HONG KONG INSTITUTE FOR MONETARY RESEARCH

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HKIMR Working Paper No.17/2014

July 2014

Hong Kong Institute for Monetary Research
香港金融研究中心
(a company incorporated with limited liability)

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Abstract

This paper documents the major trends in debt (bank and bond) markets in emerging economies since the early 1990s, when these markets started expanding. The paper shows that banks have increased in size in most emerging economies though from low bases. But bond markets have expanded even more, gaining importance relative to banks. The nature of financing has also changed. Local currency bond financing has expanded, the extent of dollarization of loans and bonds has declined, and the maturity of public and private sector bonds has typically increased. However, not all regions have moved in the same direction. Eastern Europe for instance increased its foreign currency debt before the global financial crisis. Relative to developed countries, emerging countries' financial systems still remain in many aspects underdeveloped. Except in a few cases, liquidity in secondary bond markets has been declining. And the public sector captures a significant share of bond markets.

Keywords: Financial Development, Banks, Bond Markets, Institutional Investors

JEL Classification: G00, G20, G21, G23

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* The final version of this paper was published in Comparative Economic Studies (2014) 56, 200-228 (http://www.palgrave-journals.com/ces/journal/v56/n2/full/ces20144a.html). The paper was prepared for the 19th Dubrovnik Economic Conference Symposium and follows work conducted for the World Bank Flagship Study, available in de la Torre, Ize, and Schmukler (2011) and Didier and Schmukler (2014). The authors received very helpful comments from Augusto de la Torre, Alain Ize, Evan Kraft, Eduardo Levy Yeyati, Luis Serven, Paul Wachtel, and participants at related presentations held at American University (Washington, DC), the Asian Development Bank Institute (Tokyo), Bank of Korea International Conference 2011 (Seoul), Casa das Garças (Rio de Janeiro), Central Bank of Brazil (Rio de Janeiro), Central Bank of Paraguay (Asuncion), Central Bank of Uruguay (Montevideo), the 19th Dubrovnik Economic Conference (Dubrovnik), the 12th Global Development Network Annual Meeting (Bogota), Foro Internacional de Economía (Lima), International Monetary Fund (Washington, DC), ITAM (Mexico, DF), the NIPFP-DEA Workshop (Delhi), Paraguay Ministry of Finance (Asuncion), University of Chile (Santiago de Chile), and the World Bank (Washington, DC). The authors are grateful in particular to Juan Jose Cortina but also to Francisco Ceballos and Lucas Núñez for outstanding research assistance. Generous research support came from the World Bank's Knowledge for Change Program and the Latin America and the Caribbean Region's Chief Economist Office. The authors work for the World Bank in, respectively, the Office of the Chief Economist for the Latin America and the Caribbean Region and the Macroeconomics and Growth Team of the Development Research Group. E-mail addresses: tdidier@worldbank.org, sschmukler@worldbank.org.

1. Introduction

The experiences of emerging economies with recurrent currency, debt, and banking crises, particularly during the 1980s and 1990s, highlighted the dangers that poor macroeconomic fundamentals and balance sheets pose for open countries in a context of globalized financial systems. Moreover, the uncertainty across emerging markets resulting from macroeconomic volatility—especially high and unpredictable inflation in a number of countries—was deleterious to debt market development, most of all at the longer maturities. It corroded the role of money as a store of value, leading to a gradual build-up of currency and duration mismatches. The inflexible exchange rate regimes, adopted in part to bring down inflation expectations, often ended up increasing real exchange rates, exacerbating interest rate volatility and currency mismatches, and making countries more prone to self-fulfilling attacks.

By the late 1990s, the prospects for financial sector improvements across emerging economies were somewhat pessimistic given the difficulty of overcoming high systemic risk and volatility, the slow progress in overall financial development, and the large mismatches in currencies and maturities. Most of these developments were the result of inherent deficiencies in emerging economies (de la Torre and Schmukler 2004 and 2006; de la Torre, Gozzi, and Schmukler 2007). A number of economists shared this pessimism, focusing on the metaphor of "original sin" in emerging economies—that is, the inability to issue long-term debt in their own currencies—as well as on outright dollarization and "sudden stops" that would subject the economies to frequent shutdowns of foreign financing (Eichengreen and Hausmann 1999; Hausmann et al. 1999; Calvo and Reinhart 2000; Hausmann and Panizza 2003).

These experiences nonetheless shaped the reform agenda of the late 1990s and 2000s. Prudent macroeconomic and financial policies to foster growth, stability, and resilience were implemented. The goal was to adopt well-regarded international standards and to reduce currency and maturity mismatches on the balance sheets of the public and private sectors. At the same time that they withdrew the state from the markets through fiscal reforms aimed at reducing borrowing and thus avoided crowding out, many emerging economies undertook significant efforts to expand the scope and depth of their financial systems. The idea was that financial development is not only linked to faster growth and greater welfare, but deeper financial systems are usually perceived as more resilient to shocks and less prone to volatility and financial crises.[1]

New data from the mid- to late-2000s and several anecdotal accounts suggest some reasons for optimism. Emerging economies have improved their macroeconomic performance, lowered inflation, and reduced fiscal deficits (Gourinchas and Obstfeld 2011). These policy achievements, together with

[1] For the links between financial development and growth, see for example King and Levine (1993a, 1993b), Levine and Zervos (1996), Levine (1997, 2005), and Luintel and Khan (1999). For the links between financial development and stability, see, for example, Acemoglu and Zilibotti (1997), Aghion, Banerjee, and Piketty (1999), and Easterly, Islam, and Stiglitz (2000).

high liquidity in international markets, have allowed many emerging economies to issue long-term bonds in domestic markets, as foreign investors have expected further appreciations of local currency and entered local markets in search of higher yields. In addition, these economies weathered the storms of the global financial crisis relatively well, showing strength and resilience in their macro-financial sectors (Eichengreen 2009; Didier, Hevia, and Schmukler 2012). Indeed, in a break with history, most countries across the emerging world avoided domestic financial crises even as financial systems in the G-7 spiraled down into near collapse, averted only by large and unprecedented government bailouts.

The main goal of this paper is to document the major trends in the development of debt markets in emerging economies during the 1990s and the 2000s. We cover both bank and bond financing. The primary value of this exercise is to put in perspective the absolute and relative size and the evolution of different components of the financial system using both traditional and new indicators. While we focus on the borrowers' (firms and government) side, we also provide some evidence on the savers' (households) side indirectly through the size and behavior of institutional investors that channel their savings. In particular, we document the evolution of the main financial intermediaries aside from banks: pension funds, mutual funds, and insurance companies. We also investigate how the nature of financial activity (currency, maturity, and scope of credit) has developed and to what degree changes in the size of markets have implied greater availability of financing for corporations. Because it is very difficult to evaluate the extent of financial development given the lack of clear benchmarks, we provide comparisons over time and across regions relative to gross domestic product (GDP) and across different measures of market size and activity. For completeness, parts of the paper also include figures for equity markets.

The focus of this paper is on emerging economies, which experienced several crises in the past and made efforts to transform their financial systems. Moreover, these markets attracted significant attention from investors, practitioners, and academics over the last two decades because of their rapid growth, high rates of return, and continuous changes. We analyze seven of the largest countries within three geographical regions: *Asia* (the *East Asian* countries Indonesia, the Republic of Korea, Malaysia, the Philippines, and Thailand; plus China and India, which are shown separately because of their distinct natures), *Eastern Europe* (Croatia, the Czech Republic, Hungary, Lithuania, Poland, the Russian Federation, and Turkey), and *Latin America* (Argentina, Brazil, Chile, Colombia, Mexico, Peru, and Uruguay). We compare the patterns observed in these countries with those in developed regions. Among *developed countries*, we consider the *G-7* countries (Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States) as well as *other advanced economies* that are typically regarded as being somewhat more similar to emerging markets (Australia, Finland, Israel, New Zealand, Norway, Spain, and Sweden).

We assemble a comprehensive dataset covering a number of dimensions of debt markets, such as, depth, currency, maturity, borrower composition, concentration, and measures related to the breadth of markets. For the depth measures, we use widely available data since the early 1980s from the

World Bank's World Development Indicators, the IMF's International Financial Statistics, and the Bank for International Settlements. For the other dimensions of debt markets, we also use a number of other sources widely explored in the literature but with a more limited time span. For example, the analysis of banking systems explores data from local central banks and Bankscope, whereas for bond markets for the public sector we use data from local central banks. For bond markets for the private sector, we analyze capital raising activity available from the Thomson Reuters SDC Platinum database, which provides transaction-level information on new issues of publicly and privately placed bonds with an original maturity of more than one year. Given that this database does not collect data on debt issues with maturities shorter than one year, the dataset does not cover commercial paper. The coverage of the data varies and increases over time. Much more data, especially detailed, are available for the 2000s than for the 1990s, or even the 1980s.

The main findings in this paper provide a mixed, nuanced picture of the main trends in the development of debt markets and can be summarized as follows. Since the wave of financial crises that swept through the emerging world in the late-1990s and early 2000s, financial systems in emerging economies have effectively developed, becoming in many respects and by several standard measures deeper and more complex. Capital markets have increased in absolute and relative sizes, suggesting a mild but steady transition from a mostly bank-based model to one that is more complete and interconnected. This entailed the growth of not only bond markets but also equity markets. Although the size of banking systems has increased in most emerging economies (albeit from typically low bases), capital markets and nonbank institutional investors now play a more central role. Moreover, the number and sophistication of the participants have been expanding, even without taking into account the additional increasing participation of cross-border investors.

Importantly, the nature of financing is also changing, in general toward reducing mismatches, but at a slow pace. For example, the private sector has seen an expansion in local currency bond financing, the extent of dollarization of loans and bonds has declined, and the maturity of public and private sector bonds has typically increased. However, not all regions have moved in the same direction. Eastern Europe for instance increased its foreign currency debt before the global financial crisis, which was associated with the higher transmission of the crisis to the countries in that region. Despite these new developments, emerging countries' financial systems still remain in many aspects underdeveloped in comparison to those in developed countries. For instance, except in some cases mostly in Asia, liquidity in secondary bond markets has been declining. And the public sector still captures a significant share of bond markets.

The rest of the paper is organized as follows. Section 2 documents and gives a broad overview of where emerging economies stand on commonly used and simple measures of depth of debt markets. Section 3 analyzes whether and how the nature of financing has changed over time. Section 4 examines the nonbank institutional investors. Section 5 concludes by discussing some of the challenges ahead for the development of debt markets in emerging economies.

