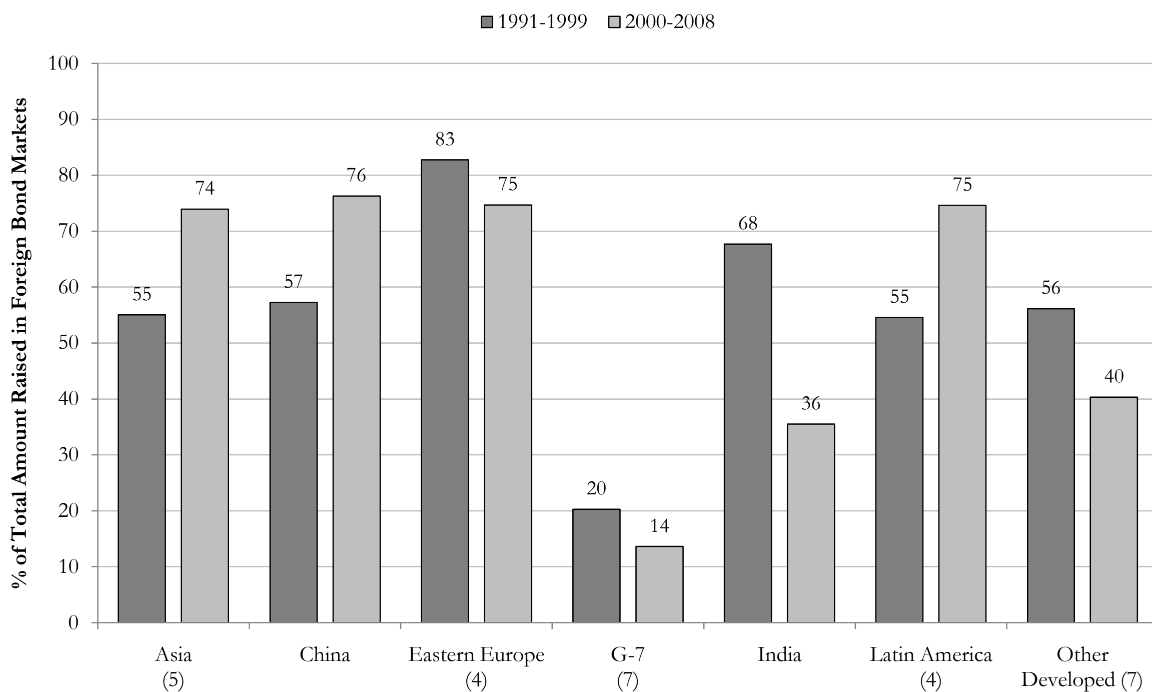
This figure shows the ratio of foreign currency denominated new bond issues in foreign markets by the private and public sectors during the 1990s and the first decade of the 2000s. Panel A shows data for the private sector while Panel B reports the data for the public sector. Numbers in parentheses show the number of countries in each region. The data source is Thomson Reuters' SDC Platinum.

