CENTRAL AMERICA

STRUCTURAL FOUNDATIONS FOR REGIONAL FINANCIAL INTEGRATION

A Staff Team Led by
Patricia Brenner

International Monetary Fund

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The following symbols have been used throughout this paper:

. . . to indicate that data are not available;

— to indicate that the figure is zero or less than half the final digit shown, or that the item does not exist;

– between years or months (e.g., 2004–05 or January–June) to indicate the years or months covered, including the beginning and ending years or months; and

/ between years (e.g., 2004/05) to indicate a fiscal (financial) year.

"Billion" means a thousand million.

Minor discrepancies between constituent figures and totals are due to rounding.

The term "country," as used in this paper, does not in all cases refer to a territorial entity that is a state as understood by international law and practice; the term also covers some territorial entities that are not states, but for which statistical data are maintained and provided internationally on a separate and independent basis.

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Preface

This book was prepared as part of the Central America Financial Sector Regional Project (FSRP) by staff of the IMF's Monetary and Financial Systems Department and Legal Department and of the World Bank. The countries covered in the FSRP comprise the six Spanish-speaking countries of Central America: Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama. The chapters provide an overview of the principal issues and findings of the project, and background on financial development and soundness in the six countries, trends in regional financial integration and supervisory responses, development of the insurance sector, development of payment and securities settlement arrangements, and worker remittances.

The book is the product of a team effort led by Patricia Brenner. The team included Massimo Cirasino, Jens Clausen, Mario Guadamillas, Daniel Hardy, R. Armando Morales, Miguel Palomino, and Dilip Ratha, with contributions by Joaquín Bernal, Katharine Christopherson, Luis Cortavarría, Marco Espinosa, Wim Fonteyne, Antonio Hyman-Boucherau, Ross Leckow, Maike B. Luedersen, Michael Moore, Marina Moretti, Gabriela Rosenberg, Moni SenGupta, Debbie Siegel, Manuel Vásquez, and Rogerio Zandamela. The team is indebted to numerous colleagues throughout the IMF for detailed comments on the papers, to Janet Stanford King and Carolina Worthington for assisting with numerous drafts, to Claudia Pescetto and Lani Wu for research assistance, and to Archana Kumar of the External Relations Department for editing the manuscript and coordinating production of the publication.

The opinions expressed in the book are those of the authors and do not necessarily reflect the views of the IMF, its Executive Directors, or the authorities of the countries covered in the study.

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Abbreviations and Acronyms

ACH	Automated clearinghouse
AML/CFT	Anti–money laundering/combating the financing of terrorism
ATM	Automated teller machine
BANGUAT	Banco de Guatemala
BCCR	Banco Central de Costa Rica
BCEAO	Banque Centrale des États de l'Afrique de l'Ouest
BCH	Banco Central de Honduras
BCN	Banco Central de Nicaragua
BCR	Banco Central de Reserva de El Salvador
BdB	Banco do Brasil
BEAC	Banque des États de l'Afrique Centrale
BFI	Bank with links to other regional financial institutions
BIS	Bank for International Settlements
BMI	Banco Multisectorial de Inversiones (El Salvador)
BNP	Banco Nacional de Panamá
BVDN	Bolsa de Valores de Nicaragua
BVP	Bolsa de Valores de Panamá
CABEI	Central American Bank for Economic Integration
CAFTA-DR	Central American–Dominican Republic Free Trade Agreement
CAMC	Central American Monetary Council
CCS	Central American Council of Superintendents of Banks, Insurance, and Other Financial Institutions
CEBS	Committee of European Banking Supervisors
CEMAC	Central African Economic and Monetary Community
CEMLA	Center for Latin American Monetary Studies
CEO	Chief executive officer
CEDEVAL	Central de Depósito de Valores (El Salvador)
CENIVAL	Central Nicaragüense de Valores
CEPROBAN	Centro de Procesamiento Bancario (Honduras)
CEVAL	Central de Valores (Costa Rica)
CHIPS	Clearinghouse interbank payment system
CIASA	Centro de Intercambio Automatizado, S.A. (Panama)
CLC	Cámara de Compensación y Liquidación de Cheques (Costa Rica)
CLS	Continuous linked settlement
CNBS	Comisión Nacional de Bancos y Seguros (Honduras)
CNV	Comisión Nacional de Valores (Panama)
COBAC	Commission Bancaire de Afrique Centrale
CONASSIF	Consejo Nacional de Supervisión del Sistema Financiero (Costa Rica)
CPSIPS	Core Principles for Systemically Important Payment Systems

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CPSS	Committee on Payment and Settlement Systems
CSD	Central securities depository
CUT	Cuenta Única del Tesoro (Panama)
DPR	Diversified payment right
DvP	Delivery versus payment
EBC	European Banking Committee
ECB	European Central Bank
ECCB	Eastern Caribbean Central Bank
ECCU	Eastern Caribbean Currency Union
EFTPOS	Electronic funds transfer at point of sale
ESCB	European System of Central Banks
EU	European Union
FATF	Financial Action Task Force
FDI	Foreign direct investment
FOGADE	Fondo de Garantía de Depósitos (Nicaragua)
FOSADE	Fondo de Seguro de Depósitos (Honduras)
FSA	Financial Services Authority (United Kingdom)
FSAP	Financial Sector Assessment Program
FSRP	Financial Sector Regional Project
GAAP	Generally Accepted Accounting Principles
IAS	International Accounting Standards
IBRD	International Bank for Reconstruction and Development
IDB	Inter-American Development Bank
IFI	International financial institution
IFRS	International Financial Reporting System
IGD	Instituto de Garantía de Depósitos (El Salvador)
IOSCO	International Organization of Securities Commissions
ISIN	International securities identification number
ITIN	Income taxpayer identification number
MEF	Ministry of Economy and Finance (Panama)
MFI	Microfinance institution
MIB	Mecanismo Interbancario de Dinero (Costa Rica)
MIT	Mecanismo Interbancario de Transferencias (Guatemala)
MONED	Mercado Organizado para la Negociación Electrónica de Divisas (Costa Rica)
MOU	Memorandum of understanding
MTO	Money transfer operator
NPL	Nonperforming loan
OECD	Organization for Economic Cooperation and Development
OFAC	Office of Foreign Assets Control
OTC	Over the counter
P&A	Purchase and assumption
PML	Probable maximum loss
PROFECO	Procuraduría Federal del Consumidor
PvP	Payment versus payment
RFC	Regional financial conglomerate
RNVI	Registro Nacional de Valores Inmobiliarios (Costa Rica)
ROA	Return on assets
ROE	Return on equity
RTGS	Real-time gross settlement
S&P	Standard & Poor's

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SAT	Superintendencia de Administración Tributaria (Guatemala)
SB	Superintendencia de Bancos (Guatemala)
SBOIF	Superintendencia de Bancos y Otras Instituciones Financieras (Nicaragua)
SBP	Superintendencia de Bancos de Panamá
SICOF	Sistema Contable Financiero (Guatemala)
SINEDI	Sistema de Negociación Electrónico de Divisas (Guatemala)
SINPE	Sistema Interbancario de Negociación y Pagos Electrónicos (Costa Rica)
SIPS	Systemically important payment systems
SITE	Sistema Integrado de Transacciones Electrónicas (Costa Rica)
SML	Securities Market Law
SPID	Sistema Interbancario de Divisas (Guatemala)
SPV	Special purpose vehicle
SRO	Self-regulatory organization
SSF	Superintendencia del Sistema Financiero (El Salvador)
SSS	Securities settlement system
STP	Straight-through processing
SUGEF	Superintendencia General de Entidades Financieras (Costa Rica)
SUGEVAL	Superintendencia General de Valores (Costa Rica, Panama)
SV	Superintendencia de Valores (El Salvador)
SWIFT	Society for Worldwide Interbank Financial Telecommunications
TEBEL	Transacciones Electrónicas Bursátiles en Línea (Costa Rica)
TEF	Transferencia Electrónica de Fondos (Costa Rica)
TPL	Third-party liability
TTS	Transferencia Telefónica Segura de Fondos (Nicaragua)
WAEMU	West African Economic and Monetary Union
WHF	Western Hemisphere Payments and Securities Settlement Forum
WOCCU	World Council of Credit Unions

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Overview and Background

Patricia Brenner and Jens Clausen

Although Central American countries are individually relatively small, they are large as a group and confront many common policy challenges. With about 40 million people, Central America's population is as large as Spain's or Argentina's. Besides geographic proximity and a common language, the region shares a dependence on raw material exports, close economic ties to the United States, and vulnerabilities to natural disasters and terms-of-trade shocks. Several of the countries have also suffered from long periods of civil strife, which slowed economic growth generally, and hampered the development of legal and judicial systems.

Banking is the most developed component of the region's financial system, and intraregional financial activity has increased substantially in recent years following macroeconomic stabilization and rapid financial liberalization in the 1990s. In this period, several countries upgraded financial legislation, introduced pension reforms, removed interest rate controls, provided for the diversification of financial instruments, and enhanced central bank independence. Liberalization in other areas was also significant.[1]

While there are important similarities and economic linkages among Central American countries, the analysis of regional issues must take into account the heterogeneity of countries as well. Information is sometimes not available for all countries, and data are often not fully comparable. Thus, regional analysis will always need to be adapted carefully to an individual country's circumstances.

Across the region, although financial sector openness is high (absence of or negligible capital controls; free entry of foreign banks), overall institutional quality needs considerable development. Weak governance, connected lending, and uncertain property rights pose particular problems in much of the region for financial intermediation and economic growth, notwithstanding initiatives to combat these problems. All six countries have strengthened the quality of regulatory governance and reforms are ongoing, but they are incomplete. Among other areas, it is crucial to improve the independence of financial oversight agencies and provide adequate legal protection for supervisors. This is needed to ensure that supervisory laws and prudential regulations are applied in an even-handed manner, free from interference by vested interests.

Regional financial groups are a distinctive feature of the Central American financial sector. These groups have expanded their activities, and at present account for a larger share (about one-third) of banking assets in Central America than do foreign banks (about one-sixth). Contributing factors to this development, besides the history of economic and political instability in several countries of the region (which may have discouraged entry by foreign banks), include increased regional trade linkages; the benefits from economies of scale and scope; the proximity of Panama as an international and regional financial center; reputation improve-

[1]Progress in establishing a regional common market and on the Central American–Dominican Republic Free Trade Agreement (CAFTA-DR) with the United States show the authorities' commitment to openness and market-oriented regional economic integration.

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ments as regional financial groups survived crisis episodes; and declining intermediation costs, apparently associated with increasing dollarization in the region. There may also be cases where intragroup cross-border transactions are designed to take advantage of regulatory arbitrage.

The success of regional financial groups holds promise for supporting economic development in the region while, at the same time, presenting increased vulnerabilities and risks. In particular, the authorities face challenges in supervising cross-border operations of financial groups and containing the risk of regional contagion. The countries have established the Central American Council of Superintendents of Banks, Insurance, and Other Financial Institutions (CCS) as a regional forum for facilitating cross-border supervision of financial institutions. Harmonization of countries' financial supervisory frameworks would discourage regulatory arbitrage. At the same time, this would reduce the costs of regulatory compliance and make the regional financial groups more competitive.

Dollarization, another common feature of the financial landscape, is also a mixed blessing for financial sector development and stability. The earlier outright prohibition of financial intermediation in foreign currency in some countries in the region helped to motivate the establishment of banks offshore, many of them in Panama, where the economy has been dollarized since the beginning of the twentieth century. Official dollarization in El Salvador in 2001 has accompanied an ongoing trend toward dollarization elsewhere in the region. Dollarization has been associated with lower interest rate spreads and increased domestic financial intermediation. At the same time, credit risk has increased in some countries because of lending in dollars to clients who do not have dollar earnings. The officially dollarized economies, however, have largely eliminated exchange rate risk.[2]

The underdeveloped insurance sector constrains the development of the whole financial sector. The sector is small and fragmented in much of the region. While better-off households and larger firms can obtain most insurance products, much of the population (e.g., in the agricultural sector) does without them. The scarcity of insurance affects welfare directly, reduces the availability of financing or increases its cost, and constrains insurance companies' role in deepening financial markets.

Most indicators of the soundness and performance of the insurance sector do not raise immediate, systemic concerns, particularly because heavy use is made of reinsurance from the large international reinsurers. Companies' investment portfolios are typically not very diversified; investment abroad is modest and constrained by regulations.

Positive and innovative developments in some countries, such as the successful bundling of an insurance component in small agricultural loans in El Salvador, might be replicated in other countries. In several countries, insurance supervisors lack resources and are constrained by outdated laws. Regulations need to be adapted to a more risk-based approach, with a greater role played by actuarial calculation of risks, as is done in Costa Rica. In particular, technical reserves need to be related to the expected value of losses, their variances and covariances, and other risks, especially reinsurance risk.

More effort is needed to bring national payments and securities settlement systems in line with international standards and best practices. Most countries in Central America have launched reforms in their payment and securities settlement systems in recent years with a view to strengthening their financial infrastructure. These countries should seek to harmonize those systems toward establishing the microfoundations of more developed national, and potentially regional, capital markets.

As national systems converge toward international standards, there is a growing interest in the region in the efficiency gains that could be achieved by adopting integrated frameworks for regional payments and securities settlement. Projects on regional clearance and settlement of large-value transactions and on integrated regional large-value, real-time gross settlement (RTGS) payment systems have been launched by Central American governments, the Central American Monetary Council, and the Inter-American Development Bank. Ongoing reforms at the national level provide an opportunity for further harmonization at the regional level and the eventual integration of payment and securities settlement frameworks.

Efforts are needed in all six countries to improve the legal framework for payments and securities settlement, for example, as regards the irrevocability of final settlement; protection of the systems against the effects of bankruptcy procedures; and legal basis or

[2]There remains exchange rate risk vis-à-vis third-country currencies; this risk is relatively contained since the United States is the most important trading partner of each of the Central American countries.

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Box 1.1. Summary of Recommendations

Banking Supervision and Regulation

- Improve the independence of financial oversight agencies and provide adequate legal protection for supervisors.
- Develop a regional approach to cross-border consolidated supervision:
  - enhance cross-border cooperation and exchange of information;
  - incorporate parallel banks and booking offices into the scope of consolidated supervision;
  - clarify the legal definition of a financial group;
  - strengthen legal powers to regulate financial groups; and
  - address a minimum set of priority risks in the first stage, notably risks associated with connected lending and loan concentration, loan classification and provisioning, and capital requirements.
- Develop a regional approach to dealing with potential stress of financial conglomerates:
  - set specific rules and procedures applicable to cross-border bank bankruptcy proceedings; and
  - increase harmonization in resolution procedures, notably as regards triggers and duration of bank intervention, and treatment of bank managers and shareholders.

Development of the Insurance Sector

- Upgrade the legal and regulatory framework for the insurance sector, with a view to moving toward harmonization of regulations:
  - better relate technical reserves to actuarial calculations of risk;
  - gradually ease investment restrictions on insurance firms;
  - ease remaining restrictions on foreign entry in the insurance industry; and
  - strengthen regulation and supervision of operational risk.
- Launch regional efforts in related areas, including:
  - jointly collect and disseminate demographic, meteorological, agronomic, and other information; and
  - jointly develop catastrophe insurance programs.

Harmonization of Payment and Securities Settlement Systems

- Continue ongoing efforts to bring national payment and securities settlement systems in line with international standards:
  - upgrade the legal framework governing the operation and oversight of the payment system;
  - introduce, or finalize introduction of, real-time gross settlement (RTGS) systems;
  - modernize public sector payments, including through enhanced coordination among relevant agencies;
  - upgrade clearing and settlement processes in securities settlement systems, notably by eliminating physical handling of securities and reducing custody risk; and
  - devote adequate resources to securities settlement oversight, and enhance cooperation in this area among the central bank, self-regulatory organizations, and the private sector.
- As part of these efforts, lay the groundwork for further harmonization and integration through the interlinking of the different systems.

definitions for custody arrangements, repurchase operations, multilateral netting arrangements, immobilization and dematerialization of securities, pledge of collateral and securities lending, and oversight powers, which are typically the responsibility of the central bank. The adoption of a comprehensive payment system law, as is well advanced in Honduras and Guatemala, would help address many of these issues.

International migrant remittances are a significant portion of cross-border payments in the region and the largest single source of foreign exchange in El Salvador, Guatemala, Honduras, and Nicaragua. Remittances to several countries have continued to increase much faster than export receipts in the past few years. Remittances also seem to have an automatic stabilizer effect, because they typically rise in the face of natural disasters or during periods of economic slowdown in the recipient country.

Fees for sending cross-border remittances are high and regressive. Remittance costs can be reduced by encouraging competition, introducing new remittance instruments, harmonizing payment systems, and increasing access to banking services to remittance senders and recipients. If a larger proportion of remittance flows were channeled through financial institutions, it might encourage saving and would also help alleviate concerns related to anti-money laundering and combating the financing of terrorism (AML/CFT) (see Box 1.1 for a summary of recommendations).

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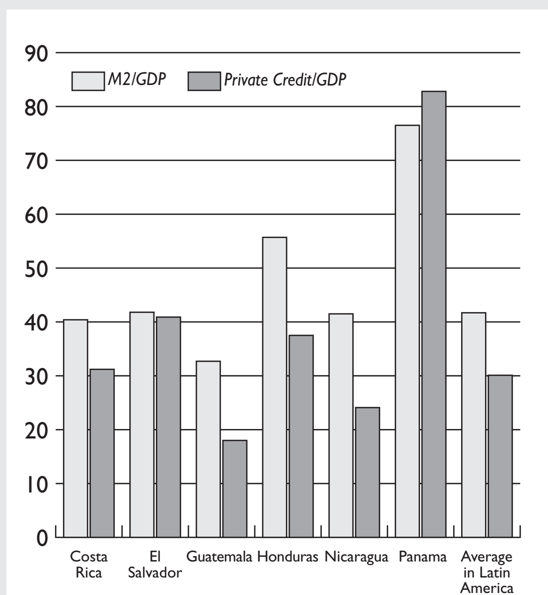
An Overview of Financial Intermediation in Central America

Financial Soundness and Development

Central America's financial sector has grown substantially in the last decade. The average credit-to-GDP ratio rose from 26 percent in 1993 to 39 percent in 2003, while average M2 to GDP in Central America rose from 32 percent to 48 percent. Financial intermediation in Central America, excluding Panama that exhibits substantially above-average ratios, is similar to the average in Latin America, although financial depth varies significantly from one country to another (Figure 1.1).

Although financial sector openness in the region is high, overall institutional quality is relatively low. There is free entry of foreign banks and there are no restrictions in any of the countries on foreign currency purchases by residents. At the same time, according to cross-country databases such as the Heritage Foundation's Index of Economic Freedom and the PRS Group's International Country Risk Guide, in much of the region, weak corporate governance and corruption reportedly pose problems and property rights are not well established.

Figure 1.1. Indicators of Financial Deepening, 2003
(In percent)



Sources: IMF, *International Financial Statisitics*; and national authorities.

Some countries in Central America have concentrated banking systems. In Costa Rica and El Salvador, the financial system can be characterized as moderately concentrated (three banks account for more than 60 percent of total assets), whereas Nicaragua's banking sector is highly concentrated (three banks account for more than 70 percent of total assets). Government-owned banks account for only a small share of total assets in the banking sector in most countries in the region. Only in Costa Rica is the public share of banking assets significant—around 60 percent—whereas for the others it is 15 percent or less.

Banking systems exhibit significant cross-country variations (Table 1.1). Financial soundness indicators show that the ratios of liquid assets to total assets range from about 14 percent in Costa Rica to 32 percent in El Salvador. The ratio of capital to unweighted assets are reported as between 7.3 percent for Honduras and 12.9 percent for Panama. Profitability, measured by return on assets, varies between 1 percent in El Salvador and 2.1 percent in Nicaragua and Panama. The ratios of nonperforming loans (NPLs) to total loans range between 1.8 percent for Costa Rica and 9.6 percent for Honduras.

All of the countries have strengthened the quality of banking supervision during the past few years and are in the process of bringing their systems further in line with the Basel Core Principles. Laws governing the financial sector have been revised, new regulations that strengthen loan classification and provisioning have been issued, and efforts to enforce capital adequacy ratios have been undertaken. Limits on large exposure and related-party lending have also been tightened.

Among other areas, cross-border supervision activities need to be made more effective (see Chapter 2), and there is room to improve the independence of banking supervisory agencies. International experience has shown that operational and financial autonomy and adequate legal protection for supervisors are essential if they are to carry out effective oversight of financial institutions free from intervention by vested interests. In El Salvador, specifying in the law the conditions for dismissal of the head of the banking supervisory agency as well as providing adequate legal protection to all supervisors would be im-

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Table 1.1
Financial Soundness Indicators for the Banking Sector, June 2004[1]
(In percent; as of June 2004, unless stated otherwise)

	Costa Rica	El Salvador[2]	Guatemala[3]	Honduras	Nicaragua	Panama
Capital/assets	9.7	10.1	8.2	7.3	8.1	12.9
Nonperforming loans (NPLs)/total loans	1.8	2.1	5.3	9.6	2.7	2.0
ROA	1.9	1.0	1.3	1.4	2.1	2.1
Liquid assets/total assets	14.4	31.6	29.1	27.6	23.5	20.5

Sources: Central American Monetary Council; country authorities; and IMF staff estimates.
[1]Unless stated otherwise.
[2]Data on return on assets (ROA), liquid assets as of September 2004.
[3]Data on return on assets (ROA), liquid assets as of July 2004.

portant measures to increase the independence of supervisory authorities. Increasing legal protection is also an issue in Panama. In Honduras, protecting the budgeting process of the supervisory agency from political interference would enhance independence. In Nicaragua, frequent judicial decisions overturning supervisors' actions raise concerns about the banking authorities' autonomy.

Increasing Dollarization

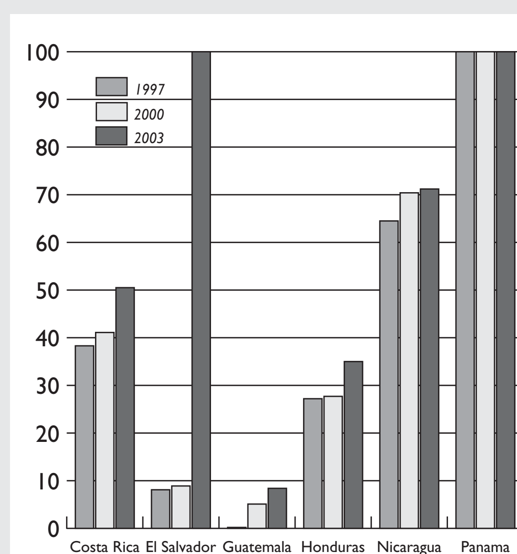
Dollarization in the region is high and increasing. With the exception of Panama, which was already dollarized, dollarization became entrenched in the region as inflation accelerated during the 1990s. Following a long period of a virtually fixed exchange rate, El Salvador decided to adopt the U.S. dollar as a domestic currency in 2001. The proportion of foreign currency deposits to total deposits increased in all five Central American countries (excluding Panama as a dollarized economy) from 1997 to 2003 (Figure 1.2). The measure of dollarization would be even higher if deposits indexed to the exchange rate in Nicaragua were included, and if all the foreign currency deposits in offshore banks in Costa Rica and Guatemala were accounted for.

Salvadoran and Panamanian banks operate in foreign currency throughout the region taking advantage of their foreign currency deposit base. Nicaraguan banks also operate in foreign currency, with domestic loans in national currency indexed to the exchange rate against the U.S. dollar. Domestic banks in the region must offer the same services to prime customers, even if those customers do not generate foreign currency revenue. It appears that offshore operations stimulated by the prohibition of foreign currency deposits and loans in some countries (Costa Rica and Guatemala) have not been fully brought back onshore following the removal of those restrictions.

Migrant Remittances

Remittances are a large and stable source of external financing in Central America, especially for the poorer countries. In addition to officially recorded remittance receipts, flows through informal (unmeasured) channels are significant, and some remittances are misclassified, for instance, as export revenue or

Figure 1.2. Foreign Currency Deposits to Total Deposits
(In percent)



Source: Central American Monetary Council (2003).

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tourism receipts. Formal remittances to Central American countries are largely originated by money transfer operators (MTOs) and banks in the source countries, channeled using mostly private proprietary payment systems, and distributed through banks and agents of the MTOs.

Remittance costs, typically paid by senders to the remittance agent at the time of sending, range from a fixed $3–$5 per transaction to as high as 20 percent in the case of some MTOs. The average remittance cost seems to be around 4–6 percent in Honduras, 5–7 percent in El Salvador, 6–8 percent in Guatemala, and 6–9 percent in Nicaragua. On top of that, remittance agencies charge a 1–3 percent foreign exchange commission (except when funds are delivered in U.S. dollars). Remittance costs are significantly higher for smaller remittance transactions used by poorer migrants. Conservative estimates suggest that the true cost of transactions—labor, technology, setting up networks, and rent—add up to only about $5 (or less) per transaction. These high mark-ups reflect market phenomena (e.g., large sunk costs that impede entry to the market), regulatory measures that restrict competition or raise compliance costs, the lack of access to public infrastructure (e.g., payment systems), and use of outdated remittance technology. Improving transparency in remittance transactions would raise consumer awareness, and reduce unfair remittance practices, and might have a significant effect on costs.[3] Efforts to reduce costs, however, will have to be carefully balanced with those to fight money laundering and the financing of terrorism.

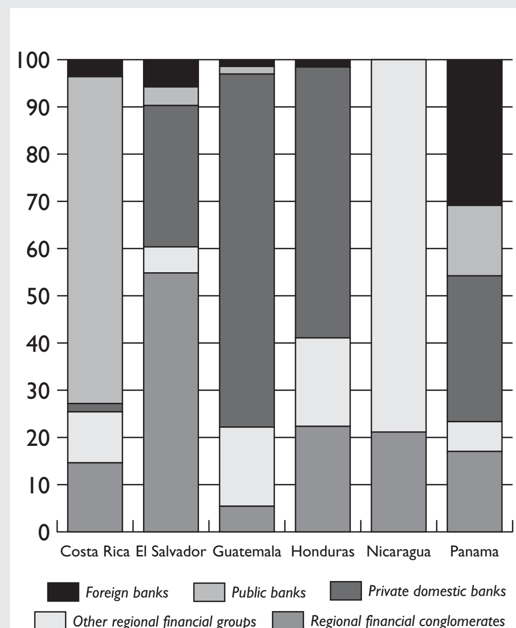
Cross-Border Financial Intermediation and Consolidated Supervision

Trends

In recent years, cross-border financial intermediation activity in Central America has increased, mostly through regional financial conglomerates. The share of regional banks in deposits and loans in Central America has increased in parallel with consolidation in recent years, in some cases associated with the absorption of failed financial institutions following crisis episodes. Although banks are dominant within financial conglomerates, such conglomerates may also conduct nonbank operations.[4] They are normally part of larger corporate groups. Some other groups do not consolidate operations and operate through *parallel banks*—separate institutions operating in different jurisdictions with almost the same ownership structure. Other banks operate through booking offices that basically record operations not reported to the home supervisor, and where the underlying operations may be carried out offshore.

Four regional financial conglomerates operate in the region, whose countries of origin are El Salvador, Nicaragua, and Panama (Figure 1.3).[5] Each holds an international license to operate from Panama, where they consolidate operations of their subsidiaries. Three Nicaraguan groups are parallel

Figure 1.3. Bank Assets by Type of Bank, 2003
(In percent)



Sources: Individual banks; and IMF staff calculations.

[3]The World Bank and the Bank for International Settlements (BIS) Committee on Payment and Settlement Systems (CPSS) have set up a task force, with IMF participation, to develop voluntary principles that service providers, regulators, and supervisors should adopt for improving transparency in the market.

[4]A financial conglomerate is defined in this book as a group of companies under unified control, primarily engaged in financial services in at least two of the banking, insurance, and securities sectors, showing significant cross-border operations in the region.

[5]These are Cuscatlán and Agrícola (of Salvadoran origin); Banco de América Central (Nicaraguan); and Primer Banco del Istmo (Panamanian).

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bank–based. There are other banks with links to other regional financial institutions operating in the region, some of which were originally created to circumvent limitations regarding operations with sight deposits and/or foreign currency deposits (Costa Rica and Guatemala).

Regional financial groups account for about one-third of assets of the regional financial system. Foreign bank branches account for only 3 percent of the system (this does not include operations from financial hubs such as Miami). Domestic banks represent one half of the regional financial system. The share of public banks (about one-sixth) largely reflects their high share of the financial market in Costa Rica.

Regional financial conglomerates appear to have higher profitability, measured by return on assets, relative to other groups of banks. The conglomerates' higher capitalization and profitability seem to reflect their success in servicing prime customers. Domestic private banks have a larger share of deposits on-lent to borrowers as they concentrate on local clients. Foreign banks show overall lower profitability that may be partly related to more strict accounting guidelines required by their parent offices.

A trend toward consolidation in the regional financial system has been taking place. Between 1998 and 2003, 24 banks were closed and 31 mergers took place, more than offsetting the number of new banks (8 banks started operations in the region in the same period).[6] Total assets denominated in U.S. dollars increased by 38 percent between 1998 and 2002 for Central American countries (excluding Panama, which experienced a slight decline). Concentration, measured by the share of assets of the five largest banks, increased to 73 percent in 2002 for the region. At the country level, this phenomenon is observed in all countries except Costa Rica, with Nicaragua showing the highest concentration (96 percent). Banks maintain a dominant position in the region, holding 80 percent of financial sector assets.

Regional financial groups have consolidated their position in regional financial markets.[7] In addition to the expansion of Salvadoran and Nicaraguan groups, Primer Banco del Istmo (Panamanian) has participation in Honduras and Costa Rica, and Cuscatlán (Salvadoran) acquired the regional banks formerly owned by the British bank Lloyds. Banks belonging to regional groups acquired selected assets of failed banks, including through cross-border acquisitions: Banex (Panamanian) in Costa Rica absorbed four banks between 1998 and 2001; Lafisse and Promérica (Nicaraguan) absorbed assets and liabilities of failed banks in Nicaragua and El Salvador; and Cuscatlán and Agrícola (both Salvadoran) in Costa Rica and Guatemala.

Factors contributing toward integration through the activity of regional financial conglomerates include

- increased cross-border economic linkages. Trade within the region has expanded gradually and represents a significant share of total international trade for El Salvador and Nicaragua (where most regional financial conglomerates have emerged);
- political uncertainty in some countries. In several countries, particularly El Salvador and Nicaragua, a long period of social unrest and political uncertainty led major corporate groups to diversify their operations across the region. These concerns may also have discouraged foreign banks from aggressive entry into the regional markets, leaving space for large regional financial groups;
- improved reputation of large domestic banks. Depositor confidence in large banks belonging to regional groups improved after these institutions survived crises and, in some cases, absorbed assets and liabilities of failed banks. Also, some groups have been able to obtain credit ratings, which opens access to international capital markets;
- contribution of dollarization to achieving economies of scale. Full dollarization in El Salvador and Panama, and high dollarization in Nicaragua, have helped lower operating and intermediation costs in the region. The adoption of official dollarization by El Salvador in 2001 may have helped level the playing field between foreign banks and regional groups that originated locally; and
- facilities provided by Panama, an international financial center in the region. Most regional financial groups have active offices in Panama using an international license to conduct operations throughout the region. Easy access from their home countries provides an opportunity to put in place significant managerial capabilities in Panama.

[6]Central American Monetary Council (2003).
[7]Barraza (2003).

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Vulnerabilities Associated with Regional Financial Integration

While financial integration in Central America has contributed to the diversification of financial operations and thus reduced risks, increased vulnerabilities may have emerged at the same time. Regional cooperation and coordination is required for adequate detection of these vulnerabilities. International experience with cooperation between home and host country regulators, however, is generally inadequate worldwide. Moreover, effective financial supervision at the home country level may be constrained by institutional weaknesses, insufficient market discipline, and lack of independence of and legal protection for supervisors.

The main challenges associated with the supervision of cross-border financial intermediation are

- assessing the capitalization of regional financial groups. Accurate assessment and proper monitoring is complicated by differences in the definitions and calculations of both actual and required capital across borders, differences in accounting standards, and lack of proper financial and auditing consolidation. Despite similar requirements, effective capitalization varies significantly across countries;
- detecting undue intragroup transactions. Undetected intragroup transactions may result in (1) capital or income inappropriately transferred from a regulated entity to an unregulated entity; (2) terms disadvantageous to a regulated entity; (3) an impact on solvency, liquidity, and/or profitability of individual entities; or (4) circumvention of regulatory requirements;
- anticipating contagion within groups and across borders. Asset dumping—transfer of nonperforming assets to a more lenient jurisdiction—may hide overall credit risk and cross-border transfer of deposits may magnify liquidity risk. Regulatory treatment of the sale of loan portfolio bundles varies among countries; and
- minimizing the risk of regulatory arbitrage. Regulation of large credit exposures is uneven in Central America, with El Salvador imposing the most stringent regulations overall. Regulation on related lending is relatively strict in El Salvador and Panama, but several countries do not have an aggregate limit on overall lending to related parties. Differences in loan classification and the treatment of collateral make asset transfers a likely means for achieving regulatory arbitrage, including between different subsidiaries in a conglomerate.

Individual Country and Regional Responses

To implement consolidated supervision, supervisors in the region need to overcome the hurdle of adapting the legal framework for financial activities. Legislation in Costa Rica and Panama includes longstanding provisions for consolidated supervision, but only Panama has been able to effectively combine, to some extent, supervision of domestic financial conglomerates and of cross-border intermediation (including of regional financial conglomerates). El Salvador approved amendments to its banking law in 2002 defining financial conglomerates, and financial institutions have already formed conglomerates. However, the Salvadoran superintendency does not conduct supervision of cross-border financial activities because the two Salvadoran conglomerates consolidate their international operations in Panama. Guatemala and Honduras recently approved modifications to the legal framework, and the process of implementation has yet to be completed. Changes in the legal framework for financial activities are pending approval by congress in Nicaragua, where the supervisory authority has relied on isolated legal provisions and ring fences (more strict prudential regulation for entities presumably belonging to a group and not submitting consolidated financial statements to any supervisory authority) to control cross-border transactions within financial groups.

The main problems with the legal framework for effective consolidated supervision include the lack of a clear definition of a financial group and the lack of enforcement of legal powers to regulate such groups. Heterogeneous and unclear definitions across countries hinder conduct consolidated supervision. Weak legal powers of supervisors to regulate financial groups prevent imposing effective limits on intragroup operations or requiring corrective actions when dubious transactions are observed. Implementation of legal modifications is also made difficult by the limited exchange of information, with more sensitive information not being shared among supervisors in the region.

Ring fences have been put in place but are difficult to implement because of institutional limitations. In light of the importance of cross-border operations by parallel banks of Nicaraguan origin, the superinten-

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dency has put in place ring fences on the operations of the domestic bank to limit opportunities to circumvent regulation, including limits to investment in financial institutions and special accounting rules; higher capital adequacy requirements; regulation of deposits and investments; 100 percent provisioning on sales of loan portfolio bundles; and restrictions on the use of a common name. However, recent attempts to expand certain powers of the superintendency based on ring fences have been subject to court injunctions.

In some countries, only partial progress has been achieved in the incorporation of booking offices into the scope of consolidated supervision. In Costa Rica, reluctance to report continues despite higher capital adequacy requirements (20 percent for nonreporting groups and 10 percent for groups allowing full access). In Guatemala, the superintendency has completed a first round of on-site inspections of all offshore entities. However, reporting deficiencies result in the unreliability of financial statements of banks and groups.

Panama is the only jurisdiction where consolidated supervision is conducted consistently. Regional financial conglomerates have chosen to consolidate in Panama as a recognized international financial center. Upgrades of financial legislation in El Salvador pertaining to such conglomerates and supervisory procedures in Nicaragua have not yet been tested since groups have decided not to consolidate in those countries despite significant mind-and-management presence.

Individual country measures will not be fully effective in the absence of a regional approach that leads financial groups to consolidate their financial reporting. A regional approach is just starting to be developed. Despite a long-standing overall framework for memoranda of understanding sponsored by the CCS and signed in 1998, the lack of a central authority, legal restrictions in some cases (e.g., secrecy provisions in several countries), unclear focus on what information is to be exchanged and reported, and reluctance of supervisors to provide timely and detailed information have conspired against a smooth exchange of information.

The CCS has been instrumental in promoting an open exchange of views among regional supervisors on the need for cross-border consolidated supervision. The CCS was founded in 1976, with the goals of encouraging cooperation and exchanging information between regional superintendencies, and facilitating the implementation of regional agreements. Discussions on plans to harmonize regulation across countries in the region have taken place with the Inter-American Development Bank (IDB), with the main goal of identifying the gaps for the application of international standards for banking supervision. Coordination to implement International Financial Reporting System (IFRS) criteria was assisted by the Central American Bank for Economic Integration (CABEI). Specific steps to improve regional banking supervision include the preparation of assessments and action plans. The CCS is at a crucial juncture to define a roadmap and lay out the priorities in improving consolidated supervision of regional financial institutions.

In the context of internal discussions, the CCS has prepared a regional initiative for consolidated and cross-border supervision. The main objectives are to (1) eliminate opportunities to elude supervision; (2) use adequate prudential standards; (3) define the structure, ownership, and management of conglomerates; (4) establish adequate capital requirements; (5) assess asset and liability management, including credit management; (6) identify global risks of conglomerates; (7) ensure transparency of information; (8) establish links to transmit risks; (9) determine contagion risks; and (10) verify compliance with the legal framework. The proposed arrangement among supervisors has the following main features:

- The host supervisor would notify the home supervisor of requests to obtain licenses, and the home country would report on compliance with laws and regulations in the home country of the requesting financial group.
- Information exchange would be open, with the exception of the identification of depositors.
- Supervisors would commit to provide assistance to on-site inspections of other country supervisors.
- Cooperation would be promoted, especially on AML/CFT issues.

Systemic Risk Considerations

The growth of cross-border banking activities poses significant challenges for banking resolution. In the event of failure, regional financial groups may be split into their national legal entities, each subject to different bankruptcy proceedings. In the absence of internationally recognized insolvency rules,

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equitable banking resolution may therefore be hampered if creditors in one jurisdiction receive higher compensation than creditors in other locations.[8]

Continuous coordination and communication between regulators is critical to ensure orderly resolution. A decision to intervene or close a domestic bank with operations abroad or a subsidiary of a foreign bank could have unintended, but significant, consequences for other countries. Thus, bank supervisors should coordinate their actions, including to ensure that insider creditors do not exit prior to the commencement of a liquidation.

Further harmonization in the legal and regulatory framework for bank exit would also help to ensure orderly resolution. Progress in upgrading processes and procedures for banking resolution in Central America has already been substantial. For instance, many countries have introduced a system of prompt corrective actions, specified triggers for intervention in case of bank insolvency, and broadened the range of available resolution tools. Areas where further efforts are needed include the following:

- *Triggers for bank intervention.* A uniform definition of insolvency—currently ranging from 2 to 8 percent of risk-weighted assets—would allow the authorities to coordinate the timing of intervention of members of a financial group across countries, thereby minimizing the risk of contagion and asset stripping.
- *Duration of bank intervention.* Compulsory bank intervention prior to possible liquidation varies in length, and in some countries is not well defined. This can pose problems for orderly liquidation.
- *Treatment of bank managers*. Bank managers should be prevented from participating in key bank resolution decisions to ensure fairness, but that is not always the case in all Central American countries.
- *Rights of shareholders*. Similarly, shareholders' rights should be suspended as part of bank intervention, but the law in this respect is unclear in a number of Central American countries.

[8]In contrast, in jurisdictions following a single-entity approach there is only one set of insolvency proceedings in which the financial institution is treated as one entity, and its assets, no matter where they are located, will be included in a single liquidation or reorganization process. There is no "best practice" as to which approach should be followed in the legislation governing bank insolvencies.

Although the six Central American countries are signatories to a regional convention on cross-border bankruptcy proceedings, further efforts are needed. The 1928 Convention on International Private Law (the "Bustamante Code" or "Havana Convention") only sets certain principles applicable to cross-border bankruptcy proceedings as to the extraterritoriality of a bankruptcy order. In the absence of an international agreement specifically governing cross-border bank insolvency, the authorities may want to consider entering into a regional treaty that would set specific rules and procedures applicable to cross-border bank insolvency proceedings, particularly aimed at dealing with regional banking problems to help ensure fair, timely, and transparent treatment of claims of depositors and other creditors.

Policy Recommendations

The minimum standards for the supervision of international banking groups established by the Basel Committee on Banking Supervision stipulate that (1) all international banks should be supervised by a home country authority that capably performs consolidated supervision; (2) the creation of a cross-border banking establishment should receive the prior consent of both the host country and the home country authorities; (3) the home country authority should possess the right to gather information from cross-border banking establishments subject to their oversight; and (4) if the host country authority determines that any of these three standards is not being met, it could impose restrictive measures or prohibit the establishment of banking offices.

Given the significance of existing cross-border intermediation, it may not be possible to implement these standards within a short time frame. Moreover, the presence of banks that do not consolidate financial statements in the international banking center and the likely substantial mind and management in the home country of shareholders are areas to be addressed within the framework of a regional approach. Also, some phasing-in may be required for bank operations in different jurisdictions authorized long ago and for most already well-established regional financial groups. In addition, host supervisors in locations with significant "mind and management" presence perceive that information should flow also from home to host supervisors.

The proposal for regional supervision by the CCS described above is a step in the right direction. It

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would benefit from the definition of a road map with appropriate sequencing and a clear prioritization of goals. Moreover, it appears that more forceful action could be called for in several areas, for example, (1) a no-objection letter from the home regulator would be required to grant licenses in another country in the region; (2) information on depositors could be made available to the home supervisors on an exceptional basis, for example, to identify group exposures and concentration; and (3) cooperation on AML/CFT issues should allow for specific gateways such as for testing compliance with the applicable group requirements and in relation to suspicious activity reports.

Elements to be considered for prioritization and sequencing of a common strategy include

- take as a starting point the decision of financial groups to consolidate in Panama. Rather than "fighting against the wind," the strategy to be devised should aim at maximizing the potential benefits that consolidating in a jurisdiction within the region may bring, while reinforcing the mechanisms that would allow more effective identification, monitoring, and mitigation of risks in each country;
- commit to a plan to require parallel banks and booking offices to report on a consolidated basis, with regional ring fences facilitating enforcement;
- strengthen the role of host supervisors in the process of consolidated supervision. The strategy to be followed should be mindful of the strong "mind and management" presence in the country of origin of shareholders of financial groups. Consideration should be given to a two-way exchange of information;
- address a minimum set of risks considered priority in the first stage. Risks associated with related-party lending and loan concentrations, loan classification and provisioning, and capital requirements seem to be candidates to be addressed in the first instance, by establishing minimum standards and a time table to make them more in line with international standards and best practice. Later on, AML/CFT and country risks could be addressed;
- enhance cross-border cooperation. Central America has a history of formal Memoranda of Understanding (MOUs) that lack effective implementation. Discussions at the CCS should highlight examples when implementation of MOUs has proven effective. Further needed improvements include clarifying the nature of information to be exchanged and reported, with firmer commitments to provide timely and detailed information on more specific areas. Secrecy laws or other limitations on sharing information may need to be modified in some countries; and
- put in place transitional arrangements. More stringent requirements for opening new offices in the region while consolidation of large groups is completed could be considered. Working toward a clear common definition of financial groups among Central American countries should also be a priority.

Development of the Insurance Sector

Structure and Performance

The insurance sector remains small in most of Central America. The market for insurance products in most Central American countries is modest by any measure, but in line with what is seen in countries at a comparable level of development.[9] The number of policies is low relative to the population. Larger firms and more affluent households can obtain most forms of insurance, but the poor are generally lacking in insurance services. Agricultural insurance has only recently been introduced through a number of pilot projects.

The scarcity of insurance affects welfare directly, and may also reduce the availability of financing or increase its costs, because lenders are discouraged when they must bear both the economic risks associated with a project to be financed and also insurable risks from damages. In addition, the limited assets of insurance companies imply that they cannot be major players in domestic financial markets. Hence, measures to promote the insurance industry could yield multiple benefits if they are well targeted. Some of these measures would be more effective if undertaken on a regional basis, and at a minimum the countries can learn from one another in this area.

The prevalence of non–term life insurance, that is, life insurance with an important savings element,

[9]It should be borne in mind that data are sometimes not fully comparable across countries.

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depends on whether or not other savings vehicles are available. Given the heterogeneity of fiscal, distributional, and demographic factors affecting non–term life insurance, this report concentrates on non–life insurance.

The insurance sector in most of the region is highly fragmented, and many insurance companies tend to be relatively small affiliates of banks. Thus, the average company is small (Costa Rica, which has a unique state monopolist insurer, is an exception). Some insurance companies are linked to broader industrial-financial conglomerates. The numerous small companies almost certainly operate well below efficient size, and in many cases their revenues are insufficient to support the employment of their own actuary or the development of a fully computerized system for record keeping, data analysis, and claims processing. Their portfolios of investments may also be too small to achieve full diversification.

Most indicators of soundness and performance display stability and do not raise immediate, systemic concerns.[10] There have been no major failures in recent years, but the occasional failure of small companies has been widespread. Recent experience with heavy losses from both Hurricane Mitch in most of the region and two earthquakes in El Salvador in 2001 indicates that, in all affected countries, the insurance sector as a whole was capable of covering its liabilities, largely because it was properly reinsured. Heavy use is made of reinsurance from the large international reinsurers, although the Panamanian reinsurers also accept risks in the region.

Companies' investment portfolios are typically not very diversified, at least by type of investment. Most companies place assets in bank accounts or, in some cases, in securities issued by their respective national governments. Investment abroad is modest and in all countries is severely constrained by regulations. For non–term life insurance business, companies are often severely constrained by the lack of securities with a maturity approaching that of liabilities to policyholders.

Legal and Regulatory Framework

All countries have a law on insurance. Supervisors and market participants are generally aware that certain legal provisions may unnecessarily hamper the development of the sector, but enacting the necessary amendments is not high on the legislative agenda. The Honduran Law was substantially amended in 2001, and, in other countries, legislative amendments are being prepared. Many firms choose to establish internal financial policies that are much stricter than what regulations require.[11] The supervisors generally monitor the condition of their insurance industries closely, and are aware of regulatory developments elsewhere. However, in several countries, they acknowledge that they lack the budgetary resources to retain as many well-trained staff as they would prefer.

Certain common features can be identified in the regulations of many (if not always all) of the countries of the region. Some potentially problematic features include the following:

- Minimum required technical reserves (also called provisions) for non–life insurance policies are defined as a proportion of premiums net of the amount ceded to reinsurers, rather than related to the actuarial value of expected losses, which is a company's true exposure. Furthermore, this specification of minimum reserves may create an incentive for companies to increase risk by competing via lower premiums because by doing so they both gain market share and reduce the expense of holding reserves. If the proportionality factor is too high, the affected products will be needlessly expensive.
- On a connected point, the treatment of insurance premiums ceded to reinsurers does not differentiate sufficiently according to the specifics of the reinsurance contract, which might give the reinsurer more or less scope to limit reinsurance payouts in case of loss. If the regulations do not allow for this possibility, primary insurers can have an incentive to reinsure as cheaply as possible while also reducing the expense of holding reserves.
- All countries established solvency requirements ("solvency margins"). A few supervisors suggested that the minimum solvency requirements may be too low.
- Investment by insurance companies is restricted in various ways. While these restrictions are

[10]However, the insurance business is inherently vulnerable to rare but large risks; performance can be satisfactory for many years, but the true soundness of the system is often apparent only after a major event such as an earthquake.

[11]In Panama and Guatemala, the insurance sectors have five times and three times the required level of capital and reserves, respectively.

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mainly intended to preserve the solvency and liquidity of companies, some may be counterproductive or inefficient. Certain restrictions strongly favor investment in securities issued by the national government. Additionally, in all countries, investment abroad is severely limited, and in some countries returns on foreign investment are taxed much more heavily than returns on domestic investments. Given the limited size and development of regional capital markets, restrictions on foreign investment depress investment yields and increase risk by limiting diversification.

- Entry by foreign firms is generally permitted, subject to standard licensing procedures (except in Costa Rica). However, there are restrictions on the form in which a company can be incorporated, and branching is prohibited. All countries prohibit the purchase of most forms of insurance from abroad. These restrictions constrain regional integration.
- In most countries, presumably because of the recent nature of the service, specific regulations regarding bancassurance are weak. When banks sell insurance products through their branches, the scope for bundling financial products—such as a loan with an insurance requirement—gives rise to issues of consumer protection and the definition of fiduciary responsibilities.
- Few countries have extensive requirements on companies to prepare and publish regular reports on their actuarial situation (Nicaragua is an exception). Regulations for and supervision of information management systems, computer systems, and other forms of operational risk are very limited. The lack of requirements in these areas, where effective systems are characterized by high fixed cost, helps smaller companies to survive.
- The tax treatment of insurance differs across countries. In some, but not all, countries, premiums for life insurance and certain other categories of insurance are deductible from income tax. Sometimes certain insurance expenses are exempt from sales or value-added taxes. The treatment of insurance payouts also varies.

The weaknesses noted above suggest an agenda for regulatory modernization. The authorities hope to move toward a more risk-based approach to regulation and supervision, with a greater role played by actuarial calculation of risks. In particular, technical reserves need to be related to the expected value of losses, their variance and covariances, and other risks (such as reinsurance risk). Also, companies need more scope to manage their portfolios to match underwriting risks. Many measures needed for prudential purposes, such as introducing more risk-based reserve requirements, mandating the production of actuarial reports, and introducing modern information management systems, would likely have a greater impact on smaller companies, and could spur consolidation. However, while the regulatory and supervisory framework can be improved, it will be important to allow room for less sophisticated products aimed at providing basic coverage at low cost.

Insurance Sector Development and Regional Issues

Besides the regulatory issues raised above, the authorities may have a role in providing other support services. There may be a role for direct subsidies or administrative support for crop insurance, provided that the cost is made transparent in the budget. Insofar as farmers are poor, there may be distributional reasons for these types of support. Moreover, the availability of crop insurance may be held back by fixed costs, such as centralized information processing; government action may be needed to reduce the substantial start-up costs.

