Globalization and National Financial Systems

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Globalization and National Financial Systems: Issues of Integration and Size

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Globalization poses new challenges and constraints to the ways in which financial sectors have operated; however, it also offers new opportunities for those countries that take advantage of them by giving them and their citizens a better menu of risk and return on assets and liabilities and better financial services at lower costs. This volume explores these challenges, constraints, and opportunities.

The volume is divided into five traditional areas of finance: the macroeconomy, banking, securities markets, pension issues, and regulation. Four cross-cutting messages emerge. First, the erosion of national frontiers by trade, tourism, migration, and capital account liberalization means that residents of all countries have substantial financial assets—and often liabilities—denominated in foreign currencies at home or abroad. Any analysis of national financial systems must take this into account. More important, this

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factor constrains governments' use of macroeconomic and financial policy and may contribute to economic fluctuations.

Second, individuals and firms benefit substantially from the improved risk and return menu associated with global diversification. Diversification is of particular importance in developing countries where the lack of size and diversity of the national economy results in instability in the value of production.

Third, the small size of most developing countries limits the efficiency and quality of financial services: banking, equity markets, and pensions. Thus cross-border provision of financial services, one facet of globalization, has potential benefits for small economies. This volume provides some evidence of the rapid growth of cross-border services and suggests additional ways to use them, for example, by unbundling services and using foreign providers. The concern that cross-border providers may skew access to financial services away from small users appears to be unwarranted.

Fourth, taking full advantage of the opportunities presented by globalization and minimizing its costs depend on effective regulation and supervision to ensure good quality information, transparency, market integrity, and prudent investing by banks and pension funds. The entry of foreign participants and the offshore listing of firms both require this infrastructure and often help to improve it.

Introduction

Globalization has brought with it increased specialization and volatility, as well as some loss of policymaking independence. However, as discussed in this volume, globalization can ease some of the problems related to the smallness of financial systems.

National Financial Systems

Policymakers in developing countries often remain focused on domestic financial sector issues, seemingly believing that finance should be national, as far as possible. In this focus they echo Keynes' view expressed in 1933 (cited in Skidelsky 1992) and the approach of many academic economists in industrial countries. This focus harks back to the preglobalized, Bretton Woods era and an economic model inappropriate for small developing economies in today's globalizing world.

On becoming independent after World War II, many developing countries adopted a national currency to replace their use of a metropolitan currency or a currency board (see Hanke and Schuler

1994; Williamson 1995).[1] They set up a central bank and an adjustable peg exchange rate regime and joined the International Monetary Fund.[2] They usually also imposed foreign exchange controls. Exchange controls made supporting a currency peg easier,[3] allowed the government to allocate foreign exchange, and eased concerns about the scarcity of foreign exchange and the potential outflow of investible resources that were prevalent at the time. This institutional setup was similar to that in many industrial countries at the time and to that in the Latin American countries, which had long been independent and had their own currencies.[4]

This national approach to finance probably reflected not only a desire to establish a national identity, but also the need to finance the government and the prevailing development strategy, which relied on public sector-led import substitution. Governments used monetary creation and restrictions on the financial sector, including ceilings on interest rates, large cash reserves, and directed credit requirements on banks, to finance themselves, public enterprises, and other favored borrowers. Insurance companies and pension programs were also often forced to finance government deficits by requirements that they hold mostly government debt. To ensure that these financial sector policies were implemented, governments often set up public sector institutions to provide banking services, term loans, insurance, and pensions, which created vested interests in the national financial system. In addition, at the macroeconomic level governments used capital controls in an attempt to limit avoidance of these measures and increase the effectiveness of the inflation tax and financial repression (see, for example, Aizenman and Guidotti 1994; Alesina and Tabellini 1989; Leblang 1997). Nearly half a century later, the still strong attraction of the seigniorage from this nationalistic approach to currencies and finance is manifest in the adoption of national currencies by most of the new nations created out of the former Soviet Union and the former Yugoslavia and by the issuance of currencies by 14 Argentine provinces in 2002. Of course, when governments have relied on monetary creation excessively, the result has been high inflation and expanding directed credit programs, followed by capital flight, exchange rate pressures, and stabilization programs.[5]

The Globalization of Finance

Globalization has disrupted the national approach to the financial system. The globalization of finance increased in the 1960s as increased trade, travel, migration, and current account convertibility made capital account controls less effective for those willing to

evade them.[6] First governments of developing countries, then large corporations, took advantage of expanded offshore borrowing opportunities and capital markets to reduce their financing costs. As time passed, political pressures developed to allow citizens to protect themselves against inflation and restrictions on interest rates in the financial system by holding foreign currency–denominated assets, first offshore and then—even more conveniently—onshore.[7] These domestic pressures, often resulting from the ease with which the well connected and the wealthy circumvented exchange controls, combined with international pressures to reduce the barriers to capital flows and trade in financial services, especially in the 1990s.

Casual observation suggests that finance has become increasingly globalized; however, measuring this change is not easy, and investigators have used many indicators (Eichengreen 2001). One indicator is the increased volume of offshore deposits by individuals and nonbank institutions of developing countries. Between 1995 and 1999 the ratio of offshore deposits in Organisation for Economic Co-operation and Development (OECD) countries' banks to onshore deposits increased in many of the countries listed in table 1.1, as shown by the points lying above the 45-degree diagonal line in figure 1.1.[8] For the countries as a group, the weighted average increase in the offshore deposit to onshore deposit ratio (weighted by domestic deposits) was more than 5 percentage points between 1995 and 1999.

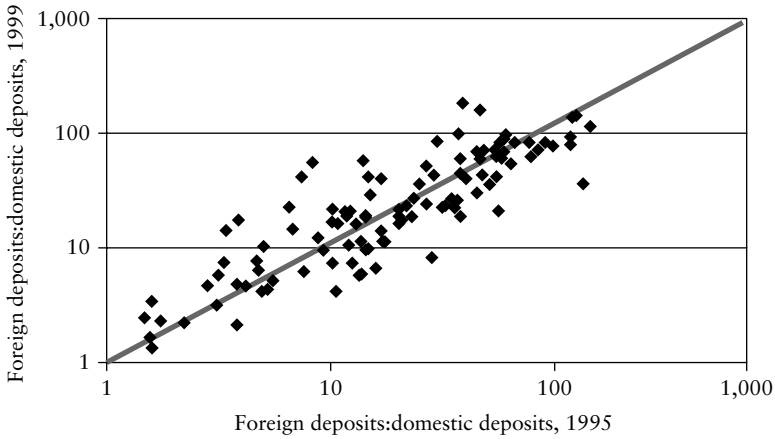
Portfolio flows to developing countries have also grown since the 1980s, although they did experience some ups and downs during the 1990s (Hanson, chapter 4 in this volume; World Bank 2002). Country access also seems to be widening. For example, from September 2001 through January 2002 Costa Rica, the Dominican Republic, El Salvador, and Guatemala all floated international bond issues, even though they all lacked investment grade ratings from Standard & Poor's and Argentina was in the process of defaulting.

