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The Changing Role of International Banking in Development Finance

THE RELATION BETWEEN THE INTERNATIONAL banking industry and the developing world is changing, with implications for the growth and financial health of both sides. Significant transformation in the structure of the industry, coupled with rapid economic growth and financial liberalization in the developing world, has created a new locus of mutual interest and new dynamics of engagement extending well beyond the traditional realm of provision of trade credit and financing sovereigns in distress. With over 2,027 local offices established in 127 developing countries, the international banking industry now has the operating infrastructure and technology platforms to book overseas transactions from a large network of local agencies, subsidiaries, and branches located in developing countries. Aided by growing cross-border lending activity, international banks play an increasingly important—in some countries, even dominant—role in the financing structure and growth prospects of developing countries. In many developing countries, international banks now provide the primary gateway through which corporations, sovereigns, and banks transfer funds abroad, borrow in short and medium terms, and conduct foreign exchange and derivatives operations. Foreign claims on developing-country residents held by major international banks reporting to the Bank for International Settlements (BIS) currently stand at \$3.1 trillion and account for 9.5 percent of global foreign claims, up from \$1.1 trillion in 2002. As of end-June 2007, developing-country residents' deposits with international banks amounted to \$917 billion, a threefold increase since the end of 2002.

The resilience of the relationship between international banks and developing countries, however,

is being tested by the current episode of financial turmoil. The realization of how powerfully shocks to a relatively small segment of the U.S. credit markets spilled over to capital markets in other developed countries in the summer of 2007 and onward to emerging markets highlights the type of new challenges policy makers and market participants are likely to face in an environment of securitized credit and an increasingly interlinked international banking system. Nine months into the turmoil, it is evident that conventional policy prescriptions borne out of the experience of the string of emerging-market financial crises of the 1990s and early 2000s offer some, but not definitive, guidance. The fact that the primary source of instability this time around resides in mature capital markets with significant global impact calls for stronger international cooperation in monetary policy, banking regulation, and liquidity management, all of which need to account for the growing financial links between emerging and mature markets. Although policy coordination to date has mainly taken the form of collaboration in liquidity provision, policy makers, regulators, scholars, and market participants have begun to focus on a longer-term reassessment of the stringency of financial regulation and the role of asset markets in financial stability.

This chapter highlights the growing importance of international banking activity for development finance, focusing on financial intermediation, economic benefits, and financial stability consequences of increased presence of foreign banks in developing countries. It identifies the universe of international banks active in developing countries; examines the characteristics of these banks in terms of country exposure, home country jurisdiction,

and links with global money markets; and considers how international banks may serve as a vehicle of transmission of global financial shocks to developing countries. The chapter also maps out the broad policy challenges facing developing countries in dealing with the current turmoil, while underlining the longer-term benefits of their integration into global financial system.

The key messages of this chapter are highlighted below:

- *The participation of foreign banks in developing countries' financial systems has increased rapidly in recent years.* As of 2006, 897 foreign banks had established a majority-ownership stake in developing countries. Foreign-owned lenders account for a particularly high proportion of local banking assets in two regions—70 percent in several Eastern European countries, and approximately 40 percent in some Latin American countries—compared with less than 10 percent in developed economies such as France and Italy. The presence of foreign banks has increased in developing regions for different reasons: in Sub-Saharan Africa because of the limited reach of local banking infrastructure; in Europe and Central Asia along with regional integration into the European Union; and in Latin America as a way for governments to increase openness to foreign competition. In many countries, however, foreign bank presence was permitted after a financial crisis with local banks suffering from massive nonperforming loans and was motivated by the need to recapitalize and reestablish a functioning banking system. On the supply side, home country legislation has allowed banks to expand in foreign markets, advances in information technology have enabled banks to automate and manage large information flows across national borders, and a fundamental shift in business strategy has brought global banks close to customers through local activities.
- *The increased presence of foreign banks has generated substantial economic benefits to some developing countries through efficiency gains in banking systems, increased access to capital, more sophisticated financial services, and expertise in dealing with ailing banks.* Foreign banks operating in regions such as Europe and Central Asia tend to have lower overhead costs and net interest margins than their privately owned and government-owned domestic counterparts, although the impact varies depending on the mode of entry and the policy and institutional environment of the host country. Foreign bank entry can also lead to consolidation of fragmented local banking systems and the realization of economies of scale and scope. These improvements in financial sector development have provided an important avenue for increasing growth in developing countries.
- *Like globalization in general, the increased role of foreign banks can also expose developing countries to certain macroeconomic risks.* During the current episode, such risks have played out in developing countries' greater vulnerability to foreign shocks. Preliminary econometric investigation establishes a statistically significant relationship between international bank lending to developing countries and changes in global liquidity conditions, as measured by spreads of interbank interest rates over overnight index swap (OIS) rates and U.S. Treasury bill rates. A 10 basis-point increase in the spread between the London Interbank Offered Rate (LIBOR) and the OIS sustained for a quarter, for example, is predicted to lead to a decline of up to 3 percent in international bank lending to developing countries. Evidence from the international syndicated loan market already reflects this prediction: both the number of syndicated loans signed and the total volume of lending declined considerably in the fourth quarter of 2007 and first quarter of 2008 compared with the same periods in previous years. Countries particularly active in interbank markets—Brazil, China, Hungary, India, Kazakhstan, the Russian Federation, South Africa, Turkey, and Ukraine—need to be concerned about the possibility that their domestic banks will face funding difficulties in international markets should liquidity pressures in interbank markets remain at elevated levels. Also, several countries in Eastern Europe and Central Asia have experienced rapid private credit expansion in recent years on account of their banks borrowing extensively overseas and significant foreign bank presence in their credit markets.

- *A balanced mix of macroeconomic and regulatory policy measures are called for to maximize the benefits of increased foreign bank presence in developing countries.* Ultimately, policies must take into account differences across countries in the monetary framework (such as inflation targeting), exchange-rate regime, regulatory and supervisory capability, regional integration, level of financial sector development, and nature of exposure to the international banking system. Because the efficiency gains associated with foreign banks depend on the mode of entry as well as on host country factors, public policy interventions can enhance both competition and banking sector efficiency. Countries that are especially vulnerable to foreign monetary shocks should consider establishing backstop foreign currency lines of credit or foreign currency swaps to be made available to domestic banks in the case of severe financial distress. In countries where regulatory and financial institutions are still developing and possibly weak, particular attention would need to be placed on the quality of entry requirements, by relying, for example, on home countries' regulation and prudential supervision of banking institutions. A high premium should also be placed on the parent bank's compliance with international norms and standards regarding capital adequacy, corporate governance, and transparency.
- *The high level of uncertainty and anxiety in global financial markets calls for greater international policy coordination in the areas of financial regulation, liquidity provision, and macroeconomic management.* Although unusual in its scale, the coordinated liquidity provision by the Federal Reserve, the European Central Bank (ECB), and other central banks in December 2007 and subsequent months is consistent with central banks' common goal of maintaining financial stability. Tension in global interbank markets has been moderated by the moves. The fact that the magnitude of the credit turmoil was not on financial regulators' radar screens, however, reveals a significant shortcoming in the current framework of financial market supervision and regulation. This realization has, in turn, prompted a growing consensus on the need to

foster greater transparency about the nature of complex financial instruments and each institution's exposure to them, as well as the need to somehow institutionalize market discipline as a complement to regulation, as envisaged under the third pillar of the Basel II Accord. Toward this end, the United States has launched a far-reaching rethinking of its financial regulation system. In Europe, growing cross-border banking consolidation is driving increased recognition of the need for revised regulation and supervisory arrangements. At the international level, lack of both a coherent cross-border banking regulatory framework between home countries and host countries and guidelines surrounding the lender of last resort and crisis management mechanism is a cause for concern. Given that foreign bank penetration has been more extensive in developing countries than in high-income countries, developing countries should have a strong stake in the development of a coherent approach to the governance of cross-border banking. And though recent efforts in macroeconomic stabilization and external debt management have contributed to the relative resilience of developing countries during the recent financial turmoil, these countries still need to intensify efforts to monitor foreign borrowing by their banks and risk management strategies pursued by their corporations with access to external debt markets.

Growth and transformation of international banking activity in developing countries

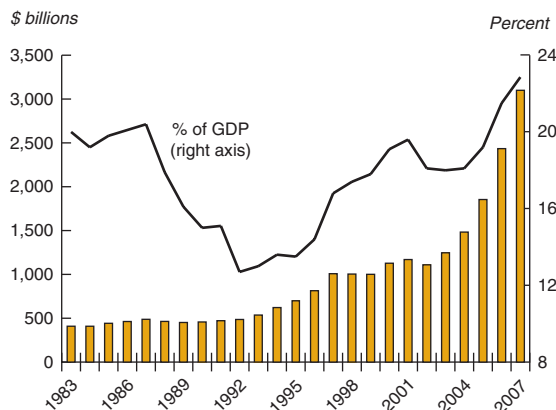
Although foreign banks have operated in developing countries for decades, their presence has expanded rapidly since the early 1990s. Today international banks are a growing force in shaping the economic transformation and global competitive position of many developing countries. Their importance results from the interaction of three sets of structural factors: closer integration of developing countries into the world economy through greater trade and foreign direct investment (FDI) flows that raise demand for international banking services; technological advances allowing banks to book assets, control operations,

and automate processes across the global supply chain in an integrated manner; and regulatory reforms in both developed and developing countries authorizing banks based in one country to invest and operate in the banking sectors of other countries. These factors have resulted in a number of important changes in international banking activity in developing countries—the secular growth in lending exposure, a shift from cross-border to local-market delivery of financial services, and substantial foreign investment through cross-border acquisitions and establishment of local affiliates.

Demand for international banking services in developing countries (defined as services rendered by foreign banks to developing-country residents) has evolved over time in response to the changing position of developing countries on the global economic and financial stage. Attracted by the prospects of asset growth and risk diversification, foreign banks have responded eagerly in expanding their overseas businesses in developing countries through both cross-border and local market activity.

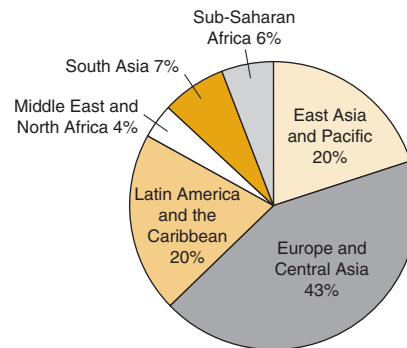
Quantitatively, the most comprehensive measure of international banking activity in developing countries, total foreign claims on developing countries held by banks reporting to the BIS, stood at \$3.1 trillion in the third quarter of 2007 (figure 3.1), almost six times larger than in 1992, when banks were recovering from the Latin American debt crisis of the early 1980s.¹ Sixty percent of this exposure is in international claims (claims denominated in

Figure 3.1 International bank claims on developing countries



Sources: Bank for International Settlements (BIS); World Bank.
 Note: These are the foreign assets of banks reporting to the BIS. GDP is aggregate GDP for developing countries.

Figure 3.2 International claims outstanding, by region, third quarter, 2007



Sources: Bank for International Settlements; World Bank staff calculations.

foreign currency), including cross-border loans and loans extended by banks' foreign offices, mostly to residents of countries in Latin America, East Asia, and Europe and Central Asia (figure 3.2). Despite a steady shift in international banks' strategy from cross-border lending to lending through local affiliates, their exposures to developing countries remains mostly denominated in foreign currency, of which about 44 percent are in short-term maturity.

Because foreign-denominated exposures are typically funded in international markets, they tend to be highly sensitive to movements in global interbank rates and conditions. Furthermore, exposure to foreign-currency loans is widespread across developing-country borrowers, with a majority of borrowers (77 percent) holding more than half their foreign bank debt in loans denominated in foreign currency.

The strong overall growth in international banking has been interrupted, however, by several episodes of credit contractions and economic downturns. Scaled by aggregate GDP of developing countries, a measure that serves as a proxy for demand-side factors, international bank claims declined sharply in the late 1980s and early 1990s (to 13 percent of GDP in 1992), increased steadily through the remainder of the 1990s, paused during the global slowdown of 2001–02, and mostly accelerated since 2003 (reaching 23 percent of GDP in 2007). The latest expansion—from 2003 until the onset of global financial turmoil in mid-2007—coincided with an epoch of excessive global liquidity, large-scale securitization, and cross-border banking sector consolidation (box 3.1).

Box 3.1 Rapid expansion of the international banking industry

The international banking industry has witnessed phenomenal growth and financial innovation over the past two decades, punctuated by episodes of consolidation. The spread of modern international banking is conventionally traced to the establishment of the Eurocurrency market in the late 1950s and early 1960s, initially in London and then in other European financial centers. As measured by foreign assets of banks reporting to the BIS, international banking activity expanded at a very fast pace over the past decade, reflecting expanding world trade, the rise of multinational firms, growth in financing of global payments imbalances, and the assimilation of transition economies into global banking system (figure below). Looking back, international banking has gone through three distinct phases in the post-World War II era:

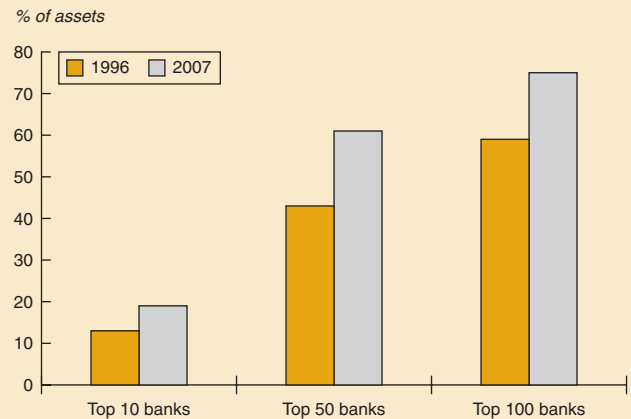
- The establishment of the Eurocurrency market in the late 1950s and early 1960s, stimulated initially by prevailing capital controls and restrictions on international transactions in the United States and Western Europe, which prompted national banks to establish offices abroad to service the overseas business of their clients.
- The growing role of banks in Japan in the 1980s as the Japanese government attempted to open its markets and promote the international role of yen. This phase also coincided with the growth of syndicated bank lending and the expansion of currency and interest-rate derivatives markets that enhanced banks' scope to expand their geographical reach in both funding and lending.
- The increased securitization of credit in recent years, facilitated by the originate-and-distribute model of bank lending on the one hand and by rapid growth in the market for asset-backed structured financial products (such as collateralized debt obligations) and development of the credit derivatives market on the other. From a public policy perspective, securitization has contributed to a shift in regulatory or oversight

responsibility from official agencies to the private marketplace, including credit rating agencies and security underwriters.

A wave of cross-border mergers and acquisitions over the past decade or so has resulted in a significant consolidation of the international banking industry and a concentration of assets in the hands of a few major banks. As of 2007, the top 10 banks held 19 percent of the industry's assets, and the top 100 banks accounted for 75 percent, higher than the corresponding values of 13 and 59 percent in 1996 (figure below).

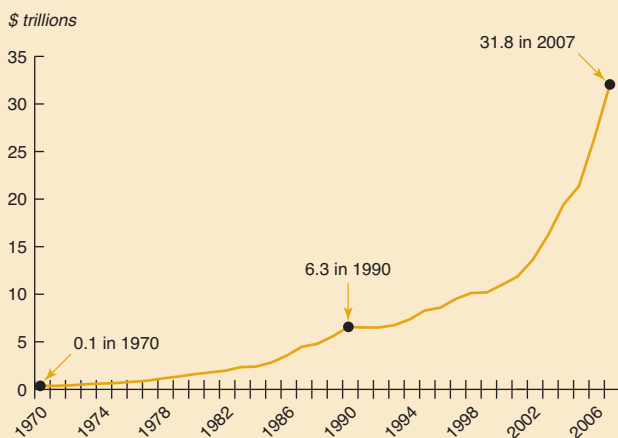
Financial innovation and technological change pioneered by the banking industry itself has transformed the nature and reach of the international banking business, allowing banks greater market reach and new business areas, including underwriting, asset management, investment banking, and proprietary trading. Rapid growth of the markets for risk transfer—credit derivatives and various types of asset-backed securities—has facilitated highly leveraged exposures by banks themselves and by new players such as hedge funds and private equity firms.

Banking consolidation has increased over time



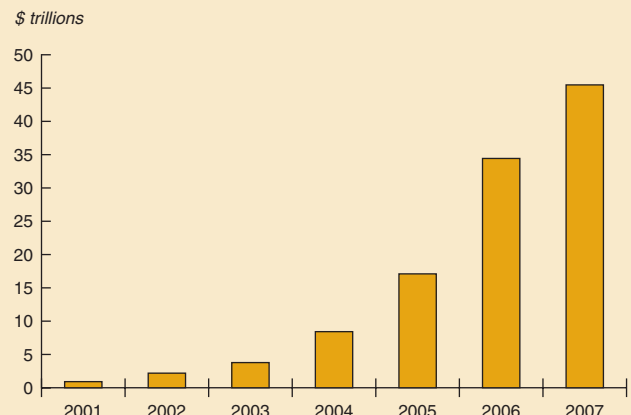
Source: World Bank staff calculations based on The Banker database.

