Chapter 5

FINANCIAL INTEGRATION

Financial integration is the process through which a country's financial markets become more closely integrated with those in other countries or with those in the rest of the world. It implies the elimination of barriers for foreign financial institutions from some (or all) countries to operate or offer cross-border financial services in others. This may imply linking banking, equity and other types of financial markets.

Financial integration can be achieved in a number of ways. It may emerge as a result of formal efforts to integrate financial markets with particular partners, typically those that share membership in a regional integration agreement (RIA). Integration in this sense may involve eliminating restrictions to cross-border financial operations by firms from countries in the same RIA, as well as harmonizing rules, taxes and regulations between the member countries.

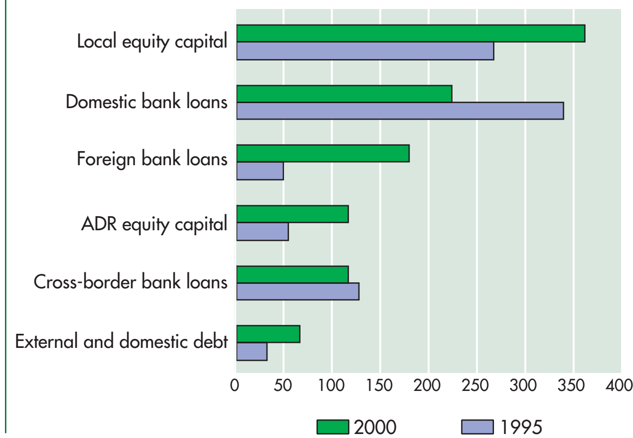
Financial integration can also emerge in the absence of explicit agreements. Such forms of integration as foreign bank entry into domestic markets, foreign participation in insurance markets and pension funds, securities trading abroad, and direct borrowing of domestic firms in international markets—all of which have occurred in Latin America and the Caribbean—have for the most part occurred de facto, without the need for formal agreements. As in much of the developing world, this de facto integration in the region has primarily been with the developed world.

The two different forms of integration are in some ways related. A formal financial integration agreement, for example, may require harmonizing certain regulations that govern financial markets. Similarly, in order to integrate de facto with the financial markets of the world, a country may redefine its own regulatory setup and converge toward international standards, thus becoming more attractive to foreign financial institutions, even without the need for an explicit agreement.

These two forms of financial integration complement rather than substitute for one another. Formal financial integration at the regional level may increase financial links with the rest of the world. For instance, a group of small countries—such as those in the Central American Common Market (CACM) and the Caribbean Community (CARICOM)—may decide to harmonize standards and regulations to attract foreign participation from both financial institutions within the region and from the rest of the world. That same effort done by each country individually would likely be less effective because of the small scale of each individual market and the need to establish multiple operations under different regulatory regimes. Justifying such a strategy naturally implies that one believes that foreign participation is beneficial for the host countries, a subject that will be discussed at length throughout this chapter.

Deeper integration with world financial markets may also lead to more financial links within a group of developing countries bound by an RIA. An example is foreign banks that have established subsidiaries or branches in almost all the Latin American countries. The presence of these banks may lead to strengthened financial ties between the host countries involved, as financial services linked to trade and

Figure 5.1 **Financial Structure of Latin American Nonfinancial Firms**
(In billions of constant 1995 US$)



Source: Fitch IBCA's Bankscope for domestic and foreign bank loans; BIS for cross-border bank loans and external and domestic debt; Economatica for local equity capital; and Moel (2001) for ADR equity capital.

investment flows will likely be facilitated by the use of the same financial institution at both ends of the deal.

Initiatives for formal financial intaegration in the region have been quite limited and constrained primarily to the North American Free Trade Agreement (NAFTA) and CARICOM. Yet, Latin American firms are strongly integrated into international financial markets (Figure 5.1). In 2000, more than $479 billion in financing in the region came from foreign sources or was intermediated through foreign agents. With respect to direct funding, the most relevant were ADRs (American Depositary Receipts), accounting for $117 billion, and cross-border bank loans of nearly $116 billion. In addition, foreign banks located in the firm's country lent nearly $180 billion. Taken together, these forms of funding represented nearly half of the firms' external (to the firm) sources of funding.

Given the limited number of formal regional financial integration agreements in Latin America and the importance of de facto financial links, this chapter focuses more on the latter type of integration, including the evolution, benefits and disadvantages of allowing deeper foreign participation in domestic banking markets and integrating stock markets with the world. From the point of view of Latin American firms, these are the most relevant forms of financial integration. Although the principal sources of external funds for Latin American firms come from domestic financial markets and funds raised through ADRs, as other forms of integration become more important, regional financial integration may follow.

Financial Integration in Latin America

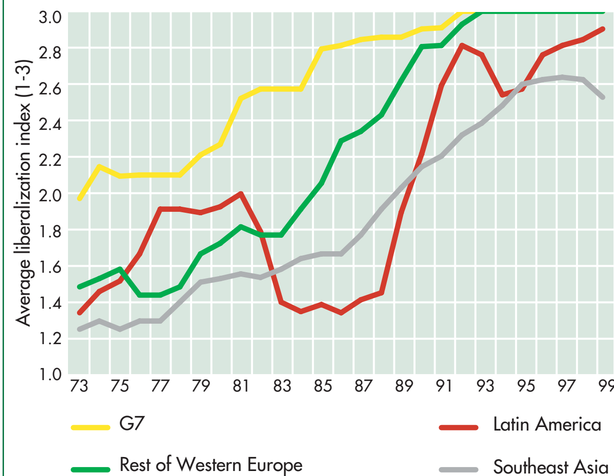
The case of foreign banks is a notable example of how financial integration in Latin America has occurred mostly in de facto fashion with developed countries, rather than with other countries of the region. More than 98 percent of the foreign bank share of assets comes from developed country banks, and only 2 percent comes from banks within the region. The same is true for cross-listings and other forms of financial integration. The main reason is that capital is scarce and financial development is limited in the Latin American countries.[1] Moreover, the main incentive to open up to external markets in search of cheaper sources of capital is missing in pairings between Latin American economies.

The process of integrating into international financial markets started for most developing countries in the early 1980s, when restrictions were lifted on capital account movements and foreign participation of international actors in domestic financial markets. Figure 5.2 shows that by the early 1970s, financial sectors in most developed countries were already significantly liberalized, while in most developing countries they were still repressed. The liberalization process was gradual but steady in most regions except in Latin America, where there was a significant reversal in the 1980s.

Driven by Southern Cone countries with laissez faire financial policies that supported unrestricted private participation in financial markets without direct government regulation, liberalization spread rapidly in Latin America starting in the early 1970s. Combined with serious macroeconomic disorders, however, this process led to massive bankruptcies and a financial crisis throughout the region (Diaz-Alejandro, 1985). Coun-

[1] The lack of regional financial integration schemes may also have limited this process.

Figure 5.2 **Financial Liberalization in Developed and Developing Countries**



Note: The liberalization index is calculated as the simple average of three indexes (liberalization in the capital account, domestic financial system and stock market) that range between 1 and 3, where 1 means no liberalization and 3 means full liberalization. These data are then aggregated as the simple average between countries of each region in each decade.
Source: Kaminsky and Schmukler (1999).

tries abandoned laissez faire practices and introduced tighter regulations and restrictions to their financial systems. There was also a de facto nationalization of the banking sector. Later, at the beginning of the 1990s, Latin America engaged once again in the liberalization strategy.[2] The main difference with respect to the earlier liberalization effort was that, this time, regulatory and supervision mechanisms were implemented to avoid the previous type of crisis.

Financial integration in Latin America has been strongly linked to integration on other fronts. Integration through trade and FDI has been an important determinant of the integration in banking and cross-listing of equity. Two salient features have been notable since the liberalization process of the 1990s. Large international banks have increased their presence in the region, and firms have gained the ability to increase their sources of funding by tapping international capital markets directly, mostly through the listing of Depositary Receipts (DRs) on foreign stock markets. Despite the fact that local credit markets have not increased significantly in size, the efficiency of credit allocation has improved.[3] However, the size of other markets has increased significantly for the firms within the region due to capital account and stock market liberalization that allows businesses to access foreign markets directly. Through these mechanisms, firms have been allowed to issue cheaper debt abroad and foreign banks have been allowed to penetrate financial markets, including the administration of pension funds and insurance companies.

Financial Integration through Formal Agreements

Finance and trade were once distinct realms. However, over the past 15 years, provisions governing "trade in financial services" have increasingly been incorporated into trade agreements. This process has been driven by both the accelerating pace of cross-border mergers and acquisitions in the financial sector, and by the development of comprehensive disciplines governing other types of services. Rules on trade in financial services define the degree of market access and the national treatment granted by signatory countries in the banking, securities and insurance subsectors, broadly defined. From the beginning of their integration into the trading system, financial services have been treated as distinct from other types of services. The centrality of the financial system to the whole economy calls for a degree of caution in the liberalization process that is not so much required in tourism or air transport services liberalization, to cite just two examples.

There are several advantages of integrating financial systems through these types of agreements. The most important one—which is also gained though informal mechanisms of financial integration—is the exploitation of economies of scale, traditionally impor-

[2] A crucial question regarding liberalization is its impact on country growth rates. Galindo, Micco and Ordoñez (2002) find that liberalization in general has had an important positive impact on growth rates of economic sectors that rely deeply on external financing. The degree of impact of liberalization depends on the quality of the institutions that support the proper functioning of credit markets.