Governments could also contribute to the development of the insurance sector by insuring more of their own risks instead of relying on implicit self-insurance. Greater insurance volumes by the government could help in creating critical mass and economies of scale for the sector. Taking out insurance policies on important assets, such as roads and bridges, as is done in many countries,[12] could add to explicit planned expenses, but it would also allow for an improved budgetary process and less need for costly last-minute reallocations of budget revenues to attend unforeseen reconstruction expenses and other losses.

Another potential area for government action is general catastrophe insurance. A large volume of private sector assets in Central America are uninsured

[12]In Bahrain, for example, government or quasi-government agencies insure petroleum-related facilities and other infrastructure, and premiums from government insurance constitute about half of all property-related premiums.

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and the potential losses from a major event, such as an earthquake, can create a negative macroeconomic shock that multiplies the direct losses from the event. To the extent that governments typically assume some responsibility for disaster recovery and reconstruction in the case of catastrophes, there is an implicit public sector liability. Recognizing these potential liabilities and dealing with them through appropriate insurance contracts may reduce the associated costs.[13] The government would be involved by making insurance compulsory for specified catastrophes, conducting risk analysis, and selecting one or more providers. (In the United States, for example, there are several earthquake, flood, and hurricane insurance and relief arrangements.)

Insurance sector development offers scope for regional cooperation and the exploitation of economies of scale. One set of measures might be directed at the harmonization of regulations, in line with international best practice. The authorities could coordinate the introduction of risk-based regulations, and eventually there could be a presumption that a company operating in one jurisdiction would be free to offer insurance products and to open a branch or subsidiary in another country of the region. In this way, competition could be preserved even as the sector consolidates within individual countries. This type of effort appears particularly relevant given the expected results of the CAFTA-DR and Free Trade for the Americas negotiations.

Regional efforts could be worthwhile in other areas, including (1) the collection and dissemination of demographic, meteorological, agronomic, and other statistics needed for actuarial calculations that underlie insurance pricing, notably but not exclusively in relation to crop insurance; and (2) joint development of catastrophe insurance programs, especially where geographic or climatic regions with similar risk characteristics extend across borders.

Harmonization of Payment and Securities Settlement Systems

There is a high degree of heterogeneity in payment and securities settlement systems in Central America. Most countries in the region have launched substantial reforms in their national systems in recent years, with assistance from the international financial institutions (IFIs), but significant differences remain from one country to another. Overall, more is needed to bring national payment and securities settlement systems in line with international standards. The proper design and functioning of national systems should be pursued with a view to contributing to the overall soundness and stability of the financial system, a further deepening of financial markets, and preventing systemic risk.

In parallel with the development of national systems, there is growing interest in the region in the efficiency gains that could be achieved by adopting integrated frameworks for regional payments and securities settlement. Projects on regional clearance and settlement of large-value financial transactions and on integrated regional large-value, RTGS payment systems have been launched by Central American governments, the Central American Monetary Council (CAMC), and the Inter-American Development Bank. The ongoing reforms at the national level provide an opportunity for further harmonization at the regional level and the eventual integration of payment and securities settlement frameworks.

Current Situation

There are serious deficiencies in the legal framework governing national payment and securities settlement systems in Central America. Legal provisions are either lacking or have not resulted in adequate regulation in a number of key areas, such as central bank oversight powers, irrevocability of final settlement, protection of the systems against the effects of bankruptcy procedures, custody arrangements, repurchase (repo) operations, multilateral netting arrangements, and immobilization and dematerialization of securities (notably public securities). Weaknesses in the legal framework create uncertainty about the systems' and participants' risk exposures, and create impediments to financial market development.

Most countries in the region already operate or have launched RTGS systems, but manual or semimanual systems remain prominent. Costa Rica has a safe and efficient RTGS system, and new systems more in line with the CPSS Core Principles for Systemically Important Payment Systems (CPSIPS)[14]

[13]Turkey has established a catastrophe insurance pool for damage to dwellings from earthquakes. Initiatives to develop catastrophe insurance are under way in several other countries, with the assistance of the World Bank, the Inter-American Development Bank, and the International Finance Corporation.

[14]See Bank for International Settlements (2001).

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are being launched in El Salvador, Honduras, and Guatemala. Overall, however, checks represent a significant portion of large-value interbank payments, thereby maintaining a "systemically important" status. In some countries, checks are the predominant or the only system available to channel interbank payment transactions. Slow progress in the full adoption of RTGS systems has come at a cost in terms of efficiency and vulnerability to credit and systemic risks.

Cashless instruments for retail payments are little used in the region despite recent efforts. New applications to process retail electronic credit and debit instruments have been a major element of efforts to modernize national payment systems. Automated clearinghouses (ACHs) have been launched in some countries (Costa Rica, El Salvador, Guatemala, and Honduras). In most countries, however, ACH projects are either too slow to keep pace with customer needs or too limited in scope (e.g., the project only focuses on improvement of check-clearing procedures). Moreover, countries have often failed to fully integrate government-related payments (tax collection, salaries, purchase of goods and services, and so on) into the national payment systems, despite the fact that public sector institutions are major players in the system.

There is room to improve the safety and efficiency of clearance and settlement mechanisms for foreign exchange transactions. These transactions—whether domestic or cross-border—are typically not settled on a payment-versus-payment (PvP) basis, which generates significant credit and liquidity risk. Risks related to cross-border transactions are also relevant in view of the important flow of remittances to countries in the region. In particular, a large share of remittances is still channeled through nonregulated specialized institutions, for which there are no standards for aspects such as transparency of fees and other charges or the timing of accreditation of funds to end-beneficiaries.

The underdevelopment of the interbank market has been a key obstacle to the smooth functioning of payment and securities settlement systems in the region. Interbank money markets are not very active in most Central American countries, with the notable exception of Costa Rica. This has hampered liquidity management by financial intermediaries, in addition to impeding monetary policy transmission.

Significant shortcomings remain in the securities settlement process across countries in the region. Manual handling of securities is common and creates inefficiencies and risks that limit the development of the markets. Settlement cycles tend not to be standardized, and automatic securities lending and borrowing facilities are not available, which hampers effective risk management. In most countries in the region, securities transactions are not settled on a delivery-versus-payment (DvP) basis, and full dematerialization and immobilization of securities have not been achieved. In addition, overall there is an absence of risk management tools used to cover settlement failures.

In general, there is scope for improving the oversight of payment and securities settlement systems. Central American central banks do not fully observe the main responsibilities of the Core Principles for Systemically Important Payment Systems regarding payment system oversight. Specifically, central banks in the region lack explicit oversight authority over the securities settlement system and full transparency on major policies affecting the payment system; progress toward compliance of the systems with international standards has been slow, as noted; and cooperation with other relevant authorities, both at the national level (i.e., the ministry of finance, the banking supervisor, the securities commission, and other relevant regulators) and across the region, remains weak.

Policy Recommendations

Central American countries should continue in their efforts to bring their national payment systems in line with international standards. By adopting a comprehensive approach based on international standards and best practices, each country would move toward a set of payment arrangements, services, and circuits able to serve the needs of all users in the economy. Not only should the scope of reform be broadened in terms of systems (to include, for instance, retail and government payments in addition to large-value payments), but it should incorporate an upgrading of the underlying legal, regulatory, and oversight environments. In conducting the reform, the logical sequencing process would be (1) diagnostic analysis; (2) vision development; (3) conceptual design and implementation planning; (4) user requirement specifications; and (5) acquisition, procurement, development, testing, and implementation.

As the authorities prepare for the next stage of reforms, they should lay the groundwork for further regional integration among the different payment sys-

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tems. Appropriately reforming each national payment system in the region will create the conditions for further harmonization and integration through the interlinking of the different systems. Central banks should, therefore, work in parallel in reforming as a first priority their national payments systems and, at the same time, work toward closer integration within the region by discussing and preparing minimum common features and a realistic timetable.

A number of improvements are needed to bring national payment and securities settlement systems in line with international standards and best practices:

- All countries in the region should move toward an appropriately designed RTGS system. The design of the system should include (1) a robust and efficient communications network to reduce and eventually eliminate the use of manual and paper-based procedures; (2) strict security measures for physical and electronic access to the system; (3) contingency plans and disaster recovery mechanisms, including the setting-up of a secondary site; and (4) measures for business continuity and resilience.

- Central banks have a role to play in ensuring that the existing retail circuits support customers' needs and are safe, convenient, and efficient for the economy as a whole. Central banks should (1) ensure that the legal and regulatory framework keeps pace with market developments; (2) monitor competitive market conditions and behaviors and take appropriate actions to foster such conditions; (3) support the development of effective standards and infrastructure arrangements; and (4) adapt as necessary its provisions of settlement services for systems operated by other entities to contribute to efficient and safe outcomes, allowing all such systems to settle in central bank money.

- Central banks and relevant government agencies should foster coordination to ensure that collection and disbursements of public sector institutions that are major players in the payment system be processed electronically and timely through an appropriate system, such as an automated clearinghouse for retail electronic payment instruments.

- Central banks should monitor trading and settlement platforms and procedures for foreign currency and cross-border transactions, notably remittances, to ensure that the principles of safety and efficiency can be applied to clearance and settlement.

- The interbank money market should be developed further to ensure the smooth functioning of the payment and securities settlement systems. A key element would be to create a special system for large-value payments. This should provide secure electronic interbank transfers with immediate settlement, connected to an electronic book-entry securities registration system.

- Clearing and settlement processes in securities settlement systems should be upgraded. The main aspects to be improved are achieving full dematerialization and immobilization of securities; establishing DvP procedures; upgrading risk management tools; mitigating credit and liquidity risk in the cash leg settlement (including eliminating the use of checks as a cash asset); providing better access to liquidity for system participants; and developing a comprehensive strategic approach to the reform of systems, as opposed to technology-driven and purely operational reform projects.

- There is room for efficiency gains in the securities settlement infrastructure. Physical handling of securities should be eliminated to increase safety and efficiency. Clearing and settlement should aim at achieving straight-through processing. Plans for backup sites and disaster recovery facilities should be accelerated or established when they are nonexistent. External audits of the systems should be undertaken, especially when they were developed in house and/or oversight is weak.

- The legal framework needs to be strengthened to reduce custody risk—that is, to guarantee the protection of customers' assets in the event of bankruptcy of the depository or the custodian. The country authorities should ensure that the segregation of accounts for securities and funds under custody has a clear legal basis; that all customer assets are appropriately accounted for under their beneficial owners in the depository or in the custodian's omnibus accounts; and that customer assets are protected against the insolvency of custodians.

- The securities depository should be well capitalized, autonomous, and capable of expediting settlement of transactions and accessory rights.

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This is crucial for the development of the securities markets.

- The authorities should analyze the risks associated with cross-border links among securities depositories. At the international level, the legal framework governing the cross-border pledge of securities as collateral should be improved. In this respect, some depositories and securities regulators participate in the Hague Convention efforts to develop internationally accepted principles in this area, but they believe that market participants have not been sufficiently involved.
- There is scope for improving the oversight of payment and securities settlement systems. Legislation should clarify in detail the responsibility and enforcement authority of the central bank as payment system overseer. In addition, adequate resources should be devoted to securities settlement oversight and an effective cooperative framework established with other agencies, self-regulatory organizations (SROs), and the private sector. In performing the oversight function and as system operators, central banks and securities regulators should ensure transparency in their policies and conditions for services offered.

Conclusions

Central American countries share the bonds of geographic proximity, a common language, and similar histories. Country authorities have seen the mutual advantages of cooperating in areas critical to economic growth and development, including promoting financial sector development and stability. There appear to be significant economies of scale and scope that can be exploited by serving a sizable regional market.

The private banking sector has already expanded throughout the region, contributing to an increase in financial intermediation in line with that observed elsewhere in Latin America. At this stage, prudential regulation and supervision need to catch up with the activities of financial conglomerates, to reduce the potential risks arising from regulatory arbitrage and cross-border contagion. Several countries need to increase the financial and operational independence of financial sector supervisors because international experience has shown that this is crucial to ensuring the implementation of prudential regulation free from intervention by vested interests. Continuous upgrading of the technical capacity to conduct consolidated supervision of financial institutions in all of the countries is also advisable.

To back up efforts by the Central American council of financial sector regulators to improve supervision of regional financial groups, recommendations include the sharing of information by supervisors in countries where regional financial groups have significant activity; consideration of joint on-site inspections; and establishing a regional timetable to address irregular arrangements such as parallel banks and offshore institutions. With the relaxation or elimination of restrictions on domestic financial institutions to conduct operations in foreign currency, there should be less legitimate incentive for offshore operations. In addition, supervisors in the region could benefit from an exchange of views on necessary changes to the respective legal frameworks for achieving an effective regime for cross-border bank insolvency.

Insurance and capital markets in Central America are much less developed than the banking sector. The development of these sectors seems to be constrained by legal restrictions (cross-border sale of insurance products is generally closely controlled or prohibited), and there are limits on the investment of insurance assets abroad. Furthermore, payment and securities settlement arrangements are country based with no regional trading platform. The countries are encouraged to increase the technical resources and strengthen legal frameworks for oversight of insurance and payment and securities settlement arrangements. This would be a precondition for the development of individual country insurance and capital markets and, eventually, of a regional stock market.

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Consolidated Supervision of Financial Groups in Central America

Patricia Brenner and R. Armando Morales[15]

Financial groups are becoming the dominant institutional structure in the financial services industry around the world (Figure 2.1).[16] Financial globalization and innovation have also stimulated increasing cross-border operations in Central America,[17] particularly by financial groups operating regionally. These operations have benefited from economies of scale and scope as well as from deregulation and international liberalization. The associated consolidation process has favored the emergence of financial groups with complex management and corporate structures offering a range of financial services on a cross-border basis. Meanwhile, products and services offered by banks and other financial institutions have become closer substitutes.

Regional Financial Integration

Financial liberalization in Central America has contributed to the growth of large regional financial groups that originated locally. Thus, financial integration has progressed concurrently with the growth of large regional financial groups under a variety of corporate structures competing successfully with foreign banks for prime customers. Explanations for these developments include

- increased cross-border economic linkages. Trade within the region has expanded gradually (Figure 2.2), and represents a significant share of total international trade for El Salvador and Nicaragua (where most regional financial conglomerates have emerged). Regional operations of most of the large local corporate groups expanded quickly after the peace process in the region was firmly established in the 1990s. In this period, the Salvadoran Kriet Group, owner of TACA airlines, acquired several smaller domestic airlines and became the dominant company in the sector. The Nicaraguan Pellas Group absorbed several small domestic competitors in the beer market and established a strategic alliance with other domestic groups. Often, these large corporate groups have ownership participation in financial groups;
- political uncertainty and a weak rule of law. In some countries, notably El Salvador and Nicaragua, a long period of social unrest and political uncertainty led major corporate groups to diversify their operations across the region (Figure 2.3). Concerns over the enforceability of property rights may also explain this diversi-

[15]The authors would like to thank Katharine Christopherson, Jens Clausen, Luis Cortavarría, Marco Espinosa, Wim Fonteyne, Antonio Hyman-Boucherau, Ross Leckow, Maike B. Luedersen, Gabriela Rosenberg, Moni SenGupta, and Debbie Siegel for contributing sections of this chapter.

[16]De Nicoló and others (2003).

[17]For purposes of this chapter, the countries of Central America are Costa Rica, El Salvador, Honduras, Guatemala, Nicaragua, and Panama.

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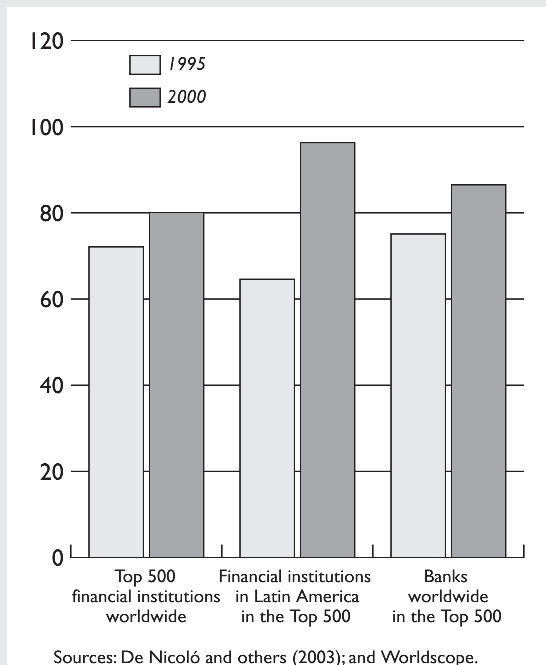
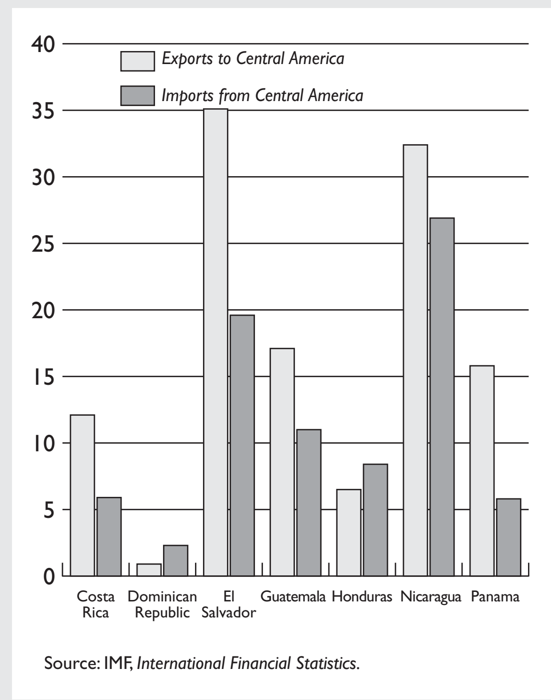
Figure 2.1. Asset Share of Financial Conglomerates
(In percent)



Sources: De Nicoló and others (2003); and Worldscope.

Figure 2.2. Regional Trade, 1999–2003
(In percent)



Source: IMF, *International Financial Statistics.*

fication (Costa Rica and Panama being the exceptions). These concerns may also have discouraged foreign banks from aggressive entry to the regional markets, creating a vacuum that has been filled by large regional financial groups.[18] Although some of these concerns have been addressed in recent years, the region is still often perceived as less stable than the rest of Latin America;

- improved reputation of large domestic banks. Depositor confidence in large banks belonging to regional groups improved after these institutions survived crises and, in some cases, absorbed assets and liabilities of failed banks (Figure 2.4). Also, some groups have been able to obtain credit ratings, which opens access to international capital markets;[19]
- economies of scale that may arise from dollarization. Official dollarization in El Salvador and Panama and high dollarization in Nicaragua may have helped to lower operating and intermediation costs regionally. The adoption of official dollarization by El Salvador in 2001 may have helped level the playing field between foreign banks and regional groups (Figure 2.5). Banks have also become more aggressive in implementing cost-cutting strategies, charging fees for their services, and slowing provisioning to consolidate gains in profitability following the initial boost from dollarization;[20] and
- existence of Panama as an international financial center. Most regional financial groups have active offices in Panama and use an interna-

[18]A review by Fitch concludes among other things that because of “de facto barriers of entry (including corruption, poor contract enforcement, and weak credit cultures), large international financial players have, up until now, shown little interest in having a larger and/or retail presence in these countries” (Fitch Ratings, 2004), p. 1.

[19]Fitch rates the capacity to meet foreign currency commitments of Panamanian and Salvadoran banks as BB+ (higher than Brazil, Ecuador, and Uruguay, lower than Chile and Mexico).

[20] Standard & Poor’s (2004).

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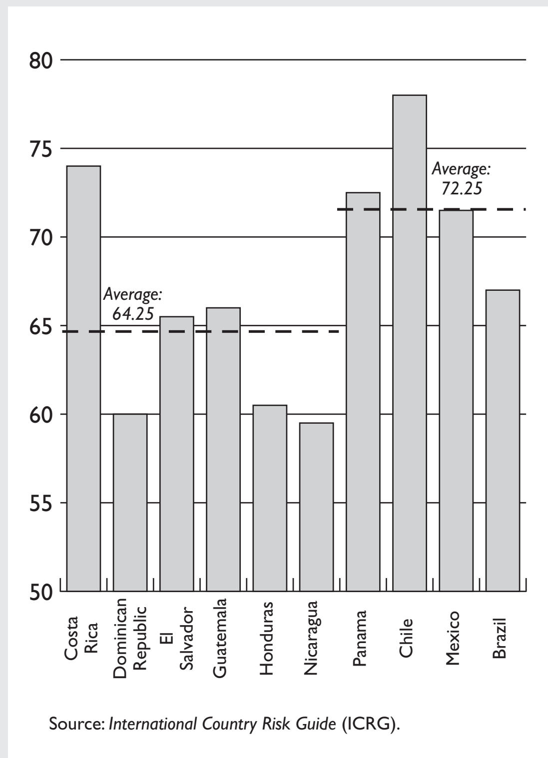
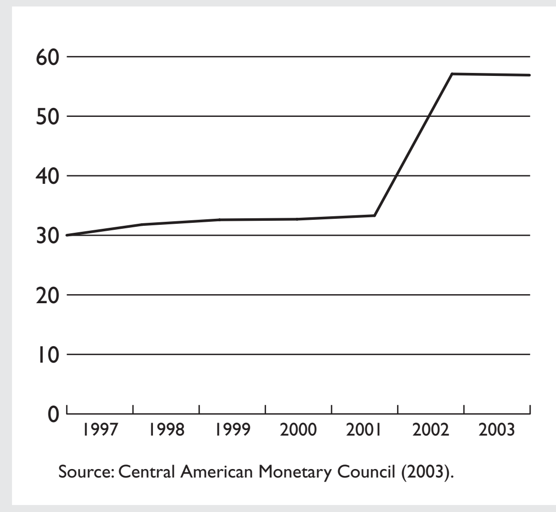
Figure 2.3. ICRG Political Stability Index, March 2004



Source: *International Country Risk Guide* (ICRG).

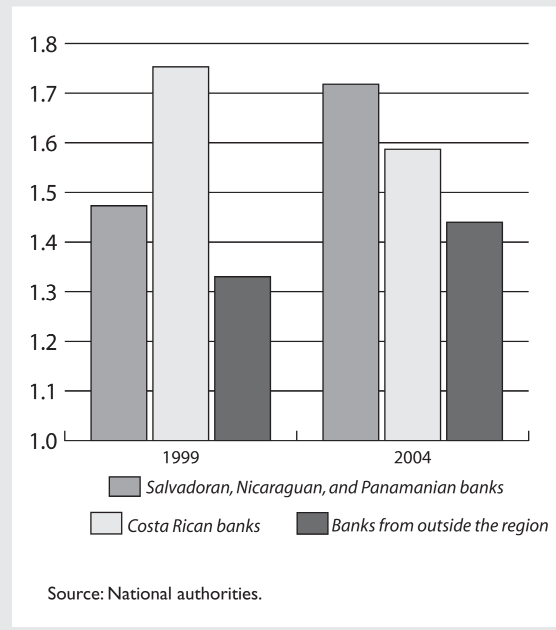
Figure 2.4. Central America: Foreign Currency to Total Deposits



Source: Central American Monetary Council (2003).

Figure 2.5. Private Bank Profitability

(Gross profits over operating expenses, in percent)



Source: National authorities.

tional license to conduct operations throughout the region. Easy access from their home countries provides an opportunity to put in place significant managerial capacity in Panama (Table 2.1). Tax advantages may also be a factor when the tax difference is substantial.[21]

Financial integration in Central America is a positive development because the diversification of operations across activities and markets helps to reduce business risks (those less correlated across markets). However, financial integration may also magnify financial vulnerabilities and requires a consolidated view of regional financial group operations to ensure appropriate supervisory oversight.

Need for Consolidated Supervision

The complexity of regional financial groups and cross-border operations of financial institutions poses

[21]Offshore financial transactions that originate in the international banking center are not subject to income tax in Panama. There are also corporate income tax exemptions on interest earned when borrowed funds are used abroad, even when capital and interest are repaid in Panama. The local-source-based tax structure in Panama treats the distribution of dividends from foreign earnings as not taxable.

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TABLE 2.1
Country Distribution of Assets of Regional Financial Groups
(In percent)

Country of Origin	Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua	Panama	Total
Costa Rica	81.4	0.0	0.0	0.0	0.0	18.6	100.0
El Salvador	4.1	78.4	4.4	1.2	1.3	10.5	100.0
Guatemala	0.0	0.0	77.0	0.0	0.0	23.0	100.0
Honduras	0.0	0.0	0.0	69.5	0.0	30.5	100.0
Nicaragua	17.6	16.1	6.2	11.6	29.4	19.2	100.0
Panama	20.6	0.0	0.0	13.0	0.0	66.3	100.0

Sources: Individual banks; and IMF staff calculations.

challenges for the uniform application of prudential regulation across countries and sectors. Consolidated supervision shows room for improvement in many jurisdictions worldwide. In particular, consolidation of accounts and consolidated monitoring of compliance with prudential standards, and cooperation between home and host country regulators, are generally inadequate.[22] In Central America, the supervisory authorities have responded in several ways to the challenge of adapting supervisory methods to consolidated supervision. On the whole, however, supervisory arrangements lag behind the development of cross-border operations by financial groups.

Consolidated supervision should aim at a comprehensive assessment of the safety and soundness of financial groups. Effective consolidated supervision, including on a regional basis, may not be achieved unless supervisory authorities have mechanisms in place to discourage or prevent regulatory arbitrage, encourage collaboration among supervisors within and across borders, respond to emerging problems in individual banks, and anticipate and/or confront systemic crises.[23] In the case of Central America, the agenda for putting in place adequate supervisory and legal tools as well as a political commitment to regulate large financial conglomerates, including harmonization of regulation and supervision of institutions offering similar products, remains to be completed. An overarching requirement would be effective coordination and information sharing among all country regulatory agencies in the region.

The absence of adequate preconditions and infrastructure for effective banking supervision has also hindered the development of consolidated supervision of financial institutions in the region. Recent progress in achieving sound and sustainable macroeconomic policies still faces uncertainties, and the region generally lacks an environment that fosters the honoring and enforcement of financial contracts. Effective market discipline based on transparency and corporate governance is a work in progress. Moreover, problems in terms of operational independence of supervisors and adequate resources affect several countries in the region,[24] and legal protection for supervisors is weak or nonexistent (Box 2.1). Political difficulties often preclude implementation of laws and regulations, even when the legislation itself is adequate.

Financial Conglomerates Operating in Central America

Definitions

In Central America, financial groups are generally financial conglomerates dominated by banks. A financial conglomerate is a group of companies under unified control, primarily engaged in financial services in at least two of the following areas: banking, insurance, and securities.[25] A group is characterized by a parent-subsidiary relationship, by a relationship based on a participation, or by a horizontal structure.[26] Some of the groups in Central America

[22]See International Monetary Fund (2004a and 2004b).
[23]Majaha-Jartby and Olafsson (2005).

[24]Basel Committee on Banking Supervision (1997).
[25]This book focuses on financial conglomerates involving at least one bank.
[26]Gruson (2004).

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Box 2.1. Status of Legal Protection of Supervisors

There are some provisions in Central America for the legal protection of supervisors performing their official duties in good faith. Formal procedures for the coverage of legal expenses to staff of the superintendency deriving from lawsuits initiated in connection with actions undertaken in their capacity as financial system supervisors and regulators have been established in Guatemala, Honduras, and Nicaragua. Other features of legal protection of supervisors in individual countries are listed here.

Costa Rica: Supervisors are subject to the General Law of Public Administration, by which all public servants are fully accountable in performing their duties. Thus, there are no provisions on legal protection for supervisors' good faith actions. By board resolution, the central bank provides for the coverage of legal expenses of supervisors for acts related to the exercise of their duties.

El Salvador: The Banking Law (Art. 160) establishes that cases against the directors of the Deposit Guarantee Institute (IGD) must be initiated with the approval of the Supreme Court. It also authorizes the IGD to provide legal assistance to IGD directors and ex-directors facing lawsuits associated with the performance of their duties. The Superintendency of Banks holds an insurance policy to cover legal expenses.

Guatemala: The Financial Supervision Law (Art. 15) generally establishes that criminal actions against the Superintendent of Banks and other specified officials may be initiated only with the approval of the Supreme Court. Legal expenses for the defense of legal actions related to the performance of official duties are covered by the Superintendency of Banks.

Honduras: Three mechanisms in the banking law provide for legal protection of supervisors: (1) no judicial action can be initiated against superintendents and other officials for decisions adopted according to the law, without the prior ruling of the administrative court; (2) supervisors may request a pre-trial hearing as provided in the Law of Organization and Court Attributions; and (3) the National Council of Banking Supervision provides legal defense for its staff, when prosecuted.

Nicaragua: The Superintendency of Banks approved procedures for the coverage of legal expenses to its staff deriving from lawsuits initiated in connection with actions undertaken in the performance of their duties. The Law on the Deposit Guarantee Fund (Art. 11) provides that board members and staff of the Deposit Guarantee Fund shall not be sued for actions taken in the performance of their duties unless an action has been previously brought against the Deposit Guarantee Fund and such action has been decided against the Deposit Guarantee Fund. Recently, the constitution was modified to grant immunity to the superintendent and the deputy superintendent, by which no action of any nature can be initiated in court while they are in office.

Panama: The Banking Law does not provide statutory protection for superintendency personnel or an indemnity against expenses of litigation. Decree No. 49 of 1998 (issued by the Ministry of Planning and Economic Policy) establishes that "the actions of the supervisory personnel of the Superintendency of Banks undertaken in the discharge of their duties are authoritative" and a veracity presumption in favor of the supervisory personnel as to their declarations, with the burden of proof falling on whoever challenges the supervisors' decisions. However, it appears unclear whether this provision would be upheld should it be reviewed by the courts.

are parts of larger corporate groups (mixed financial conglomerates).

Among groups with cross-border operations, regional financial conglomerates (RFCs) have significant cross-border activities. Banks with links to other regional financial institutions (BFIs) have a minor regional presence. For purposes of this book, RFCs are classified by having physical presence in at least two countries in the region, in addition to the home country of shareholders. The RFCs and several BFIs perform some form of accounting consolidation.

A number of banks with common ownership operate in different countries in the region but do not consolidate their operations and thus operate as parallel banks. Each parallel bank reports to a different supervisor in the region. Other banks run booking offices that basically conduct booking operations not reported to the home supervisor. Shell banks constitute an extreme case (Box 2.2). Parallel banks report to two or more home supervisors, but there is no consolidated supervision of the entire group.

The Basel Committee on Banking Supervision strongly discourages allowing operations of parallel banks, shell banks, and booking offices.[27] "Parallel-owned banking structures present greater risk for su-

[27]Basel Committee on Banking Supervision (2003a, 2003b).

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Box 2.2. Institutions Conducting Cross-Border Financial Transactions in Central America

- **Branches of foreign banks** have an identifiable head office located abroad but do not have a separate legal status, and are thus an integral part of the foreign parent bank. Reportedly, some foreign banks operate regionally from branches located in one particular Central American country (Panama, Honduras). These banks are normally institutions of sound reputation (for example, Citibank, HSBC).
- **Subsidiaries of foreign banks** are legally independent institutions that are incorporated under the law of the host country. Operations are consolidated in the corresponding parent company's home country. Three Salvadoran banks and one Nicaraguan bank operate through subsidiaries or affiliates (local banks in which they have purchased a majority share) in other Central American countries.
- **Parallel banks** are banks licensed in different jurisdictions that, while not being recognized as part of the same financial group for regulatory consolidation purposes, have the same beneficial owners and consequently often share commonly managed and interlinked business.
- **Booking offices** normally provide only basic administrative services to a bank or a number of banks in a jurisdiction where the bank has no meaningful mind and management. Usually, no local operations are originated in the branch. These branches are normally domiciled in an offshore financial center.
- **Shell banks** are banks that have no physical presence in the country where they are incorporated and licensed, and are not affiliated with any financial services group that is subject to effective consolidated supervision. The mind and management are located in another jurisdiction, often in the offices of an associated entity or sometimes in a private residence.

pervisors who may be unaware of the nature and extent of any relationships and transactions between the banks that may have an impact on its safety and soundness. This opaqueness may also provide an incentive to the controllers to use the banks to provide undisclosed support mechanisms or to mask the true risks within the group."[28] This makes it difficult for a supervisor to apply prudential norms to the domestic bank operations, while fully understanding the impact on the overall financial position of the group. In the case of shell banks and booking offices, there is uncertainty as to where mind and management are located.[29]

Foreign banks operate as branches or subsidiaries in host countries. A branch is primarily regulated by the home country supervisor responsible for the legal entity overall but also monitored in its local operations by the host country supervisor, while a subsidiary is primarily regulated by the host country but subject to additional home country oversight at the group level. Some of these institutions operate as banks with an international license based in Panama but intermediating resources within and outside Central America.

Domestic financial institutions operate either as stand-alone firms or as part of domestic financial conglomerates. All countries in the region perform consolidated supervision of domestic financial conglomerates, albeit with different degrees of effectiveness. A particular case is Banco Nacional de Costa Rica, which owns 80 percent of BICSA, a bank operating in Panama with a general license.

Mapping of Financial Groups Operating in the Region

Four regional financial conglomerates from El Salvador, Nicaragua, and Panama operate in Cen-

[28]Basel Committee on Banking Supervision (2003a), p. 5, "Controllers" refer to the persons in control of the bank.

[29]The Basel Committee on Banking Supervision defines "meaningful mind and management" located within a jurisdiction as "physical presence." The existence simply of a local agent or a low-level staff will not constitute physical presence. Management is used to include administration, that is, books and records. See Basel Committee on Banking Supervision (2003b).

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Table 2.2
Banks Operating in the Region

	Country of Origin[1]	Physical Presence	Group		Country of Origin[1]
Regional financial groups				**Domestic banks**	
Regional financial conglomerates				*Private banks*	
Agrícola	El Salvador	El Salvador	Agrícola	Salvadoreño	El Salvador
Agrícola	El Salvador	Panama	Agrícola	Industrial	Guatemala
Caley	El Salvador	Nicaragua	Agrícola	Comercio	El Salvador
Cuscatlán	El Salvador	El Salvador	Cuscatlán	Del Café	Guatemala
Cuscatlán G	El Salvador	Guatemala	Cuscatlán	De Desarrollo Rural	Guatemala
Cuscatlán CR	El Salvador	Costa Rica	Cuscatlán	Ficohsa	Honduras
Lloyds (Cuscatlán)	El Salvador	Honduras	Cuscatlán	BAMER	Honduras
Cuscatlán P (Lloyds)	El Salvador	Panama	Cuscatlán	Bancredito	Costa Rica
BAC San Jose	Nicaragua	Costa Rica	BAC	Agromercantil	Guatemala
BAC ES	Nicaragua	El Salvador	BAC	BANPAIS	Honduras
BAC G	Nicaragua	Guatemala	BAC	De Occidente	Guatemala
BAC H	Nicaragua	Honduras	BAC	Reformador	Guatemala
BAC N	Nicaragua	Nicaragua	BAC	Credito Hipotecario Nacional	Guatemala
BAC International Bank	Nicaragua	Panama	BAC	De Exportacion	Guatemala
Primer Banco del Istmo	Panama	Nicaragua	Banistmo	Internacional	Guatemala
Primer Banco del Istmo	Panama	Panama	Banistmo	Banco General	Panama
BGA	Panama	Honduras	Banistmo	Banco Continental	Panama
BANEX	Costa Rica	Costa Rica	Banistmo	Improsa	Costa Rica
BANEX	Costa Rica	Guatemala	Banistmo	Del Quetzal	Guatemala
BANEX	Costa Rica	Panama	Banistmo	BANCON	Honduras
				Banhcafe	Honduras
Parallel-bank-based groups				De Comercio	Guatemala
BANCENTRO	Nicaragua	Nicaragua	Lafise	Ficensa	Honduras
Lafise	Nicaragua	Costa Rica	Lafise	Procredit	El Salvador
Futuro	Nicaragua	Honduras	Lafise	Bancotrab	Honduras
Promérica ES	Nicaragua	El Salvador	Promérica	Americano	El Salvador
Promérica CR	Nicaragua	El Salvador	Promérica	Inmobiliario	Guatemala
Promérica H	Nicaragua	Honduras	Promérica	Corporativo	Guatemala
Banpro	Nicaragua	Nicaragua	Promérica	De la Republia	Guatemala
St. Georges Bank and Company	Nicaragua	Panama	Promérica	SCI	Guatemala
UNO CR	Nicaragua	Costa Rica	UNO	Promotor	Guatemala
UNO ES	Nicaragua	El Salvador	UNO	de Antigua	Guatemala
UNO H	Nicaragua	Honduras	UNO	Privado para el Desarrollo	Guatemala
UNO N	Nicaragua	Nicaragua	UNO	Vivibanco	Guatemala
UNO P	Nicaragua	Panama	UNO	Americano	Guatemala
UNO G	Nicaragua	Guatemala	UNO	Metropolitano	Guatemala
				Empresarial	Guatemala
Banks with links to other financial institutions				Comercial	El Salvador
BDF	Nicaragua	Nicaragua	BDF	Bancatlán	Honduras
BDF	Nicaragua	Panama	BDF	Multicredit Bank	Panama
BCT	Costa Rica	Costa Rica		Banco Atlantico	Panama
Cathay	Costa Rica	Costa Rica		Banco Aliado	Panama
Interfin	Costa Rica	Costa Rica	Interfin	Towerbank	Panama
G&T Continental	Guatemala	Guatemala	GTC	Banco Aleman Platina	Panama
GTC Bank	Guatemala	Panama		Banco Transatlantico	Panama
De Occidente (BANCOCCI)	Honduras	Honduras	De Occidente	Banco Panameño de la Vivienda	Panama
De Occidente Panama	Honduras	Panama		Banco Universal	Panama
Popular Bank	Dominican Rep.	Panama		Banco del Pacifico	Ecuador
BCT Bank International	Costa Rica	Panama		Metrobank	Panama
Cathay International Bank	China	Panama		Blubank	Panama
				Mibanco	Panama
Foreign banks				*Public banks*	
Scotiabank ES	Canada	El Salvador		Nacional	Costa Rica
Scotiabank CR	Canada	Costa Rica		BICSA	Costa Rica
Nova Scotia	Canada	Panama		BICSA	Panama
Citibank	U.S.	El Salvador		Costa Rica	Costa Rica
Citibank	U.S.	Guatemala		Popular y Desarrollo Comunal	Costa Rica
Citibank	U.S.	Costa Rica		Hipotecario	El Salvador
Unibanca	R.B. de Venezuela	Panama		Hipotecario de Vivienda	Costa Rica
Banco del Centro	R.B. de Venezuela	Panama		Banco Nacional de Panama	Panama
Banco de Bogota (general license)	Colombia	Panama		Caja de Ahorros	Panama
Honduras	U.S.	Honduras	Citibank	De Fomento	El Salvador
				De los Trabajadores	Guatemala

Sources: National superintendencies.
[1]Country of origin is the one where the principal shareholders' mind and management reside.

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tral America (Table 2.2).[30] They all hold an international license to operate from Panama, where they consolidate operations. RFCs operate as a group mostly within the region using holding companies. Nicaraguan and Panamanian groups have significant operations in Panama, while Salvadoran banks have a more limited presence in Panama and have established separate conglomerate structures in various countries. RFCs actively pursue benefits from economies of scale and risk diversification. RFCs exploit economic linkages among countries in the region and generally conduct financial intermediation in foreign currency, reflecting the fact that their countries of origin are dollarized or quasi-dollarized economies.

Three Nicaraguan groups are parallel-bank based.[31] One group has been in contact with the International Finance Corporation to pursue a capital injection conditional on consolidation of operations of their different units. Another group perceives that operations by individual banks are sufficiently isolated, and that consolidation is not justified. Apparent concerns about political uncertainty in the home country of shareholders of parallel-bank-based regional groups partly explain their reluctance to consolidate despite a relatively well-established reputation as de facto financial groups in the region. Specifically, these groups argue that ongoing difficulties in the political arena and weaknesses in the institutional and legal framework in Nicaragua entail risks that are difficult to prevent under arrangements involving consolidation.

Seven banks have links with other financial institutions in the region. Some of these institutions are called "offshore banks"—in practice, they are booking offices originally created to circumvent limitations to operate with sight deposits and/or foreign currency (Costa Rica and Guatemala). Other booking offices operate abroad to accommodate specific interests of their customers. Supervisory authorities are in the process of gathering information from these institutions when they are part of regional groups.

Banks that do not consolidate can facilitate regulatory arbitrage. Many booking offices are established outside of the region. Uncertainties about the permanence of financial deregulation policies in their home countries may explain why these structures continue despite such deregulation. In Costa Rica, the continued presence of banks with limited physical operations outside the country appears to be related to the dominance in the domestic financial system of public banks benefiting from preferential treatment by the government relative to private financial institutions.[32]

Few foreign banks have operations in Central America. Citibank and the Bank of Nova Scotia (United States and Canada, respectively) operate in different countries in the region. There are 30 other foreign banks and several Panamanian banks operating from Panama with an international license granted by Panama. Some of these Panamanian banks have representation offices in the region (Table 2.2).

Regional Financial Indicators

Regional financial groups account for about one-third of assets and deposits of the regional banking system, of which regional financial conglomerates hold about 22 percent of total loans and deposits. Parallel banks and regional financial institutions combined hold about 10–13 percent of the system in terms of assets, loans, deposits, and equity (Table 2.3).[33]

Foreign banks, excluding banks operating from Panama with an international license, represent only about 3 percent of the system. The share of banks with an international license not belonging to RFCs is between 10 and 15 percent for different financial aggregates. Many of these banks' operations are with countries outside Central America.[34]

Domestic banks account for about half of the regional financial system. Private banks hold about one-third of different financial aggregates, similar to the share of regional financial groups. Public banks

[30]Only financial institutions owned by shareholders domiciled in the region are analyzed in this section; subsidiaries of foreign banks are not included.

[31]The Panamanian Primer Banco del Itsmo recently started to expand operations in the region, and has already obtained a license to operate in Nicaragua. This study does not deal with fraudulent parallel booking of the type uncovered during the 2001–02 banking crisis in the Dominican Republic.

[32]Public banks benefit from a blanket government guarantee, monopoly in the attention of government agencies as customers, and exemption from a 17 percent required reserve on sight deposits.

[33]Financial information was aggregated using individual bank data because consolidated financial statements are not available for all groups.

[34]As of September 2004, about 21 percent of assets in the international banking center were outside Latin America.

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TABLE 2.3
Market Share by Bank Category, June 2004

	Assets		Loans		Deposits		Equity	
	US$ billion	Percent	US$ billion	Percent	US$ billion	Percent	US$ billion	Percent
Regional financial groups	22.6	33.0	11.4	32.1	15.3	31.9	2.3	32.2
Regional financial conglomerates (RFCs)	14.8	21.6	8.0	22.4	9.2	19.3	1.7	23.8
Other	7.9	11.5	3.4	9.6	6.1	12.7	0.6	8.4
Banks with foreign ownership	12.1	17.7	6.1	17.2	9.3	19.4	1.2	16.7
Domestic banks	33.7	49.2	18.1	50.7	23.4	48.7	3.7	51.1
Domestic private banks	21.7	31.6	12.6	35.3	14.5	30.2	2.2	30.8
Public banks	12.1	17.6	5.5	15.4	8.9	18.5	1.5	20.2
Total	68.5	100.0	35.7	100.0	48.0	100.0	7.2	100.0

Sources: Individual banks; and IMF staff calculations.

TABLE 2.4
Selected Financial Ratios, June 2004
(In percent)

	Loan/ Assets	Loan/ Deposits	Equity/ Assets	ROE	ROA
Regional financial groups	50.5	74.6	10.3	. . .	. . .
Regional financial conglomerates	54.0	86.5	11.6	19.2	2.2
Parallel-bank-based groups	49.4	64.1	8.7	17.7	1.5
Banks with links to other regional financial institutions	39.9	51.4	7.2	20.9	1.5
Foreign banks	51.8	75.3	12.4	11.1	1.4
Domestic banks	53.6	77.4	11.0	. . .	. . .
Domestic private banks	58.1	87.0	10.3	16.9	1.7
Public banks	45.6	61.8	12.1	15.1	1.8

Sources: Individual banks; and IMF staff calculations.
Note: ROE = return on equity. ROA = return on assets.

account for about 18 percent of the assets of the regional financial system, mostly reflecting the predominance of public banks in Costa Rica.

Regional financial conglomerates have higher capitalization than parallel banks and regional financial institutions. Profitability, as measured by the return on assets, also appears higher for RFCs relative to other groups. Higher capital and profitability of RFCs seems to reflect their success in servicing prime customers. Foreign banks show somewhat lower profitability, which may be partly related to more strict accounting required by parent offices (for example, stricter provisioning) (Table 2.4).[35]

Foreign banks' low share of the market is partly offset by offshore operations. Lending by foreign banks, including entities located in financial hubs outside the region (Miami), has increased by 40–100 percent during the period 1998–2003 in each individual country. Loans by foreign banks operating in financial hubs, mostly to prime customers, are equivalent to more than twice the magnitude of loans from foreign bank offices in the region (Figure 2.6).[36]

[35]Data processed using the format required for this study was only available for the period above indicated. To that extent, conclusions based on this information are tentative at this stage.

[36]"International players have found it better to serve the larger regional corporates from financial hubs in other latitudes, mainly Miami. Some of the main foreign players providing cross-border lending to Central American corporates are Citibank, Wachovia, International Bank of Miami, Scotiabank, Dresdner Bank Latein Amerika and Barclays Bank" (Fitch Ratings, 2004), p. 5.

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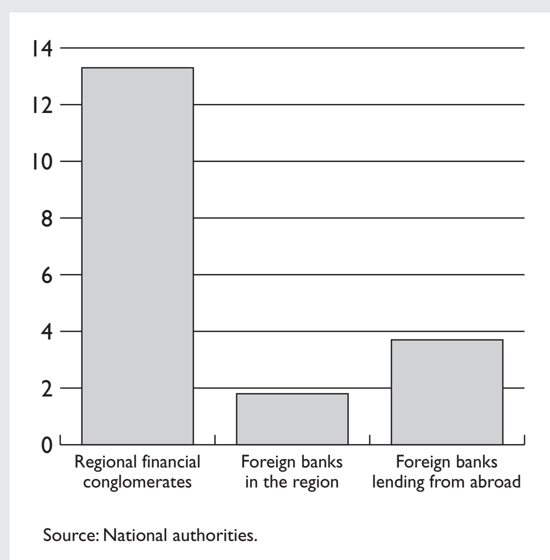
Figure 2.6. Total Loans, June 2004
(In billions of U.S. dollars)



Source: National authorities.

A trend toward consolidation is observed in the regional financial system. Between 1998 and 2003, 24 banks were closed and 31 mergers took place, more than offsetting the number of new banks (8 banks started operations in the region in the same period).[37] Total bank assets expressed in U.S. dollars increased by 38 percent between 1998 and 2002 for Central American countries (excluding Panama, which experienced a slight decline). Concentration in the region, as measured by the share of assets of the five largest banks increased to 73 percent in 2002. At the country level, this phenomenon is observed in all countries except Costa Rica, with Nicaragua showing the highest concentration (96 percent). Banks maintain a dominant position in the region with 90 percent of financial sector assets.

Regional financial groups have increased their share in regional financial markets (see Figure 1.3).[38] In addition to the expansion of Salvadoran and Nicaraguan groups, Primer Banco del Istmo (Panama) has participation in Honduras and Costa Rica, and Cuscatlán (El Salvador) acquired the regional banks formerly owned by the British bank, Lloyds. Banks belonging to regional groups acquired selected assets of failed banks, including through cross-border acquisitions: Banex (Panama) in Costa Rica absorbed four banks between 1998 and 2001; Lafisse and Promérica (Nicaragua) absorbed assets and liabilities from failed banks in Nicaragua and El Salvador; and Cuscatlán and Agrícola (both El Salvador) from failed banks in Costa Rica and Guatemala. Banks belonging to regional financial groups are dominant among private banks in Costa Rica, El Salvador, and Nicaragua.

Regional Financial Groups: Risks and Regulatory Responses

Main Risks

Inflated Capital

Capital may be inflated for regional financial groups, despite being apparently sufficient on a solo basis. For a financial conglomerate, capital must be adequate both on a group or consolidated level and on a single-entity solo level. Proper monitoring is complicated by differences in the definitions and calculations of both actual and required capital across borders, differences in accounting standards, and lack of proper financial and auditing consolidation. Also, capital adequacy requirements are not comparable because of differences in the measurement of both the numerator (capital) and the denominator (risk-weighted assets) in individual countries. Minimum capital adequacy requirements are set at 10 percent in all countries except El Salvador and Panama (12 percent and 8 percent, respectively), and compliance is generally good. Actual capital-to-asset ratios (i.e., without risk weights) vary, with Guatemala showing a ratio below 8 percent; Costa Rica, Honduras, and Nicaragua between 8 and 10 percent; and El Salvador and Panama above 10 percent (Figure 2.7).

Inappropriate recording of intragroup transactions may also inflate capital. These transactions could hide the overall risk exposure of individual entities and/or their corresponding groups. Problems associated with intragroup transactions include (1) capital or income may be inappropriately transferred from a regulated entity; (2) the terms of the transfer may be disadvantageous to a regulated entity; (3) there may be a negative impact on solvency, liquidity, and/or profitability of individual entities; or (4) regulatory requirements may be circumvented.[39] Transfers of de-

[37]Central American Monetary Council (2003).
[38]Barraza (2003).
[39]Gruson (2004).