Another indicator of financial globalization was the widespread use and growth of foreign currency deposits during the 1990s, as shown in Honohan and Shi (chapter 2 in this volume). In addition, the use of industrial countries' currency is also extensive in many developing countries (Hanson 2002).

Smallness of Developing Countries' Financial Systems

Developing countries' financial systems are small. The only developing countries among the world's 25 largest banking systems are

Figure 1.1 Ratio of Foreign Deposits to Domestic Deposits, Selected Developing Countries, 1995 and 1999 (percent, log scale)



Sources: Bank for International Settlement, *International Banking Statistics;* International Monetary Fund, *International Financial Statistics;* International Federation of Stock Exchanges data.

China (2.5 percent of the world's bank deposits in 2000), India (1.1 percent), Brazil (0.8 percent), Thailand (0.6 percent), and Mexico (0.5 percent). A recent study found that M2 was less than US$1 billion in 59 countries and less than US$10 billion in 118 countries (Bossone, Honohan, and Long 2002). Of the 108 developing countries shown in table 1.1, 80 had total bank deposits of less than US$10 billion, of which 42 had less than US$1 billion in 2000.[9] In terms of equity markets, about 45 had no organized stock exchange, and of those that had, only 15 reported market capitalizations in excess of US$20 billion.

The small size of developing countries' financial systems largely reflects their modest gross domestic product (GDP). It is also often related to the impact of inflation and related forms of taxation of financial services under the nationalistic approach to finance (Bossone, Honohan, and Long 2002; Hanson, chapter 4 in this volume; Honohan and Shi, chapter 2 in this volume). In addition, the small size of developing countries' financial systems reflects

Table 1.1 Indicators of Financial Sector Size, Selected Developing Countries and Years

Country	*Deposits (US$ millions, 2000)*	*Number of banks (2000)*	*Average bank size (US$ millions, 2000)*	*Stock market capitalization (US$ millions, 1999)*
China	464,745	105	4,426	330,703
India	206,055	103	2,001	184,605
Brazil	145,900	203	719	227,962
Thailand	106,773	13	8,213	58,365
Mexico	99,510	52	1,914	154,044
Malaysia	82,380	34	2,423	145,445
Argentina	77,983	107	729	83,887
Indonesia	69,093	165	419	64,087
Poland	62,837	80	785	29,577
South Africa	62,743	60	1,046	262,478
Egypt, Arab Republic	59,666	28	2,131	32,838
Turkey	42,157	62	680	112,716
Russian Federation	39,903	1,309	30	72,205
Philippines	36,307	51	712	48,105
Czech Republic	33,652	47	716	11,796
Lebanon	31,564	70	451	1,921
Syrian Arab Republic	30,873	—	—	—
Chile	30,691	30	1,023	68,228
Morocco	21,925	21	1,044	13,695
Pakistan	18,240	52	351	6,965
Hungary	17,814	42	424	16,317
Venezúela, RB	17,247	26	663	7,471
Colombia	16,861	33	511	11,590
Algeria	14,310	—	—	—
Peru	13,566	19	714	13,392
Bangladesh	13,073	50	261	865
Libya	12,066	—	—	—
Slovak Republic	11,265	—	—	723
Uruguay	8,958	22	407	168
Tunisia	8,772	14	627	2,706
Slovenia	8,277	24	345	2,180
Croatia	8,085	54	150	2,584
Jordan	7,653	16	478	5,827
Nigeria	6,785	51	133	2,940
El Salvador	5,605	14	400	2,141

Table 1.1 Continued

Country	*Deposits (US$ millions, 2000)*	*Number of banks (2000)*	*Average bank size (US$ millions, 2000)*	*Stock market capitalization (US$ millions, 1999)*
Dominican Republic	5,432	15	362	141
Costa Rica	5,170	20	259	2,303
Sri Lanka	5,095	26	196	1,584
Kenya	3,707	53	70	1,409
Ecuador	3,667	—	—	415
Guatemala	3,593	33	109	215
Trinidad and Tobago	3,433	6	572	4,367
Ukraine	3,387	—	—	1,121
Bolivia	3,220	14	230	116
Romania	3,180	36	88	873
Jamaica	2,874	6	479	2,530
Bulgaria	2,785	34	82	706
Vietnam	2,672	48	56	—
Honduras	2,246	22	102	—
Ethiopia	2,023	8	253	—
Nepal	1,990	13	153	417
Kazakhstan	1,981	—	—	2,265
Lithuania	1,946	9	216	1,138
Paraguay	1,913	21	91	423
Estonia	1,590	6	265	1,789
Yemen, Rep.	1,480	13	114	—
Latvia	1,447	24	60	391
Côte d'Ivoire	1,441	14	103	1,514
Nicaragua	1,317	—	—	—
Zimbabwe	1,256	13	97	2,514
Botswana	1,253	4	313	1,052
Tanzania	1,252	4	313	181
Namibia	1,201	5	240	691
Belarus	1,156	27	43	—
Cameroon	1,045	9	116	—
Haiti	1,037	—	—	—
Papua New Guinea	918	—	—	—
Mozambique	893	9	99	—
Senegal	870	10	87	—
Angola	760	—	—	—
Sudan	742	—	—	—
Uganda	649	18	36	—
Gabon	582	8	73	—

Table 1.1 Continued

Country	*Deposits (US$ millions, 2000)*	*Number of banks (2000)*	*Average bank size (US$ millions, 2000)*	*Stock market capitalization (US$ millions, 1999)*
Madagascar	560	6	93	—
Azerbaijan	546	—	—	—
Macedonia FYR	531	23	23	—
Zambia	511	17	30	280
Ghana	507	16	32	916
Guyana	394	7	56	—
Benin	371	5	74	—
Mali	368	9	41	—
Grenada	363	—	—	—
Burkina Faso	345	7	49	—
Cape Verde	289	—	—	—
Congo, Rep.	279	4	70	—
Lao PDR	266	—	—	—
Swaziland	246	4	62	97
Djibouti	244	—	—	—
Togo	210	6	35	—
Rwanda	205	5	41	—
Lesotho	203	3	68	—
Maldives	198	4	49	—
Albania	174	—	—	—
Moldova	170	20	8	38
Armenia	167	—	—	25
Malawi	159	5	32	179
Georgia	156	—	—	—
Guinea	154	6	26	—
Mauritania	105	6	18	—
Niger	100	8	12	—
Gambia, The	97	6	16	—
Burundi	85	7	12	—
Samoa	78	—	—	—
Kyrgyz Republic	68	—	—	—
Tonga	57	3	19	—
Chad	56	6	9	—
Guinea-Bissau	30	—	—	—
São Tomé Principe	10	—	—	—

— Not available.