2. Depth of Debt Markets

We start by providing some basic stylized facts showing where emerging economies stand on commonly used broad indicators of debt market development, making comparisons among themselves and with developed countries over the past three decades. More specifically, we focus on the depth of debt markets, analyzing the size of the banking system and bond markets, and contrasting it to the depth of equity markets as measured by market capitalization.

Overall, we observe that financial systems in emerging countries have developed significantly over the past two decades, indicating a mild but steady transition from an "old," mostly bank-based model to a "new," more complex and interconnected model in which capital markets play a more central role. Despite these new developments, emerging countries' financial systems still remain in many aspects underdeveloped in comparison to those in developed countries.

Regarding the banking system, total banking claims as a share of GDP has expanded in most emerging economies, albeit from typically low bases. Asian economies (our sample of East Asian economies plus China and India) stand ahead of other emerging countries not only in absolute size but also in growth over the past thirty years, whereas Latin American countries stand at the other end of the spectrum lagging behind other developing countries. For example, the banking systems expanded on average across countries in Asia 67 percent between 1980-1989 and 2000-2009. Total bank assets across Eastern European countries also increased significantly, almost 50 percent on average. In contrast, those in Latin America increased 14 percent over the same period. These changes are computed by calculating the change across decades for each country and then averaging across countries within each region. Figure 1 shows the patterns at the country level for the different regions.

The banking sector in developed countries was deeper to start with and has typically expanded faster than the banking sectors in many emerging economies over the past three decades. For example, bank size increased by almost 70 percent, growing from 79 percent to 107 percent of GDP on average across developed countries between 1980–89 and 2000–2009. Nonetheless, there is some heterogeneity across the developed world, where the banking system in some countries remained stagnated.

The patterns of bond financial development differ across countries over the past two decades, among both developed and developing countries. On average and in percentage change terms, bond markets have grown significantly in developing economies, but far less in developed countries. For example, bond market capitalization in Asia and Latin America grew about 140 percent on average in the 2000s relative to the 1990s and in Eastern Europe markets expanded 60 percent on average, whereas advanced countries experienced almost no growth, on average. Figure 2 shows the heterogeneity present at the country level.

Although emerging economies are closing the gap in the development of bond markets, they still lag behind in comparison with developed countries. For example, bond markets in Asia, although they are the most developed ones (in terms of overall depth) among the developing world, remain small compared to those in the G-7, at 56 percent of GDP on average for East Asian economies, 35 percent for China, and 33 percent for India during 2000–2009, compared to about 86 percent for developed countries.

Last but not least, there has been some convergence in the structure of financial systems as well. A mild but steady transition from a mostly bank-based model to one that is more complete and interconnected has been the broad trend in emerging countries (Figure 3). For example, capital markets (bond and equity) in Latin American countries accounted for 64 percent of their total financial systems on average in the 2000s in contrast with 54 percent observed in the 1990s (Figure 3, Panel B). Similarly, these markets have grown from 45 to 55 percent of the size of the financial system in Eastern European countries and from 18 to 45 percent of the financial system in China. In developed countries, these markets typically account for about 60-65 percent of the financial system.

3. Beyond Financial Depth

The increased depth of debt markets in emerging economies has come along with changes in the nature of financing. For example, the private sector has seen an expansion in local currency bond financing, the extent of dollarization of loans and bonds has declined, and the maturity of public and private sector bonds has typically increased. However, plenty of room remains for future development of the scope and depth of debt markets: bank credit has stagnated in various countries; firm financing has declined in relative terms; and private bond markets remain typically small and illiquid. We now review more systematically these qualitative developments in domestic debt markets in emerging economies and compare them with the trends in developed countries.

3.1. Banks

The composition of bank credit between the public and the private sector vary significantly across countries and has experienced some changes over the past two decades, not only in emerging countries but also in developed countries. The large expansion of banking systems in developed economies has been concentrated mostly in an increase of their claims on the private sector, which rose from 77 (50) percent of GDP in the 1980s to 113 (98) percent in the 2000s in G-7 economies (other advanced economies), accounting for 90 (97) percent of total bank lending (Figure 4, Panel A). In East Asian countries, lending to the private sector also expanded considerably, from 44 to 72 percent of GDP, or from 79 to 87 percent of total bank lending. In contrast, governments increased their borrowing not only in absolute but also in relative terms in many emerging markets, particularly in Eastern Europe, India, and Latin America over the same period, where the public sector represented a large fraction of total bank lending during the 2000s, at about 30, 34, and 27 percent of the total

claims by the banking sector, respectively. In the G-7 and East Asian countries that number was around 10 and 13 percent, respectively, over the same period.

Although not greatly expanding, credit to the private sector in emerging economies countries has undergone significant qualitative changes in its composition (Figure 4, Panel B). For instance, credit to the private sector in China and Eastern Europe has shifted away from commercial lending and household financing toward mortgage credit. In Latin American countries, qualitative changes in the composition of private sector credit have also occurred. Consumer credit has grown significantly to the detriment of firm financing and mortgage lending. In contrast, the composition of bank credit has remained relatively stable in developed countries.

These patterns across emerging economies broadly suggest an unbalanced expansion of credit in a particular segment at the expense of the underdevelopment of others. For example, mortgages appear comparatively small across Latin American countries and commercial lending seems relatively small in China. Mortgages have increased significantly in both China and Eastern Europe, capturing in 2008-2009 58 and 52 percent of the loans, respectively. These patterns in the development of banking systems suggest that as emerging countries have grown over the past two decades, banks have expanded, in relative terms, in areas where it has been easy for them to grant credit at low risk, such as consumer credit through credit cards and collateralized loans, such as car loans and housing (not to mention the expansion of credit to the government). The increased use of capital markets by some corporations, which has lessened demand for bank finance, would also be consistent with these patterns.

Another key qualitative change in the nature of bank lending in emerging countries is a widespread decline in the dollarization of loans—although Eastern Europe is an exception (Figure 5). Moreover, foreign currency deposits have become less dollarized not only in Asia and Latin America, but also in Eastern Europe. These developments are likely a consequence of the emerging market crises of the 1990s, when currency mismatches rendered the private sector vulnerable to currency fluctuations and limited policy options. Despite this decline in the extent of dollarization of the banking systems, the share of foreign currency loans and deposits remain particularly high when compared to developed world, especially in Eastern Europe and Latin America.

The concentration of banking systems may raise concerns about banking competition. When fewer and larger banks (higher concentration) exist, banks might be more likely to engage in anticompetitive behavior (Berger 1995). The literature has linked bank competition with lower prices for banking products, increased access to finance, and greater bank efficiency. Empirically, banking systems in emerging countries, with the exception of Latin American countries, are also becoming less concentrated, with a decreasing share of loans and deposits in the top five banks (Figure 6). At the same time, foreign banks are increasing their presence in emerging markets more broadly (Claessens and van Horen 2013). The Eastern Europe and Latin American regions have the highest penetrations, noticeably larger than those in China, East Asia, India, and other advanced economies.

3.2. Bond Markets

Despite their considerable expansion between 2000 and 2009, private bond markets as a percentage of GDP remain relatively small in emerging countries in comparison to those in more developed countries and to public bond markets. These private bond markets entail bonds issued by the corporate sector and financial institutions. For example, private bond market capitalization typically represented around 40 percent of GDP in developed countries during the 2000s, whereas it stood at only 23 percent of GDP in East Asian countries, a mere 10 percent in Latin America, and at 4 percent in Eastern Europe over the same period (Figure 7, Panel A). A notable development is that private bond markets typically grew faster as a percentage of GDP than public (government) bonds, gaining space in relative terms and hinting at less crowding out by the public sector. East Asian countries are the exception—the capitalization of private bonds as a proportion of the total bond market capitalization declined slightly from the 1990s to the 2000s, from 45 to 42 percent on average over this period. In China, the relative expansion of the public sector bond financing is more striking, rising from about one half to almost two-thirds of the total bond market capitalization over the same period.

Regarding liquidity in secondary bond markets, it remains a source of concern in a number of emerging countries. For example, bond market turnover, that is, the total number of bonds traded multiplied by their respective matching prices as a share of the total market capitalization, was in 2008 and 2009 around 60 percent in the G-7 countries and reached 146 percent on average across other advanced economies, whereas it was merely 12 percent in Latin American countries and 15 in India (Figure 7, Panel B). However, there is significant heterogeneity in turnover levels across emerging economies. In East Asia and Eastern Europe, liquidity in bond markets stood at 45 and 56 percent over the same period, respectively. Furthermore, while bond market turnover declined in China, India, and Latin American countries, it has expanded considerably in East Asian countries, where trading volumes in secondary markets grew from 27 percent during 2000–2003 to 45 percent in 2008–2009 (Figure 7, Panel B). Overall, these patterns suggest that primary bond markets seem to have developed substantially more than secondary markets, and they are broadly consistent with the evidence that institutional investors hold bonds to maturity and do little trading (Raddatz and Schmukler 2013).

The profile of new bond issues across emerging economies has been shifting over the past two decades. The maturity profile of both public and private sector bonds in Latin America has been extended during the 2000s vis-à-vis the 1990s, though surprisingly it has remained largely unchanged for Asian countries. For example, while the average maturity of newly issued private bonds in East Asia was 5.8 years in the 2000s (up from 5.7 in the 1990s), across Latin American countries it has increased significantly from 6.1 years to 8.1 years (Figure 8, Panel A). The maturity of private bonds in the G-7 countries was not only longer to start with (at 9 years in the 1990s) but it is also lengthened (to 10.4 years in the 2000s). Due to data availability, we can only compare these trends on the bond market for the private sector with those of the public sector for Latin American countries. The increase in the average maturity of public debt in Latin American is even more striking, though it is not uniform

across the region—between the 2000–2003 and the 2008–09 periods, Brazil, Peru, and Uruguay showed significant increases in the maturity of public bonds, while Argentina's and Chile's public debt maturity remained largely the same or declined slightly (Figure 8, Panel B).

Moreover, private bonds denominated in domestic currency in local markets have also increased as a share of total issued bonds by the private sector across East Asia and Latin America. In particular, foreign currency bonds decreased from 20 to 19 percent and from 33 to 25 percent of total outstanding private sector bonds in East Asian and Latin American countries, respectively, in the 2000s (Figure 9, Panel A). Similar trends are observed for public sector bonds in Latin America (Figure 9, Panel B). Despite this increase in the depth of local currency bond markets, emerging economies still lag behind developed countries, where the share of local currency bonds is significantly higher.