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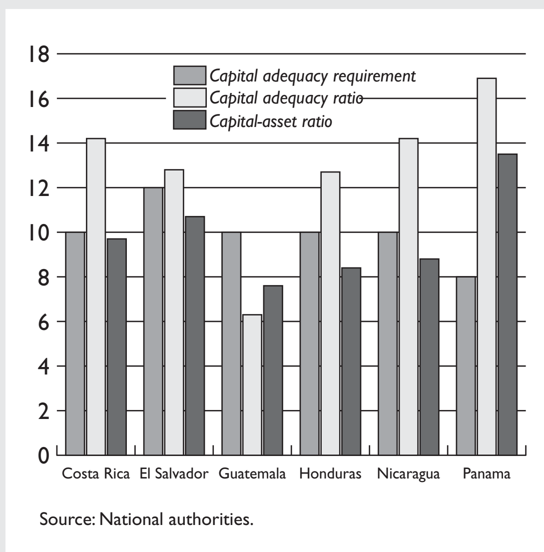
Figure 2.7. Capital Ratios, December 2004



Source: National authorities.

posits and loans (including asset dumping offshore) among banks belonging to the same group to boost capital artificially have been particularly problematic. Other areas of concern have been the emergence of outsourcing contracts with related institutions whose pricing is difficult to test against the market, and the use of credit by shareholders to inject capital into related financial institutions, which facilitates double gearing. Double (or multiple) gearing occurs when one entity holds regulatory capital issued by another entity within the same group and the issuer is allowed to count the capital in its own balance sheet.

Contagion Risks

The intricate nature of cross-border operations makes the Central American financial system susceptible to contagion (Table 2.5). Cross-border transfer of deposits may magnify liquidity risk. While the availability of intragroup financing may help overcome temporary liquidity problems, eventual solvency problems of a troubled institution may lead to intragroup contagion to liquidity providers. Contagion may take place within the group (if troubled members of a conglomerate "infect" healthy members of a conglomerate in another jurisdiction), both within and across borders; and among unrelated institutions within a country (if perception of systemic problems is augmented by cross-border risks).

Opportunities for Regulatory Arbitrage

Credit risk concentration, related in part to concentration of wealth, has been a problem in the region. Cross-border financial intermediation further complicates adequate monitoring of credit risk. Corporate groups may become "too large" relative to domestic financial institutions, making it attractive for both financial institutions and corporate groups to use different regional institutions to conduct business between them.[40]

Regulation of large credit exposures is uneven in Central America. El Salvador imposes the most stringent regulations overall, with Guatemala and Honduras allowing wider room for lending to groups, presumably because their economies also show the least diversification. On lending to related parties, demand for financing by groups operating as mixed conglomerates tends to be attended first by the group, because lack of capital market development encourages reinvestment as a source of financing. Regulations on related party lending also vary widely across the region—El Salvador and Panama having far more strict requirements than neighboring countries. At the other end of the spectrum, Guatemala and Honduras lack an aggregate limit for overall lending to related parties (Table 2.6).

Bad loans from a stricter jurisdiction could be sold to a less strict jurisdiction before recovery problems are detected, increasing the underlying gap between reported and actual credit risk for the group. Risks may be compounded as Central American countries have different requirements for the sale of loan portfolio bundles.

Differences in loan classification and provisioning could also lead to regulatory arbitrage (Table 2.7). A financial group may take advantage of differences in the treatment of collateral for loan classification purposes, and it may record loans in a location where more favorable treatment is available. Costa Rica, El Salvador, and Nicaragua link loan classification to the quality of collateral. Also, differences in the minimum arrears period to reclassify a loan may provide incentives for regulatory arbitrage. Provisioning requirements also vary: for example, El Salvador and Nicaragua require more severe provisioning adjustments in the transition between the

[40] "Some of the hurdles that will have to be addressed . . . are the existence of corporate/financial groups, where the corporate component may be even more sizable than the financial portion" (Fitch Ratings, 2004, p. 8).

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Table 2.5
Central America and Dominican Republic: Regional Financial Links, June 2004

	Destination								
Origin	Costa Rica	Dominican Republic	El Salvador	Guatemala	Honduras	Nicaragua	Panama	United States	Other
Costa Rica	BCT Improsa, Interfin								Interfin (Bahamas), Banex (Cayman Islands)
Dominican Republic		8 domestic banks					Banco Popular		
El Salvador	Cuscatlán		Agrícola, Cuscatlán, Salvadoreño	Cuscatlán	Cuscatlán	Caley (Agrícola)	Agrícola, Cuzcatlán (international license)	Agrícola, Cuzcatlán (remittances)	Cuscatlán (through Guatemala): Montserrat, Western Indies
Guatemala				22 domestic banks			GTC		8 offices in Bahamas, Puerto Rico, Belize, Barbados
Honduras					10 domestic banks		Banco de Occidente		
Nicaragua	BAC share in Banco de San José, UNO, Promerica, Lafise	Promerica	BAC, UNO, Promerica, Americano	BAC, UNO	BAC, UNO, Promerica	BAC, UNO, Banpro, BDF, Bancentro	BAC, UNO, St. Georges (Promerica), BDF	BAC Florida	BAC (Cayman Islands)
Other	Cathay (Taiwan), Scotiabank (Canada)	Republic Bank (Trinidad & Tobago) owns Banco Mercantil, Sabadel (Spain) and Popular (Puerto Rico) own shares of BHD	Nova Scotia from Canada (acquiring Comercio), Procredit (ONG-owned)	Internacional (Spain)		Procredit (ONG-owned)	International Financial Center, BLADEX (shares from BAC San Jose, Interfin, and BCT)		

Sources: National superintendencies.

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TABLE 2.6
Regulations on Loan Concentration and Related Lending

	Limits on Loan Concentration and Related Lending		
	One borrower	Groups	Related lending
Costa Rica	20 percent of capital	20 percent of capital	20 percent of capital for financial groups. Aggregate limit of up to 20 percent of capital
El Salvador	15 percent of capital (additional 10 percent with real guarantees)	15 percent of capital (additional 10 percent with real guarantees)	Aggregate limit: 5 percent
Guatemala	15 percent of capital	30 percent of capital	Individual and group limit applies. No aggregate limit
Honduras	20 percent of capital (50 percent with real guarantees)	20 percent of capital (50 percent with real guarantees)	30 percent of capital
Nicaragua	30 percent of capital	30 percent of capital	15 percent for individual, 25 percent for group, 60 percent aggregate limit
Panama (regulations apply to banks with general license)	25 percent of capital	25 percent of capital	5 percent of capital (10 percent with real guarantees). Aggregate limit: 50 percent (25 percent in 2005)

Sources: Central American Monetary Council; and national superintendencies.

TABLE 2.7
Regulations on Loan Classification and Provisioning

	Length of Arrears for Intermediate Loan Category (In days)	Provisioning for Second Best and Second Worst Loan Category (In percent)	Treatment of Collateral on Provisioning
Costa Rica	90–120	1, 60 (30 for mortgage loans)	Collateral helps classification in some categories.
El Salvador	90–180 (60–90 for consumer loans)	6, 60	Collateral helps classification in some categories.
Guatemala	90–180 (60–120 for microlending)	5, 50	Provision net of collateral.
Honduras	61–90 (91–120 for consumer loans)	1.6, 36 (gradual increase)	Collateral not used for classification or deducted for provisioning.
Nicaragua	60–90 (91–180 for mortgage loans, 31–60 for microlending)	5, 50	Collateral helps classification in some categories.
Panama	60–90 (90–120 for mortgage loans)	2, 50	Provision of loans net of "expected recovery."

Sources: National superintendencies.

first and the second loan categories relative to other countries in the region.

Unregulated Risks

Regional financial groups are exposed to sovereign risk. In all jurisdictions within the region, government bonds are subject to zero risk-weight, based on the argument that sovereign risk constitutes the benchmark for local securities (Figure 2.8). Clearly, capital adequacy is overestimated because not all countries are exposed to the same degree of government default risk. However, setting differential risk weights across countries would not

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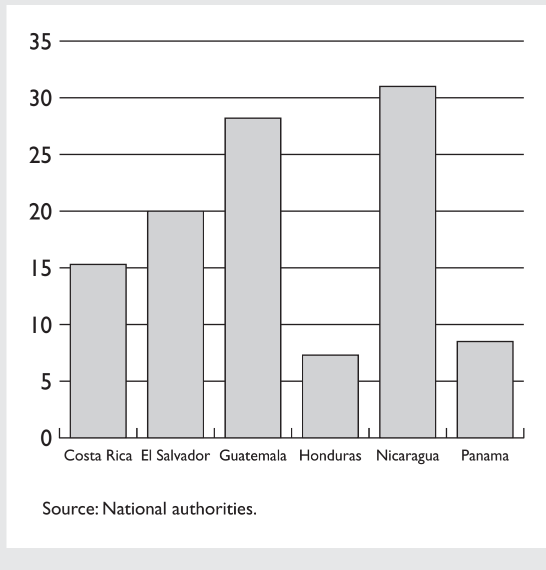
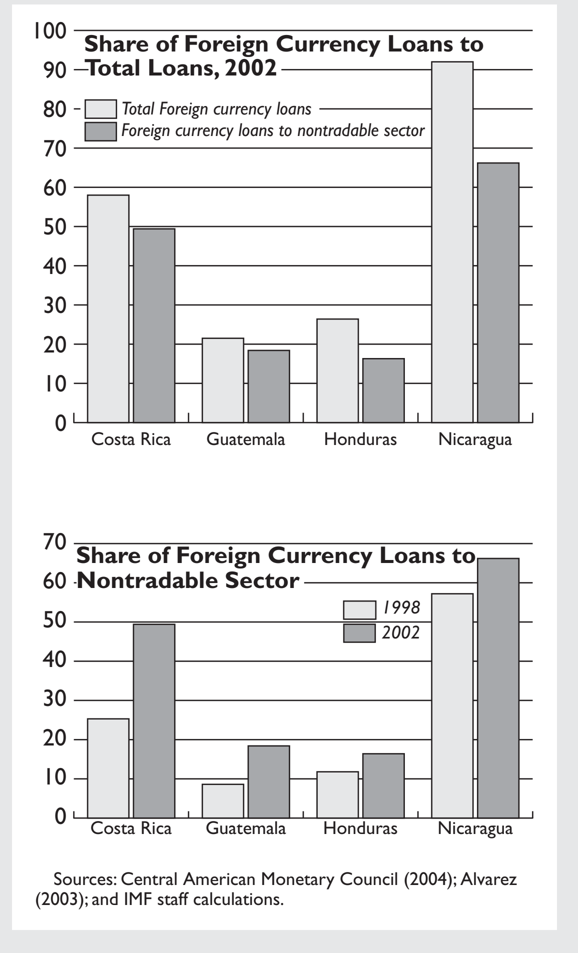
Figure 2.8. Share of Government Bonds in Bank Assets, 2003
(In percent)



Source: National authorities.

Figure 2.9. Foreign Currency Lending to Nontradable Sector
(In percent)



Sources: Central American Monetary Council (2004); Alvarez (2003); and IMF staff calculations.

be easy, because any official validation of a differential risk may result in volatility in the market for government bonds, especially for less-developed and illiquid markets. For groups that are not subject to consolidated supervision, dependency of the government budget on bank financing may create pressure to maintain the status quo not only in regulation of sovereign risk but also in other areas (including consolidated supervision). For financial conglomerates that are subject to consolidated supervision, the question to be addressed is the appropriate valuation of a regional government bond portfolio.

Currency mismatches could be compounded by cross-border operations. Most loans in foreign currency are to the nontradable sector, even in economies that are not fully dollarized (Figure 2.9). In the case of regional financial groups, transfer of loans and deposits across borders may lead to imbalances in the foreign currency position of individual banks. Financial groups may have an even higher incentive than domestic financial institutions to lend to unhedged borrowers to keep a balanced foreign exchange position. Competition to retain prime customers may also drive domestic financial institutions to offer similar alternatives to those offered by regional groups and foreign banks.

Regulatory Responses

Supervisory authorities have put in practice regulatory responses at the individual country and regional levels. They have attempted to combine the supervision of domestic conglomerates and of cross-border financial intermediation, and in several countries financial legislation has been modified recently to that effect. For countries dealing with parallel banks (notably, Nicaragua), ring fences are being used (more strict prudential regulation for entities belonging to a group and not submitting consolidated financial statements to supervisory authorities). At the regional level, memoranda of understanding and regional plans within the Central American Council of Superintendents of Banks, Insurance, and Other Financial Institutions have

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been the main instruments utilized by country supervisory authorities in the region.

Individual Country Initiatives

Combining supervision of domestic financial conglomerates and of cross-border financial intermediation

Attempts to incorporate institutions operating abroad into the same supervisory platform as domestic financial conglomerates have proven difficult. The first hurdle to overcome has been adapting the legal framework for financial activities to allow for consolidated supervision. Legislation in Costa Rica and Panama includes long-standing provisions for consolidated supervision, but only Panama has been able to effectively implement to some extent supervision of domestic financial conglomerates and of cross-border intermediation (Box 2.3). El Salvador approved amendments to its banking law in 2002, defining "financial conglomerates" and providing for their supervision on a consolidated basis. However, the Salvadoran superintendency has not conducted supervision of cross-border financial activities because the two Salvadoran regional financial conglomerates consolidate their international operations in Panama. Guatemala and Honduras recently approved modifications to the legal framework, and the process of implementation is under way. Changes in the legal framework for financial activities are still pending approval by congress in Nicaragua, where the supervisory authority has relied on miscellaneous legal provisions and ring fences to control cross-border transactions within financial groups (Box 2.4).[41]

The main problems with the legal framework for effective consolidated supervision include the lack of a clear definition of a financial group in some countries and the lack of enforcement of legal powers to regulate financial groups to the extent necessary to ensure effective monitoring. Heterogeneous and unclear definitions across countries often lack a structure that would allow for clear parameters to conduct consolidated supervision. Weak legal powers of supervisors to regulate financial groups prevent imposing effective limits on intragroup operations or requiring corrective actions when dubious transactions are observed. Implementation of legal requirements is also made difficult by the limited exchange of information, with critical sensitive information not being shared among supervisors in the region. In some cases, secrecy laws pose obstacles to effective exchange of information between supervisors.

El Salvador has attempted to incorporate nonbank financial institutions and cross-border activities into the scope of consolidated supervision. However, as mentioned, Salvadoran conglomerates consolidate in Panama, and it was not possible to test the effectiveness of the legal framework providing for consolidation of cross-border activities. Other difficulties faced by Salvadoran supervisors were the evolving organization structures of current financial conglomerates and the exclusion of companies such as instrumental companies and fiduciary trusts from the scope of supervision.

Ring fences

In light of the importance of cross-border operations by parallel-bank-based groups of Nicaraguan origin, the Nicaraguan superintendency has put in place ring fences to limit opportunities to circumvent regulation. This is consistent with Basel criteria. According to the Basel Committee on Banking Supervision, "where the supervisor of a parallel bank concludes that there is inadequate access to information about material parts of the parallel-owned banking structure, and cooperation with the foreign supervisor will not sufficiently mitigate the risk of the parallel bank structure, it should seek to ring-fence the operations of the domestic bank."[42] Consistent with this, the Nicaraguan superintendency issued regulations including limits to investment in financial institutions and special accounting rules; adaptation to the regulation on capital adequacy (for example, higher risk weights for some investment categories); regulation on deposits and investments; 100 percent provisioning on sales of loan-portfolio bundles; and restrictions in the use of a common name. However, implementation of ring-fence-type measures has faced difficulties in practice and does not provide an adequate alternative to consolidated supervision, because it does not allow an overall assessment of vulnerabilities. Recent attempts to expand powers of the superintendency

[41]Although nonbank financial institutions are generally of no systemic importance, there is experience in the region of crisis episodes associated with them. In Costa Rica, inappropriate recording of security transactions masked the failure of Banco Anglo in 1994.

[42]Basel Committee on Banking Supervision (2003a), p. 6.

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Box 2.3. Consolidated Supervision of Regional Financial Conglomerates in Panama

Several of Central America's largest regional financial groups have elected to consolidate their banking activities in Panama, and this has presented challenges for implementation of consolidated supervision. The attraction to consolidate operations in Panama largely results from the advantages of operating in an international banking center and from market factors. The prospect of more favorable international recognition and Panama's fully dollarized economy and open capital account have attracted foreign-owned banks that offer integrated domestic and international financial services, which may be convenient for cross-border transactions of regional financial groups. Moreover, several of the domestic banks are recognized as among the strongest in Central America; three banks have achieved an investment grade rating from global rating agencies.

Legal and regulatory factors also explain consolidation of activities in Panama. New banking legislation in 1998 established the Superintendency of Banks as an autonomous regulator, independent from the government and with sufficient resources to finance its activities. Key features of the legal and regulatory framework that support consolidated supervision are requirements for (1) consolidated supervision in law and regulation and (2) accounting and auditing standards and financial reporting. However, it must be noted that according to Panamanian legislation, banks with an international banking license are not subject to several prudential requirements applicable to banks with a general banking license.

The Superintendent of Banks is able to supervise economic groups and their bank and nonbank affiliates on a consolidated basis, though with some limitations. There is robust authority for the supervision of domestic banks and their subsidiaries (both domestic and foreign), which include the power to carry out direct on-site inspections. However, for holding companies and other nonbank entities, the Superintendent's powers are limited to requiring audited financial statements and other reporting information from nonbank affiliates of economic groups. The Superintendent has carried out inspections of the domestic nonbanking subsidiaries and some foreign subsidiaries of Panamanian banks.

Other powers of the Superintendent of Banks include the ability to impose restrictions on the transactions between the domestic bank and the holding company and other affiliates. To facilitate the cross-border supervision, the Superintendent of Banks has in place numerous memoranda of understanding (MOUs) for cooperation with foreign supervisors, establishing the working arrangements on the use of shared information.

Accounting requirements apply to both the general and international license banks and their economic groups. For financial reporting purposes, the Superintendency of Banks requires that economic groups file financial information using International Accounting Standards (IAS) as issued by the International Accounting Standards Committee, or Generally Accepted Accounting Principles (GAAP) as issued by the U.S. Financial Accounting Standards Board. Financial statements are to be prepared on a consolidated basis requiring the combination of balance sheet and income statement accounts for subsidiaries and the holding company, with the elimination of intercompany balances and transactions. Consolidated accounting is necessary to provide a true and fair view of risk concentrations, transactions with affiliates, and capital adequacy. Most importantly, the IAS/GAAP accounting requirement serves investors and other market participants, which is an important factor recognized by regional financial groups for consolidating their operations in Panama.

based on ring fences have been subject to injunctions in the courts. While the efforts of the superintendency are commendable in the adverse circumstances they face, prospects for further progress using this strategy appear limited. "It is not feasible or practical to require any supervisor acting alone to gather the necessary supervisory information on all related foreign parallel banks in the group, especially if parts of the organization structure in foreign countries are opaque."[43]

[43]Basel Committee on Banking Supervision (2003a), p. 2.

Gradual absorption of booking offices into the scope of consolidated supervision

There has been some progress in the provision of information from booking offices operating abroad that are part of regional financial groups. In Costa Rica, some information is available for the 7 (out of 14) private financial groups that have offices abroad. However, financial groups have been unwilling to allow full access to their subsidiaries' accounts. The memoranda of understanding signed with supervisory authorities where these subsidiaries operate have not allowed the verification

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Box 2.4. Comparison of Legislation on Consolidated Supervision in Central America

In Costa Rica, the National Council for Financial System Supervision (CONASSIF) regulates the transfer, registration, and functioning of financial groups, including limits on lending or borrowing operations between institutions belonging to the same group. The CONASSIF oversees the General Superintendency of Financial Institutions (SUGEF), an arm of the central bank that supervises banks, nonbank financial institutions, savings and loan mutual associations, savings and credit cooperatives, and solidarity associations. Financial groups are defined as entities subject to joint control or joint management. They comprise holding companies and firms engaging in the provision of financial services, such as banks, nonbank financial institutions, bonded warehouses, stockbrokers, investment companies, financial leasing firms, and banks or financial companies domiciled abroad. The Superintendent may determine the existence of a de facto financial group and must be notified of significant changes in "ownership interest." While there is no explicit instruction for consolidated supervision, provision is made for consolidated reporting by financial groups. For the purposes of large exposure and related-party lending limits, operations of group members are consolidated. The requirement for external audits includes audits on a consolidated basis. For banks or financial firms operating abroad, SUGEF must assess whether there is sufficient supervision exercised by the host country supervisor. There are no provisions for on-site inspections by SUGEF of entities domiciled abroad.

In El Salvador, financial conglomerates are expressly subject to approval and consolidated supervision by the Financial System Superintendency (SSF). Financial conglomerates consist of companies where more than 50 percent of the respective stock is held by a holding company. They must include one bank and may incorporate insurance companies, pension fund management institutions, brokerage firms, companies specialized in the deposit and custody of securities, credit card issuers, foreign exchange houses, financial leasing companies, and bonded warehouses. Financial conglomerates can also include foreign banks, where at least 45 percent of the stock the holding company owns and exercises control of the bank. There is a presumption of a financial conglomerate based on a determination of common control, but this presumption can be contested. The SSF has access to all information of all members of the financial conglomerate needed to conduct consolidated supervision. Financial conglomerates must satisfy total capital requirements on a consolidated basis, but there is no explicit requirement to apply large exposure and related-party lending limits on a consolidated basis. For banks that are not part of a financial conglomerate, consolidated supervision is applied to banking subsidiaries, including requiring consolidated financial statements and adherence to prudential requirements. Banks may conduct financial operations abroad through branches and subsidiaries, provided there is prudent regulation and supervision in the host country and the SSF has given prior authorization. Foreign subsidiaries of a financial conglomerate are subject to the supervision of the SSF and examination by independent auditors of the parent bank, without prejudice to the powers of foreign authorities.

In Guatemala, the Superintendency of Banks (SB) is granted broad powers for the exercise of supervision over banks and other financial service providers, including on a consolidated basis. A financial group is defined broadly as "two or more legal entities engaging in activities of a financial nature, one of which shall be a bank, when there is common control of such entities based on ownership, management, or use of corporate image." A holding company or a bank may head the financial group. Only specified entities, such as banks, finance companies, exchange brokerages, bonded warehouses, insurance companies, surety companies, credit card companies, financial leasing companies, factoring companies, securities brokerages, local or offshore entities, and other entities determined by the Monetary Board as well as support service providers, such as automated tellers or electronic data processing providers, are eligible to form part of a financial group. The SB may presume common control, but its presumptions may be challenged. The financial statements of the companies comprising the financial group must be prepared on a consolidated basis. The law explicitly states that companies comprising the financial group shall maintain required capital on a solo and consolidated basis, and prudential requirements may be applied to such entities on a solo and consolidated basis. The SB is empowered to request information from entities in a financial group as needed and to carry out on-site examinations while safeguarding the identity of depositors. Banks may establish branches abroad, provided that the host country exercises supervision in a manner that allows for the exercise of consolidated supervision by the home country supervisor in line with international standards.

of consolidated information. Reluctance to report continues despite higher capital adequacy requirements (20 percent for nonreporting groups and 10 percent for groups allowing full access). Private financial groups allege that their behavior aims at mitigating the significant dominance of public banks, which results in the lack of a level playing field. While public banks benefit from a blanket

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In Honduras, the Financial System Law of September 2004 introduces consolidated supervision, to be carried out by the National Commission of Banks and Insurance (CNBS), an entity "in service" to the central bank, reporting directly to the President of the Republic. Financial groups consist of two or more companies engaged in activities of a financial nature under common control and may include banks, savings and loan associations, finance companies, subsidiaries, and branches and offices of foreign financial institutions. The CNBS may determine that the relationships or transactions with nonfinancial members of the same financial group may endanger the financial stability of the group, in which case it shall have the right to conduct all inspections necessary to evaluate risks and require the implementation of necessary measures. The CNBS may not authorize the existence of a financial group without being able to exercise consolidated supervision of the financial activities undertaken. Financial groups must provide the CNBS with consolidated financial statements including its subsidiaries and branches abroad. Consolidated capital of the financial group must be at least equal to the sum of the capital requirements of the companies in the group, and intercompany investments among group members are subtracted from the paid-in capital of the investing company. The CNBS authorizes the opening of branches or subsidiaries abroad of a Honduran financial system institution and may supervise them directly or through auditors hired abroad. For a foreign financial institution to operate a branch in Honduras, the CNBS must have executed a memorandum of understanding with the home country supervisor.

In Nicaragua, the Superintendent of Banks is empowered to exercise consolidated supervision over financial groups. A financial group is defined as banks and nonbank financial institutions (including domiciled abroad) and affiliates that are directly or indirectly controlled by a majority of shares. The Superintendent may specify cases where setting up holding companies may be necessary. All banks or nonbank financial institutions must inform the Superintendent of whether they belong to a financial group. The coordinator of a financial group is the member established in Nicaragua with the largest asset value. The coordinator must consolidate the statements of the financial group and submit them together with individual financial statements of its members. The Superintendent may set general prudential standards as deemed necessary to supervise financial groups on a consolidated basis. The Superintendent may apply a range of preventive measures "when the situation so warrants it" to members of a financial group. Prior authorization from the Superintendent is required to open branches abroad. However, there is no explicit authority to limit the range of activities a financial group may conduct in foreign locations, or for the Superintendency of Banks and Other Financial Institutions (SBOIF) to conduct onsite inspections, but the Superintendent has broad authority to cooperate with foreign supervisors as necessary for consolidated supervision. Branches of foreign banks must apply for authorization to operate in Nicaragua.

In Panama, the Superintendency of Banks (SBP) is authorized to supervise Panamanian banks (both with general and international banking licenses) on a consolidated basis, and is responsible for the supervision of economic groups that include Panamanian banks. An economic group is defined as a group of natural or juridical persons whose interests are interrelated in such a way that the SBP shall consider them as a single person. Descriptions of what constitutes an economic group, including ownership and control criteria, are specified in legislation. The financial consolidation of subsidiaries for regulatory and financial reporting purposes is required. An economic group of banks with a general banking license must maintain at all times a global index of capital adequacy equal to the sum of the capital requirements for all the companies comprising the group. The SBP may set prudential requirements on banks and members of the economic group on an individual basis and on the entire economic group of which a bank is a member. However, powers of the SBP concerning capital adequacy and other prudential requirements appear more limited with regard to banks with an international banking license. The SBP has the power to supervise operations, on a consolidated basis, of branches and subsidiaries of Panamanian banks established in foreign jurisdictions. For the opening of bank branches and subsidiaries in Panama, the SBP may require certification issued by the home country supervisor, indicating its assurance that consolidated cross-border supervision of the applicant would occur and the frequency and extent of the on-site examinations in Panama. It appears that this requirement is applied at the discretion of the SBP on a case-by-case basis.

guarantee by the state, there is no deposit insurance for private banks. In Guatemala, the process of integrating information from booking offices is still ongoing. Eleven out of 18 financial groups have offices abroad (3 of which are foreign), and the superintendency has completed a first round of on-site inspections of all offshore entities. However, reporting deficiencies result in unreliable fi-

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nancial statements of banks and groups. So far, only nine financial groups have completed the process of registration as financial groups.

Regional Initiatives

Cooperation through memoranda of understanding

The implementation of arrangements between supervisory authorities in the region shows limited progress. A general arrangement sponsored by the CCS was signed in 1998. Subsequently, specific memoranda of understanding were signed between 2000 and 2003 to motivate bilateral cooperation, especially on exchange of information. However, the lack of a central authority, legal restrictions in some cases (in particular, secrecy provisions), unclear focus on what information is to be exchanged, and reported reluctance of supervisors to provide timely and detailed information have conspired against a smooth exchange of information. Sharing of findings of off-site analysis is incomplete, and joint inspections have been rare.

Coordination in the Council of Superintendents of Banks, Insurance, and Other Financial Institutions

The CCS has been instrumental in promoting an exchange of views among regional supervisors on the need for cross-border consolidated supervision. The CCS was founded in 1976 with the goal of encouraging cooperation and exchange of information among regional superintendencies, and facilitating the implementation of regional agreements. Discussions on plans to harmonize regulation across countries in the region have taken place with the Inter-American Development Bank, with the main goal of identifying the gaps in the application of international standards for banking supervision. The coordination needed to implement International Financial Reporting System criteria was assisted by the Central American Bank for Economic Integration. Steps to improve regional banking supervision include the preparation of assessments and action plans to be implemented in the second half of 2005. The CCS is at a crucial juncture in defining a roadmap and priorities to show effective progress in improving consolidated supervision of regional financial institutions.

Conclusions and Elements of an Action Plan

Minimum Standards

International experience (e.g., the European Union, the Nordic countries, the East Caribbean Currency Union, the West African Economic and Monetary Union (WAEMU), and the Central African Economic and Monetary Community (CEMAC)), can be used as a reference for consolidated supervision in Central America only to a limited extent (Box 2.5). The experience of the Nordic countries would seem most applicable to Central America, because both operate outside the framework of a currency union. In most cases, financial integration has progressed in parallel with political integration at least to the extent necessary to have a common supervisory authority. Central America not only lacks the political integration to establish a common supervisory authority but also it has limited experience with minimum standards in the face of enforcement difficulties. The exchange of information through a memorandum of understanding is less than what would be necessary to compensate for the lack of a common authority. Moreover, the choice of a home supervisor for a group is left to the group, providing for opportunities to seek out a weak supervisory regime in the context of a fairly heterogeneous supervisory framework.

The minimum standards for the supervision of international banking groups established by the Basel Committee on Banking Supervision stipulate that (1) all international banks should be supervised by a home country authority that capably performs consolidated supervision; (2) the creation of a cross-border banking establishment should receive the prior consent of both the host country and the home country authority; (3) home country authorities should possess the right to gather information from cross-border banking establishments subject to their supervision; and (4) if the host country authority determines that any of these three standards is not being met, it could impose restrictive measures or prohibit the establishment of banking offices.

In Central America, the performance of consolidated supervision is most advanced in Panama. An assessment of how capably supervision is performed is beyond the scope of this book. Strengths of Panama's supervisory framework include experience in dealing with financial groups, sufficient resources, and the

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Box 2.5. International Experience with Cross-Border Consolidated Supervision[1]

European Union

Regulation and supervision of cross-border banking groups in the European Union (EU) take place in the context of a regional market for financial services that has to a significant extent been unified, but where—despite increasing harmonization—licensing, regulation, and supervision of financial institutions remain organized essentially at the national level.

The single European market for banking services is based on the principle of a single banking license or "passport." This principle implies that any financial institution licensed to provide certain financial services in one EU country, and actually providing those services in that country, can provide the same services throughout the EU, by means of cross-border transactions or foreign branches. To prevent regulatory arbitrage, minimum licensing standards have been set at the European level, using the same procedures as those for minimum regulatory standards (see below). However, actual licensing is done by the relevant national authorities, which may opt to apply stricter licensing criteria than the minimum standards. Banking subsidiaries set up by EU banks in other EU countries need to be licensed separately by the host country.

National authorities remain in charge of setting bank regulation, though this is subject to increasingly specific minimum standards agreed at the European level. For banks that operate cross-border, the principle of home country control applies, that is, banks are subject to the regulations of their home country, even when operating in other EU countries.

Until recently, EU-wide minimum regulatory standards were established as regular EU legislation, on the basis of proposals made by the European Commission that had to be approved by the Council and the European Parliament. In preparing such legislation, the Commission was advised by the Banking Advisory Committee, which comprised representatives of the national supervisory agencies and ministries of finance of the different member states. In certain technical areas, the Committee was able to amend EU banking legislation without having to go through the above-described legislative procedure.

In part to avoid excessive delays in adapting the regulatory framework to a rapidly changing financial environment, and in order to further streamline and harmonize regulations, the EU decided in December 2002 to extend the Lamfalussy approach to the area of bank regulation.[2] Under the Lamfalussy approach, regulatory framework principles are established in the form of formal directives or regulations ("primary legislation") through the normal EU legislative procedures (Level 1). On the basis of these framework principles, more detailed technical implementing rules ("secondary legislation") are prepared by the European Commission, on the basis of consultations with sectoral committees consisting of the relevant authorities, and subject to the approval of a regulatory committee (the European Banking Committee—EBC) comprising representatives of the member states (Level 2). The consistent implementation of harmonized regulations throughout the EU is the objective of another committee (the Committee of European Banking Supervisors—CEBS), which brings together high-level representatives of European banking supervisory agencies and central banks (Level 3).

To ensure effective and harmonious supervision in the context of an EU-wide single market in which responsibility for supervision remains with national agencies, a number of basic principles have been established. These are (1) mutual recognition of the way supervision is conducted in the different member states, (2) an obligation for supervisors to cooperate with each other, (3) harmonization of supervisory practices, and (4) home country control as the basic approach in consolidated supervision.

In this context, responsibilities for the supervision of cross-border bank activities have been allocated as follows: (1) the home country supervisor is responsible for consolidated supervision of a banking group as a whole; (2) branches of EU banks in other EU countries are supervised by the home country supervisor; and (3) subsidiaries of EU banks in other EU countries are supervised by host country supervisors as separate entities, and as part of the consolidated banking group by the home country supervisor.

Cooperation between the different national supervisors is essential to make this framework function smoothly. Nevertheless, individual agencies have been left with a significant degree of freedom in organizing this cooperation (in particular, the exchange of information), through the conclusion of bilateral memorandums of understanding (MOUs). Such MOUs specify the modalities for information exchange (including confidentiality issues) and other forms of cooperation and outline the commitments agencies make vis-à-vis

[1]Prepared by Jens Clausen, Marco Espinosa, and Wim Fonteyne.

[2]The Lamfalussy approach was originally proposed in 2001 for the regulation of securities markets, by a Committee of Wise Men led by Baron Alexandre Lamfalussy. A discussion of the Lamfalussy approach in bank regulation can be found in the November 2004 issue of the ECB's *Monthly Bulletin*.

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Box 2.5 *(concluded)*

each other. These bilateral MOUs are supplemented by a number of multilateral MOUs, often dealing with specific multinational banking institutions. Cooperation has been strengthened further with the establishment of the CEBS, which has among its objectives to serve as a forum for the exchange of information, a role that was previously fulfilled to a lesser extent by the "Groupe de Contact" and the Banking Supervision Committee of the European System of Central Banks (ESCB).

Within the Lamfalussy framework, harmonization/convergence of supervisory practices is a role allocated to the CEBS and, to a lesser extent, to the EBC.

Nordic Region

There is a long-standing tradition of cooperation among Nordic (i.e., Denmark, Finland, Iceland, Norway, and Sweden) central banks as well as among Nordic banking supervisory authorities.[3] In 2003, the Governors of the Nordic central banks agreed on an MOU that outlines the procedures followed in the event of a banking crisis with cross-border implications. It specifies the details of crisis management and possible emergency liquidity support. They regarded a non-legally-binding MOU as the appropriate tool for organizing cooperation among the central banks. An MOU among the banking supervisory authorities was first signed in 1989, and was renewed in 1994 and 2000. The Swedish Financial Supervisory Authority acts as the secretariat of the group. The memorandum specifies the cooperation related to cross-border supervisory activities. It defines the home and host country responsibilities, information sharing, and cooperation on conducting on-site examination, consolidated supervision, and cross-border financial services. Special attention is given in a separate MOU to the supervision of the Nordea Group, a financial conglomerate active in four of the five Nordic countries. The establishment of a joint supervisory group for Nordea was a major step toward ensuring effective consolidated supervision.

ECCU

The eight member countries and territories of the Eastern Caribbean Currency Union (ECCU) are Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines, which are all independent states and members of the IMF; and Anguilla and Montserrat, which are territories of the United Kingdom. In 1983 they created the Eastern Caribbean Central Bank (ECCB) and adopted the ECCB Agreement Act. The financial system in the ECCU comprises domestic banks, offshore banks, credit unions, insurance companies, national development foundations, development finance institutions, building and loan associations, and finance companies.

The regulatory framework of the domestic banking system includes the ECCB Agreement Act of 1983 and its amendments as well as the Banking Acts of the various member states. The Agreement Act gives the bank the power to "regulate banking business on behalf of and in collaboration with participating Governments." Between 1988 and 1992, new banking legislation, referred to as the Uniform Banking Act, was enacted in each of the member states. This legislation sets the stage for the harmonization of financial intermediaries within the ECCB area and the standardization of the ECCB's supervisory and regulatory framework.

The Uniform Banking Act reaffirms the ECCB as the region's central bank with responsibility for the supervision of the financial system. The ultimate authority in the application of the Act is vested in the minister of finance of each individual country, who is required to act in consultation with, and on the recommendation of, the ECCB. All commercial banks and other banking business institutions are required to be licensed under the Uniform Banking Act. As

[3]See Majaha-Jartby and Olafsson (2005).

requirement of international accounting standards. However, the presence of banks that do not consolidate financial statements and the likely substantial mind and management in the home country of shareholders of RFCs are areas to be addressed within the framework of a regional approach.

Prior consent to authorize operations of banks in different jurisdictions was made without paying attention to the lack of consolidated supervision. Most institutions were established in different countries as domestic banks, and therefore they were primarily subject to supervision only of the individual entity.

Provision of information to the home country supervisor (Panama) seems to be generally adequate. However, supervisors in other countries feel that the substantial presence of mind and management in their jurisdictions justifies the provision of information from the home to the host country supervisor.

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part of the continuing supervision, licensed financial institutions are required to submit monthly, quarterly, and annual reports to the ECCB.

The deficiencies of the Uniform Banking Act are being partly addressed, including weak central bank authority to enforce banking regulations. This would be particularly relevant where key supervisory decisions lie outside of the supervisory authorities, and where such decisions can be politically influenced.

The offshore financial services sector, regulated by the Offshore Banking Acts in the respective countries, is primarily the responsibility of the national regulators. In the cases of Dominica, St. Kitts and Nevis, and St. Vincent and the Grenadines, the Offshore Banking Acts have been amended to allow for varying degrees of participation in the regulation and supervision of the offshore sector by the ECCB. The ECCB provides support to the national regulators in the other territories in supervising the sector.

WAEMU and CEMAC

The West African Economic and Monetary Union (WAEMU) and the Central African Economic and Monetary Union (CEMAC) are monetary unions with a single currency, the CFA franc. The WAEMU treaty established a single currency and a regional central bank (Banque Centrale des États de l'Afrique de l'Ouest—BCEAO) in 1962. The eight member countries of WAEMU are Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal, and Togo. The Governor of the BCEAO is the President of the Banking Commission, which was created in 1990 to strengthen regional banking supervision and authorize uniform licensing. The Banking Commission is responsible for the organization and supervision of banks and financial institutions in the eight member states. The 1995 law on savings and credit institutions (*Projet d'Appui à la Réglementation sur les Mutuelles d'Epargne et de Crédit*) laid the basis for a regulatory framework for cooperative financial institutions in the region. Both government authorities and the BCEAO are responsible for supervising microfinance institutions. Pensions funds, the stock market, and insurance companies are supervised by separate regional institutions. There are reforms underway to expand the Banking Commission's authority to also regulate these markets as well as to be able to withdraw banking licenses, which until now has been subject to the approval of the minister of finance of each country.

CEMAC encompasses six countries (Cameroon, Central African Republic, Chad, the Republic of Congo, Equatorial Guinea, and Gabon). The Commission Bancaire de l'Afrique Centrale (COBAC) has been assigned nearly the full range of powers that national supervisory agencies have in individual countries. It conducts off-site and on-site supervision and issues prudential regulations. It shares responsibility with the national ministries of finance for the licensing of new banks. It also has the authority to sanction credit institutions, to revoke banking licenses, and to decide on the liquidation of banks. Although legally independent, COBAC is closely related to the Bank of Central African States (BEAC). The Governor of the BEAC is also the Chairman of COBAC. COBAC depends on the BEAC for its financial and human resources. The 1992 Convention provides joint responsibility for issuing banking licenses between national authorities and COBAC. While the latter has de jure overriding responsibility, in practice COBAC has to rely on the respective national authorities' cooperation to implement and enforce its decisions. The 2000 FSAP for Cameroon found that through good handling of a number of crises, COBAC has become a well-respected institution. Regional initiatives, such as the harmonization of the commercial code and regional payment systems, are expected to promote cross-border financial intermediation, trade, and investment, and thus generate higher economic growth.

Standards do not call for a specific supervisory technique.[44] In Central America, more than one approach seems necessary because different problems need to be addressed: (1) regional financial conglomerates with mind and management outside Panama consolidating in Panama; (2) parallel banks being supervised on a nonconsolidated basis taking advantage of the absence of a common enforcement of consolidation; and (3) offshore activities of booking offices that are not being reported to any supervisory authority are being phased out too slowly.

Regional Initiative to Improve Consolidated Supervision

In the context of discussions within the CCS, Panama has prepared a regional initiative for con-

[44]Basel Committee on Banking Supervision (1997).

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solidated and cross-border supervision. The main objectives are to (1) eliminate opportunities to elude supervision; (2) use adequate prudential standards; (3) define the structure, ownership, and management of conglomerates; (4) establish adequate capital requirements on a consolidated basis; (5) assess asset and liability management, including credit management; (6) identify global risks of conglomerates; (7) ensure transparency of information; (8) establish links to transmit risks; (9) determine contagion risks; and (10) verify compliance with the legal framework.

The proposed regulation would be implemented through a series of bilateral arrangements between the supervisory authorities in Panama and other superintendencies. A model umbrella memorandum of understanding would be developed. In addition, the proposal includes a standardized questionnaire to be used in inspections of a conglomerate. Moreover, the proposal discusses other elements that are pertinent for improving the effectiveness of consolidated supervision, such as allowing for a major role for the home country when the host country does not have adequate resources, ensuring adequate flow of information, uniform criteria for on-site inspections, and adequacy of the legal framework. The proposed agreement has the following main features:

- the host supervisor would notify the home supervisor of requests to obtain licenses, and the home country would report on compliance with laws and regulations in the home country of the requesting financial group;
- information exchange would be open, with the exception of the identification of depositors;
- supervisors commit to provide assistance to on-site inspections of other country supervisors; and
- cooperation would be promoted, especially on AML/CFT issues.

Additional actions that could be considered to strengthen Panama's initiative are (1) a no-objection letter from the home regulator be required prior to the granting of licenses in another country in the region; (2) information on depositors be made available to the home supervisors on an exceptional basis, for example, to identify group exposures and concentration; (3) cooperation on AML/CFT issues be specified to allow for specific gateways, such as for testing compliance with the applicable group requirements and in relation to suspicious activity reports.

Strategy to Improve Consolidated Cross-Border Supervision

The strategy to be adopted should take as a starting point the endogenous response of financial groups to consolidate in Panama. To be most effective, the strategy should aim at maximizing the potential benefits that consolidating in a jurisdiction within the region may bring, while reinforcing the mechanisms that would allow more effective identification, monitoring, and mitigation of risks in each country.

As a first step, all countries should commit to a plan to effectively integrate operations of parallel banks and booking offices into their financial groups with a common deadline to be enforced by regional ring fences. This will help enable supervisors to integrate information from offices operating offshore without adequate supervision. More generally, for the Basel Committee on Banking Supervision, "there is a presumption that in principle (parallel banks) should not be permitted."[45] A reasonable period of regularization would be considered, after which a lead supervisor might be appointed in the context of coordination within the CCS to act under the presumption of the existence of a conglomerate in the absence of a formal arrangement, which will be applicable in all jurisdictions. According to the Basel Committee on Banking Supervision, "if a bank exhibits one or more of these characteristics, the supervisors should conduct additional inquiries to ascertain whether a parallel-owned banking structure is in fact in place:

- An individual or group of individuals acting in concert who control a foreign bank also controls any class of voting shares of a domestic bank; or financing for persons owning or controlling the shares is received from, or arranged by, a foreign bank, especially if the shares of the domestic bank are collateral for the stock purchase loan.
- A domestic bank has adopted particular or unique policies or strategies similar to those of a foreign bank, such as common or joint marketing strategies, sharing of customer information, cross-selling of products, or linked websites.
- An officer or director of a domestic bank either serves as an officer or director of a foreign bank, controls a foreign bank, or is a member of a

[45]Basel Committee on Banking Supervision (2003a), p. 1.

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group of individuals acting in concert or with common ties that control a foreign bank.

- There is an unusually high level of reciprocal correspondent banking and other facilities between a domestic bank and a foreign bank.
- The name of a domestic bank is the same as or is similar to that of a foreign bank."[46]

The role of host supervisors in the process of consolidated supervision should be strengthened. The strategy to be followed should be mindful of the strong mind-and-management presence in the country of origin of RFC shareholders. Consideration should be given to a two-way exchange of information, with the home country providing feedback to host supervisors on selected risks that require careful cross-border monitoring. A system based on a principle of "host country conditional deference," which would operate like the "home country rule" system in the European Union, could be put in place, but host country supervisors, while deferring to home country supervisors, would reserve the right, when warranted by the circumstances, to resume a more active role.[47] In principle, there are three types of information to be provided by the home supervisor to the host authority. These are (1) information specific to the local office supervised by the host supervisor; (2) information on the overall framework of supervision in which its banking group operates; and (3) significant problems that arise in the head office of the group as a whole. The most sensitive issue normally is material on adverse changes in the global condition of banking groups operating in the host supervisors' jurisdictions.[48]

A minimum set of risks considered priority issues should be addressed in a first stage. Risks associated with related-party lending and loan concentrations, loan classification and provisioning, and capital requirements seem to be candidates to be addressed in the first instance, establishing minimum standards and a timetable to make them more stringent. This could be accompanied by an effort to start promptly work on the formation of a regional credit risk bureau. Risks associated with AML/CFT and country risk could also be targeted as priorities. There may be a case to allow for differential limits for large exposures in countries where economic diversification is limited (Box 2.6).

[46]Basel Committee on Banking Supervision (2003a), p. 2.
[47]Uhlick (1999).
[48]Basel Committee on Banking Supervision (1996).

Box 2.6. Harmonization of Supervision of AML/CFT Requirements

Supervisory systems and practices for anti–money laundering and countering the financing of terrorism (AML/CFT) vary widely across the region. As for prudential supervision, such systems have not kept pace with the increasing development of financial groups operating across the region, particularly given the divergence in prudential requirements applied to banks and nonbank financial institutions, resulting in an uneven application of AML/CFT risk management practices and supervision across countries and within financial groups. The evolving financial landscape therefore calls for a refocusing of AML/CFT risk supervision in a way that (1) requires the application of AML/CFT policies, procedures, and practices on a groupwide basis. For banks, this would be consistent with the Basel paper on consolidated AML/CFT risk management and supervision and with the applicable Financial Action Task Force (FATF) recommendations; (2) harmonizes the AML/CFT supervisory procedures across the region for both off- and on-site supervision; and (3) applies a risk-based approach to AML/CFT supervision consistent with the FATF recommendations. Development of enhanced AML/CFT risk supervision should be consistent with the broader effort to implement regionwide consolidated supervision in other areas.

More stringent enforcement and implementation of AML/CFT requirements, in particular in the offshore financial centers in the region, may contribute to encouraging regional financial groups to reorganize or conduct their offshore business in a manner that allows for effective supervision. Over time, this may lead to a reduction in the number of parallel banks as offshore operations are either discontinued or converted to subsidiaries.

On unregulated risks, monitoring currency mismatches and exposure to sovereign risk should be intensified. An effort should be made in gathering information and promptly detecting cases where individual institutions or groups take excessive risk relative to the average. On lending to unhedged borrowers, all countries could implement a policy of incorporating information on foreign currency hedging by borrowers as an element to decide on loan classification.

It is difficult to find alternative schemes for deposit insurance protection that minimize the transfer of obligations in the event of a crisis. Alternatives such as differential protection or deposit

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insurance premiums for financial institutions or groups based on compliance with a schedule for consolidation might be considered.

Cross-border cooperation needs enhancement. Central America has a history of formal MOUs that lack effective follow-up. An assessment of comparative experiences would be useful to ensure that MOUs could produce better results, noted in the context of the umbrella MOU proposed in the CCS. National authorities could consider making public information on contacts and gateways to exchange information. A clear sequencing and prioritization should start with the sharing of inspection and off-site reports. Thereafter, risks regarded as priority should be the focus of more intensive use of joint inspections at the beginning, while joint global inspections should only be considered once inspections of specific risks have been successfully concluded. While the Basel Committee on Banking Supervision recommends to allow hosts the option but not the duty to accompany the home supervisor during the inspections, the need to overcome deficiencies in Central America would appear to justify a more proactive approach.[49]

Transitional arrangements appear to be necessary. More stringent requirements for opening new offices in the region while consolidation of large groups is completed could be considered. Also, a common understanding about the choices of organizational structures seems necessary. A clear common definition of financial group should be a priority.

Finally, to promote the contribution of financial integration to economic growth, fundamental improvements of the institutional framework are required. Political stability, enforcement of property rights, and effective legal protection of supervisors when performing their duties in good faith are all basic requirements.

Addressing Systemic Risks in Central America

The growth of cross-border banking activities poses significant challenges for banking resolution.[50] In the event of failure, regional financial groups may be split into their national legal entities, each subject to different bankruptcy proceedings.[51] As a result, fair treatment of creditors may be hampered if creditors in one jurisdiction receive higher compensation than similar creditors in other locations. In addition, lack of harmonization in key resolution procedures and poor communication between regulators are obstacles to coordinated intervention and resolution of different entities within the same failed international group.

Ring fences can affect regulators' ability to resolve cross-border banks in an manner that is fair to all creditors. In jurisdictions where ring fencing is allowed, branches of foreign banks are treated as separate legal entities and, if necessary, are wound up as such (separate-entity approach). The purpose of ring fencing is to ensure that local creditors receive preferential treatment over foreign creditors, and under this approach, the various parts of the financial institution located in different jurisdictions will be subject to separate legal proceedings. In contrast, in jurisdictions following a single-entity approach, there is only one set of insolvency proceedings in which the financial institution is treated as one entity, and its assets, no matter where they are located, will be included in a single liquidation or reorganization process. Under this approach, all creditors, no matter where situated, are entitled to lodge their claims in the single set of proceedings and receive the same treatment as all other creditors within their class. There is no "best practice" as to which approach should be followed in the legislation governing bank insolvencies.

While progress has been substantial in upgrading the legal framework for banking resolution, differences in approach remain that hamper coordinated resolution of cross-border entities within the same failed group. For instance, supervisors in different jurisdictions may not be able to intervene branches and subsidiaries of a failed group in a coordinated fashion due to differences in the legal definition of bank insolvency or in the legally mandated minimum period before liquidation. Different treatment of shareholders also prevents consistency in dealing with the same class of stakeholders across borders and, in some cases, can prevent orderly resolution.