Sources: Bank for International Settlement, *International Banking Statistics;* International Monetary Fund, *International Financial Statistics;* International Federation of Stock Exchanges data.

feedback from the tendency, discussed later, toward high margins and capital market transactions that reduce the demand for national financial services. The result is that small developing countries have smaller domestic financial systems relative to their GDP than larger developing countries (see, for example, Hanson, chapter 4 in this volume).

Issues in the Globalization of Finance

The globalization of finance affects the whole economy, raising particular issues with regard to banking, securities markets, and contractual savings. Legal and regulatory structures are also affected.

The Macroeconomy

Reducing barriers to international capital movements is theoretically thought to improve welfare, analogously to reducing barriers to trade in goods. The standard argument is that opening the capital account would tend to equalize rates of return, leading to more investment and higher growth in developing countries. However, investigators have found little empirical association between capital account liberalization and growth or investment rates (see, for example, Kraay 1998; Rodrik 1998).[10] One possible explanation for this result is the difficulty of measuring liberalization of the capital account, as Eichengreen (2001) points out. Another possible explanation is that capital account liberalization may not only be associated with increased capital inflows, but also with increased capital outflows, particularly when the domestic policy environment is inappropriate.[11] A third, more fundamental, issue is that risk-adjusted rates of return in many developing countries may be unattractive, meaning that whatever inflows are encouraged by capital account liberalization may largely be offset by outflows.

Globalization can, in theory, also help smooth variations in consumption, a potentially important benefit for small economies. Small countries are likely to be more susceptible to weather shocks, natural disasters, and agricultural and livestock diseases than large countries because of their smaller area and specialized production. On the international demand side, the more specialized a country's output, the more likely that export demand is variable. The higher volatility of small countries' commodity terms of trade and their private consumption (Bossone, Honohan, and Long 2002), as well

as of their GDP (Easterly 2000), provides some empirical support for these hypotheses.

The ability to offset such shocks within a developing country is necessarily limited: the more risk-averse citizens can buy insurance from the less risk averse, but the economy as a whole cannot offset the shock. However, a number of mechanisms related to the globalization of finance offer some possibilities for increasing diversification and reducing its cost. Foreigners holding equity and risk-sharing assets will absorb part of national volatility (Reynolds 1965). More important, residents' holdings of foreign assets provide diversification against their own country experiencing a supply decline or a fall in export prices. Risk can also be reduced through forward contracts in commodities and foreign exchange, but these domestic markets may not be effective in developing countries, particularly the many small ones.[12] International insurance or reinsurance contracts against natural disasters or weather can hedge internationally against national risks. The questions remain, of course, to what extent capital account opening is necessary to obtain this ability to offset risk and how effectively the government can and will handle the hedging of risk and consumption smoothing, for example, by contra-cyclical international borrowing.

Moreover, many economists believe that capital account liberalization increases the volatility of GDP. Inflows of capital can suddenly turn into outflows that are augmented by runs on the currency by residents. All too familiar are the exchange rate and financial crises such as the Latin American debt crisis of the 1980s and the Mexican, East Asian, and Russian crises of the latter half of the 1990s. Despite these well-known crises, the statistical evidence linking capital account liberalization and crises is tenuous (see, for example, Easterly, Islam, and Stiglitz 2001; Kraay 1998; Rossi 1999).

Nonetheless, the riskiness of capital account liberalization without fiscal adjustment to at least offset the loss of seigniorage resulting from capital account liberalization, and without reasonably strong financial regulation and supervision and a sound domestic financial system, is well recognized (see for example, Demirgüç-Kunt and Detragiache 2001; Honohan and Shi, chapter 2 in this volume; World Bank 2001). The weakness of financial regulation and supervision is generally considered to have been a major factor in the East Asian crisis (see, for example, World Bank 2000).

As many authors and finance ministers have noted, opening the capital account also reduces a country's policymaking independence. Capital flows tend to offset changes in monetary policy, particularly in small countries, although they may make fiscal policy more effective, as Mundell (1968) points out. Countries could try to

restore their monetary policymaking independence by adopting floating exchange rates. However, adopting a floating exchange rate may simply encourage financial contracts to be denominated in foreign currency, onshore as well as offshore, which would also tend to limit a country's policymaking independence. Another approach has been to use capital controls to limit such contracts and support the inflation tax and financial repression, as noted earlier. Indeed, a statistical correlation exists between controls and chronic macroeconomic imbalances.[13] For those countries that historically have used monetary policy to generate high inflation, a reduction in policymaking independence may not be a major loss. Indeed, many countries have tried to signal a change in their monetary policy regime, reduce inflationary expectations quickly, and cut inflation without much loss of output by opening the capital account and linking their currency to a foreign currency with a fixed exchange rate, opting for a currency board, or even adopting a foreign currency (see, for example, Bartolini and Drazen 1997; Hanson 2002).

Despite these risks and potential disadvantages, developing countries have increasingly opened their capital accounts, reflecting to some degree the increasing difficulty of maintaining capital account restrictions. With increased trade, migration, and tourism and with the massive improvements in telecommunications conducting financial transactions across frontiers is becoming increasingly easier. Capital account restrictions may work temporarily, may sustain some deviation from world interest rates (adjusted for risk), and may be able to affect maturities as discussed in Dooley (1996), Edwards (1999), and Arioshi and others (2000). However, attempts to maintain large deviations from market rates with controls create distortions, encourage corruption, and tend to be ineffective (Edwards 1989; Kaminsky and Reinhart 1999). In addition, capital controls have adverse distributional consequences, acting as a tax on those who lack access to foreign currency assets and liabilities and who are unwilling to violate the rules (Hanson 1994).

Capital account liberalization brings benefits to firms and high-income individuals by improving the risk-return menu facing residents; the further step of allowing foreign currency deposits and loans within the country widens access to those benefits. Various aspects of the benefits associated with globalization are discussed in this volume in Honohan and Shi; Driessen and Laeven; Glaessner and Valdés-Prieto; and Impavido, Musalem, and Vittas (chapters 2, 7, 8, and 9, respectively). In particular, foreign currency assets and liabilities provide individuals and firms with some protection against inflation, instability, and repression of interest rates, as discussed earlier.[14]

Governments that have pursued inflationary policies and face shrunken financial systems have sometimes authorized foreign currency deposits to try to reduce the loss of deposits to offshore banks and increase the volume of credit. To some extent, this approach has limited the decline in onshore deposits (Hanson 2002). However, Honohan and Shi (chapter 2 in this volume) provide some new empirical evidence that the growth in credit from allowing foreign currency deposits may be limited, because the banks may invest much of the foreign currency deposits offshore to reduce their risk.