Figure 10
Use of Foreign Private Bond Markets

Panel A. Average Number of Firms Issuing Bonds in Foreign Markets per Year

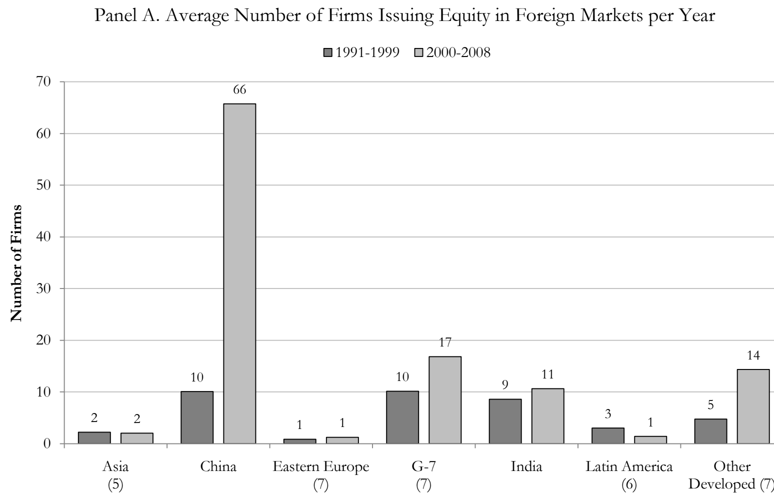


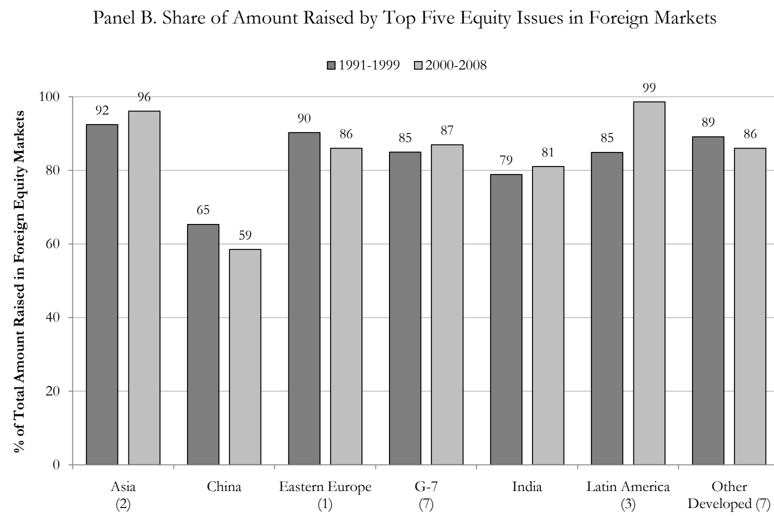
Panel B. Share of Amount Raised by Top Five Bond Issues in Foreign Markets

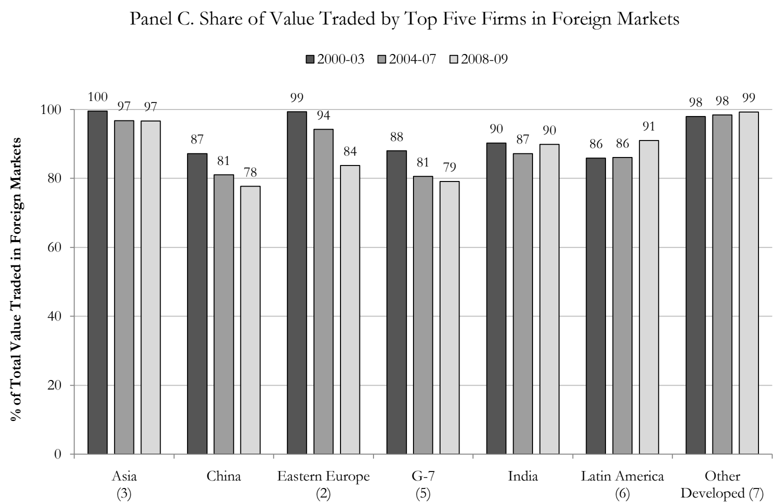


This figure shows the use of foreign bond markets on a yearly basis by the private sector during the 1990s and the first decade of the 2000s. Panel A shows the average number of firms issuing bonds in foreign markets per year. Panel B shows the amount raised by the largest five private bond issues in foreign markets as a percentage of the total amount raised in foreign bond markets by the private sector. Only country-years with at least five issues are considered in Panel B. Numbers in parentheses show the number of countries in each region. The data source is Thomson Reuters' SDC Platinum.

Figure 11
Use of Foreign Equity Markets







This figure shows the use of foreign equity markets during the 1990s and the first decade of the 2000s. Panel A shows the average number of firms raising capital through equity in foreign markets per year. Panel B shows the average amount raised by the largest five equity issues in foreign markets as a percentage of the total amount raised in foreign equity markets on a yearly basis. Only country-years with at least five issues are considered. Panel C shows the share of value traded abroad through depository receipts (DRs) by the five firms with the largest trading activity. Only countries with more than five firms with DR programs are considered. All DRs identified in the DR Directory of the Bank of New York and with trading data reported in Bloomberg are considered in Panel C. Numbers in parentheses show the number of countries in each region. The data sources are Thomson Reuters' SDC Platinum, Bank of New York, and Bloomberg.