Continuous coordination and communication between regulators is also critical to ensure orderly resolution. A decision to intervene or close a domestic bank with operations abroad or a subsidiary of a foreign bank could have unintended, but significant, consequences for other countries.[52] Thus, bank su-

[49]See Basel Committee on Banking Supervision (1996).
[50]This section was prepared by Luis Cortavarría.
[51]Lastra (2003).

[52]For instance, in certain circumstances, the intervention and closure of a small subsidiary of a foreign bank by a host bank supervisor may have no major impact on the stability of the local

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pervisors should coordinate their actions with a view to containing cross-border contagion as a result of problems in an international financial group.

Regional Initiatives

Although the six Central American countries are signatories on a regional convention on cross-border bankruptcy proceedings, further efforts are needed. The 1928 Convention on International Private Law (the "Bustamante Code" or "Havana Convention") only sets certain principles applicable to cross-border bankruptcy proceedings as to the extraterritoriality of a bankruptcy order. In the absence of an international agreement specifically governing cross-border bank insolvency, the authorities may want to consider entering into a regional treaty that would set specific rules and procedures applicable to cross-border bank insolvency proceedings, particularly aimed at dealing with regional banking problems to help ensure fair, timely, and transparent treatment of claims from depositors and other creditors.

Specifically, international experience on cross-border bank insolvency and the analysis of current legislation points to the following key areas requiring further strengthening:

- specific procedures applicable to cross-border bank bankruptcy proceedings. The objective is to avoid the different approaches to, for instance, ring fencing, that result in inconsistent and unfair treatment of creditors of the same financial group based on their location. Such procedures would also need to address the issue of seniority of claims of deposit insurance agencies over foreign creditors and intercompany accounts, which is common in Central American countries and may play against the fair treatment of depositors in other locations;
- explicit agreement on coordination and information sharing between national regulators and liquidators to facilitate orderly cross-border resolutions. For instance, agreement of regulators from a number of locations may be needed to finalize the restructuring of an international financial conglomerate; and
- measures to reduce the risk that assets and liabilities be shifted across bank subsidiaries in the event of problems. A particular concern in the region relates to the possibility that, prior to a bank failure, insider or other deposits might be moved to locations with higher deposit insurance coverage.[53] Harmonization of deposit insurance regimes across the region would mitigate this risk.

banking system, but it may create severe consequences for the parent bank's credibility and ultimately create a banking crisis in that location.

Upgrading National Legal Frameworks

In recent years, the legal framework for banking resolution in most countries within the region has been strengthened significantly (Table 2.8). Among other measures, many countries have (1) introduced prompt corrective actions to address banking problems at an early stage, including the requirement that shareholders of weak, but viable, banks submit rehabilitation plans; (2) approved triggers to induce bank intervention in case of insolvency; (3) introduced bank resolution tools, including merger, and purchase and assumption (P&A), schemes; and (4) enhanced and clarified the role of deposit insurance agencies in bank resolution.

Further coordination and harmonization of treatment is needed in a number of areas, however, to ensure equitable treatment of all parties in banking resolution:

- *Triggers for bank intervention.* A uniform definition of insolvency—currently ranging from 2 to 8 percent of risk-weighted assets—would allow the authorities to coordinate the timing of intervention of members of a financial group across countries, thereby minimizing the risk of contagion and asset stripping.[54]
- *Duration of bank intervention.* Consistency regarding the length of time a bank may be subject to official administration would facilitate orderly resolution of cross-border entities when a single-entity approach is followed. Intervention can vary in duration, however. It can range from 30–90 days in Nicaragua and Panama to up to one year in Costa Rica. The time limit is not well defined in Nicaragua, Honduras, and El Salvador, and does not exist in Guatemala.

[53]Except Panama, all Central American countries have explicit deposit insurance, but the coverage varies.

[54]Generally, the banking authorities may put a bank under official administration in the event of insolvency, suspension of payments, and/or failure to submit or comply with a rehabilitation plan.

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TABLE 2.8

Overview of Legal Framework for Banking Resolution in Central America

Countries	Triggers for Official Administration	Restructuring Powers	Opening of Liquidation Proceedings	Priority of Depositors' Claims	Deposit Insurance Scheme
Costa Rica	Bank intervention is triggered by, among other causes, unmet regularization plans, the total or partial cessation or suspension of payments, the detection of unsound or illegal banking practices, or in cases where more than half of the bank's equity is lost.	During official administration, the intervenor appointed by the National Council shall implement the regularization plan. The National Council may (1) ban any new credit transaction or extension of grace periods for the payment of debts with past due dates; (2) call for a shareholders' meeting to recommend capital increases; (3) suspend or limit the payment of bank's liabilities; (4) ban or limit the distribution of dividends unless authorized by SUGEF; and (5) order the "reorganization of the bank." The law does not specify the techniques that could be implemented by SUGEF or the intervenors to restructure a failing bank, which may cause such actions to be challenged on legal or constitutional grounds.	Judicially supervised proceedings. Liquidation proceedings initiated by the competent judge at the request of the National Council or the appointed intervenor in case of failure of the restructuring, including the lack of approval or execution of the restructuring plan; at the request of the Superintendent when such petition is "justified;" or by a petition filed by the bank itself or by one of its creditors in case of cessation of at least one payment.	No priority for depositors' claims. Based on the general bankruptcy legislation the priority is as follows: (1) secured creditors; (2) privileged creditors (labor and fiscal claims); (3) bankruptcy's costs; and (4) other unsecured creditors claims, including "depositors' claims."	Blanket guarantee for public banks. None for private banks.
El Salvador	A bank may be restructured if the bank (1) fails to submit a regularization plan when due; (2) does not correct its irregularities within the regularization period; (3) fails to comply with any of its obligations arising from the regularization proceedings; or (4) the superintendency finds that the regularization plan would not be sufficient to address the bank's problems.	The restructuring modalities are (1) a mandatory reduction or increase of the bank's capital; (2) the exclusion of some of the bank's assets and liabilities (the "excluded estate"); (3) the judicial intervention of the bank (official intervention); or (4) the adoption of any other measure deemed technically necessary in accordance with the nature of the problem (although the law does not specify these other measures).	Judicially supervised proceedings. Upon transfer of the excluded estate's assets or if the superintendency determines that the solvency or nonsolvency problems that gave rise to bank irregularity cannot be corrected through a regularization plan. The bank's creditors are not in a position to petition for bankruptcy. The law does not recognize the "cessation of payments" as one of the grounds for initiating a bank's liquidation.	Depositors are privileged since they are guaranteed to be paid with the proceeds of the transfer of the excluded estate's assets, or directly from the deposit guarantee scheme (IGD). The priority of claims is as follows: (1) liabilities arising from labor, pensions, and child support claims; (2) liabilities from deposits up to the amount of the deposit guarantee; (3) claims of foreign banks arising from foreign trade transactions duly registered before the central bank; (4) liabilities for deposits in excess of the deposit guarantee; (5) other privileged claims; (6) claims represented	The IGD guarantees the deposits of the general public in banks and participates in bank restructurings through the acquisition of assets of excluded estates, or by participating in the Fideicomiso established with such assets. The deposit guarantee is currently set in an amount equivalent to $7,060 per depositor per bank, and covers both sight and time deposits.

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				in credit instruments; (7) unsecured claims of the Multisectoral Investment Bank; (8) claims of the state and the local governments; (9) other unsecured claims; and (10) the balance of the time subordinated debt.	
Guatemala	The bank's operations must be suspended when the bank ceases the payment of its obligations or incurs a capital deficiency that exceeds 50 percent of the required capital. In addition, events that allow (but do not require) a suspension of operations are the non-presentation of a regularization plan, its rejection by the superintendency or the non-compliance with such plan, or other grounds duly justified by the superintendent.	The restructuring powers are: (1) to determine losses and charge them against reserves or capital; (2) to select assets and transfer them to a trust administered by a bank appointed by the SB; (3) to select deposits for up to the amount covered by the deposit insurance and employee liabilities and transfer them to other banks; deposits exceeding the amounts guaranteed by the deposit insurance can be transferred if it is estimated that there are sufficient assets to transfer to the trust. Banks assuming the payment of deposit and employee liabilities receive a participation in the trust for the same value of the liabilities they assume; (4) to request the deposit insurance fund to make grants to the trust formed with the assets of the failed bank.	Judicially supervised proceedings. Bankruptcy proceedings are initiated by the competent judge at the request of the superintendency. The law provides that the petition is made once the procedures for the spin-off and transfer of assets and liabilities are concluded but fails to explicitly state whether bankruptcy may be requested in the absence of such procedures. It in unclear whether the bank's creditors may make such petition to the courts upon verification of the grounds set forth under the general bankruptcy law.	No preference for depositors' claims over other creditors in the bankruptcy proceedings. Under the general bankruptcy law, the liquidation proceeds are paid in the following order of preference: (1) bankruptcy expenses; (2) alimony, funeral, and estate expenses; (3) expenses documented in public deeds, in the order they were documented; (4) other expenses.	The deposit insurance scheme (FOPA) insures deposits under the terms specified in the law but has no restructuring powers (with some exceptions). The deposit insurance scheme covers deposits of up to 20,000 quetzales or its equivalent in foreign currency (to be adjusted as necessary to ensure that at least 90 percent of the deposits are protected).
Honduras	The law emphasizes corrective actions rather than providing for official administration of a bank in distress. In the event of deficiencies not yet triggering compulsory liquidation, such as liquidity and solvency problems, operational losses during three straight months, or capital inadequacy for at least 60 days, among others, financial institutions are required to submit a regularization plan to the Commission.	The Commission may appoint a delegate to the board of the financial institution with the aim of overseeing the operations and safeguarding the interests of the customers and the public during the execution of the regularization plan. The Commission is also authorized to reverse any transaction in breach of the regularization plan.	Mainly administrative process. The Commission shall order the compulsory liquidation of a financial institution for non-submission of the regularization plan, its contravention, or the non-rectification of the deficiencies at the origin of the plan. Other mandatory grounds for compulsory liquidation are, among others: (1) the capital is lower than the minimum initial capital required; (2) inability to pay outstanding obligations with the public when due; and (3) the regularization plan is unworkable or cannot be implemented. Compulsory liquidation cannot be triggered by third-party creditors.	The priority of claims is as follows: (1) labor-related claims; (2) all deposits; (3) loans granted by the central bank due to liquidity problems and other banking obligations; (4) funds collected for payments to third parties; (5) payments to the deposit insurance fund (FOSEDE); and (6) the remaining claims in keeping with the priority established in the Commerce Code.	The FOSEDE is responsible for the payment of the deposits in financial institutions that have been liquidated and making nonreimbursable contributions or loans in relation to compulsory liquidation processes, as requested by the Commission. The maximum amount insured is 150,000.00 lempiras per depositor and financial institution.

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TABLE 2.8
(concluded)

Countries	Triggers for Official Administration	Restructuring Powers	Opening of Liquidation Proceedings	Priority of Depositors' Claims	Deposit Insurance Scheme
Nicaragua	The bank must be placed under official administration if the bank's capital is less than one-fourth of the minimum required capital or if the bank is in cessation of payments. There are several discretionary triggers, such as violations to the law and regulations, an evident non-compliance of the regularization plan, losses that exceed one-third of capital, indications of a possible cessation of payments, or illiquidity or insolvency problems less severe than those requiring the forced liquidation.	Under the Law on Banks, Financial Institutions and Financial Groups, the official administrator may: (1) terminate the employment relationships and reduce the bank's expenses; (2) sell any of the banks' assets in the interest of depositors; and (3) sell or merge the bank with another bank. If the deposit guarantee fund (FOGADE) is appointed as official administrator, in the process for the restitution of deposits, it may transfer deposits and corresponding amounts of assets to acquiring banks.	Mainly administrative, with some court involvement. Upon specified events, such as severe illiquidity, insolvency, or an unsuccessful recovery of the bank in the context of an official administration, the superintendent shall request the courts place a bank in forced liquidation. The role of the courts is limited to declaring the mandatory liquidation, with the Superintendent in charge of appointing the liquidator and monitoring the liquidator's performance. The declaration of liquidation and any decisions adopted by the liquidaator can be appealed before the courts.	Depositors that are individuals have a special preference on the liquidation proceeds over all other creditors for up to a specific amount. The priority of claims is as follows: (1) employees' claims; (2) all deposits, including for amounts not covered under the special preference; (3) claims of the Central Bank of Nicaragua; (4) taxes; (5) other claims in accordance with their preferences and modalities established in the civil code.	FOGADE has broad powers to undertake restructurings under the procedures for the restitution of deposits. FOGADE covers deposits of up to US$20,000.
Panama	Intervention is triggered on the following grounds: (1) a request from a bank; (2) the reduction of capital by the bank so it corresponds to less than 8 percent of its total assets and off-balance sheet operations; (3) the decline of the capital adequacy ratio below 8 percent; (4) business is conducted in an illegal, negligent, or fraudulent manner; (5) payments are suspended; (6) repeated infraction of the liquidity requirements; (7) threat to the interest of the depositors if the bank continues to operate; (8) assets are insufficient to cover the sum of its liabilities; (9) unjustified delay of the voluntary liquidation; and (10) failure to comply with the reorganization plan.	In a reorganization, the superintendency is authorized to execute any of the following actions: (1) amortize the losses against the paid-in capital stock and reserves; (2) appoint new managers; (3) authorize the issuance of new shares of the bank, as well as their sale to third parties at a price determined by the superintendency; (4) promote the merger or the consolidation of the bank with one or more banks, acquire loans, the sale or partial liquidation of its nonproductive assets, or the imposition of liens upon them; or (5) initiate the process of liquidation. In an intervention, the intervenor is authorized to suspend or limit the payment of the bank's obligations for the duration of the intervention.	Administrative proceedings without the involvement of the courts. The Superintendent has discretionary powers to order the compulsory liquidation of a bank that has been intervened or is in the process of reorganization. Compulsory liquidation may also be decided by the superintendency at the conclusion of the reorganization, if the process has not been completed satisfactorily, or at any other moment before the conclusion of the reorganization because of insolvency or any other reason that prevents the recovery of the bank. Insolvency proceedings cannot be initiated at the request of third-party creditors.	The priority of claims is as follows: (1) labor-related claims; (2) claims by the Social Security agency concerning contributions owed by the bank's employees; (3) tax-related claims of the National Treasury or the Municipalities, as well as levies for public services rendered by the state; (4) deposit accounts for US$5,000 or less belonging to natural persons; and (5) all other deposits and claims.	None.

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- *Rights of shareholders*. Shareholders' rights should be suspended as part of bank intervention. In Costa Rica, El Salvador, Honduras, and Panama, the law is ambiguous with respect to the shareholders' rights during a bank intervention, which could be a serious obstacle for bank resolution. In the case of Costa Rica, the law is not only silent with respect to the status of shareholders' rights during bank intervention (suggesting that they maintain ownership rights during such period) but also specifically establishes that the bank's shareholders may be part of a bankruptcy committee together with the authorities and creditors.
- *Treatment of bank managers*. If a single-entity approach is followed, managers in all subsidiaries and branches of a failed group should be prevented from participating in key bank resolutions decisions to ensure fairness. That is not always the case in Central American countries, however. In Guatemala and Nicaragua, bank managers are dismissed when the authorities declare a bank under official administration. In the other Central American countries, it is unclear whether the authorities can keep incumbent bank managers from participating in key decisions regarding bank resolution. For instance, in Honduras, the supervisor has only limited powers to reverse bank management decisions during the regularization phase.
- *Asset valuation rules*. If a single-entity approach is followed, different rules on the valuation of assets could undermine the use of P&A transactions. Assets must usually be valued according to local rules before they are transferred to another institution or trust fund. The valuation of claims against nonresidents and assets abroad could create difficulty in bank restructuring.

Weaknesses hampering quick bank resolutions should also be addressed because speed in the adoption of resolution measures is key to containing losses. Three major issues may play against the early identification of problem banks and proper implementation of the legal framework for banking resolution:

- lack of independence and discretionary powers of bank supervisors to act at an early stage. In some jurisdictions, as a result of legal limitations or the political process, bank supervisors cannot act independently and may hesitate to impose early remedial actions on weak banks;
- weak legal protection for bank supervisors. The risk of legal challenges from former bank shareholders in court, together with weak protection from recourse against individual bank supervisors, may discourage early bank resolution measures by banking supervisors; and
- limitations in detecting bank insolvency. Despite the progress made in strengthening bank supervision, in some cases, bank insolvency may remain undetected as a result of: (1) lack of effective monitoring of credit to insiders (the bank's capital may have already been diluted through credit to related parties or affiliated entities); and (2) the use of inaccurate asset valuation rules. Failure to correctly assess the borrower's future repayment capacity, over-reliance on loan collateral, and excessive regulatory forbearance could, in some cases, postpone the recognition of bank losses.

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Development of the Insurance Sector

Daniel Hardy and Miguel Palomino

The insurance sector remains small in most of Central America. The scarcity of insurance affects welfare directly, because households and companies must bear most risks themselves, leading to undesired volatility of intertemporal consumption. Moreover, lack of insurance may reduce the availability of financing or increase its costs, because lenders are discouraged when they must bear both the economic risks associated with a project to be financed and also insurable risks such as those for work accidents or property damage. In addition, the limited assets of insurance companies implies that they cannot be major players in domestic financial markets and in particular in securities markets, so these markets are thinner than they would otherwise be. Hence, measures to promote the insurance industry could yield multiple benefits if well targeted.

Many of these measures, such as those related to the modernization of the regulatory framework, can be undertaken by individual countries. In some cases, joint regional initiatives or coordination may make the measures more effective, for example, by exploiting economies of scale or scope in the provision of information or diversifying risks. Despite their differences, the countries covered in this study—Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama—are sufficiently similar that cross-country comparisons are meaningful, and that worthwhile joint action in certain areas might be identifiable.

These considerations motivate the material of this chapter. However, due account must be taken of the limits of a regional study. Information is sometimes not available for all countries, and data are often not fully comparable.[55] More fundamentally, the countries differ in level of development, the structure of their economies, and other aspects of the framework within which insurance markets operate. Panama and Costa Rica are substantially more well-to-do than the other countries, and have generally displayed greater economic and political stability in recent decades. Costa Rica is unique in having a state-owned monopoly provider of insurance. Guatemala, El Salvador, Honduras, and Nicaragua are more similar to one another, although Nicaragua is still transitioning from a long period of state monopoly in the sector, which extended until 1996.

The prevalence of non-term life insurance, that is, life insurance with an important savings element, depends on whether or not other savings vehicles are available and whether or not public or private pension schemes are in operation. Given the multitude of fiscal, distributional, and demographic factors affecting non-term life insurance; their heterogeneity across the region; and the fact that important policy decisions are currently under debate in some countries, this study concentrates on non–life insurance.

[55]The main sources of information include responses by national supervisory authorities to a questionnaire; self-assessments of observance of the International Association of Insurance Supervisors' Core Principles; the websites of supervisory authorities and the Association of Latin American Insurance Supervisors; Financial Sector Assessment Programs (FSAPs) for Central American countries; and discussions with the supervisory authorities and market participants. The authors benefited from discussions with staff at the World Bank and the Inter-American Development Bank.

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Table 3.1
Financial Situation of the Insurance Sector

	Costa Rica		El Salvador		Guatemala		Honduras		Nicaragua		Panama	
	2000	2003	2000	2003	2000	2003	2000	2003	2000	2003	2000	2003
	(In millions of U.S. dollars)											
Gross premiums	314	318	230	350	274	344	157	185	50	57	368	393
of which: non–life insurance premiums	277	290	182	303	233	295	125	151	...	50	254	267
Net retained premiums	235	...	96	140	129	163	69	65	34	33	258	251
Gross damages payments	171	...	122	133	100	89	71	64	21	22	191	138
Profits (after tax)	...	...	17	27	11	21	6	21	3	2	...	30
Total assets	776	...	249	347	228	306	203	263	67	77	689	704
Investments	...	...	159	227	141	201	85	162	38	40	423	479
Technical reserves	422	...	91	123	155	134	101	131	39	48	261	305
Capital and general reserves	208	...	78	129	56	90	41	83	17	15	0	261
Paid-in equity	...	...	54	70	24	32	...	40	9	10	...	...
	(In percent of GDP)											
Gross premiums	2.0	1.9	1.8	2.3	1.4	1.4	2.7	2.7	1.3	1.4	3.2	3.1
of which: non–life insurance premiums	1.8	1.7	1.4	2.0	1.2	1.2	2.1	2.2	...	1.3	2.2	2.1
Net retained premiums	1.5	...	0.7	0.9	0.7	0.7	1.2	1.0	0.9	0.8	2.2	1.9
Gross damages payments	1.1	...	0.9	0.9	0.5	0.4	1.2	0.9	0.5	0.6	1.6	1.1
Profits (after tax)	...	...	0.1	0.2	0.1	0.1	0.1	0.3	0.1	0.1	...	0.2
Total assets	5.0	...	1.9	2.3	1.2	1.3	3.4	3.9	1.8	1.9	5.9	5.5
Investments	...	...	1.2	1.5	0.7	0.8	1.4	2.4	1.0	1.0	3.6	3.7
Technical reserves	2.7	...	0.7	0.8	0.8	0.5	1.7	1.9	1.0	1.2	2.2	2.4
Capital and general reserves	1.3	...	0.6	0.9	0.3	0.4	0.7	1.2	0.4	0.4	0.0	2.0
Paid-in equity	...	...	0.4	0.5	0.1	0.1	...	0.6	0.2	0.2	...	...
Assets/M2 (percent)	13.7	...	4.1	5.6	4.2	3.8	7.1	7.0	4.5	4.6	8.0	7.2

Sources: National authorities; and IMF staff estimates.

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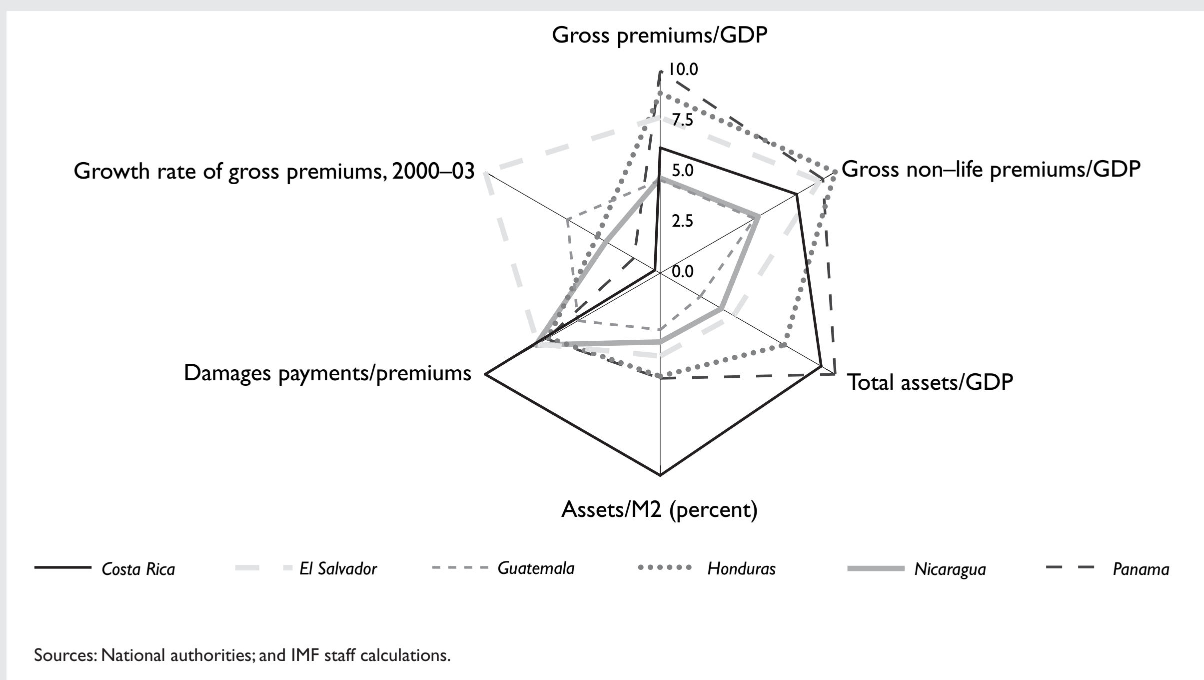
Figure 3.1. Relative Insurance Indicators, 2003, by Indicator



Sources: National authorities; and IMF staff calculations.

The next section describes the structure of the insurance markets of these countries, the availability of insurance products, and the recent performance of insurance companies. The subsequent section looks at the legal, regulatory, and supervisory framework. The final section addresses a number of cross-country issues and recommendations.

Structure and Performance

Insurance Penetration

The market volume for insurance products in most Central American countries is modest in absolute terms and relative to those countries' GDP (Table 3.1 and Figures 3.1 and 3.2).[56] However, the level of insurance penetration as measured by the ratio of premium income to GDP is roughly in line with the relationships that are seen around the world: demand for insurance is strongly correlated with average income, and with the presence of a substantial middle class, that is, with a relatively even distribution of wealth. Central America contains some of the poorest countries in the Western Hemisphere, and is characterized by uneven distribution of wealth, so one would expected relatively low demand for insurance. For many Central American countries, their past history of macroeconomic instability and at times severe political conflict may have hindered the supply of, and demand for, insurance products, as well as the creation of an insurance culture. Furthermore, most of Central America also faces large risks, for example, of natural catastrophes, that are not diversifiable domestically, and therefore expensive to insure against.[57]

The insurance sector is small also relative to banks and the market for government debt. Insurance company assets are just a small fraction of broad money, which can be taken as a metric for the size of the banking system (Table 3.2). In addition,

[56]Available information pertains to companies operating in the domestic market. The volume of insurance may be underestimated because much insurance for trade, international transport, and the activities of multinationals companies may be provided by insurance companies abroad.

[57]The same factors that constrain development of the formal insurance sector also constrain the availability of informal insurance, which, moreover, is generally more difficult to organize than informal credit.

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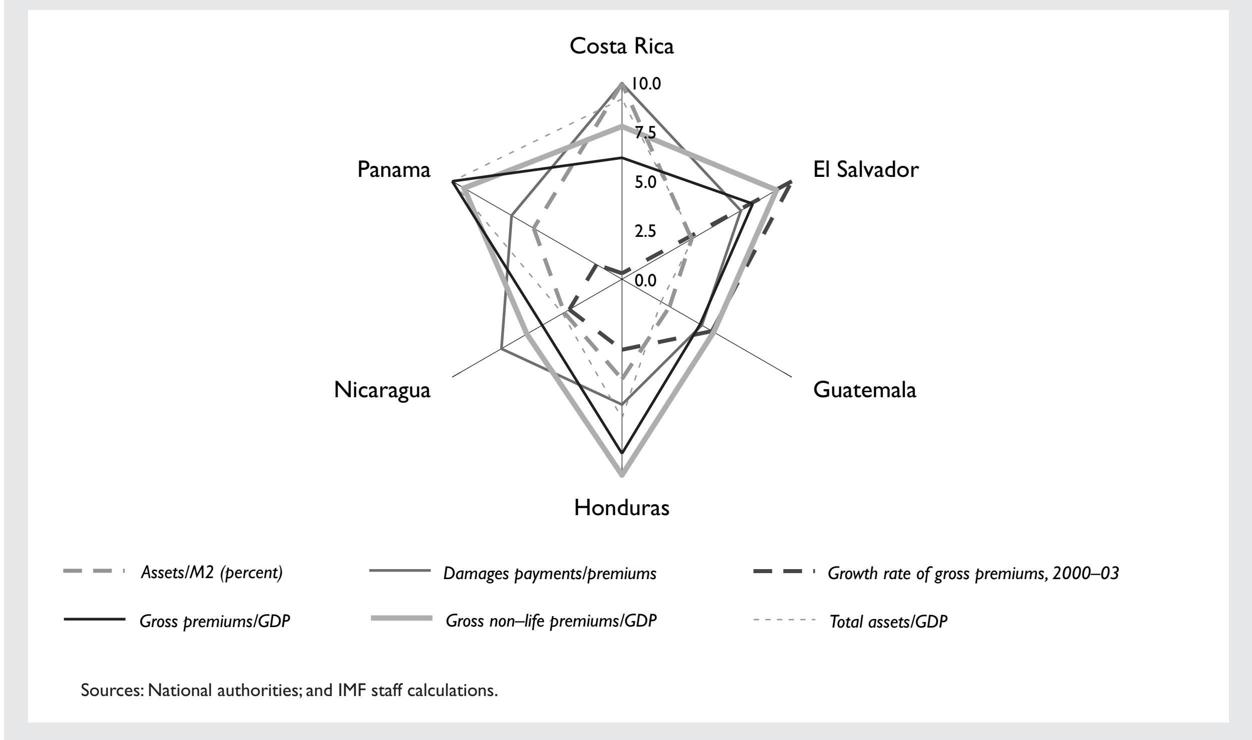
Figure 3.2. Normalized Insurance Indicators, 2003, by Country



Sources: National authorities; and IMF staff calculations.

many insurance companies tend to be relatively small affiliates of banks. Hence, insurance companies cannot play a major role in counter-balancing banks in the market for deposits or in the market for securities. Therefore, insurance companies are not generally of systemic importance.

The insurance sector in the region has shown trend growth in absolute terms in the past several years, but rather less when measured by gross premiums relative to GDP. However, growth in insurance services is sometimes underestimated by measuring the service in terms of premiums paid when there is a reduction in unit prices; total premiums may fall even if the risks of being insured are growing. As can be seen in Table 3.3, the number of policies is generally increasing.

Nonetheless, insurance penetration is still low not only in terms of value, but also in terms of the number of policies. In addition to low income levels, this is a reflection of the uneven distribution of income, because most households and production units cannot access insurance services. The available data on the number of policies—because one policy can comprise a large number of end users—complicate comparisons, but market participants agree that low penetration is a characteristic of all regional markets.

The poor are especially deprived of insurance services throughout the region. The relatively high administrative costs of offering small amounts of insurance coverage to low-income households and to small firms, where risk assessment, record keeping, and handling claims generate fixed costs, tends to make the services either prohibitively expensive or unprofitable. Hence, the expansion of insurance services to the mass of the poor population is essentially an issue of developing a low-cost technology for the production of the service (Boxes 3.1 and 3.2). Past administrative control of insurance premiums and the importation of insurance practices and models from more developed countries likely hindered the development of insurance schemes that would make the service accessible to lower-income groups.

Product Range

Insurance companies receive most of their non–life insurance premiums for coverage of automobile and other property risks; property insurance

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Table 3.2
Insurance Sector Indicators
(In percent)

	Costa Rica		El Salvador		Guatemala		Honduras		Nicaragua		Panama	
	2000	2003	2000	2003	2000	2003	2000	2003	2000	2003	2000	2003
Non–life premiums/total premiums	88.2	91.2	79.4	86.5	85.0	85.6	79.3	82.0	...	87.8	69.1	67.8
Automobile/total non–life premiums	...	...	25.9	18.3	43.3	35.6	23.7	22.2	...	29.9	36.4	26.4
Property/total non–life premiums	69.1	...	22.2	29.8	19.9	27.8	21.4	27.8	...	25.7	13.8	17.6
Health/total non–life premiums	...	...	13.8	11.6	13.6	15.6	13.5	17.1	...	10.9	21.2	22.2
Retained premiums/gross premiums	74.7	...	41.8	39.9	47.0	47.3	44.0	35.0	67.7	56.9	70.0	63.8
Damages payments/premiums	54.5	...	53.2	37.9	36.6	25.8	45.3	34.6	41.8	38.6	51.9	35.2
Damages payments/reserves	40.5	...	134.0	107.4	64.8	66.2	70.5	48.6	53.6	46.0	73.2	45.3
Reserves/retained premiums	179.9	...	94.8	88.4	120.1	82.5	146.1	203.3	115.0	147.6	101.3	121.7
Investments/reserves	...	...	174.5	183.9	91.1	150.0	84.0	123.6	98.6	83.6	162.0	156.9
Share of investments												
Claims on government	...	...	10.1	13.5	43.1	38.1	...	...	...	...	...	22.3
Claims on banks	...	...	36.8	37.6	9.9	22.8	...	...	40.0	47.8	...	32.7
Total capital/total assets	26.8	...	31.5	37.2	24.7	29.5	20.4	31.5	25.3	19.3	...	37.0
Total capital/reserves	49.2	...	85.9	104.8	36.4	67.3	41.0	63.0	43.7	30.9	...	85.4
Equity/total capital	...	...	68.9	53.9	42.9	34.9	...	48.4	53.7	66.5	...	...
Profits/retained premiums	...	...	1.8	1.9	0.9	1.3	0.9	3.2	1.0	0.7	...	1.2
Profits/assets	...	...	6.9	7.7	4.9	6.9	3.2	7.9	5.0	2.8	...	4.3
Profits/capital	...	...	21.8	20.6	19.9	23.4	15.6	24.9	19.8	14.3	...	11.5
Profits/equity	...	...	31.7	38.1	46.5	67.1	...	51.6	36.8	21.5	...	...
Annual growth rates, 2000–03												
Gross premiums	...	0.4	...	15.0	...	7.9	...	5.5	...	4.7	...	2.2
Gross non–life premiums	...	1.5	...	18.4	...	8.2	...	6.6	...	...	...	1.6

Sources: National authorities; and IMF staff estimates.

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TABLE 3.3
Insurance Contracts[1]

	Costa Rica		El Salvador		Guatemala		Honduras		Nicaragua		Panama	
	2000	2003	2000	2003	2000	2003	2000	2003	2001	2003	2000	2003
					(Number of policies)							
Life	. . .	. . .	. . .	81,231	. . .	174,688	117,826	134,678	. . .	. . .	108,770	105,250
Health and accidents	. . .	. . .	. . .	5,842	. . .	106,026	. . .	. . .	. . .	. . .	57,496	58,118
Property	. . .	. . .	. . .	60,981	. . .	. . .	64,937	68,678	. . .	. . .	78,857	105,501
Automobile	. . .	. . .	. . .	123,605	. . .	. . .	. . .	. . .	. . .	. . .	129,095	104,175
					(Value of coverage; in millions of U.S. dollars)							
Life	. . .	. . .	8,082		. . .	41,195	. . .	. . .	1,495	4,314	. . .	. . .
Health and accidents	. . .	. . .	4,579	8,364	. . .	. . .	. . .	. . .	4,029	3,788	. . .	. . .
Property	. . .	. . .	11,666	13,129	. . .	. . .	11,370	15,564	2,716	4,157	. . .	. . .
Automobile	. . .	. . .	1,764	2,853	. . .	. . .	2,836	3,538	1,012	583	. . .	. . .

Sources: National authorities; and IMF staff estimates.
[1]Statistics cover the number of contracts outstanding and the value of coverage. The number of insured parties may differ because parties hold more than one policy each, or because policies cover multiple parties.

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Box 3.1. Mass Insurance Products

To assure low costs, mass insurance product carriers rely on simple and standardized policies that require little verification (and are therefore inexpensive and easy to sell), and also on inexpensive collection arrangements. One of the ways in which this has been achieved in some countries in the region is through "bancassurance." Bancassurance relies on the use of bank's branch network as a sales platform and the bank's established payments system as a collection mechanism with low marginal costs. Bancassurance has been quite successful in several countries in the region. In El Salvador, perhaps the most successful country in this regard, a large insurance company led the effort to sell mass insurance products through a bank with which it was affiliated. The first program was one for traditional individual life insurance policies (which can be made more simply than property insurance policies): in the five years to 2004, close to 300,000 individual life insurance policies were sold. Of these, some 120,000 were in existence at the end of 2004, compared to 3,000 policies in existence before the program was launched. Reportedly, the number of policies sold by this company in the five-year period was more than the number of individual life insurance policies sold in all of Central America in the previous 20 years.

However, bank networks may not be entirely well suited to the distribution of mass insurance products. Banks may offer cost advantages mainly in collecting predetermined amounts from established clients, rather than more generally. Alternative distribution network with low cost collection arrangements could be available to sell a product whose crucial ingredient is its simplicity. Indeed, various insurance companies in the region are developing mass insurance products that need not be distributed via bank branches. One independent insurance company that had successfully developed a mass product reported technical difficulties in using banks as a collection mechanism; it proved difficult, for example, to keep track of payments from policyholders who were not depositors at the collecting bank. It appears that a major reason that mass insurance products are often sold through banks is that banks are often affiliated with insurance companies.

Bancassurance, as well as any mass insurance distribution system, may raise regulatory concerns regarding the appropriateness of the information and advice provided to end users. The absence of a qualified salesperson (be it a broker or a trained insurance company employee) in a bank sales point may reduce the scope for informed choice by consumers. Yet the success of mass insurance products depends on low costs, and if more expensive conditions are imposed on the point of sale, they may effectively block the product. (This issue has a parallel with the question of when to allow sale of over-the-counter medicines rather than prescription drugs.) The question is whether the potential costs of "mistaken" choices by consumers are offset by the gains from making the service more cheaply available to larger number of consumers. In any case, regulations should consider new and future developments in order to determine the responsibilities and the scope for action of agents in activities related to insurance.

typically covers damage from earthquake, fire, flooding, other natural catastrophes, and similar risks. Health insurance is usually the third most important category.[58] Life insurance generates between one-tenth and one-third of total premium income.

Mandatory insurance coverage exists in some countries. This is the case of third-party liability (TPL) automobile insurance in Costa Rica and Nicaragua and, for commercial vehicles, in Panama. Other coverage is sometimes also mandatory (e.g., worker compensation insurance in Costa Rica). Mandatory insurance policies are the source of significant premium income and various schemes, especially automobile TPL, are being debated in some countries. However, insurance requirements seem often to go unenforced.[59]

In most countries, some type of coverage is available for a wide range of risks. Larger firms and better-off households reportedly can obtain most standard forms of insurance at competitive rates. Insurers are able to tailor contracts to special needs when the client is willing to pay a sufficiently high premium. However, total premium income from such business is small. From the available statistics, it appears that insurance of plant and equipment as opposed to buildings is still very limited. This reflects the weak industrial base of the region.

[58] Most of the countries have some form of social security and also a state-funded health service, but the provision of services is limited.

[59] For example, in Nicaragua, third-party motor insurance is compulsory, yet as of 2004 there were only about 100,000 motor policies in force, while some 250,000 cars were registered.

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Box 3.2. Product Bundling

In addition to bancassurance (banks and insurance companies joining together for the mass marketing of unbundled insurance products), banks throughout the region also sell bundled financial and insurance products. This is often the case of insurance tied to mortgage loans or automobile credits. The sale of bundled insurance products through banks may generate concerns over consumer protection, as it may lead to confusion on the part of the public with regard to both product pricing and which entity is responsible for the insurance liabilities. This is especially problematic in the sale of insurance products tied to banking products offered by affiliated firms, which creates stronger incentives for uncompetitive practices that are difficult to regulate. However, these kinds of uncompetitive practices generally are caused by a preexisting lack of competition in loan services, rather than on the offering of insurance services themselves. Informing the public and requiring the unbundling of the prices for the different services offered would likely improve consumer choices. This appears to be another area for regulatory improvement in some countries, in addition to the issues mentioned in Box 3.1.

Nonetheless, experience in the region suggests that it is not always easy to exploit "captive clients": one insurance company reported that an attempt to integrate its customer base and that of an affiliated bank so as to sell both products to all clients was abandoned because the preferred customers for each product line where rather different. Hence, attempting to force bundled products on them threatened to alienate the better clients of both product lines.

Another issue that may be associated with product bundling and bancassurance is cross-subsidization between affiliated firms of a financial/business group. There appears to be evidence of this in some countries, with premiums for affiliated firms apparently being higher than those for nonaffiliated firms (this may be motivated by tax arbitrage). In one country, for example, an insurance company's premiums for mortgage-related policies sold through an affiliated bank more than doubled when authorities determined that insurance taxes were being avoided by setting artificially low insurance premiums, which were compensated for by high (untaxed) insurance sales commissions for the bank. However, the concern in these cases is not bancassurance itself but rather the broader issue of adequate regulation of business/financial groups.

Public sector institutions often take out insurance for certain risks (e.g., affecting government cars), but rarely for health coverage for government workers. In all countries, substantial public sector assets, such as roads and bridges, are not insured. Coupled with the lack of insurance of most of the private sector capital stock, this exposes the country to significant macroeconomic risks from large-scale disasters, such as major hurricanes or earthquakes. The government's implicit liabilities regarding disaster relief and reconstruction in the case of widespread destruction can also have serious fiscal consequences.

Crop insurance and other forms of agricultural insurance are rare and in most cases have been newly introduced, despite the importance of the agricultural sector in the region, in particular in El Salvador, Guatemala, Honduras, and Nicaragua (Box 3.3). This deficiency has several causes. First, crop insurance is relatively complex and expensive to administer (even in industrialized countries) because (1) policies must be tailored to specific products and to such factors as projected weather and local geographical conditions; (2) high monitoring costs result from such tailoring and from large exposure to moral hazard;[60] and (3) high loss rates are prevalent in the sector. These complications apply a fortiori in developing countries. Second, many farmers in the region are poor and undercapitalized, so transaction costs are high relative to potentially insured amounts. Also, agricultural risk in undercapitalized countries tends to be higher because of the absence of agricultural infrastructure (such as dams and irrigation networks), which is largely aimed at reducing risks to agricultural output. Finally, in small coun-

[60]It is difficult to distinguish whether a low harvest is because of exogenous growing conditions or because of the farmer's neglect.

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Box 3.3. Crop Insurance Initiatives

Existing crop insurance schemes in almost all cases are derived from insurance requirements tied to bank loans, with the loan funding typically offered by state development banks. Hence, most crop insurance schemes are not wholly voluntary and appear to have some element of subsidy in the financing conditions, although no subsidy is provided directly to the insurance premiums.

In El Salvador, the crop insurance scheme promoted by the Banco Multisectoral de Inversiones (BMI), a state-owned bank, resulted in the insurance of 3,000 hectares of cotton in 2004, with premiums of 5 to 6 percent of the loan amount. This appears affordable in the context of scarce and/or expensive agricultural credit, and the premiums appear roughly in line with the overall cost of subsidized crop insurance in Mexico. The program expects to increase coverage to 8,000 hectares of cotton in 2005, under similar conditions. Some farmers with other crops have begun to request the service directly, without being tied to a specific financing scheme. The insurance is calculated to cover the equivalent of 70 percent of normal crop yields. Approximately 75 percent of the risk is reinsured abroad. The program required extensive research and preparatory work by the insurance company, which won the opportunity to manage the program in a contest among local insurers that was organized by the BMI. The program benefited from the experience in crop insurance in other countries, including expert assistance for the supervisor for the approval of the novel policy, and the BMI partially financed the international consulting services needed for the preparation of the program. Note, however, that the insurance covers only weather-related losses in crop yields and not losses related to pests or other causes.

Other private sector crop insurance schemes are currently being pursued in most countries in the region, with varying degrees of success. The experience so far indicates that the service takes some time to be fully developed on a sound basis and to be understood by farmers: A crop insurance program that was admittedly rushed into operation two years ago in another country has had serious difficulties, with a substantial decrease in the amount of crop land covered and with losses for the insurance company that initiated the program. A number of private insurance companies (including at least one with extensive related experience in a neighboring country) appear to be planning to develop the product line.

tries, premiums may have to be high because it is difficult for companies to diversity risk (e.g., a drought may affect farming throughout the country).

Market Structure

Most insurance companies are locally owned, but subsidiaries of foreign companies operate throughout the region with the exception of Costa Rica (Table 3.4). The foreign parents are typically located outside the region, in particular in the United States, but there also exist a few local insurance groups active in several countries. Foreign entry is undertaken through subsidiaries rather than branches, with the latter forbidden in several countries. In all countries of the region, cross-border selling of insurance is prohibited under the insurance law, with exemptions only for products that are not offered locally. Another reason for opening a local subsidiary, as opposed to a branch, is that it can be difficult to enforce insurance contracts and effect dispute resolution between entities in different jurisdictions.[61]

The insurance sector in most of the region is highly fragmented and, therefore, the average company is small. As of 2003, the average company in El Salvador received the equivalent of just $17 million per year in gross premiums. Costa Rica, with its monopoly provider, is an exception. The insurance sector in Nicaragua is also relatively concentrated because a state monopoly existed there until 1997; the

[61]This chapter does not look further into differences among legal and judicial systems other than what is found in insurance legislation. Analogous differences exist in other regions: reportedly, large European insurance groups generally find it easier to operate through separate subsidiaries in European Union member countries rather than sell insurance products across borders or through branches abroad.

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Table 3.4
Structure of the Insurance Sector

	Costa Rica		El Salvador		Guatemala		Honduras		Nicaragua		Panama	
	2000	2003	2000	2003	2000	2003	2000	2003	2000	2003	2000	2003
Number of companies	1	1	18	21	18	16	11	11	5	5	20	19
of which: domestic	1	1	17	20	18	16	8	8	5	5	14	14
(Share in gross premiums; in percent)												
Share of largest company	100.0	100.0	18.5	12.7	23.8	18.8	18.5	21.2	57.1	42.0	. . .	19.1
Share of largest five companies	100.0	100.0	54.7	54.2	70.3	63.9	70.8	61.4	100.0	100.0	. . .	72.9
(Average per company; in millions of U.S. dollars)												
Gross premiums	314.1	318.0	12.8	16.7	15.2	21.5	14.3	16.8	10.0	11.5	18.4	20.7
Profits	. . .	. . .	0.9	1.3	0.6	1.3	0.6	1.9	0.7	0.4	. . .	1.6
Assets	776.2	. . .	13.8	16.5	12.7	19.1	18.4	23.9	13.5	15.4	34.4	37.1

Sources: National authorities; and IMF staff estimates.

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former monopolist has been slowly losing market share but still makes up about half of the sector.

The fragmentation is conducive to competition. It appears that most property product lines are offered under reasonably competitive conditions in most of the region. This thesis is supported by data on falling premiums and high loss-rates. Nonetheless, premiums tend to be somewhat high in international comparisons, but this may be mainly because of higher nondiversifiable risks associated with the region as well as the higher average costs of operating on a smaller scale and with smaller insured amounts. However, markets are sufficiently flexible that fire premiums (which include earthquake risks) are lower in Honduras, where there is no substantial earthquake risk, and auto premiums are lower in Nicaragua, where auto theft risk is relatively low.

These numerous small companies almost certainly operate at well below efficient size, especially since most, if not all, of them operate as a traditional insurance company with traditional procedures.[62] In many cases their revenues are insufficient to support the employment of their own actuary or the development of a fully computerized system of record keeping, data analysis, and claims processing. Their investment portfolios may also be too small to achieve full diversification.

The concentration ratio has remained fairly stable in most countries over the past few years and, on average, the top six firms account for about 70 percent of the market. While high in absolute terms, this concentration ratio is not unusual in international comparisons. The number of insurance companies has been relatively stable (except for growth in Nicaragua since the market was opened to the private sector in 1996); some companies have exited, but others have entered.

The available statistics may overstate the fragmentation problem to an extent because, in most countries, many insurance companies form groups with each other and perhaps with banks (for example, a bank might have one life insurance subsidiary and one non–life insurance subsidiary), and the group as a whole might provide certain "back office" functions. Some companies, for example, in Nicaragua, are subsidiaries of larger foreign insurers from the region or from industrialized countries.

Insofar as insurance companies are attached to financial groups that have a strategy of offering a full range of products, the lack of consolidation is not surprising. Some insurance companies may be linked to broader industrial-financial conglomerates, which prefer to keep insurance in-house and which may be able to benefit from regulatory or fiscal arbitrage.[63] In addition, it is widely believed that consolidation is being held up also by the desire of managers and major shareholders to preserve their independence. Industrial-financial groups will have to decide to break up for there to be significant additional consolidation in the insurance sector of several of the countries.[64]

The close, and in some cases growing, links between insurance companies and banks present a number of regulatory concerns. Chapter 2 in this volume addresses the regulation and supervision of financial conglomerates. Nevertheless, it is worthwhile to note that affiliated insurance companies are generally smaller than their related banks, and that often the insurance company has had significant exposure to the bank's risk (largely from assets placed with the bank).[65] The opposite is typically not true, as affiliated insurance companies typically account for only a small part of bank deposits. However, the growth of bancassurance may lead to increased exposure of banks to the activities of their affiliated insurance companies, to the extent that their profitability may in time depend increasingly on insurance.

Insurance companies use a variety of means to distribute their products. Besides using their own offices, a network of independent agents operates in all countries. Independent agents take the form of both individual brokers and brokerage firms, and in all countries they intermediate a substantial per-

[62]Academic studies suggest that, for American insurance companies, economies of scale prevail in companies with premium income up to at least $500 million per year.

[63]For example, if marginal tax rates differ by sector and level of profits, a conglomerate can adjust transfer pricing in order to minimize taxation. Operating as a conglomerate might also be advantageous because that structure might effectively loosen constraints on connected lending.

[64]Possible obstacles to the breakup of industrial-financial groups include (1) the lack of liquid capital markets that make it hard to price assets, and hence difficult to agree on terms of sale for companies (and may induce nonmarket diversification of wealth); and (2) the relatively small scale (by international standards) of the industrial-financial groups themselves, which allows economies of scale in top management to offset the costs of centralized control of disparate businesses.

[65]Regulations regarding insurance company portfolio diversification vary greatly within the region. Some countries have strong diversification requirements, especially with respect to affiliated firms, while others do not.

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centage of policies. The importance of brokers in distribution varies significantly across countries, although exact figures are not available: in Panama brokers reportedly generate over 90 percent of premiums, while in El Salvador they generate less than half of all premiums. Bancassurance is growing in importance in most countries (see Box 3.1). In some countries, such as El Salvador and Honduras, a significant part of bank profits are reportedly derived from their sale of insurance products.