Overall, the nature of bond financing is changing, though at a slow and somewhat uneven pace. As in developments in the composition of bank debt, these trends probably reflect a conscious effort by governments to change the profile of their debt, given the serious rollover difficulties that mismatches generated during earlier periods of global and domestic shocks (Broner, Lorenzoni, and Schmukler 2013).

4. Institutional Investors

From the saver's perspective, debt markets across emerging economies have also become more complex. While in the past typically only banks interacted directly with borrowers and lenders, in recent years there has been a greater diversity of players with a broader set of institutions, such as pension funds, mutual funds, and insurance companies. These non-bank financial institutions are intermediating savings, providing economy-wide credit, and offering a broader variety of products, as shown briefly in this section. The rise of these nonbank intermediaries has been a significant factor in the development of local debt markets across emerging countries to the extent that they provide a stable demand for financial assets. Nevertheless, as argued below, emerging economies still have a long way to go in raising the sophistication of its institutional investors as most of the savings are still channeled to government bonds and bank deposits.

4.1. Main Financial Intermediaries

Although banks continue to play a significant and stable role, nonbank financial intermediaries, such as pension funds, mutual funds, and insurance companies, have been gaining considerable space in emerging markets around the world (Figure 10). For instance, pension fund assets represented 15 percent of GDP in East Asian countries and 19 percent in Latin American countries in the second half of the 2000s. Eastern European countries have typically smaller institutional investors (especially in the Russian Federation), but also fast-growing. As with most other features of the markets examined

so far, these intermediaries are still smaller on average in emerging countries than in developed countries, reflecting to some extent the less developed state of their financial systems.

There is nonetheless considerable variation in the size of each type of institutional investor across countries, reflecting, in large part, differences in their institutional and regulatory environments. Insurance companies are usually larger than pension funds and mutual funds in East Asia. For example, insurance companies' assets accounted for 26 percent of GDP in the second half of the 2000s, whereas mutual funds held 17 percent and pension funds 15 percent. In contrast, pension funds are usually larger than mutual funds and insurance companies in Latin America. For example, pension funds held close to 20 percent of GDP in the second half of the 2000s, while mutual funds held around 10 percent and insurance companies 6 percent.

Due to data availability, one can get only a glimpse of the private equity and venture capital funds. These funds, through which investors acquire a percentage of an operating firm, are particularly important for the financing of SMEs. Private equity and venture capital funds are relatively well developed in East Asian economies, at least in comparison to Latin American countries. Private equity funds raised on average US$46 billion per year in Asia, a strong contrast to the almost US$4.9 billion raised in Latin America between 2003 and 2009. Moreover, over the same period Asia represented almost 10 percent of total worldwide private equity fund raisings, compared with only 1.1 percent for Latin American countries, with the rest taking place in Europe and the United States. Venture capital funds are less represented in emerging markets in general, with a total of US$12 billion per year raised on average outside Europe and the United States during this period. Albeit smaller in absolute size, these funds have a relatively larger presence in emerging markets: fund raising outside Europe and the United States represented 25 percent of the total over the same period. Although significantly smaller than other institutional investors, private equity and venture capital funds have been growing in emerging economies. For example, during the first half of the 2000s, US$1.2 billion was raised on average in Latin American countries and increased to US$7.7 billion in the second half of the decade.

4.2. Nature of the Asset Side

Pension funds, mutual funds, and insurance companies provide a stable demand for domestic financial assets, given regulatory limits on their foreign investments, and thus have a potential role in deepening local capital markets across emerging economies. Surprisingly, however, institutional investors in emerging markets concentrate a significant fraction of their asset holdings in fixed-income instruments such as deposits and bonds, and particularly in government bonds. For example, government securities alone accounted for at least 50 percent of the 2009 pension fund holdings in Colombia, the Czech Republic, Hungary, Mexican, Poland, and Thailand (Figure 11). If other fixed-income securities are considered, the share of pension fund portfolios reached 86 percent in Thailand and 79 percent in Mexico. Across Latin American pension funds, the share of government securities and deposits (and other financial institution assets) accounted for more than 60 percent of their

holdings during 2005–08. There is some heterogeneity within emerging countries. While pension funds in some countries are heavily invested in government securities, in other countries (such as the Czech Republic, Korea, Peru, the Russian Federation, Thailand, and Turkey) pension funds hold a non-negligible share of deposits in their portfolios. Nonetheless, some of these large holdings in fixed-income assets stand in stark contrast with the 30 percent observed on average across the G-7 countries.

Comparable patterns are also observed in the investment structure of mutual funds in emerging economies, though this evidence based on the composition of existing mutual funds raises the question of whether financial intermediaries or households themselves are responsible for these patterns. For instance, bond and money market funds account for about 70 percent of existing mutual funds in Latin America and about 50 percent in Asia and Eastern Europe (Figure 12). In contrast, in developed countries, these funds correspond to about 35 percent of all funds. In these countries, equity funds are much more prominent, accounting for about 45 percent of existing funds on average.

There is nonetheless some heterogeneity within emerging countries. In the Philippines and Brazil bond funds are predominant, representing 72 and 59 percent of all mutual fund assets, respectively. Money market funds are predominant in Turkey, Chile, and Hungary, where they represent about 78, 49, and 49 percent of total mutual fund assets, respectively. In contrast, bond and money market funds are much less representative in China and the Russian Federation for example, where they jointly account for 16 and 10 percent of all mutual funds, respectively. In these countries, equity funds represent a significant share of all mutual funds, capturing about 56 and 64 percent of all mutual funds in China and the Russian Federation, respectively.

These trends suggest that institutional investors in emerging economies might not have contributed to the development of markets for corporate paper (bonds and equity) as much as one could expect. At the same time, one needs to consider that relatively small and illiquid domestic markets can be viewed as unattractive by these investors, particularly by mutual funds that are subject to sudden withdrawals by clients. In other words, asset managers' incentives—such as the need for liquidity—might explain, at least in part, why large institutional investors invest the bulk of their portfolios in government bonds and deposits. This equilibrium, whereby investors avoid some corporate capital markets and the markets remain underdeveloped, suggests that there could be some scope for policy actions that might enhance the availability of funds for corporate financing. Nevertheless, effective policies are difficult to design, especially when taking into account financial stability.

5. Conclusions

This paper presents a systematic and detailed account of where emerging economies stand with respect to the development of their debt markets. The overall evidence suggests that these countries have tried to move to stronger positions along such dimensions as susceptibility to volatility and financial crises. In general, debt markets have continued growing since the 1990s. Because standard

measures indicate that international financial integration deepened and that foreign investors continued investing in emerging economies at the same time, more resources have become available in these economies relative to their size. As a consequence, more savings are available for use, especially for the private sector because governments have been reducing crowding out by demanding fewer funds due to fiscal consolidation.

Debt is moving toward longer maturities and is increasingly being issued in local currencies, which reduces mismatches, while domestic markets seem to be gaining some ground. Moreover, financial systems overall are becoming more complex and somewhat more diversified, with more actors participating and more instruments being used. Financing does not depend as much as before on banks, as both bonds and equity play a larger role. Regarding financial intermediaries, institutional investors have become much more prominent, most notably pension funds and mutual funds.

There is a notable heterogeneity in the indicators of financial development across emerging economies. In terms of depth, while financial development has progressed in Eastern Europe and Latin America, these regions typically lag behind not only developed countries but also other emerging economies, most notably Asian economies. Nonetheless, when compared to those in the developed world, debt markets in Asia are still relatively underdeveloped. In fact, debt markets in developed countries are the ones that have expanded the most in recent years. Therefore, the gap between developed and emerging economies in financial development has become larger. There has not been convergence yet.

There are also important differences in other aspects of debt markets. For example, Eastern Europe increased its foreign currency debt before the global financial crisis, which was perceived to have led to a higher transmission of the crisis to the countries in that region. In effect, the loans taken in foreign currency from abroad became harder to service when the crisis hit these countries. Many Western European banks lent in Eastern Europe using funds obtained in hard currencies in their home countries. Moreover, except in some cases (mostly in Asia) liquidity in secondary bond markets has been declining. And the public sector still captures a significant share of the bond market.

What explains the lagging financial development in emerging economies? Although it is difficult to determine precisely whether the problems lie in the supply or demand side of funds, the evidence suggests that what appears to be an insufficient level of financial development does not seem to come just from the lack of available funds. In fact, financial underdevelopment seems to coexist with a large pool of domestic and foreign funds in the economy, not least because domestic residents are sometimes induced to save in market-based instruments targeted to domestic markets only. Moreover, funds are also available from foreign investors. The availability of funds will naturally provide a continuing deepening of some markets. However, for some reasons the financial system does not seem to intermediate those funds and service a broad and growing range of firms.

Furthermore, the burden does not seem to rest on aggregate or macroeconomic factors alone. The macroeconomic performance and institutional framework have likely hampered financial development in the past, for example, during the many crises of the 1980s and 1990s. But emerging economies have typically rebounded and have substantially improved their macroeconomic and institutional stances, growing on average at a faster pace than developed countries, becoming more resilient to shocks, and attracting much interest among international investors eager to invest in these countries.

Part of the problem seems to lie in the financial intermediation process that is common across countries, because many assets available for investment are not purchased by banks and institutional investors. These institutions hold large resources that could be invested long term, in many parts of the financial sector. However, consumer and mortgage lending have grown relative to corporate financing. Banks seem to have moved from financing large corporations to financing standardized retail products and some specific lines of credit to SMEs that are easy to commoditize, that can be done on a large scale, and that involve relatively low risk, like leasing and collateral lending (de la Torre, Martínez Pería, and Schmukler, 2010). Part of this trend might be due to an emphasis on stability. Capital markets seem to prefer financing large firms over small ones. And institutional investors seem to shy away from risk. For example, pension funds and mutual funds invest heavily in short-term instruments, even when long-term ones are available and when insurance companies hold these instruments prominently in their portfolios (Opazo, Raddatz, and Schmukler, 2009). Therefore, it is not the lack of securities what constrains the portfolios of these institutional investors. Asset managers bid more heavily for short-instruments and choose few assets (Didier, Rigobon, and Schmukler, 2013). Incentives not to take risk seem to be behind this behavior. This is particularly puzzling in the case of pension funds, which are not subject to withdrawals and which have a stable source of long-term funding. In sum, while it could be the case that more assets might help investors take more risk, the evidence indicates that the overall functioning of financial systems is not contributing to the degree of financial development envisioned by many pro-market reformers.