[3] Galindo, Micco and Ordoñez (2002) show that when creditors are unprotected, as in Latin America, financial liberalization has little effect on credit market development. Galindo, Schiantarelli and Weiss (2002) provide direct evidence on financial liberalization improving the efficiency of investment. They show that financial liberalization is associated with increasing financial flows towards relatively more profitable projects.

tant in financial markets. This is particularly vital for small and medium-sized firms that will be able to access deeper financial markets. In a sense, this can be equivalent to removing certain forms of credit constraints faced by businesses.[4] Moreover, from the perspective of financial institutions, businesses become better clients because they have less exposure to individual risks. The law of large numbers guarantees less exposure to credit risk as the number of clients increases. Hence, both from the perspectives of firms and financial intermediaries, integrating into larger markets, or even the formation of larger markets, is beneficial.

Additional advantages linked more specifically to formal integration agreements are associated with gaining regulatory independence and avoiding regulatory arbitrage. Problems in these areas are notable in less developed countries. When the financial system is small and there are direct links between regulators and banks, supervision is usually not guided by independent policies.[5] Integrating formally can reduce this risk, as it increases the number of participants and interests governing the financial system. In an integrated system, regulatory principles are driven by supranational principles that are likely to be less influenced by domestic interests.

The most basic principles needed to achieve such forms of integration are harmonizing regulatory, accounting and auditing standards. This is crucial to guarantee transparency and comparability across financial sectors. Equally important is to harmonize the valuation criteria of the risk of bank assets. Different risk valuations, for example, can lead to totally different accounting of required capital to buffer shocks as well as to regulatory arbitrage.[6] Ideally, financial institutions in all countries participating in an integration arrangement should adhere to similar financial regulations. Such harmonization leads not only to cross-border integration between countries within a treaty, but also can attract foreign players, which, as will be discussed below, can improve the stability of the financial system.

In addition, financial markets can become better integrated if information is shared across countries. Harmonizing rules that govern credit information and collateral registries, as well as allowing for data sharing between countries, can also support regional financial integration. Any policy that facilitates information sharing across countries or increases its efficiency at any level relevant to financial markets can help promote cross-border trading of financial services.

Financial Integration in NAFTA

NAFTA includes three bilateral agreements regarding financial integration between each of the three countries involved (Canada, Mexico and the United States). However, prior to passage of NAFTA in 1993, and even before the Canadian-U.S. Trade Agreement (CUFTA) in 1989, U.S. and Canadian financial markets were already highly integrated.[7] Although the CUFTA was less ambitious in other respects than NAFTA, it explicitly treated the issue of financial services trading and accepted the principle of national treatment of foreign banks.[8]

On the other hand, Mexico's financial sector was highly repressed prior to NAFTA, with numerous restrictions on the participation of foreign players, including interest rate controls and directed credit policies. Despite this, many firms, especially large ones, had direct access to international markets, and citizens also exploited savings and investment benefits of foreign domestic financial markets, particularly those of the United States (see White, 1994).

Like CUFTA, NAFTA deals directly with financial integration. Chapter 14 of NAFTA addresses these issues and is based on forward-looking principles designed to enhance market access. The main guiding principle recognizes that financial institutions should have equal access to member countries, either through cross-border trading or by directly establishing facilities, and should not be subject to discriminatory treat-

[4] Recent research by Love (2000) shows that firms in countries with deeper financial markets have lower credit constraints.

[5] Examples are some Central American countries, where bankers have a seat on the boards of the supervisory agency.

[6] Regulatory arbitrage refers to the possibility of intermediaries acting strategically to avoid certain regulations in particular countries.

[7] Canada, for example, has had essentially no capital or foreign exchange controls since the 1950s. Restrictions to foreign bank entry were lifted in the 1980s.

[8] This principle states that foreigners should have the same rights as nationals. Note that this differs from the reciprocity principle that claims that a foreigner in a host country should be given the rights of a host country resident in the foreign country.

ment. NAFTA contains provisions to ensure transparency of government decisions in this area, including a financial services committee and dispute settlement procedures.

The guiding principle of NAFTA with regard to financial supervision is that it is a host country affair. However, regulators are permitted to negotiate bilateral agreements leading to regulatory and supervisory harmonization. The evolution of certain U.S. regulators regarding harmonization is notable. A clear example is the U.S. regulatory position regarding the linkages between banking and securities industries. The since-repealed Glass-Steagall act passed in 1933 stated that these industries should remain separate. This led to a financial system structure in the United States very different from the universal banking approach of Canada and Mexico. However, the United States allowed some exceptions for Canadian banks, and while the practical effect of this exemption was minimal, it marked the first time that the United States had shown a willingness to modify some part of its domestic regime to further integration.

Regarding rules of origin, the United States and Mexico agreed to treat financial institutions residing within their jurisdictions as nationals. This helped facilitate the entrance of European foreign banks into Mexico. Canada, however, treats U.S. and Mexican banks ultimately owned by non-member country institutions as non-NAFTA banks.

Initially, NAFTA restricted foreign investment in the Mexican financial system. Under the original treaty, Mexican banks were protected from foreign competition through provisions that limited foreign ownership.[9] However, these restrictions were liberalized after the 1995 peso crash and the collapse of the financial system. Even when Mexico had the discretion to establish market share limits to U.S. and Canadian banks, barriers to foreign investment in banking were eliminated in 1998 to attract fresh capital and modern technologies to the financial sector.

Since 1995, the Mexican financial system has gone through a profound transformation. The banking sector has witnessed foreign institutions merging with and buying domestic banks. Most notable are the entrance of Citibank, Banco Bilbao Vizcaya and Banco Santander. These and other international banks have injected significant capital into the financial system. Between 1994 and 1999, $4 billion entered the banking system, with the United States and Canada accounting for nearly 70 percent of these flows.[10] As a result, foreign majority ownership (defined as owning more than 50 percent of bank assets) in Mexico's banking system already accounted for 20 percent of total assets by 1998, five times more than in 1994.

Other Regional Agreements

Advances in formal regional financial cooperation have been very limited among the Latin American countries. As an example, aside from NAFTA, there has not been much progress in regional financial service liberalization beyond approval of protocols.

However, some initiatives are worth noting, such as certain efforts to integrate stock markets, as well as the creation of subregional development banks in Central America (BCIE), the Andean area (CAF), the Southern Cone (FONPLATA)[11] and CARICOM (CDB). Some CARICOM countries (Barbados, Jamaica and Trinidad and Tobago) have moved toward a regional stock market with cross-listing and trading in securities on existing stock exchanges in order to facilitate the cross-border purchase and sale of securities. The small islands of the Association of Eastern Caribbean States, part of CARICOM, have a long-functioning common currency and a common central bank.

In addition, the Latin American Reserve Fund (LARF) provides forms of balance of payments support to the Andean Community (AC) countries and Costa Rica. The goals are to help correct payments imbalances through loans with terms of up to four years and guarantees extended to members; to coordinate their monetary, exchange and financial policies; and to pro-

[9] The treaty allowed for a transition period until 2000, when limits on the aggregate share of all foreign bank assets in Mexico would be in place. The proportion of total financial system capital that foreign banks could hold was limited to 8 percent and was allowed to increase gradually to 15 percent by 2000. After 2000, any NAFTA country bank could establish a wholly owned subsidiary in Mexico, though no single bank could own more than 4 percent of the financial system's total capital unless that capital had been raised in the form of retained earnings.

[10] See de la Mora (2001).

[11] The Fondo Financiero para el Desarrollo de la Cuenca del Plata (FONPLATA) includes Argentina, Bolivia, Brazil, Paraguay and Uruguay.

mote the liberalization of trade and payments in the Andean subregion. Since its inception, LARF has lent around $9.2 billion to its member countries.

Meanwhile, at a regional level, ALADI has developed a reciprocal payments system to finance trade among members. The system, designed to overcome foreign exchange obstacles to trade, has facilitated around $212.1 billion in commercial operations since its beginnings in 1966. However, only 3.3 percent of the total imports from ALADI were financed throughout this system in 2001, in sharp contrast to around 90.9 percent in 1989.

Finally, it is important to note that throughout the 1990s, Latin American financial integration has been driven by market forces. Indeed, increasing participation of foreign banks and investment funds has driven de facto integration of financial markets across the region.

One of the RIAs in which the issue of financial integration is attracting attention is the Central American Common Market (see Box 5.1).

Lessons from the European Union

Financial integration in the European Community followed a gradualist approach that was implemented through a coordinated process of legislation among the member countries. The goal was to create a legislative framework that would allow greater integration of financial markets without giving up public policy interests of each member state in terms of prudential rules, market stability and consumer protection. In this regard, the Single Market Program to create a European economic system was based on the principle of home country control, regulatory competition and minimum standards harmonization. Under the home country control principle, primary supervision was left under direct control of national authorities. Mutual recognition and regulatory competition between the state members were acknowledged. However, participants' national laws did not have to be fully harmonized, and home country rules were accepted as the ones governing cross-border provision of services and the activities of branches in host countries. Integration brought several benefits to the regional market in the form of greater exposure to international competition, improved efficiency in financial intermediation, more efficient capital utilization, the development of the financial industry itself, and better fiscal discipline.

Liberalization of financial services was achieved through the creation of the "Single Passport," which allowed the provision of financial services, either by trading or by investing, in host countries without further authorization beyond that of the home country. However, the program led to heterogeneous integration across both sectors and countries. While the wholesale banking sector deepened its integration process, retail banking remained fragmented and strongly localized. Securities markets experienced deeper integration, whereas the insurance subsectors were limited because of legal barriers.[12]

What can Latin America learn from Europe? Latin America presents a different departure point in many aspects. The initial level of economic development is significantly lower, there is much less convergence between economic policies, and the financial systems are much more shallow. The European experience nevertheless shows that financial integration requires that there be:

- Clearly defined long-term aims beyond sectoral efficiency, including economic development and global competitiveness;
- Recognition that minimum harmonization of regulatory frameworks and cross-border financial activities require reform of public administration, particularly regarding tax treatment, banking and insurance legislation, and joint supervision of securities markets, in order to make the "Single Passport" system feasible and reliable; and
- Commitment to a considerable degree of fiscal harmonization and economic coordination, in order to avoid financial crisis that would hinder effective financial integration.