Specialized reinsurance companies are found only in Panama. Companies in other countries are too small to achieve the risk diversification inherent in reinsurance. Instead, heavy use is made of reinsurance from the large international reinsurers, although the relatively small Panamanian reinsurers (both specialized reinsurance companies and insurance companies authorized to also perform reinsurance services) also accept risks in the region. The incentive to cede premiums to reinsurers is greater for companies with low capitalization, and it is reinforced by certain regulatory provisions (see the next section). Reinsurance is especially favored for product lines for which it is difficult to diversify risks domestically and for which monitoring costs are lower. Thus, companies retain a higher proportion of premiums for auto insurance, where the large number of policies, their smaller value, and the nature of the risks ensure that loss rates are relatively stable and administrative expenses high, than for other property insurance, especially catastrophe risk. At the other end of the spectrum are specialized high-value products, such as airline insurance, where there is essentially no local retention and reinsurance is handled through a small number of specialized foreign companies.

Recent Performance

Most indicators for the soundness and performance of insurance companies in Central America display stability and do not raise immediate, systemic concerns. There have been no major failures in recent years, despite the occasional failure of small companies. In at least one case, the failure of an insurance company was the direct result of substandard reinsurance contracts, and, in another case, an insurance company failed because of the collapse of its affiliated bank. In cases of failures, insurance policies have typically been transferred to other insurance companies along with associated assets to constitute reserves.[66] However, the last decade has witnessed a few cases of more disorderly closure in which policies have not been honored, for example, because of delays in court resolution of disputes or because the affected company did not have enough remaining assets.

Soundness indicators such as profitability rates, leverage, and liquidity ratios appear generally adequate for sectors as a whole, although in most countries there are some firms that appear less healthy (Table 3.2). The absolute level of capitalization of most firms is low and tends to be proportional to the size of the market. Average loss ratios (the ratio of payouts on claims to premium income) are in line with, or sometimes above, those found in other comparable markets. Since loss ratios are considered to be indicative of the degree of market competition, these indicators support the reported high level of competition in most product lines.

Recent experience with heavy losses from both hurricane Mitch in several countries (especially Honduras) and two earthquakes in El Salvador in 2001 indicates that, in the affected countries, the insurance sector as a whole was prepared to cover its liabilities, largely because it was extensively reinsured.[67] In the case of the Salvadoran earthquakes, some $300 million in losses were paid for by local insurers, but the net cost for the local companies was less than $5 million. All market participants agreed that most claims were settled rapidly, which helped reduce the overall cost of the earthquake damages. However, the low penetration of insurance services also resulted in substantial losses being absorbed by producers and families, with some of those losses transferred to governments.

Companies' investment portfolios are typically not very diversified, at least by type of investment. This appears to be largely the result of underdeveloped capital markets with few investment options; diversification by asset type is greater in Panama, where the capital market is most developed, although portfolio concentration with related parties is in some cases significant. Honduras applies stringent portfolio diversification regulations with regard to both asset types and private sector issuers (especially for related parties and for foreign investments), but there is no

[66]Insurance legislation generally includes various provisions for intervening in and winding up companies in distress.

[67]Note, however, that, in Honduras, Hurricane Mitch led to the failure of an insurance company that had substandard reinsurance contracts.

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limit to portfolio concentration in government securities. Most companies place most assets in bank accounts or, in some cases, in securities issued by their respective national governments. Real estate, direct lending, and equity are also significant investments for companies in some countries. Investment abroad is modest and in all countries is severely constrained by regulations. Partly due to regulatory reasons, investments related to non–life insurance business, which has a short time horizon, are held mostly in relatively liquid assets to match companies' liabilities (i.e., their reserves against potential insurance claims and other risks). In this case, the available investments may be broadly adequate, although real returns may be fairly low, especially for small companies that lack the volume and sophistication to engage in active portfolio management or bargain with banks to obtain a good return on deposits. The latter is especially true when dealing with banks that are affiliated with (smaller) insurance companies. For non–term life insurance business, companies are often severely constrained by the lack of securities with a maturity approaching that of liabilities to policyholders.

Until at least the 1990s, the majority of the insurance sector in all countries had antiquated back offices, which led to slow service both in issuing policies and in paying claims. Information for adequate management decisions was poor, leading to poorly managed risk taking. Administrative costs and issuing costs were high. Largely due to the deficiencies of insurance companies, brokers established a very strong position in most insurance markets, often taking over some functions that are typically performed by the insurance companies.

In all countries, to varying degrees, the past few years have seen a significant improvement in the operations of at least the leading companies, largely as a result of the use of more modern information systems. In the case of Nicaragua, the elimination of the state monopoly in 1997 allowed private companies to start from scratch and build up relatively modern systems, despite operating in the smallest market in the region. Improved operations and information should lower costs and improve products, allowing for greater market penetration. As an example, a company in El Salvador used its improved information system to track and control costs in such a way that it could introduce a new automobile insurance product that attracted new clients by offering no deductible at no additional cost.

Several caveats must be made with relation to these indicators of performance. On the one hand, insurance companies have significant scope (perhaps more than banks) to smooth results from year to year.[68] On the other, the insurance business is inherently vulnerable to rare but large risks; performance can be satisfactory for many years, but the true soundness of the system is often apparent only when a major event such as an earthquake tests the capital adequacy of the sector. Some, but not all, countries in the region have weathered "stress tests" rather successfully. As mentioned above, the stress test of Hurricane Mitch in Honduras revealed that regulatory standards for reinsurance contracts were inadequate, and that it was the sound business practices of most insurers (and not regulatory controls) that allowed them to cope with the event. It is also interesting to note that El Salvador and Honduras, the two countries that in the recent past have suffered the greatest losses from natural disasters, were motivated to update their regulatory frameworks. These considerations reinforce the importance of reviewing the regulatory framework.

The Legal and Regulatory Framework

No detailed assessments of observance of the International Association of Insurance Supervisors' Core Principles were available, but several countries in the region have performed self-assessments. Most supervisory institutions publish extensive material on their activities and the regulations in force. These materials were the basis for the summary contained here (Table 3.5).

In El Salvador, Guatemala, Honduras, and Nicaragua, supervision is carried out by a section of the financial sector supervisor. In some cases, insurance supervision is not integrated as a unit, and some insurance-specific responsibilities (including, in one case, the review and approval of insurance policies) are assigned to non-specialized units within the overall financial sector supervisor. This may lead to significant coordination issues. In addition, in some cases, reorganization and reassignment of responsibilities for insurance regulation and supervision have affected effectiveness. Panama has a separate insurance superintendency that reports to

[68] Insurance companies typically have some discretion in determining the appropriate level of reserves against various risk factors and allocating losses across reserves and capital.

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TABLE 3.5
Summary of Main Insurance Sector Regulation

	Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua	Panama
Location of supervisor	Self regulating.	Integrated supervisor.	Integrated supervisor.	Integrated supervisor.	Integrated supervisor.	Separate; bureau of the Ministry of Commerce and Industry.
Licensing requirements	Company established by law.	Yes. Life and non–life insurance must be separate companies.	Life and non–life insurance activities must each be licensed.	Life and non–life licensing not separated.	Life and non–life licensing not separated.	Separate authorization for life and non-life.
Ownership forms	State monopoly.	Joint stock company.	Share company.	Anonymous company or mutual.	No restriction.	No restriction.
Foreign entry	Forbidden.	Foreign subsidiaries and joint ventures but not branches.	Foreign subsidiaries and joint ventures but not branches.	Foreign subsidiaries and joint ventures but not branches.	Foreign subsidiaries, joint ventures, and branches with own capital.	No restriction.
Minimum capital	None.	US$0.67 million for non-life companies and US$1 million for life companies. Updated periodically.	Equivalent to about US$0.5 million for either life or non–life insurance companies, and US$1 million for mixed companies.	Equivalent to about US$1.3 million for personal or property companies, and US$2.6 million for mixed companies.	Minimum equivalent to US$0.7 million for life or property companies, US$1.4 million for mixed companies.	Equivalent to US$2 million.
Technical provisions and reserves	Required to hold reserves on premiums, claims, and contingencies.	Technical reserves on non-life products proportional to retained premiums. Mathematical reserves for life products on actuarial basis. Also reserves for unearned premiums, statistical risk, unpaid claims, and unreported claims. Catastrophe reserve based on probable maximum loss (PML) of highest risk concentration area.	Technical reserves on non-life products proportional to retained premiums (10 percent to 25 percent). Mathematical reserves for life products on actuarial basis. Also reserves for unearned premiums and unpaid claims. Catastrophe reserves from accumulated earthquake policy reserves.	Technical reserves on non-life products proportional to retained premiums and to loss history. Mathematical reserves for life products on actuarial basis. Also reserves for unearned premiums, statistical risk, unpaid claims, and unreported claims. Catastrophe reserve based on PML of highest risk concentration area.	Technical reserves on non-life products proportional to retained premiums (40 percent to 50 percent). Mathematical reserves for life products on actuarial basis. Also reserves for unearned premiums, statistical risk, unpaid claims, and unreported claims. Catastrophe reserve based on PML of highest risk concentration area.	Technical reserves on non-life products proportional to retained premiums (35 percent). Mathematical reserves for life products on actuarial basis. Also reserves for unearned premiums, statistical risk, catastrophe, unpaid claims, and unreported claims.
Solvency requirements	None.	Determined by law on the basis of product-specific premiums and losses as well as fixed parameters.	Determined by regulation on the basis of product-specific premiums and losses as well as fixed parameters.	Determined by regulation on the basis of product-specific premiums and losses as well as fixed parameters.	Determined by regulation on the basis of product-specific premiums and losses as well as fixed parameters.	Determined by regulation on the basis of product-specific premiums and losses as well as fixed parameters. General reserve accumulated from 10 percent to 20 percent of net earnings.

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Restrictions on investment portfolio	Only government securities, real estate, and mortgages.	Direct lending limited. Maximum limits on various categories of investment.	At least 40 percent in government securities; at least 1 percent in demand deposits; at most 59 percent in other investments.	Ceilings on share in banks, government bonds, corporate bonds, shares, loans, real estate. Exposure to one risk less than 10 percent of capital.	Supervisor sets limits on categories of investment. No limit on exposure to government. Equity limited to 10 percent of portfolio.	Admissible investments specified for 75 percent of technical reserves: government and private securities, real estate. No large exposure limits.
Restriction on investment abroad	Forbidden, although local U.S. dollar assets are available.	Maximum of 20 percent of technical reserves and required capital. Excess capital freely investable.	Forbidden for required reserves and capital. Excess capital freely investable.	Maximum 20 percent of capital and reserves from local-currency-denominated policies can be invested abroad. Reserves from dollar-denominated policies can be freely invested abroad.	Maximum of 20 percent of technical reserves and required capital. Excess capital freely investable.	Maximum of 25 percent of required capital and reserves; at most 50 percent of excess capital.
Pricing restrictions	None. Policies denominated in local currency and U.S. dollars.	Supervisor reviews premiums so that they cover future claims but enforcement only through suspension of product.	Supervisor reviews and can enforce premiums so that they cover future claims.	Supervisor reviews and can enforce premiums so that they cover future claims.	Supervisor reviews and can enforce premiums so that they cover future claims. Supervisor may set ceiling on rates for compulsory insurance.	Supervisor reviews premiums so that they cover future claims but enforcement only through suspension of product.
Compulsory insurance	Auto third-party liability (TPL), civil liability, and labor risks.	None.	None.	Government demands bond from contractors.	Auto TPL.	TPL for commercial vehicles.
Reinsurance regulations	Law exists. No companies operate. Reinsurance abroad available.	No companies operate. Companies specify maximum and minimum retention limits. Reinsurers must register and meet minimum qualifications from rating agencies. Retention and cession requirement for catastrophe insurance.	No companies operate. Companies specify maximum and minimum retention limits. Reinsurers must register and meet minimum qualifications from rating agencies. Maximum retention limits specified.	No companies operate. Companies specify maximum and minimum retention limits. Reinsurers must register and meet minimum qualifications from rating agencies.	No companies operate. Companies specify maximum and minimum retention limits. Reinsurers must register and meet minimum qualifications from rating agencies. Maximum retention limits specified.	Reinsurance specialists have to be licensed.
Regulation of brokers and agents	Various agents, including bancassurance, are used.	Brokers must be licensed.	Brokers and agents must be licensed.	Brokers and agents must be licensed.	Brokers and agents must be licensed.	Only licensed brokers can offer insurance products.
Tax treatment	Premiums on life, worker safety, and a few other products exempt from sales tax. Property and catastrophe premiums deductible from income tax.	Life products over 10 years exempt from sales tax. Life premiums deductible from income tax and payments exempt.	(Term) life premiums deductible from income tax.	Payments exempt from income tax.	Premiums on life, health, accident, and mandatory insurance products exempt from sales tax, and payouts tax exempt.	Special levy (2 to 5 percent of net premiums) to pay for supervisor. No tax on earnings from life-savings products.

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TABLE 3.5
(concluded)

	Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua	Panama
Accounting conventions	Generally Accepted Accounting Principles (GAAP).	Set by supervisor: International Accounting Standards (IAS) with insurance adjustments.	Set by supervisor: IAS with insurance adjustments. Life and non-life income statement.	Set by supervisor: IAS with insurance adjustments. Life and non-life income statement.	Set by supervisor: IAS with insurance adjustments. Life and non-life income statement.	GAAP
Auditing	Auditor General, internal, and external firm.	Internal and external auditors mandatory. Annual external audit of financial statements.	Annual external audit of financial statements.	Internal and external auditors mandatory. Annual external audit of financial statements and actuarial audit of reserves.	Internal and external auditors mandatory. Annual external audit of financial statements.	Internal and external auditors mandatory. Annual external audit of financial statements.
Actuarial report	Not obligatory.	All new products. Quarterly actuarial review of technical reserves. Annual external actuarial audit of technical reserves.	All new products. Supervisor does actuarial audit.	All new products. Annual external actuarial audit of technical reserves.	All new products. Annual actuarial financial statements audit.	All new products. Supervisor does actuarial audit.
Centralization of claims data	Yes, but not publicly available.	Yes	No	Yes	Yes	Yes
Remarks	State monopoly will end under CAFTA-DR.	Revisions to law under consideration.	New law in preparation.	New law 2001. Implementation not fully completed.	New law in early stages of preparation.	New law in preparation.

Sources: National authorities.

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the Ministry of Commerce and Industry. In Costa Rica, the state monopoly insurance company reports directly to the executive and is not subject to formalized prudential or other regulation and supervision beyond provisions of the insurance law and general legal principles.

The supervisors generally monitor the condition of their insurance industries closely and are aware of regulatory developments elsewhere. However, in several countries the supervisors acknowledge that they lack the budgetary resources to retain as many well-trained staff as they would prefer. In addition, in some countries, detailed and inflexible laws that may be outdated limit the supervisor's ability to respond to perceived problems. Insurance supervisors have available several venues for international cooperation, such as bilateral contacts with other national supervisors, the Central American Council of Financial Sector Supervisors, and the Latin American Association of Insurance Supervisors. In some countries, international cooperation is a very important source of resources for training.

All countries have a law on insurance. The Honduran law was substantially amended in 2001 and the supervisor is currently working on some minor legislative revisions. The supervisor in El Salvador is planning changes aimed at establishing risk-based reserve regulations and some other modest revisions to the 1997 law. Panama and Guatemala are preparing substantially new insurance laws that are expected to be discussed in their respective congresses during the course of 2005. It appears that the proposed legislation would only partially move in the direction of risk-based regulation. In Nicaragua, the regulator expects significant revisions to the 1997 legislation, also aimed at establishing risk based reserve regulations, but only in the medium term.

Existing laws sometimes specify prudential and other provisions in detail, which can be problematic when they have not been amended to keep up with developments in insurance practice. Supervisors and market participants are generally aware that certain legal provisions are inappropriate, but enacting the necessary amendments is not high on the legislative agenda.[69] Many firms choose to establish internal financial policies that are much stricter than those required by regulations.

[69]The legislatures in some Central American countries are characterized by weak party discipline, so on occasion it has proven difficult to pass even technical laws without delay or substantial amendment.

Largely because of the provisions in insurance laws, certain common features can be identified in the regulations of many (if not always all) of the countries of the region:

- Minimum required technical reserves (also called provisions) for non–life insurance policies are defined as a proportion of premiums net of the amount ceded to reinsurers, rather than related to the actuarial value of expected losses. This approach may be administratively convenient and would not be problematic if premiums were always set as a known proportion of risks borne. Indeed, in most countries, a company must receive approval from the supervisor for the terms attached to any new product; approval is contingent on proof that (initial) premiums are set at or above an actuarially appropriate level. However, this condition need not obtain over time because required reserves are related to a company's pricing policy, which may vary depending on such factors as the degree of competition in various product lines, administrative expenses, the current return on assets, and level of the company's capitalization. Furthermore, the factor of proportionality linking net premiums to minimum reserves is defined in law and is often the same across a broad range of products, yet the risk characteristics of products may differ. Thorough studies are not available on the determinants of appropriate proportionality factors; the various countries use different factors for no apparent reason. Furthermore, this specification of minimum reserves may create an incentive for companies to increase risk by competing via lower premiums, because that way they both gain market share and reduce the expense of holding reserves.[70] If the proportionality factor is too high, the affected products will be needlessly expensive.
- On a related point, the treatment of insurance premiums ceded to reinsurers does not differ-

[70]To illustrate the issues, suppose that a company underwrites a risk on a project; losses are normally distributed with mean 100 and a standard deviation of 10. If the authorities wish to ensure that the company can meet payouts without resorting to its capital 95 percent of the time, the company should be required to hold premiums and reserves of 120. If required reserves are set at 20 percent of premiums and premiums are 100, the objective is achieved. However, the company would underprovision if it set the premium at 90 (when reserves would be only 18), or if the minimum-reserve-to-premium ratio is fixed at 10 percent.

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entiate sufficiently depending on the specifics of the reinsurance contract. Reinsurance might be ceded on more or less tight conditions, so that the reinsurer has more or less scope to limit or contest reinsurance payouts to the primary insurer in case of loss. If the regulations do not allow for this possibility yet required reserves are related to net premiums or retained risks, primary insurers have a short-term incentive to reinsure as cheaply as possible while also reducing the expense of holding reserves. Hence, the effective level of reserves against true retained risk might be less than the supervisor intended. The regulation of reinsurance risk (i.e., the risk that, for whatever reason, the reinsurer will not cover all the ceded risk) is especially important given companies' heavy reliance on reinsurance.

- Most countries also require companies to establish reserves against a standard range of risk factors, such as those connected with nonaccrued premiums, unpaid or unreported claims, uncertainty over the actuarial model used in setting policy rates, and the possibility of unusually large correlated losses ("outliers" in statistical parlance or "catastrophe risk" in insurance parlance). Some countries have slightly less comprehensive regulations in these areas and, as in the case of technical provisions, the reserve requirements vary across countries, often without thorough studies to establish the appropriate level of required reserves.
- All countries establish solvency requirements ("solvency margins") that set a minimum level of overall reserves and capital, based on complex calculations that depend on, among other things, gross and retained premiums, current and past gross and retained claims, and the composition of the insurance portfolio. Numerical parameters, presumably based on international and historical experience with event risks, are also part of the calculations and were uniform in some countries. No supervisor had a study that supported the parameters used or the specific calculations, although they indicated that similar practices appear to exist in other countries outside of the region. A few supervisors indicated that the minimum solvency requirements appeared to be too low. In some countries, (private) insurance firms have capital and reserve levels that are a multiple of regulatory requirements. In Panama and Guatemala, the insurance sectors have five times and three times the required level of capital and reserves, respectively. This would indicate that required capital and reserves are too low.
- Insurance laws also set an absolute minimum capital requirement, which is somewhat low in some countries and for some business lines.[71] The requirement is set in local currency, which erodes in real terms over time due to inflation, although some countries have a mechanism for regularly revising and maintaining the capital requirement level in real terms. A low minimum capital requirement permits very small firms to survive, though it also facilitates entry. It can be argued that higher capital requirements would help consolidation of the insurance sector, but it is not clear what the costs would be in terms of barriers to entry, especially if one considers the potential for the development of small-scale insurance schemes aimed at the lower-income population.
- Investment by insurance companies is restricted in various ways. While many of these restrictions are motivated mainly by concern to preserve the solvency and liquidity of the companies, some may be counterproductive or inefficient. Certain restrictions strongly favor investment in securities issued by the national government, rather than a full range of domestic investments. In all countries, regulations specify authorized investments, and most countries establish maximum exposure limits to specific issuers and to specific securities, while others have no such requirements. Typically, when specifying exposure limits to issuers, no differentiation is made on grounds of the varying riskiness of issuers or of investments within one category. In some countries, this can result in measures aimed at diversification forcing insurers into poor quality investments. Given the prevalence of insurance companies affiliated with financial-business groups, most (but not all) countries also have regulations on exposure to related parties.

[71]In the United States, where insurance is regulated by the states, the typical minimum absolute capital requirements for property insurance companies are about the same as in Central America, but minimum requirements for certain products and in particular for life business tend to be somewhat higher.

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- Additionally, in all countries, investment abroad is severely limited and in some countries returns on foreign investment are taxed much more heavily than returns on domestic investments. In at least one country, limits on exposure to a single issuer are applied separately to domestic and foreign investments, creating a further restriction for foreign investment.[72] Given the limited size and development of regional capital markets, restrictions on foreign investment seriously limit investment choices and significantly increase risk by limiting diversification. While developmental/nationalistic arguments are made to support restrictions on foreign investment by insurance firms, all the countries in the region have reasonably open capital accounts. Hence, any restriction on insurance sector investment has scant macroeconomic impact since the local recipients of said investment can normally invest the funds abroad with few if any restrictions. The only result is that policyholders bear additional risk and potentially lower returns.
- Investments related to non–life insurance reserves typically have significant liquidity requirements in order to assure that funds are available to pay claims without insurers having to resort to potentially high costs of selling illiquid assets. However, an adequately capitalized and solvent insurer should be able to access liquidity in the market without incurring these liquidation costs. Since liquidity requirements can significantly erode returns on investments, regulators should be careful not to overemphasize the importance of liquidity when setting investment regulations.
- The interaction of underdeveloped capital markets and investment regulations limits the investment options available to insurance firms. Hence, it may be expensive for companies to diversify their portfolios, obtain adequate risk adjusted returns, and match their portfolios to their underwriting risks to the degree that would be desirable.
- Entry by foreign firms is generally permitted, subject to standard licensing procedures (except in Costa Rica). However, there are restrictions on the form in which a company can be incorporated. In particular, in several countries, a foreign entrant must establish a locally incorporated subsidiary, rather than open a branch. All countries prohibit the purchase of insurance from abroad, with some countries making exceptions for the products that cannot be offered by local insurers. The requirement to insure through domestic authorized firms leads to the widespread practice of "fronting," whereby local firms will nominally carry insurance that is in reality offered by a foreign insurer. This is most common in the case of multinational firms.[73]
- Premiums and other contract conditions are generally free of restrictions, except that they must be approved by the supervisor when a new product is introduced. Some regulators may enforce compliance with minimum premium levels determined on an actuarial basis when policies are originally authorized, but other regulators have no mechanism to assure compliance once policies are authorized. Laws relating to free competition and pricing may limit any attempts to enforce actuarially sound premium levels. In most countries, minimum (or minimum average) premium levels are often imposed by reinsurers as part of proportional reinsurance contracts. To the extent that proportional reinsurance is replaced by excess loss contracts, reinsurers do not impose minimum premiums. In some cases this has led to increased price competition among insurers.
- In most countries, presumably because of the recent nature of the service, specific regulations regarding bancassurance are weak. As discussed above, when banks sell insurance products through their branches, the scope for bundling financial products—such as a loan with an insurance requirement—gives rise to potential issues of consumer protection and the definition of fiduciary responsibilities.[74]
- Regulations in all countries cover the licensing and authorized activities of insurance agents

[72] Suppose that regulations state that at most 25 percent of the total portfolio can be invested abroad, and at most 10 percent of investments can be placed with any one issuer. If the large exposure limit is applied just to the foreign component, effectively only 2.5 percent of investments can be placed with any one foreign issuer.

[73] The countries of the region have subscribed to the Central American Free Trade Agreement with the United States. When this comes into force, entry and the availability of insurance from abroad will be liberalized.

[74] Chapter 2 in this book addresses the regulation and supervision of financial conglomerates.

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and brokers, although the specific regulations vary significantly. In some countries, regulators have encountered significant problems when trying to impose mandatory qualifications for broker licenses.

- Few countries have extensive requirements for companies to prepare and publish regular reports on their actuarial situation (Nicaragua is an exception), although some countries require an actuarial review of reserves as part of an annual external audit of financial statements. Regulations related to and supervision of information management systems, computer systems, and other forms of operational risk are very limited. The lack of requirements in these areas, where effective systems are characterized by high fixed cost, helps smaller companies to survive.
- Domestic reinsurers exist only in Panama, which has a reinsurance law, but throughout the region companies are heavy users of foreign reinsurance. In most countries, reinsurance contracts can be established only with reinsurers that meet minimum ratings set by international ratings agencies, and, in some cases, reinsurers must also provide the supervisor with basic and updated information to be authorized to sell reinsurance to local companies. Supervisors often establish contact with the regulators of the home countries of the reinsurers to assure their good standing. In most countries, reinsurance plans must be presented to and approved by the supervisor.
- The tax treatment of insurance differs across countries. In some, but not all, countries, premiums for life insurance and certain other categories of insurance are deductible from income tax. Sometimes certain insurance expenses are exempt from sales tax or value-added taxes. The tax treatment of insurance payouts also varies.

Insurance Sector Development and Regional Issues

The insurance sector in Central America is developing, and the private sector is taking the lead. Some important initiatives are under way, for example, in the mass marketing of products and the provision of crop insurance. Nonetheless, the authorities, in individual countries and in the region as a whole, have scope to accelerate the process.

Fostering Insurance Sector Development

Modernizing the regulatory framework and supervisory practices will contribute to the sound development of the insurance sector. The authorities hope to move toward a more risk-based approach to regulation and supervision, with a greater role played by actuarial calculation of risks. In particular, technical reserves need to be related to expected value of losses, their variance and covariances, and other risks (such as reinsurance risk and catastrophe risk). Also, companies need more scope to manage their portfolios to match underwriting risks. Many measures needed for prudential purposes, such as introducing more risk-based reserve requirements, mandating the production of actuarial reports, and introducing modern information management systems, would likely have a greater effect on smaller companies, and could spur consolidation.

While the regulatory and supervisory framework can be improved, it will be important to allow room for less sophisticated products aimed at providing basic coverage at low cost. Regulatory principles that by and large have been developed for more sophisticated markets may limit some potential avenues for growth in countries where insurance markets are at an early stage of development.

Besides these regulatory issues, the authorities may have a role in providing other supporting services. For example, direct subsidies or administrative support for crop insurance could be worthwhile.[75] Any subsidy would have to be made transparent in the budget and consistent with fiscal sustainability, perhaps by being offset by a reduction in other agricultural subsidies. Furthermore, the cost-benefit ratio would probably be most advantageous if any subsidies were temporary and directed at covering start-up costs. Administrative support might take the form of some type of centralized information processing and provision, possibly government organized, to reduce the substantial start-up costs of crop insurance services.[76] Financing the dissemination of international experience in agricultural insurance can also help reduce the costs of

[75]Mexico, among other countries, has a program of direct subsidy for agricultural insurance that pays between 30 and 45 percent of insurance premiums for a wide number of crops.

[76]The firm in El Salvador that launched agricultural insurance reported that collecting existing but unpublished data mostly from public sector institutions constituted one of the more complicated and time-consuming tasks in the preparation of its program.

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developing agricultural insurance schemes. Insofar as farmers are poor, there may be distributional reasons for these types of support. Moreover, the availability of crop insurance may yield a payoff in terms of greater provision of credit to the agricultural sector (helping to break the vicious cycle that limits the capitalization of the sector), yet be held back by fixed costs that are high relative to the capitalization of the sector. Government action may be needed to overcome this threshold to establishing a market and achieving critical mass.[77]

Governments could also contribute to the development of the insurance sector by insuring more of their own risks instead of relying on implicit self-insurance.[78] Greater insurance volumes by the government could help in creating critical mass and economies of scale for the sector. Note that increased demand for insurance by the government is neither unlikely to pressure prices (in part because the products would be specialized) nor would it necessarily lead to crowding out. Adequately insuring important assets such as roads and bridges, among other infrastructure, could add to explicit planned expenses but would also allow for an improved budgetary process and less need for costly last minute reallocations of budget revenues to attend to unforeseen reconstruction expenses and other losses.

Another potential area for government action is catastrophe insurance; action in this area could be linked to efforts to stabilize government expenses as described in the previous paragraph. A large number of private sector assets are uninsured and the potential losses from a large event, such as an earthquake, can create a negative macroeconomic shock that significantly disrupts economic activity and multiplies the direct losses from the event. To the extent that governments typically assume some responsibility for disaster recovery and reconstruction in the case of catastrophes, there exists an implicit public sector liability. Recognizing these potential liabilities and dealing with them through appropriate insurance contracts is likely to reduce the associated costs.[79] In the light of international experience and the size of the Central America economies relative to the world insurance and reinsurance industry, a variety of approaches seem feasible. Hence, a number of issues must be considered when designing these insurance contracts.

- Given that social desirability of providing for catastrophes through insurance, should the costs of the insurance be financed through mandatory insurance, as is the case with similar programs such as pension schemes, or should financing come out of general government revenue?[80] In this connection, should operations be managed by one or more private companies, with the government acting as regulator, or should the government play a more direct role?
- Since high administrative costs constitute a major reason why insurance coverage is currently low, any insurance scheme (mandatory or not) must focus on minimizing the costs of implementation.[81] This would likely entail the use of existing mechanisms and non-insurance distribution systems for identification of potential program clients as well as for access, collection (if necessary), and potential payments.
- The insurance scheme should aim to provide for rapid relief, to minimize both the direct macroeconomic shock occasioned by a catastrophe as well as the added costs of delaying relief and reconstruction. There will generally be a trade-off between precise targeting of the relief and the speed and administrative expense of providing the relief; assessing and verifying individuals' losses is time consuming and often relatively expensive.
- The insurance scheme should aim to create incentives for economic agents to reduce risk

[77]Many factors, including land titling and a history of political interference, contribute to agricultural under-capitalization and the scarcity of agricultural credit. However, crop insurance services themselves are relatively simple contracts in terms of legal principles and ownership, as they apply to a single crop cycle and tend to be paid in advance.

[78]Governments in other some countries take out insurance on major installations. In Bahrain, for example, premiums on government-owned infrastructure such as petroleum facilities accounts for about half of all non–motor property insurance.

[79]Initiatives to develop catastrophe insurance are under way in several individual countries of the region, with the assistance of the World Bank, the Inter-American Development Bank, and the International Finance Corporation.

[80]Turkey has introduced mandatory earthquake insurance where premiums are paid by homeowners. Iceland imposes a special levy to pay for a reserve fund dedicated to meeting costs associated with natural disasters.

[81]Traditional insurance services typically cost several times the underlying "technical" cost of the risk because of the costs associated with marketing, identifying, and valuing the insured asset; processing the policy; monitoring the risk; placing the reinsurance; identifying and valuing losses; processing claims; and paying out the proceeds.

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through individual decision making, for example, on where and how to build housing. Again, there will generally be a trade-off between how sophisticated the insurance scheme is and the expense of administering it.

Governments could also reduce the losses from various risks, including catastrophes, by enacting and/or and enforcing appropriate regulations, such as building codes or zoning restrictions. Reducing losses would lead to lower insurance and reinsurance costs, and hence help expand insurance services. In addition, existing insurance schemes, in some countries such as those for automobile TPLs, could be better enforced to further expand the market.

Regional Issues

It is likely that economies of scale in insurance activity could be better exploited on a regional basis, and that the countries could learn from each other's experience. One set of measures available to the authorities would be directed at the harmonization and mutual recognition of regulations, in line with international best practice. The authorities could coordinate the introduction of risk-based regulations, and eventually there could be a presumption that a company satisfying the regulatory requirements of one jurisdiction would be free to offer insurance products and to open a branch or subsidiary in another country of the region.[82] In this way, competition could be preserved even as the sector consolidates within individual countries. This type of effort appears particularly relevant given the expected results of the CAFTA-DR with the United States and other possible trade liberalization negotiations.[83]

Regional efforts could be worthwhile in other areas, including (1) the collection and dissemination of demographic, meteorological, agronomic, and other statistics needed for actuarial calculations that underlie insurance pricing, notably, but not exclusively, in relation to crop insurance; and (2) joint development of catastrophe insurance programs, especially where geographic or climatic regions with similar risk characteristics extend across the border.

Conclusions

The insurance sector is small and fragmented in most of Central America, and much of the population has scarcely any insurance cover despite their exposure to a range of natural and other risks. Yet, the sector has the potential to contribute much more to financial deepening and economic development. Some recent initiatives, for example, in the areas of crop insurance and the mass marketing of certain products, are promising. The financial situation of the insurance companies is generally satisfactory, the macroeconomic environment is relatively benign, and countries of the region have committed themselves to intensified regional integration, for example, through free trade agreements. Hence, conditions are favorable for measures to promote the sector.

The regulatory and supervisory regime governing the insurance sector needs to be modernized, primarily by moving toward a risk-based approach. For example, the provisions that a company must make need to be related to a fair valuation of the risks that it retains, and companies need to improve risk management techniques by developing the requisite systems for information collection and analysis. The relaxation of nonprudential limitations on the allocation of companies' investments could enhance both the functioning of regional capital markets and the soundness of the companies. Liberalization of trade in insurance products could ensure that competition remains effective even if national industries consolidate.

Governments can play a more direct role in expanding the availability of insurance coverage. Crop insurance schemes may yield a range of benefits, including improved access to credit for the agricultural sector. Governments could insure more of their own assets, which would not increase the scale of the insurance market but also contribute to fiscal management. In recognition of the region's vulnerability to natural disasters, consideration could also be given to introducing compulsory catastrophe insurance, with premiums paid by private parties.

[82]Foreign (extra-regional) reinsurers currently operate under similar conditions to those proposed here for regional insurers. In effect, regulation by their home country supervisor, plus some simple registration and information requirements (and minimum risk classification), are deemed sufficient for them to offer (re)insurance services in the region.

[83]CAFTA-DR contains provisions requiring home country treatment of insurers from all signatory countries, so that entry will be restricted only by nondiscriminatory prudential requirements. Therefore, the insurance monopoly in Costa Rica will be dismantled after a phase-in period. Insurance companies in all countries may face more competition from larger U.S. companies.

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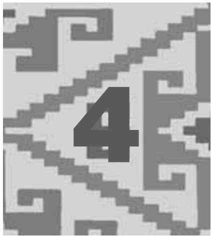

Payment and Securities Settlement Systems

Massimo Cirasino and Mario Guadamillas[84]

There is a growing interest in Central America and elsewhere in the possible efficiency gains to be achieved from the adoption of integrated frameworks for regional payment and securities settlement. Individual Central American countries are already undertaking payment system reform with assistance from the international financial institutions (IFIs). In addition, projects on regional clearance and settlement of large-value financial transactions and on integrated regional large-value real-time gross settlement (RTGS) payment system have been launched by Central American governments, the Central American Monetary Council, and the Inter-American Development Bank.

This chapter draws from country assessments undertaken as part of ongoing efforts to upgrade the payment and securities settlement systems in several countries in Central America.[85] Assessment dates for each of the countries are reported in Table 4.1.

This chapter is organized by topic, covering (1) issues related to the legal framework; (2) interbank exchange settlement circuits, including proposals for the reform of these systems; (3) retail payment systems; (4) government payments; (5) foreign exchange and cross-border settlement mechanisms; (6) interbank money market; (7) securities markets and settlement, including clearing and settlement processes, settlement risks, custody risk, regulatory and oversight issues, central securities depositories' (CSDs) organizational arrangements, and cross-border settlement; and (8) payment system oversight and cooperation. Each of these sections include a brief context that generally identifies international standards and best practices, a status table in the Appendix describing the current status of the specific issue covered, and observations summarizing the overall findings. A section on proposals for reform concludes the chapter.

Legal Framework

Context

An appropriate legal framework is needed to underpin a sound and efficient payment system. The legal environment should include the following: (1) laws and regulations of broad applicability that address issues such as insolvency and contractual relations between parties; (2) laws and regulations that have specific applicability to payment systems (such as legislation on electronic signature, validation of netting, and settlement finality); and (3) the rules, standards, and procedures agreed to by the participants of a payment system. The legal infrastructure should also cover other activities carried out by both public and private sector entities. For example, the legislative framework may establish

[84]The authors work at the World Bank. They would like to thank Joaquín Bernal (Banco de la República, Colombia) for contributing to the analysis of the Panamanian payment systems.

[85]The IFIs have helped to conduct these assessments as part of the joint IMF–World Bank Financial Sector Assessment Program (FSAP) or as part of the Western Hemisphere Payments and Securities Settlement Forum (WHF), a joint effort by the Center for Latin American Monetary Studies (CEMLA) and the World Bank. For more information on the WHF, see http://www.forodepagos.org.

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TABLE 4.1
Assessments of Payment and Securities Settlement Systems

Country	Date of WHF Assessment	Date of FSAP Assessment
Costa Rica	June 2001	October 2001
El Salvador	February 2000	February 2000
Guatemala	February 2004	September 2000
Honduras	October 2002	October 2002
Nicaragua	December 2003	December 2003
Panama	—	January 2005[1]

Sources: Western Hemisphere Payments and Securities Settlement Forum (WHF); and IMF–World Bank Financial Sector Assessment Program (FSAP).
[1]A payments expert visited Panama for the purpose of the Financial Sector Research Project (FSRP) in January 2005.

clear responsibilities for the central bank or other regulatory bodies, such as oversight of the payment systems or the provision of liquidity to participants in these systems. Finally, relevant pieces of legislation that have an impact on the soundness of the legal framework on the payment system include a law on transparency and security of payment instruments, terms, and conditions; antitrust legislation for the supply of payment services; and legislation on privacy. Although laws are normally the appropriate means to enforce a general objective in the payments field, in some cases, regulations by the overseers may be an efficient way to react to a rapidly changing environment. In other cases, specific agreements among participants may be adequate. In such cases, a professional assessment of the enforceability of these arrangements is usually required. Finally, because the payment system typically includes participants incorporated in foreign jurisdictions or it might operate with multiple currencies or across borders, it may be necessary to address issues associated with foreign jurisdictions.

The operation of a securities settlement system (SSS) must be reliable and predictable. This depends on the laws, rules, and procedures that support the holding, transfer, pledging, and lending of securities and related payments, and how these work in practice—that is, whether system operators, participants, and their customers can enforce their rights. If the legal framework is inadequate or its application is uncertain, it can give rise to credit or liquidity risks for system participants and their customers or to systemic risks for financial markets as a whole.

A variety of laws and legal concepts can affect the performance of clearing and settlement systems. Weaknesses in contract laws, company laws, bankruptcy and insolvency laws, custody laws, and property laws may impede the performance of a clearing system. There is a need for an adequate legal basis that is able to accommodate technological advances. Key aspects of the settlement process that the legal framework should support include enforceability of transactions, protection of customer assets (particularly against insolvency of custodians), immobilization or dematerialization of securities, netting arrangements, securities lending (including repos and other economically equivalent transactions), finality of settlement, arrangements for achieving delivery versus payment, default rules, liquidation of assets pledged or transferred as collateral, and protection of the interests of beneficial owners. The rules and contracts related to the operation of the SSS should be enforceable in the event of insolvency of a system participant, irrespective of whether the participant is located in the jurisdiction whose laws govern the SSS or is in another jurisdiction.

An important emerging issue is the legal status of digital signatures. If digital signatures are to substitute for handwritten signatures, they must be legally binding. A critical need is to ensure that laws are both enforced and are enforceable in all relevant jurisdictions. In addition, disputes should become the subject of court proceedings only as a last resort. This can be achieved through the specification and acceptance of clear, comprehensive, and fair arbitration processes.

For further details on the legal framework's status in the region, see Appendix Table A4.1.

Observations

There is no regulation in the six countries specifying how oversight is to be conducted, although central bank laws usually recognize that payment systems' oversight is among the central bank's functions (the exceptions being El Salvador and Panama).

There is a lack of provisions regarding acceptance, irrevocability, or settlement finality of an order to be processed by the system. These concepts are especially important in the event of an insolvency. In netting systems, the legal definition of these concepts would reduce uncertainties and limit systemic liquidity risk from unwinding procedures. Similarly, although in general there are no explicit

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zero hour rules, it is not clear if the countries' courts could revoke pending or already executed operations made by the defaulting institution. Many legal frameworks fail to define specific triggers for the intervention of a financial institution, creating uncertainty about the system's or central bank's credit risk exposure (the latter in the case the central bank extends credit to the system's participants).

In some of the Central American countries, the central bank law provisions have not translated into a specific regulation dealing with the operation of settlement systems. Not all the systems have detailed rules. Thus, participants may not be aware of the risks they incur. There is also a lack of clarity regarding penalties and the conditions and procedures for removing a participant from the system.

There is no explicit legal recognition in the six countries of multilateral netting arrangements, creating legal uncertainty in the event of an insolvency. Since netting is used on a broad scale for the settlement of stock exchange transactions and check and retail payments, this constitutes a serious legal risk. It might also hamper further development of financial instruments such as derivatives. It is important to protect netting schemes from potentially disruptive insolvency laws so that, even if a system participant fails during the day, a liquidator cannot unwind settlement occurring on a net basis at a later time in the day (see, for instance, the Finality Directive of the European Commission).

Most Central American countries have recently approved laws for electronic documents and signatures. These need to be complemented by changes in relevant rules and regulations to ensure that the legal basis is effective and clarify that the laws also apply to the electronic exchange of messages within the payment systems operated by the central bank.

In general, there is no public or private body responsible for the resolution of potential conflicts arising from the operation of the systems. There is no provision regarding the responsibility of the operator in case of malfunctioning of the system and, therefore, there is no rule dealing with a possible compensation in those cases.

The judiciary in the six countries lacks familiarity with the specific legal needs of the financial sector and the systemic implications of the application of certain laws. Focused training programs should be put in place as soon as an overall assessment of the legal framework for the payment system is completed.

Although securities markets legislation usually includes the legal basis for immobilization and dematerialization, in some cases (e.g., Guatemala) this law only applies to private securities. The legal framework for public debt securities is separate and does not include a definition of dematerialization and immobilization.

A sound legal basis requires the legal definition of the depository function that the central bank often undertakes for public debt securities. However, the depository function is normally defined in securities markets legislation for joint stock companies, while central bank laws only cover the custody function: that is, central banks maintain the registry of the primary market but have not developed the ownership transfer functionality for the secondary market, even when another depository does not exist. This is a clear impediment to the development of the secondary market because its settlement rests on the exchange of physical certificates.

Transactions linked to securities settlement systems are not legally final, creating a potential for counterparty risk. Finality must be integrated into the legal framework. This is an important issue in all existing net settlement systems, especially those that have longer settlement cycles. Without this legal basis, it is uncertain whether in case of bankruptcy the transfer of securities to the counterparty or his custodian could take place, even if the counterparty has already paid for the securities (in some systems there is a time lag between the settlement of the cash leg and the settlement of the securities leg). Due to this uncertainty, an unwinding of the net settlement might be the only solution if the cash settlement process did not take place. If the cash settlement already took place, it might bring forward principal risk if the court did not grant the request to transfer the securities.

Even systems with more advanced legal frameworks are vulnerable to settlement finality risk because of bankruptcy procedures that cancel fraudulent transactions effective several days before the participant is declared failed. However, the impact in case of RTGS systems is likely to be negligible because of the gross nature of the system. Problems of interpretation might also arise since settlement finality is subject to regulations that have a lower hierarchy than the bankruptcy law. Initiatives to engage the judicial system in this debate are worth pursuing.

In general, protection of customer assets under custodian arrangements is not clearly established. Therefore, assets pledged as collateral by clearing members are not adequately covered by the law, thereby compromising the capacity to execute col-

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lateral. Sometimes, the protection of custody arrangements is provided for the depository and broker-dealers but not for other custodians, or vice versa. This limitation could bar potential settlement arrangements from taking place.[86] In the case of public securities, this could limit retail market development because beneficial owners are usually not identified in the accounts of the depository.

Custodian arrangements for government securities (which are often issued in physical form) do not have secure legal support because primary dealers keep the ownership in the registry of the ministry of finance or central bank. Thus, it is uncertain whether the certificate endorsements in subsequent repo operations can be legally considered a proof of ownership. In some cases, participants agree that the transferred certificate will be kept but not used to transfer ownership in the ministry of finance or central bank registry.

Although repo operations are legally defined, there is uncertainty about their use as guarantees for transactions to be processed in a system. The legal basis for the pledge is typically included in the civil code but the pledge, as a tool for collateralized operations, is not regulated. Furthermore, there are no rules on the execution of those guarantees in case of a default. This creates an important impediment in the granting of collateralized intraday credit by the central bank for the purpose of payment settlement.

The definition of repos covers only sell and buy-back transactions, although the scope of a repo is much wider internationally. Repos are much used to collateralize cash or securities loans. If, during the collateralization period, due to market developments, the collateral offered no longer covers in full the obligation to pay back the loan or the value of the securities borrowed, additional collateral can normally be requested through a margin call. The definition used in the six countries leaves no room for this market practice and makes it difficult to use international standard contracts. Margin calls during the contract period might also give rise to legal risk if the court recharacterizes a repo agreement with interim margin calls as an improper pledge. It might be worth studying if there should be an explicit distinction between a repo in the form of a collateralized cash or securities loan and an explicit sell and buy-back transaction.

Laws are clear in terms of the segregation of accounts by the depository but not by the custodians (e.g., banks, broker-dealers), although this is often done in practice. This makes it unclear whether the customer assets will be protected against the insolvency of custodians. This issue is relevant in circumstances when the bulk of the market is represented by government securities (a common situation in Central America) that are issued in physical form and largely held by custodians.

The legal basis for securities lending does not exist in many cases or detailed regulations have not been developed. The current low volume of market trading is an opportunity to develop the legal and regulatory framework in preparation for an eventual recovery of past market volumes.

The fragmentation of laws and regulations related to securities and capital markets is common in the region. This creates uncertainty and confusion in the legal framework and may ultimately influence both the functioning of the markets and the activities of market participants. A unified payment systems law might help in resolving the potential conflicts of interpretation on issues such as finality and oversight.

Legal frameworks often do not contain explicit conflict of law rules. This could hamper the development of intraregional financial markets and international cooperation in the area of trading, custody, and clearing and settlement.

The lack of enforceability of the legal framework is hampering the development of securities settlement systems. Many countries have introduced an adequate legal and regulatory framework for the processing of electronic operations but poor enforcement is preventing the further development of financial markets.

To sum up, country authorities need to review the legal framework with particular attention to irrevocability of final settlement, adequate protection against bankruptcy effects, the legal basis for custody arrangements, legal definition of a repo operation, legal recognition of multilateral netting arrangements, legal definition of immobilization and dematerialization of securities (especially public securities), and legal definition and regulation of oversight powers of the central bank. Other legal issues considered from a developmental point of view include the legal basis for collateral pledge and securities lending. Due to the variety and importance of

[86]For example, markets with a high volume of transactions sometimes do not maintain subaccounts with beneficial owner information but only accounts at the participant level. Such settlement systems should be accompanied by a strong legal protection of custody arrangements and supervisory framework.

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these legal aspects, some of the countries should determine whether the level of legal changes required justify a payment systems law.

Interbank Exchange and Settlement Circuits

Context

Large-value systems are the most significant component of the national payment system. This is because they can generate and transmit systemic disturbances to the financial sector. Several measures can be adopted to minimize these systemic risks. If the system is characterized by a deferred net settlement of payment transactions, risk control measures include the introduction of bilateral and multilateral caps, the implementation of loss-sharing agreements, and the pledging of collateral. The development of RTGS systems is one response to the growing awareness of the need for sound risk management in large-value funds transfer systems. RTGS systems can offer a powerful mechanism for limiting settlement and systemic risks in the interbank settlement process, because they can effect final settlement of individual fund transfers on a continuous basis during the processing day. In addition, RTGS systems can contribute to the reduction of settlement risk in securities and foreign exchange transactions by facilitating delivery versus payment and payment versus payment mechanisms. Variants of the basic RTGS system—the so-called hybrid systems—that take into account liquidity saving features in net settlement systems are being introduced in some countries.

Appendix Table A4.2 presents some data about the amount of cash and transferable (sight) deposits as a proxy for the use of cash and cashless payment instruments. Appendix Table A4.3 presents the main characteristics of the interbank settlement systems identified as systematically important payment systems (SIPS). Clearinghouses are included as they are systemically important, although there are also relevant retail payments (see next section).

Observations

Large-value and systemically important payment systems in Central America do not fully observe several of the Committee on Payment and Settlement System's Core Principles for Systematically Important Payment Systems (CPSS-CPSIPS).[87] A number of central banks in Central American countries (El Salvador, Guatemala, Honduras) have initiated payment system reforms to improve the safety and efficiency of large-value systems, launch RTGS systems, and reduce the use of checks for large-value settlement. These efforts should be carried out as part of the overall strategy to reform the national payment system, of which large systems represent the backbone.

The high value of checks settled in the check clearinghouses throughout the region and their use in interbank payments confirm that these systems should be viewed as SIPS. Strengthening payment system stability requires that the discharge of obligations among financial intermediaries be executed through electronic payments settled in the RTGS system (when this is operational). The movement from checks to electronic payments is crucial to increase the efficiency of the payment system as a whole. Consequently, central banks should evaluate ways to provide intermediaries with incentives to use the RTGS system instead of checks for interbank transfers. Pricing policy should be used as an incentive for this transition.

There has been progress in launching RTGS systems in the region. Costa Rica already has a safe and efficient RTGS system, and new systems in line with the CPSIPS are being launched in El Salvador, Honduras, and Guatemala. In Nicaragua, an overhaul of the gross settlement system (Transferencia Telefónica Segura de Fondos, TTS) is under way. All countries in the region should count with an appropriately designed RTGS system. To this end, central banks should evaluate and discuss with market participants all aspects of the new system. In particular, central banks should prepare rules and procedures related to the use of the system, including tools for managing legal, financial, and operational risks. Tools to handle liquidity risks should include queuing and optimization mechanisms; efficient throughput mechanisms and adequate interconnections among the systems; routines for channeling government payments early in the operating day; the flexible use of reserve requirements; and intraday liquidity provision through repos with application of haircuts. Moreover, the design of the system should include (1) a robust and efficient communications network between the bank and system participants, which should reduce and even-

[87]Bank for International Settlements (2001a).