The attraction of foreign currency assets to savers, particularly in inflationary, unstable environments, is obvious. The attraction of foreign currency liabilities is more complex and involves some micro-level as well as macroeconomic risks. Foreign currency liabilities have lower nominal rates than local currency liabilities, because they do not include a depreciation premium. Thus a borrower in foreign currency pays nothing for devaluation risk until a devaluation actually occurs, and the savings can be large given the possibility of a prolonged "peso problem" in which local currency interest rates are high in expectation of a devaluation and can bankrupt local currency borrowers. Only after a devaluation occurs does the borrower in foreign currency suffer a large capital loss compared with having borrowed in local currency, and only feels this loss as amortization takes place over the outstanding maturity of the loan, although this effect may be small given the typically short maturities of loans in developing countries. Finally, the borrower may be able to take advantage of a government bailout scheme for borrowers, such as has often followed devaluations.

Thus borrowers, as well as depositors, may opt for foreign currency instruments. These preferences of depositors and borrowers make it easier for financial institutions to hedge foreign exchange risk by matching their foreign currency deposits with foreign currency loans.[15] However, matching foreign currency loans with deposits is likely to turn the potential currency risk for the banks into a credit risk for the banks,[16] because the borrowers may not have access to hedging facilities.[17] Honohan and Shi (chapter 2 in this volume) find that more dollarized countries tend to have a more rapid pass-through of devaluation into local prices. While this reduces the effectiveness of devaluation in a dollarized economy, it also tends to reduce the potential credit risk from lending in foreign currency.

These characteristics of foreign currency loans may lead both the public and the private sectors to seek them despite their exchange risk. For the government, this lower cost of a foreign currency loan immediately translates into lower deficits as a percentage of GDP until a devaluation occurs, after which the rise in the local currency

value of the principal is spread out over the amortization term of the obligations, and if the government's borrowings are offshore, then it does not need to set up a local government bond market. Finally, for both the public and private sectors the spreads on borrowings in foreign currency loans, compared with foreign currency deposits, may be lower. All these attractions are certainly factors in the growth of demand for foreign currency loans by the public sector in developing countries and by the private sector where permitted. An important question is whether public and private sector borrowers systematically underestimate the foreign exchange risk. On the supply side questions have arisen about whether government policies, bailouts, and the international financial architecture have not overly reduced the risks to foreign lenders, particularly lenders to governments, and thus overly encouraged the supply of offshore lending.

Banking

The small size of banking systems in most developing countries is likely to hinder achievement of economies of scale and scope and tends to reduce competition. Only 28 of the 108 developing countries in table 1.1 have enough deposits to support even one bank with US$10 billion in assets. The volume of bank deposits in 55 of the developing countries in table 1.1 would be too small to support even five banks with US$300 million in deposits (roughly the average size of commercial banks in the United States in 2000 and substantially below the average bank size in the other industrial countries). Moreover, because governments typically license many banks, about two-fifths of countries have an average bank size of less than US$300 million in deposits.[18] Indeed, in half of the countries average bank size is less than US$150 million.

Such banks are far smaller than necessary to reach economies of scale. As discussed in Bossone and Lee (chapter 3 in this volume) and the works cited therein, recent studies of the U.S. banking industry find scale economies in the United States on the order of 20 percent of costs for bank sizes up to about US$10 billion to US$25 billion in assets. There is also some evidence of gains in larger banks from geographic diversification of risk (Hughes and others 1999). Although econometric studies in the 1980s suggested no economies of scale in U.S. banking, more recent studies were better able to identify economies of scale by adjusting for the riskiness of assets held by banks—the larger banks not only benefit from risk diversification, but may take on more risky assets because they are better able to diversify. The studies of European and Japanese banking cited in Bossone and Lee suggest that economies of scale existed in these

areas of the world even before the 1990s. The recent econometric findings are consistent with the numerous mergers and takeovers in U.S. banking and the rise in the average size of banks in the United States that occurred in the 1990s once interstate banking was allowed.[19]

The lack of economies of scale and of competition in developing countries is likely to translate into larger bank margins between the average rates on loans and the average costs of deposits in developing countries than in industrial countries. Private banks' high spreads were probably one political justification for starting public sector banks.[20] Of course, the public sector banks have had problems associated with poor-quality lending and a limited contribution to growth that proved far more costly than high spreads (see, for example, Barth, Caprio and Levine 2001; LaPorta, Lopez-de-Silanes, and Shleifer 2000).

Bossone and Lee (chapter 3 in this volume) systematically investigate the earlier suggestion that bank margins are indeed related to country size (Bossone, Honohan, and Long 2002).[21] Using a large cross-country and time series banking data panel in a model where banks are value maximizers, they show that banks operating in larger financial systems have lower production costs and lower costs of risk absorption and reputation signaling than banks operating in small systems. They explore different channels through which these systemic economies of scale work their effects on the banks and present various estimates of such effects. The study also finds that information transparency, the risk environment, and market concentration affect banks' production efficiency.

Risk diversification is also likely to be a problem in developing countries, especially small ones, and that may partly explain some of the lower costs in larger financial systems. As noted, small economies tend to be less diversified and probably face more supply-side shocks. Moreover, the small size of banks in small countries makes it difficult for them to diversify domestically. Difficulties in diversification may also be worsened by the lumpiness of investment: to the extent that an investment involves economies of scale its demand for credit will be large relative to the financial system (Bossone, Honohan, and Long 2002). To some degree, the higher risk in small economies is likely to create upward pressure on bank margins in these countries to generate enough profits to compensate owners for the risks they face.

The globalization of financial services—the use of offshore deposits and loan facilities—is one way that residents of small countries can offset the costs and service limitations of small banking

systems. Hanson (chapter 4 in this volume) provides some indication of the role of offshore deposits. Small developing economies (excluding offshore financial centers) tend to have fewer deposits than larger developing countries, relative to GDP and taking into account per capita income and inflation rates. This result perhaps provides an indirect test of residents' negative reaction to the higher margins, lack of competition, and limited scope of banks in small economies. However, the small developing countries also tend to have larger deposits offshore than the larger developing economies (again taking per capita income and inflation rates into account), suggesting a substitution of external deposits for domestic deposits. Note that the sum of offshore and onshore deposits in small countries averages about the same fraction of GDP as in large economies—offshore deposits roughly make up for smaller onshore deposits in the small countries. The exception to this finding is African countries, where the much lower level of onshore deposits is not offset by offshore deposits. One explanation for this might be the poorer telecommunications network in African countries than elsewhere, which makes accessing offshore banking services more difficult. Residents with limited access to international means of communications may find that avoiding the higher margins in small countries is more difficult.