A glance at Latin American countries reveals clear obstacles to implementing an orderly process of financial integration in the European style, including

[12] Major barriers appear to have been differentials in the tax treatment of savings and financial income, which distort the optimal allocation of capital, and the enactment of a let-out clause by the European Commission, which weakened the home country principle by establishing that the host country also has the right to regulate activity in order "to protect the public interest."

Box 5.1 Should Central America Advance toward Financial Integration?

The 40 years during which the integration process in Central America has been under way has seen major strides in consolidating the Central American Common Market (CACM). Progress has been uneven, however, in that it has targeted goods more than services. Particularly in terms of financial services, the five CACM economies—Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua—continue to operate as separate compartments. There are convincing reasons to bring financial services under the umbrella of the CACM, and to move towards a true common market with free-flowing mobility of goods, services, capital and, eventually, labor.

Central America's domestic financial markets suffer from severe limitations that restrict their ability to channel resources efficiently among economic agents. Table 1 shows the standard measures of financial development in these countries and compares them with countries that have deeper financial sectors. CACM country financial systems are underdeveloped relative to their economies, charge high spreads, and do not seem to have effective screening processes for loans.

Furthermore, in such small economies, it is not possible to develop the array of sophisticated financial products necessary for development, among them stock markets, venture capital facilities and insurance services. Underdeveloped financial markets also make it difficult to undertake pension system reform. In Nicaragua, for example, there are only 200,000 contributors to the private system.

Financial integration in Central America would dramatically increase market size, thereby increasing competition, reducing spreads and interest rates, and improving efficiency through economies of scale and scope. Moreover, the expanded market size would create incentives to provide new and more sophisticated financial services.

There are many problems that must be tackled before financial integration becomes a reality, foremost among them the issue of currency risk. Currently, the CACM countries have different exchange rate regimes. El Salvador has undergone dollarization, Guatemala follows a "dirty float" policy, and the other countries have crawling pegs (Honduras within a band and Costa Rica and Nicaragua without). In order to reap the benefits of financial integration, countries would have to move toward adopting a common regime. Here a range of options is open to them, from a common regime such as that of the pre-Euro European Union, to joint dollarization.

Financial regulation is another important hurdle along the path to financial integration for CACM countries. Banking regulation, for example, has been unable to forestall banking crises in almost all of the countries. It is necessary to move towards consolidated regulation with common standards across countries, and to ensure that offshore banks are not left out of the process. All of these policies will eventually pave the way for common regulation at the regional level.

Table 1 Core Financial Indicators, 2000

	Credit to the private sector (% of GDP)	Real interest rates[1] (%)	Spread (%)	Non-performing loans[2] (% of total loans)	Assets per bank (In millions of US$)
Costa Rica	22.8	16.7	11.5	4.5	342
El Salvador	40.8	9.6	4.7	4.2	583
Guatemala	17.8	14.2	10.7	7.1[3]	220
Honduras	36.6	16.4	10.9	3.6	193
Nicaragua	51.1	8.8	11.9	3.8	224
Chile	67.2	10.3	5.6	1.9	3,600
United States	73.8	3	2.8	0.3[4]	750
Switzerland	165.4	7	1.3	4.1	3,476
Singapore	100	3.9	4.1	5	1,643

[1] Average nominal interest rate on loans minus prior year inflation rate (consumer prices).
[2] Non-performing loans defined as past due loans plus restructured loans.
[3] From the year 2001.
[4] 90-day past due loans.
Source: IDB estimates based on information from the IMF, World Bank, Central American Monetary Council, and national banking and monetary authorities.

Table 5.1 Current Foreign Bank Ownership in Selected Developed and Emerging Markets, 2001

Region	Total assets (US$ billions)	Number of banks	Foreign control[1] (%)
Developed countries			
New Zealand	83.9	16	99.20
Luxembourg	493.0	118	92.71
Finland	254.0	11	63.48
United States	10,800.0	744	10.3
Japan	8,720.0	211	0.02
Sweden	557.0	28	0.42
Emerging markets			
Europe			
Czech Republic	50.3	21	92.99
Hungary	28.2	29	68.84
Poland	85.4	39	63.58
Turkey	156.0	45	6.68
Uzbekistan	4.7	8	0.93
Yugoslavia	26.8	13	0.00
Latin America			
Mexico	156.0	38	76.53
Argentina	166.0	97	54.50
Peru	20.1	17	53.75
Chile	77.1	28	43.71
Venezuela	31.6	70	42.28
Brazil	397.0	138	30.61
Colombia	31.4	39	21.35
Asia			
Malaysia	180.0	51	16.76
Korea	496.0	27	8.73
Thailand	155.0	23	6.37
Indonesia	87.4	67	4.92
India	273.0	75	0.80
China	1,090.0	37	0.21

[1] Ratio of assets of banks where foreigners own more than 50 percent of total equity to total assets.
Source: IDB estimates based on data from Fitch IBCA's Bankscope database.

i) the lack of the political cohesion necessary to carry through on protocols and develop the parallel legislative programs that need to accompany financial integration; ii) the heterogeneity of domestic regulatory institutions and the persistence of fiscal imbalances; iii) the lack of recognition of foreign regulations, constraining the "home country control" principle; iv) the frequent acquiescence to interest group pressures; and v) the threat implied by currency misalignments. Clearly, achieving European levels of financial integration in Latin America does not seem viable at least in the short run. However there are particular groups that have vested interests in achieving at least some more basic forms of financial integration, such as by harmonizing regulations and institutional arrangements for information sharing across countries, as discussed above. Examples of these groups are foreign banks or corporations that have business in or with several countries of the region, and that would benefit directly from financial integration.

The lack of capital in the region has led to a strong North-South de facto integration as opposed to a South-South integration pattern. Even formal efforts to integrate into external markets have focused on gaining access to financial markets in the North. For this reason, the remainder of this chapter will focus on de facto integration, particularly the internationalization of the banking and stock market sectors, discussing in each case its evolution, as well as the benefits and costs associated with it.

Foreign Bank Penetration in Domestic Financial Systems

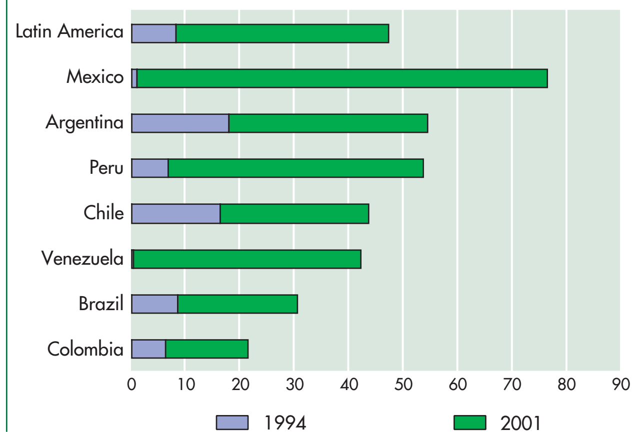
Foreign direct investment (FDI) worldwide was notably dynamic during the 1990s. FDI in emerging markets grew from $19.3 billion to $142.6 billion during the decade. FDI in financial services was also of note, particularly that originating in OECD countries, which accounted for nearly 23 percent of total FDI from OECD countries in 1990 and 31 percent in 1998. Latin America and Central Europe were the major recipients of international capital flows to the banking sector.

Table 5.1 shows current foreign participation in selected developed and emerging market banking systems. The table reveals that foreign banking is of great importance in Latin America and Eastern Europe. During the second half of the 1990s, the share of foreign ownership of banks in both regions increased significantly.[13] Figure 5.3 shows that foreign ownership of banking institutions grew notably between 1994 and 2001 in Latin America.

Most foreign investment in banking in Latin America comes from OECD country banks, particularly Spanish and U.S. institutions.[14] Table 5.2 shows the source of foreign banking grouped by world regions. Europe has the highest degree of intra-regional financial integration (15.9 percent), followed by Africa and the Middle East (7.7 percent), while Latin America has the lowest (0.6 percent).[15] Between regions, the major recipient of foreign participation has been Latin America, where OECD countries, Europe, the United States and Canada own 46.5 percent, 28.2 percent and 18 percent, respectively, of total assets of the regional banking system.

These numbers, however, underestimate the influence of foreign banks in Latin American economies. In most cases, foreign bank participation is accompanied by a very relevant role in managing private pension funds. Table 5.3 shows the share of foreign firms in pension funds in Latin American countries. The share is highest in Bolivia, Peru and Argentina, where foreign intermediaries account for nearly 85.3 percent, 78.5 percent and 73.6 percent of pension funds, respectively. In mature systems such as that of Chile, where the size of the system is nearly 54 percent of GDP, foreign firms manage 54.1 percent.

Figure 5.3 Foreign Control in Latin American Banking Systems
(Percent of banking system total assets)



Source: Galindo, Micco and Serra (2002).

What Determines Bank Location Abroad?

The location of foreign banks across the world is influenced by many factors. Investment decisions by banks take into account the profitability of investment, the development of the financial system, and the need to follow similar strategies as their competitors and maintain their market share. However, there are other crucial factors that influence decisions regarding expansion abroad. In particular, the decision appears to be strongly determined by other forms of integration.