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tually eliminate the use of manual and paper-based procedures; (2) strict security measures for physical and electronic access to the system; (3) contingency plans and disaster recovery mechanisms, including the setting-up of a secondary site; and (4) measures for business continuity and resilience. The design should include elements that could affect the system's efficiency and practicality such as full integration of available systems, strictly enforced operating hours, and reduction and elimination of manual procedures. Pricing policies should be consistent with the overall objectives. Some form of cost recovery should be evaluated vis-à-vis other externalities stemming from a robust and efficient payment system. Access criteria (including exit and exclusion) should be defined more clearly and tiered arrangements should be reviewed and eventually favored to allow the reduction of manual procedures. In some cases, certain institutions (such as the stock exchange and retail system operators) might be allowed to hold settlement-only accounts within the system. The governance of the system inside the central bank should be streamlined and rationalized. User groups (i.e., groups of system participants to discuss system development issues) should be introduced.

The smooth functioning of the RTGS system requires sufficient reserves and the efficient distribution of liquidity among intermediaries during the operational hours of the day. To facilitate the optimum use of available liquidity, intermediaries should have complete and timely information on incoming and outgoing payments. It is the central bank's responsibility to remove obstacles to the efficient use of liquidity and to facilitate cash management by intermediaries. To this end, the central bank should collect reliable statistics to be used to analyze the functioning of the RTGS system. This supports the decision to improve the functionality of the system. In determining how to improve the efficiency of the system, it is important that open discussion takes place among all parties involved. In particular, some central banks have found it useful to review the time schedule of settlement of payments in the RTGS system during the day and the critical times at which relevant sources of liquidity are injected into the system. In this regard, the evaluation of the treasury time schedule for settling its payments—one of the most important sources of liquidity for the financial system—is critical in order to avoid unforeseen injections or withdrawals of reserves that increase volatility in the availability of intraday liquidity.

The implementation of RTGS systems in Central America will not only serve the needs of domestic payment systems but also create conditions for future regional integration. The integration of payment systems should be based on the existence of common features in all relevant areas (including legal, risk control mechanisms, liquidity provision, access policies, governance, organizational arrangements, operational aspects, reliability, and business continuity).

Retail Settlement Systems

Context

A wide range of payment instruments is essential for supporting customer needs. A less than optimal supply of payment instruments may ultimately have an impact on economic development and growth. The safe and efficient use of money as a medium of exchange in retail transactions is particularly important for the stability of the currency and a foundation of the trust people have in it. As CPSS publications have shown, the use of retail payment instruments differs both within and among developed countries.[88] This is because of a variety of reasons, including cultural, historical, economic, and legal factors. Common trends can be observed, however, namely, the continued primacy of cash (in volume terms) for face-to-face payments; growth in payment cards use; increased use of direct funds transfers, especially debit transfers, for remote payments; and changes in market arrangements for providing and pricing the retail payment instruments and services delivered to end-users. This evolution is likely to continue in the future and is expected to influence traditional (especially paper-based) instruments. Over the long term, some of the observed market developments may well alter traditional payment practices and contribute to increased efficiency of and convenience in using retail payment systems. In an increasing number of countries, more and more attention is devoted by authorities and market participants to the efficiency and efficacy of production and distribution of payment instruments (including cash).

Central banks are involved in retail payments in an operational capacity, as payment system over-

[88]See Bank for International Settlements (1999, 2000).

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seers and/or as facilitators of market and regulatory evolution. Even though the involvement of central banks in retail payments varies from country to country, a 2003 CPSS report argues that each central bank should examine market developments periodically with a focus on clearly identified policy issues (Box 4.1).[89] Where such issues are judged to arise, relevant public authorities (including central banks) may decide to take action aimed at establishing or re-establishing an acceptable balance of the various aspects of safety and efficiency. The public policy goals, central bank minimum actions, and the range of possible additional actions identified in the CPSS report are summarized in Box 4.1. The CPSS report has been prepared in light of the trends in retail payment markets in the G-10 countries and Australia. It is likely that, in developing countries, central banks and other private and public entities need to take a proactive role and carefully explore the possibility of taking the additional action.

Appendix Table A4.4 includes data on the use of cashless instruments for retail payments. However, many countries still use checks as means of payment for large-value transactions, though it is a diminishing trend. The main features of the clearinghouses were presented in the previous section.

Observations

In many cases, new applications to process retail electronic credit and debit instruments have been a major element of efforts to modernize national payment systems. ACHs have been launched in some countries—Costa Rica, El Salvador, Guatemala, and Honduras. In most Central American countries, however, ACH projects are either too slow to keep pace with costumer needs or too limited in scope (e.g., the project focuses only on improving check clearing procedures). Central banks should actively support the full deployment of efficient applications to process electronic retail payment instruments. Specifically, central banks should take a leadership role to ensure that banks and other participants reach the necessary agreements. They should also coordinate efforts to achieve a single system encompassing all banks and other major participants, and processing as many payment and collection services as possible (see next section on government payments), so as to avoid duplications and misuse of infrastructure.

Central banks and commercial banks should consider extending payment instruments and services offered by the ACHs. The introduction of new means of payments (such as electronic transfers and direct debits) has good potential for cost reduction. Strategies for modernizing the payment system based solely on improvements in the check clearing system are inadequate and counterproductive. Improvements in checks clearing produces efficiency gains in the short term because checks are the main cashless payments media used in all countries. However, a strategy that includes the development of other means of payments could have a major impact in the medium and long term. New instruments such as electronic transfers and direct debits will directly benefit the urban and major rural areas, and indirectly benefit remote rural areas through the reduction of operational costs in financial institutions and, therefore, less expensive financing.

The region relies heavily on use of checks, which is far from optimal from the point of view of efficiency and risk control. Central American central banks and all stakeholders in the retail arena must work together in a clear strategy to promote the intensive use of retail electronic payment instruments and reduce the importance of checks. Customers change their choice of payment service as a response to the price and convenience of the services provided. Thus, central banks might use moral suasion to persuade participants to make alternative retail payment instruments relatively more attractive at the end-user level, including a relative higher cost for checks than that for electronic payment services. It should be noted that such a pricing strategy must be agreed on and applied at the system level (e.g., binding interbank agreements), because individual competitive strategies may derail efforts in this direction. To avoid oligopolistic practices, the interbank agreements would be based on an analysis of processing costs for the different payment instruments. Also, a minimum fee structure could be set in such a way that there will still be incentives for banks to reduce costs and promote efficiency, for instance, by basing the minimum fee for the different payment instruments on the processing costs of the bank that has the lowest internal processing costs.

In all countries, checks are used for large-value payments and check clearinghouses are systemically

[89]See Bank for International Settlements (2003), *Policy Issues for Central Banks in Retail Payments* (CPSS publication No. 52, March 2003).

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Box 4.1. Public Policy Goals, Central Bank Minimum Actions, and Range of Possible Additional Actions for Retail Payment Systems

Legal and Regulatory Framework

Public Policy Goal A. Policies relating to the efficiency and safety of retail payments should be designed, where appropriate, to address legal and regulatory impediments to market development and innovation.

The central bank should, at a minimum:

- review the legal and regulatory framework to identify any barriers to improvements in efficiency and/or safety; and
- cooperate with relevant public and private entities so that the legal and regulatory framework keeps pace with the changing circumstances and barriers to improvements in efficiency and/or safety are removed, where appropriate.

The range of possible additional actions could include, depending on the individual central bank's responsibilities, powers, and priorities:

- altering regulations that currently present barriers to improving efficiency and safety, where this is within the central bank's remit and where other public interest arguments do not militate against such action;
- introducing or proposing new regulations, as the central bank's remit allows, where the legal or regulatory framework is insufficient to support increased efficiency and/or safety; and
- offering expert advice to other responsible authorities; for example, in the preparation of relevant legislation.

Market Structure and Performance

Public Policy Goal B. Policies relating to the efficiency and safety of the retail payments should be designed, where appropriate, to foster market conditions and behaviors.

The central bank should, at a minimum:

- monitor developments in market conditions and behaviors relating to retail payment instruments and services and assess their significance; and
- cooperate with other public or private entities, as appropriate, to foster competitive market conditions and to address any significant public policy issues arising from market structures and performance.

The range of possible additional actions could include, depending on the individual central bank's responsibilities, powers, and priorities:

- promoting appropriate standards or guidelines for transparency, in cooperation with relevant public and private sector entities;
- reviewing conditions in the market for cross-border retail payments, with a view to promoting improvements, if such action is warranted; and
- considering and, if appropriate, performing regulatory and/or operational intervention in cases where market forces are judged not to have achieved or not to be likely to achieve an efficient and safe solution.

Standards and Infrastructure

Public Policy Goal C. Polices relating to the efficiency and safety of retail payments should be designed, where appropriate, to support the development of effective standards and infrastructure arrangements.

The central bank should, at a minimum:

- monitor developments in security standards, operating standards, and infrastructure arrangements for retail payments that the central bank judges to be important for the public interest, and assess their significance; and
- cooperate with relevant public and private entities to encourage market improvements in such standards and infrastructure arrangements, where appropriate.

The range of possible additional actions could include, depending on the individual central bank's responsibilities, powers, and priorities:

- participating actively in reviewing and developing appropriate standards and arrangements, in cooperation with relevant public and private entities, where the central bank judges its more intensive involvement to be necessary to furthering the goal; and
- considering and, if appropriate, performing regulatory and/or operational intervention in cases where market forces are judged not to have achieved or not to be likely to achieve an efficient and safe solution.

Central Bank Services

Public Policy Goal D. Policies relating to the efficiency and safety of retail payments should be designed, where appropriate, to provide central bank services in the manner most effective for the particular market.

The central bank should, at a minimum:

- review and, if appropriate, adapt its provisions of settlement services to contribute to efficient and safe outcomes; and
- be transparent in its provision of services.

The range of possible additional actions could include, depending on the individual central bank's responsibilities, powers, and priorities:

- reviewing the relevant non-settlement services it provides and considering their adaptation to changing market conditions; and
- reviewing policies on access to central bank services and on pricing.

Source: Bank for International Settlements (2003).

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important payment systems. Central banks should be proactively pursuing the removal of all large-value items from the check clearinghouse. In parallel, the introduction of some risk control measures (such as guarantee funds and loss-sharing agreements) should be considered.

Some efficiency gains could also be implemented in the check clearing system, such as full or partial truncation (for checks under a given value). Investments required for these efficiency gains should not create an obstacle for the development of modern payment instruments (e.g., electronic transfers, direct debits), by giving system participants the illusion that check processing can be less costly than processing of other instruments.

Retail circuits are characterized by very low interoperability (e.g., automated teller machines (ATMs) and electronic funds transfers at point of sale (EFTPOS)), resulting in the inefficient use of the current infrastructure. Many of the positive effects of a payment cards system for increased efficiency are not being captured because of the lack of electronic payment instruments for retail transactions. For example, ATMs of any network can be used only by the customers of the banks belonging to that network. As a result, the volume of transactions needed to amortize the investment in the ATM is slow to be achieved, creating disincentives for the deployment of more ATMs. Although ATMs are not payment instruments on their own, they are an effective means to reduce the use of "on us" checks and are a useful infrastructure through which electronic payments and other services may be channeled. In the case of EFTPOS, lack of interoperability translates into merchants having three terminals (one for each card processor) on their premises, which increases overall costs and may translate into merchants giving customers incentives to pay in cash or by checks. Finally, the lack of retail electronic payment instruments makes the card system more cumbersome and costly as card processors pay merchants with checks, or merchants need to have an account at many banks in order to receive credits from every card processor they work with.

Some banks are starting to offer retail payment instruments and services in multiple countries in the region. These efforts should be monitored and supported by central banks and banking supervisors. However, there is no project to develop a common regional infrastructure in the retail sector. Consideration should be given to fostering the standardization and harmonization in this area to allow for the creation of some form of regional ACH in the future.

In sum, central banks and commercial banks have a role to play to ensure that retail circuits support customer needs and that such arrangements are safe, convenient, and efficient for the economy as a whole. The central bank, as the entity leading the efforts to improve the country's financial infrastructure, should promote agreements among banks to facilitate increased interoperability. Central banks should examine developments in the market periodically in the light of public policy goals and take action as necessary. In particular, the central bank should (1) review the legal and regulatory framework to identify barriers to efficiency and/or safety, and cooperate with relevant public and private entities to ensure that such a framework keeps pace with market developments; (2) monitor market conditions and behaviors, and ensure they are competitive; and (3) support the development of effective standards and infrastructure arrangements. Central banks could engage participants in a dialogue on national payment systems with a view to agreeing on necessary improvements. Once conditions are ready (e.g., when agreements on interoperability are reached and/or when an ACH is deployed that would produce interbank obligations that need to be cleared and settled somewhere), central banks could adapt their provision of settlement services for systems operated by other entities to contribute to efficient and safe outcomes, allowing all such systems to settle in central bank money.

Government Payments

Context

The public sector is a heavy user of payment systems. The government receives and remits many payments (tax collection, salaries, purchase of goods and services, and so on). In several countries, the public sector has lagged behind the private sector in terms of efficient use of payment instruments and has failed to make effective use of the banking sector. In recent years, increasing attention has been devoted to this issue and, in some countries, the government has been able to use efficiently the options offered by new technologies, such as ACHs, smart cards, and so on, significantly reducing its processing costs.

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For the status of government payments in the region, see Appendix Table A4.5.

Observations

Costa Rica, Guatemala, and Panama have implemented or are in the process of implementing projects to integrate the public sector in the national payment system. In one case (Costa Rica), the integration has been particularly successful. In others, these projects are stand-alone and are not fully consistent with a long-term strategic vision of the payment system.

Central banks and relevant government agencies should foster coordination and communication to ensure that collections and disbursements of public institutions that are major players in the payment system be processed electronically and timely through an appropriate system, such as an ACH for retail electronic payment instruments. In many cases, gains in efficiency and cost reduction for government payments have resulted from the reform effort. Such a strategy can also ensure that all sectors can benefit from new payment alternatives, for example, by increasing the banking services used by the public. Moreover, government payments provide an opportunity to channel a high volume of transactions, thereby making the ACH project for electronic payment instruments more attractive for potential investors.

Government payments are also a major source of liquidity for the banking system. If coordinated effectively, they can facilitate the smooth functioning of the RTGS system being implemented in the region and increase its appeal to participants.

Foreign Exchange and Cross-Border Settlement Mechanisms

Context

Foreign exchange markets present relevant risks. The foreign exchange settlement risk clearly has a credit risk dimension. If a bank cannot make the payment of the currency it sold conditional upon its final receipt of the currency it bought (as is usually the case under current market practices), it faces the possibility of losing the full principal value of the transaction. Foreign exchange settlement risk also has an important liquidity risk dimension. Even temporary delays in settlement can expose a receiving bank to liquidity pressures if unsettled funds are needed to meet obligations to other parties. Foreign exchange settlement risk has other dimensions as well, for example, legal risk. In the case of foreign exchange deals, legal risk can be complicated by the fact that settlement normally takes place in more than one jurisdiction. In a 1996 CPSS report, the G-10 central banks agreed to a three-track strategy providing for[90]

- action by individual banks to control foreign exchange settlement exposures;
- action by industry groups to provide risk-reducing multicurrency services; and
- action by central banks to induce rapid private sector progress.

The report also states that "the G-10 central banks encourage existing and prospective industry groups to develop and offer services that would contribute to the risk-reducing efforts of individual banks."[91]

Also as a result of the recommendations included in the 1996 CPSS report, the continuous linked settlement (CLS) service was launched in September 2002. The CLS, provided by CLS Bank International, settles foreign exchange transactions in fifteen currencies—U.S. dollar, euro, British pound, Japanese yen, Swiss franc, Canadian dollar, Australian dollar, Swedish krona, Danish krone, Norwegian krone, Singapore dollar, Hong Kong dollar, New Zealand dollar, Korean won, and South African rand—on a payment-versus-payment (PvP) basis on the books of the respective central banks. The CLS Bank is supported by over 70 of the world's largest financial institutions, accounting for a large share of cross-currency transactions across the world. Transactions in other currencies are likely to be settled by the CLS Bank in the future. The CLS Bank is subject to the cooperative oversight of the central banks that are involved and it is under the direct oversight of the U.S. Federal Reserve.

For the status of foreign exchange and cross-border settlements in the region, see Appendix Table A4.6.

Observations

Foreign exchange transactions are not settled on a PvP basis. Central banks should investigate the

[90]See Bank for International Settlements (1996), p. 40.
[91]See also Basel Committee on Banking Supervision (2000).

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possibility of introducing measures to mitigate the risks associated with these operations when PvP is not possible. Risks in this market can be evaluated by taking as a reference the reports and questionnaires published by the CPSS. For domestic foreign exchange transactions, that is, those that involve only domestic counterparties, the central banks that allow holding reserve accounts both in local currency and in U.S. dollars need to ensure, as matter of urgency, that wholesale foreign exchange trades are settled in central bank money on a PvP basis (not necessarily RTGS, but always maintaining PvP). In this direction, these central banks could eventually consider the provision of a settlement-only account to other major players in the foreign exchange market such as the casas de cambio.

Central banks and banking supervisors should introduce measures to mitigate the associated risks. Attention should also be given to correspondent arrangements abroad of domestic banks to ensure that risk profiles and operating procedures of correspondents are constantly reviewed and do not generate any relevant risks in the country.

Proprietary mechanisms of commercial banks for cross-border payments can turn into a less costly and convenient alternative for customers. Another possible benefit is that remittances from other Central American countries can now be channeled all the way through banks instead of unregulated specialized companies, so that, among other things, remittances need not be paid in cash. Central banks, in cooperation with banking supervisors and among themselves, should carefully monitor these mechanisms and other developments in this area and decide whether regulations are necessary to ensure that they do not increase risks for the domestic banks that are involved.

On the other hand, a large share of remittances are still channeled through unregulated specialized institutions, for which there are no standards for aspects such as transparency of fees and other charges or the timing of accreditation of funds to end beneficiaries. In the latter cases, the regulatory perspective should be widened from the traditional areas of balance of payments and money laundering to include payment system issues, in particular issues related to efficiency, transparency, and risks.

In sum, Central American central banks should carefully monitor trading and settlement platforms and procedures for foreign exchange and cross-border transactions, especially remittances, to ensure that they can apply the principles of safety and efficiency to the clearance and settlement.

Interbank Money Market

Context

The adequate functioning of an interbank money market goes beyond clearance and settlement considerations. An efficient mechanism for trading and settlement of these transactions will allow for improved liquidity management and, thus, for increased safety and stability of the financial system. In addition it will help securities settlement through lower interest rates that will benefit the broker-dealers in the credit lines they negotiate with banks. Another important concern for the authorities is the smooth and effective functioning of the monetary policy because central banks normally use the interbank money market to give a clear signal to banks, which then is extended to the rest of the financial sector. If the operational procedures or the organizational and regulatory arrangements do not provide for an efficient system, the central bank can have difficulties in providing clear monetary policy signals.

Two key elements for the development of interbank money markets are a special purpose system for large-value payments to provide secure electronic interbank transfers with immediate settlement that can be interconnected to an electronic book-entry securities system to register and record changes in ownership of securities.

For the status of interbank money markets in the region, see Appendix Table A4.7.

Observations

The future evolution of securities markets needs to be discussed among responsible authorities and market participants. An adequate strategy that takes into account the national interest, leaving aside private interest, should be defined. Once the strategy has been agreed, a neutral securities clearance and settlement system can be implemented to allow fair competition in the financial sector. Authorities and market participants should openly discuss the likely future of securities markets and agree on organizational and regulatory arrangements that allow for adequately developing the interbank money market, on the one hand, and the securities market, on the other. This will be a difficult process because several private interests will be affected, but the only alternative is to develop safe and efficient securities markets that can take a lead in a potential regionalization process.

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In sum, the adequate functioning of an interbank money market is crucial for the smooth functioning of payments and securities settlement. An efficient mechanism for trading and settlement will improve the system's liquidity management. Another important concern for the authorities is the smooth and effective functioning of monetary policy because the interbank money market is the backbone of monetary transmission. Two key elements for the development of interbank money markets are a special purpose system for large-value payments to provide secure electronic interbank transfers with immediate settlement that can be interconnected to an electronic book-entry securities system to register and record changes in ownership of securities.

Securities Settlement Systems

This section covers issues related to securities settlement other than legal issues, which have been covered earlier in the chapter. Included in this section are issues related to clearing and settlement processes, settlement risk, operational issues, custody risk, regulatory and oversight issues, depositories organizational arrangements, and cross-border settlement.

Clearing and Settlement Processes

Context

The clearance and settlement process includes capturing trade information, trade matching, confirming and affirming institutional investor's trades, clearing, and settlement. Various international organizations have attempted to set standards for prompt, efficient, and effective trade processing, including its cost-effectiveness (in terms of both system operation and fees paid by participants) and ease and convenience of use. One of the most widely recognized concepts is that the longer it takes to settle a securities trade, the greater the risk that settlement may not take place. In this regard, the CPSS and the International Organization of Securities Commissions (IOSCO) recommend that trade settlement occur by T+3 or less. However, T+3 often is no longer regarded as best practice. The shortest possible elapsed time between trade date and settlement date reduces settlement risks (especially market risk) and promotes liquidity in the maturity. Nevertheless, the practical impact of shortening this time must be assessed, especially if it affects the number of trades that fail to settle.[92] Same-day settlement could be considered as the final goal, although it is generally recognized that this may not be achievable in the short or medium term, particularly for cross-border transactions. The magnitude of the changes required to achieve a particular standard must also be carefully considered. For example, whereas it might be relatively easy to move from T+5 to T+3 by simply imposing more discipline on system participants, more fundamental changes (i.e., process re-engineering) in all aspects of the system are likely to be necessary to move to T+2 or T+1. Regardless of the settlement cycle, the frequency and duration of settlement failures should be monitored closely.

The profile of market investors (retail versus wholesale, domestic versus foreign) and their intermediaries should be taken into account because this can influence the practicality of the targeted clearing and settlement cycle. Appropriate trade-off between risk, cost, and convenience must be made, or else the system will not satisfy user requirements at an affordable and acceptable cost, and thus might constrain market development.

Another widely recognized concept is that trade matching should occur as soon after the trade as possible so that errors and discrepancies can be discovered early in the settlement process. The CPSS and IOSCO recommend that trade comparison be accomplished by T+0 and in any case no later than T+1. In addition, indirect market participants—institutional investors and custodians—should be members of a trade comparison system that achieves positive affirmation of trade details. Moreover, there should be an integration system for trade matching, comparison, and book-entry settlement of securities and funds. An automated link between the exchange/over the counter (OTC) and the central securities depository (CSD) is generally considered to be desirable and is a prerequisite for broker-dealer straight-through processing (STP) from execution to settlement. Likewise, when clearing and depository services are provided by different entities, it is recommended that these two functions be closely tied together, otherwise finality of settlement is difficult to achieve. Fortunately, the cost of imple-

[92]Currently, there is a debate about the adequacy of moving the settlement cycle to T+2 or even T+1. Given globalization of financial markets, there is an increasing necessity to standardize this process at an international level, even if this implies increasing the settlement cycle for some countries.

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menting automated systems is decreasing. However, care should be taken to ensure that sufficient transaction volume exists and that users are willing to pay for the automated services based on tangible benefits in terms of efficiency or risk reduction.

Mature and liquid securities lending markets, including markets for repos and economically equivalent transactions, generally improve the functioning of securities markets by allowing sellers ready access to securities needed to settle transactions where those securities are not held in inventory; by offering an efficient means of financing securities portfolios; and by supporting participants' trading strategies. The existence of liquid markets for securities lending reduces the risk of failed settlements because market participants with an obligation to deliver securities that they have failed to receive and do not hold in inventory can borrow these securities and complete delivery. Securities lending markets also enable market participants to cover transactions that have already failed, thereby curing the failure sooner. Intraday finality is crucial for these operations. In cross-border transactions, particularly back-to-back transactions, it is often more efficient and cost-effective for a market participant to borrow a security for the delivery rather than to deal with the risk and costs associated with a settlement failure.

Because of increased automation and globalization of securities markets, it is beneficial for domestic systems to use internationally recognized securities identification numbering standards. With this in mind, the G-30 recommended that all markets should adopt a numbering system that meets the international securities identification number (ISIN) standards. The CPSS-IOSCO "Recommendations for Securities Settlement Systems" insist on this point in recommendation 16.[93]

For further details on the status of securities settlement systems in the region, see Appendix Table A4.8.

Observations

There is significant manual handling in the confirmation process, which increases the probability of errors and, thus, settlement failures. Manual handling of securities results in inefficiencies and risks that limit the development of the markets. Indeed, the bulk of the market is sometimes settled in-house to minimize these risks.

[93]Bank for International Settlements (2001b).

Some systems (e.g., in Costa Rica and Panama) have close links between trading and settlement such as blocking of transactions prior to matching. This procedure ensures the availability of securities but hampers back-to-back transactions and the effective arbitrage between trading and settlement platforms. To arbitrate, an investor might wish to sell in one system securities that were bought in another during the same day. This is not possible if securities have to be blocked in advance. This blockage also makes the rollover of repos difficult. More orthodox risk management tools should be used to avoid the rigidity introduced by this mechanism. The development of a new system that allows for the separation of trading and settlement is crucial for the efficient operation of stock exchanges as well as observance of international standards for settlement risk. In addition, as long as no robust risk management procedures are implemented, cash settlement on a multilateral net basis should be done separately for each trading system in order to minimize systemic risk even if it raises costs through higher liquidity needs of broker-dealers.

The standardized settlement cycle must be fixed and identified for all the trades executed in the securities markets. This is particularly relevant in the stock exchanges where a T+3 settlement cycle would be appropriate. Shorter settlement cycles for securities traded in the stock exchanges should be taken into consideration, especially those related to bilateral trades between market participants.

Some stock exchanges (e.g., Costa Rica) play a crucial role in money markets and have difficulties in accommodating different settlement needs. Should these stock exchanges evolve to have a more traditional role of secondary market transactions, the introduction in a standardized settlement cycle will be needed.

Shorter settlement cycles can reduce risk in line with international standards. However, the costs and benefits of a shorter settlement cycle should be assessed, in particular the impact on retail customers. Retail customers may be required to keep funds with broker-dealers or deposit funds with a broker before a broker can execute a buy order. In general, STP will help the reduction of settlement cycles without increasing settlement risks.

Some SSSs allow for the extension of the standardized settlement cycle should a failure occur in the settlement process. It is essential to count with appropriate risk management tools to guarantee settlement in the case of failures on settlement date.

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Settlement procedures on a delivery versus payment (DvP) basis help to avoid settlement extensions. Given a failure in the delivery of securities on settlement date (and counting on a guarantee regime and a settlement system on a DvP basis), it is recommended that SSSs can execute buy-in procedures in the securities markets to reduce the risk in the system.

Automatic securities lending and borrowing facilities are not available in Central American markets, mainly because of the low level of activity. Such mechanisms provide the SSS with an effective risk management tool for the securities leg of market transactions. Prior to its establishment, securities lending must be recognized and encouraged by law. The finalization of the standardization process is essential for this mechanism to be effective. All legal, tax, and other barriers, including lack of standardization, should be removed. Securities lending could be implemented in two different ways:

- bilaterally between market participants: in this case the CSD will act as loan register; and
- multilaterally or centralized: this implies the creation of a group of entities, mostly banking and financial institutions, capable of lending securities against an interest rate. The administration of the pool of potential available securities and the allocation process normally is delegated to the securities depository or another entity acting on a policy of no risk-taking. The efficiency of existing ways to cope with securities shortages should be evaluated vis-à-vis standardized forms of securities lending.

In addition,

- all securities lending operations must be collateralized and backed by private contracts subject to international standards;
- fiscal treatment of securities lending contracts must be neutral and objective; and
- if short-selling is permitted, for example, as a way to increase the liquidity of the markets, it should be linked to securities lending operations in order to cover the oversold positions. Regardless, securities regulators must be alert against unhealthy market practices relating to short-selling that could lead to market manipulation.

With the exception of Costa Rica, communication networks do not follow international standards. Although the local communication networks work correctly, for cross-border transactions to be relevant, the networks should also be consistent with international communication procedures. Securities depositories and investment firms with a relevant foreign business share should adopt in the short term international standardized communication procedures to facilitate cross-border transactions both free or against payments. Local firms should adapt their communication procedures to the international communication networks using the same standards.

In sum, improved clearing and settlement processes in SSSs are necessary to reduce market fragmentation, increase standardization of settlement cycles, accommodate different settlement needs, operate with shorter settlement cycles, avoid extension of settlement cycles due to inadequate risk management tools, improve market liquidity through automatic securities lending, and introduce international communication standards.

Settlement Risks

Context

The settlement process exposes market participants to different risks. The system should be designed to minimize these risks. The immobilization or dematerialization of securities reduces or eliminates certain risks, such as destruction or theft of certificates. The transfer of securities by book entry is a precondition for the shortening of the settlement cycle for securities trades, which reduces replacement cost risks.

The main settlement risk is counterparty—credit or principal—risk. DvP is one of the primary means by which a market can reduce the risk inherent in securities transactions. The DvP concept seeks to eliminate principal risk from securities transactions by ensuring that sellers give up their securities if, and only if, they receive full payment and vice versa. There are three essential elements in a DvP transaction: (1) good and irrevocable delivery of securities, (2) final and irrevocable funds, and (3) simultaneous exchange. The CPSS has identified three different models of DvP.[94] Although these models vary in their approach to achieving DvP, they all meet the concept of real DvP.

The use of a central counterparty that interposes itself between the counterparties to securities trades

[94]See Bank for International Settlements (1992).

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is becoming more common. It is an especially effective tool for reducing risks vis-à-vis active market participants. The use of a central counterparty concentrates risk and reallocates it among participants. The ability of the system as a whole to withstand the default of individual participants depends crucially on the risk management procedures of the central counterparty and its access to resources to absorb financial losses.

Risk management procedures to reduce market risk and strengthen a DvP mechanism include (1) establishing admission standards, participation funds, collateral, margins, buy-ins and sell-outs, net debit caps, bilateral credit limits, and loss-sharing arrangements; and (2) monitoring members' creditworthiness. Most settlement systems use more than one procedure to minimize market risk. In addition, there are a number of mechanisms designed to improve the settlement process. Among them are central lending facilities, pledge recording facilities, and prompt re-registration procedures. Lending and borrowing of properly regulated securities lending and borrowing can bring significant benefits to a market and its users, leading to more liquid markets. Short-selling could be a useful mechanism to add liquidity, but regulation must be in place against manipulative practices, including those associated with significant short positions.

Systems that are considering whether to implement RTGS or a netting scheme should examine market volume and participation to determine if these mechanisms are appropriate. Historically, netting was introduced to reduce the amount of physical documents passing between market members. Later, with the introduction of early computer systems, it was used to reduce the number of electronic settlements. Today efficiency advantages are less important because of the high speed introduced by powerful computers and RTGS systems. Thus, the debate is focused on the trade-off between liquidity requirements and risk mitigation, as discussed earlier in this book.

Settling in same-day funds is essential when operating in an RTGS environment and is useful in achieving real intraday DvP.[95] To achieve timely and risk-free settlement in same-day funds, efficient banking arrangements will need to be developed that enable funds to be moved quickly and relatively inexpensively.

The finality of the ownership transfer of both payments and securities is a crucial factor in the development of a securities market. Otherwise, only local investors will operate in the market based on well-established client relationships and the confidence that these provide. In emerging markets, this factor is critical if there is a desire to attract foreign investment. Foreign investors will be reluctant to participate in a market that is not considered to be safe and sound. Payments finality is equally important.

The failure of a bank providing cash accounts to settle payment obligations for CSD members could disrupt settlement and result in significant losses and liquidity pressures. The use of the central bank as the single settlement bank may not always be possible, however. In such cases, a private bank sometimes is used as the single settlement bank, and steps must be taken to protect CSD members from potential losses and liquidity pressures that would arise from its failure.

For the status of settlement risk management in the region, see Appendix Table A4.9.

Observations

A modern securities market needs to have a securities depository and fungible securities. All physical securities kept in custody by participants of the securities depositories should be immobilized or dematerialized in a securities depository.

Additional efforts are necessary to achieve full dematerialization and immobilization of securities. Central banks and ministries of finance are making efforts to achieve the complete dematerialization of government securities. Similar efforts are being undertaken by the private sector. Lack of securities standardization is an important obstacle, mainly in the case of public securities. Regular meetings with issuers and both institutional and noninstitutional investors are practical measures to promote dematerialization and immobilization and the movement of securities on a book-entry basis.

Some systems—those in El Salvador, Guatemala, Honduras, and Nicaragua—still do not settle on a DvP basis. Consequently, payments are not necessarily linked to securities transfers and vice versa. Therefore, principal risk exists. No measures have been taken to eliminate principal risk and to reduce and mitigate replacement risk (i.e., a guarantee regime). Coordination and links between securities

[95]A payment is made in same-day funds when it is made on an irrevocable basis to the counterparty on the day of settlement such that they are available for use on the day of settlement.

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and monetary flow transfers on a DvP basis model are essential. Replacement risk must be reduced or mitigated with the implementation of a strict guarantee regime.

Most systems have imperfect DvP procedures. Due to the time differences between the clearing of the cash leg and that of the securities leg, principal risk could occur if a broker goes bankrupt in this period. In that case it might be difficult to transfer the securities from the account of the depository in which they are blocked at the beginning of the trading day to the defaulter's counterparty, even if the counterparty has already paid for these securities. In addition, principal risk in these systems is sometimes substantially enlarged by the decision to release securities in the second leg of a repo transaction before cash settlement to allow for rollover. The securities might already be transferred to a third party by the original owner while no money might be available to fulfill the obligation to its counterparty. One reason behind this kind of a settlement arrangement is lack of standardization.

In general, there is an absence of risk management tools for covering settlement failures. Some systems do not offer any tools, while others offer some clearly insufficient ones. Authorities should analyze if current risk management tools are sufficient to cover potential failures, especially taking into account that existing guarantee funds can be used for failures other than those associated with settlement. A specific guarantee fund for settlement failures could be separated from a more general guarantee fund. In some cases, operations are unwound prior to the use of the guarantee funds and no risk management tool is established for failures on the settlement side, except to compensate the broker-dealer for the fee. To avoid potential systemic risk, the guarantee funds should be used prior to the unwinding, and a buy-in or similar mechanism could be established to cover securities failures. In some cases, the total value of the guarantees seems insufficient to cover failures for both securities and funds, at the current levels of market volume and value.

Related to the funds side, the common use of checks in the settlement process implies that the same-day-fund principle could not be fulfilled. Central bank money is often used in transactions. However, settlement in central bank money is not normally mandatory and payments by checks are commonly used in many systems. The use of central bank money to settle transactions relating to securities markets should be encouraged (this is especially important for developing markets although not required by the standards). Existing fund settlement systems in the region already allow for the use of the other type of fund transfer that would eliminate this risk. Due to the nature of securities transaction, fund settlement should take place with an instrument that allows for finality at the end of settlement day.

Normally, nonbank clearing members and broker-dealers do not have access to central bank money, which imposes a liquidity constraint on their operations. If there is a lack of liquidity in the financial system or inefficient liquidity management and market practices of broker-dealer and their clients, the shortage of liquidity could be exacerbated by settlement without DvP. In some cases, broker-dealers have difficulties accessing intraday liquidity facilities from commercial banks. Banking innovation in payment mechanisms might bring some reduction of liquidity pressures at the broker and customer levels. Provision of funds from the final investor to the broker-dealer to execute the transactions would also ease liquidity pressures. The reliability of the system as a whole, and of clearing and settlement procedures on a DvP basis, are essential to bringing confidence to the system and, thus, allowing final investors to provide broker-dealers with liquidity for operations carried out on their behalf.

In the case of settlement of funds being made at a private settlement bank (not common but present in the region), assets used to settle the cash leg of securities transactions between SSS members should carry little or no credit or liquidity risk. If central bank money is not used, steps must be taken to protect participants from potential losses and liquidity pressures arising from the failure of a settlement bank. Often, when a private settlement bank is used, there is no supervision of its settlement function. Lack of coordination between regulators on this raises additional concerns. Authorities should explore alternatives in terms of the assets used to settle the cash leg of securities transactions and, if a private settlement bank is used, adequate regulatory and supervisory mechanisms should be put in place.

Plans for the development of new securities depositories in the region are not always realistic in terms of timing and are driven by a specific technological solution, not by a strategy agreed by all stakeholders. Some stock exchanges are developing technological solutions based on other countries' experiences in the region. The launch of a securities depository is a desirable and necessary element, but it implies much more than the establishment of an

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operational system. The launch of the securities depository should be considered in the context of a comprehensive reform of the payment and securities settlement systems. Some of the following crucial elements should be agreed by regulators and other stakeholders before any implementation takes place:

- What should be the role of the central bank?
- What kind of securities will the securities depository immobilize or dematerialize?
- Which settlement bank will it be and what implications does the legal framework have in this regard?
- What are the most appropriate settlement cycles?
- Should the depository identify the beneficial owner or should this be done only at the custodian level (this decision depending on the strength of the supervisory function)?
- What model of DvP will be implemented?
- Which risk management tools will be in place to mitigate settlement risks in case of a multilateral net system?
- What should be the operational security requirements and supervision?
- What ownership structure should the depository have?
- Will the system allow for fair and open access to all participants? and
- What will the governance arrangements be?

It is important that the reform focuses on all elements of SSSs and not only on the operational system for a securities depository. It is also important that the new SSS observes the "Recommendations for Securities Settlement Systems" issued by CPSS and IOSCO in November 2001, which include legal and custody issues, clearance and settlement procedures, settlement risk, cash settlement asset, operational risk, regulation and oversight, transparency, efficiency, access, and governance. Finally, formal coordination among regulators and cooperation with the private sector are crucial in developing this piece of financial infrastructure.

Where public authorities have not taken a leadership role in the development of securities settlement arrangements, private institutions have introduced solutions that are not integrated into a comprehensive payments and securities settlement reform. Due to public interest in the development of an SSS infrastructure (implications for fiscal and monetary policy, liquidity management, and development of the capital markets), public authorities (central bank, securities regulator, pension funds regulator, and ministry of finance) should take the lead in defining how such a system should be designed and implemented, and cooperating with the private sector in doing so. The public nature and neutral position of regulators can help overcome the conflict among private interests.

Some markets are exposed to concentration risk in settlement activity. Broker-dealers have a central function in some trading and securities settlement systems. In some cases, they have the monopoly on trading in the stock exchange. They are also the only participants in the depository with operational rights (pension funds and banks have nonoperational custody accounts) and for that reason have a monopoly on custody services for immobilized securities. In some cases, all money market transactions have to be done via broker-dealers. Broker-dealers also provide services to the public by attracting deposits and by investing in capital or money market instruments. This full range of services includes substantial liabilities of the broker-dealers to banks, other financial institutions, and the public. However, capital requirements for broker-dealer houses are relatively low.

The settlement of securities and funds should be linked to stock exchange transactions settled on a DvP basis in order to eliminate principal risk. The main improvements needed are achievement of full dematerialization and immobilization of securities, establishment and completion of DvP procedures, upgrade of current risk management tools, mitigation of credit and liquidity risk in the cash leg settlement (including elimination of checks as a cash asset), better access to liquidity for SSS participants, and comprehensive strategic approach for the reform of SSSs as opposed to technology-driven and exclusively operational reform projects.

Operational Issues

Context

Operational risk is the risk of deficiencies in information systems or internal controls, human errors, or management failures resulting in unexpected losses. As clearing and settlement systems become increasingly dependent on information technology systems, the reliability of these systems becomes a

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key element of operational risk. Operational risk can arise from inadequate (1) control of systems and processes; (2) management more generally such as lack of expertise, poor supervision or training, and inadequate resources; (3) identification or understanding of risks and the controls and procedures needed to limit them; and (4) attention paid to ensure that procedures are understood and complied with.

To minimize operational risk, system operators should identify the sources of this risk. All key systems should be secure (i.e., have access controls, adequate safeguards to prevent external intrusions, and provide audit trails), reliable, scalable, able to handle stress volume, and with contingency plans in case of a system interruption. The system should maintain an adequate capacity to process current and anticipated future transaction volume, including projected peak day and peak hour volume demands. To achieve this, the operator must (1) establish formal current and future capacity estimates for their automated trade comparison systems; (2) conduct periodic capacity stress tests to determine the behavior of systems under a variety of simulated conditions; and (3) conduct independent annual reviews to assess whether these systems can adequately perform at their current and estimated future capacity levels.

Operational capacity must also be demonstrated to exist at the mandatory disaster recovery site. Operators must have in place a well-designed and adequately tested mechanism for transferring system control to the backup site in an acceptable time frame without loss of data or unacceptable reduction in service levels.

In assessing the efficiency of settlement systems, the needs of users and the costs imposed on them must be carefully balanced with the requirement that the system meet appropriate standards of safety and security.

For more details on the operational reliability of securities settlement systems in the region, see Appendix Table A4.10.

Observations

The physical handling of securities is still common in many SSSs. The clearing and settlement of securities transactions with physical certificates instead of a transfer via a book-entry system is not only risky but also cumbersome and costly, and hampers the development of capital markets. It is not in line with international standards. Thus, an important target should be to eliminate physical handling of securities. General laws on securities or capital markets must recognize the immobilization, dematerialization, and the transfer of securities on a book-entry basis. Depositories should encourage the dematerialization and immobilization of all securities as a matter of urgency.

Straight-through processing is not the rule in SSSs in the region. Many procedures imply physical handling of securities. This makes some clearance and settlement procedures cumbersome, for example, dividends payments and corporate actions in general that require a substantial amount of manual intervention. Gradual implementation of STP procedures would be desirable for all kinds of securities in order to reduce operational risk. STP for securities transactions will mean a fully automated transactional link for trade matching, comparison, and book-entry settlement of securities and funds. Such an integrated system would not only reduce the possibility of errors but also make the clearing and settlement process more efficient by, for example, eliminating duplicate processes and giving the participants immediate information for effective liquidity management.

In many cases, backup facilities are missing or are in the process of being implemented. They should be in place as early as possible to cover any contingency in the system. Alternate sites and disaster recovery facilities must enable operations to be recovered in a manner that does not disrupt settlement.

External auditing of operational systems should be considered to assess the security and cost efficiency of all systems. The authorities and the private sector have made very important efforts in developing technological platforms for the operation of the SSSs. In some cases, an in-house solution has been adopted versus the acquisition of standard systems. In these cases, an external audit of the systems should be conducted to ensure that all required features (i.e., security, contingency, backups, capacity) are in place for safely and efficiently operating the new systems. This is even more important when the supervision of operational risk is not well developed.

In sum, there is room for important efficiency gains in the securities settlement infrastructure. In particular, physical handling of securities should be eliminated to increase the safety and efficiency of SSSs. In addition, there is room for improvement in the clearing and settlement process as STP is not the common rule. Various plans for backup sites and disaster recovery facilities should be accelerated or

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established when nonexistent. Finally, external audit of the systems should be undertaken, especially when systems have been developed in-house. The latter is especially important when the supervision of operational risk is weak.

Custody Risk

Context

Custody risk is the risk of losses on securities held in custody because of the custodian's (or subcustodian's) insolvency, negligence, misuse of assets, committing of fraud, poor administration, or inadequate record keeping. A custodian should employ procedures ensuring that all customer assets are appropriately accounted for and kept safe. Customer securities must also be protected against claims of the custodian's creditors (typically client assets are given preferential treatment under insolvency law).

Custodians must have a demonstrated capacity to safeguard securities and funds in their custody or control, or for which they are responsible, and to protect against reasonably anticipated internal or external threats to the integrity of their operations. In many markets, settlement is carried out and controlled through automatic data processing systems. In these cases, the system should have appropriate procedures to backup data and a contingency plan to minimize disruptions.

The use of electronic technologies such as the Internet for initiating financial transactions increase consumer choices but at the same time has the potential for abuse and illegal activity. Safeguards should anticipate, and be designed to provide protection against, the possibility of theft, accidental or malicious destruction or loss of securities or funds, and accidental or intentional but unauthorized modification, disclosure, or destruction of data.

Custodians should have an adequately staffed internal audit department, which has the authority to review, monitor, and evaluate the organization's system of internal controls and the integrity of operational procedures.

In summary, special attention must be paid to reducing incidence of fraud. Some of the issues to be addressed are (1) the operational security of systems, including identification systems, message authentication, and protection measures in safeguarding access to the system; (2) protection against insider fraud; (3) a regular independent audit of the systems to ensure continued integrity; and (4) the determination of liability for loss or technical failure.

For details on custody arrangements in the region, see Appendix Table A4.11.

Observations

There is a need for additional legal developments to guarantee the protection of customer assets in the event of bankruptcy of the depository or insolvency of the custodian. Country authorities should make sure that the segregation of accounts for securities and funds under custody have a clear legal basis. They must also ensure that all customer assets are appropriately accounted for under the beneficial owners in the depository or in the custodian's omnibus accounts. Specifically, they must ensure that customer assets are protected against the insolvency of custodians, whatever the nature of the custodian.

Regulatory and Oversight Issues

Context

A specific allocation of responsibilities for securities clearance and settlement supervision is important. In most cases, this function is performed together with the general supervision function of participant entities without any special attention being given to clearance and settlement issues. There is a trend toward regulatory oversight policy being implemented at two levels, substituting for traditional direct supervisory activity. The regulator conducts oversight of the activities of self-regulatory organizations (SROs) such as CSDs and exchanges, while the SROs conduct oversight of the activities of participants.

A securities regulator should have the authority to license central clearinghouses and CSDs (i.e., the system operators) as SROs, and to review and approve their rules. As an SRO, a system operator should have the authority to make rules and enforce them on its participants. The securities regulator should have the power to issue guidelines for system operators. In addition, the securities regulator should ensure that rules and procedures issued by SROs permit a sound and effective operation of the system and provide fair access to all market participants. The securities regulator should also have the authority to conduct periodic inspections, require the production of periodic reports, and enforce securities laws and regulations.

Mutual cooperation between the securities regulator and the central bank as well as their cooperation with other relevant authorities is important in achieving their respective policy goals.

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For more details on the regulatory and oversight issues in the region, see Appendix Table A4.12.

Observations

Most countries do not have an oversight role over securities settlement other than the SRO role of the stock exchange. This undermines trust in the system, especially from a foreign investor perspective, and is an obstacle to the development of securities markets. This will become a clear bottleneck as envisaged reforms in the payment systems will make liquidity management important through the collateralized money market.

In general, the capacity of securities regulators in the area of securities settlement should be strengthened. Some securities regulators have only recently come into existence and, therefore, their capacity for securities settlement is yet to be developed. The securities regulator must have the appropriate human and material resources to supervise participating institutions and the SSS as a whole. If the skills cannot be found in-house, external assistance should be sought.

The oversight empowerment for securities settlement systems is missing in some cases. The securities supervisor's oversight responsibilities for SSSs must be strengthened by law. This law must regulate the powers of the securities regulator and authorize it, in cooperation with the central bank, to issue regulations relating to securities clearing and settlement activities. Since the oversight of an SSS and its participants is normally shared among regulators (central bank, securities regulator, and pension funds regulator), cooperation is crucial. Potential conflicts between the roles of the central bank as operator and overseer of SSSs should be addressed by appropriate internal organizational arrangements. Cooperation could be achieved through formal agreement among the parties (e.g., a memorandum of understanding).

In sum, oversight of securities settlement should be institutionally strengthened by devoting adequate resources and establishing an effective cooperative framework with other regulators, SROs, and the private sector.

Organizational Arrangements of Central Securities Depositories

Context

It is widely accepted that a securities market should be supported by the CSD with the broadest possible industry participation. Admission should be open to all qualified market participants needing access to the CSD.[96]

Membership standards for system operators should be established to minimize risk. Certain minimum standards of financial responsibility, operational capacity (including system security and integrity), experience, and competence should be required for participation in the systems. Mandatory capital requirements for participants are the first safety net against a participant's failure. However, these requirements are frequently established for reasons other than clearance and settlement, and a system operator should have the authority to impose higher financial standards on its members/participants if the general requirements do not adequately cover the perceived risks.

The rules for clearing and depository organizations should avoid discrimination among potential and actual participants. The rules should provide fair procedures for review of decisions concerning denials of access. In addition, the system should provide participants with a meaningful opportunity to participate in the administration of the organization's affairs.

The above applies to CSDs and central counterparties, which are at the heart of the settlement process. Many are sole providers of services to the markets they serve, and their performance is a critical determinant of the safety and efficiency of those markets. Therefore, their performance is a matter of public as well as private interest. In addition, there may be other providers of services (e.g., trade comparison or messaging services) whose performance is also critical to the functioning of some markets. The governance arrangements of any critical service providers should also be consistent with the above recommendation.

No single set of governance arrangements is appropriate for all institutions in the securities markets. However, an effectively governed institution should meet certain basic requirements. Governance arrangements should be clearly articulated, coherent, comprehensible, and fully transparent. Governance arrangements should therefore seek to minimize the conflicts between the objectives of owners, users, and other interested parties, and as far as possible to resolve any remaining conflicts.

[96]The cost is an important element to consider in order to avoid an unfair situation for the minority investor. In any case, transaction costs per unit should be clearly identified.

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Financial markets operate most efficiently when participants have access to information on the risks to which they are exposed and can take action to manage those risks. The need for transparency applies to the entities that form the clearing, settlement, and custodial infrastructure of the securities markets. Informed market participants are better able to evaluate the costs and risks to which they are exposed as a result of participation in the system. Relevant information should be accessible to market participants. Information should be current and available in formats that meet the needs of users.

For further details on the status of the organizational arrangements of the CSDs in the region, see Appendix Table A4.13.