An issue here is whether the loss of deposits to offshore banks reduces access to financial services and raises their cost to depositors and to local small and medium borrowers in developing countries. One approach to offsetting these problems would be to offer deposit access through nonbank intermediaries, such as post office banks, taking advantage of the stunning developments that have occurred in information technology. The development of nonbank intermediaries may also be useful for small and medium borrowers. Access to credit for small borrowers can also be improved by the use of the new information technology, for example, by developing credit registries that provide information on small borrowers and credit cards, as well as by improving the titling and legal aspects of collateral.

Another aspect of globalization is the growth of foreign participation in developing countries' banking systems. A common argument is that foreign banks follow foreign investors from their own countries; however, this observation may simply reflect profitable opportunities for both foreign investment and foreign banks once restrictions on foreign entry have been reduced. Home country factors are also important, for example, deregulation in Spain and the low profitability of banking in Japan may have contributed to the

expansion of Spanish banks in Latin America and Japanese banks in East Asia.

Foreign banks often tend to be more efficient than their developing country competitors and put competitive pressure on them (Claessens and Lee, chapter 5 in this volume; Claessens, Demirgüç-Kunt, and Huizinga 2000). The loss of profits and franchise value may lead the domestic banks to engage in riskier lending, and may thereby increase the fragility of the banking system. At the same time the expansion of access by well-capitalized and well-managed banks can also be quite beneficial. Although the presence of foreign banks can have a positive effect on bank regulation and supervision, reaping the full benefits of a foreign presence in banking is likely to depend on improving institutions in at least a few key regulatory areas, as well as limiting entry to reputable foreign banks, which will have incentives for sound banking in order to protect their reputation.

The foreign banks' activities are often quite varied, including credit card business and participation in nascent government debt markets. In lending, some evidence indicates that in Latin America large foreign banks have, on average, about the same fraction of credit to small and medium enterprises as large domestic banks (including public sector banks), but small foreign banks have fewer credits to small and medium enterprises than their domestic counterparts (Clarke and others 2003). However, experience with foreign banks has not been as successful in Africa, in terms either of loans or of deposit taking. Nonetheless, there are some indications that foreign bank penetration not only improves services for large borrowers, but, in the right environment, can even increase access.

Claessens and Lee (chapter 5 in this volume) focus on the role of foreign banks in low-income, mainly small, countries. They show that foreign bank participation has increased in low-income countries, albeit from a small base. They confirm that increased foreign bank participation combined with a commitment to open markets has improved the efficiency and competitiveness of low-income countries' financial systems. Moreover, foreign banks have also introduced improved risk management practices and "imported" supervision from their home country regulators, thereby helping to strengthen banking systems and improve financial stability.

National Securities Markets

Capital markets are small in developing countries for the same reasons that banking systems are small. GDP is small; costs are high; and the macroeconomic, legal, and accounting frameworks are

weak. Many developing countries do not even have a market for government bonds, an important precondition for a sound market for private bonds.[22] The lack of a local government bond market typically reflects instability and the government's reliance on monetary issue, forced lending from banks, and offshore borrowing to finance its deficits.[23] But without a government bond market, developing an efficient private bond or commercial paper market is hard.

Most other developing country equity markets have market capitalizations in the US$1 billion to US$15 billion range. Even the largest equity markets in developing countries—Brazil, China, India, Malaysia, Mexico, South Africa, and Turkey—have market capitalizations of only about US$100 billion to US$350 billion, similar in size to those in Belgium, Denmark, Finland, and Sweden and much smaller than in Australia, Canada, Italy, Spain, and Switzerland, which are in the US$450 billion to US800 billion range. Turnover is often less than 50 percent of market capitalization in many developing country markets, particularly in the small country markets. The number of listed firms is typically less than 200, except for the largest markets (see Standard & Poor's 2001).[24] Of course, this should not be surprising, because in most industrial countries listed companies typically number less than 1,000. The exceptions are the United States with about 8,000 listings (according to Standard & Poor's 2001), Canada with 3,000, Japan with 2,500, and the United Kingdom with 2,000, and among the developing countries India with 6,000. These market sizes suggest that even some medium companies have floated shares in these countries.

Trading costs are relatively high in small markets because of low trading volumes relative to the capital cost of market infrastructure. In this sense, equity markets in developing countries face the same pressures to merge that exist in industrial countries' markets; however, the real problem in small markets may be their lack of liquidity.

Shah and Thomas (chapter 6 in this volume) show that, empirically, transaction costs tend to be higher and liquidity much lower in smaller markets, particularly in markets of less than US$20 billion capitalization, which represent three-fourths of developing country markets. For the smaller firms that account for much of developing country markets, liquidity is especially low, even in the relatively large Indian market or the NASDAQ. Shah and Thomas thus divide the problem of small markets into three issues: the inherent low liquidity of the small firms that account for most listed firms in developing countries; the problems of market governance and information, which may particularly affect small firms; and the economies of scale in financial markets.[25]

Shah and Thomas note that computerization and the falling prices of computing power and programs have reduced the direct costs of trading, depositories, and payments, lowering the potential gap in direct costs that larger markets enjoy in this area.[26] Moreover, costs could be reduced by outsourcing intermediary services or sharing services across multiple developing countries. Costs could also be reduced by combining various parts of the capital market in countries where regulations separate them.

Many developing countries suffer from problems related to market governance and information. Not only are the markets too small to support a good information infrastructure, the raw information itself is weak and the legal system leaves much to be desired. Accounting standards are unclear, companies are closely held, and rating agencies are weak. In addition, minority shareholders' rights are typically weak in developing countries. Thus improving the legal and accounting frameworks and market integrity could enhance the attractiveness of these markets.

Nonetheless, small markets have some inherent problems. Even in the best of circumstances bid-asked spreads and transaction costs are inherently going to be higher in developing countries than in industrial countries. Moreover, the large spreads and imperfect markets make it difficult for mutual funds to develop, in part because of the difficulty of pricing their portfolios and thus comparing their performance. Lack of liquidity, both in terms of market size and trading in shares of individual companies, also limits the interest of international portfolio managers, who want to be able to buy and sell quickly without affecting prices much.

Globalization has three main effects on developing country markets. First, the capital markets in developing countries, particularly large capital markets, may be attractive to foreigners for diversifying risk—often the correlation between a developing country market and a foreign market is low. Thus an attraction exists despite the aforementioned problems and despite such policies as limits on the repatriation of earnings, required divestitures, and restrictions on the size of holdings that often exist. Of course, foreigners' interest is in large markets and large companies because of liquidity concerns, and less interest exists in small markets and small companies. Typically foreign buyers bid up the market, thereby reducing the cost of capital. Thus listed firms benefit from lower costs of capital and some new companies go public. However, once foreign investors make their stock adjustment, inflows tend to slow. Trading by foreign investors tends to dominate trading, because many local investors buy and hold. Small day-to-day flows to and

from the developing country market are usually sufficient to keep the market reasonably correlated with the industrial country markets, reducing the diversification incentive for large, new inflows. One indicator of the extent to which this process has occurred is the decline in single country equity funds in industrial countries (*Financial Times* 2002).