[13] Several reasons led to this outcome. Restrictions on entry of foreign banks were removed as a part of the liberalization process; formerly, public banks were privatized and foreign investors participated in the process; and the banking sector used international funds to recapitalize after the sequence of external shocks that hit the region during the decade.

[14] Banco Bilbao Vizcaya Argentaria (BBVA) and Banco Santander Central Hispano (BSCH) have become the largest international players in Latin American retail banking markets. Banks from different regions have had different patterns in their expansion into Latin America. While U.S. banks have tended to focus exclusively on U.S. firms operating in the region, European banks have had a more retail oriented approach. See Guillén and Tschoegl (1999).

[15] Taking the region as a whole, the financial integration measure is a little higher (1.5 percent).

Table 5.2 Cross-Border Shareholdings around the World[1]

(In percent)

Host region	Source region								
	Africa & Middle East	Asia & Pacific	Latin America[2]	Latin America[3]	U.S. & Canada	Europe in transition[4]	Europe[5]	TOTAL	OECD[6]
Africa & Middle East	7.68	0.14	0.00	0.00	1.89	0.03	3.66	13.39	5.65
Asia & Pacific	0.05	1.32	0.00	0.00	1.22	0.00	3.30	5.89	5.03
Latin America[2]	0.11	0.23	1.47	–	18.81	0.06	26.64	47.32	45.74
Latin America[3]	0.13	0.27	–	0.64	18.03	0.07	28.17	47.31	46.53
U.S. & Canada	0.08	0.68	0.03	0.01	0.95	0.00	8.61	10.34	10.21
Europe in transition[4]	0.01	0.26	0.02	0.00	4.45	1.39	34.69	40.82	39.82
Europe[5]	0.34	2.49	0.03	0.02	3.34	0.02	15.89	22.11	–
TOTAL	0.34	1.64	0.05	0.03	2.47	0.02	11.25	15.77	14.25
OECD[6]	0.20	1.59	0.02	0.01	2.27	0.01	–	15.29	14.00

[1] Ownership data reflect changes up to July 2001, while balance sheet data are the most recent available.
[2] Excludes the Bahamas, Cayman Islands and Panama.
[3] Only includes Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay, Peru, Uruguay and Venezuela.
[4] Includes economies in transition from Central and Eastern Europe.
[5] Excludes Europe in transition.
[6] Excludes Czech Republic, Hungary, Korea, Mexico, Poland and Slovakia.
Source: IDB estimates based on data from Fitch IBCA's Bankscope database.

Table 5.3 Foreign Participation in Latin America's Private Pension Funds

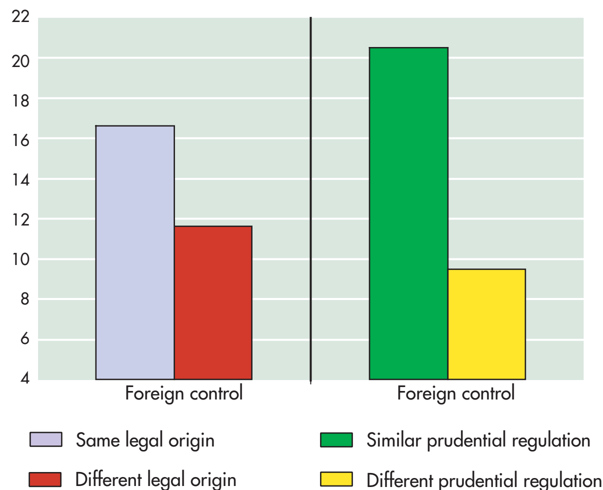
Country	Size of private managed pension fund (% of GDP)	Foreign participation (%)	Foreign participation[1] (%)
Argentina	8.40	73.64	68.58
Bolivia	12.91	85.26	37.89
Chile	53.59	54.13	49.07
Colombia	5.83	47.36	44.62
Mexico	5.60	66.55	59.36
Peru	7.45	78.46	59.27
Uruguay	5.58	29.52	29.52
Total	9.80	62.94	56.46

[1] Only includes the ownership of private pension funds of foreign holding companies that also have bank subsidiaries or branches in the country.
Source: Superintendencies of Private Managed Pension Funds.

Galindo, Micco and Serra (2002) show foreign bank participation is enhanced by integration via trade, foreign direct investment in different sectors, and by sharing legal features.

The theoretical underpinning for the idea that economic integration is related to foreign banking is that international banks follow their customers (multinational firms) around the world in order to provide them with financial services and exploit informational advantages derived from long-term bank-client relationships.[16] In the case of trade, firms can also rely on international banks to minimize the costs of international transactions by using the same bank for any type of bilateral payments. Econometric results from Galindo, Micco and Serra (2002), using the gravity model and bilateral data from 176 countries, suggest that

[16] See Petersen and Rajan (1994) and Rajan (1998).



Note: Foreign control measures total assets of banks where foreign ownership exceeds 50 percent.
Source: Galindo, Micco and Serra (2002).

trade integration is a significant determinant for the expansion of banks abroad.[17] A 1 percent increase in trade raises foreign bank participation by 0.7 percent (see column 1 of Appendix Table 5.1).[18]

With respect to firms that have located abroad via FDI, having a known bank can also be advantageous, given the informational benefits that it implies. However, this line of reasoning does not explain why banks decide to open a branch or a subsidiary rather than just operating through a representative office that could provide similar financial services. Rather, the reason can be linked to the fact that foreign firms need to have access to capital denominated in local currency to avoid a currency mismatch between revenues and costs. In such a case, the foreign bank may decide to locate in the foreign country and intermediate funds from the local market towards the international firms. For portfolio diversification reasons, the foreign local bank also has incentives to operate in other retail banking activities, as has been the case of most international banks in Latin America. According to Galindo, Micco and Serra (2002), a 1 percent increase in FDI increases foreign bank participation by 1.3 percent (see column 2 of Appendix Table 5.1).

Sharing features imbedded in legal codes also increases foreign bank participation. Sharing legal regimes can minimize learning costs in the investment process, and can also reduce operational costs, given that certain economies of scale can be exploited at the international level. Banks are more willing to locate in foreign countries with which they share legal features. As shown by La Porta, Lopez-de-Silanes and Shleifer (1997, 1998), the sharing of certain basic legal features such as the origin of the legal code implies that further regulations that protect creditors and shareholders in different ways tend to evolve in similar fashions. Similarities in these regulations reduce costly adaptation to new environments.

The left panel of Figure 5.4 reports the strong relationship between sharing legal origin and cross-border banking. It shows that countries receive an average of $16.642 billion from countries with whom they share legal codes, while in contrast they receive only $11.635 billion from countries with different legal origin. Using econometric techniques that control for additional factors, Galindo, Micco and Serra (2002) find that foreign participation in country pairs that share legal codes is 26 percent greater than when codes differ.

Similarly, the right panel of Figure 5.4 reports that if the host countries have prudential regulation and supervision practices similar to source countries, there is greater investment in banking. On average, host countries worldwide receive nearly $20.525 billion from source countries with similar prudential regulations, while they receive less than $9.475 billion from countries with different standards. This finding is subject to double causality, however. It is also feasible that, as foreign participation increases, local authorities are forced to converge toward external practices. Galindo,

[17] In previous studies, Brealey and Kaplanis (1996), Focarelli and Pozzolo (2001) and Moshirian (2001) found a correlation between trade and investment in banking sectors abroad. However, unlike Galindo, Micco and Serra (2002), none of these studies focused on the bilateral nature of the data.

[18] This does not necessarily mean that direct investment in banking increases in the same magnitude, since banks, by the nature of their business, tend to have high leverage.

Micco and Serra (2002) estimate that when supervisory practices are similar, foreign participation is increased by nearly 19 percent. This finding also suggests that harmonizing regulations across countries can increase financial market integration even at the regional level by increasing the participation of external and national players in several markets simultaneously.

The Effect of Foreign Bank Penetration in Domestic Markets

Financial liberalization makes a financial system function better, in turn fostering growth, by improving system efficiency and under certain conditions increasing the availability of funds. In particular, the financial liberalization process in recent decades has allowed foreign banks to freely participate in local markets (Figure 5.3).

Overall empirical evidence on the impact of foreign banks on domestic markets is scarce. However, the fragmented evidence available suggests that the effects of internationalizing the banking system are positive, since banking systems increase their competitiveness and efficiency, in particular when foreign banks come from a more developed country.[19] However there is some controversy as to whether credit volatility is reduced by foreign banks.[20] On the one hand, some authors claim that foreign banks are able to stabilize credit because they have access to external funds, and, due to their reputation (brand name), they are able to stabilize local deposits. In addition, foreign bank entry may generate competitive pressure that leads to measures that guarantee future stability through more aggressive provisioning standards and higher capital ratios (Crystal, Dages and Goldberg, 2001). On the other hand, some economists claim that foreign banks are more sensitive to shocks in the host economy because they can substitute local assets with alternative investments abroad that are not easily available for local banks.

Foreign Banks, Efficiency and Regulatory Standards

Foreign banks traditionally have been associated with better resource allocation and higher efficiency. In particular, they have been linked with increased competition and the diffusion of new technologies. Foreign institutions improve the quality and availability of financial services by bringing new and better skills, management techniques, training procedures and technology. Moreover, Levine (1996) argues that the presence of foreign banks seems to lead to the development of better rating agencies, accounting standards and credit bureaus that acquire and process information, as well as better bank supervision and a more adequate legal framework. Foreign banks tend to follow prudential practices adopted in their home country. In the case of foreign banks from developed countries, these practices are usually more stringent than those of developing ones. In such cases, the increased security inspired by international banks leads domestic banks as well as supervisors to adopt international standards in order to ease competitive pressures coming from depositors searching for the safest institutions.