International banking expansion, 1970–2007



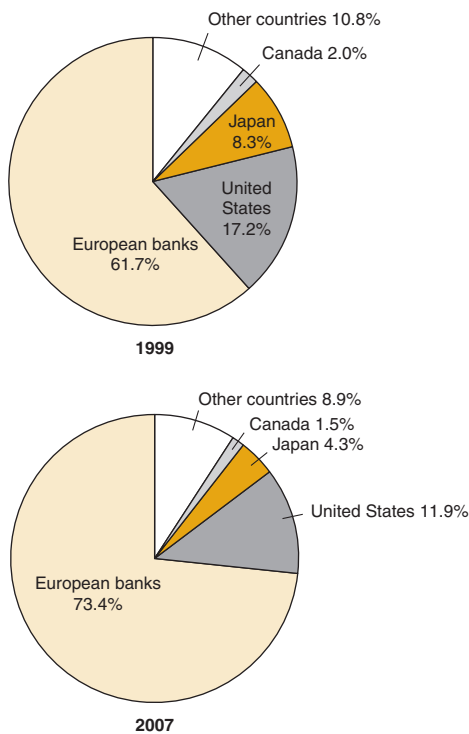
Source: Bank for International Settlements (BIS).

Significant expansion in the credit derivatives market



Source: International Swaps and Derivatives Association 2007.

Figure 3.3 Composition of foreign claims on developing countries, by nationality of reporting banks



Sources: Bank for International Settlements; World Bank staff calculations.

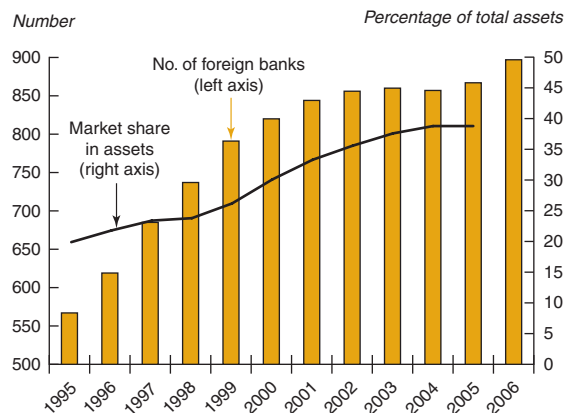
Note: European banks include those from Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

The regional composition of creditor banks to developing countries has also changed since the early 1990s. Largely reflecting the growing weight of claims by residents of Eastern Europe and Central Asian countries, the role of Western European banks has increased, accounting for 73 percent of total foreign claims on developing countries in 2007, compared with 62 percent in 1999 (figure 3.3). By contrast, banks from Japan and the United States lost market share during this period as they adopted a more cautious approach to overseas expansion.

International banks service their overseas businesses through local market participation

Foreign banks' direct investment in developing countries' banking sectors accounted for a cumulative \$250 billion over 1995–2006, fueled by both greenfield (new) investments and mergers and acquisitions (M&A).² As of end-2006, the 897 foreign

Figure 3.4 Foreign banks' increasing involvement in developing countries, 1995–2006



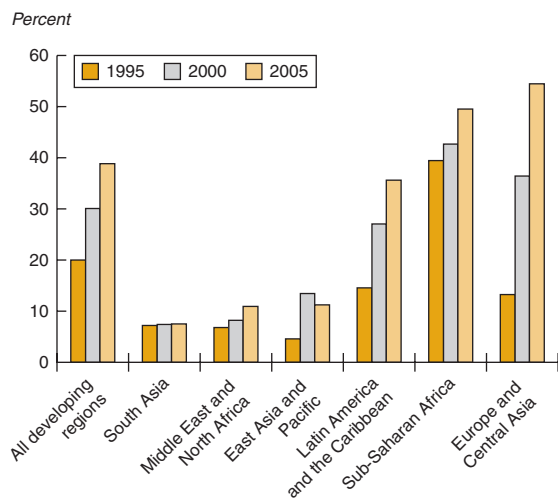
Source: World Bank staff estimates based on data from Bankscope.

Note: Foreign banks are those in which foreign shareholders hold 50 percent or more of total capital. Because asset data for 2006 are missing for a significant number of banks, asset information is presented only to 2005.

banks with a presence in developing countries controlled combined assets of over \$1.2 trillion and accounted for more than 39 percent of total banking assets in these countries (figure 3.4), compared with \$157 billion 10 years earlier, when they accounted for approximately 20 percent of total banking assets. Since 2000 the majority of the increase in assets has resulted from increased banking sector consolidation and better economic integration between existing and new EU members. Indeed, the number of foreign banks in the countries that joined the European Union in 2004 jumped from 121 in 1995 to 330 in 2006, and the value of their assets surged from \$41 billion to \$528 billion.

The share of banking assets held by foreign banks with majority foreign ownership stake, however, varies dramatically among developing regions and is to some extent dependent on regulatory restrictions. Overall, foreign ownership of the banking sector is substantially higher in Europe and Central Asia, Sub-Saharan Africa, and Latin America than in East Asia, South Asia, and the Middle East and North Africa (figure 3.5). Foreign ownership also varies considerably intraregionally. While many small Sub-Saharan African countries have shares exceeding 50 percent, Ethiopia, Nigeria, and South Africa have minimal or no foreign bank participation with majority foreign ownership stake (table 3.1). In Latin America, large economies such as Peru and Mexico have foreign presence accounting for 95 and 82 percent of the

Figure 3.5 Share of banking assets held by foreign banks, by region



Source: World Bank staff estimates based on data from Bankscope.

Note: Foreign banks are those in which foreign shareholders hold 50 percent or more of total capital.

banking sector, respectively, while in small economies such as Guatemala and Ecuador, the share is 8 and 5 percent, respectively. Within Europe and Central Asia, foreign banking presence is low in the two largest regional economies, Russia and Turkey, but extensive in most other

countries. In recent years banks from developing countries have begun to invest in other (particularly low-income) developing countries. And as of 2006, 256 of the 897 foreign banks operating in developing countries were based in other developing countries. Typically, these foreign banks are from middle-income countries such as Hungary, Malaysia, and South Africa, and like their high-income competitors they invest mainly within their own regions.

International banks tend to seek out markets where institutional familiarity provides them with a competitive advantage over other foreign banks (Claessens and Van Horen 2008). As such, foreign bank penetration tends to be particularly high in developing countries with similar legal systems, banking regulations, and institutional setups as certain home countries, presumably because such similarities tend to reduce risk and operational costs (Galindo, Micco, and Serra 2003). Foreign bank presence also tends to follow lines of economic integration, common language, and geographical proximity. In Latin America and the Caribbean, for example, 60 percent of foreign banks are headquartered in the United States and Spain, whereas in Europe and Central Asia more than 90 percent of foreign banks are headquartered in the European Union (figure 3.6). Even

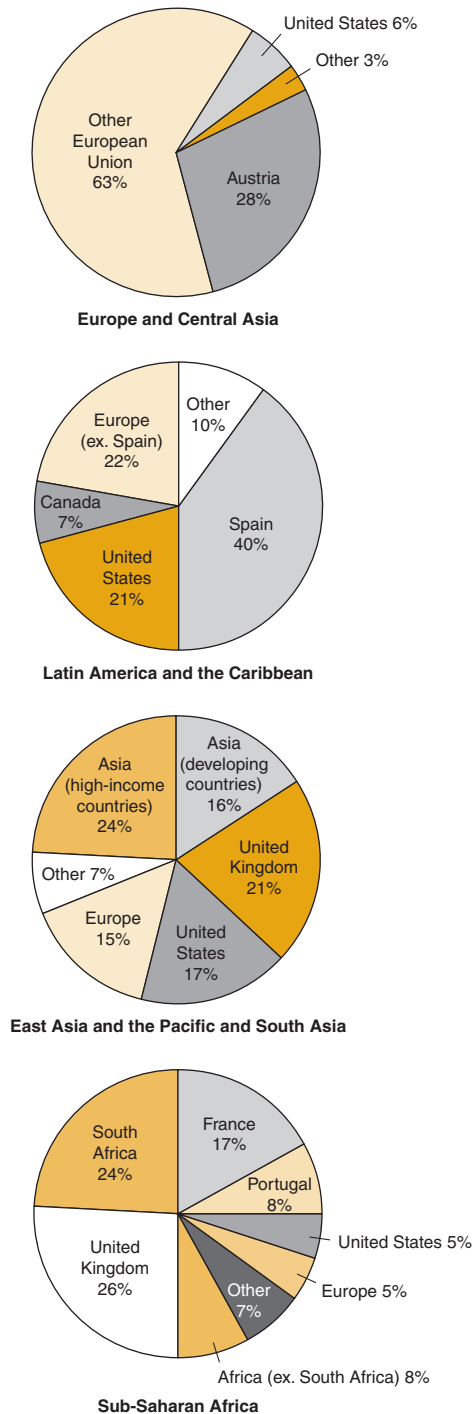
Table 3.1 Share of banking assets held by foreign banks with majority ownership, 2006

Country	0%–10%	Country	10%–30%	Country	30%–50%	Country	50%–70%	Country	70%–100%
Algeria	9	Moldova	30	Senegal	48	Rwanda	70	Madagascar	100
Nepal	9	Honduras	29	Congo, Dem. Rep. of	47	Côte d'Ivoire	66	Mozambique	100
Guatemala	8	Ukraine	28	Uruguay	44	Tanzania	66	Swaziland	100
Thailand	5	Indonesia	28	Panama	42	Ghana	65	Peru	95
India	5	Cambodia	27	Kenya	41	Burkina Faso	65	Hungary	94
Ecuador	5	Argentina	25	Benin	40	Serbia and Montenegro	65	Albania	93
Azerbaijan	5	Brazil	25	Bolivia	38	Cameroon	63	Lithuania	92
Mauritania	5	Kazakhstan	24	Mauritius	37	Romania	60	Croatia	91
Nigeria	5	Pakistan	23	Burundi	36	Niger	59	Bosnia-Herzegovina	90
Turkey	4	Costa Rica	22	Seychelles	36	Mali	57	Mexico	82
Uzbekistan	1	Malawi	22	Lebanon	34	Angola	53	Macedonia	80
Philippines	1	Tunisia	22	Nicaragua	34	Latvia	52	Uganda	80
South Africa	0	Mongolia	22	Chile	32	Jamaica	51	El Salvador	78
China	0	Sudan	20	Venezuela, R. B. de	32	Zimbabwe	51	Zambia	77
Vietnam	0	Morocco	18	Georgia	32	Namibia	50	Botswana	77
Iran, Islamic Rep. of	0	Colombia	18	Armenia	31			Kyrgyzstan	75
Yemen, Rep. of	0	Malaysia	16					Poland	73
Bangladesh	0	Jordan	14					Bulgaria	72
Sri Lanka	0	Russian Federation	13					Paraguay	71
Ethiopia	0	Egypt, Arab Rep. of	12						
Togo	0								

Source: World Bank staff estimates based on data from Bankscope.

Note: A bank is defined as foreign owned only if 50 percent or more of its shares in a given year are held directly by foreign nationals. Once foreign ownership is determined, the source country is identified as the country of nationality of the largest foreign shareholder(s). The table does not capture the assets of the foreign banks with minority foreign ownership.

Figure 3.6 Home countries of foreign banks in developing regions, 2000–06



Source: World Bank staff estimates based on data from Bankscope.

excluding HSBC, which moved its headquarters from Hong Kong (China) to the United Kingdom in 1993, Asian banks account for 40 percent of foreign banks in East Asia. In Sub-Saharan Africa, more than 30 percent of foreign banks are from the region, and the rest are mainly from countries with which Sub-Saharan Africa has had economic links since colonial times.

The regional focus of banks investing in developing countries is also evident in data on the 20 foreign banks with the largest asset holdings in developing countries. For example, all majority-owned foreign banking assets of two Spanish banks, Santander and BBVA, and Canadian Scotia Bank, are in Latin America. Other European banks, including Italy's Unicredito and Intesa Sanpaolo and Austria's Erste Bank, Raiffeisen, and HVB, have a significant presence in the Europe and Central Asia region. On the other hand, top 20 banks such as BNP Paribas (France), ING (Netherlands), Deutsche Bank (Germany), and Citibank (United States) are more diversified. All in all, developing countries still account for a relatively small share of these banks' total assets, ranging from 1 to 15 percent.

The mode of foreign bank entry has shifted from greenfield investments to M&A and from branches to subsidiaries

Cross-border consolidation has been an important driver of recent expansion in the amount of FDI in developing countries' banking sectors. Available data show about 750 cross-border M&A transactions in developing countries over 1995–2006, totaling \$108 billion.³ Meanwhile, the share of global cross-border M&A transactions involving banks based in developing countries rose from 12 percent in 1995–2002 to 21 percent in 2003–06. The size of these transactions varied considerably, however. The largest was Citigroup's acquisition of Mexico-based Banamex (table 3.2). M&A transactions resulting in majority ownership accounted for 407 of 587 recorded entries of foreign banks in developing countries during 1995–2006 (figure 3.7). The share of M&A in total foreign bank entry has jumped dramatically—to approximately 90 percent—since 2004.

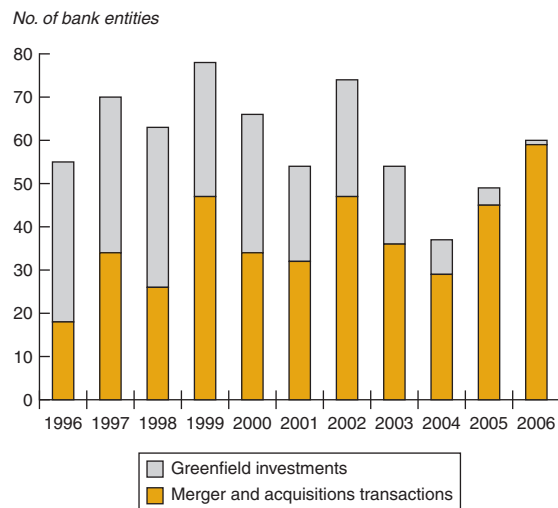
When a foreign bank enters a country through M&A, it generally operates as a subsidiary—a legally independent entity with powers defined by

Table 3.2 Major cross-border M&A sales by developing countries, 2001–07

Year	Acquired bank	Host country	Acquiring bank	Home country	% of the asset bought	Value (\$ billions)
2001	Banamex	Mexico	CitiGroup	United States	100	12.5
2007	ICBC	China	Standard Bank	South Africa	20	5.5
2006	BCR	Romania	Erste Bank	Austria	62	4.8
2006	Akbank	Turkey	CitiGroup	United States	20	3.1
2005	Bank of China	China	Merrill Lynch	United States	10	3.1
2004	Bank of Communications	China	HSBC	United Kingdom	20	2.1
2005	Disbank	Turkey	Fortis	Belgium	90	1.3
2001	Banespa	Brazil	Banco Santander	Spain	30	1.2
2005	Avalbank	Ukraine	Raiffeisen	Austria	94	1.1

Source: World Bank, *Global Development Finance*, various years.

Figure 3.7 Mode of entry of foreign banks with majority ownership



Source: World Bank staff estimates based on data from Bankscope.

Note: Foreign banks are those in which foreign shareholders hold 50 percent or more of total capital.

its own charter in the host country. In the case of a greenfield investment, however, the foreign operation may be either a branch or a subsidiary. A branch is licensed by the host country but its powers are defined by its parent bank's charter (subject to limitations imposed by the host country). Subsidiaries seem to be strongly preferred by the 100 largest foreign banks in Latin America and Eastern Europe, where they accounted for 65 and 82 percent, respectively, of local operations in 2002 (Cerrutti, Dell'Araccia, and Martinez Peria 2005; Baudino and others 2004).

The decision to enter a developing country through a branch or a subsidiary is found to be

affected by several host country factors and the nature of the foreign bank's business (Cerrutti, Dell'Araccia, and Martinez Peria 2005). Regulations and institutional factors are of paramount importance in the decision, as foreign banks are less likely to operate as branches in countries that limit their activities. In some cases, the organizational structure is shaped by government policies favoring one form over the other, for example, in Malaysia, Mexico, and Russia, where investment through branches is not allowed. When branches are allowed, they are most common in countries with high corporate taxes and in poor countries, perhaps in the latter because of lack of market opportunities. The bank's desired business in the host country market is also an important factor: branches are more prevalent than subsidiaries when foreign operations are small in size and do not provide retail services. Branches are less common in countries with risky macroeconomic environments. However, when the risks are mostly related to government intervention or other political events, foreign banks may prefer to operate as branches.