Observations

Although, in general governance arrangements are adequate, it is unclear whether they prevent conflicts of interest. These aspects should be carefully evaluated by the overseers, especially in light of possible expansion of the stock exchanges in the clearing and settlement industry. Also, the stock exchanges might want to form a user group to ensure that the needs of all participants are represented and all parties have the opportunity to participate in the decision-making process.

Some legal and governance arrangements introduce monopolistic situations that impede the adequate development of some markets (e.g., the money market). This could lead to the development of settlement infrastructures that are not adequate for market needs. These include high entrance fees, inadequate facilities, and lack of facilities to process intraday repos used by the central bank to provide intraday liquidity.

Unsolved conflicts of interest are the main reason for the underdevelopment of basic SSS infrastructures such as depositories. In these cases, under the leadership of the securities regulator and the central bank, in coordination with the ministry of finance, a legally sound solution should be agreed with stakeholders to establish the depository function as soon as possible. Depending on the solution adopted for the immobilization/dematerialization of securities and establishment of the depository function, careful attention should be given to the ownership structure of the depository to make sure that the system is efficient and fair in terms of access, and that it has appropriate governance arrangements. The depository should provide participants with a meaningful opportunity to participate in the organization's decision-making process for system design and settlement procedures, among others.

A strong, capitalized, and autonomous securities depository, with reliable and flexible systems to expedite settlement of transactions and accessory rights, is crucial for the development of the securities markets. When important conflicts of interest emerge, the authorities should take the lead in their resolution.

Cross-Border Settlement

The settlement of cross-border securities transactions is more complicated and involves more risk than that of domestic transactions. Links among CSDs permit participants from multiple jurisdictions to settle trades in securities through a simple gateway operated by either the domestic or an international CSD. However, CSDs need to design links carefully to ensure that risks are reduced. They must address legal and operational complexities. If links are not properly designed, risks can be exacerbated. Inefficiencies may arise because of variations in operating hours. Links may create significant credit and liquidity interdependencies between systems. A CSD should evaluate the financial integrity and operational reliability of any CSD with which it intends to establish a link. Any credit extensions between CSDs should be fully secured by securities, letters of credit, or other high-quality collateral, and should be subject to limits.

For more details on the status of cross-broker settlement in the region, see Appendix Table A4.14.

Observations

Most securities depositories include cross-border links. Authorities should analyze in detail the risks associated with these links as settlement of cross-border transactions typically involves more risk than settlement of domestic transactions. Particular attention should be paid to the multiple jurisdiction profile of these transactions, especially from a legal and operational perspective. At the international level, the main improvement in this area is related to the international law governing the cross-border pledge of securities as collateral. Some depositories have been participating in the Hague Convention efforts to build an internationally accepted principle on this issue, but they believe that market participants and clearing and settlement systems were not

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sufficiently involved. Some securities regulators are already involved in this discussion.

Transparency, Oversight, and Cooperation in Payment Systems

Context

Smooth and reliable money transfer mechanisms affect the efficiency of financial markets and the real economy; they also have an impact on the central bank's lender-of-last-resort function, the conduct of monetary policy, and liquidity management. Market forces alone may not be able to achieve the objectives of efficiency and reliability of the payments system because participants and operators may not have adequate incentives to minimize the risk of their own failure, or the costs their failure may impose on other participants. In addition, the institutional structure of the payment system may not provide incentives or mechanisms for efficient design and operation.

For these reasons, central banks' involvement in the payments system is an integral component of their overall mandate to ensure financial system stability and maintain confidence in the domestic currency. In this context, central banks perform a number of functions in their national clearing, settlement, and payment arrangements. These functions may include direct involvement in managing clearing and settlement systems and in overseeing the payments system by developing rules, principles, and best practices under which private payment arrangements operate. The oversight role of the central bank is at the heart of the current international debate and the function is emerging as a key facet of central bank activity.[97]

The role of the central bank is particularly important when the country is engaged in a comprehensive reform of its payments system. In this case, the central bank has a leading role to play in developing a vision for the reformed system, in coordinating with all stakeholders, and in carrying out the reform plan. Direct involvement of the central bank in managing clearing and settlement systems has been the first step toward governing the overall structure and operation of a country's payments system and ensuring that the desire to limit systemic risk, especially in the area of large-value payment systems, is adequately taken into account. In many cases, this role stems from the need to ensure a widespread adoption of more advanced technology in the fund transfer mechanisms and to avoid possible discriminations in access to payment services. In all cases, to pursue the public interest in the payments system, central banks should ensure that the systems that they operate comply with the principles and guidelines they establish and, as overseers, ensure the (financial and operational) reliability and efficiency of the clearing and settlement systems they do not operate. The central bank's oversight role is more prominent when payments reform is complete and the central bank is called upon to ensure the ongoing monitoring of the reliability and efficiency of the domestic system.

In an increasing number of countries, payments system oversight is entrusted to the central bank by law. Specifying objectives in the law may be the most direct way of providing a well-founded legal basis for the central bank to implement its policies and make it accountable in pursuing its goal and mandate in the payment system. For countries that are reforming their payment systems, it is important

Box 4.2. Oversight Role of the Central Bank

Central banks have the following responsibilities in applying the Core Principles:

Responsibility A. The central bank should define clearly its payment system objectives and should disclose publicly its role and major policies with respect to systemically important payment systems.

Responsibility B. The central bank should ensure that the systems it operates comply with the Core Principles.

Responsibility C. The central bank should oversee compliance with the Core Principles by systems it does not operate and it should have the ability to carry out this oversight.

Responsibility D. The central bank, in promoting payment system safety and efficiency through the Core Principles, should cooperate with other central banks and with any other relevant domestic or foreign authorities.

Source: Bank for International Settlements (2001a).

[97]See Bank for International Settlements (2005) for a framework for payment system oversight. Other examples are the focus on central bank's responsibilities in the CPSS Core Principles, the CPSS-IOSCO recommendations for securities settlement systems, and the *Payments System Oversight* reports of the Bank of England. See also Bossone and Cirasino (2001).

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for the central bank to have a well-founded legal framework that clearly defines its payment system role and objectives.

As for the scope of the oversight function, at the international level there is consensus that systems posing systemic risks should fall under the direct control of the overseer. Typical examples of these systems are those that handle transactions of a high value at both the individual and aggregate level. For example, the CPSS Task Force on Core Principles identified four responsibilities of the central bank in applying the CPSIPS (Box 4.2).

Increasing attention is being paid to securities clearance and settlement systems as relevant components of the overall payments system. The oversight of these systems might well be a cooperative effort of two or more regulatory agencies. In some countries, retail (low-value) systems also fall under control of the oversight agency because of their importance in the overall efficiency of the payments system, their potential impact on the public trust of money, and their relevance to the ultimate objective of economic growth.[98]

The evolution toward a new central bank role in payment systems calls for a careful consideration of at least three issues:

- The adequacy of legal enforcement of central bank actions in the payments system should be evaluated. The central bank role in payment systems stems from its responsibility for financial market stability and monetary policy. In many countries, a clearly stated legal enforcement for the central bank's activity as overseer of the payments system has facilitated the fulfillment of the central bank's objectives.
- The internal organization of the central bank may also be worth evaluating. Experience in many central banks indicates that significant improvements can be derived by setting up a unit specifically devoted to payments policy issues. Typically, such a unit could develop a policy framework and tools (e.g., data collection and periodical inspections) for use in assessing the appropriateness of individual payment systems. This function could be undertaken in close coordination with the banking supervisor. The staff of this unit should have adequate skills. Typical aspects to be analyzed in administering the oversight functions include, inter alia, potential risks emerging from the clearinghouses, the adequacy of risk control measures, the potential implications of unwinding procedures, and efficiency issues.
- Effective cooperation must be achieved between the overseer and market players, among domestic regulators, and among international oversight agencies. In particular, central banks without bank supervisory powers may face considerable information limitations, especially in crisis management situations.[99] An effective way to overcome this problem is to stipulate formal rules for granting the overseer adequate access to supervisory information. The institutionalization of information-sharing arrangements may reduce the risk that the exchange of information might be hampered by frictions in cooperation between different institutions. Various solutions can be adopted for this purpose, from signing a memorandum of understanding that specifies the framework for cooperation, to assuring contacts between institutions through joint board membership, or the establishment of a comprehensive market regulatory/supervisory body where all the institutions with oversight responsibilities are represented and mandated to cooperate.[100] Cooperation must also be pursued between the overseer and the securities market regulators, as securities settlement is an integral part of the payments system, and problems in securities market clearing and settlement may easily spill over to the payments system and vice versa.

[98]There are many examples of how an inefficient retail system can affect economic activity, for example, by failing to accommodate the needs of customers and merchants in a transaction that, as a result, cannot take place.

[99]The overseer would have to rely on information from the supervisory authorities, or should develop its own independent access to information on payment system participants. While the first option de facto transfers the responsibility for triggering oversight action to the supervisory authority, the second one raises risks of duplication in information collection, inconsistent public action, and additional costs to participants.

[100]See Banca d'Italia (1999) for a description of institutional arrangements adopted in some industrial countries. In the United Kingdom, the Bank of England and the Financial Services Authority (FSA) signed a memorandum of understanding requiring that "the FSA and the Bank [of England] will establish information sharing arrangements, to ensure that all information which is or may be relevant to the discharge of their respective responsibilities will be shared fully and freely. Each will seek to provide the other with relevant information as requested" (Bank of England, 2000). In the European Union, the European Central Bank (ECB) issued a protocol for payment system oversight to be adopted by the euro-area national central banks and the ECB.

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Effective cooperation among market participants, between regulators and market participants, and among regulators is essential for the development of a sound and efficient payments system. In particular, the systemic nature of the underlying operating procedures for the transfer of money makes the payments system an "institution" whose existence and smooth functioning requires effective cooperation between all participants. On the one hand, the use of payment instruments generates significant externalities on the demand side, because the usefulness of an instrument is strictly linked to the degree of its acceptance and use for transactions purposes. Consequently, widespread use of new payment instruments and services relies heavily on public confidence in them. On the other hand, within the payments system, the supply of services can be affected by coordination failures because of the existence of conflicts of interest (and information costs) as well as the intermediaries' unwillingness to cooperate. This can lead to suboptimal equilibria in the organizational arrangements in terms of reliability and efficiency. The payments system overseer is therefore entrusted with making up for coordination failure in the market for payment services. Cooperation problems may be especially relevant within interbank clearing and settlement systems. In these systems, risk profiles—both at the system level and at the level of the individual intermediary—may not be fully assessed by participants. In addition, the concern with having to support less reliable intermediaries may lead larger participants to discriminate against smaller ones, even when the smaller ones are technically eligible to participate in the system. Finally, the payment system industry also depends on agreements between producers to ensure that different components of the system are compatible. Most recently, the emergence of new types of nonbank intermediaries and payment instruments has strengthened the need for a comprehensive level of cooperation in payment systems.

The safety and efficiency objectives of payment and securities settlement systems may be pursued by other public sector authorities in addition to the central bank and the securities commission. Examples include legislative authorities, ministries of finance, and competition authorities. There are also complementary relationships between oversight, banking supervision, and market surveillance. Appropriate cooperation among supervisors can be achieved in a variety of ways, for example, exchanges of views and information between relevant authorities may be conducted by holding regular or ad hoc meetings. Agreements on the sharing of information may be useful for such exchanges.

For further details on the status of transparency, oversight, and cooperation in payment systems in the region, see Appendix Table A4.15.

Observations

In most Central American countries, except El Salvador and Panama, the law gives some authority to the central bank over the payment system. However, the legal foundation of oversight of clearance and settlement systems is not always solid. For example, the law is often not clear about the scope of application of the function and the relative roles of the central bank and other authorities. To overcome these problems, it is important that central banks prepare and encourage approval of primary or secondary legislation to complete the legal framework and ensure the secure foundation of payment mechanisms that effectively contributes to the integrity, efficiency, and safety of all financial markets and the operation of monetary policy, especially in the area of securities settlement systems. Legislation should clarify in detail the empowerment and enforcement of the central bank as the payment system overseer.

In the context of establishing the oversight function, central banks should disclose publicly their objectives and implementation strategies relating to payment system matters. To this end, central banks should develop a comprehensive policy statement providing guidance to the private sector on matters relating to payment system governance, day-to-day management, risk mitigation, and on the policies that must be satisfied by all transactions that are ultimately settled on its books.

Central banks should broaden the set of policy objectives from efficiency and reliability of payment systems to including competition in the payment services market and consumer protection. These objectives might be pursued by central banks, especially where they are not included in other regulators' mandates. With regard to their oversight role, central banks should apply their authority over all payment and securities settlement systems in the country, both the systemically important ones and retail systems, since the latter have a role in supporting economic activity and the public trust in money.

Central American central banks should be able to carry out their oversight role effectively. To this end, central banks should (1) establish appropriate orga-

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nizational arrangements and staffing;[101] (2) ensure that an adequate degree of participant cooperation exists and is sufficient to promote and realize the desired organizational and operational arrangements; (3) verify that individual payment systems satisfy user needs as well as risk and efficiency requirements through appropriate interventions both at the development stage and during the ongoing system implementation and operational phases; (4) define and implement appropriate actions should participants not comply with published rules and regulations (e.g., the application of predetermined penalties and sanctions for compliance failures); and (5) collect and distribute relevant statistical information to demonstrate how each system is being used and the extent to which the systems are satisfying end-user and other market needs. Information on substantial payment system matters should be disclosed in a manner that assures wide dissemination among payment system stakeholders and the general public.

Central American central banks should move toward compliance of their systemically important payment systems with international standards. In particular, central banks will continue to be direct providers—owners and operators—of clearing and settlement services. In this regard, care should be taken to ensure that appropriate service and performance levels are routinely achieved and adequately cover all critical safety and efficiency requirements. To this end, central banks should continuously review and seek to improve the design and operation of the systems they operate (e.g., along the lines that the CPSS Core Principles envisage for payment systems operated by private entities).

In performing the oversight function, central banks should ensure that policies and conditions for payment services offered are transparent. In each country, the central bank, banks, and other financial institutions should be encouraged to provide information to the public on the services they offer in the payment system. Moreover, arrangements for the resolution of conflicts should be disclosed and understood by providers, users, and regulators of payment systems and services. The general public should be able to resort to consumer protection agencies (e.g., a bank ombudsman) for resolution of conflicts related to payment services. The central bank should cooperate with the banking supervisor and other relevant authorities to ensure that payment services and instruments are appropriately covered by the new arrangements.

Cooperation among regulators is weak in Central America. The payment system overseer (central bank), the ministry of finance, the banking supervisor, the securities commission, and other relevant authorities should identify and implement procedure and process changes to address any weaknesses or inconsistencies in the regulatory arrangements and assure a high level of cooperation in the way that policies are implemented. Consideration should be given to establishing joint task forces to address problems of common interest and/or the preparation of appropriate memoranda of understanding. At the international level, central banks should get involved in the efforts of harmonization at the subregional level in Central America and in the activities of the WHF Working Group on Payment System Issues of Latin America and the Caribbean.

Cooperation among regulators and stakeholders should also be strengthened. No formal cooperative arrangement for the payment system as a whole exists in Central America. In each country, the central bank should establish a formal national payment system council. The new body should include representatives from all major stakeholders with an interest in improving payment and securities clearance and settlement systems and should also be used as the main tool to secure a constructive dialogue between regulators and market participants. The central bank should provide strong leadership and the secretariat. Payment system councils in Central American countries could establish forms of interaction with a view to moving forward the harmonization and integration agenda.

Binding interbank agreements are equally important to enhance cooperation within the banking sector. Cooperation at the interbank level has not always been satisfactory in Central America. Evidence can be seen in the area of retail payment circuits, the development of the interbank market, and the slowness to reduce dependency on checks. In light of possible market concerns about the potential loss of competitive advantages, which are however lower than the social benefit of taking these actions, the central bank and the banks are urged to work together toward the implementation of some

[101]This includes forming a small unit in charge of payment system oversight to be separated to the extent possible from the units in charge of operating the systems offered by the central bank. Skills of the staff involved in the function should be as wide as possible and include operational, technical, and policy expertise as well as proficiency in the areas of law and economics.

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agreements in the area of payment systems, which could enhance efficiency for the banking sector as a whole.

In sum, there is a need to establish the oversight function over the payments system. Regarding the oversight function and its transparency, Central American central banks should strive to fully observe the key responsibilities assigned to them by the CPSIPS (see Box 4.2). Cooperative arrangements in payment systems among all stakeholders should also be enhanced.

Conclusions

In recent years, Central American central banks have played a very active role in the reform of national payment systems. Important efforts have been completed and others are ongoing. Reform programs have allowed for a better integration between the central bank and the banks and have given the banks a means to send and reduce settlement lags and settle their payments more efficiently on the accounts they hold at the central bank. In some countries, these results have been achieved despite instability in the financial sector. Acknowledging these important achievements, central banks need to undertake an exercise to finalize the reform effort. Elements such as improvements in the legal framework, compliance with international standards, full integration of all systems, introduction of new and efficient payment instruments, and establishment of the oversight function for payment and securities settlement systems have not been fully included in the reform projects. The degree of coordination and communication with other stakeholders and government treasurers has been on some occasions informal and asymmetrical, resulting in a technology-driven approach with strong emphasis on some components of the operational aspects of the payment system (e.g., the automation of the check clearinghouse), and less emphasis on others. In general, this has not permitted Central American countries to catch up rapidly with the systems found in other Latin American countries.

As a result, Central American central banks should broaden the scope of reform to include additional elements (e.g., electronic retail payment and securities settlement) and incorporate improvements not only in the systems but also in the legal, regulatory, and oversight environments. In doing so, central banks should follow the guidelines defined in the 2006 Report on General Guidance for National Payment System Development (Bank for International Settlements, 2006).

Central banks should develop a long-term, comprehensive strategy for the payments system as a whole, and discuss it with stakeholders. In conducting a reform, the logical sequencing process would be as follows: (1) diagnostic, stocktaking, and situational analysis; (2) vision development; (3) conceptual design and implementation planning; (4) user requirement specifications; and (5) acquisition, procurement, development, testing, and implementation. Furthermore, important issues to be decided when launching a payment and securities settlement reform are scope (holistic versus specific); approach (gradualist versus leap-frogging); degree of sophistication (e.g., innovative products); number of systems; system operator (central bank, external provider, private provider); ownership of the system (central bank, private, joint); and time frame.

In some countries, important projects, such as an RTGS system, have already been launched or are in the pipeline. Indeed, the definition of formal cooperative arrangements with all stakeholders is very important to avoid different positions and opinions of participants once the reform has been launched.

Countries should reform their payment systems as a matter of urgency. By adopting a broad approach based on international standards and best practices, and with support from international organizations, other central banks, and payment system experts, each Central American country will count on a set of payment arrangements, services, and circuits able to serve the needs of all users in the economy. Appropriately reforming each national payments system in the region will also create the conditions for further harmonization and integration among the different payment systems. Central banks should, therefore, work in parallel in reforming, as a first priority, their national payments systems and, at the same time, work toward closer integration within the region by discussing and preparing minimum common features and a realistic timetable.

Specifically, assessments of national payment and securities settlement systems in Central America point to the following key findings:

- There is a need to improve the legal framework, notably as regards the irrevocability of final settlement, adequate protection of the systems against the effects of bankruptcy procedures,

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legal basis for custody arrangements, legal definition of a repurchase (repo) operation, legal recognition of multilateral netting arrangements, legal definition of immobilization and dematerialization of securities (especially public securities), and legal definition and regulation of central bank oversight powers. From a developmental viewpoint, improvements are also needed on the legal basis for collateral pledge and securities lending in all countries except El Salvador and Costa Rica where the laws contain specific provisions for the creation, regulation, and enforcement of pledges. Due to the variety and importance of these legal issues, passage of a separate payments system law might be advisable in some countries.

- Upgrading RTGS systems as recommended will modernize the national payment systems and create the conditions for future regional integration through the interlinking of the different systems. Such recommendations would create common features in all relevant areas of the payment systems (such as legal, risk control mechanisms, liquidity provision, access policies, governance, organizational arrangements, operational aspects, reliability, and business continuity), which would facilitate their integration.
- Central and commercial banks have roles to play in ensuring that the existing retail circuits support customers' needs and are safe, convenient, and efficient for the economy as a whole. Central banks should monitor market developments and take action as appropriate, in consultation with other relevant authorities (e.g., consumer protection agencies), to restore safety and efficiency. In particular, the central bank should (1) ensure that the legal and regulatory framework keeps pace with market developments;[102] (2) monitor competitive market conditions and behaviors and take appropriate actions to foster such conditions; (3) support the development of effective standards and infrastructure arrangements;[103] and (4) adapt as necessary its provisions of settlement services for systems operated by other entities to contribute to efficient and safe outcomes, allowing all such systems to settle in central bank money.[104]
- Central banks and relevant government agencies should coordinate to ensure that collection and disbursements of public sector institutions that are major players in the payment system are processed electronically through an appropriate system, such as an ACH for retail electronic payment instruments. Government payments are also a major source of liquidity for the banking system and, if coordinated effectively, can facilitate the smooth functioning of the RTGS system being implemented by Central American central banks and increase its appeal to participants.
- Central banks should monitor trading and settlement platforms and procedures for foreign currency and cross-border transactions, notably remittances, to ensure that the principles of safety and efficiency can be applied to clearance and settlement.
- An adequate interbank money market is key to the smooth functioning of a country's payments and securities settlement system. An efficient mechanism for trading and settling these transactions will improve systemic liquidity management. A key element for the development of interbank money markets is a special purpose system for large-value payments providing secure electronic interbank transfers with immediate settlement that is interconnected to an electronic book-entry securities system, which is registering and recording changes in securities' ownership.
- Improved clearing and settlement processes in securities settlement systems are necessary to reduce market fragmentation, increase standardization of settlement cycles, accommodate different settlement needs, operate with shorter settlement cycles, avoid extension of settlement cycles because of inadequate risk management tools, improve markets' liquidity through

[102]Particular issues in this regard would be for central banks to assess whether the current legal framework effectively supports the use of modern (i.e., electronic) payments and related arrangements.

[103]The central bank could engage participants in a dialogue to analyze all payment systems in the country and come to agreements on necessary improvements, possibly building on the already existing groups that in most countries are engaged in the discussion to improve the check clearinghouse or other retail systems.

[104]This would become necessary when agreements on interoperability are reached and/or when an automated clearinghouse is deployed producing interbank obligations that need to be cleared and settled.

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automatic securities lending, and introduce international communication standards.

- Linking the settlement of securities and funds would allow stock exchange transactions to be settled on a DvP basis so as to eliminate principal risk. The following aspects need to be improved: achieving full dematerialization and immobilization of securities; establishing DvP procedures; upgrading risk management tools; mitigating credit and liquidity risk in the cash leg settlement (including eliminating the use of checks as a cash asset); providing better access to liquidity for SSS participants; and developing a comprehensive strategic approach to the reform of SSSs, as opposed to technology-driven and purely operational reform projects.
- There is room for efficiency gains in the securities settlement infrastructure. Physical handling of securities should be eliminated to increase the safety and efficiency of SSSs. In addition, clearing and settlement should aim at achieving STP. The various plans for backup sites and disaster recovery facilities should be accelerated or established when nonexistent. External audits of the systems should be undertaken, especially when the systems have been developed in-house and/or the oversight framework is weak.
- The legal framework needs to be strengthened to reduce custody risk—that is, to guarantee the protection of customers' assets in the event of bankruptcy of the depositary holding their titles or insolvency of the custodian. The country authorities should ensure that the segregation of accounts for securities and funds under custody has a clear legal basis; that all customer assets are appropriately accounted for as beneficial owners in the depository or in the custodian's omnibus accounts; and that customer assets are protected against the insolvency of custodians, whatever the nature of the custodian.
- The securities depository should be well capitalized, autonomous, and capable of expediting settlement of transactions and accessory rights. This would be crucial for the development of the securities markets. The authorities should take the lead in the resolution of conflicts of interest in the event they emerge.
- The authorities should analyze the risks associated with cross-border links among securities depositories, as settlement of cross-border transactions typically involves more risk than settlement of domestic transactions. Particular attention should be devoted to the multiple-jurisdiction profile of these transactions, especially from a legal and operational perspective. At the international level, the legal framework governing the cross-border pledge of securities as collateral should be improved. In this respect, some depositories and securities regulators participate in the Hague Convention efforts to develop internationally accepted principles in this area, but believe that market participants have not been sufficiently involved.
- There is scope for improving the oversight of payment and securities settlement systems. Central American central banks do not fully observe Responsibilities A, B, C, and D of the CPSIPS regarding payment system oversight. In addition, securities settlement oversight should be strengthened by devoting adequate resources to regulators and establishing an effective cooperative framework with other agencies, SROs, and the private sector. In performing the oversight function and as system operators, central banks and securities regulators should ensure transparency in their policies and conditions for payment services offered. The general public should be able to resort to a bank's ombudsperson and to the central bank or another appropriate supervisor and the consumers' protection agencies for resolution of conflicts related to payment services. Cooperative arrangements in payment systems should be enhanced in Central America as a matter of urgency.
- Central American central banks should work in parallel in reforming, as a first priority, their national payment systems and, at the same time, work toward closer harmonization and integration within the region by discussing and preparing minimum common features and a realistic timetable to achieve this objective.

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Appendix

Table A4.1
Legal Frameworks for Payment and Securities Settlement Systems

Country	Legal Basis	Finality and Irrevocability	Netting	Oversight Empowerment	Custody Arrangements
Costa Rica	Organic Law of Banco Central de Costa Rica (BCCR) (Law 7558 of 1995) and Securities Market Law (SML) (Law 7732 of 1998).	No explicit zero hour rule but no complete certainty and finality.	No explicit legal recognition of netting arrangements.	Article 2 of the BCCR Law, but no clarity on power to regulate and oversee payment systems provided outside the central bank.	Adequate.
El Salvador	Ley de Integración Monetaria (LIM) introduced dollarization in January 2001. For securities, Legislative Decrees 806 (Organic Law of the Securities Superintendency) and 809 (Stock Exchange Law).	No provision regarding acceptance and irrevocability.	No explicit legal recognition of netting arrangements.	No legal clarity on the authority empowered to regulate and oversee payment systems.	No protection of custody arrangements.
Guatemala	Organic Law of Banco de Guatemala (BANGUAT) of May 2002 and Securities Markets Law (Ley del Mercado de Valores y Mercancías) of 1996.	No provision regarding acceptance and irrevocability.	No explicit legal recognition of netting arrangements.	Article 4 of BANGUAT Law, but no regulation developing the oversight function.	Protection of custody arrangements only included for the securities depository but not for other custodians.
Honduras	Banco Central de Honduras (BCH) Law 2001 SML; its regulation is under development.	No provision regarding acceptance and irrevocability.	No explicit legal recognition of netting arrangements.	Article 2 of BCH Law; recent reform of the BCH Law (in 2004), Article 54.	No clear legal basis for ownership transfer of dematerialized securities.
Nicaragua	Organic Law of Banco Central de Nicaragua (BCN); no legal framework for the securities market.	No provision regarding acceptance and irrevocability.	No explicit legal recognition of netting arrangements.	Article 3 of the BCN Law.	None due to lack of specific legal framework for securities.
Panama	Banking Law (Decree-Law 9 of 1998) and SML (Decree-Law 1 of 1999).	No provision regarding acceptance and irrevocability.	No explicit legal recognition of netting arrangements.	No central bank.	Adequate.

Sources: National authorities; Western Hemisphere Payments and Securities Settlement Forum; and IMF–World Bank Financial Sector Assessment Program reports.

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TABLE A4.2
Use of Cash and Transferable Deposits, 2004[1]

Country	Population (in millions)/ GDP Per Capita (in U.S. dollars)[1]	Bank Notes and Coins in Circulation (in millions of U.S. dollars)	Transferable Deposits in Domestic Currency (in millions of U.S. dollars)	Transferable Deposits in Foreign Currency (in millions of U.S. dollars)	Systemically Important Payment Systems (SIPS)	Yearly Value Settled to GDP (in percent)
Costa Rica	4.0/4,280	449	1,074	898	SINPE[2]	312
					Check system (CLC)[3]	125
El Salvador	6.5/2,200	36	1,167	1,167	Check system	. . .
Guatemala	12.3/1,910	1,266	1,903	406	Check system	187
					MIT[4]	31
Honduras	7.0/970	408	531	. . .	Check system (CEPROBAN)[5]	173
					Funds transfer	125
Nicaragua	5.5/730	190	147	279	Check system	135
					Phone transfer system (TTS)[6]	32
Panama	3.0/4,250	. . .	. . .	. . .	Check system	220
					BNP-CIASA[7]	984

Source: National authorities.
[1]Population and GDP per capita are 2003 data.
[2]SINPE = Sistema Interbancario de Negociación y Pagos Electrónicos.
[3]CLC = Cámara de Compensación y Liquidación de Cheques.
[4]MIT = Mecanismo Interbancario de Dinero.
[5]CEPROBAN = Centro de Procesamiento Bancario.
[6]TTS = Transferencia Telefónica Segura de Fondos.
[7]BNP-CIASA = Banco Nacional de Panamá—Centro de Intercambio Automatizado, S.A.

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Table A4.3
Systemically Important Settlement Systems

Country	System	Owner/ Operator	Type of Settlement, Closing Time	Settlement Asset	Credit and Liquidity Risk Mechanisms
Costa Rica	SINPE	Central bank	Real-time.	Central bank money.	Use of reserve requirements for settlement; no intraday credit; no queuing mechanism.
	CLC	Central bank	Multilateral net basis next day 2:00 p.m.	Central bank money.	Guarantee scheme based on defaulter's pay principle (amount of guarantee recalculated based on net debit position).
El Salvador	Check clearinghouse	Central bank	Multilateral net basis next day 5:00 p.m.	Central bank money.	None.
Guatemala	SICOF	Central bank	Deferred gross basis (manual procedures).	Central bank money	Use of reserve requirements for settlement.
	Check clearinghouse	Private banks	Multilateral net basis next day 3:00 p.m.	Central bank money.	None.
Honduras	Funds transfer system.	Central bank	Deferred gross basis (manual procedures).	Central bank money	Use of reserve requirements for settlement.
	CEPROBAN	Private banks	Multilateral net basis same day 7:00 p.m.	Central bank money.	None.
Nicaragua	TTS	Central bank	Deferred gross basis (manual procedures).	Central bank money.	Use of reserve requirements for settlement.
	Check clearinghouse	Central bank	Multilateral net basis same day 4:30 p.m.	Central bank money.	None.
Panama	Corresponding banks in the U.S.	Network of correspondent banks	Gross through SWIFT network.	Asset of the foreign correspondent banks.	None.
	Clearinghouse	BNP	Multilateral net basis next day 12:00 p.m.	Asset of BNP.	None.

Sources: National authorities; Western Hemisphere Payments and Securities Settlement Forum; and IMF–World Bank Financial Sector Assessment Program reports.

Notes: SINPE = Sistema Interbancario de Negociación y Pagos Electrónicos; CLC = Cámara de Compensación y Liquidación de Cheques; SICOF = Sistema Contable Financiero; CEPROBAN = Centro de Procesamiento Bancario; TTS = Transferencia Telefónica Segura de Fondos; BNP = Banco Nacional de Panamá.

Table A4.4
Use of Cashless Instruments for Retail Payments, 2001[1]
(In millions of U.S. dollars, unless otherwise noted)

Country	Checks in Domestic Currency	Checks in Foreign Currency	Number/Payments by Cards (in millions/millions of U.S. dollars)	Credit Transfers	Direct Debits	ATM Operations
Costa Rica	14,045	6,464	1.5/740	39,662	37	1,900
El Salvador	...	24,591	.../202	6,818	...	...
Guatemala	45,108	1,211	4.3/125	10,318	...	564
Honduras	11,179	...	...	...	...	...
Nicaragua	5,300	1,882	4.3/32	1,114	...	...
Panama	...	28,800	120	...	...	...

Sources: National authorities; and Western Hemisphere Payments and Securities Settlement Forum.

[1]Data for checks are for 2003. Data related to cards, credit transfers, direct debits, and ATM operations are for 2001.

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TABLE A4.5
Government Payments

Country	
Costa Rica	Significant progress has been achieved in recent years in government payments. The launch of SINPE and the extension of its services to the treasury has generated a remarkable result in terms of efficiency and cost reduction for treasury operations. Payments of the central treasury are channeled exclusively through SINPE. They include payment of payrolls and public sector providers. Tax collection is done through the banking sector, which transfers funds to the treasury the day after receiving the payments. The reform has introduced important savings for the treasury in fees and reduction of costs (in the order of about six million dollars since its introduction) and is perceived as highly successful by the treasury. Currently a relatively high fee is charged by the banks for tax collection (0.25 percent of the value). An intended and beneficial side effect of government use of direct credit was the increase in bank customers. The same effects were and will be reached through the implementation of direct credit payments for social services. Several projects are under way to further improve the efficiency of public sector payments. They include the introduction of a centralized account, the connection of all local treasuries to the central account, and the reform of procedures for the collection of customs duties. These reforms will be key in reducing the public deficit since the current practice of assigning budget to local treasuries in advance, and the consequent investment of positive balances by local treasuries in government securities, generates the paradox of having a relatively high portion of the public debt in the hands of the public sector. The reform of customs procedures should, on the other hand, reduce corruption and guarantee a smooth functioning of import-export operations. These projects have a high level of support from the government.
El Salvador	The BCR serves as the government bank, issuing and receiving payments on behalf of the government. By law, overdrafts of government accounts at BCR are not permitted.
Guatemala	The central government treasury and the Social Security Institute have made some progress to reduce the use of cash or checks in their payments. Until recently, the treasury was using the ACH-like system offered by Bancared, but it decided to develop an alternative system for cost and efficiency reasons, as the system of Bancared entailed a relatively high use of paper and several manual procedures. At present, both institutions use credit transfers through the "*Oficios*" system of the BANGUAT. Paper instructions (*oficios)* are received by the BANGUAT from 8:00 a.m. to 2:00 p.m. The latter distributes the funds among commercial banks on the same day according to what is established in the *oficios*. Once the banks have received the funds and a fax confirmation of the transfer, which happens on T+1, they can access the website of the paying institutions to download the payment details. The final beneficiaries are credited on T+3. Nearly 70 percent of the total volume of payments of these institutions is channeled through the system explained in the previous paragraph. The rest is made by checks. In the case of local governments, payments are made mainly by cash or checks drawn on commercial banks. On the other hand, central government collections are managed by a different institution, the SAT. Taxes and other payments to the government are collected through the commercial banking network. The banks gather the amounts collected in a single account each of them hold for the treasury. Then, in T+1, through an *oficio* they request the BANGUAT to make a transfer from their reserve account to the single account the treasury holds at the BANGUAT. Finally, banks access the SAT system to send the details of payments they received.
Honduras	Currently the Secretaría de Finanzas makes payments to suppliers and government staff by means of checks. Tax collection takes place through the banking system through an electronic system (FENIX) or through manual procedures. The BCH makes payments associated to government securities through its accounts.
Nicaragua	At present, the ministry of finance and the Social Security Institute, two of the major users of the country's payments system, handle collections and make payments mainly with cash or checks. Every month, the ministry of finance draws nearly 50,000 checks on its BCN account that are paid to the final beneficiaries through the commercial bank network on behalf of the BCN. It also makes recurrent payments through the TTS system of the BCN to other government entities, particularly autonomous schools. However, this system does not handle third-party information and payments may take from several days to some weeks to arrive in the beneficiary's account. Recently, the ministry of finance has also been using direct credits to the account of the beneficiaries, basically for payments associated with its payroll, but these represent only 2 percent of the total volume of payments it made. Collections related to income taxes are operated mainly through the ministry's own premises, while customs taxes and other collections are operated basically through the banking network. For this latter purpose, the ministry of finance holds approximately 300 different current accounts at commercial banks.
Panama	Government payments and receipts follow a complex and lengthy process characterized by manual procedures, and lacking automation. The BNP serves as the government bank, collecting taxes through the banking network and placing them in government accounts at BNP, receiving payments on behalf of the government and acting as its paying agent. Overdrafts of government accounts at BNP are not permitted. The national treasury (part of the MEF) instructs BNP to execute payments to providers on its behalf. For payroll (wage) payments, the national treasury authorizes and prepares checks with a facsimile of the minister's signature, while these checks are handed physically to recipients by the Office of the Comptroller.

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Table A4.5
(concluded)

Country	
	For servicing the domestic public debt, MEF-General Directorate of Public Credit authorizes the gross budgetary allocation and informs Latinclear and MEF-General Directorate for the treasury. Latinclear is the CSD in charge of the custody of public debt securities and in such capacity has detailed information on the custodians of the securities who are the beneficiaries of the payments. In order to fund Latinclear accounts for it to serve the debt, MEF-treasury instructs BNP (which acts as paying agent) to credit Latinclear's account (currently a CIASA account acting on behalf of Latinclear). When the CSD has confirmed reception of funds in its accounts, it credits custodians' accounts through an ACH order (using the services of CIASA for this purpose). The treasury has been working on alternatives to streamline procedures. Two projects developed with the financial support of the Inter-American Development Bank are particularly worth mentioning: • The "revenues module of the CUT project," which will make possible an automatic register (financial, budgetary, and for accounting posting) of all current and public debt revenue at a single treasury account (*cuenta única del Tesoro*, CUT), by interacting with other currently existing systems and in close coordination with BNP; the Directorates of Income, Customs, and Public Debt; the "institutional treasuries;" the Office of the General Comptroller; and banks that collect taxes; and • The centralization and concentration of revenues and expenditures at the CUT with a view to improving the efficiency of public finances management and reducing the fragmentation of public sector liquidity in different accounts of public entities. For this purpose, a secure electronic link between BNP and the treasury is expected to be developed to allow remote access on balance status, posting of recent transactions, sending electronic orders, and so on. In addition, to make it possible to execute electronic transfers, that is., direct credits (initially to providers, later on the payroll) through the ACH, the BNP has installed an electronic system at the Directorate of Treasury. Operations are expected to commence in 2005 (pending approval of a Manual of Operations).

Sources: National authorities; Western Hemisphere Payments and Securities Settlement Forum; and IMF–World Bank Financial Sector Assessment Program reports.

Notes: SINPE = Sistema Interbancario de Negociación y Pagos Electrónicos; BCR = Banco Central de Reserva de El Salvador; ACH = automated clearinghouse; BANGUAT = Banco de Guatemala; SAT = Superintendencia de Administración Tributaria; BCN = Banco Central de Nicaragua; TTS = Transferencia Telefónica Segura de Fondos; BNP = Banco Nacional de Panamá; MEF = Ministry of Economy and Finance; CSD = central securities depository; CIASA = Centro de Intercambio Automatizado, S.A.

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TABLE A4.6
Foreign Exchange and Cross-Border Mechanisms

Country	
Costa Rica	Since 1992, residents in Costa Rica are allowed to hold deposits in the financial sector in U.S. dollars and make payments in dollars. Nowadays around half of the deposits held by residents in the financial sector are U.S.-dollar-denominated but only about a fourth of checks cleared at the clearinghouse are denominated in foreign currency. Authorized financial institutions can hold deposits denominated in foreign currency at the central bank for the settlement of their foreign exchange operations. However, the BCCR does not remunerate them. These accounts have the same characteristics as the reserve accounts in colones, and the clearing and settlement of domestic transactions in foreign currency are concomitant with those in colones. The value of interbank transfer of funds through TEF in dollars is around two-thirds of transfer in colones. The foreign exchange market is predominantly in U.S. dollars and the value of interbank transactions is around US$90 million a month, without considering BCCR interventions. The central bank conducts a crawling peg policy and intervenes accordingly. The domestic foreign exchange market trades in MONED, which is administered by the stock exchange. The market operates on an anonymous basis. All operations are settled gross on a real-time PvP basis on the reserve accounts of the central bank. Since only a few large banks (around five) are connected to the international SWIFT network, the BCCR performs a correspondent function for domestic financial institutions that have to settle trade and foreign exchange obligations or that are receiving payments from abroad. Orders are received and sent via TEF. BCCR is connected to SWIFT.
El Salvador	BCR and six large banks are members of SWIFT, which is used to process cross-border payments. As such, they have access to SWIFT hardware and software that permits the electronic transmission of payment instructions on a worldwide basis. These payment instructions can then be settled through the use of correspondent bank balances in the country of settlement. SWIFT access in El Salvador occurred in recent years and replaced the telex for international transfers. Banks that do not have SWIFT still resort to the telex for their payment instructions. The central bank has three types of clients for international payments. These are the government, commercial banks, and near-government agencies. The BCR serves as the government bank, issuing and receiving payments on behalf of the government. In order to facilitate international payments, the BCR will also provide international payment services for commercial banks in El Salvador. Banks continue to use the central bank to move their funds abroad, especially to transfer their excess reserves. As with government agencies, transfers will be made to and from the commercial bank's U.S. dollar holdings in their reserve account. The BCR will effect such transfers via SWIFT. Finally, there are a number of government or near-government agencies that receive funds from foreign donor institutions. Such agencies may receive the payments via SWIFT through the BCR.
Guatemala	The foreign exchange market in Guatemala is very active when compared to the overall size of the financial system, trading an average of US$70 million a day. There are two formal trading platforms in the country, the SINEDI, which is managed by the stock exchange, and the SPID. However, both systems combined account for less than 6 percent of the total traded value, as most of the trades are made bilaterally in the OTC market. For settlement, participants in the SINEDI and the SPID, which include banks, finance companies, and *casas de cambio,* may choose from three settlement alternatives (check vs. check, reserve account transfer vs. checks, international transfer vs. check), none of which guarantees that the two legs of a foreign exchange transaction are settled on a PvP basis. Furthermore, participants know who their trading counterparties are only in the case of the SPID. These problems have apparently led to the current fragmentation of the market. Participants have largely used bilateral OTC transactions as a less costly and apparently safer alternative, because they are based on mutual trust. However, not even in this latter case are PvP conditions met, since payments are also made with checks. Cross-border retail payments are relevant for Guatemala because there is increasing commercial and financial integration among Central American countries and because of the importance of remittances. A total of 13 commercial banks (nearly half of the country's total) and the BANGUAT are connected to the global SWIFT network. The BANGUAT only makes cross-border payments on behalf of the government, mainly those associated with servicing the external debt and the diplomatic service. In recent years, several commercial banks in the country are developing proprietary mechanisms to facilitate wholesale as well as retail cross-border payments through their banking subsidiaries in Central American countries or through joint ventures with other banks in this region.
Honduras	Accounts at the central bank are in domestic currency (*lempiras*) and foreign currency (U.S. dollars). The reserve requirement is 12 percent for domestic currency and 50 percent for foreign currency. The entities that have current accounts at the central bank are banks, savings and loans associations, finance companies, foreign exchange dealers (*casas de cambio*), stock exchanges, and the government. The 12 percent reserve ratio for domestic currency is calculated as an average every 14 days and balances can be used for making daily payments. Furthermore, the BCH Law specifically mentions that they should be used as the base for the functioning of the check clearinghouse (see Article 54). In the case of foreign currency, 12 percent has to be maintained in the accounts at the central bank and the remaining 38 percent can be held in a foreign bank in liquid assets. However, in this case, 12 percent has to be maintained as a minimum at all times and account holders can only make a transfer in U.S. dollars if after the transaction they still have more than 12 percent in the account. Foreign currency transactions can only be operated through the funds transfer "system" as the check clearinghouse only operates in domestic currency.

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Table A4.6
(concluded)

Country	
	The foreign exchange market is intervened by the central bank, which operates a crawling peg system. Only banks and *casas de cambio* can trade in foreign currency in Honduras (BCH Law Article 29). They must convert foreign currency coming into the country to domestic currency at the central bank (see BCH Law Article 29).[1] They have to make a transfer to one of the central bank's accounts in a foreign correspondent bank. Then, the central bank credits the equivalent amount in domestic currency in the accounts of these institutions at the central bank.[2] The purchase of foreign currency is done through the central bank auction. The central bank has to receive the funds payment by means of bank check or funds transfer in order for an intermediary to participate in the auction two days in advance. The central bank debits the domestic currency account two days before the auction, and once the auction is finished, credits the foreign currency account of the buyer.
Nicaragua	Regarding foreign exchange trading and settlement, the BCN operates a wholesale foreign exchange market (local currency into U.S. dollars and vice versa) for banks, the *financieras,* and the government. In this market, the BCN is the seller for every buyer and the buyer for every seller, and PvP is achieved through the use of the current accounts in both currencies at the central bank. However, this is not necessarily the case for other important participants in this market, such as foreign exchange dealers (e.g., *casas de cambio*) or for trades among the banks and *financieras* themselves. Cross-border retail payments are very relevant for Nicaragua as there is increasing commercial and financial integration among Central American countries, particularly because of remittances, which are a major source of external income for the country. Only two commercial banks in the country are connected to the global SWIFT network. Furthermore, several commercial banks in the country are developing proprietary mechanisms to facilitate wholesale as well as retail cross-border payments, mainly throughout Central America.
Panama	Since the U.S. dollar is legal tender in Panama and bank assets and interbank operations are in U.S. dollars, foreign exchange transactions are very occasional and limited to transactions between the U.S. dollar and other currencies, especially the euro. At least 20 large banks are connected to the international SWIFT network, and Panama is an important hub for SWIFT services in the region. In 2003, BNP entered into an agreement with the U.S. Federal Reserve to receive international ACH direct credits from the United States, which are directed to American residents. BNP cannot send ACH payments to the United States. Cross-border retail payments and remittances with Central American countries are small.

Sources: National authorities; Western Hemisphere Payments and Securities Settlement Forum; and IMF–World Bank Financial Sector Assessment Program reports.

Notes: BCCR = Banco Central de Costa Rica; TEF = Transferencia Electrónica de Fondos; MONED = Mercado Organizado para la Negociación Electrónica de Divisas; PvP = payment versus payment; SWIFT = Society for Worldwide Interbank Financial Telecommunications; BCR = Banco Central de Reserva de El Salvador; SINEDI = Sistema de Negociación Electrónico de Divisas; SPID = Sistema Interbancario de Divisas; OTC = over the counter; BANGUAT = Banco de Guatemala; BCH = Banco Central de Honduras; BCN = Banco Central de Nicaragua; ACH = automated clearinghouse.

[1]The public can hold foreign currency but can only trade it with the central bank or authorized institutions.

[2]Other institutions operating with foreign currencies (such as remittances companies) must convert incoming foreign exchange into domestic currency in one of the authorized intermediaries (banks and foreign exchange dealers).

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Table A4.7
Interbank Money Market

Country	
Costa Rica	For historical reasons, in Costa Rica brokerage houses are the main players in the money markets, and trading systems are operated by the stock exchange. The current trading and settlement systems, in order to avoid defaults on the securities leg of a settlement transaction, have introduced fragmentation in the liquidity market due to operational difficulties to arbitrate between different trading systems. This is basically a consequence of the need to block securities before trading to assure the security delivery in a nonstandardized securities market. However, as the banking system has evolved and banks have been more active in the money markets, new trading mechanisms have been required to attend to the need for an interbank money market. In this sense, the MIB was launched in 1997 by the stock exchange in order to facilitate interbank trading in this market. The current organizational and regulatory arrangements are not conducive to the development of an efficient interbank market. Legal impediments to directly executing a pledge in a bankruptcy case (without the intervention of a judge), unless the ownership is transferred to a trust, has led to the practice of collateralized interbank loans by means of repos.[1] However, the SML (Article 23) states that any repo transaction is considered a "securities transaction" and, thus, subject to trading by brokerage houses in the stock exchange. This situation could force banks to trade and settle in the systems operated by the stock exchange even if it is not the best solution in terms of cost and efficiency.
El Salvador	The treasury of El Salvador plays a relatively minor role in securities issuance. The secondary market is dominated by repo trading on the stock exchange (70 percent of stock exchange operations were repos in 2000). It is basically a money market as the bulk of repo transactions have a maturity of less than seven days (91 percent of repos in 2000).
Guatemala	The interbank money market is not very active. Banks exchange liquidity among themselves through the MIT and the checks system, but the central bank does not have the information to differentiate between interbank money market operations and other types of transactions carried out through this system. Interbank money market operations are normally outright loans, as collateralized interbank loans would require the exchange of physical certificates. Interbank money market transactions take place by means of an interbank check or a transfer through the funds transfer system, but the central bank does not capture the reason for the operation. This market is mostly uncollateralized as there is not an effective way to collateralize securities and, thus, it would mean the exchange of physical certificates. The other active money market is repos through the stock exchange but it is not a banking market but a broker-dealer one.
Honduras	The interbank money market is not very active. Banks exchange liquidity among themselves through the funds transfer and the checks system, but the central bank does not have the information to differentiate between interbank money market operations and other type of transactions carried out through this system.
Nicaragua	The interbank money market is almost nonexistent at the moment. Participants with liquidity shortages may resort to some facilities. They can (1) arrange an uncollateralized loan bilaterally, and since there is not an effective way to collateralize interbank loans it would mean the exchange of physical certificates; (2) get liquidity through a repo transaction at the stock exchange; and (3) obtain liquidity from the BCN. The combination of relatively high reserve requirements (16.25 percent) and the abundance of liquidity under normal circumstances ensures that the system does not experience liquidity shortages as a whole. However, the management of the liquidity in the system is far from efficient in part due to deficiencies in the financial infrastructure and the interbank market. This contributes substantially to the high levels of interest rates in the country. The market is very narrow at present for several reasons. First, there is a lack of confidence among financial institutions stemming from the period of financial distress. Furthermore, investors face a lack of investment alternatives as there are not enough instruments in the market. The public debt market is not yet very well organized and the government of Nicaragua does not issue securities on a regular basis. In addition, banks, the *financieras,* and brokerage houses (the latter are currently regulated by the banking law since there is no designated law for the securities market) are not allowed to invest freely in private sector securities, but only after the SBOIF gives them specific authorization, which occurs on a case-by-case basis and may take several days. However, an additional contributing factor is the lack of an adequate financial infrastructure. For example, in Nicaragua, securities settlement systems are risky owing to the lack in many cases of DvP. In this context, the emergence of a collateralized interbank money market, an important alternative in situations where the level of confidence is low, will face substantial difficulties.
Panama	There is not much information on the interbank money market in Panama since no public or private institution receives and collects systemwide statistics. It is noteworthy that most interbank money market operations in Panama are executed through correspondent banks in the United States (either Fedwire or CHIPS) and are non-collateralized. It is not possible to perform same-day domestic operations in BNP funds. When trading securities, banks recur mostly to their own broker-dealers (for tax reasons) and rarely perform OTC transactions.