To the extent that part of the problem lies in the financial intermediation process, policy makers face difficult challenges. The role of institutional investors is emblematic in this respect. For example, it is not clear how to generate incentives for more risk taking to foster innovation and growth while preserving the stability of the financial system. This problem is particularly acute because households are often forced or induced to allocate a substantial portion of their savings to pension funds and mutual funds. On the one hand, to the extent that funds invest too conservatively, they will fail to generate the returns necessary to achieve the replacement rates that many pensioners expect from their retirement savings. On the other hand, more risk taking would put households' savings at higher risk, at least on a short-run basis. And riskier behavior makes monitoring of financial intermediaries more difficult. In other words, there is a strong trade-off between stability and development, and it is not clear where the socially optimal outcome lies. To complicate matters more for policy makers, the global financial crisis has led to a revision of the international paradigms and a questioning of the international regulatory framework.

Eventually, emerging economies will need to catch up, grow their financial systems, and take more risk, as they proceed to become more like developed nations. The challenge is how to do so by completing markets without undermining financial stability. Macro-prudential policies that limit expansions constitute a clear example of the dilemma policy makers face. However, it is difficult to distinguish spurious booms from leapfrogging for the same reasons that it has been difficult to spot bubbles in the financial systems of both emerging and developed countries.

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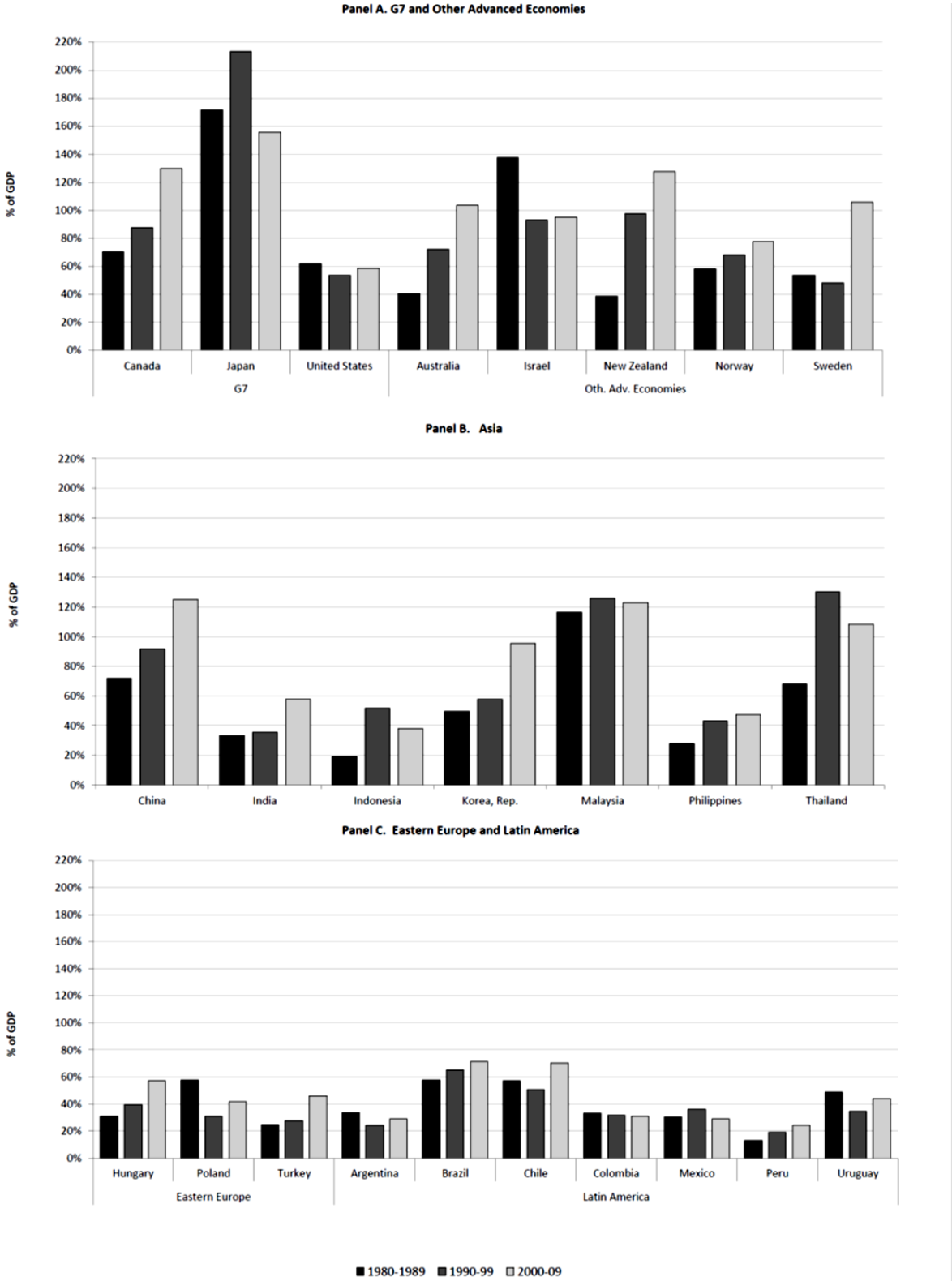
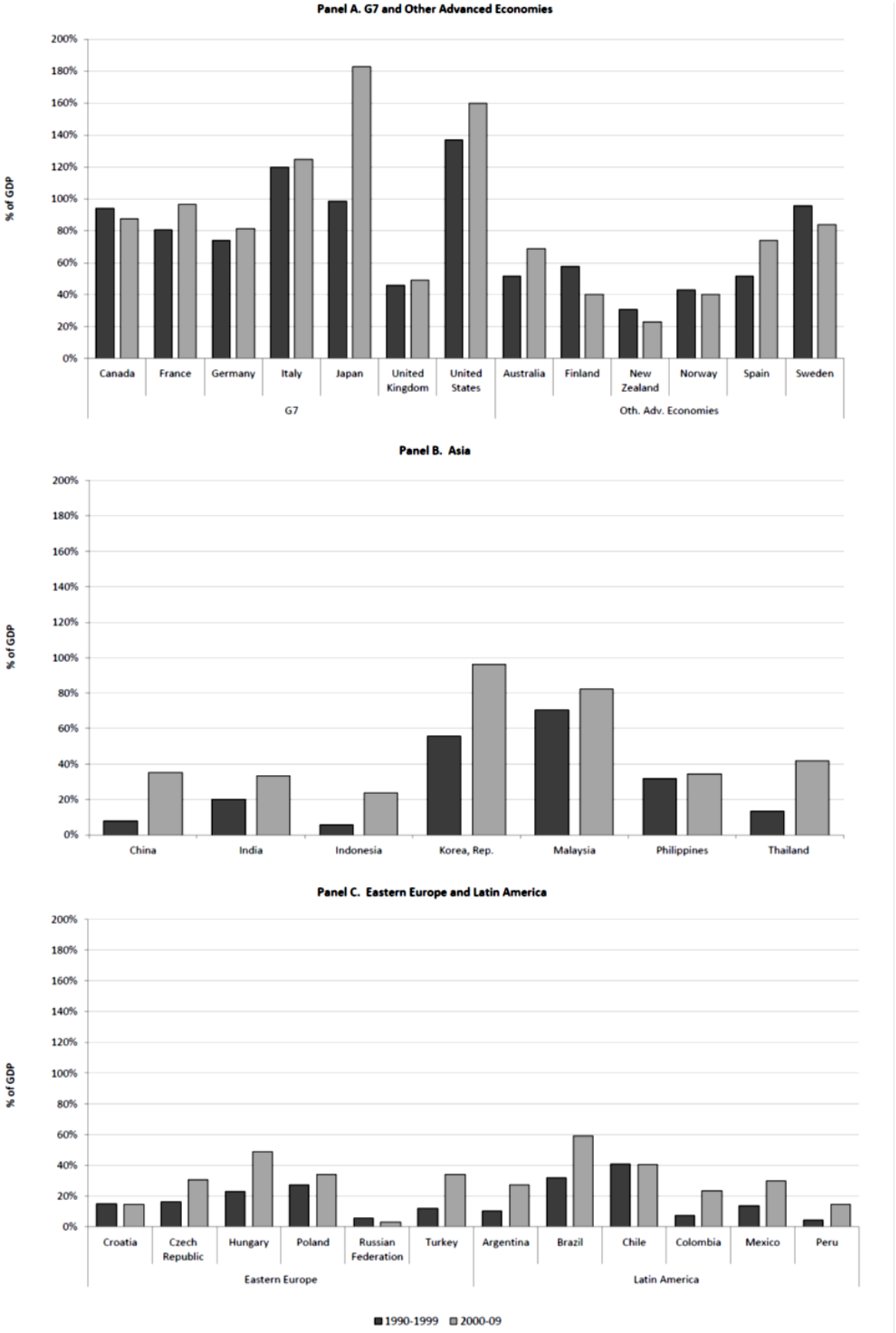
Figure 1. Total Bank Assets