The presence of foreign institutions can boost competition and improve the operation of the domestic market (local banks), which in turn stimulates improvement in resource allocation and faster economic growth. In addition, international competition reduces interest rate margins and local banks' profitability.[21]

Credit and Deposit Stability and Foreign Banks

The huge increase in the number of foreign banks in Latin America, coupled with the region's credit crunch at the end of the last decade, have raised the question of whether the presence of foreign banks played a role in stabilizing domestic credit and deposits. This is a controversial issue in the literature. Some authors claim that foreign banks, due to their access to foreign liquidity, are less dependent on erratic local deposits, and therefore can stabilize credit in the host country. In addition, foreign banks, with their brand name (repu-

[19] See Levine (1996), Claessens, Demirgüç-Kunt and Huizinga (2001), Martínez Pería and Schmukler (2001).

[20] See Goldberg (2001) and Crystal, Dages, and Goldberg (2001).

[21] Foreign banks from non-Latin American countries located in Latin America tend to have higher profits, lower overhead costs, lower nonperforming loans, and fewer employees per loan than domestic banks.

tation), allow depositor-fly-to-quality to occur within the domestic market during financial turmoil, stabilizing both deposits and credit.[22]

On the other hand, others argue that foreign banks decrease their exposure to the country when domestic conditions deteriorate, increasing credit volatility.[23] Moreover, these banks can transmit shocks from their home countries. Changes in a foreign bank's claims at home or in other countries can spill over to the host country. In Latin America, most foreign banks come from developed countries that are also the main consumers of Latin American exports. Therefore, a contraction in these countries would affect Latin America not only through a contraction of external demand, but also through a reduction in local credit, amplifying the Latin American business cycle even more.

To test the validity of these two views, we study individual bank credit behavior after a change in deposits or in business opportunities. The measure of business opportunity is the change in external demand.[24] Appendix Table 5.2 shows that all bank credit reacts to changes in deposits, but this reaction is smaller for foreign banks. Foreign bank credit is 20 percent less sensitive to changes in domestic deposits than is domestic bank credit. With respect to bank reaction to business opportunities, after a contraction in external demand, all banks reduce their loans, but this reduction in credit is 50 percent smaller for domestic banks.

The results suggest that foreign banks would increase credit volatility if shocks were mainly changes in business opportunities in the host country, but would reduce it if the main source of credit volatility were the domestic supply of deposits. Which dominates remains an empirical question.

Foreign Banks and Market Segmentation

Despite the potential benefits of foreign bank penetration described above, some analysts have suggested that increased foreign bank penetration in developing countries might reduce access to credit to some segments of the market, particularly small and medium-sized firms that heavily depend on bank financing.

In general, foreign banks are large and organizationally complex financial institutions that find it difficult to lend to informationally opaque small and medium-sized firms.[25] Small businesses tend to have exclusive dealings with a single bank with which they have developed an "informal relationship" that reduces asymmetric information. Large foreign banks are likely to have difficulties developing these types of relationships. While large foreign banks are unlikely to replicate the lending method of small domestic banks, they can bring new technological innovations that foster credit to small and medium-sized firms. An example would be new credit scoring methodologies.[26]

Empirical evidence about the impact of foreign banks on the amount of credit to small businesses in developing countries is scarce and inconclusive. Some studies from Argentina associated foreign bank participation with a reduction of bank lending to small firms from around 20 percent of total lending in 1996 to 16 percent in 1998. However, during the same period, foreign banks increased both their propensity and their market share to this sector.

In an analysis of the behavior of foreign banks in four Latin American countries (Argentina, Chile, Colombia and Peru), Clarke et al. (2002) found that foreign banks generally lend less to small business than do private domestic banks. However, these results are mainly driven by small foreign banks, which were found in all four countries to lend less to small businesses than did similar domestic banks. The opposite is true for medium-sized and large foreign banks in Chile and Colombia, but not for Argentina and Peru. Finally, in Argentina and Chile, the two countries where the financial sector developed most during the study period, lending to small businesses by medium-sized and

[22] See IMF (2000).

[23] Caballero (2002) shows that local and foreign banks in Chile increased their positions in foreign assets during the 1998 recession, but this increase was substantially more pronounced for foreign banks.

[24] External demand is defined as the weighted average of the growth rate of trading partners.

[25] Goldberg (1992) shows that foreign banks in the United States tend to lend to large firms. See Berger and Udell (1995) for a discussion about the relationship between large banks and credit for small and medium-sized companies.

[26] Mester (1997) argues that there could be a U-shaped relationship between bank size and lending to smaller firms. One extreme would be small domestic banks using relationship-lending types of services, and the other would be large banks using more standard products for smaller businesses based on credit scoring.

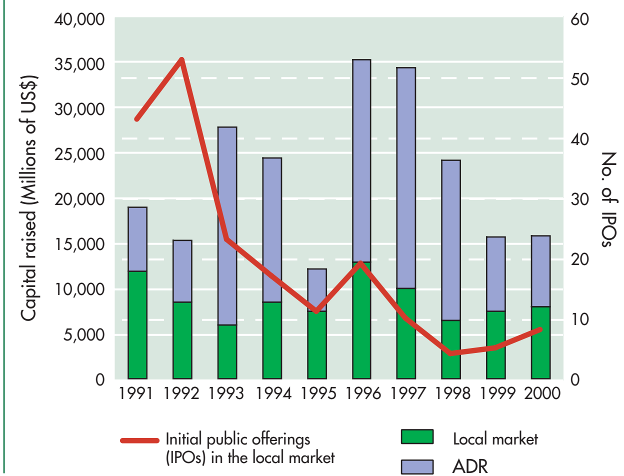
large foreign banks was growing faster than lending to this sector by domestic banks. The authors speculate that the better institutional environments in Argentina and Chile allowed large foreign banks to use scoring methodologies, enabling them to increase their lending to smaller firms.

Foreign banking has increased significantly in Latin America since the 1990s. Empirical evidence tends to favor the advantages of foreign bank penetration over possible negative implications. Greater efficiency and less instability after deposit shocks from foreign banks have been noted in the region (except in major crisis episodes where all banks suffer equally). However, when idiosyncratic business opportunity shocks hit, foreign banks tend to move out in search of better opportunities in other countries. Evidence is inconclusive regarding foreign bank presence and lending to small and medium-sized enterprises. On balance, however, evidence is supportive of foreign bank participation in Latin American markets.

Stock Market Integration

International listings almost entirely in the form of a North-South integration have been an important source to raise capital and expand the shareholder base for Latin American corporations. In 1994, Mexico was ranked third among countries with the most companies traded (in value terms) on the New York Stock Exchange (NYSE), with Argentina ranked fifth and Chile seventh. During the same year, Latin American companies trading in the United States in the form of ADRs (American Depositary Receipts) represented more than 50 percent of their local market indices. For Mexico and Brazil, this percentage reached respective levels of 87 percent and 71 percent. In the last decade, the amount of aggregate capital raised by Latin American firms in the ADR market has been a substantial portion of the capital raised in local stock markets. For example, Figure 5.5 shows that in 1996, Latin American corporations raised $22 billion in the form of ADRs and only $13 billion in local markets. Moreover, in contrast to ADRs from developed markets, those from emerging markets, and particularly Latin America, are usually traded more actively in the United States than in the domestic market.

Figure 5.5 **Latin American ADR Market, 1991-2000**



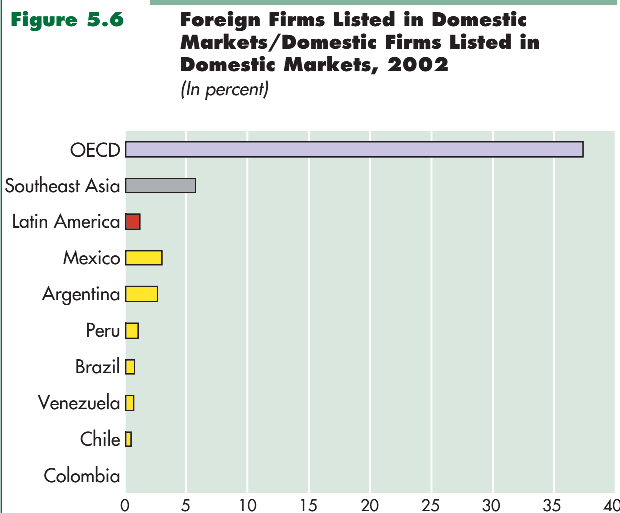
Note: Capital raised through ADRs includes Level III and SEC Rule 144A programs.
Source: Moel (2001).

Firms that are able to issue ADRs on the NYSE reduce their credit constraints and are able to take advantage of foreign debt markets, reducing both their financial costs and their vulnerability to local market volatility. However, as shown by Moel (2001), the migration of these firms, generally the biggest ones, reduces the liquidity of local equity markets, increasing financial costs for local firms and reducing the incentive for new firms to enter in the local equity market.