The distinction between branches and subsidiaries also implies different levels of parent-bank responsibility and financial support. While subsidiaries are legally separate entities from their parent banks, parent banks are responsible for the liabilities of their branches under most circumstances. Parent-bank support can play an important role during times of financial turmoil. For example, following the financial crisis in Argentina in the early 2000s, Citibank increased the capital of its branch operations in the country but sold its subsidiary there. This said, special contractual

agreements (such as ring-fencing provisions) and reputational considerations may at times blur distinctions between branches and subsidiaries. For example, in recent years, a number of banking groups have adopted ring-fencing provisions that generally establish that parent banks are not required to repay the obligations of a foreign branch if the branch faces repayment problems because of extreme circumstances (such as war or civil conflict) or because of certain actions by the host government (such as exchange controls, expropriations, and the like).⁴ However, concerns about loss of reputation have in certain instances led parent banks to rescue and recapitalize subsidiaries, even if they were not legally forced to do so. For example, HSCB injected a significant amount of capital into its subsidiary in Argentina following the crisis. Portugal's Banco Espírito Santo did the same for its Brazilian subsidiary following the losses due to the real's devaluation in 1999 (Cerutti, Dell'Araccia, and Martinez Peria 2005).

Foreign bank expansion has been fostered by financial liberalization and deregulation

Since the mid-1990s, restrictions facing foreign banks, including limitations on form of investment and level of foreign ownership, have been gradually eased through unilateral liberalization policies, bilateral and regional trade and investment agreements such as the North American Free Trade Agreement (NAFTA), and World Trade Organization (WTO) membership requirements. In particular, the General Agreement on Trade in Services (GATS) encourages greater openness among WTO members in provision of financial services from foreign entities. The agreement addresses 17 specific issues related to foreign bank presence in member countries, including foreign bank entry and licensing

requirements (such as minimum capital entry requirements), method of entry, expansion after entry, limitations on share of foreign presence in the banking sector, and permissible activities and operations. A close examination of reported practices, however, indicates that some developing-country members of the WTO are more restrictive in practice than they should be according to their WTO commitments (Barth and others 2008).

In many countries, financial sector liberalization came after a financial crisis and was motivated by the need to reestablish a functioning banking system (Cull and Martinez Peria 2007). In general, though, the driving forces behind and timing of financial sector liberalization—and the level of allowed foreign ownership (table 3.3)—continue to vary considerably among developing countries.⁵

In the early 1990s many countries in the Europe and Central Asia region allowed foreign banks to start operations within their borders only through greenfield investment (through licensing) and through purchase of minority stakes in local banks. Majority ownership was allowed only after banking crises hit many of these economies (Baudino and others 2004). Although foreign bank entry was pervasive in the early 1990s for 2004 EU accession countries (in particular Hungary and Poland), it occurred later in the 2007 accession economies, Bulgaria and Romania (Hagmayr, Haiss, and Sümegi 2007). In Turkey foreign banks invested significantly only after the start of the country's official EU accession negotiations in 2005.

Most Latin American countries began opening their banking systems to foreign entry following a series of financial crises in the region in the mid-1990s (ECLAC 2002). In Mexico, for example, all banks (except one foreign bank) were nationalized in 1982 and remained under state control until a progressive easing of restrictions

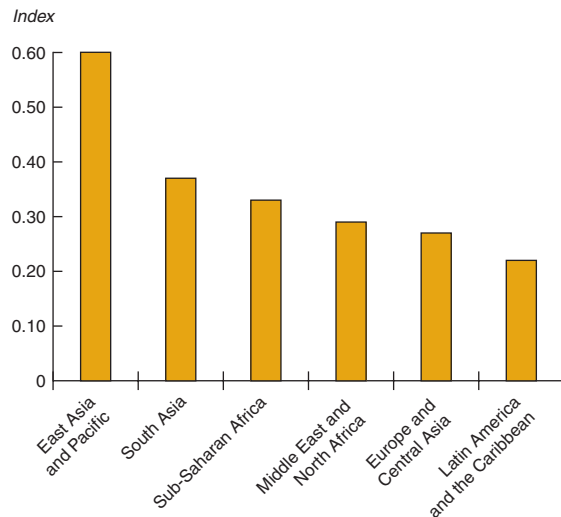
Table 3.3 Foreign ownership restrictions in banking sector, 2004 or latest available year

Percentage allowed	Country
Not allowed	Ethiopia
1%–49%	Algeria, China, India, Indonesia, ^a Kenya, Pakistan, Sri Lanka, Thailand, Uruguay ^a
50%–99%	Brazil, Arab Republic of Egypt, Malaysia, Mexico, the Philippines, Poland, Romania, Russian Federation
No restrictions	Argentina, Bolivia, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Hungary, Jamaica, Mauritius, Mongolia, Morocco, Mozambique, Nigeria, Paraguay, Peru, Republic of Korea, Senegal, South Africa, Trinidad and Tobago, Tunisia, Turkey, Uganda, Tanzania, República Bolivariana de Venezuela

Source: UNCTAD 2006.

a. Denotes 100 percent minus the government ownership percentage, that is, the share of business held by the private sector.

Figure 3.8 Restrictions on FDI in the banking sector, 2005



Source: World Bank staff estimates based on data from UNCTAD (2006).

Note: Regional averages are the simple average of the index for each country within the region. The country index is measured on a 0–1 scale, with 0 representing full openness and 1 a de facto prohibition. The index is based on government policies related to foreign bank ownership restrictions, screening and approval, and operational restrictions (in the order of highest weighted restriction to the lowest).

in the 1990s.⁶ Similarly, in Argentina foreign bank entry was permitted starting in the early 1990s but the privatization of state banks accelerated in the fallout of Mexico’s Tequila crisis. By contrast, in Brazil, where restrictions were eased in the late 1990s, foreign bank entry is still evaluated on a case-by-case basis (Peek and Rosengren 2000).

Other regions remain relatively less open to foreign bank entry (figure 3.8), although many East Asian countries, including Indonesia, Thailand, and the Philippines, lowered barriers to banking sector FDI following their 1997–98 financial crises (Coppel and Davies 2003). In China, where banking sector FDI traditionally has been limited, the country has recently taken steps toward liberalization in order to meet its WTO commitments.⁷ Countries in South Asia and the Middle East and North Africa also tend to have relatively high restrictions on foreign bank entry. India, for example, provides a limited number of licenses for opening branches and permits foreign banks to hold only a 5 or 10 percent equity stake in domestic private banks (and this only since

2005), with a few exceptions for stakes in selected domestic banks. Further liberalization for foreign bank acquisitions is expected in 2009. The Arab Republic of Egypt and Algeria have notable restrictions on foreign investment, although Morocco and Tunisia have no restrictions.

Technological progress has facilitated FDI in the banking industry

Innovations in data transmission, storage, and processing have facilitated the unprecedented growth of FDI in emerging economies’ banking sectors. Reliable global payment systems and real-time settlement systems across time zones have allowed intermediaries to increase the efficiency of back-office operations, thereby freeing up resources for front-office activities that permit them to enter new markets. Predictably, however, banks from developed countries have a marked advantage over local banks in developing countries in adopting new technologies because of easier access to required expertise and the economies of scale involved in already having absorbed the very high fixed costs of deploying the same technologies in their home operations.

Commentators have identified four areas in which technological progress has been especially important for the geographic expansion of banks. First, the dawn of market-segment and bank-specific credit-scoring methodologies, combined with the collection of borrower-specific information through credit bureaus, has allowed banks to more efficiently assess the creditworthiness of customers in new markets. As a result, banks have been able to lend over greater distances in both their home and foreign markets. Second, important innovations in risk management systems, often driven by the Basel II Accords, have allowed banks to increase the size of their balance sheets for a given capital base. Improvements in the quantification of expected losses for both individual positions (through credit scoring, for example) and aggregate exposures (through value-at-risk analysis, for example) and the analysis of balance-sheet behavior under alternative market scenarios have enabled banks to better account for the risks of moving into new markets. Third, improved instruments for securitization and hedging have helped banks better manage their international risk exposure (Barth, Caprio, and Levine 2001). Finally, new ways of collecting deposits and interacting

with customers—the Internet, automated teller machines (ATMs), and mobile phones—have improved access to finance for unserved or underserved residents of countries such as India, Kenya, the Philippines, South Africa, and Zambia.

Economic benefits of international banking

Developing countries stand to reap substantial gains from their increased engagement with the international banking industry. Access to international banking increases potential sources of credit to firms and households, enhances provision of sophisticated financial services, and encourages efficiency improvements in domestic banks, although the impact of all of these factors varies depending on the characteristics of banks and the policy and institutional environment of host countries. As a result of these influences, increased international banking in developing countries has helped ease credit constraints on firms, thereby contributing to growth and development.

Foreign banks have improved access to financial services

The ability of international banks to frequently offer more sophisticated, higher-quality, and lower-priced services than domestic banks to developing-country borrowers derives from several factors, including access to the technology, the presence of skilled personnel, and the ability to seize opportunities of scale in operational systems already in place in providing services to their domestic clients. For example, Arnold, Javorcik, and Mattoo (2007) document that foreign banks in the Czech Republic were the first or leading banks to offer ATM transactions and remote banking and that they have greatly sped up the process of loan applications. Garber (2000) notes the ability of foreign banks to offer new financial products such as over-the-counter derivatives, structured notes, and equity swaps. Levine (2001) cites a dramatic reduction in fees on letters of credit and letters of guarantee in Turkey following liberalization of bank entry rules. And Wooldridge and others (2003) highlight that foreign banks have also supported the development of local financial markets in many developing countries, particularly in local securities and derivatives markets by investing considerable

capital and expertise. Foreign banks participate as primary dealers in some local government bond markets, and as pension fund managers and swap dealers in other markets.

Increased foreign bank presence can also improve the soundness of the financial system by encouraging stronger regulation and supervision. Numerous studies have found that investments by foreign banks in developing countries spur improvements in bank supervision, with spillover effects that improve the structure of regulation (Goldberg 2004). Levine (2001) argues that foreign banks may encourage the emergence of institutions such as rating agencies, accounting and auditing firms, and credit bureaus, citing the example of improvements in supervision and accounting standards in Mexico as a consequence of opening the banking sector to U.S. institutions under NAFTA.⁸ Foreign bank entrants also can bring more advanced safeguards against fraud, money laundering, and terrorism financing, and domestic banks may emulate such safeguards to gain a competitive advantage in access to international financial markets.

Foreign banks have improved the efficiency of domestic financial systems

The entry of foreign banks may improve the efficiency of financial systems in developing countries, either because foreign banks are more efficient than their domestic counterparts or because competition from foreign banks in formerly protected and oligopolistic markets forces domestic banks to improve their own efficiency.⁹ Adequate levels of competition are generally viewed as important to reducing costs and increasing innovation in financial markets, while empirical work confirms that foreign bank entry has helped maintain competition during a process of banking consolidation in many developing countries (Gelos and Roldos 2004). An evaluation of data comparing the simple efficiency measures for foreign and domestic banks shows decidedly mixed results (table 3.4). In developing countries as a group, foreign banks average significantly higher overheads and costs, but lower loan loss reserves, than domestic banks. These results vary substantially by region, however, with Europe and Central Asia recording particularly efficient indicators for foreign banks. In Latin America and the Caribbean, foreign banks have had smaller net interest margins than

Table 3.4 Average foreign and domestic bank performance indicators in developing regions, 1998–2005

Category	Net interest margin (%)	Overhead to assets ratio (%)	Taxes to assets ratio	Loan loss reserves to assets ratio	Loan loss reserves to gross loans	Pretax profits to assets ratio	Cost to income ratio
Developing countries							
Domestic	7.27	5.72	0.53	4.51	8.32	1.69	69.60
Foreign	6.86	6.30	0.63	3.63	7.27	1.29	76.52
<i>East Asia and Pacific</i>							
Domestic	3.84	2.68	0.35	3.26	6.01	0.66	63.98
Foreign	3.83	3.03	0.57	10.35	11.85	2.04	62.10
<i>Europe and Central Asia</i>							
Domestic	7.71	6.55	0.67	5.24	8.13	2.08	67.86
Foreign	6.02	5.59	0.41	2.92	5.70	1.43	73.73
<i>Latin America and the Caribbean</i>							
Domestic	9.79	7.55	0.44	3.06	7.23	1.84	76.74
Foreign	7.83	8.05	0.83	2.74	7.52	0.63	81.30
<i>Middle East and North Africa</i>							
Domestic	3.57	2.16	0.25	5.84	12.66	1.08	59.78
Foreign	3.71	2.69	0.27	8.25	16.07	0.90	76.09
<i>South Asia</i>							
Domestic	2.85	2.52	0.44	2.47	6.35	0.92	64.75
Foreign	3.75	2.38	1.02	1.62	7.06	2.46	51.07
<i>Sub-Saharan Africa</i>							
Domestic	10.08	7.76	0.79	8.52	12.56	2.55	74.08
Foreign	9.07	7.24	0.81	3.31	5.54	1.89	81.40
Developed countries							
Domestic	2.63	2.20	0.27	1.92	3.19	1.01	59.78
Foreign	1.80	1.74	0.23	1.40	2.69	1.26	55.86

Source: World Bank staff estimates based on data from Bankscope.

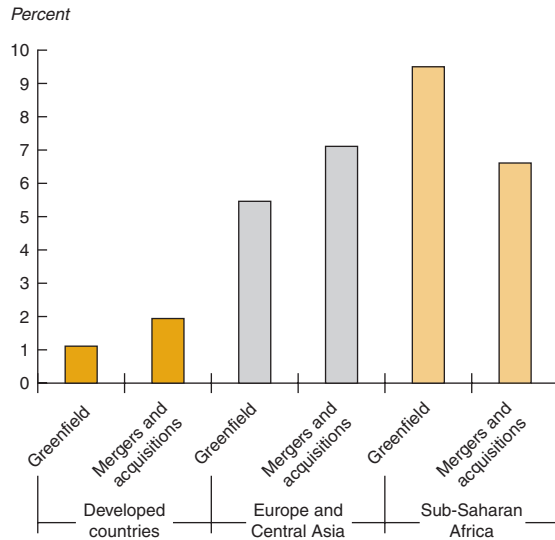
Note: Pairs in bold indicate difference in means of corresponding indicators for foreign and domestic banks and are statistically significant at the 10 percent level. Net interest margin is net interest income as a percentage of earning assets.

domestic banks but no difference in costs, whereas in Sub-Saharan Africa, foreign banks performed better compared with domestic banks but only significantly so in loan loss ratios.

These diverse results reflect the wide range of both foreign banks and domestic banking conditions in developing countries. Characteristics of foreign banks that might affect their efficiency include the efficiency and origin of the parent bank, the type of operation (such as wholesale versus retail), the motive (following the client versus market-seeking), the market share of the foreign banks, and the mode of entry (Berger and others 2008; Sturm and Williams 2005). Factors related to the host economy, such as initial financial, economic, and regulatory conditions, may also affect the efficiency of foreign banks. One factor affecting the relationship between efficiency and mode of entry is the advantage that a greenfield entry offers in allowing investors greater scope and choice in setting up a new facility, compared with an

M&A transaction, which is typically burdened by overhang costs and organizational structure in the existing business. Entry through M&A may involve higher organizational and operational costs, which may delay the improvement in efficiency of the foreign banks, although an immediate increase in the market share after acquisition may increase efficiency through economies of scale. The efficiency advantage of the new investment mode of entry is borne out by the experience of foreign banks entering Europe and Central Asia (as it is in developed countries as a whole), though not by the experience of Sub-Saharan Africa, where foreign banks entering through M&A have superior efficiency to those entering through greenfield investment (figure 3.9). In other regions the difference in efficiency associated with new investment and M&A mode of foreign entry is not sufficiently pronounced to project a clear point of view, in part because of a lower number of M&A transactions in South Asia.

Figure 3.9 Ratio of overhead cost to total assets in select regions, by mode of foreign bank entry, 1998–2005



Source: World Bank staff estimates based on data from Bankscope.