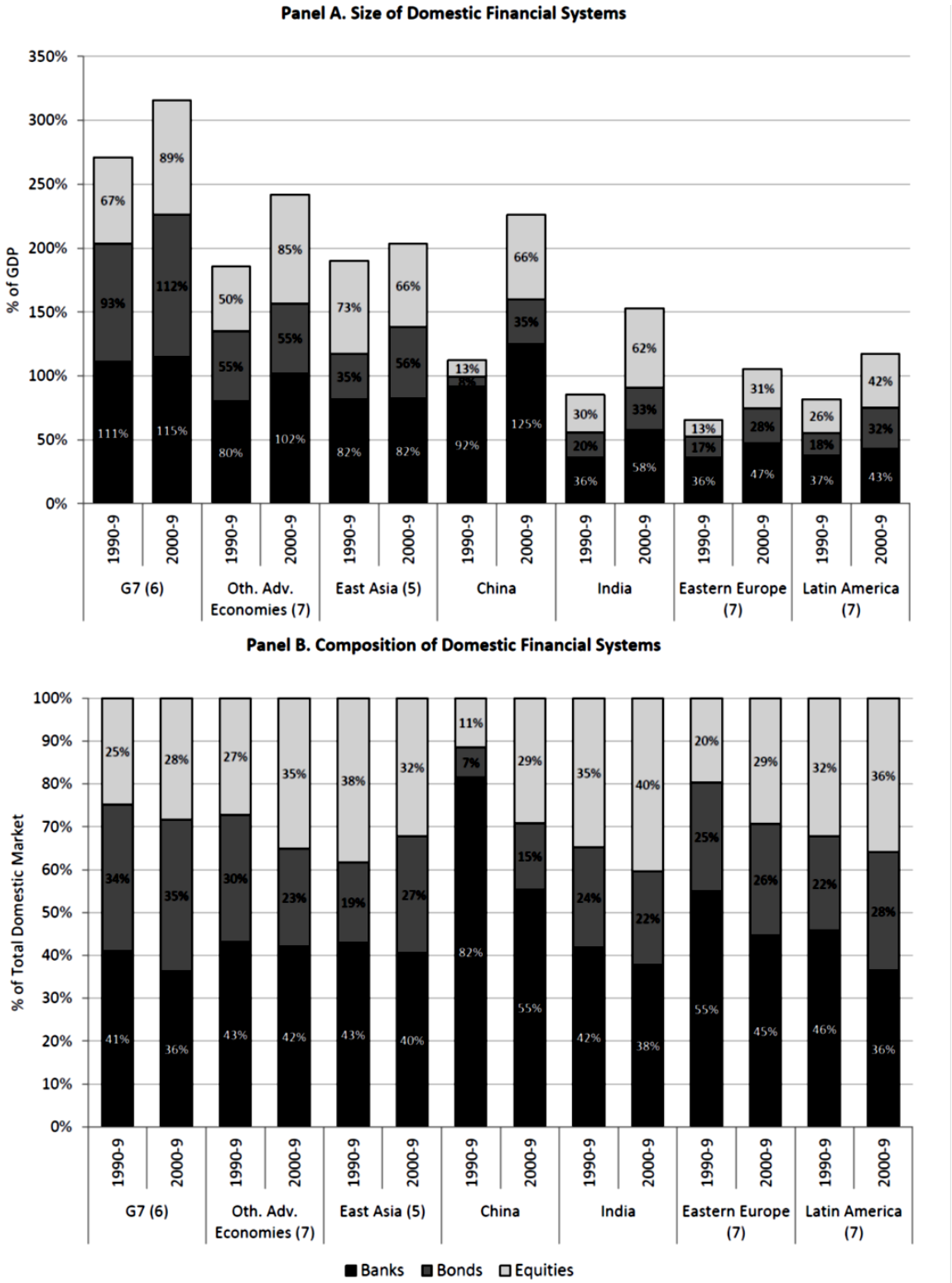
This figure shows the average annual ratios of banking claims to GDP between 1980 and 2009 for selected countries. The statistics for China in the 1980-1989 period includes only banking claims to the private sector. The data sources are the IMF´s International Financial Statistics (IFS) and the World Bank's World Development Indicators (WDI).

Figure 2. Bond Market Capitalization



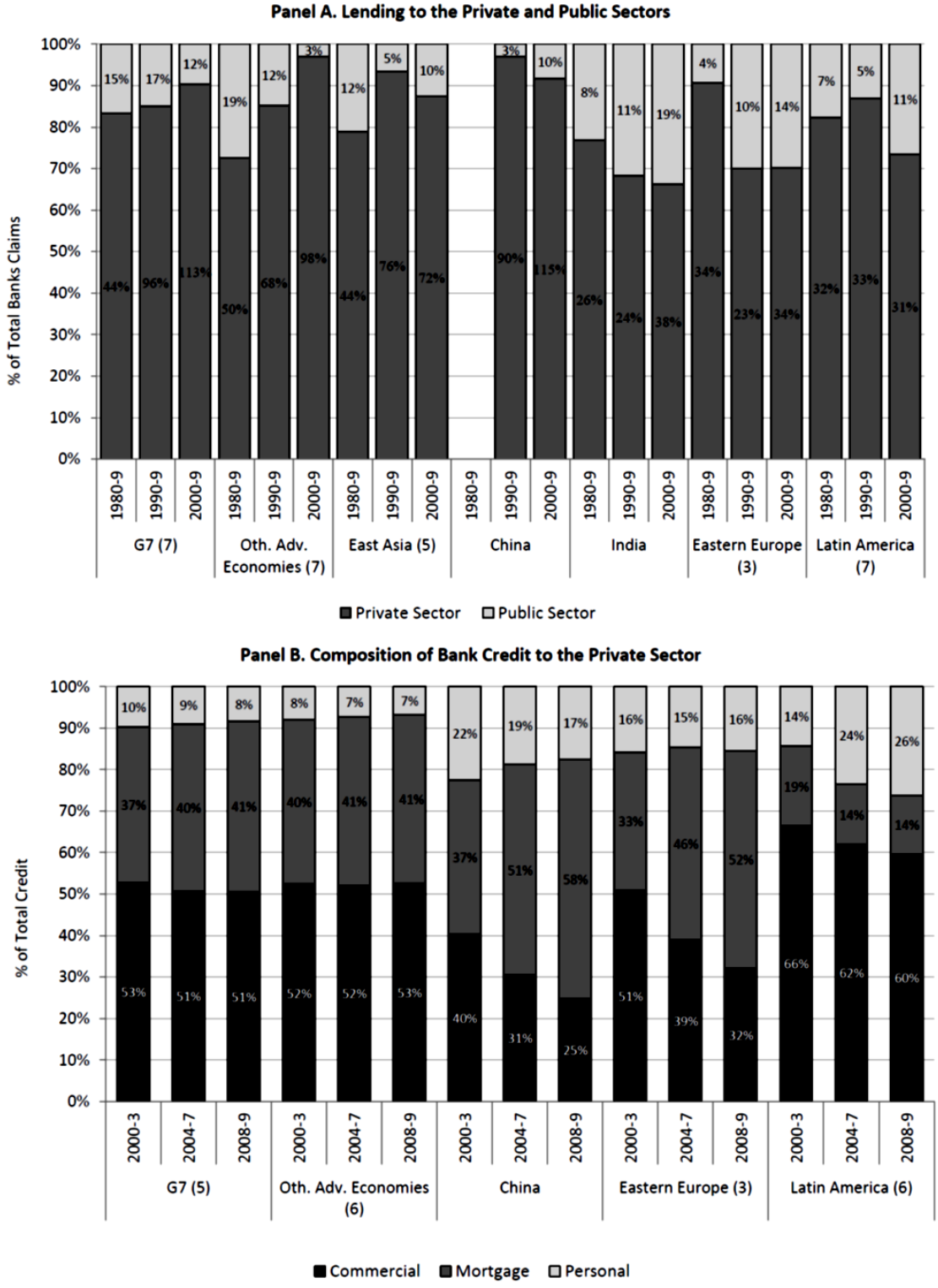
This figure shows the average annual ratios of market capitalization of outstanding bonds in domestic markets to GDP between 1990 and 2009 for selected countries. Domestic bond securities are defined as those issued by residents in domestic currency and targeted at resident investors. The data sources are the Bank for International Settlements (BIS) and the World Bank's World Development Indicators (WDI).

Figure 3. Relative Size of Debt Markets



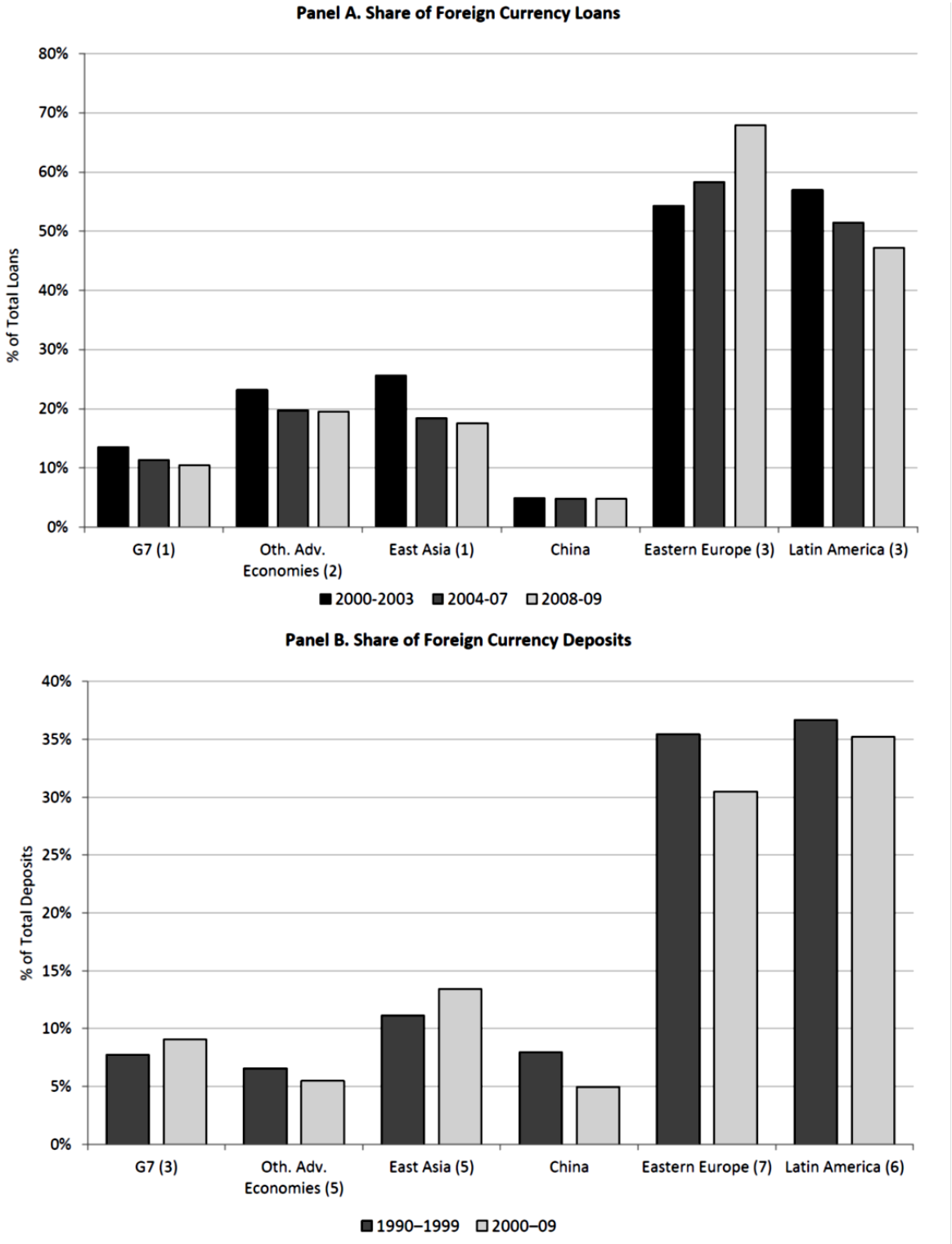
This figure shows the average size and structure of domestic financial systems between 1990 and 2009. Panel A shows total banking claims, the market capitalization of outstanding bonds, and the equity market capitalization as a percentage of GDP. Panel B shows the same figures expressed as percentage of the total domestic financial system. Numbers in parentheses show the number of countries included in the statistics for each region. The data sources are the IMF's International Financial Statistics (IFS), the Bank for International Settlements (BIS), and World Bank's World Development Indicators (WDI).