Stock Market Integration in Latin America

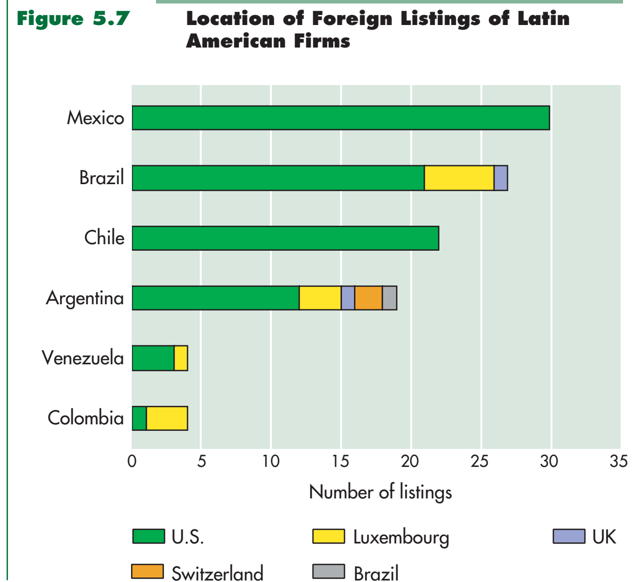
There is little stock market integration in Latin American countries. Figure 5.6 shows the ratio of foreign firms hosted in domestic stock markets to stocks from domestic firms. The numbers for the region are extremely low compared to other parts of the world, meaning that very few foreign firms list on Latin American markets. Up until now, Latin American countries have been completely isolated from the world in this sense, as well as from other countries within the region itself. As seen in Figure 5.7 most Latin American firms list abroad, particularly the United States, and the degree of regional integration in Latin America is almost null. Aside from a few Argentine firms listing in Brazil, there is virtually no stock market integration within the region.

Figure 5.6 **Foreign Firms Listed in Domestic Markets/Domestic Firms Listed in Domestic Markets, 2002**
(In percent)



Source: World Federation of Exchanges and regional stock exchanges.

Figure 5.7 **Location of Foreign Listings of Latin American Firms**



Source: Sarkissian and Schill (2001).

What Determines the Decision to List Abroad?

Stock exchange investors are well known for investing in familiar assets.[27] There are many factors that reduce informational barriers and increase the degree of familiarity of an external asset. Empirical literature has shown that sharing several legal, cultural and geographical features reduces barriers for asset trading. Sharing a language, trading with the country where the asset is originated, and being geographically near that country are among others the factors that increase the likelihood of trading in another country's assets.[28] Taking advantage of these features allows foreign firms to list their stock in foreign stock exchanges.[29]

There are several advantages for firms from listing their stock abroad. Since capital markets are not fully integrated, businesses can benefit from lower capital costs by tapping external capital markets.[30] On the one hand, a premium for accessing restricted foreign securities can contribute to the lowering of capital costs; on the other, at the local level, the signaling effect of operating in international markets can increase the valuation of a firm's equity. From this perspective, diversifying to external listings can improve a firm's capacity to access cheaper forms of capital.

Tapping international stock markets also enables firms to access a higher shareholder base. A higher shareholder base leads to increased investor recognition, reduced information costs, and lower costs of capital for firms.[31] Listing abroad also provides liquidity gains, which is important because it allows firms to avoid reduction in funding when the home economy is hit by domestic shocks. In such cases, and if shocks are not completely symmetrical, an internationally diversified firm can continue to receive funding from its outside listings when domestic markets are contracting.

The quality of institutions is of great importance for firms when choosing where to list. La Porta, Lopez-de-Silanes and Shleifer (1997, 1998) have shown that countries differ substantially in their rules and regulations that protect the property of sharehold-

[27] For example, French and Poterba (1991) and Tesar and Werner (1995) discuss in detail the home bias feature.

[28] Grinblatt and Keloharju (2001) provide a detailed discussion on the impact of these variables on stockholdings and trading in Finland. Rauch (1999) has greater cross-country coverage and finds that colonial ties are also of great relevance.

[29] Empirical analysis by Sarkissian and Schill (2001) finds that the features noted in the text here are important determinants of cross-border listing. It also finds that better institutions, in the form of a stronger rule of law, attract foreign firms to local stock exchanges.

[30] See Errunza and Losq (1985).

[31] See Merton (1987) and Foerster and Karolyi (1999) for theoretical and empirical discussions.

ers. Investors who want to reduce the risk of expropriation can choose to invest in countries where the legal codes favor them. This increases the size of stock markets and can lead foreign firms to list in those markets and exploit the higher liquidity and shareholder base available.[32]

Firms also migrate in order to avoid high clearance and settlement risks, and high taxation and exchange controls in domestic markets, as well as to exploit the ease of trading and the lower transaction costs of developed markets. In addition, regulations that inhibit domestic trading, such as high taxation of trading, also lead to firm migration. These issues also limit the expansion of domestic trading.

Despite the advantages of listing abroad, such a decision can also be costly. Disclosure costs and the need to adopt international accounting standards are two of the main costs frequently discussed. However, to a certain extent, paying those high costs in the short run can translate into long-run benefits. Once more stringent accounting standards are adopted, external funds can become cheaper in the domestic market as a result of a signaling effect.

Differences in the tax regimes can also motivate or inhibit decisions to list abroad. Hong Kong and Singapore, for example, have tax concessions for external participants. Empirical exercises by Sarkissian and Schill (2001) show that tax havens are a fundamental factor when analyzing the pattern of cross-border listings around the world.

As in the discussion of foreign banking, there are other forms of integration that reduce transaction costs for investors and increase cross-border activity. An example is the similarity in regulations, which can attract foreign firms just as does the quality of regulations. Having similar legal codes or sharing relevant features in the laws and regulations that protect shareholder rights increases the chance of cross-border listing. Results supporting this finding are reported in Appendix Table 5.3. Several measures of legal proximity have significant impacts on the decision to list abroad. The similarity of regulations, however, is not an unconditional requirement for integration of stock markets. It is important only if these are high quality regulations in the sense that they protect shareholders. Column 3 of Appendix Table 5.3 shows that similarity in legal codes is only relevant if the codes are based on common law, that is, in countries where creditor and shareholder rights tend to be better protected. La Porta, Lopez-de-Silanes and Shleifer (1998) show that these codes tend to favor shareholders the most. Similarities in non-common law based regulations do not provide incentives for stock market integration. Firms are willing to cross-list in similar countries that have good protection for shareholders.

The Effect of Cross-listing for Domestic Markets

Cross-listing reduces the cost of capital to firms that are able to issue shares in other markets. This is true for large Latin American corporations that have been able to issue ADRs. When firms decide to issue abroad instead of in the local market, it places pressure on local exchanges, brokers, and regulatory authorities to modernize operations, improve disclosure standards, and strengthen small shareholder rights to improve the local market in terms of liquidity, transparency and efficiency. Following this argument, the external competition generated by the cross-listing of large Latin American corporations should have a positive externality on domestic financial markets and, therefore, on small and medium-sized local firms that are not able to issue abroad. However, policymakers in emerging markets are concerned that the globalization of trading will lead to fragmented markets, diverting other flows to foreign markets, reducing liquidity in the domestic market and inhibiting its development. This fear seems to be supported by the inverse evolution of the amount of aggregate capital raised by Latin American corporations in the ADR market and the number of Initial Public Offerings (IPOs) in Latin America. Figure 5.5 shows that the number of IPOs in Latin America falls once the large corporations start to raise capital issuing ADRs.

From both theoretical and empirical points of view, it is unclear whether cross-listing benefits or harms domestic liquidity and volume traded. Theoretical models show that the impact on domestic market liquidity and volume can be positive or negative, depending on

[32] Sarkissian and Schill (2001) provide empirical evidence supporting this claim.

whether it expands the shareholder base, the extent of domestic restrictions (foreign ownership restrictions), domestic market liquidity prior to listing, and inter-market information transparency.[33] Initial empirical works summarized in Karolyi (1998) show that, in general, domestic liquidity and volume traded increase overall (for all firms in the domestic market with and without cross-listing).

Moel (2001) has analyzed the effects of ADRs on 28 emerging markets, with a particular focus on local market transparency, growth, and the liquidity of companies that are left behind and only traded in the local market. In developing countries, ADRs seem to improve financial disclosure (accounting standards and openness), but they reduce both liquidity and the ability of local markets to grow in terms of the number of listed firms and capitalization ratios. A 1 percent increase in the proportion of firms listed with ADRs leads to a reduction in the sample mean market turnover from 54 percent to 45 percent. The effect of ADR listing is highly detrimental to the listing of new firms in domestic markets. For every firm that lists its ADRs, the local stock market loses approximately one additional firm. The study shows that the impact of ADRs varies substantially by region. Africa and Latin America are generally the most negatively affected by cross-listing.

The previous results corroborate the concern among Latin American policymakers with regards to the effect of ADRs on domestic markets. They also raise a number of policy issues. How should governments react to this new scenario? Is there a place for local or regional equity markets in the future? Should all small and medium-sized firms move from equity financing to debt markets?

Major Constraints to Stock Market Integration within Latin America

From the point of view of Latin American countries, the benefits to be derived from stock market integration are more associated with integrating with developed countries than with countries within the region.

Integration of Latin American stock markets to world markets can be beneficial because it allows for greater liquidity of firms' stocks, a higher and more diversified shareholder base, a gain in firm recognition that reduces information costs, and access by firms to cheaper sources of funding. The question from the perspective of developing countries is whether these gains come only from integration with developed countries (North-South integration), or are also present in regional integration agreements with other less developed countries (South-South integration). In general, access to cheaper sources of funding does not seem to be a motive for this South-South integration for Latin American countries, since capital is not abundant and is a costly resource in most countries in the region. In addition, given the similar low levels of shareholder protection and the general lack of development of accounting standards and their enforcement, the signaling advantages pointed out previously may not be present. The possibility of protecting themselves against shocks by diversifying the shareholder base might not be present either, given that the region as a whole tends to be exposed to similar capital market shocks.