A second effect is the shift offshore of equity issues and trading of the larger companies once they are permitted to raise capital offshore. During the 1990s larger companies took advantage of the lower costs and greater liquidity and increasingly raised capital in industrial country markets by issuing depository rights,[27] or even shifted their primary listing offshore.[28] On average, companies accounting for about 55 percent of market capitalization in 15 middle-income countries and 27 percent in 25 low-income countries were listed offshore in 2000 (Claessens, Klingebiel, and Schmukler 2002). Not only are the shares listed offshore, but trading is shifting offshore. This is particularly true in middle-income countries where, on average, about 40 percent of the trading in firms listed offshore took place offshore in 2000 (Claessens, Klingebiel, and Schmukler 2002), suggesting that in many cases liquidity in these firms' shares may be greater offshore than onshore.[29] Moreover, in some cases large companies that were mainstays of the small, local markets have been taken over by foreign companies, in effect moving their listing to equity markets in these companies' home countries. Thus the net result has been to reduce the trading volume of shares in some of the largest companies in developing country markets, further reducing liquidity and the effectiveness of stock markets in developing countries.

Thus companies that are large enough and strong enough to attract international interest have benefited from globalization in terms of lower costs of capital. The foreign presence in the local market will also benefit other listed companies and those that take advantage of the initial wave of foreign investment to go public. After the initial inflow going public on the local stock exchange may not be much easier than before the foreign investors entered, partly because the entry of foreign investors may lead to much stronger regulation and market integrity. However, this is not much of an issue because, generally speaking, equity markets have not been sources of finance for medium companies. The attractiveness of the domestic equity market to foreigners and the development of the domestic commercial paper and bond markets can be stimulated by improving the legal framework and developing a local government bond market.[30] The development of a local commercial

paper market is desirable, as it creates competition for banks. Such competition was an important factor in reducing bank lending rates in the United States.

A third effect of globalization on equity markets is the potential gain from international diversification of equity portfolios by investors located in developing countries. Thus if local investors are permitted to invest offshore, they benefit from a much wider range of options and can diversify better. Of course, to the extent that local investors invest offshore, the outflow of funds offsets the inflow of funds from international investors. In terms of local market volume the net effect can be either positive or negative.

The inability to diversify could be particularly costly for capital market investors in small countries, because of the small economies' high volatility. However, most of the literature on the benefits of international portfolio diversification takes a U.S. perspective and focuses on large economies. Driessen and Laeven (chapter 7 in this volume) document the benefits of international equity portfolio diversification across a range of countries, in each case from the perspective of a local investor. They measure the benefits of globalization to investors from investing in equities outside the national market, and investigate whether these benefits differ substantially between industrial and developing countries. They find that the benefits of investing abroad are large in general, and are largest for investors in developing countries. Unfortunately, investors in developing economies are often restricted in their offshore investments, which highlights the importance of further liberalization of international financial markets for offshore investment.

Contractual Savings

Pension funds and other forms of contractual saving in small economies exhibit the same problems of high costs, lack of competition, and lack of diversification as banking and capital markets. Economies of scale in pensions and other forms of contractual saving are an important issue (Ghilarducci and Terry 1999). In their exhaustive review of the subject, Glaessner and Valdés-Prieto (chapter 8 in this volume) break down the supply of pension funds into elementary functions and services. They argue that economies of scale are important in what are potentially separable subsegments of the pension industry, such as collecting contributions and payments, processing data, and maintaining records, but not in client services.

The economies of scale in pension funds and the resulting process of consolidation in pension funds raise the issue of competition in

pension services, a problem that is exacerbated in small economies. In many countries where mandatory, fully funded pensions have been set up along the lines of the Chilean scheme, observers note definite tendencies toward a reduction in the number of providers consistent with the observation that economies of scale prevail.[31] Obviously, one response might be to create a single national scheme or provident fund. This might only apply to the areas where economies of scale exist as, for example, the Swedish approach and the U.S. Thrift Savings Plan for U.S. government employees, where a single provider is responsible for collections and payments, but contributors have a choice of mutual funds in which to invest. This approach can be operated in such a way as to limit the marketing expenses that have sometimes been a problem in Chilean-style schemes. However, such an approach is likely to be government operated, and experience in many developing countries suggests that government-operated funds run the risk of poor handling of individual accounts as well as low rates of return.[32]

Another alternative, discussed in Glaessner and Valdés-Prieto, would be to unbundle the various services and use global providers. An example is the split between collecting contributions and investing discussed in the previous paragraph. Unbundling would allow the small country to benefit from economies of scale by using domestic services where economies of scale are not present and international competitive bidding for provision of the other services. Reputable global banks can also provide custodial services to segregate pension assets from nonpension assets, an important element in protecting pension funds from poor performance by an individual institutions (see Impavido, Musalem, and Vittas, chapter 9 in this volume). A side benefit of globalization in this context is that the country will also import elements of the regulatory framework of the country of the provider of the service.

Fully funded pensions in small economies also face problems of diversifying their investments, unless they are allowed to invest globally (Glaessner and Valdés-Prieto and Impavido, Musalem, and Vittas, chapters 8 and 9 in this volume). Capital markets in developing countries tend to be small and illiquid, as discussed earlier. The growth of fully funded pensions does tend to stimulate larger markets by creating a demand for longer-term paper, but cannot resolve the problem. However, the pension funds are likely to swamp the domestic market, bidding up prices and becoming too large to undertake trades without generating substantial price movements given the domestic market's low liquidity.[33] Moreover, as noted previously, small economies tend to be more volatile than large

economies, and so local capital markets may have relatively large swings. These problems may be worsened by erratic macroeconomic policy. As a result, some participants in fully funded pensions in small economies may become victims of country risk if they retire during bad years, a problem that may be more pronounced in small economies, and as a result receive much smaller pensions than others who retire a few years earlier or later.