Foreign bank presence has helped ease domestic credit constraints on manufacturing firms

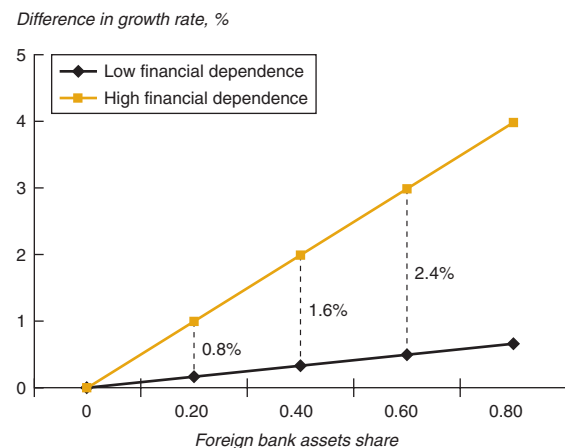
Access to international banking, whether cross-border or through foreign banks' local investments, increases the potential sources of credit available to developing-country firms. If markets are perfectly competitive and if all lenders have access to full information, foreign banks' increased access to technology, improved opportunities for risk diversification, and perhaps better corporate governance should enable them to offer lower interest rates and a higher volume of credit. However, barriers to information and limits on competition to protect safety and soundness are pervasive in financial markets, greatly complicating an analysis of the impact of foreign banks.

Most empirical studies conclude that the presence of foreign banks increases access to credit. For example, Giannetti and Ongena (2005), in a cross-country study using firm-level data, find that foreign lending increased growth in firm sales, assets, and leverage in Eastern European countries. (The effect was dampened, although still positive, for small firms.) A survey of firms operating in 35 developing countries suggests that all firms, including small and medium-size firms, report lower obstacles to obtaining finance in countries with higher levels of bank presence (Clarke, Cull, and Matinez

Peria 2006). Beck, Demirgüç-Kunt, and Maksimovic (2004) conclude that greater foreign bank presence tends to alleviate the impact of bank concentration on setting obstacles to credit access. Even if foreign banking tends to improve access to credit on average, the impact may vary significantly among countries or firms. Some studies have found that foreign banks tend to “cherry pick” the best borrowers, thus limiting credit expansion (Mian 2004; Detragiache, Gupta and Tressel 2006). Therefore, given the existing mixed empirical evidence, focusing on the informational requirements of banking and on the efficiency and real benefits of foreign bank presence can thus provide insight into the potentially differentiated impact and also help determine whether foreign banks might help to mitigate connected-lending problems and improve capital allocation.

Econometric analysis (detailed in annex 3A of this chapter) shows that foreign banks are particularly important for industries in developing countries that rely heavily on external financing. For instance, in a country in which the banking sector is 20 percent foreign owned, such as Brazil, the difference in growth between companies with low financial dependence (at the 25th percentile of all companies) and those with high financial dependence (at the 75th percentile) is less than 1 percentage point on average (figure 3.10). The difference increases exponentially when foreign bank presence is stronger. In countries where foreign ownership of the banking sector is 40–60 percent, such as Bolivia and Romania, companies

Figure 3.10 Real effects of foreign bank presence



Sources: World Bank staff estimates based on Bankscope and World Bank data.

with high financial dependence grow 1.6 and 2.4 percentage points more, respectively, than those with low financial dependence. As a whole, these results show not only the importance of foreign bank presence for industry growth in developing countries but also the crucial role of such banks in particular industries, namely, those most in need of external financing.

Transmission of financial shocks through the international banking system

The international banking industry's adjustment to the current global financial turmoil bears importantly on the prospects of foreign credit supply to developing countries. A large body of literature and empirical evidence indicates that banks tend to react to adverse financial conditions through balance-sheet adjustments in order to meet a variety of risk management standards (such as value at risk), performance indicators (return on equity), and regulatory requirements (Basel I or II). The response of Japanese banks to the stock and real estate market collapse of early 1990s, when they pulled back from foreign markets—including the United States—in order to reduce liabilities on their balance sheets and thereby meet capital adequacy ratio requirements, is indicative of how banks can transmit domestic financial shocks to foreign markets.

Three trends are important in the transmission of financial shocks to developing countries: first, mounting pressure on major banks' capital positions as they recognize balance-sheet losses; second, deteriorating liquidity conditions in interbank markets; and third, tightening credit standards in the face of global economic slowdown. The fact that all three transmission channels are currently operating simultaneously raises the possibility of a sharp global credit downturn, with particularly negative implications for developing countries whose corporate sectors depend on banks as their primary source of external financing. As of March 2008, credit write-downs and losses disclosed by major banking institutions exposed to U.S. subprime-related securities amounted to \$206 billion, with roughly one-half attributable to European banks (\$98.5 billion) and the rest attributable to U.S. banks (\$92.3 billion) and others

(\$15.2 billion). Because it seems too early to evaluate the implications of bank-specific balance-sheet problems on the overall banking sector's willingness to lend to developing countries, the following analysis focuses on developments in global interbank markets and the downturn in the lending cycle. A useful start would be to highlight some of the key characteristics of the top 200 international lenders to developing countries (box 3.2).

In the current grouping of the top 200 lenders to developing countries, 18 have experienced considerable credit deterioration and asset price losses from exposure to subprime-related securities and structured investment vehicles. Those not directly affected by the subprime turmoil have suffered from tightening liquidity conditions in global interbank markets and an associated rise in funding costs.

Tightening of global liquidity has heightened short-term funding pressures

Although bank borrowing in the interbank and commercial-paper markets has increased steadily since the early 1990s, short-term funding of lending activities skyrocketed after 2002, as liquidity in global financial markets increased because of easy monetary policy responses to the global slowdown in 2001. As a result, global banks have increasingly relied on short-term financing sources not only for managing liquidity but also for funding their balance-sheet expansion. In essence, banks have engaged in maturity transformation on an unprecedented scale, taking advantage of relatively steep yield curves by borrowing short and lending long.

In recent months, however, this strategy has exposed banks to interest-rate risk from maturity mismatch (flattening of the yield curve) and liquidity risk (the inability to roll over interbank debt). Though the former risk is related to monetary and macroeconomic conditions, the latter arises from counterparty risk (informational asymmetries among market participants). When perceived counterparty risk increases, as it has during the current financial market turmoil, banks become more reluctant to lend to each other. And since most interbank lending occurs among a clearly defined group of global institutions and leads to interrelated claims by the same group of institutions, denial of credit to some market participants is likely to be followed by a chain of denied credit

Box 3.2 Profile of the top 200 lenders to developing countries

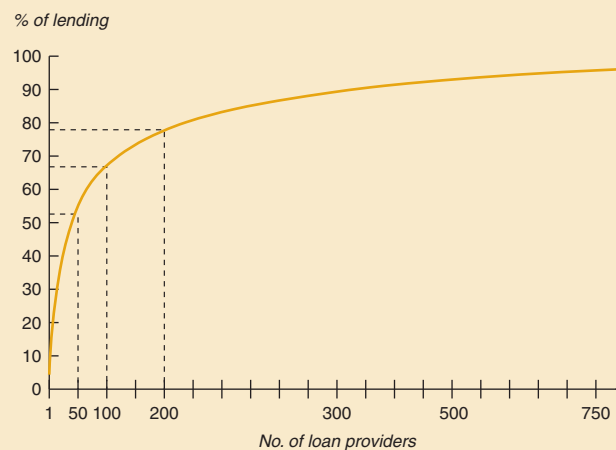
The universe of international banks with exposure to developing-country-based borrowers (a population of approximately 2,500) spans a large number of institutions of diverse size, country of origin, funding structure, balance-sheet health, and access to global interbank markets. The top 200 lenders include global banking giants such as ABN AMRO, Citigroup, Goldman Sachs, HSBC, Morgan Stanley, and Standard Chartered, which typically have exposure in multiple countries and provide a wide range of underwriting and investment banking services in addition to bank lending, as well as a multitude of smaller banks with more limited and focused exposure. By asset size, the top 200 lenders range from \$970 million (CIMB Investment Bank based in Malaysia) to \$2 trillion (UBS), as of end-2006.

The market share of the top 200 lenders is substantial: together, they account for about 80 percent of cross-border lending to developing countries. The top 50 lenders account for 50 percent (figure below).

Top lenders to developing countries entered the recent financial turmoil with strong profitability and sound capital positions (figures below), reflecting the strong performance of the banking industry during

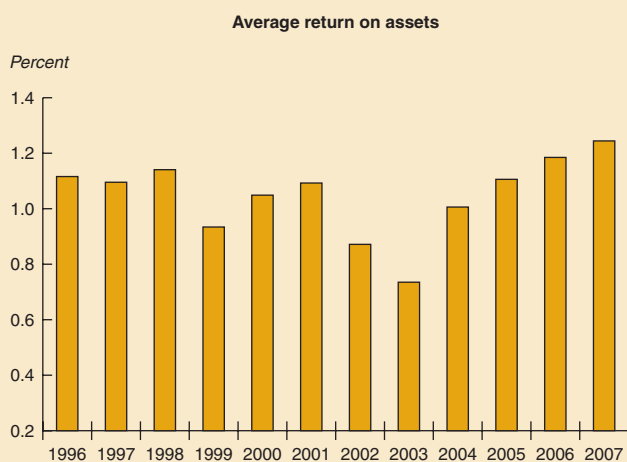
the boom years of 2002–06. Banks' ability to retain these percentages in coming months will reflect the severity of the credit squeeze.

Cumulative international bank lending to developing countries



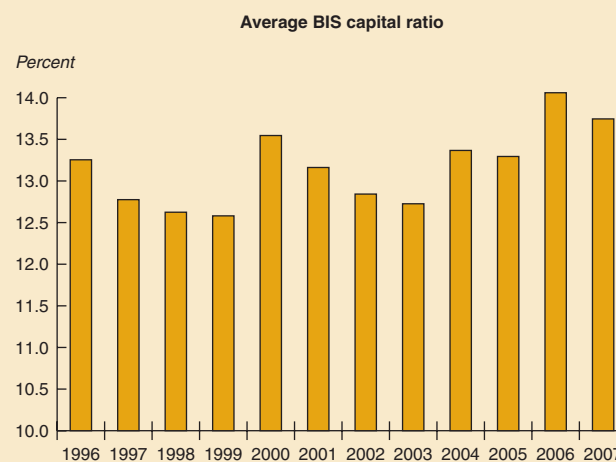
Source: World Bank estimates based on data from Dealogic Loan Analytics.

Top 200 lenders to developing countries



Source: World Bank staff calculations based on data from *The Banker*.

Note: BIS = Bank for International Settlements.



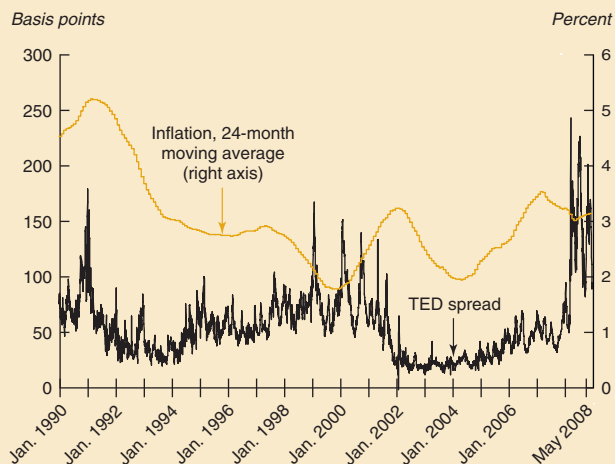
requests, thereby restricting the availability of liquidity. Several episodes since 1990 illustrate the mechanics of such liquidity strain in global interbank markets (box 3.3).

In the context of the current credit market turmoil, growing uncertainty about counterparty quality resulted in a significant tightening of liquidity conditions and a widening of spreads

Box 3.3 Global funding pressure, 1990–2008

Historically, the international banking industry has experienced periodic episodes of tight liquidity, as reflected by the peaks in spreads between LIBOR and U.S. Treasury bill or other central bank policy rates (figure below). In 1991–92, for example, several large U.S. banks suffered significant deterioration in the quality of their loan portfolios, causing spreads to peak. Interbank spreads jumped again during the Asian and Russian financial crises in 1997 and 1998, when the global banking system had accumulated large exposures to affected countries. Also revealing is the collapse of Long-Term Capital Management in late 1998, when 15 of the largest players in the interbank market had considerable exposure to the hedge fund. In that instance, during which the institutions' identity and extent of exposure were not known at the outset of the crisis, the market reaction was systemic, leading to generalized withdrawal of liquidity and a surge in interbank rates. Spreads over U.S. Treasuries jumped to 166 basis points. In August 2007, at the start of the current crisis, spreads over Treasuries shot up to 242 basis points and have remained elevated in the months following, despite massive liquidity injections by major central banks.

Spreads between LIBOR and U.S. Treasury bill rates, January 1990–May 2008



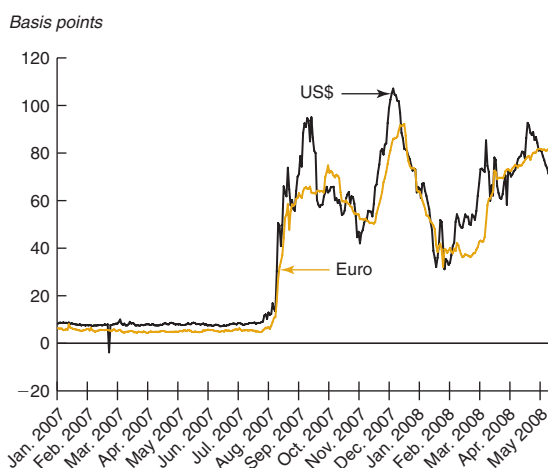
Sources: World Bank staff estimates based on data from Datastream and IMF International Financial Statistics.

Note: TED = Treasury-Eurodollar. The TED spread is the difference between the three-month U.S. Treasury Bill interest rate and the three-month LIBOR.

between three-month LIBOR and three-month overnight index swap rates (the LIBOR/OIS spread) from an average of 8 basis points in the first half of 2007 to 95 basis points in mid-September 2007.¹⁰ In the ensuing months the LIBOR/OIS spread remained at a level more than six times as high as its long-term average between January 1990 and June 2007, even after central banks injected massive amounts of liquidity into interbank markets (figure 3.11). The persistence of high LIBOR/OIS spreads suggests that factors beyond liquidity, such as counterparty exposure and informational asymmetries regarding market participants' credit quality, are affecting interbank markets.

To further investigate the link between global money-market conditions and international banks' lending to developing countries, we analyze how the availability of interbank liquidity, as measured by the LIBOR/OIS spread, affects the supply of credit to developing countries in a multivariate panel regression framework controlling for macroeconomic, institutional, and regional effects (see annex 3B for the underlying methodology and estimation). In general, the results reveal that deterioration in

Figure 3.11 Term liquidity spreads: three-month LIBOR/three-month OIS



Sources: World Bank staff calculations based on data from Bloomberg and Datastream.

interbank liquidity adversely affects lending to developing countries. As highly leveraged institutions, banks need to roll over a large proportion of their liabilities on a very short-term basis, and thus even a small rise in their cost of funding could translate

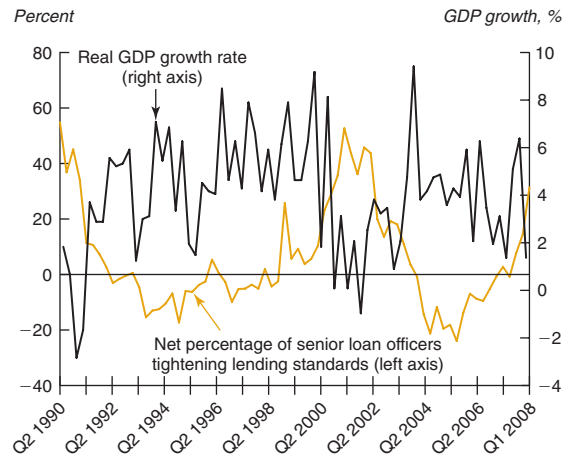
into a relatively large scaling back of lending. Not surprisingly, our empirical investigations show that an increase in the LIBOR/OIS spread by 10 basis points can be expected to lead to a net decrease in lending to developing countries by up to 3 percent. The estimations also show that uncertainty surrounding the availability of interbank liquidity hurts emerging-market lending. Thus, a 10 percentage point increase in the volatility of the LIBOR/OIS spread decreases credit to developing countries by 1 percent.

The credit cycle channel: tightening of credit standards

In general, credit supply moves procyclically over the business cycle. The underlying economic mechanism is straightforward: different phases of the business cycle provide different incentives for information collection (borrower screening), thus leading to varying degrees of competition among lenders and, ultimately, to different credit standards.¹¹ Given a pool of borrowers, average repayment probability varies negatively with the business cycle. Since a larger fraction of a borrower pool has access to credit in boom times (when lending standards tend to be more lax), loans originating at the height of the business cycle are precisely those with the most likely risk of default during an economic downturn. And because the pool of creditworthy borrowers appears larger during expansions, banks tend to compete more intensely for borrowers' business during those times, providing loans at lower margins and at softer terms and conditions and thereby reducing credit spreads.