Figure 4. Composition of Bank Credit



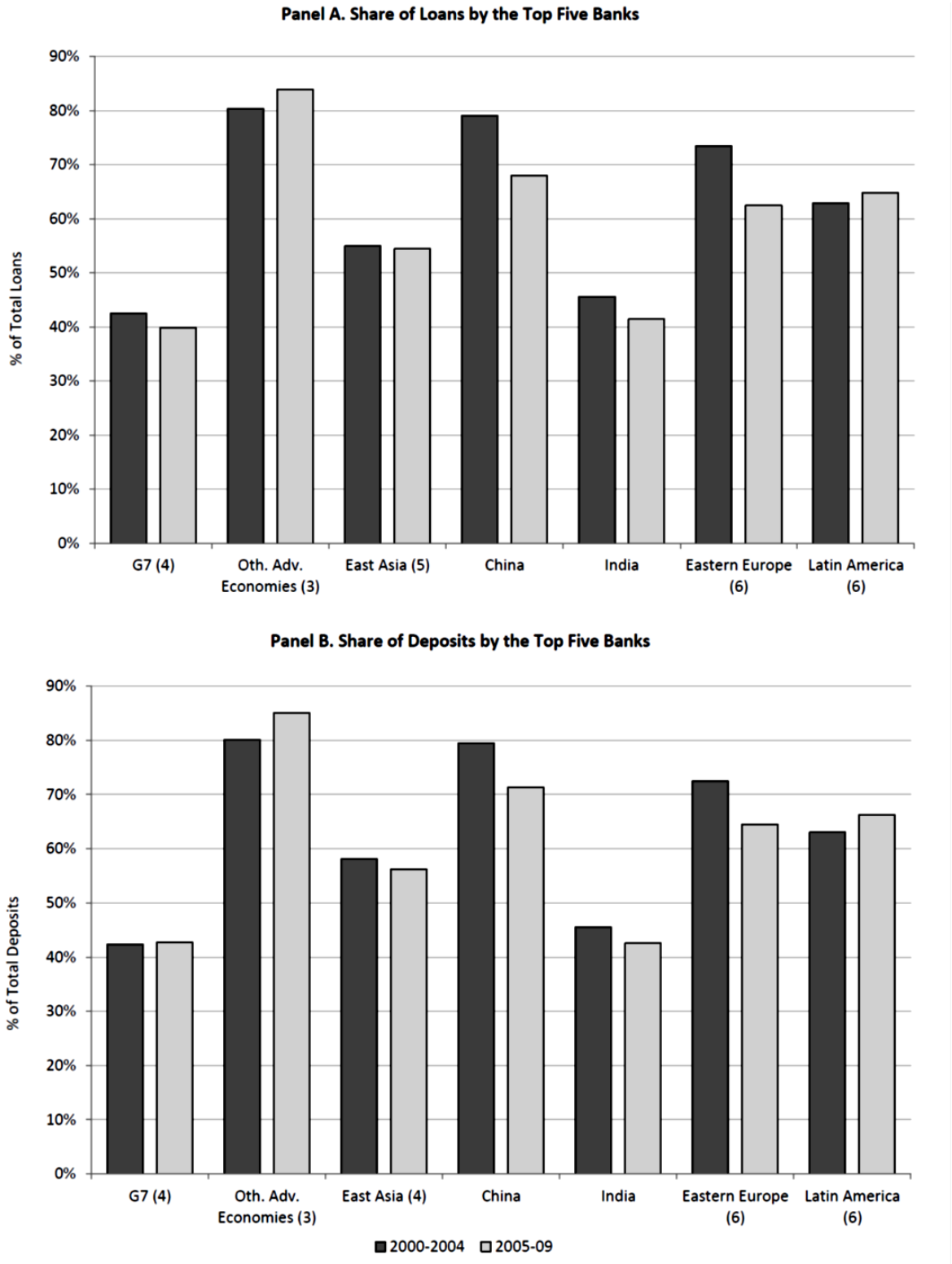
This figure shows in Panel A the average share of public sector and private sector claims on total banking claims between 1980 and 2009. The percentages shown within the bars represent the size of both public and private claims as a percentage of GDP. For China, the data on claims on the public sector are not available for the 1980-1989 period, hence no data is shown for this period. Panel B shows the average share of commercial, mortgage and personal credit as share of total banking credit to the private sector. Numbers in parentheses show the number of countries in each region. The data sources are the IMF's International Financial Statistics (IFS) (Panel A) and local sources (Panel B).

Figure 5. Dollarization of the Banking System



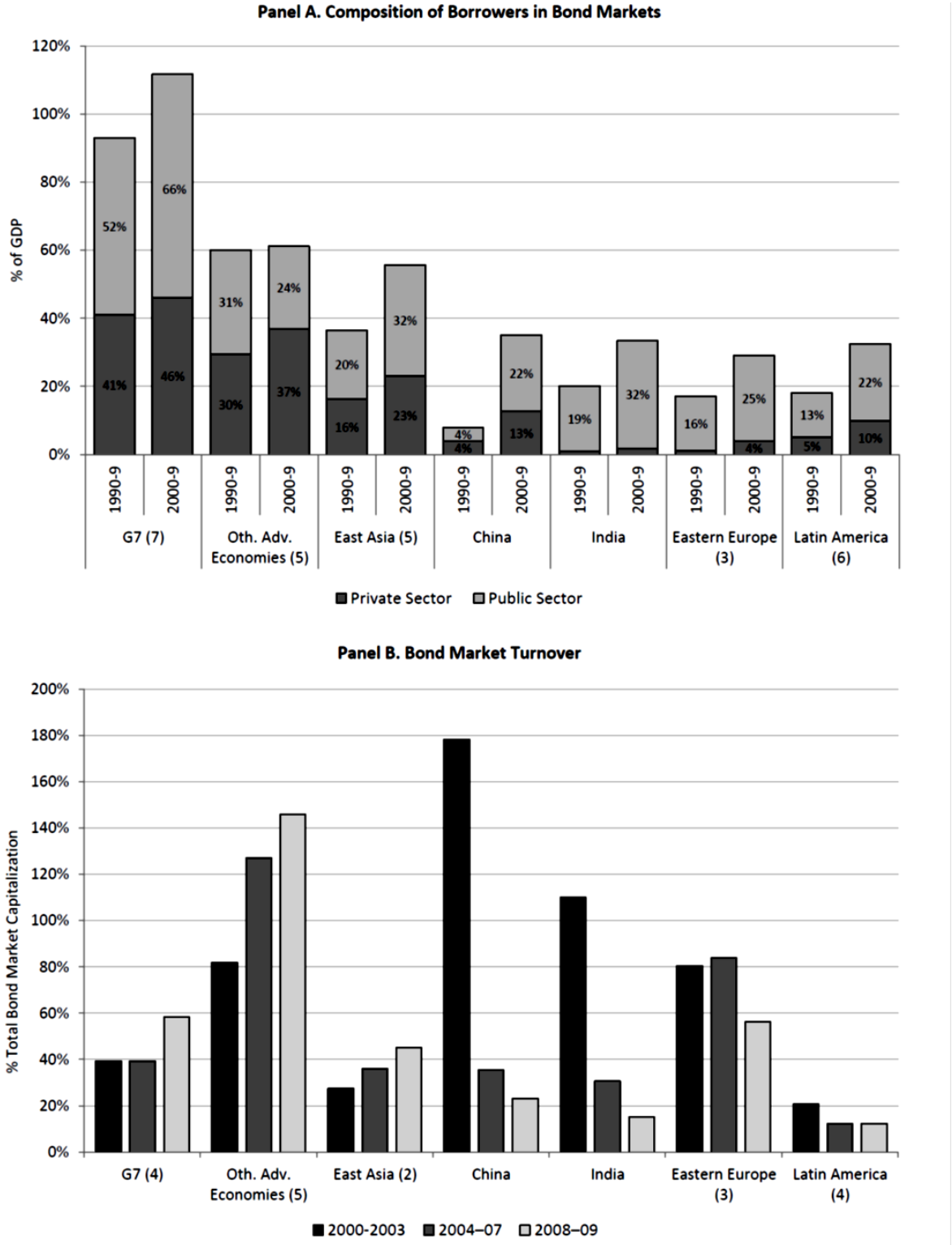
This figure shows the extent of dollarization of loans and deposits in the banking system. Panel A shows foreign currency denominated loans as share of total loans averaged between 2000 and 2009. Panel B shows the extent of deposit dollarization as share of total deposits averaged between 1990 and 2009. Numbers in parentheses show the number of countries in each region. The data source is the IMF's International Financial Statistics (IFS).