One solution for these problems is global diversification of pension fund investment, as discussed in Glaessner and Valdés-Prieto and Impavido, Musalem, and Vittas. In practice, countries that have fully funded pension schemes typically restrict the amount of external investment, even when the capital account is fairly open, for instance, Canada, Chile, and Peru. This yields the paradoxical situation that individual investors can diversity more than institutional investors. Such restrictions represent a holdover from the national approach to finance, with the government seeking a local market for its debt and hoping to increase investible resources in the country. However, such an approach is, in effect, a differential, dedicated tax on the pension contributors in favor of the government and those firms that are eligible for pension fund investment. The differential in taxation is particularly large in countries where other capital flows are relatively free. Allowing greater global diversification by pension funds would improve the access of pension fund contributors to a better range of risk and return options and reduce the risks associated with retiring in a "down" year. Glaessner and Valdés-Prieto even suggest that requiring such diversification might be desirable.

Regulation

The quality of financial regulation and supervision, as well as of information and the legal system, are important factors in making the most of the globalization of finance. Strong regulation and supervision may help to encourage domestic depositors and investors and attract foreign investors. Most observers agree that weak financial regulation contributed to the East Asia crisis.

The globalization of finance can itself contribute to strengthening. For example, countries that want to list on one of the industrial country markets or to sell depository rights are required to improve their financial accounts and disclosure. Such disclosure can not only inform and protect the domestic investors in that company, but can even place pressure on companies that are not listing abroad to enhance their disclosure. Likewise, the entry of foreign

banks can import good practices established in their home countries and cause local banks to respond lest their customers migrate to the newcomers.

To a degree, self-regulatory structures may emerge where official regulation is lacking (as happened in the case of the unregulated Euromarkets of the 1960s). However, self-regulation is rarely enough for consumer and systemic protection in finance, particularly in developing countries. Yet without a global financial regulator the reality has been one of uneven, and in many cases inadequate, official regulatory and supervisory structures in small developing countries. To some extent this has been the consequence of a skills deficit, and to some extent the result of a lack of political will.

The promulgation of a series of codes and standards of good financial regulation and information has created the embryo of what Jordan and Majnoni (chapter 10 in this volume) describe as an international soft law on these matters. The first of these statements was the Basel Core Principles for Effective Banking Supervision, adopted in 1997, which has been followed by a large number of parallel statements developed by international associations of regulators for the various segments of the financial system, or by international financial institutions for areas as diverse as insurance, securities markets, accounting, auditing, corporate governance, systemically important payments systems, and transparency of financial policies.

These principles will, no doubt, be modified in time, but for the moment, the readiness with which they have been accepted internationally is striking. Disseminated in part through the Financial Sector Assessment Program of the International Monetary Fund and the World Bank, they are beginning to form the backbone of "hard" financial sector law and regulation in many countries. The speed of this legal globalization process rivals that of financial services. Jordan and Majnoni argue that an important factor in their acceptance has been their blend of elements of market and regulatory discipline, which has helped to gain the support of traditionally opposed constituencies. Yet, as Jordan and Majnoni observe, for small countries with limited administrative capacity, to transplant and implement these principles effectively in the local legal and institutional environment will remain a challenge.

Conclusions

Small financial markets characterize the vast majority of developing countries. This volume finds that this tends to mean that financial

services are more expensive for residents of these countries because of the lack of economies of scope and scale and of competition and because opportunities for diversifying risk are limited.

As the chapters in this book discuss, the globalization of finance tends to offset these countries' deficiencies by providing individuals and firms with better opportunities in regard to risk and returns and more and better services at lower costs. Whether for a depositor, a borrower, a stock investor, a firm raising equity capital, or a worker investing a pension, access to international markets provides more diversification; possibilities for higher returns on investments; lower costs of funding; and less costly, more competitive, and more diverse financial services. The availability of foreign financial assets and the location of foreign intermediaries onshore increase access to these benefits, and domestic capital markets and firms tend to benefit from inflows. Better legal frameworks and regulation and supervision can increase the attractiveness of local markets to foreign inflows and globalization can contribute to improving these frameworks.

Of course, as with freer trade there are some losers, namely, those who benefited from the national financial system. Citizens employed in domestic financial intermediaries and markets may lose their jobs because of competition from foreign banks, and governments and those few borrowers who benefited from below market credits will find their costs of borrowing increasing. Some have raised concerns about the provision of loans to small borrowers and, in Africa, about small depository services by banks; however, most evidence suggests that small borrowers did not benefit much from the national financial system (see Caprio, Hanson, and Honohan 2001 and the works cited therein). Moreover, some evidence suggests that large foreign banks provide as much credit to small borrowers as large domestic banks, including large public banks, and their credit card services are another source of small credits. In any case, traditional banks may not be the best way to reach small depositors and borrowers, and other institutions may be needed.

The globalization of finance has potential macroeconomic costs, however, that can affect individuals and firms indirectly. First is the well-known concern that globalization may increase macroeconomic volatility, which is already larger in developing countries than in industrial countries. Individuals and firms may be able to protect their assets better against volatility with globalization, but the variability of aggregate demand may increase and financial instability may become more of an issue.

Second, the globalization of finance complicates monetary and fiscal policy. Open capital markets reduce the independence of mon-

etary policy. Of course, that may not be a great loss for countries that have pursued unstable monetary policy, but it could be an issue for some countries.[34] Fiscal policy becomes more effective with financial globalization—it reduces crowding out—but globalization raises its own risks. Globalization reduces the ability to rely on seigniorage, and so may require some fiscal tightening. In addition, whether the international financial architecture and domestic political governance provide appropriate discipline against excessive borrowing is not clear.

The globalization of finance is thus not an unmixed blessing, but it appears to be inexorable. Increased trade, travel, and migration make it difficult to maintain capital controls and government allocations of foreign exchange without risking worsening corruption and income distribution. In recognition of these problems and the net benefits of more open capital accounts, countries have increasingly liberalized finance internationally, thereby providing a "test of the market" for financial globalization. However, the issues mentioned in this chapter mean this must be done carefully. Strengthening financial systems through stronger regulation and supervision and allowing the entry of reputable foreign banks are important, both areas in which globalization can actually help. Macroeconomic policy, particularly offshore government borrowing, must be done carefully. Adjustments may also be needed in the domestic financial sector and the policy toward inflows to ensure that the incentives to borrow offshore are not excessive.

Notes

1. The currency boards of the two CFA zones in Africa and the eastern Caribbean countries were the best known exceptions.

2. The countries did not adopt floating exchange rates to isolate their economies and financial systems for a variety of reasons, including the Bretton Woods arrangements, which were based on adjustable peg exchange rate regimes; the political economy of the time, which involved government rather than market allocation of resources like foreign exchange; and the concerns that floating rates would be unstable.

3. Studies such as Leblang (1997) show a correlation between capital controls and pegged exchange rates.

4. The South American countries have had their own currencies for many years and have suffered from a history of high inflation. Panama used the U.S. dollar as its currency, and most Central American countries had their own currencies, but maintained fixed rates against the U.S. dollar until they succumbed to inflationary tendencies in the 1980s (Edwards 1995). Mexico

also maintained a fixed exchange rate against the dollar for many years, but experienced higher rates of inflation and frequent devaluations after 1983.