While the procyclical character of bank lending is evident in the Federal Reserve's Senior Loan Officer Opinion Survey, the survey also suggests that lenders anticipate the competitive dynamics of credit cycles. As a result, credit standards typically turn earlier than the business cycle. In fact, the correlation between the fraction of U.S. banks reporting tightening of credit standards in the Federal Reserve survey and GDP growth is -0.47 , highlighting the anticipatory nature of credit standards that gives rise to procyclical lending cycles. As the United States recovered from a downturn in the early 1990s, lending standards became considerably more lenient; since mid-2005, however, standards have been rising (figure 3.12). In the European Union, lending standards began tightening in mid-2007 (figure 3.13). These observations about the procyclical nature of lending in developed

Figure 3.12 Reported tightening in U.S. lending standards for commercial and industrial loans, 1990–2008



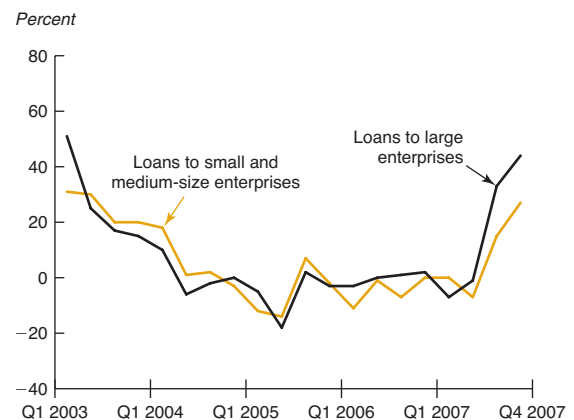
Sources: World Bank staff calculations based on data from U.S. Federal Reserve Board (2008) and U.S. Bureau of Economic Analysis.

Note: The net percentage of tightening is the percentage of senior loan officers who reported tightening minus the percentage of officers who reported easing in credit standards.

markets hold important lessons for the availability of credit in emerging markets.

Our multivariate regression results, in which we relate the (logarithm of) foreign bank claims on emerging economies to the fraction of U.S. banks reporting tighter credit standards in a given quarter, its lags, and macroeconomic and institutional

Figure 3.13 Reported tightening in EU lending standards, by size of enterprise, 2003–07



Source: ECB 2008.

Note: The net percentage of tightening is the percentage of banks that reported tightening minus the percentage of banks that reported easing in credit standards.

control variables, confirm the predictions in the literature.¹² Based on estimates reported in table 3B.2, it can be inferred that a 10 percentage point increase in banks' credit standards decreases lending to emerging economies by up to 0.7 percent. The results are even more pronounced in the first-difference specifications, where emerging-market lending decreases up to 1.2 percent in the following quarter for a similar change in credit standards in the current period.

However, interbank funding pressures and tightening credit standards do not affect developing countries in a uniform manner: country size and regional factors seem to matter for their access to foreign credit. Econometric investigation of the interaction between country size (as measured by GDP) and regional factors with interbank liquidity and lending standards suggests that, because of the frequency and volume of their borrowing needs, larger countries are more severely affected than smaller countries by the tightening of liquidity conditions. By contrast, because large countries typically offer better economic and financial prospects and are perceived as less risky than smaller countries, they are not differentially affected by tightening of credit standards during economic downturns. By region, it appears that tightening liquidity conditions tends to affect lending to Europe and Central Asia and Latin America much more than elsewhere. Also, because foreign banks dominate lending to borrowers in Europe and Central Asia, the region seems particularly vulnerable to the procyclical behavior of bank lending during periods of global economic downturns.

Taken as a whole, our analysis shows that two overriding factors shaping the current global lending environment—tight interbank liquidity and rising credit standards—are likely to have tangible negative effects for the availability of credit to developing countries. Although successive coordinated measures by major central banks, including the U.S. Federal Reserve, ECB, Bank of Canada, Bank of England, and Swiss National Bank (SNB), to expand their provision of liquidity through a term auction facility in the United States and currency swap arrangements managed by the ECB and the SNB and to provide liquidity in exchange for a widened set of collateral, have helped stabilize market conditions to some extent, persistently high interbank spreads seem to point to high counterparty credit risk and an overall transition in the

international banking system away from high levels of credit securitization and leverage. The practical impact of such developments is already visible in the market for syndicated bank lending to developing countries, with both the volume of deals signed and total deal value recording a sizable drop in the fourth quarter of 2007 and the first quarter of 2008 compared with the same periods in the previous year.¹³ Also indicative of tighter financing conditions are higher spreads asked for some borrowers—for example, Sberbank, Russia's largest bank, paid a margin of 45 basis points on its latest loan in December 2007, 15 basis points more than it did in 2006—and the fact that some deals are failing to attract the necessary traction among investors. Indeed, for a country such as Kazakhstan, where 96 percent of total foreign claims on the country are denominated in foreign currency (and in which 65 percent of these claims are on the banking sector), heightened pressures in global interbank markets could translate into severe funding constraints on the country's banking sector.

In contrast to the current financial market turmoil, which originated squarely in developed markets and is spreading to developing countries, the case of Argentina in the early 2000s illustrates the reaction of foreign banks to turmoil that began in a developing country, where they had a significant presence. On the eve of the crisis, foreign banks accounted for almost 50 percent of Argentina's banking assets, as foreign bank entry had accelerated in the second half of the 1990s supported by the progress in the privatization program. Following the crisis in 2001, the reaction of foreign banks to the crisis varied significantly. Some banks maintained their assets, whereas others opted to exit. As a result, there was a sizable decline in foreign bank presence and asset ownership in Argentina. Several of these foreign banks also had a major presence in other countries in the region. While some banks reoriented their regional activities, there was limited spillover to other countries in the region, as detailed in box 3.4.

Macroeconomic consequences of international banking

Growing foreign bank presence has important macroeconomic management and financial stability implications for developing countries.

Box 3.4 Foreign banks' reaction to the Argentine crisis

In response to severe economic and currency distress in Argentina in 2001, the government adopted a policy of conversion of U.S. dollar-based assets and liabilities into pesos (pesofication) and mandatory rescheduling of term deposits. The pesofication of highly dollarized bank balance sheets resulted in a disproportionate decline in the value of bank assets and corresponding equity losses. Subsequently, the government implemented a sequence of measures in the banking sector, including restrictions on deposit payouts, capital controls, suspensions of enforcement of judicial foreclosure procedures, and restoration of depositors' rights to the full original dollar value of their frozen deposits (de la Torre, Levy-Yeyati, and Schmukler 2002).

The reaction of foreign banks to the crisis and the government's subsequent measures varied dramatically: some institutions maintained their assets, while others sold off everything. Of the top five foreign banks in Argentina at the time, which accounted for 35 percent of banking sector assets in 2000, two Spanish banks, Banco Santander, and BBVA, maintained their shares in the country (left-hand figure below). U.S.-based BankBoston and

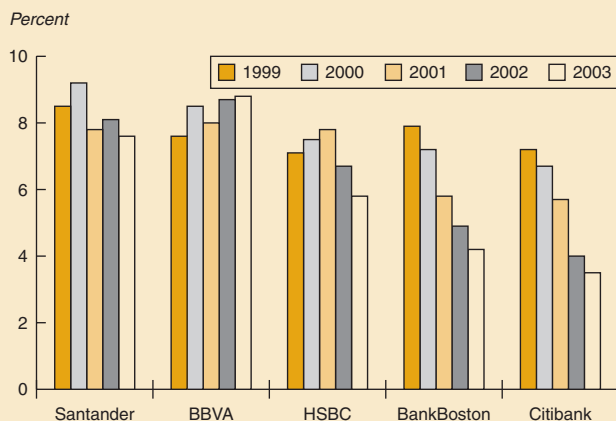
Citibank and U.K.-based HSBC decreased their interest significantly. In all, 10 foreign banks opted to exit Argentina. In 2002 (within a year of the crisis), four foreign banks shut down either voluntarily or after the cancellation or revocation of their banking licenses.^a In 2003, six more foreign banks left the country.^b As a result, foreign banks' share of assets fell to 24 percent in 2004—down from 52 percent in 2000—and recovered only marginally to 31 percent in 2006.

As a result of the crisis, several foreign banks reoriented their regional activities in Latin America. HSBC, for example, entered the Mexican market in 2001. The bank left Brazil in 2005. BBVA left Bolivia in 2002. Citibank entered Mexico with its record-size acquisition of Banamex in 2001 (right-hand figure below). All in all, however, foreign banks maintained their share of banking sector assets in the largest Latin American economies.

a. Banco Exterior de America (Uruguay), Chase Manhattan Bank (United States), Mercobank (Chile), and Banco do Estado de São Paulo (Brazil).

b. Scotiabank Quilmes (Canada), Banco General de Negocios (Switzerland), Banco Velox (Uruguay), Banco Bisel (France), Kookmin Bank (Korea), and Credito Argentino Germánico (Germany).

Top five foreign banks' share of Argentina's banking sector assets



Source: World Bank staff estimates based on data from Bankscope.



Two aspects in particular warrant attention at the current juncture: domestic credit booms, and the diminished ability of monetary authorities to influence market lending rates through changes in short-term money-market rates. Regarding the former, private credit in a sample of 29 developing countries has expanded more than 40 percent per year, on average, over 2003–06, whereas

inflation and economic growth in those same countries have averaged 8.8 percent and 7.1 percent per year, respectively.¹⁴ This observation calls for explanation and caution. Although the underlying pattern of high domestic economic growth and financial deepening (the latter of which is defined as the ratio of private credit to GDP or the ratio of broad money supply to GDP) in these countries

Table 3.5 Characteristics of selected developing countries with large private credit growth

Country	Annual private credit growth, % (2003–06)	Annual deposit growth, % (2003–06)	Share of foreign assets in banking, % (2003–05)	Total overseas borrowing by banking sector, \$ millions (2003–06)	Annual GDP growth, % (2003–06)	Annual inflation, % (2003–06)
Venezuela, R. B. de	76.6	61.8	34.1	313	7.8	20.6
Kazakhstan	69.0	61.0	25.7	24,193	9.8	7.4
Azerbaijan	63.4	52.3	2.9	208	20.6	6.1
Latvia	56.1	39.6	48.1	2,011	9.6	5.6
Albania	55.4	16.5	76.9	—	5.5	1.9
Ukraine	54.4	44.3	27.0	4,620	7.8	9.2
Belarus	53.3	43.1	16.0	203	9.5	16.0
Romania	49.1	34.6	55.1	2,522	6.4	10.7
Lithuania	47.3	31.2	91.7	126	8.2	1.6
Kyrgyz Republic	44.1	33.9	79.2	—	4.1	4.2
Russian Federation	43.8	37.9	12.1	51,203	6.9	11.7
Armenia	36.3	24.6	44.5	—	13.0	3.8
Bulgaria	35.0	32.0	72.7	1,179	6.0	5.2
Argentina	28.2	19.3	29.0	1,340	8.9	8.5
India	28.1	18.5	5.0	12,472	8.8	4.4

Sources: World Bank staff estimates based on data from IMF International Financial Statistics, Bankscope, Dealogic DCM Analytics, and *World Development Indicators* (various years).

Note: The mean of annual private credit growth over 2003–06 for all developing countries is 25.6; the median is 22.3; and the standard deviation is 18.1; — = not available.

has increased the scope for banks' expansion, rapid growth in private credit would inevitably need to be funded by foreign sources.

Foreign banks have contributed to domestic credit creation in developing countries

Some developing countries, especially those in Europe and Central Asia, have generally experienced swift private credit expansion in recent years, buttressed by strong economic growth and financial deepening. For some of these countries, though, deposit growth is lagging behind credit growth. In these cases, two other factors seem to have contributed to fast credit expansion. First, the banking sector in some countries has borrowed extensively from foreign markets and used external funds to finance domestic credit creation, as evidenced in Kazakhstan, Latvia, Romania, Russia, and Ukraine, and, to a lesser extent, India. Second, the foreign bank presence in some countries is significant. Foreign banks' strong financial footing and easy access to external funding have facilitated credit creation in such countries as Albania, Armenia, Bulgaria, the Kyrgyz Republic, and Lithuania. As shown in table 3.5, sometimes the two factors work in tandem, that is, foreign bank presence may increase access to the external funding market.

By further examining the 29 developing countries with the fastest private credit growth over 2003–06, we find that growth of private credit and its association with foreign bank presence are generally recent phenomena—between 2000 and 2006,

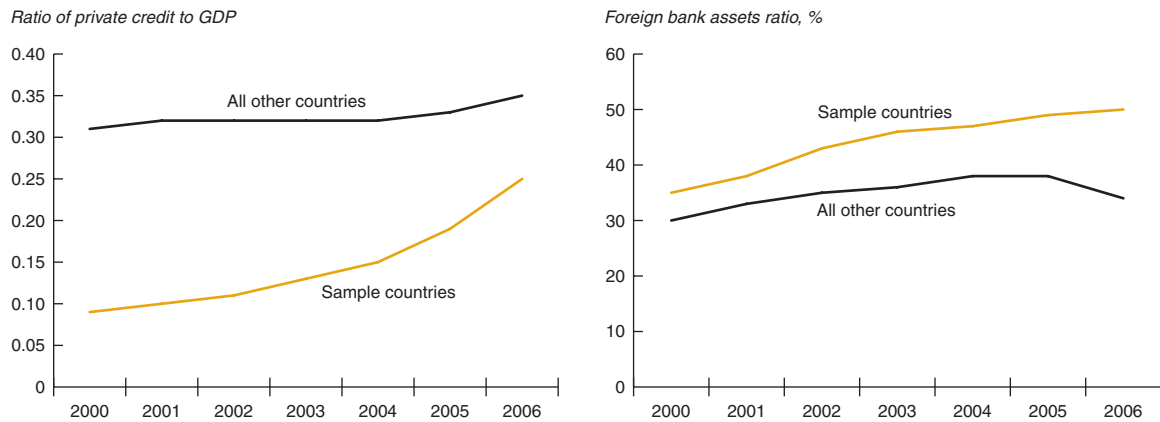
the average ratio of private credit to GDP in these countries grew from 10 percent to 25 percent (left panel of figure 3.14). Foreign bank assets as a percentage of domestic banking sector assets in the same sample of countries also increased substantially over the same time frame—from 36 percent in 2000 to 50 percent in 2006 (right panel of figure 3.14).

Econometric analysis of a large sample of developing countries over 1995–2005 further supports the contention that a positive and statistically significant relationship exists between foreign bank presence and private credit growth after controlling for country-specific macroeconomic, institutional, and financial sector development indicators, as well as for foreign borrowing by domestic banks.¹⁵

Foreign bank presence appears to have weakened the transmission of monetary policy

Monetary policy has played an increasingly important role in the macroeconomic management approach of many developing economies in recent years. Alongside that trend, the question of how foreign bank presence affects the transmission of monetary policy has also gained prominence. As central banks emphasize the market orientation of their monetary policy through open-market operations and the liberalization of domestic interest rates, one key mechanism of monetary policy transmission is the link between the bank lending rate and the short-term money-market rate.

Figure 3.14 Private credit growth and distribution of foreign bank assets in developing countries



Sources: World Bank staff estimates based on data from Bankscope and IMF International Financial Statistics.

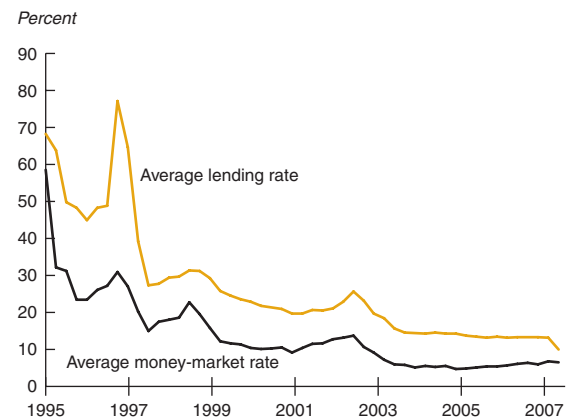
The debate on the role of foreign banks in the transmission of monetary policy in developing countries centers around two opposing views: first, that higher foreign bank presence strengthens transmission because it enhances financial sector efficiency and depth; and second, that foreign banks are less responsive to domestic monetary policy impulses because they have access to a large pool of external funds beyond the control of the monetary authority.

In both cases, the structure of the financial system is of utmost importance in the functioning of the monetary transmission mechanism. Specifically, the effectiveness of market-oriented policy instruments depends critically on the sophistication of and competition in the financial sector. For the asset price channel to be operative, changes in the money-market rate—the interest rate typically targeted by central banks—must be passed on to the asset prices relevant to households’ and firms’ decisions about how much to consume, invest, and produce. In an underdeveloped financial system, however, financial markets other than the money market may not exist and money-market rates may be decoupled from the relevant asset prices, undermining the effectiveness of open-market operations. Greater competition in the banking sector induces a tighter pass-through between policy interest rates and lending rates, thus enhancing the efficacy of monetary policy. Noncompetitive pricing, on the other hand, potentially including asymmetric responses to increases or decreases in the cost of reserves, creates a gap between money-market rates and lending rates, thus impairing the

ability of the central bank to influence the relative prices.