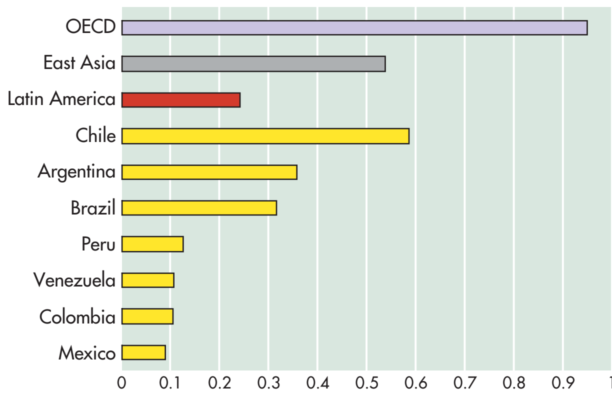
However, it is possible that the increase in the shareholder base might reduce the cost of capital for a regional firm, not only because it would gain some additional liquidity, but also because it can increase regional recognition. This could be more important if one considers that financial integration might come with an increase in regional trade and FDI. An important caveat regarding this and other forms of financial integration is that it increases the vulnerability of the host country to foreign shocks.

There are several barriers that limit the possibility of exploiting these gains. As discussed previously, the size of markets matters for firms. The underdeveloped nature of stock markets in Latin America, and hence their low liquidity, limits incentives for participation in these markets. It is likely, though, that as financial integration proceeds, the regional market can become more attractive to international players.

There are additional barriers to stock market integration in Latin America pertaining to the legal, regulatory and judicial structure, underlying macroeconomic policy, the historical and cultural context of the different jurisdictions, and the nature of the financial infrastructure pertaining to trading mechanisms,

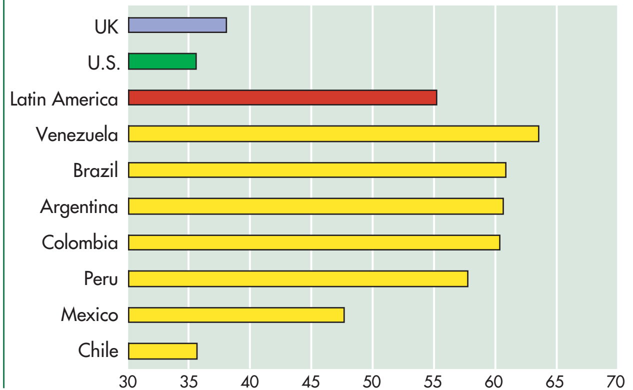
[33] See Hargis and Ramanlal (1997), Domowitz, Glen and Madhavan (1998) and Foerster and Karolyi (1996).

Figure 5.8 **Effective Shareholder Protection (Index 0-1)**



Note: Effective shareholder protection is the product of the rule of law and an index measuring the degree to which regulation protects shareholders. Higher values indicate higher effective protection.
Source: La Porta, Lopez-de-Silanes and Shleifer (1998).

Figure 5.9 **Opacity Index (0-100)**



Note: The opacity index is a composite index based on opacity data for five different areas that affect securities markets: corruption, legal system, government macroeconomic and fiscal policies, accounting standards and practices, and regulatory regime. High numbers indicate a high degree of opacity.
Source: PriceWaterhouseCoopers (2001).

accounting conventions and taxation systems. The barriers also reflect the underlying prerequisites needed for effective implementation of a strategy for securities market integration. These include clear laws and regulations about property rights, macroeconomic stability, and free movement of capital.[34]

The quality of regulations that protect shareholders is an important determinant of cross-border listings. Figure 5.8 shows a measure of effective shareholder protection constructed as the product of the rule of law and a measure of regulation quality. The findings suggest that in this area, the Latin American countries rank well below international averages. This limits incentives for cross-border listings.

Cross-border activity depends on the existence of currency convertibility and limited exchange controls, particularly for the currency of the countries under consideration. Currency convertibility or limited controls are needed to limit asynchronous prices and trading, and to ensure that the appropriate hedging mechanisms are in place. Unstable exchange rates and the lack of mechanisms to hedge exchange rate risks are also factors that have inhibited the development of regional capital markets.

Effective securities market integration presumes the existence of some integration of the regulatory and supervisory framework. If market participants are subject to multiple frameworks—and particularly if they are not harmonized, as is the case across Latin America—then they are likely to face uncertainties, complexities, and increased costs, both directly in terms of having to comply with multiple regulatory regimes, and indirectly in having to incur the cost for multiple monitoring and enforcement regimes. Inappropriate arrangements for cooperation and mutual assistance between national supervisors can also hinder regional securities market integration.

Many types of legislative and regulatory impediments can also limit integration, including differences in bankruptcy regimes, sanctions regimes, restrictions on ownership by non-nationals, the imposition of rules to protect national industries, requirements to establish local companies, and restrictions of many types on issuers, intermediaries and investors in providing cross-border services. Local or regional laws may also be too detailed and thus too inflexible in changing circumstances.

Accounting and auditing differences as well as differences between disclosure requirements would restrict the ability of market participants to establish a core basis for financial statement analysis and to ensure consistency in valuation intra-regionally. To some extent,

[34] Lee (2001) summarizes some of the main barriers to integration.

the introduction of international accounting and auditing standards will reduce the significance of this factor as a deterrent to securities market integration. However, for many countries that are yet to truly adopt International Accounting Standards (IAS), accounting differences remain a real threat and barrier to securities market integration. Although Latin American countries have made progress in ensuring compliance with international accounting standards, they have a long way to go toward wholesale compliance, particularly in terms of both the stringency and the standardization of disclosure requirements.

Lack of information about all aspects of securities markets across a region can constrain regional integration. This includes information about regulatory requirements, exchange prices and quotes, company finances and strategies, investor allocation policies, or intermediary products and historical records. The quality of information is critical to ensure market efficiency and equal access to financial opportunities. Analysis by PriceWaterhouseCoopers on the level of opacity (Figure 5.9) reveals that many Latin American countries rank very low in terms of access to good information.

Conclusions

Latin American financial markets have had a considerable amount of integration with the developed world. North-South integration apparently has been fruitful, and has been the strategy chosen by international and regional participants. Financial integration in Latin America comes mainly in the form of increased participation in the region of foreign banks from developed countries, and in the rise of cross-border equity trading in developed countries. Regarding regional or South-South integration, there have been far fewer advances. In general, the macroeconomic and institutional setup of countries within Latin America has not favored the development of integrated markets. However, regional integration has been achieved to some extent by means of international financial institutions that do business in several countries simultaneously.

A number of different types of policies can foster integration. Direct policies such as eliminating controls for foreign agent participation or creating specific agreements between countries or within regions can serve as a basis for financial integration. Besides NAFTA and formal agreements within CARICOM countries, however, such agreements have been few and far between.

Types of indirect policies that play an important role for future financial integration include adopting international best practices regarding accounting standards, disclosure of information, and tax regimes. Other useful instruments include harmonizing regulations that govern information sharing, and allowing cross-border information sharing.

Even if full harmonization of regulations is reached, however, problems with key national institutions and macroeconomic instability can hinder the process of financial integration both with the developed world and within the region. Protection of property rights and legal stability are clearly needed to attract foreign players into Latin American markets.

Appendix Table 5.1 **Foreign Bank Penetration and Economic Integration: Regression Results**

	Dependent variable: Foreign bank control[1] (1+, log) Reg. 1	Reg. 2
Border	1.225	3.342
	(0.141)***	(0.641)***
Common language	0.475	2.661
	(0.072)***	(0.357)***
Distance (log)	-0.056	-0.904
	(0.038)	(0.165)***
Bilateral trade (1+, log)[2]	0.689	
	(0.029)***	
Bilateral FDI (1+, log)		1.324
		(0.092)***
Constant	0.674	10.357
	(0.441)	(1.854)***
R^2	0.25	0.40
Estimation method[2]	IV	IV
No. of observations	20,000	3,227

Note: Standard errors in parentheses.
[1] Refers to banks with a foreign ownership higher than 50 percent of equity capital.
[2] 1998 values of bilateral trade and FDI are instrumentalized using 1990 values.
* Significant at the 10% level.
** Significant at the 5% level.
*** Significant at the 1% level.

Appendix Table 5.2 **Credit Stability and Foreign Banks: Regression Results**

	Dependent variable: Percentage change of real credit Reg. 1	Reg. 2
Percent change of real deposits	0.560	0.555
	(0.022)***	(0.022)***
Percent change of real deposits * Foreign abroad LAC	-0.135	-0.165
	(0.050)***	(0.051)***
Percent change of real deposits * Foreign inside LAC[1]	-0.132	-0.127
	(0.098)	(0.098)
Real external demand shock	19.536	
	(4.241)***	
Real external demand shock * Domestic	-13.391	
	(4.282)***	
Percent change of real GDP[2]		4.456
		(0.913)***
Percent change of real GDP * Domestic		-2.475
		(0.993)**
Constant	-0.005	-0.023
	(0.014)	(0.020)
R^2	0.49	0.49
Estimation method[2]	OLS	IV
No. of observations	2,795	2,795

Note: Standard errors in parentheses.
[1] Refers to foreign banks whose owners are from a Latin American country.
[2] Values of percent change of real GDP are instrumentalized using the real external demand shock variable.
* Significant at the 10% level.
** Significant at the 5% level.
*** Significant at the 1% level.