5. The tendency to finance directed credit with cross-subsidies, that is, higher rates on other borrowers, leads to pressures to expand directed credit as discussed in Caprio, Hanson, and Honohan (2001).

6. For example, as trade grew overinvoicing imports and underinvoicing exports to transfer funds overseas became easier.

7. For example, the 1991 Peruvian Constitution, passed after the hyperinflation of the late 1990s, guarantees citizens the right to hold foreign exchange assets.

8. Hanson (chapter 4 in this volume) also provides some data suggesting that offshore deposits have risen. These calculations are based on Bank for International Settlements data on deposits in OECD banks by nonresidents. They understate offshore deposits because they exclude deposits in non-OECD financial centers and because nonresidents may use addresses in OECD countries for their banking.

9. The table excludes 26 other developing countries all of which had deposits of less than US$10 billion and none of which had stock markets. These countries were excluded either because their data appear to reflect a role as an offshore financial center or because of large movements in offshore deposits during the period.

10. Of course, this also implies no significant growth benefit from restricting capital flows.

11. See Dooley and others (1986) and World Bank (1985) for Latin America in the 1980s, World Bank (2000) for East Asia before the 1997 financial crisis, and World Bank (2002) for China.

12. Broadly speaking these markets are ineffective because they are often limited by governments; because banks are often limited in their ability to engage in or lend for hedging; and because, as Mundell (1968) notes, their smallness may generate market power. The markets for foreign exchange hedging are also limited because residents with access to foreign exchange may choose to sell it directly or use it to self-hedge their own activities (see Mussa and others 2000, p. 15). Hence hedging mostly depends on nonresidents, and their participation is often discouraged by the difficulty of collecting on contracts in the context of the weak legal framework. Small, offshore futures markets have existed in a few currencies in Hong Kong (China), Singapore, and the United States. Governments sometimes offer hedges, often at subsidized rates, but these have proved costly, particularly during crises, for example, in Thailand in 1997.

13. See, for example, Alesina, Grilli, and Milesi-Ferreti (1994) and Garrett (1995, 2000). Of course the direction of causation in this relationship is hard to establish, that is, capital controls may be imposed because a government intends to engage in macroeconomic imbalances, as Dornbusch and Edwards (1991) and Eichengreen (2001) note.

14. Of course, individuals and firms also use offshore holdings of deposits and other assets to avoid taxes.

15. They may also hedge by placing funds offshore as discussed in Honohan and Shi (chapter 2 in this volume).

16. Note that much of the credit risk depends on national economic instability rather than on the loan being denominated in foreign currency as such. If borrowers were forced to take domestic currency loans instead of foreign currency loans (and assuming matching of deposits), then the institution would still have a large credit risk because of the high, variable domestic currency interest rates that prevail in unstable countries in which devaluation may occur.

17. Moreover, hedging would reduce the gains from borrowing in foreign currency. If perfect hedging facilities were available and a devaluation were perfectly forecast, then the cost of foreign and domestic currency loans would be equal, although hedging might still involve higher cash flow payments initially.

18. This includes all the countries with less than US$300 million of deposits, as well as those countries for which data are available on the number of banks that have an average size of less than US$300 million. The actual number with an average bank size of less than US$300 million is probably larger, because many of the countries in which the number of banks is unavailable have total bank deposits of less than US$2 billion.

19. The number of commercial banks in the United States declined from 12,300 in 1990 to 8,300 in 2000 and their average size more than doubled, rising from US$150 million in deposits in 1990 to US$330 million in 2000.

20. Another justification is that following countries' independence, foreign banks only dealt with traditional business and did not serve governments' developmental goals.

21. Lower wages may provide some offset. Bossone, Honohan, and Long (2002) attempt to take the effect of low wages on costs into account by using per capita GDP as a proxy for wages.

22. Another important precondition for private bonds is a sound legal framework for bondholders' rights.

23. In some cases a market does exist for short-term, central bank bonds that have been created to carry out open market operations for monetary policy. This market's infrastructure could also be used to set up a government bond market, but institutional changes would also be necessary to deal with the interaction of government and central bank bonds and any switch to the use of government bonds for open market operations.

24. Among the largest markets China has about 1,100 listed firms, Malaysia has about 800, South Africa has about 600, Turkey has about 300, Brazil has less than 450, and Mexico has less than 200.

25. Another factor pertinent to low liquidity in developing country markets, even large ones, may be prohibitions on bank lending for equity

trading. Developing countries often restrict this in an attempt to divert credit from what they consider financial speculation to the real economy.

26. For example, India's National Stock Exchange has had an electronic system linked to brokers' offices throughout the country since the mid-1990s. The South African (JSE) Securities Exchange recently initiated an electronic trading system based on the London Stock Exchange's system. Shah and Thomas (1999) argue that direct transaction costs in Indian markets were halved between 1993 and 1997, although they were still double the costs in U.S. markets.

27. Depository receipts are foreign currency–denominated instruments issued by international banks, mostly in New York (American depository receipts) or London markets (global depository receipts), that are linked to securities traded in developing countries and held by a custodian. Depository receipts and stock values typically move together in their home markets, because depository rights can be converted back and forth into the underlying shares inexpensively. Depository receipts thus differ from the special classes of shares that can only be held by foreigners, such as have existed in China and the Republic of Korea. Karolyi (1998) provides a useful summary of the options for international listings.

28. For example, South African Breweries and Anglo-American recently moved their primary listings from the Johannesburg Exchange to the London Stock Exchange.

29. In low-income countries the average trading offshore is only 7 percent of onshore trading.

30. As noted earlier, international banks often play a large role in government debt markets in developing countries.

31. Of course, large numbers of employee-based pension schemes continue to exist in many countries, but these have limited portability and piggyback on the company payroll system. Nonetheless, they often incur high costs, have poor records, and may use employee pensions as a source of investment funds as discussed in Impavido, Musalem, and Vittas (chapter 9 in this volume). These problems are particularly true in relation to small companies' employee pension funds.

32. Impavido, Musalem, and Vittas (chapter 9 in this volume) provide some evidence suggesting that rates of return are associated with the quality of governance in a society.

33. The illiquidity of the market makes it difficult to mark pension fund assets to market.

34. Moving toward more flexible exchange rates may restore some monetary policy independence. However, it may also encourage individuals and firms to move toward more foreign currency–denominated assets and liabilities, which also reduces the effectiveness of monetary policy. Moreover, the importance of foreign currency–denominated assets and liabilities in the

domestic financial system often seems to lead to countries aiming their policies at stabilizing the "flexible" exchange rate (Calvo and Reinhart 2000).

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