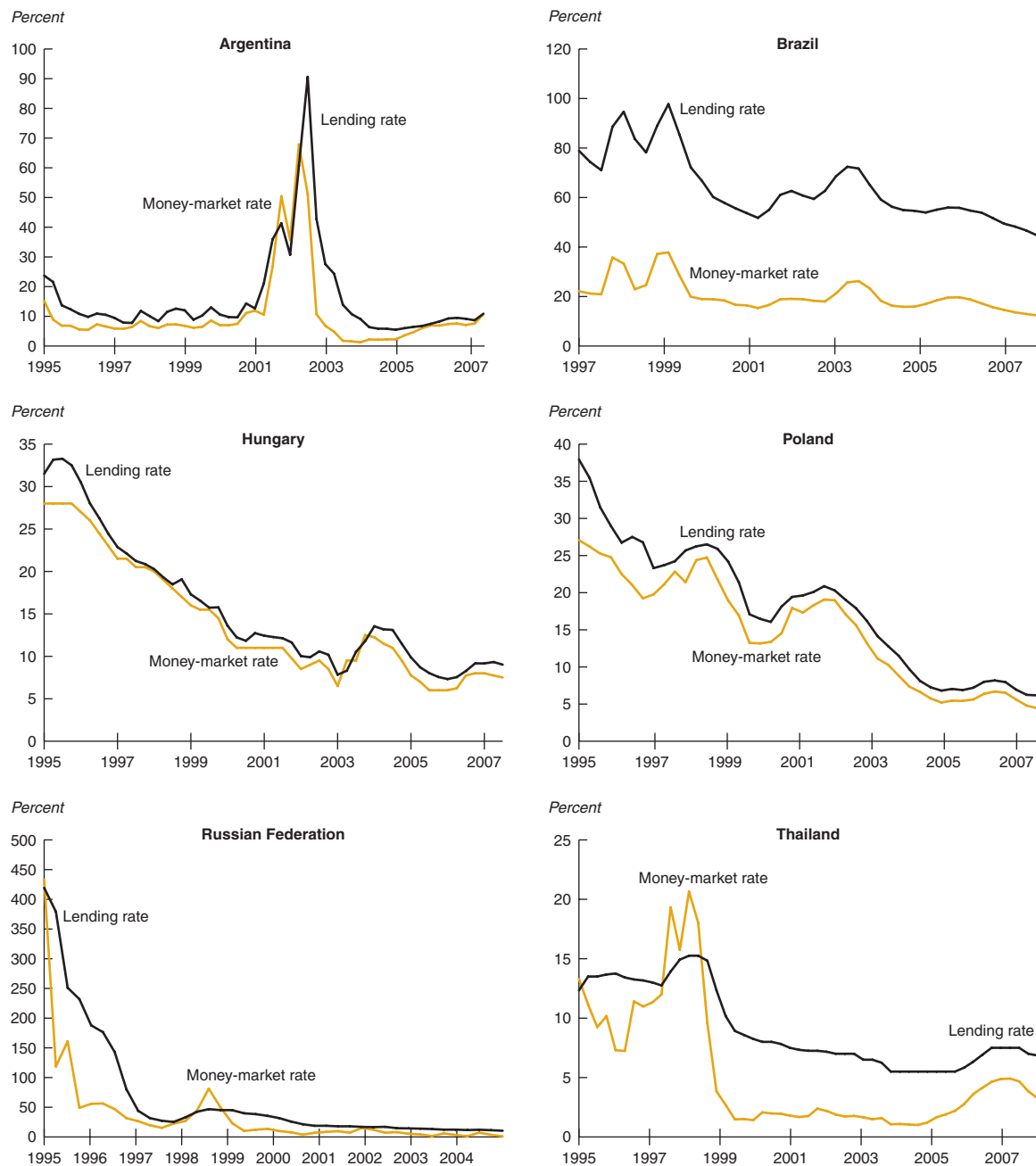
Figure 3.15 shows the evolution of average money-market and lending rates for a sample of 22 developing countries. Figure 3.16 shows the evolution of interest rates for individual countries, several of which have experienced banking crises during the period examined. The fairly consistent decline in both rates over the past decade evident in both aggregate and country experience is noteworthy, reflecting in part the success these countries have achieved in lowering inflation, as well as in deepening their financial systems. Nevertheless, there is still a fairly high pass-through from money-market rates to lending rates: on average, the correlation coefficient is 0.84.

Figure 3.15 Average money-market and lending rates in 22 developing countries, 1995–2007



Sources: World Bank staff estimates based on Bankscope and IMF International Financial Statistics.

Figure 3.16 Average money-market and lending rates for a sample of countries



Sources: World Bank staff estimates based on data from Bankscope and IMF International Financial Statistics.

Annex 3C presents an econometric analysis of the pass-through from money-market rates to lending rates in developing countries. The results suggest that economies with deeper financial systems are associated with *lower* lending rates and a *higher* pass-through from money-market rates to lending rates. The results also show that although

higher foreign bank presence does not seem to affect lending rates, it *reduces* the pass-through from money-market rates to lending rates. This result is consistent with the view that foreign banks are less sensitive than domestic banks to domestic monetary conditions because of their ability to access international capital markets.

Country experiences with the monetary transmission mechanism

Successful implementation of monetary policy in any country requires a solid framework that conditions the monetary transmission mechanism. Under an inflation-targeting regime, the central bank typically has direct influence on overnight interbank lending rates and thus indirectly influences interest rates across the entire term structure. In the case of Brazil, which adopted an inflation-targeting regime in June 1999 following a currency crisis, and in which there is a moderate degree of foreign bank presence, the pass-through from money-market rates to longer-term lending rates has been strong, with an estimated correlation coefficient of 0.90 over 1999–2007. In the Slovak Republic, which adopted an inflation-targeting regime in January 2005 following accession to the European Union in 2004, and in which there is very high foreign bank presence, the correlation coefficient of money-market and lending rates over the same period is lower, at 0.82, suggesting a weaker pass-through than in Brazil.

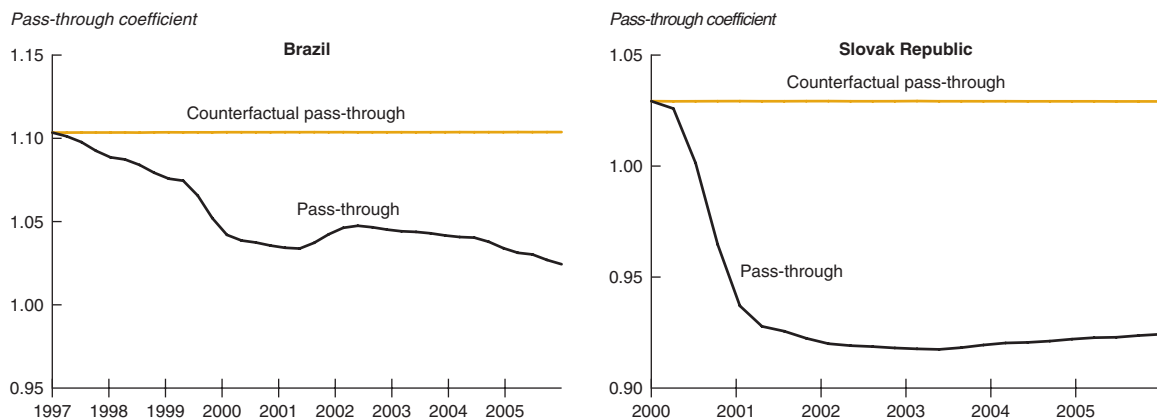
In the Slovak Republic, the government had undertaken widespread banking sector privatization and restructuring starting in 1998. The reforms allowed foreign institutions to behave more competitively and within a few years, they dominated the banking sector. Between 2000 and 2005, the share of banking sector assets held by foreign banks soared from 26 percent to 91 percent. (Of those foreign-held assets, the vast majority are currently held by

just a few banks.) Concurrently, the percentage of foreign-owned banks in the total number of banks increased dramatically, from approximately 48 percent in 2000 to 94 percent in 2005.

There has also been a consistent increase in banking sector assets held by foreign banks in Brazil, from less than 5 percent in 1995 to more than 25 percent in 2005. Over the same years, the percentage of foreign-owned banks in the total number of banks increased from roughly 22 percent to 35 percent. These trends reflect the fact that a large number of small foreign banks was already present in Brazil in 1995 and that in the following decade a small number of very large foreign banks entered the country. Indeed, of the current 12 largest private banks, 5 are based in Europe and 2 are based in the United States.

To more rigorously test the hypotheses that an increase in foreign bank presence reduces the pass-through of money-market rates to lending rates and that an increase in financial depth, as measured by the ratios of domestic credit to GDP and broad money (M2) to GDP, increases the pass-through, we constructed a measure of the pass-through from money-market rates to lending rates in Brazil and the Slovak Republic based on the regression results reported in annex 3C (figure 3.17). Specifically, the pass-through is defined as the sensitivity of the average lending rate to a unit change in the money-market rate. For Brazil, the solid line in the figure shows the estimated long-run pass-through, while the dashed line shows the pass-through if foreign bank presence had remained constant at the 1995

Figure 3.17 Evolution of the pass-through of money-market rates to lending rates



Source: World Bank staff estimates based on data from Bankscope and IMF International Financial Statistics.

Note: The pass-through coefficient measures the long-run elasticity of lending rates with respect to changes in money-market rates. A value higher than 1 means that a 1 percent increase in the money-market rate leads to an increase of more than 1 percent in lending rates in the long run.

level and all other variables were allowed to take their observed values. For the Slovak Republic, the dashed line shows the pass-through if foreign bank presence had remained at the 2000 level.

A number of results follow from the analysis of Brazil. First, the estimated pass-through coefficient is higher than 1.00, meaning that each percentage point increase in money-market rates translates to an increase in lending rates of more than 1 percent. Second, the pass-through decreases as foreign bank presence increases. However, notice that the level of the pass-through is approaching 1.00, which is consistent with the view that foreign banks increase competition in developing countries. Indeed, in a perfectly competitive financial market, the pass-through should be 1.00. Finally, even though M2/GDP in Brazil increased in the observed period, the counterfactual pass-through is roughly constant because of the very small coefficient that the ratio of M2/GDP has in the pass-through regression equation. It should be stressed, however, that M2/GDP helps explain the reduction in the gap between lending rates and money-market rates.

In the Slovak Republic, the large increase in foreign ownership of the banking sector in 2000–02 is reflected in a significant decrease of the pass-through coefficient, which dropped from 1.02 to 0.93. The slight recovery of the pass-through coefficient starting in 2003, however, mirrors the small decline in foreign ownership over the same years. Overall, the figure suggests that monetary policy could have become less effective as foreign presence increased in the Slovak Republic's banking sector.

Policy lessons and agenda

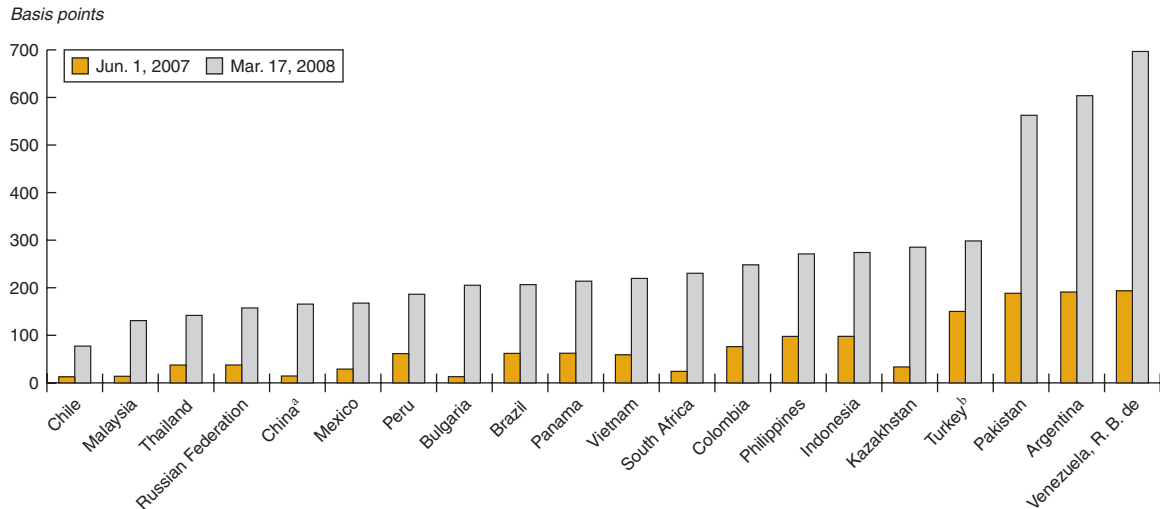
The broad contour of public policy challenges currently facing developing countries can generally be divided into two categories: urgent measures geared toward enhancing resilience and minimizing adverse consequences in the face of ongoing global turmoil; and longer-term actions and initiatives intended to maximize the potential of the increasing globalization of the international banking industry. Given the considerable diversity across developing countries regarding the vulnerability of their banking sectors to global shocks (or, more broadly, vulnerability of their economies to a downturn in global growth), as well as the range of policy options available for capitalizing on banking industry globalization, a tailor-made approach is needed.

Policy makers should strengthen their capacity to detect risks and calibrate their policy responses

The nexus of global slowdown and financial turmoil is most daunting for two groups of countries: those with large external imbalances financed largely through financial intermediaries that themselves depend on international markets for funding; and those in which foreign banks dominate the domestic banking sector. At the same time, all developing countries, however, are being affected by heightened risk aversion and financial anxiety. As such, the cost of default protection on emerging-market sovereign debt, a key indicator of investor risk aversion and sentiment, has increased for virtually all developing countries active in international capital markets. As shown in figure 3.18, emerging-market sovereign five-year credit default swaps in a sample of 20 countries traded at an average of 73 basis points in June 2007, with a relatively low dispersion among countries. By March 2008, spreads had escalated to an average of 267 basis points, and dispersion among countries had widened significantly.

It is crucial that policy makers in emerging-market countries renew their commitment to the sound policies of the recent past and recognize the implications of changes in the financial climate. Sustaining and extending the structural changes and institution-building efforts that have made emerging markets' continued integration into global capital markets possible should command high priority, as should strengthening regulation and supervision aimed at limiting currency and maturity mismatches. Although past efforts toward macroeconomic stabilization and external debt management have contributed to the relative resilience of emerging economies during the recent financial turmoil, these countries still need to intensify efforts to monitor foreign borrowing by their banks and risk management strategies pursued by their corporations with access to external debt markets. Policy makers in developing countries need also to come to terms with the likelihood of a higher cost of credit in international markets in the medium term as global markets find a post-subprime-crisis equilibrium. The fact that LIBOR rates in all currencies and maturities have spiked on several occasions since August 2007 indicates that heightened funding pressure is not likely to unwind soon unless the underlying structural factors—high counterparty

Figure 3.18 Risk premiums have increased across emerging economies, as shown by spreads on five-year credit default swaps



Source: Bloomberg.

a. Export-Import Bank of China.

b. As of July 19, 2007.

risk, banks' reluctance to lend to each other, and uncertainty about valuation of structured finance products—are addressed.