Appendix Table 5.3 **What Determines the Decision to List Abroad? Regression Results**

	Dependent variable: Cross-listings (1+, log)				
	Reg. 1	Reg. 2	Reg. 3	Reg. 4	Reg. 5
Common border (dummy)	0.457	0.462	0.467	0.478	0.424
	(6.45)***	(6.21)***	(6.25)***	(6.09)***	(4.87)***
Common language (dummy)	0.397	0.341	0.339	0.341	0.219
	(6.26)***	(5.05)***	(5.02)***	(5.21)***	(2.21)**
Distance (log)	-0.05	-0.056	-0.056	-0.065	-0.042
	(2.56)**	(2.76)***	(2.73)***	(2.95)***	(1.59)
Share legal code origin (dummy)		0.074			
		(2.26)**			
Share common law legal code origin (dummy)			0.119		
			(1.87)*		
Share non-common law legal code origin (dummy)			0.046		
			(0.98)		
Similarities between shareholder regulations[1]				0.071	0.349
				(2.58)**	(2.11)**
R^2	0.5	0.51	0.51	0.53	0.49
Estimation method[1]	OLS	OLS	OLS	OLS	IV
No. of observations	1,740	1,660	1,660	1,476	1,476

Notes: All estimates include host and source country fixed effects. Similarities between shareholder regulations measure if countries have similar regulations as defined in the La Porta, Lopez-de-Silanes and Shleifer (1998) index of shareholder protection. Absolute value of t-statistics in parentheses.

[1] Values of similarities between shareholder regulations are instrumentalized with "share legal code region" variable.

* Significant at the 10% level.

** Significant at the 5% level.

*** Significant at the 1% level.

Source: IDB estimates based on the Sarkissian and Schill (2001) cross-listing database.

References

Bank of New York. 2001. The Global Equity Investment Guide: The Case for Investing in Depositary Receipts. Bank of New York American Depositary Receipt Division.

Berger, A., and G. Udell. 1995. Relationship Lending and Lines of Credit in Small Firm Finance. *Journal of Business* 68.

Berger, A., L. Klapper, and G. Udell. 2001. The Ability of Banks to Lend to Informationally Opaque Small Businesses. *Journal of Banking and Finance* 25(12).

Brealey, R., and E. C. Kaplanis. 1996. The Determination of Foreign Banking Location. *Journal of International Money and Finance* 15.

Caballero, Ricardo. 2002. Coping with Chile's External Vulnerability: A Financial Problem. MIT. Mimeo.

Claessens, Stijn, Asli Demirgüç-Kunt, and Harry Huizinga. 2001. How Does Foreign Entry Affect Domestic Banking Market? *Journal of Banking and Finance* 25.

Clarke, George, Robert Cull, Maria Soledad Martínez Pería, and Susana Sánchez. 2002. *Bank Lending to Small Businesses in Latin America: Does Bank Origin Matter?* World Bank Domestic Finance Working Paper no. 2760, Washington, DC.

Cochrane, J., J. Shapiro, and J. Tobin. 1996. Foreign Equities and U.S. Investors: Breaking Down Barriers Separating Supply and Demand. *Stanford Journal of Law, Business and Finance.*

Crystal, Jennifer, Gerard Dages, and Linda Goldberg. 2001. Does Foreign Ownership Contribute to Sounder Banks in Emerging Markets? The Latin American Experience. Staff Reports 137, Federal Reserve Bank of New York.

de la Mora, Luz Maria. 2001. Mexico's Appraisal of NAFTA. Unpacking NAFTA: Progress, Problems and Potential. In Jorge Vargas (ed.), *Mexican Law: A Treatise for Legal Practitioners and International Investors.* St. Paul, MN: Westgroup.

Diaz-Alejandro, Carlos. 1985. Good-bye Financial Repression, Hello Financial Crash. *Journal of Development Economics* 19.

Doidge, Craig, Andrew Karolyi, and Rene Stulz. 2001. Why Are Foreign Firms Listed in the U.S. Worth More? Ohio State University. Mimeo.

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

Errunza, V., and E. Losq. 1985. International Asset Pricing under Mild Segmentation: Theory and Test. *Journal of Finance* 40.

Focarelli, Dario, and Alberto Pozzolo. 2001. The Patterns of Cross-border Bank Mergers and Shareholdings in OECD Countries. *Journal of Banking and Finance* 25.

Foerster, S., and G. A. Karolyi. 1996. The Effects of Market Segmentation and Illiquidity on Assets Prices: Evidence from Foreign Stocks Listing in the U.S. Ohio State University. Mimeo.

———. 1999. The Effects of Market Segmentation and Investor Recognition on Assets Prices: Evidence from Foreign Stocks Listing in the U.S. *Journal of Finance* 54(3).

French, K., and J. Poterba. 1991. Investor Diversification and International Equity Markets. *American Economy Review*, Papers and Proceedings.

Galindo, Arturo, Alejandro Micco, and Guillermo Ordoñez. 2002. Financial Liberalization and Growth: Empirical Evidence. Inter-American Development Bank, Washington, DC. Mimeo.

Galindo, Arturo, Alejandro Micco, and César Serra. 2002. Determinants of Cross-Border Banking Activity: The Role of Economic and Legal Relationships. Inter-American Development Bank, Washington, DC. Mimeo.

Galindo, Arturo, Fabio Schiantarelli, and Andrew Weiss. 2002. *Does Financial Liberalization Improve the Allocation of Investment? Micro Evidence from Developing Countries.* Inter-American Development Bank Working Paper no. 467.

Goldberg, L. G. 1992. The Competitive Impact of Foreign Commercial Banks in the United States. In R. Alton Gilbert (ed.), *The Changing Market in Financial Services.* Proceedings of the Fifteenth Annual Economic Policy Conference of the Federal Reserve Bank of St. Louis. Norwell, MA: Kluwer Academic.

____. 2001. When Is U.S. Banking Lending to Emerging Markets Volatile? Staff Reports 119, Federal Reserve Bank of New York.

Grinblatt, M., and M. Keloharju. 2001. How Distance, Language, and Culture Influence Stockholdings and Trades. *Journal of Finance.*

Guillén, Mauro, and Adrian Tschoegl. 1999. *At Last the Internationalization of Retail Banking? The Case of the Spanish Banks in Latin America.* Financial Institutions Center Working Paper 41, The Wharton School, University of Pennsylvania.

Hargis, K. 1997. ADRs in Emerging Equity Markets: Market Integration or Fragmentation. University of South Carolina. Mimeo.

Hargis, K., and P. Ramamlal. 1997. The Internationalization of Emerging Equity Markets: Domestic Market Development or Market Retardation. University of South Carolina. Mimeo.

International Monetary Fund (IMF). 2000. The Role of Foreign Banks in Emerging Markets. In *International Capital Markets, Developments, Prospects and Key Policy Issues.* Washington, DC: IMF.

____. 2001. *World Economic Outlook.* Washington, DC: IMF.

Kaminsky, Graciela, and Sergio Schmukler. 1999. On Booms and Crashes: Stock Market Cycles and Financial Liberalization. World Bank, Washington, DC. Mimeo.

Karolyi, Andrew. 1998. Why Do Companies List Shares Abroad? A Survey of the Evidence and Its Managerial Implications. *Financial Markets, Institutions & Instruments* 7(1). New York University Salomon Center.

Korn, A. 1997. *Mexican Securities on the NYSE: The Effect of NYSE-listed Mexican ADRs on the Liquidity of Their Underlying Shares.* NYSE Working Paper.

La Porta, Rafael, Florencio Lopez-de-Silanes, and Andrei Shleifer. 1997. Legal Determinants of External Finance. *Journal of Finance* 52.

____. 1998. Law and Finance. *Journal of Political Economy* 106.

Lee, Ruben. 2001. Promoting Regional Capital Market Integration. Oxford Finance Group. Mimeo.

Levine, Ross. 1996. Foreign Banks, Financial Development and Economic Growth. In C. Barfield (ed.), *International Financial Markets.* Washington, DC: AEI Press.

Love, Inessa. 2000. Financial Development and Financing Constraints: International Evidence from the Structural Investment Model. Columbia University, New York, NY. Mimeo.

Martínez Pería, Maria Soledad, and Sergio Schmukler. 2001. Do Depositors Punish Banks for Bad Behavior? Market Discipline, Deposit Insurance, and Banking Crises. *Journal of Finance* 56.

McConnell, John, Hank Dybevik, David Haushalter, and Edward Lee. 1996. A Survey of Evidence on Domestic and International Stock Exchange Listings with Implications for Markets and Managers. *Pacific Basin Finance Journal* 4.

Merton, Robert. 1987. A Simple Model of Capital Market Equilibrium with Incomplete Information. *Journal of Finance* 42(3).

____. 1993. Operation and Regulation in Financial Intermediation: A Functional Perspective. In P. Englund (ed.), *Operation and Regulation of Financial Markets.* Stockholm: Economic Council.

Mester, Loretta. 1997. What's the Point of Credit Scoring? *Federal Reserve Bank of Philadelphia Business Review.*

Moel, Alberto. 2001. The Role of American Depositary Receipts in the Development of Emerging Markets. *Economia* 2(1).

Moshirian, Fariborz. 2001. International Investment in Financial Services. *Journal of Banking and Finance* 25.

Organisation for Economic Co-operation and Development (OECD). 2000. *International Direct Investment Statistics Yearbook.* Paris: OECD.

Petersen, M. A., and R. Rajan. 1994. The Benefits of Lending Relationships: Evidence from Small Business Data. *Journal of Finance* 49.

PriceWaterhouseCoopers. 2001. The Opacity Index. Available at www.opacityindex.com.

Rajan, R. 1998. The Past and Future of Commercial Banking Viewed through an Incomplete Contract Lens. *Journal of Money, Credit and Banking* 30.

Rauch, J. 1999. Networks versus Markets in International Trade. *Journal of International Economics* 48.

Sarkissian, Sergei, and Michael Schill. 2001. The Overseas Listing Decision: New Evidence of Proximity Preference. McGill University, Montreal, Quebec. Mimeo.

Tesar, L., and I. Werner. 1995. Home Bias and High Turnover. *Journal of International Money and Finance* 14.

White, William. 1994. The Implications of the FTA and NAFTA for Canada and Mexico. Bank of Canada. Technical Report no. 70.