Figure 6. Concentration of Banking Systems



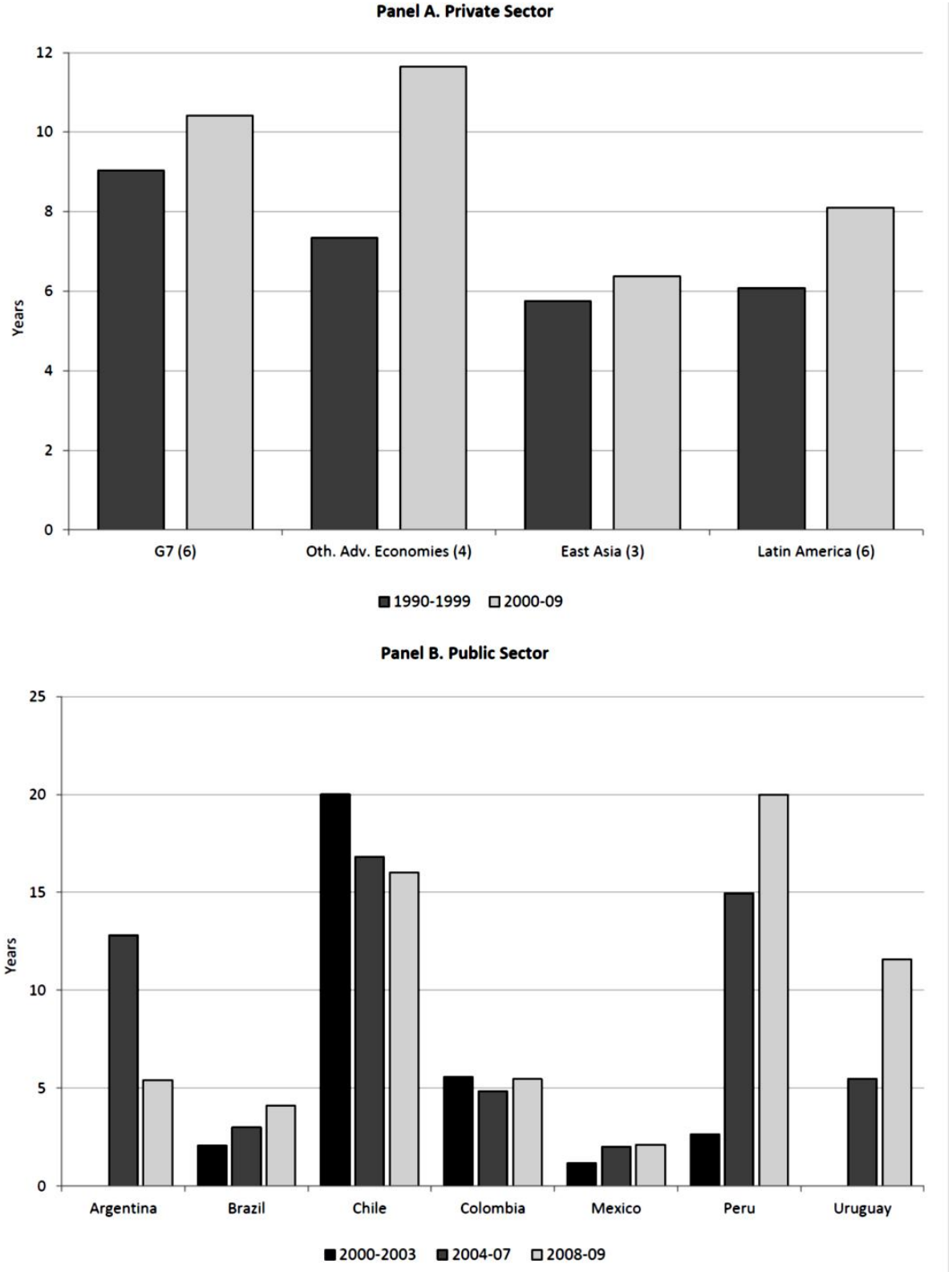
This figure shows the degree of bank concentration across regions. Panel A shows the annual average of total credit granted by the top-5 banks as share of total credit between 2000 and 2009. Panel B shows the annual average of total deposits in the top-5 banks as share of total deposits between 2000 and 2009. Numbers in parentheses show the number of countries in each region. The data source is Bankscope.

Figure 7. Activity in Primary and Secondary Bond Markets



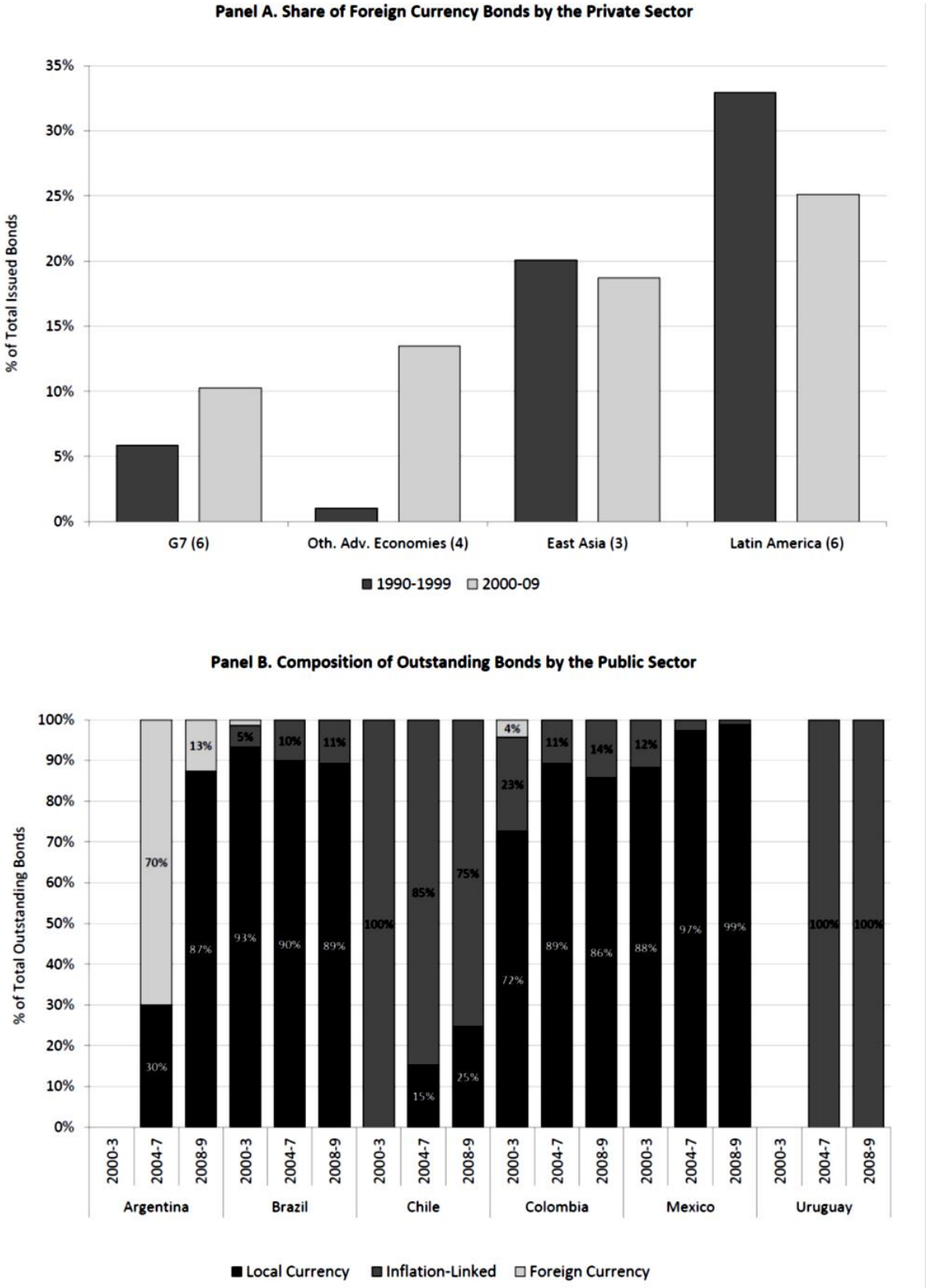
This figure shows in Panel A the average size of private and public bonds outstanding in domestic markets as a percentage of GDP between 1990 and 2009. Domestic bonds securities are defined as those issued by residents in domestic currency and targeted at resident investors. Panel B shows the average value of bond market trading as share of total bond market capitalization. Trading data includes domestic private, domestic public and foreign bonds traded in local stock exchanges. Numbers in parentheses show the number of countries in each region. The data sources are the Bank for International Settlements (BIS) (Panel A) and the World Federation of Exchanges (WFE) (Panel B).

Figure 8. Average Maturity of Bonds at Issuance



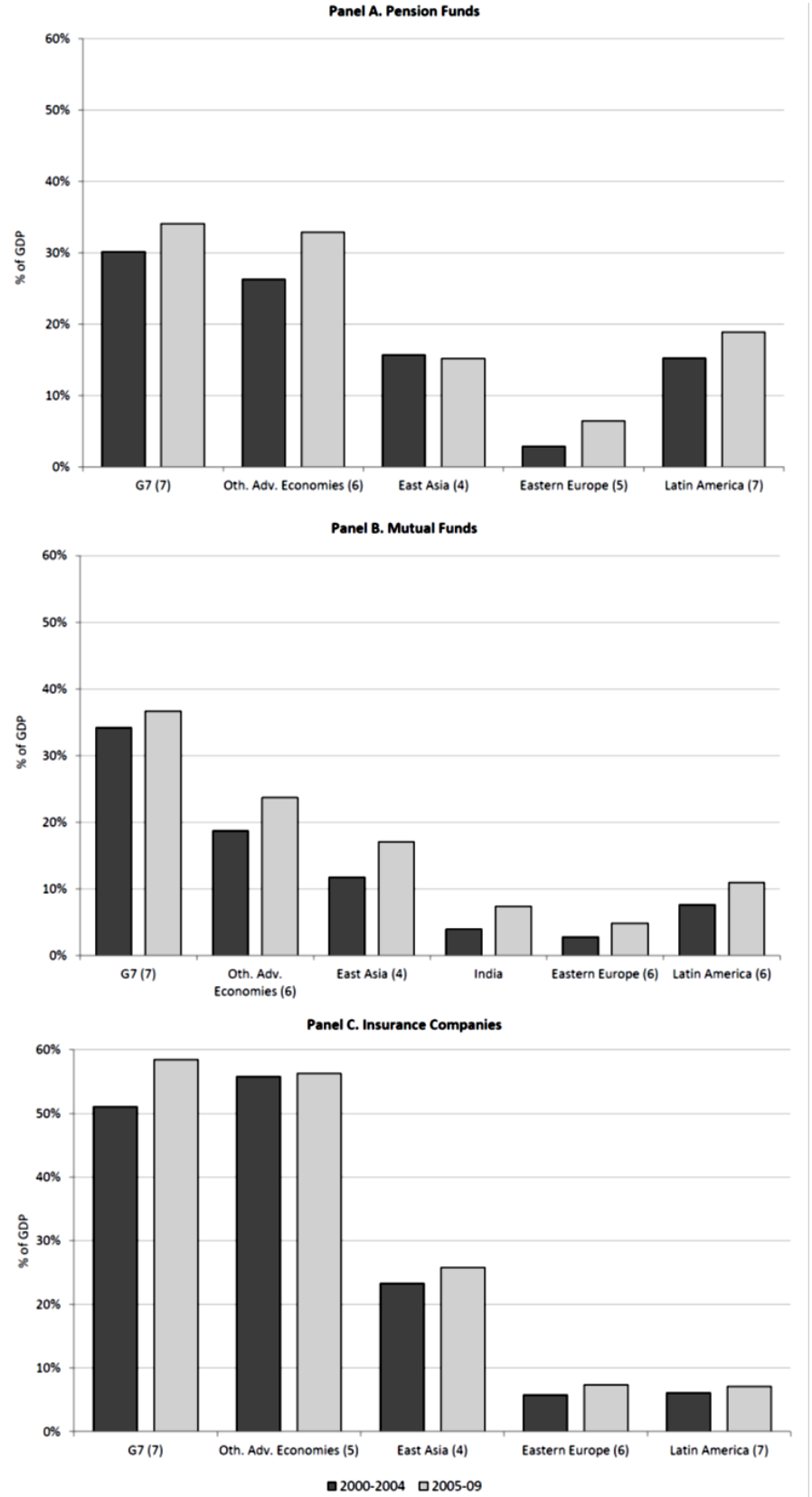
This figure shows the weighted average maturity of bond issuances per year in domestic markets, expressed in years. Panel A shows the data for the private sector for the period 1990-2009. Panel B shows the data for the public sector for the period 2000-2009. Numbers in parentheses show the number of countries in each region. The data sources are SDC Platinum (Panel A) and local Central Banks (Panel B).