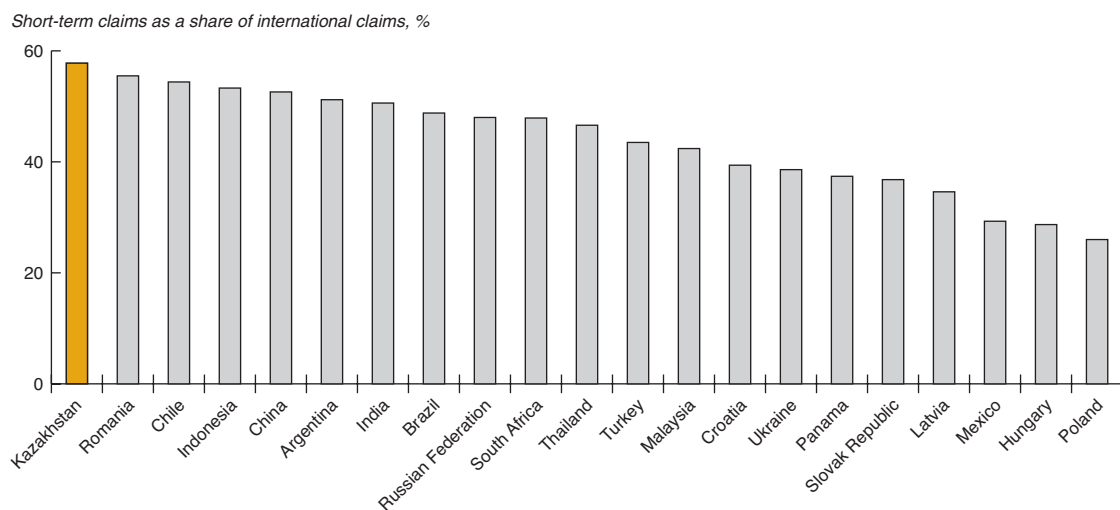
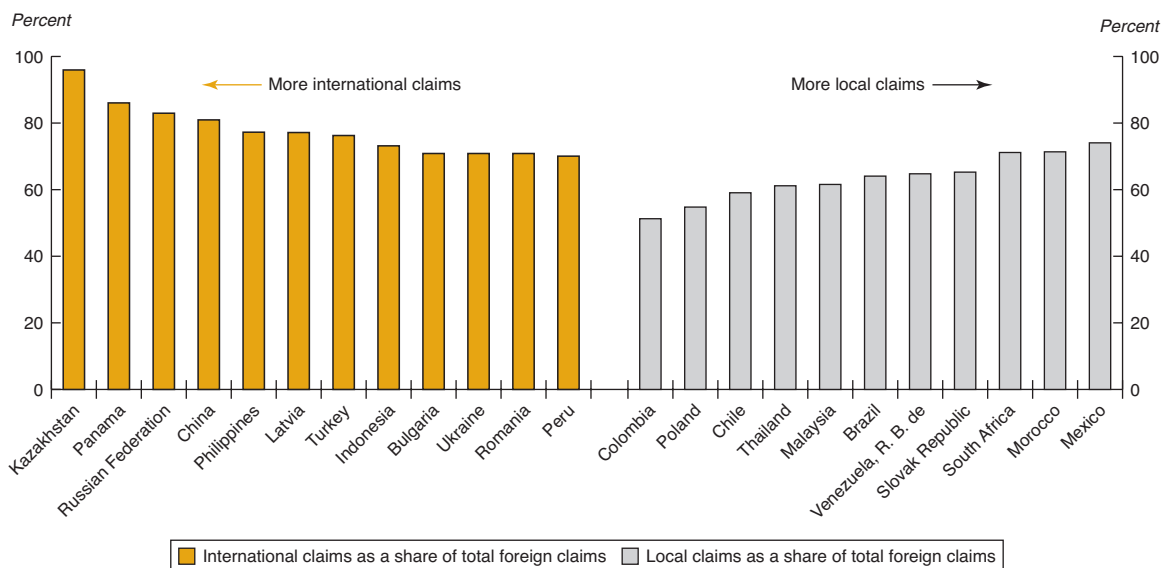
The fact that foreign banks involved in developing countries tend to have a significant regional focus, multiple-country exposure, and dominant market share in several countries highlights the need for a customized policy response. So too does the fact that developing countries have diverse degrees of international versus local claims and that they hold varying shares of their foreign debt in short-term maturity (figure 3.19). When foreign banks lend to multiple countries, they can serve as a source of financial contagion in those countries through common-lender effects. Ten major international banks, including Citibank, Commerzbank, ING, Natixis, and Société Générale, have lending exposure to at least 50 developing countries, and 47 banks have exposure to at least 30 developing countries (figure 3.20). In several developing countries, just one or two foreign banks have a dominant position in the banking sector, posing the risk of serious macroeconomic consequences from the failure of a single bank. In Albania, for example, Austria's Raiffeisen Bank holds nearly half of banking sector assets; in Mexico, almost 50 percent of banking sector assets are held by two foreign banks (table 3.6).

Global approach to cross-border banking regulation, transparency, and soundness is called for

With its capacity for straddling multiple jurisdictions and its role as the primary conduit for fund transfer across national borders, the international banking industry inspires policy debate not only within the international financial community but occasionally also within the international political arena. In many respects, international banking institutions are the most powerful private transnational actors on the global financial stage, linking economies through their lending, deposit-taking, and foreign exchange operations. However, the reality that the international banking industry still falls well short of a fully integrated system and that bilateral investment treaties constitute the dominant international legal mechanism for the promotion and governance of FDI in the banking sector means that foreign bank operations in developing countries will continue to be the focus of intense public policy attention regarding matters such as competition, monetary policy autonomy, credit to the corporate sector, asset bubbles, capital flight, and compliance with anti-money-laundering standards.

Credit market turmoil in developed markets in recent months has exposed weaknesses in the prevailing regulatory framework and in market

Figure 3.19 Composition of foreign claims in select developing countries as of third quarter 2007



Sources: Bank for International Settlements; World Bank staff calculations.

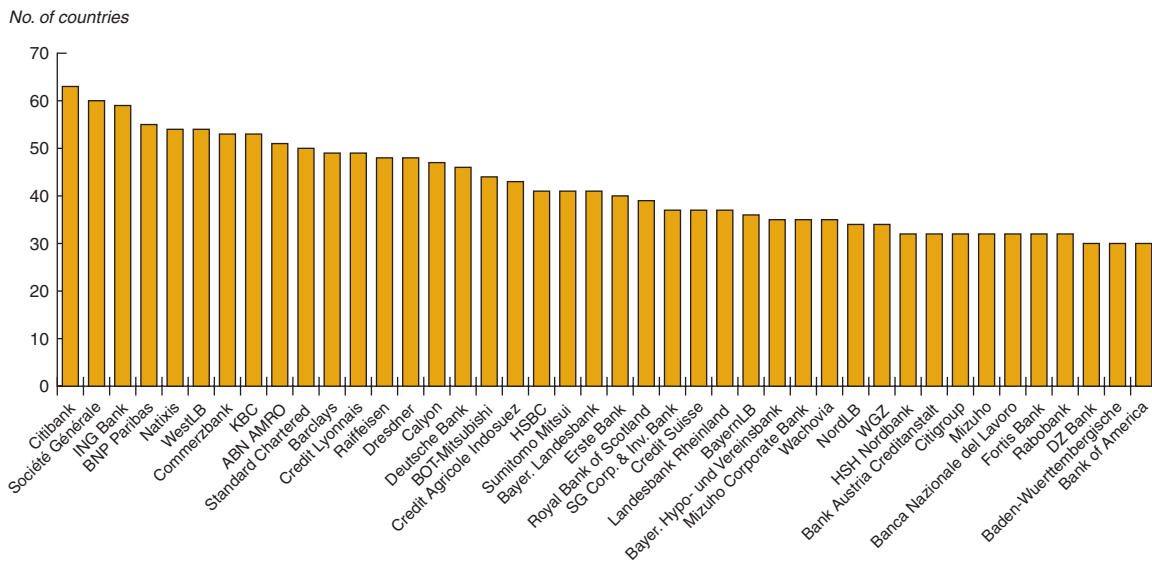
incentives that have promoted a high degree of credit securitization, complex investment vehicles, and global competition among banks. Lack of transparency in financial markets severely hampered the ability of investors to identify exposures. In the lead-up to the crisis, regulatory pressures prompted major commercial banks to minimize balance-sheet exposures by developing off-balance-sheet investment vehicles (such as conduits and structured investment vehicles). Moreover, credit rating agencies greatly understated default risk in the subprime mortgage market, which has since

prompted serious discussion of how best to improve the quality of the rating process, while recognizing the important role that credit rating agencies play in evaluating risk and disseminating information to investors and other market participants.

International policy coordination needs to be enhanced among developed countries

Given the extent of cross-border exposures, coordination of financial regulation is also necessary in the present environment, as inadequate regulation in one country can have major repercussions

Figure 3.20 International banks with cross-border lending exposure to at least 30 developing countries, 1993–2007



Source: World Bank estimates based on data from Dealogic Loan Analytics.

Table 3.6 Developing countries with highly concentrated foreign banking assets, 2005–06

Host country	Number of banks	Foreign bank	Home country	Host country banking sector assets held by the foreign bank (%)
Albania	13	Raiffeisen International Bank	Austria	44.6
Lithuania	9	SEB AB	Sweden	33.7
Angola	11	Banco BPI	Portugal	29
El Salvador	13	Bancolombia	Colombia	26.4
Botswana	6	Barclays Bank	United Kingdom	26
Mozambique	10	Banco Comercial Portugues—Millenium	Portugal	25.9
Swaziland	5	Standard Bank	South Africa	24.6
		Nedbank	South Africa	17.8
Uganda	16	Standard Bank	South Africa	24.6
Mexico	35	Banco Bilbao Vizcaya Argentaria—BBVA	Spain	24.3
		Citibank	United States	20.8
Slovak Republic	17	Erste Bank	Austria	22.2
Croatia	37	Unicredito Italiano	Italy	21.4
Zambia	9	Barclays Bank	United Kingdom	21.3
		Standard Chartered Bank	United Kingdom	14.9
Ghana	16	Standard Chartered Bank	United Kingdom	21.2
		Barclays Bank	United Kingdom	20.4
Bosnia-Herzegovina	29	Raiffeisen International Bank	Austria	20.7
Romania	28	Erste Bank	Austria	20.1
Côte d'Ivoire	13	Société Générale	France	19.2
Macedonia	17	National Bank of Greece	Greece	18
Madagascar	6	Calyon	France	17.7
		Bank of Africa	Benin	10.4
Paraguay	13	Unibanco	Brazil	16.4
Bulgaria	29	OTP Bank	Hungary	15
		Unicredito Italiano	Italy	9.9
Poland	49	Unicredito Italiano	Italy	13.9
Serbia and Montenegro	47	Raiffeisen International Bank	Austria	12.9
Cameroon	12	Banque Fédérale de Banques Populaires	France	11.9

Source: World Bank staff estimates based on data from Bankscope.

on others. To this end, at their April 2008 meeting in Washington, G-7 finance ministers discussed a Financial Stability Forum (2008) report that recommended steps to tighten regulation and boost transparency of the international financial system. Of particular note were calls to raise capital requirements for certain structured credit products; improve oversight of banks' risk management practices (including for off-balance-sheet exposures); toughen requirements governing financial institutions' disclosure of risks and provision of information on securitized products; and require credit rating agencies to better manage conflicts of interest surrounding rating structured finance products and to differentiate ratings of such products from bond ratings.

Other international financial oversight bodies, including the BIS, are reconsidering the role of credit rating agencies and credit risk insurance providers. U.K. Prime Minister Gordon Brown has called on the IMF to cooperate with the Financial Stability Forum in establishing an early warning system for global financial crises. At the end of March 2008, the United States and the United Kingdom set up a working group to develop proposals for monitoring and regulating the banking system. Shortly thereafter, the U.S. government announced a plan for widespread reform of its financial regulation system, including provisions for the Federal Reserve to regulate investment banks. The Federal Reserve's extension of liquidity support to nonbank financial institutions through two new channels, the Term Securities Lending Facility and the Primary Dealer Credit Facility, is also an important step toward opening a new era in the regulation of financial markets.

Vulnerable developing countries need to focus on the quality of openness to foreign banks

Preserving the great benefits of increased access to international banking requires safeguarding against potential risks. Developing countries should therefore develop their prudential and oversight policies carefully. A fundamental strengthening of the institutions responsible for regulation and supervision of the banking system, for example, should improve the efficiency of all banks (although countries with strong financial institutions and deep financial markets should have relatively less concern about the risks posed by international banks). But developing countries with weak institutions and limited

financial depth face a serious dilemma: while they likely have a lot to gain from attracting foreign banks, they are subject to adverse financial sector and macroeconomic consequences if foreign banks import instability. Many of these developing countries also face considerable difficulty effectively regulating banks, underlining the importance of focusing scarce resources on ensuring quality of entry. As elaborated in standards governing anti-money-laundering efforts, a robust licensing system for foreign banks should include ensuring that criminals or their associates are not involved in ownership or management of entering foreign banks. The World Bank contributes to strengthening safeguards against financial abuse through targeted technical support to countries with weak regulatory regimes.

Often, though, developing countries can rely on the determinations of dependable foreign authorities concerning the soundness of foreign banks.¹⁶ For example, host country authorities often require entering banks to seek approval from home country supervisors. A complementary strategy for safeguarding against the risks of unsound foreign bank presence is to encourage entry from a variety of jurisdictions, and placing a high premium on parent banks' compliance with international norms and standards relating to capital adequacy, corporate governance, and transparency. Despite the potentially high resource costs involved, coordination of foreign bank supervision remains an important goal. The Basel Committee on Banking Supervision has set out a series of recommendations on the effective coordination of supervisory activities by home and host country governments for international banks.¹⁷ These include ensuring effective sharing of information among authorities, confidentiality of information, and facilitation of on-site bank inspections. Whereas home country authorities should undertake consolidated supervision of international banks, host country authorities have the right to impose restrictions on their activities if the foreign bank fails to meet prudential standards.

Access to timely and high-quality information about bank operations is at the heart of effective supervision. While foreign banks should comply with disclosure requirements imposed by host-country regulators, supervisors could also make greater use of existing frameworks for the cross-border sharing of information with home-country authorities (BIS 2004). Developing-country regulators also need to

consider potential international financial instability, as the failure of a bank with extensive subsidiaries or branches in developing countries has potential macroeconomic implications and poses considerable challenges to regulators. In the event of a major bank failure, determining the level of liquidity assistance (if any), the recapitalization of banks affected, and the management of liquidation

or reconstruction is complicated by the significant presence of foreign banks in multiple developing countries and the negotiation of burden sharing with home-country governments.¹⁸ Given these difficulties, there is considerable value in working out a multilateral framework for these arrangements before the next financial storm jolts the markets.

Annex 3A: Foreign bank presence has helped ease domestic credit constraint on firms

To gauge the extent to which foreign bank presence in developing countries enhances the access of firms to credit, we estimate a growth model of firms at industry level, allowing for differences in financing structure across industries. We use the index of financial dependence developed by Rajan and Zingales (1998), defined as the share of a firm's total capital expenditure not financed with cash flows from operations, and computed at industry level as the median of firms in the industry. The basic model is summarized as:

$$\text{VA}_{i,j,t} = \alpha_{i,j,t} + \beta \text{FINDEP}_j \times \text{FOBANK}_{i,t} \\ + \text{fixed effects} + \varepsilon_{i,j,t},$$

where VA is the growth rate of value added and FOBANK refers to the share of foreign bank assets to total assets. We also include the share of industry to account for “convergence” effects and the tendency of larger industries to experience

slower growth, as well as country and industry fixed effects. Estimating the equation over the period 1995–2003 for a sample of 59 developing countries (a total of 6,527 observations) yields a positive and statistically significant estimate of the coefficient of interaction, $\beta = 0.11$ (p-value = 0.02). Our results are robust to various alternative econometric specifications, inclusion of country characteristics variables, and use of alternative growth measures.

Data sources: The analysis is based on Bruno and Hauswald (2007). Value-added data come from UNIDO (2005) and are measured as the value of census output less the value of census input, which covers value of materials and supplies for production (including cost of all fuel and purchased electricity) and cost of industrial services received (mainly payments for contract and commission work and repair and maintenance work). Data on foreign bank presence are from Claessens and others (2008).

Annex 3B: International banks' funding strategy and lending to developing countries

To more carefully investigate the relationship between global liquidity conditions and international banks' lending behavior toward developing countries, we specify a linear model of credit to emerging economies as a function of the contemporaneous and lagged three-month policy spread (OIS); its volatility; a lagged dependent variable

(whenever appropriate); and a host of macroeconomic, institutional, and regional control variables. Our dependent variables are the (log of the) BIS quarterly foreign bank claims on up to 124 emerging economies and their first differences, that is, growth rates in foreign bank claims on emerging economies. Table 3B.1 reports the results of our

Table 3B.1 Multivariate analysis of credit supply to emerging economies

Dependent variable	Log(foreign claims)				1st difference log(foreign claims)	
	(1) Fixed effects	(2) Region	(3) Fixed effects	(4) Region	(5) Region	(6) Region
Lagged log(fc)	0.73 (0.000)***	0.965 (0.000)***	0.84 (0.000)***	0.975 (0.000)***		
Log(GDP)	0.197 (0.000)***	0.034 (0.000)***	0.225 (0.000)***	0.027 (0.000)***	-0.003 -0.395	0 -0.943
Inflation	0.017 -0.895	-0.073 -0.333	-0.037 -0.68	0.005 -0.932	-0.037 -0.631	-0.024 -0.668
Growth	0.051 -0.801	0.032 -0.844	-0.138 -0.37	-0.015 -0.908	0.201 -0.222	0.157 -0.194
OIS spread	0.004 -0.208	0.006 (0.049)**	0.009 (0.000)***	0.007 (0.000)***	0.006 (0.047)**	0.007 (0.001)***
Lagged OIS	-0.012 (0.000)***	-0.006 (0.027)**	-0.012 (0.000)***	-0.01 (0.000)***	-0.005 (0.054)*	-0.009 (0.000)***
Volatility of OIS	-0.002 (0.001)***	-0.001 (0.008)***	-0.001 (0.000)***	-0.001 (0.000)***	-0.001 (0.011)**	-0.001 (0.000)***
Lagged volatility	0 -0.921	0 -0.686	0.001 (0.042)**	0.001 (0.054)*	0 -0.69	0.001 (0.056)*
ICRG composite			-0.003 -0.228	0.002 (0.014)**		0.001 -0.473
Europe and Central Asia		0.029 -0.214		0.058 (0.001)***	0.02 -0.396	0.056 (0.001)***
Latin America and the Caribbean		-0.028 -0.216		-0.013 -0.451	-0.051 (0.022)**	-0.02 -0.241
Middle East and North Africa		-0.048 (0.089)*		-0.03 -0.135	-0.043 -0.136	-0.016 -0.409
South Asia		-0.022 -0.468		0.002 -0.944	-0.012 -0.695	0.007 -0.793
Sub-Saharan Africa		-0.06 (0.004)***		-0.005 -0.787	-0.053 (0.012)**	-0.009 -0.593
Constant	0.242 -0.59	0.037 -0.442	-0.736 (0.039)**	-0.148 (0.051)*	0.113 (0.016)**	0.032 -0.628
Observations	2,112	2,112	1,622	1,622	2,109	1,621
Countries	114		87			
R ²	0.681	0.986	0.822	0.994	0.017	0.054

Source: World Bank staff.