Figure 9. Currency Composition of Bonds at Issuance



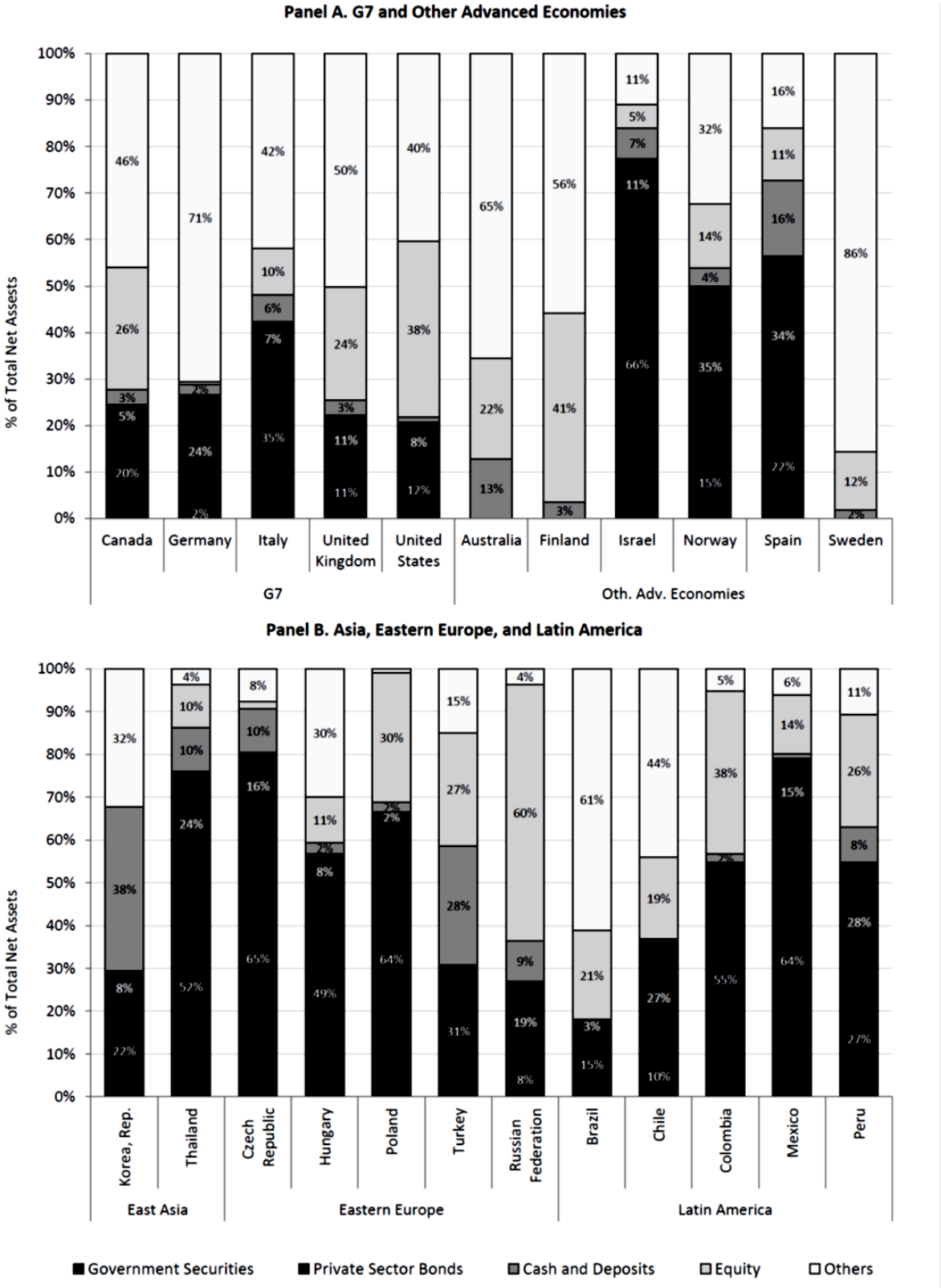
This figure shows the currency composition of domestic private and public bonds at issuance. Panel A shows the average share of foreign currency denominated bonds as a percentage of total bonds issued by the private sector in domestic markets per year between 1990 and 2009. Numbers in parentheses show the number of countries in each region. Panel B shows the composition of domestic public bond issued on average per year (between local currency, foreign currency, and inflation-linked bonds) over the period 2000 and 2009. The data sources are SDC Platinum (Panel A) and local Central Banks (Panel B).

Figure 10. Size of Institutional Investors



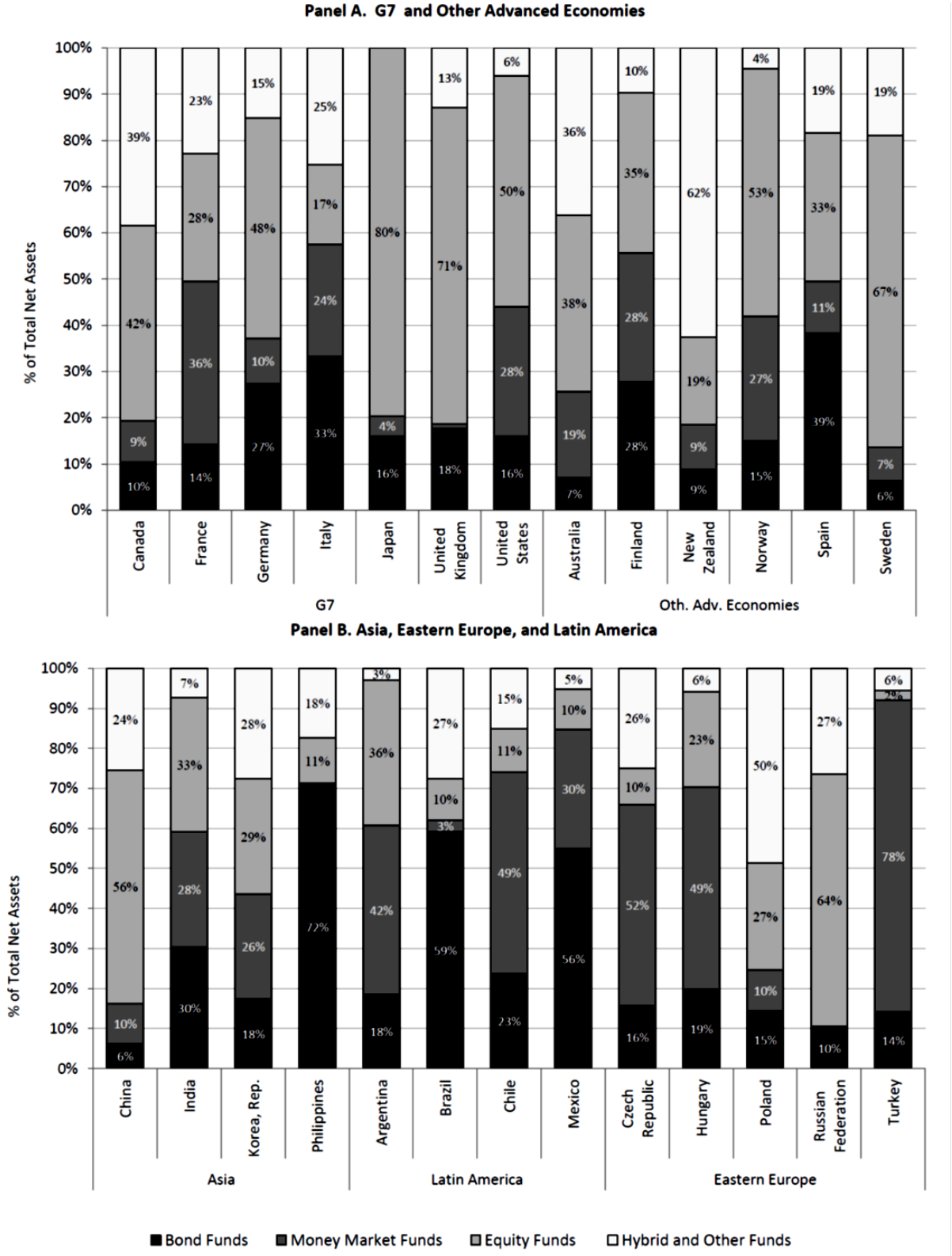
This figure shows the total assets of domestic institutional investors, namely pension funds (Panel A), mutual funds (Panel B), and insurance companies (Panel C). Panel A shows the average pension funds assets as a percentage of GDP between 2000 and 2009. Panel B shows the average mutual fund assets as a percentage of GDP between 2000 and 2009. Panel C shows the average insurance companies assets as a percentage of GDP between 2000 and 2009. Numbers in parentheses show the number of countries in each region. The data sources are the Asociación de Supervisores de Seguros de Latinoamérica (ASSAL), OECD, local sources, the Investment Company Institute (ICI), and the Asociación Internacional de Organismos de Supervisión de Fondos de Pensiones (AIOS).

Figure 11. Composition of Pension Fund Portfolios



The figure shows the composition of pension funds portfolio holdings using the latest available information. The data is for 2009 for all countries, except for Brazil (2007), Russian Federation (2006), and Peru (2008). The category "Others" includes mutual funds, loans, and other investments. The data source is the OECD.

Figure 12. Mutual Fund Assets by Type of Fund



This figure shows the average net assets of mutual funds by the type of fund as a share of the total mutual fund net assets between 2005 and 2009 for a selected sample of countries. The data source is the Investment Company Institute (ICI).