Note: ICRG = International Country Risk Guide; OIS = contemporaneous and lagged three-month policy spread. * significant at the 10% level; ** significant at the 5% level; *** significant at the 1% level.

estimation, with country fixed effects and clustered standard errors or regional dummy variables.

The lagged OIS spread as an indicator of the availability (low) or tightness (high) of interbank liquidity persistently comes out negative and statistically significant (p-values in parentheses) across all specifications, whereas the contemporaneous policy spread is statistically less significant and positive but the (steady state) net effect is generally negative. This result reflects banks' operational policies that will offer credit only after having secured the necessary funding on their part in advance so that past access to liquidity matters more than current access.

To examine the impact of tightening credit standards in developed countries on lending to developing countries, we looked at another set of multivariate regressions with country fixed effects and clustered standard errors or regional dummy variables, in which we related the (logarithm of) foreign bank claims on emerging economies to the fraction of U.S. banks reporting tighter credit standards in a given quarter, its lags, and macroeconomic and institutional control variables. As shown in table 3B.2, the results confirm that there is a statistically significant negative impact of tightened lending standards in the United States on lending to developing countries.

Table 3B.2 Multivariate analysis of credit to emerging economies

Dependent variable	Log(foreign claims)			1st diff log(foreign claims)		
	(1) Fixed effects	(2) Fixed effects	(3) Fixed effects	(4) Region	(5) Region	(6) Region
Lagged log(fc)	0.811 (0.000)***	0.81 (0.000)***	0.88 (0.000)***			
Log(GDP)	0.233 (0.000)***	0.225 (0.000)***	0.212 (0.000)***	0.001 -0.761	0.001 -0.776	0.001 -0.604
Inflation	0.024 -0.786	0.017 -0.85	0.01 -0.863	-0.044 -0.468	-0.044 -0.473	-0.005 -0.902
Growth	0.182 -0.266	0.169 -0.303	-0.045 -0.702	0.184 -0.174	0.175 -0.197	0.164 (0.083)*
Tighter U.S. credit standards	-0.054 (0.068)*		0.079 (0.065)*	-0.067 (0.005)***		0.056 -0.194
Lag1 tightening		-0.066 (0.035)**	-0.117 (0.057)*		-0.07 (0.003)***	-0.115 (0.007)***
Lag2 tightening			0.036 -0.395			
ICRG composite			-0.002 -0.283			0.001 (0.050)*
Europe and Central Asia				0.034 (0.087)*	0.034 (0.085)*	0.054 (0.000)***
Latin America and the Caribbean				-0.023 -0.219	-0.024 -0.215	-0.006 -0.661
Middle East and North Africa				-0.027 -0.267	-0.027 -0.269	-0.013 -0.426
South Asia				-0.01 -0.705	-0.01 -0.705	0.019 -0.354
Sub-Saharan Africa				-0.024 -0.189	-0.024 -0.186	0.006 -0.665
Constant	-0.807 (0.001)***	-0.724 (0.006)***	-1.04 (0.000)***	0.031 -0.323	0.033 -0.298	-0.079 (0.082)*
Observations	2,999	2,999	2,301	2,991	2,991	2,296
Countries	114	114	87			
R ²	0.743	0.743	0.865	0.011	0.011	0.038

Source: World Bank staff.

Note: The data on the fraction of U.S. banks reporting tighter credit standards in any given quarter is from the U.S. Federal Reserve's "Senior Loan Officer Opinion Survey." ICRG = International Country Risk Guide. * significant at the 10% level; ** significant at the 5% level; *** significant at the 1% level.

Annex 3C: The impact of foreign bank presence on the transmission of monetary policy

To study how foreign bank presence affects the transmission of monetary policy, we specify a linear model of lending rates as a function of the money-market rate and control variables that capture the degree of financial deepening. The interaction term between money-market rate and control variables is added to measure how the financial deepening variables, including the degree of foreign bank presence, affect the sensitivity of lending rates to money-market rates. The model constrains the slope coefficients to be identical across countries but allows for a country-specific intercept. We use the error correction framework developed by Pesaran, Shin, and Smith (2000) to allow for more flexibility across countries, especially in terms of different short-run dynamics.

The data used to estimate the model consist of quarterly observations from 22 developing countries, whose selection was based on data availability.¹⁹ We used quarterly observations from the first quarter of 1995 to the third quarter of 2007, with some missing observations. The data contain series of money-market interest rates, lending interest rates, GDP, M2 (broad money), domestic credit, and the fraction of total assets in the banking sector owned by foreign banks. The series came from the IMF's International Financial Statistics database, except for the foreign bank data, which were obtained from Bankscope and other official sources, and the nominal GDP series for Mexico, Russia, Uruguay, and República Bolivariana de Venezuela, which were downloaded from official sources in these countries.²⁰ Table 3C.1 presents

Table 3C.1 Lending rate estimates

Lending rates	Estimate 1	Estimate 2	Estimate 3	Estimate 4	Estimate 5
Money market	1.04 [0.02]***	1.02 [0.02]***	0.92 [0.02]***	0.91 [0.02]***	0.94 [0.02]***
M2/GDP	-0.05 [0.01]***			-0.05 [0.01]***	
Credit/GDP		-0.04 [0.01]***			-0.04 [0.01]***
Foreign banks			0.17 [0.54]	-0.24 [0.55]	-0.85 [0.52]
Money market × M2/GDP	0.0005 [0.0001]***			0 [0.0002]***	
Money market × credit/GDP		0.0005 [0.0002]**			0 [0.0002]***
Money market × foreign banks			-0.09 [0.02]***	-0.08 [0.02]***	-0.03 [0.02]
Average speed of adjustment	-0.21 [0.03]***	-0.21 [0.04]***	-0.27 [0.05]***	-0.25 [0.05]***	-0.25 [0.05]***
Number of observations	933	933	848	826	826

Source: World Bank staff.

Note: M2 = broad money. ** significant at the 5% level; *** significant at the 1% level.

pooled mean group estimates when the control variables include the ratio of M2 to GDP (M2/GDP), the ratio of domestic credit to GDP (credit/GDP), and the fraction of assets in the banking sector owned by foreign banks (foreign banks), all in logarithms. Because of the high collinearity between M2/GDP and credit/GDP, we did not include both regressors simultaneously.

From this table we conclude:

- As expected, money-market rates are highly significant and with coefficients close to 1, suggesting a large long-run pass-through.
- Economies with deeper financial systems, as measured by M2/GDP and credit/GDP, have lower lending rates.
- Economies with deeper financial systems, as measured by M2/GDP and credit/GDP, have higher sensitivity of lending rates to money-market rates (see the positive and significant coefficients in rows 5 and 6).
- The presence of foreign banks does not seem to affect the levels of lending rates.
- Foreign bank presence *reduces* the sensitivity of lending rates to money-market rates (see the significantly negative coefficients in the interaction term of row 7).
- The dynamics of the pass-through are stable: the average speed of adjustment is significant, and between -2 and 0 .

Summarizing, the estimates shown in table 3C.1 suggest that deeper financial markets *increase* the pass-through of interest rates, but a higher foreign bank presence *reduces* the transmission of policy interest rates. This last result is consistent with the view that foreign banks are less sensitive to domestic monetary conditions because of their access to a large pool of funds beyond the control of the monetary authority.

Notes

1. Data on foreign bank claims on developing-country residents are from the BIS (consolidated banking statistics). They measure claims denominated in foreign currency as well as the local currency of the country in which the borrower is domiciled. The number of countries whose banks report foreign claims to the BIS has increased from 10 in 1964—Belgium, France, Germany, Italy, Luxembourg, the Netherlands, Sweden, Switzerland, the United Kingdom, and Japan—to 30 today, including all members of the Organisation for Economic Co-operation and Development

plus Brazil, Chile, Hong Kong (China), India, Panama, and Singapore.

2. By definition, FDI is “investment made to acquire lasting interest in enterprises operating outside of the economy of the investor,” where lasting interest is defined as 10 percent or more of the ordinary shares or voting power of an incorporated firm or its equivalent for an unincorporated firm. FDI in the banking sector is proxied by FDI in financial sector data, which are collected from central banks of selected economies. The definition of the banking sector, however, may differ among countries. The FDI data are compiled for Argentina, Brazil, Colombia, Peru, and Mexico in Latin America; Bulgaria, Hungary, Kazakhstan, Poland, Romania, Russia, the Slovak Republic, and Turkey in Europe and Central Asia; Pakistan in South Asia; and China, Indonesia, Malaysia, Pakistan, the Philippines, Thailand, and Vietnam in East Asia. Cross-border M&A transactions in the banking sector reflect purchased domestic banks in 150 developing countries by nonresidents as recorded at the time of closure of the deals. M&A values may not be paid out in a single year and may also include the financing that is generated in the host country. The foreign bank database used in Claessens and others (2008) includes bank-specific information for all banks operating in 100 developing countries during 1995–2006. These data also include foreign banks, defined as banks domiciled in a developing country but 50 percent or more owned by foreign nationals in a given year.

3. This figure includes all transactions that led to at least 10 percent minority share holdings as well as expansion of existing foreign banks.

4. In the case of U.S. bank branches, section 25C of the Federal Reserve Act establishes that “a member bank shall not be required to repay any deposit made at a foreign branch of the bank if the branch cannot repay the deposit due to an act of war, insurrection, or civil strife or (2) an action by a foreign government or instrumentality (whether de jure or de facto) in the country in which the branch is located, unless the member bank has expressly agreed in writing to repay the deposit under those circumstances” (Cerutti, Dell’Ariccia, and Martinez Peria 2005).

5. Banks have traditionally been heavily regulated for a number of reasons including potential systemic risk and policy makers’ desire to control and influence the supply and allocation of credit. A large literature exists on the degree and nature of such banking regulation in both developed and developing country; see Dinç (2003); Demirgüç-Kunt, Laeven, and Levine (2004); and Bertrand, Schoar, and Thesmar (2007). For more detail on barriers against foreign competition, see Berger (2007) and Berger and others (2008).

6. Limited foreign entry was permitted in 1992 and was expanded in 1994 with new bank regulations and the adoption of NAFTA. Following the Tequila crisis in late 1994, the government further relaxed foreign bank acquisitions and kept an ownership cap in only the three major domestic banks. In 1999 this cap was abolished, and in 2001 FDI in the Mexican banking sector surged with the acquisition of Banamex by Citigroup, a deal valued at \$12.5 billion.

7. China has removed geographic and client restrictions and allowed foreign banks to establish locally incorporated

subsidiaries to provide full renminbi services to all clients, but it maintains a cap on foreign ownership of a domestic bank at 25 percent, with a limit of 20 percent on a single foreign shareholder.

8. Note that this argument refers to the medium-term impact of foreign bank entry. The short-term implication of financial sector liberalization, which often includes opening to foreign capital inflows, is a more complicated subject.

9. The literature has reached different conclusions regarding the efficiency of domestic versus foreign banks in developing countries. For example, Martinez Peria and Mody (2004) find that foreign banks charge lower spreads and have lower costs than domestic banks, while Claessens, Demirgüç-Kunt, and Huizinga (2001) report that for low-income countries, foreign banks had significantly higher net interest margins, overhead expenses, and profitability than domestic banks (these comparisons tended to be not significant, or reversed, for middle-income countries).

10. An overnight index swap is a fixed-rate/floating-rate swap, where the floating-rate leg is linked to a daily overnight reference rate during the term of the swap.

11. During a recession, when even borrowers representing otherwise acceptable credit risks might not be able to service their debt, banks tend to exert more effort in identifying above-average borrowers. In the current credit crunch, however, the pool of acceptable credit risks has dwindled so much that the marginal benefit of more intensive screening is not worth the extra expenditure of time and cost (Ruckes 2004). As a consequence of the decrease in information collection, banks are likely to reduce their credit offers. But as the economic outlook improves, and the average repayment probability of borrowers rises along with it, lenders will be willing to spend more on borrower screening because expected returns on that activity will also increase.

12. Blank and Buch (2007) report that cross-border lending not only responds to macroeconomic shocks but also contributes to their propagation, echoing the findings of Forbes and Chinn (2004), who show that bilateral bank lending was an important determinant of cross-country financial links and the transmission of market shocks in the late 1990s. In analyzing the determinants of the amount of bilateral cross-border assets and liabilities in OECD countries, Blank and Buch (2007) find that geographical distance has a negative effect on banks' cross-border assets, so that banks limit their exposure in unfamiliar markets where distance exacerbates difficulties in information collection (Agarwal and Hauswald 2006).

13. Developing countries contracted a total of \$68 billion of syndicated loans in the fourth quarter of 2007, compared with \$81 billion in the fourth quarter of 2006 and an impressive \$126 billion in the third quarter of 2007. The figure declined to \$56 billion in the first quarter of 2008, compared with \$94 billion a year ago. There were 324 and 164 deals in the fourth quarter of 2007 and first quarter of 2008, respectively, compared with 418 in the third quarter of 2007.

14. The sample of countries is those with an average annual growth rate above 33 percent in the period 2003–06. These countries are Albania, Angola, Armenia, Azerbaijan, Belarus, Democratic Republic of Congo, Georgia, Ghana, Guinea, Guinea-Bissau, Islamic Republic of Iran, Kazakhstan, Kyrgyz Republic, Latvia, Liberia, Lithuania, Malawi,

Mongolia, Montenegro, Romania, Russia, Serbia, Tajikistan, Tanzania, Ukraine, República Boliviana de Venezuela, and Zambia.

15. In analyzing the relationship between foreign bank presence and private credit growth, we estimate the following model with time and regional fixed effects using panel data for 51 countries over the period 1995–2005:

$$\Delta PCGDP_{i,t} = \alpha + \beta \text{foreign_bank}_{i,t} + \gamma \text{controls}_{i,t} + \varepsilon_{i,t},$$

where the dependent variable is the first difference of private credit/GDP, foreign bank is the ratio of foreign bank assets to total banking assets and the control variables include lagged GDP growth, logarithm of GDP per capita, the ratio of stock market capitalization to GDP, inflation, ICRG composite rating, KOF index of globalization economic openness, creditor rights, number of foreign banks as a proportion of total banks, ratio of overseas borrowing by banking sector to GDP, and a banking crisis dummy. Regression results show that the relationship between foreign bank presence and private credit growth is positive and statistically significant.

16. Indeed, many developing countries initially placed little emphasis on prudential regulation, because they had inherited colonial-era financial systems dominated by established and reputable foreign banks subject to strict prudential control from home country authorities (Brownbridge and Kirkpatrick 2000).

17. These have been set out in *Minimum Standards for the Supervision of International Banking Groups and their Cross-Border Establishment* (1992); *The Supervision of Cross-Border Banking* (1996); and subsequent reports by the Working Group on Cross-Border Banking.

18. For burden-sharing issues arising in the context of the European banking system, see Srejber (2006).

19. The countries in the sample are Argentina, Bolivia, Brazil, Bulgaria, Chile, Colombia, Czech Republic, Estonia, Hungary, Latvia, Malaysia, Mauritius, Mexico, Moldova, Peru, Poland, Russia, Slovak Republic, Thailand, Ukraine, Uruguay, and República Boliviana de Venezuela. The panel is unbalanced.

20. The banking data come in annually. Quarterly observations were log-linearly interpolated. For the construction of the banking data, see Claessens and others (2008).

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