Sources: National authorities; Western Hemisphere Payments and Securities Settlement Forum; and IMF–World Bank Financial Sector Assessment Program reports.

Note: MIB = Mecanismo Interbancario de Dinero; SML = Securities Market Law; MIT = Mecanismo Interbancario de Transferencias; BCN = Banco Central de Nicaragua; SBOIF = Superintendencia de Bancos y Otras Instituciones Financieras; DvP = delivery versus payment; CHIPS = clearinghouse interbank payments system; BNP = Banco Nacional de Panamá.

[1]This is not the case for dematerialized securities (see Article 123 of the SML). However, for the time being, there are no dematerialized securities in Costa Rica.

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Table A4.8
Securities Settlement Systems

Country	Securities Settlement System	Trade Confirmation	Settlement Cycles	Securities Lending	International Numbering
Costa Rica	Stock exchange, CEVAL.	Lock-in (securities blocked before matching).	T (Mercado de Liquidez) T+1 (TEBEL) T+1 (SITE international securities) T+2 (Primary auction) T+3 (SITE equities). For all the systems only one multilateral net debit position is calculated every day for the cash settlement.	No	A standardization process is under way for both private and public securities and all issues in CEVAL have been assigned an ISIN number.
El Salvador	Stock exchange, CEDEVAL.	T	T	No	No
Guatemala	Stock exchange.	T	T	No	No
Honduras	Stock exchanges.	No confirmation.	No standardized settlement cycle.	No	No
Nicaragua	Stock exchange, CENIVAL.	T	T (market practice, no official settlement cycle).	No	No
Panama	Stock exchange, Latinclear.	T	T+3	No	No

Sources: National authorities; Western Hemisphere Payments and Securities Settlement Forum; and IMF–World Bank Financial Sector Assessment Program reports.
Notes: CEVAL = Central de Valores; TEBEL = Transacciones Electrónicas Bursátiles en Línea; SITE = Sistema Integrado de Transacciones Electrónicas; ISIN = international securities identification number; CEDEBAL = Central de Depósito de Valores; CENIVAL = Central Nicaragüense de Valores.

Table A4.9
Management of Settlement Risk

Country	Securities Settlement System	Risk Management Tools	Delivery vs Payment	Cash Settlement Asset
Costa Rica	Stock exchange, CEVAL.	Securities block prior to trading; credit line; guarantee fund (defaulters pay).	Model 2 (1.5 hours difference between cash settlement and securities leg).	Central bank.
El Salvador	Stock exchange, CEDEVAL.	None.	No	Central bank.
Guatemala	Stock exchange.	None.	No	Central bank or checks.
Honduras	Stock exchanges.	None.	No	Cash or checks.
Nicaragua	Stock exchange, CENIVAL.	None.	No	Checks.
Panama	Stock exchange, Latinclear.	Securities blocking prior to selling; guarantee scheme (a defaulter pays).	Model 2.	Private Settlement Agent (CIASA).

Sources: National authorities; Western Hemisphere Payments and Securities Settlement Forum; and IMF–World Bank Financial Sector Assessment Program reports.
Notes: CEVAL = Central de Valores; CEDEVAL = Central de Depósito de Valores; CENIVAL = Central Nicaragüense de Valores; CIASA = Centro de Intercambio Automatizado, S.A.

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Table A4.10
Operational Reliability of Securities Settlement Systems

Country	Securities Settlement System	Operational Reliability
Costa Rica	CEVAL.	In the present systems for clearing and settlement and for central custody services, attention is paid to operational reliability. Every year an analysis of potential threats is made and the existing emergency plan is adapted accordingly. A contingency committee is installed. Protection measures against unauthorized access are tested periodically by an external expert. There is an own power supply in case of an electricity cutoff. Communication with the brokers is based on a client-server infrastructure. Every participant is connected with the server via two dedicated fiber-optic lines. Capacity of the systems can handle two times the peak hours' demand. Procedures are in place concerning procurement, development, and modification of the systems; and modifications are adequately tested before becoming operational. The systems have separate environments for production, developing, and testing. A changeover committee is installed with participants of the IT department who designed and implemented the modification, the internal audit department, and the person responsible for testing. The committee is chaired by the CEO. However disaster recovery facilities are not up to standard. There is no back-up server in standby mode and there is no second contingency site. Efficiency of the systems needs to be improved. There are too many systems for different segments, which leads to fragmentation. Integration of trading and settlement and the blocking of securities at the moment the participants enter the trading platforms are inefficient and costly.
El Salvador	Stock exchange, CEDEVAL.	Contingency plans are based on manual procedures.
Guatemala	Stock exchange.	The BVN reports that all their systems, including the securities depository, have safe operational features, back-up sites, and contingency plans. However, there is no regulation or supervision of these issues by any regulatory authority, as the stock exchange operates as a full SRO.
Honduras	Stock exchange.	Manual procedures.
Nicaragua	CENIVAL.	Neither the BVDN nor the CENIVAL have contingency facilities and/or back-up sites. The only contingency plan at present is the possibility to hold outcry floor sessions for trading purposes in case the electronic trading system malfunctions.
Panama	Latinclear.	Periodical analyses of potential threats are made. Communications with brokers are made through dedicated lines. There is no back-up server in standby mode, but there is a contingency site located in Panama City, about six kilometers away from the primary site. A tape containing a back-up copy of operations is sent daily to the back-up site.

Sources: National authorities; Western Hemisphere Payments and Securities Settlement Forum; and IMF–World Bank Financial Sector Assessment Program reports.

Notes: CEVAL = Central de Valores; CEO = chief executive officer; CEDEVAL = Central de Depósito de Valores; SRO = self-regulatory organization; CENIVAL = Central Nicaragüense de Valores; BVDN = Bolsa de Valores de Nicaragua.

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Table A4.11
Management of Custody Risk

Country	Depository	Custody Arrangements
Costa Rica	CEVAL	Segregation of accounts in CEVAL exists at the client level. Investor/ownership rights are clearly defined. An investor who has given securities in custody is protected by law against the claims of the creditor or custodians (Article 142). Independent of form and location, securities of clients are no part of custodian assets, stay outside the available assets after bankruptcy, and cannot be claimed by its creditors. This is also the case for securities deposited by third parties. This article protects securities issued in Costa Rica and foreign securities kept in custody by a local custodian. The law protects Costa Ricans, foreign investors, and foreign custodians using a Costa Rican local agent.
El Salvador	CEDEVAL	Securities settlement occurs through CEDEVAL, which is the nation's security depository. Securities settlement occurs by transferring the ownership records at CEDEVAL. Since not all securities are immobilized, sellers must deliver physical securities to CEDEVAL 24 hours before the sale is made. A draft law for the dematerialization of securities has been presented for Parliament approval. The draft law makes it possible for the BCR to be the depository and maintain the registry for public securities. Considering that 80 percent of all transactions in the securities market are of official securities (treasury and BCR paper), mainly in the form of short-term repos, the proposed dematerialization will have an important impact on securities settlement.
Guatemala	Stock exchange	In principle, all public securities are issued in physical form; however, if the investor decides to keep them under the custody of the central bank, they are issued as book-entry notes at the central bank Registry. The central bank performs only the custody function, not the ownership transfer, that is, it only registers the ownership of the investor in the primary market. Subsequent ownership transfers are done by means of delivery (if bearer securities), or endorsement (if order securities), or book-entry note in the stock exchange's securities depository, once deposited. For stock exchange transactions, securities must be deposited in the correspondent securities depository (*Caja de Valores*). The securities depository of the BVN started operating in 1994. Physical custody of securities deposited in the *Caja de Valores* has been outsourced to a private bank, owner of broker-dealer members of the stock exchange. Custody of securities is formalized by means of a deposit contract, regulated in the SML (Article 79). Each participant in the depository must open an own account and an account on behalf of final beneficiaries, of which the depository keeps a record. Broker-dealers must send periodic information to their customers about their accounts statements. The depository also administers economic rights associated with the securities deposited.
Honduras	Stock exchange	Public securities are issued in dematerialized form and can be under the custody of the BCH or the stock exchange. On the rare occasion that those securities are traded in the secondary market, it is done through the physical exchange of custody certificates or at the custodian service of the stock exchange. In any case, there is no legal basis for this custody arrangement since the Commercial Law only recognizes securities issued in physical form. The SML provides the legal support for a CSD and ownership transfer of securities by book-entry notes through it, but it has not yet been established.
Nicaragua	CENIVAL	All public securities are issued in physical form. Subsequent ownership transfers are done by means of delivery (if bearer securities) or endorsement (if order securities) or book-entry note in the CENIVAL. To be traded at the stock exchange in a secondary market, securities must be deposited in the CENIVAL. Physical custody of securities is formalized by means of a deposit contract. Participants endorse their securities to CENIVAL in order for the latter to make the necessary securities transfers through book entries. The depository also offers the services of administering economic rights associated with the securities deposited. Regarding the protection of customer assets in the event of bankruptcy or insolvency of the custodian, each participant in the depository must open an own account and an account on behalf of final beneficiaries, of which the depository keeps a record. In turn, the CENIVAL keeps the deposited securities in so-called memorandum accounts. However, there is no specific legal protection for assets under custody for the securities market.
Panama	Latinclear	The SML mandates segregation of accounts of clients. The ownership rights of an investor are clearly defined. An investor who has given securities in custody is protected by law against the claims of creditors. Independent of form and location, the securities of the clients are no part of the assets of the custodian, stay outside the available assets after bankruptcy, and cannot be claimed by its creditors (SML, articles 27, 37, 122, 177, and 179). Ninety-nine percent of securities are either dematerialized or immobilized, so that 100 percent of transfers are book-entry.

Sources: National authorities; Western Hemisphere Payments and Securities Settlement Forum; and IMF–World Bank Financial Sector Assessment Program reports.

Notes: CEVAL = Central de Valores; CEDEVAL = Central de Depósito de Valores; BCR = Banco Central de Reserva de El Salvador; SML = Securities Market Law; CSD = central securities depository; CENIVAL = Central Nicaragüense de Valores.

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TABLE A4.12
Regulatory and Oversight Issues

Country	Regulatory and Oversight Issues
Costa Rica	CONASSIF is responsible for issuing all regulations for the financial system as well as the overall policies that govern the three supervisory agencies of the financial system. In this regard, Article 169 of the SML states that the SUGEF, the SUGEVAL, and the SUPEN will all function under the direction of CONASSIF. The members of CONASSIF are the minister of finance, the president or general manager of the BCCR, and five representatives not holding public sector positions. The SUGEVAL was created by the SML (Law 7732 of 1998) and replaced the former National Securities Commission, which had been created by the previous SML (Law 7201 of 1990). The SUGEVAL is responsible for supervising broker-dealers, investment funds managing companies, financial groups, and financial and nonfinancial securities issuers. SUGEVAL is charged with the regulation, supervision, and control of the securities markets. However, its powers are limited by the SML, which confers to the CONASSIF the power to dictate the rules for authorization, regulation, supervision, control, and surveillance that SUGEVAL and the other supervisory agencies must execute. Regarding securities clearance and settlement, the SUGEVAL sets and supervises the rules regarding the functioning of CSDs, clearance systems, and centralized transaction and information systems for securities transactions. Article 6 of the SML specifically entitles SUGEVAL to regulate the organization and functioning of the RNVI, including the necessary information and updates, to which all individuals and firms participating either directly or indirectly in the securities market (except for investors) must subscribe. All actions and contracts associated with this market as well as all public offerings of securities must also be registered in the RNVI. Depositories must be authorized by SUGEVAL. Article 134 of the SML gives them also the possibility, together with broker-dealers and entities subject to SUGEF control, to offer custody services, including the administration of economic rights associated with the securities under custody. Articles 119 and 134 to 143 regulate different aspects of the central depository and custody functions, such as the constitution of a deposit; proof issuance; restitution of securities, bonds, or documents; and depositor protection in case of bankruptcy or insolvency of a custodian.
El Salvador	The SV is the entity in charge of supervising and overseeing the stock market and its participants. This institution began its operations on January 1, 1997, with the stock exchange, brokerage firms, deposit and securities custody firms, and risk rating firms falling within its supervision. Securities depositories must be approved by the SV, but apart from this, there is no specific oversight function of securities settlement.
Guatemala	According to the SML, the stock exchanges are SROs with regulatory and supervisory power over their members. There is neither a securities regulator nor any other public agency that performs this role. This function is completely assumed by the stock exchanges in their SRO capacity. Article 18e of the SML specifies that the stock exchange oversees and ensures that the activity of the broker-dealers and issuers complies with the regulation. Title V of the Internal Rules of the Stock Exchange develops the supervisory role of the stock exchange over the registered entities and broker-dealers. Penalties are included in Chapter III of Title II.
Honduras	The CNBS Law (*Ley de la Comisión Nacional de Bancos y Seguros*, 1995) states the institutions under the supervision of the CNBS (see Article 6) including entities involved in securities markets. There is no formal oversight of the securities settlement.
Nicaragua	The stock exchange, the depository(ies), and broker-dealers are all regulated by the SBOIF but only on the basis of the banking law. The SML draft gives self-regulatory powers to the stock exchange (Articles 39 and 123). In this draft, depository(ies) are to be authorized by the SBOIF according to some of the requirements set forth in the banking law. Depository(ies) are not considered SROs in the SML draft.
Panama	CNV is an autonomous entity, responsible for issuing all regulations for the securities market based on the principles of the Decree-Law 1, 1999. BVP and Latinclear are SROs with capacity to issue regulations and enforce them on their participants. CNV is responsible for supervising market participants (broker-dealers, investment societies, securities issuers, and SROs). Broker-dealers, investment societies, and SROs must be authorized by SUGEVAL. Articles 27, 56, and 122 of the SML regulate the conditions for the provision of custody services, including the administration of economic rights associated with the securities under custody. Title XI, Chapters I, II, and III, regulate different aspects of the central depository and custody functions, such as the constitution of a deposit; proof issuance; restitution of securities, bonds, or documents; and depositor protection in case of bankruptcy or insolvency of a custodian.

Sources: National authorities; Western Hemisphere Payments and Securities Settlement Forum; and IMF–World Bank Financial Sector Assessment Program reports.

Notes: CONASSIF = Consejo Nacional de Supervisión del Sistema Financiero; SUGEF = Superintendencia General de Entidades Financieras; SUGEVAL = Superintendencia General de Valores; BCCR = Banco Central de Costa Rica; CSD = central securities depository; RNVI = Registro Nacional de Valores Inmobiliarios; SV = Superintendencia de Valores; SRO = self-regulatory organization; SBOIF = Superintendendia de Bancos y Otras Instituciones Financieras; CNV = Comisión Nacional de Valores.

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TABLE A4.13
Organizational Arrangements for Central Securities Depositories

Country	CSD	Organizational Arrangements
Costa Rica	CEVAL	Currently, only brokerage houses, with the exception indicated below, can open an account in CEVAL and have for this reason a monopoly on custodial services. Also, banks and pension funds have their own accounts at CEVAL; however, securities in these accounts can only be traded if they are transferred to a broker's account or to the MIB account in the case of the interbank market. In the present governance structure, brokers, as owners of the stock exchange, dominate the policy with respect to trading, custody, clearing, and settlement. It is sometimes difficult to change the situation separating the money market and capital markets. The CEVAL is a private institution fully owned by the exchange and governed by the members of the Exchange Board of Directors (brokerage houses and the stock exchange).
El Salvador	CEDEVAL	Currently, the CEDEVAL—an association specialized in the deposit and custody of securities that began operations in 1998—is the central securities depository. Companies specialized in the deposit and custody of securities are constituted as corporations and are subject to the commercial laws. The deposit and custody services can only be offered through stock exchanges, banks, or financial or specialized institutions. The principal shareholders of CEDEVAL are the stock exchange and brokerage firms. Presently, the stock market has 80 percent of CEDEVAL's capital and shares five directors, and the stock exchange's general manager is proprietary director of CEDEVAL. Institutions holding an account at CEDEVAL are the pension funds, the stock exchange, and foreign trustees. At present, brokerage firms are not connected online with CEDEVAL; nevertheless, this institution works so that the pension funds and the brokerage firms can directly access the trustee's information from their terminals.
Guatemala	Stock exchange	The creation of the *Cajas de Valores* is regulated in the SML (Article 79). They were created as a department of the respective stock exchanges. Thus, governance arrangements of the securities depositories in Guatemala are the same as those for the stock exchanges. The stock exchanges are equally owned by each member. As of December 2003, there were 33 registered broker-dealers of which 20 remain active, 14 of the latter being linked to a banking group. Some banking groups own more than one broker-dealer. In order to use the services of the *Cajas de Valores*, an entity must be an agent or broker-dealer of the respective stock exchange. The *Cajas de Valores* also allow for institutional participants to use the services of the depository for its own operations but not on behalf of others.
Honduras	N/A	There is no CSD.
Nicaragua	CENIVAL	The CENIVAL is a subsidiary of the stock exchange, which owns 90 percent of the former's equity. The CENIVAL started operating in December 1997, and current arrangements and practices are based on bilateral agreements and contract law because in Nicaragua there is no legal basis for the operation of a CSD. Governance arrangements of the securities depository are, in general, the same as those of the stock exchange; the two institutions share the Board of Directors and some managing directors. Access to the CENIVAL is broad. According to Article 8 of its Internal Regulation, all types of financial institutions duly authorized by the SBOIF, foreign banks, and other nonfinancial institutional investors may open a deposit account.
Panama	Latinclear	Brokerage house accounts are segregated into own accounts and client accounts. Also, banks and corporations have their own accounts at BVP but securities can only be traded if they are transferred to a broker's account. *Acuerdo* 7, 2003, of CNV explicitly encourages SROs' internal regulation to create conditions for fair and open access and prevents any discriminatory practice.

Sources: National authorities; Western Hemisphere Payments and Securities Settlement Forum; and IMF–World Bank Financial Sector Assessment Program reports.

Notes: CSD = central securities depository; CEVAL = Central de Valores; CEDEVAL = Central de Depósito de Valores; SML = Securities Market Law; CENIVAL = Central Nicaragüense de Valores; BVP = Bolsa de Valores de Panamá; SRO = self-regulatory organization.

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TABLE A4.14
Cross-Border Settlement of Securities

Country	CSD	Links Among CSDs
Costa Rica	CEVAL	Regional links (see information for Guatemala and Nicaragua).
El Salvador	CEDEVAL	Regional links (see information for Guatemala and Nicaragua).
Guatemala	Stock exchange	The securities depository (Caja de Valores) also offers the custody of securities, in both physical or book-entry form, for securities issued outside Guatemala. For this purpose, the depository has links with Clearstream Banking; Central de Depósito de Valores, S.A. (El Salvador); Bolsa Hondureña de Valores, S.A.; Central Nicaragüense de Valores, S.A.; Central para el Depósito de Valores en la Bolsa Nacional de Valores, S.A. (Costa Rica); and Central Latinoamericana de Valores, S.A. (Panama). These operations are settled through an omnibus account open in the name of Bolsa de Valores Nacional, S.A.; in each of these entities. The BVN keeps a detailed registry of the securities deposited in each of the omnibus accounts.
Honduras	Stock exchange	Regional links (see information for Guatemala and Nicaragua).
Nicaragua	CENIVAL	Currently, the CENIVAL holds accounts for other CSDs in the Central America region: CEDEVAL (El Salvador); Caja de Valores (Guatemala); Bolsa Hondureña de Valores; CEVAL (Costa Rica); and Latinclear (Panama). Foreign investors may buy securities deposited in CENIVAL through the omnibus account these other CSDs hold with CENIVAL. The CENIVAL also offers the custody of securities, both in physical or book-entry form, for securities issued outside Nicaragua through the same group of Central American securities depositories. These operations are settled through an omnibus account open at the name of the CENIVAL in each of these entities.
Panama	Latinclear	Latinclear also offers custody services for securities issued outside Panama. It has depository links with Clearstream, CEDEVAL (El Salvador), and CEVAL (Costa Rica). These operations are settled through omnibus accounts.

Sources: National authorities; Western Hemisphere Payments and Securities Settlement Forum; and IMF–World Bank Financial Sector Assessment Program reports.

Notes: CSD = central securities depository; CEVAL = Central de Valores; CEDEVAL = Central de Depósito de Valores; CENIVAL = Central Nicaragüense de Valores.

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TABLE A4.15
Transparency, Oversight, and Cooperation in Payment Systems

Country	Legal Foundations of the Function	Transparency of the Oversight and Dissemination of Information	Objectives, Scope, Instruments, Pricing, and Access	Organizational Arrangements and Cooperation
Costa Rica	Law 7558 of 1995 (Organic Law of the Banco Central de Costa Rica—BCCR), Article 2.	The operation of systemically important payment systems detailed in a set of documents known as the "Blue Book." The BCCR does not have any regular publications covering payment system developments. Statistical information on the payment system is not available on a regular and structured basis.	The BCCR has a significant role in payment system reform. The BCCR's objectives in the payment system have not been publicly disclosed. Instruments of oversight can be summarized as the operational involvement, its specific regulations, and moral suasion. Explicit provision exists to regulate the pricing of payment services in both the central bank law and the SINPE regulation. The BCCR determines access requirements for the systems it manages. As of yet, there is no general provision to regulate access to payment systems managed by the private sector.	Several departments under the Dirección de Servicios *Financieros* deal with payments system issues. Some aspects related to foreign exchange and cross-border payments are dealt with by another department. No formal unit is in charge of monitoring the payment system. At the top level, coordination exists through CONASSIF. At the working level, no formal framework exists to enhance cooperation on a continuous basis. No Payment System Council.
El Salvador	No legal clarity on the authority empowered to regulate and oversee payment systems.	Oversight function not formally performed.	Oversight function not formally performed.	Oversight function not formally performed. No Payment System Council.
Guatemala	The Statute of the BANGUAT (*Ley Orgánica del Banco de Guatemala*) of May 2002, Article 4.	The BANGUAT does not have any regular publications covering payment system developments. Statistical information on the payment system is not available on a regular and structured basis.	The BANGUAT plays a leading role in the reform of payment arrangements in the country, in particular, through the launch of the new RTGS system. The objectives and scope of the oversight function are not clearly defined. In absence of secondary legislation and/or any central bank document on payment system oversight, the available instruments are regulation and moral suasion in the context of central bank's activities. The BANGUAT has not yet defined a coherent pricing policy for the payment systems it operates and/or guidelines for the payment systems it does not operate.	Oversight function not formally performed. No formal cooperation exists between the BANGUAT and other regulators on payment system issues. Only recently, the BANGUAT has become more active in international and regional forums on payment and securities settlement issues. No Payment System Council.

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TABLE A4.15
(concluded)

Country	Legal Foundations of the Function	Transparency of the Oversight and Dissemination of Information	Objectives, Scope, Instruments, Pricing, and Access	Organizational Arrangements and Cooperation
			There is no statement that clarifies BANGUAT objectives and policies related to access.	
Honduras	Banco Central de Honduras (BCH) Law, Article 2.	Oversight function not formally performed.	The BCH plays a leading role in the reform of payment arrangements in the country, in particular, through the launch of the new RTGS system. Oversight function not formally performed.	Oversight function not formally performed. Payments System Council recently established. Only recently, the BCH has become more active in international and regional forums on payments and securities settlement issues.
Nicaragua	Banco Central de Nicaragua (BCN) Organic law, Article 3.	Oversight function not formally performed.	Oversight function not formally performed.	Oversight function not formally performed. No Payments System Council.
Panama	No central bank.	Oversight function not formally performed.	BNP performs some regulatory and administrative responsibilities related to checks and other payments instruments and settlement.	Oversight function not formally performed. No formal cooperative arrangements are in place, but banks have reached important agreements in relevant areas.

Sources: National authorities; Western Hemisphere Payments and Securities Settlement Forum; and IMF–World Bank Financial Sector Assessment Program reports.

Notes: BCCR = Banco Central de Costa Rica; CONASSIF = Consejo Nacional de Supervisión del Sistema Financiero; SINPE = Sistema Interbancario de Negociación y Pagos Electrónicos; BANGUAT = Banco de Guatemala; RTGS = real-time gross settlement; BCH = Banco de Honduras.

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Migrant Remittances in Central America

Dilip Ratha[105]

This chapter highlights the importance of international migrant remittances in six Central American countries—Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama.[106] Migrant remittances are the largest source of external financing in four out of these six countries. From a financial sector point of view, these large remittance flows raise two sets of issues:[107]

- The cost of sending remittances is very high, especially for small transfers undertaken by poor migrants. High remittance fees are a reflection of market failure and inefficiencies in the retail payment system. Remittance costs can be reduced by strengthening the financial infrastructure supporting remittances. But these efforts to reduce costs would also have to be carefully balanced with efforts to fight money laundering and the financing of terrorism.
- The second issue relates to increasing the impact of these remittances on financial development without directly affecting these personal flows. This would require encouraging more flows through formal channels, and linking remittances to consumer and housing loans and insurance products for remittance recipients. Financial institutions can also use remittances as collateral for raising external bond financing.

The next section describes the size of remittances and their importance in the retail payment systems of each of these six countries. Section III discusses possible measures to reform the retail payment system and reduce high remittance fees. Section IV briefly describes the complementarities between financial institutions and remittances. Section V is devoted to securitization of remittances as a tool for raising private external bond finance. The last section contains a summary of recommendations.

Remittances and Retail Payment Systems

A retail payment transaction may be defined as a transaction originated by or payable to an individual, the counterparty being an individual, a firm, or a government agency. Retail payments may be defined to include frequent, small-value business-to-business payments.[108] Thus, retail payments would include pure transfers such as migrant remittances or transfers from public and private institutions to individual beneficiaries. They would also include small-value payments in exchange for goods and services, for ac-

[105]The author works at the World Bank.

[106]Migrant remittances are defined as the sum of workers' remittances and compensation of employees—see Ratha (2003).

[107]This chapter does not discuss the development impact of remittances in the receiving countries. At the household level, these impacts could be to reduce poverty, act as an insurance against adverse shocks, and increase household spending. At the macroeconomic level, remittances could increase financial deepening and lead to exchange rate appreciation. See Mishra (2005); Yang (2004); Adams (2004); and Edwards and Ureta (2003) for discussion of some of these issues.

[108]Bank for International Settlements (1999).

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Table 5.1
Remittance Flows, 2003

	Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua	Panama
Remittance receipts (US$ millions)	321.0	2,122	2,147	867	439	85
As a share of (in percent)						
GDP	1.8	14.7	8.7	12.4	10.0	10.7
Trade deficit	37.0	284	153	224	40	15
Imports of goods and services	3.4	30.4	27.5	21.9	21.0	0.9
FDI	56	2,384	1,851	438	204	11
Official flows[1]	272	1,172	2,440	387	101	266
Outward remittances (US$ millions)	192	25	82	1	. . .	53
Memorandum items:						
Per capita GNI (US$)	4,280	2,200	1,910	970	730	4,250
Number of migrants (in thousands)[2]	109	1074	591	354	302	178
As share of own population (in percent)	2.9	17.0	5.2	5.5	6.0	6.2

Sources: IMF, *Global Development Finance* (2005), and *Balance of Payments Statistics Yearbook* (2004).
Note: Remittances defined as the sum of workers' remittances and compensation of employees. FDI = foreign direct investment; GNI = gross national income.
[1]Data for Nicaragua are for 2002.
[2]2001 round of U.S. Census 2000 Supplementary Survey as calculated in Yang (2004).

quisition of assets, or for debt servicing. In more developed countries, migrant remittances would form only a small share of retail payments, which, in turn, are only a tiny fraction of wholesale payments. But in developing countries, especially in Central America, remittances form a significant source of funding in relation to the size of the economy and, therefore, of the retail payment system. Furthermore, any evaluation or reform of the retail payment system from the point of view of facilitating remittances is equally likely to benefit other (not easily quantifiable) components of retail payments as well.

In 2003, officially recorded international remittance receipts by Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama amounted to $6 billion, or about 7.4 percent of their combined GDP (Table 5.1 and Figure 5.1). Remittance receipts ranged from $85 million in Panama to over $2.1 billion each in El Salvador and Guatemala. While larger countries in general received larger amounts of remittance flows, the poorer countries (Nicaragua, Honduras, Guatemala, and El Salvador) received relatively larger amounts than the richer countries (Panama and Costa Rica).[109] In El Salvador, remittance receipts in 2003 were 14.7 percent of GDP, over 30 percent of imports of goods and services, nearly 12 times the size of net official inflows, and nearly 24 times the size of foreign direct investment (FDI). In general, in the poorer Central American countries, remittances are larger than earnings from the single largest export item, and larger than official and private capital flows.[110]

These data are likely to be underestimated.[111] Official data do not include remittance flows through informal (unregulated) channels. They do not even fully capture flows through the formal channels. Most countries do not require reporting of "small" remittance transactions.[112] Also, remittances paid by post offices, exchange bureaus, and other agents of money transfer companies in Central America are often not reflected in the official statistics. Fi-

[109]Remittances tended to be more stable than export receipts or private capital flows in El Salvador, Guatemala, Honduras, and Nicaragua (Figure 5.1). The cyclical stability of remittances owes in part to the fact that they are largely altruistic transfers by the existing migrant stock. Indeed, remittances may also behave countercyclically as existing migrants may increase remittances, and new migration may take place, during a period of economic slowdown in the remittance recipient economy (Ratha, 2003).

[110]In contrast, the richer neighbors, Costa Rica and Panama, have significant remittance *outflows* to the region. The exact amount of flows from various source countries is not available as bilateral flow data do not exist for most countries.

[111]The 2004 estimates of remittance flows produced by the Multilateral Investment Fund of the Inter-American Development Bank, for example, exceed the figures presented in Table 5.1 by 20 percent in El Salvador, 25 percent in Guatemala, and 31 percent in Honduras.

[112]For example, the reporting threshold is $10,000 in the United States, 12,500 euros in Western Europe, and 3 million yen in Japan. Data on remittances rely on reports from recipient countries.

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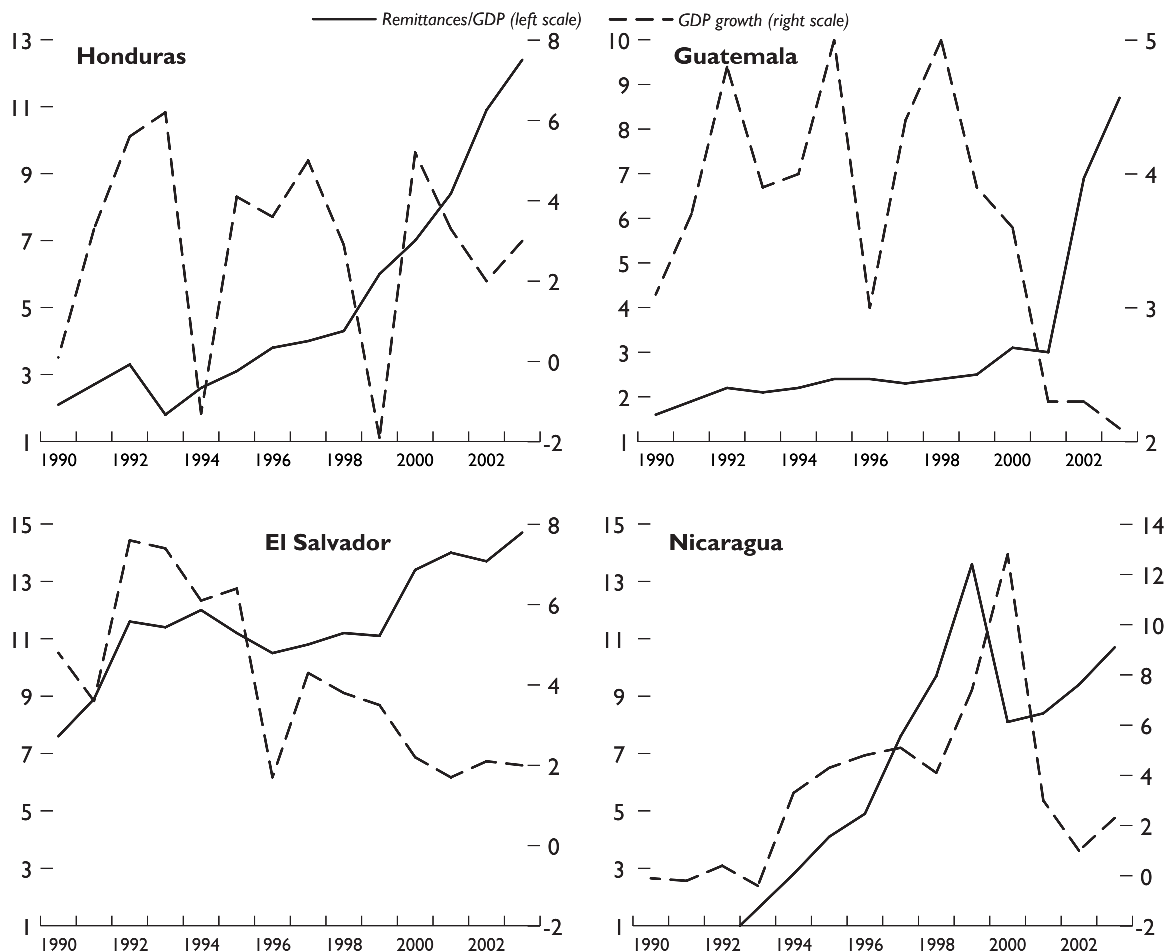
Figure 5.1. Cyclical Stability of Remittances, 1990–2003



Sources: IMF, *Global Development Finance* (2005) and *Balance of Payments Statistics Yearbook* (2004).

nally, a large amount of remittances are misclassified under export revenue, tourism receipts, nonresident deposits, or even foreign direct investment (FDI).[113]

The United States is by far the largest source of remittances to the Central American countries. The remittance pattern is closely linked with the migration pattern. It is worth noting, however, that the Central American countries also have significant intraregional migration and remittance flows. Nicaragua, for example, has nearly half as many migrants in Costa Rica as it has in the United States; it also has a significant number of migrants in Canada, El Salvador, and Guatemala. Honduras has a sizable migrant stock in Mexico, besides the United States. Costa Rican migrants have a significant presence in El Salvador and Honduras, besides the United States and Canada. The sizable intraregional remittance flows are a factor worth including in discussions about regional retail payment systems.

Formal remittances to these Central American countries are largely originated by money transfer

[113]An International Working Group to Improve Remittance Statistics was set up in 2004 at the behest of the G-8, and includes the World Bank, the IMF, the European Central Bank, the Inter-American Development Bank, the Organization for Economic Cooperation and Development (OECD), and the United Nations.

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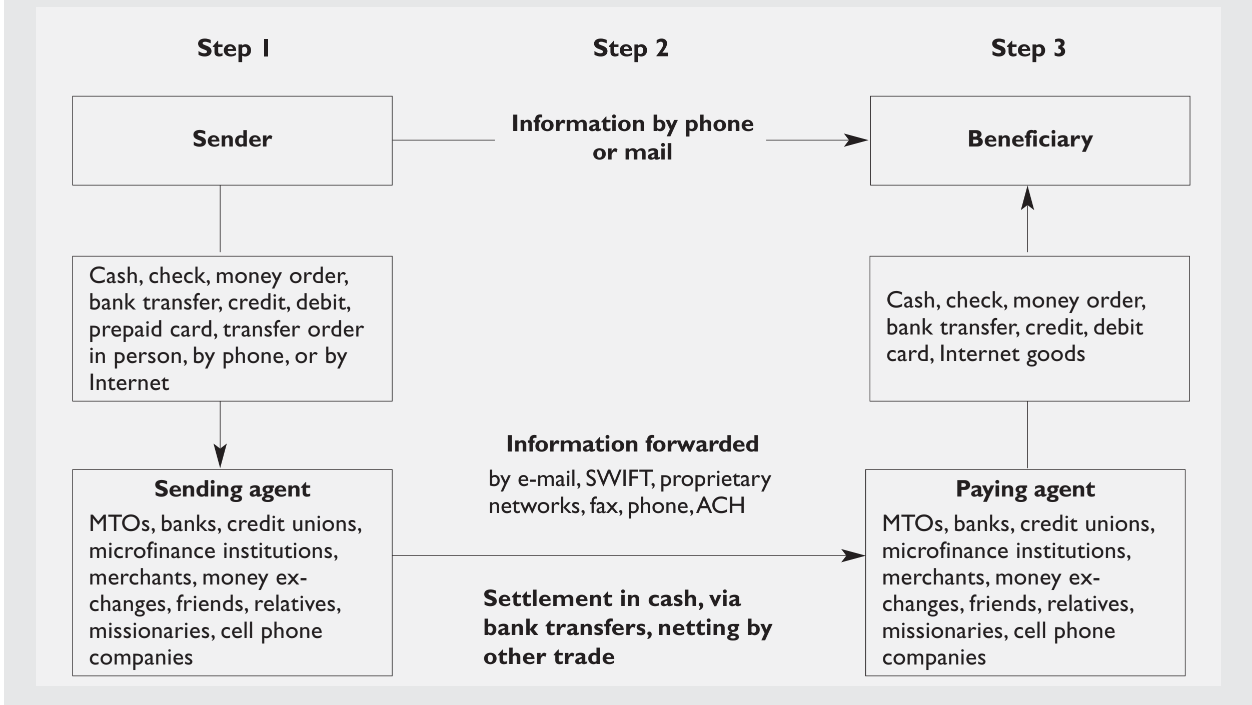
Box 5.1. Remittance Transaction Structure

A typical remittance transaction takes place in three steps: (1) initiation of remittances by a migrant sender using a sending agent, (2) exchange of information and settlement of funds, and (3) delivery of remittances to the beneficiary. In step 1, the migrant sender pays the principal amount of remittance to the sending agent using cash, check, money order, credit card, debit card, or a debit instruction sent through e-mail, telephone, or Internet banking. In step 2, the sending agency—a money transfer operator (MTO), bank or other financial institution, money changer, or merchant (e.g., gas station, grocery store) then instructs its agent in the recipient country to deliver the remittance to the beneficiary. In step 3, the paying agent makes the payment to the beneficiary. In most cases, there is no real-time fund transfer; instead, the balance owed by the sending agent to the paying agent is settled periodically according to a mutually agreed schedule. The settlement is mostly carried out using commercial banks through the national clearing and settlement systems. Informal remittances are sometimes settled through goods trade.



operators (MTOs) and banks in the source countries, and are channeled using mostly private proprietary payment systems and distributed through banks and agents of the MTOs (Box 5.1). Most remittances from the United States to these countries are in the form of electronic transfers, but some are in the form of money orders and drafts, especially in Honduras.[114] Nicaraguan migrants seem to rely heavily on the MTOs, which often have partnerships with local bank and postal networks. Honduras and Nicaragua also have partnerships between their post offices to provide remittance services. In El Salvador and Guatemala, banks are the dominant remittance service provider. Except for a small presence in Guatemala, credit unions and microfinance institutions do not play any significant role in distributing remittances.

A significant part of flows also goes through informal channels, especially traveling friends and relatives.[115] The choice of the channel is affected by,

[114]De Luna-Martínez (2005).

[115]For instance, the results of the 2004 survey on *State-By-State Data on Remittances Sent by Migrants in United States to Latin America*, conducted by the Multilateral Investment Fund of the Inter-American Development Bank, indicate that approximately 12 percent of remittances are sent through people traveling or by mail (available via the Internet: http://www.iadb.org/exr/remittances).

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among other things, remittance costs, trust in the intermediary, and convenience factors such as location, hours of operation, language, and identification requirements. Among these factors, high remittance costs stand out as the most important factor affecting the channel, the instrument (check, money order, electronic wire, prepaid card, debit card, and hand carry), the frequency, and possibly the amount of remittance flows.

Remittance Costs

The fee structure for sending cross-border remittances is rarely transparent. Remittance fees, typically paid by senders to the remittance agent at the time of sending, range from a fixed $3–$5 per transaction to as high as 20 percent in the case of some MTOs. The average remittance fee (excluding foreign exchange commission), according to some reports, is around 4–6 percent in Honduras, 5–7 percent in El Salvador, 6–8 percent in Guatemala, and 6–9 percent in Nicaragua for money transfers of less than $300, which is the average amount that migrants send home every month. In the case of Western Union and MoneyGram, the fee for sending $300 from New York to any of these Central American countries was 9.7 percent and 8.3 percent, respectively, in 2005 (Figure 5.2). All remittance agencies charge an additional foreign exchange commission when the remittance is delivered in local currency. In El Salvador, Nicaragua, and Panama, major remittance agencies deliver remittances in U.S. dollars. On top of the remittance fee and foreign exchange commission, remittance agents (especially banks) often take advantage of the "float" by delaying remittance delivery and investing the funds in the overnight money market.

Remittance costs are significantly higher for smaller remittance transactions used by poorer migrants. In the case of Western Union and MoneyGram, for example, sending $100 costs 15 percent; however, sending $500 costs 8.6 percent and 8 percent, respectively. The remittance cost structure, thus, represents a greater burden for small transactions. It is very likely that remittance flows would increase, especially through formal recorded channels, if remittance costs were lowered.

Conservative estimates based on market analysis suggest that the true cost of transactions—labor, technology, setting up networks, and rent—add up to only about $5 (or less) per transaction, significantly below the fees charged to customers.[116] The marginal cost of effecting transfers using sophisticated payment system infrastructure can be very low. The FedACH International service, offered by the Federal Reserve Banks to process cross-border transactions, for example, charges only 67 cents per remittance transaction, irrespective of the principal amount.[117] However, this service may enjoy cost advantages in terms of volume and infrastructure.

Further analysis is necessary to determine various components of remittance costs. Recent research points to absence of competition in this market as a major contributor to high transaction costs. Remittance costs are low, and have fallen in recent years, in corridors (the United States–Mexico corridor, for example) where competition has increased.[118] Entry of new remittance service providers, however, has been sluggish in most corridors. High fixed costs required to build extensive agent networks is a major entry barrier.

Improving transparency in remittance transactions would raise consumer awareness, reduce unfair remittance practices, and may have a significant effect on costs. The World Bank and the BIS Committee on Payment and Settlement Systems have set up a task force, with IMF participation, to develop voluntary principles for remittance service providers, regulators, and supervisors for improving transparency in the market. It is also possible that simply publicizing information on costs, as Mexican authorities do through the consumer protection agency (Procuraduría Federal del Consumidor, PROFECO) initiative, will contribute to strengthening competition.[119]

Other measures to reduce remittance costs include introducing new remittance instruments that take advantage of new technology, especially Internet-based technology. Card-based instruments, such as stored value cards (similar to phone cards), credit cards, and debit cards, are frequently used for sending remittances to urban locations that have access to card processing machines.[120] These instruments,

[116]Ratha and Riedberg (2005).

[117]FedACH International services are currently available to Canada, Mexico, Austria, Germany, the Netherlands, Switzerland, and the United Kingdom.

[118]Hernandez-Coss (2005).

[119]The International Remittance Protection Act proposed by Senator Paul Sarbanes of Maryland in September 2004 marks an effort to improve disclosure of fees and exchange rate commissions in remittance transactions.

[120]Cellular phone–based technologies, such as the Smart Padala system in the Philippines, are not yet popular in the region, but it is a matter of time before such instruments become

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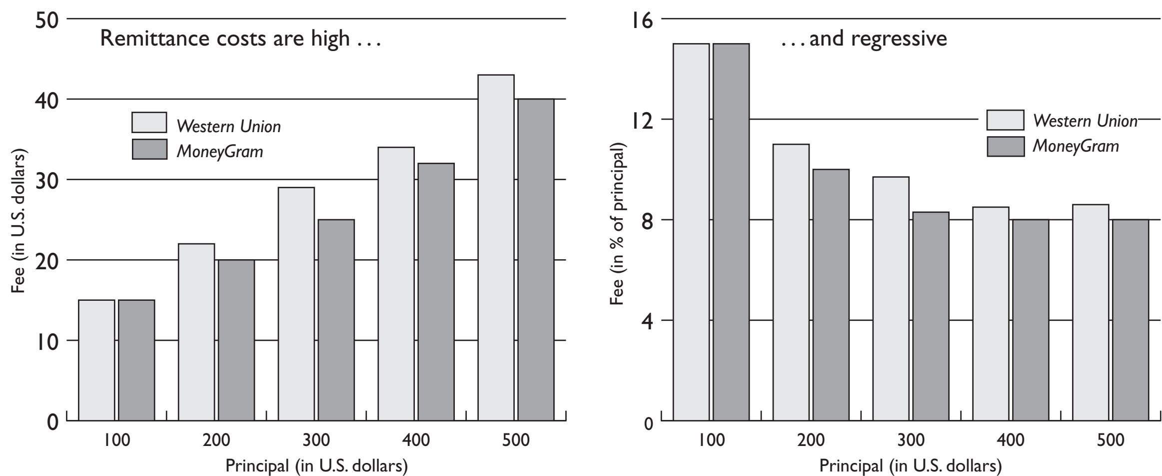
Figure 5.2. Remittance Costs, April 2005



Sources: www.westernunion.com and www.moneygram.com.
Note: Fees shown are for remittances from New York to Central America. The same fee structure applies to all six Central American countries.

however, represent a challenge from an anti-money-laundering/combating the financing of terrorism standpoint to properly identify the customer behind a transaction.

Regulatory and policy decisions also affect the level of transaction costs. Since the terrorist attacks of September 11, 2001, authorities in many countries have adopted more stringent regulations and stepped up enforcement of existing rules governing the transfer of foreign exchange. In particular, the introduction of the Patriot Act in the United States in late 2001 tightened know-your-client requirements for fund transfers.[121] In addition, financial institutions are also required to comply with the AML/CFT recommendations of the Financial Action Task Force (FATF), which are transposed in national regulations, as well as with the Office of Foreign Assets Control (OFAC) sanctions list.[122] An increasing number of countries are requiring MTOs to register and report transactions on a regular basis. These regulatory requirements have raised the cost of fund transfers to the remittance service providers who tend to pass on the cost increase to customers.

The regulatory regime governing remittances has to strike a balance between curbing money laundering, terrorist financing, and general financial abuse, and facilitating the flow of funds through formal channels. While, for instance, documentation requirements can add to the cost of remittances and restrict access to formal channels, they are necessary to prevent the abuse of remittance services for money laundering or terrorist financing purposes. Strengthening the formal remittance infrastructure by offering the advantages of low cost, flexible hours, expanded reach, and language, and increasing efforts to identify and regulate the unregulated sector, would be effective ways to facilitate remittance flows while preserving their integrity.

Harmonizing electronic fund transfer systems could reduce the cost of remittances. Currently, major transfer agents use their own (costly) propri-

available. These systems combine the advantages of phone banking with the unique ID and security features of cellular technology. See Ratha and Riedberg (2005); and Department for International Development (2005).

[121]Section 326 of the Patriot Act requires banks to verify the identity of customers. The law does not bar non-U.S. citizens from opening bank accounts in the United States. A non-U.S. customer who does not already have a social security number could use a government-issued identity document (e.g., the national passport) to open a non-interest-bearing checking account, and apply for an income taxpayer identification number (ITIN) to open an interest-bearing savings account.

[122]The FATF has issued special AML/CFT recommendations for registering/licensing remittance service providers. See IMF (2005).

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etary systems for effecting cross-border remittances. Also, domestic payment systems have evolved independently, although efforts are under way for their harmonization.

Even with the prevailing cost structure, there may be scope to reduce average remittance costs by "bundling," that is, by enabling senders to remit more money but less frequently, perhaps by improving access to savings accounts or credit. Banks and other financial institutions could play a role in facilitating this. In addition, improving migrant workers' access to banking in the remittance-source countries could reduce transactions costs as well as encourage financial deepening in the countries receiving remittances.

Remittances and Financial Institutions

Financial institutions, including smaller ones such as credit unions and microfinance institutions (MFIs), can play a major role in delivering low-cost and convenient remittance services.[123] If remittances are channeled through financial institutions, they might encourage more savings and also enable better matching of savings and investment in the economy.[124] Among the products that financial institutions are starting to offer to families receiving remittances are consumer loans, mortgages, and life insurance. Banks from countries in the region have been active in this market for some time, including through branch networks in sender countries. Larger international banks have more recently shown some interest in tapping this market.[125]

Credit unions in El Salvador, Guatemala, Honduras, Nicaragua, Mexico, and Jamaica that are members of the World Council of Credit Unions (WOCCU) encouraged WOCCU to establish the International Remittance Network (IRnet) in July 1999, to facilitate remittance flows from the United States to Latin America. This initiative has successfully lowered remittance costs by raising customer awareness of remittance fees and by generating, to some extent, competition in the remittance market. The remittance fee through IRnet is a flat $10 for sending up to $1,000, much lower than the fees charged by major MTOs (see Figure 5.2). Besides fee income, these institutions are interested in using remittances for relationship building with existing and new customers. It is reported that 14–28 percent of nonmembers who came to WOCCU-affiliated credit unions to transfer funds eventually opened an account, and 37 percent of credit union members saved some part of their remittance receipts.[126]

Financial institutions are exploring new products such as car and housing loans to remittance recipients. The idea of using remittance receipts as a way to evaluate credit history for lending to microenterprises is also being explored. Some institutions are also exploring ways to target remittances to specific uses such as paying school fees or medical bills. Others are exploring insurance products, for example, to ensure a stable flow of income to the remittance beneficiary in the event that the sender suffers an income shock.

In entering the remittance market, smaller nonbank financial institutions such as the MFIs have often entered into corresponding banking relationships with local commercial banks and with international remittance providers (such as the IRnet or the major MTOs).[127] Such tie-ups may be a reason behind high remittance fees charged by some MFIs in Central America, although their services may still be considered convenient by customers.[128]

Securitization of Remittances

Taking advantage of the large size and stability of remittance flows, financial institutions in El Salvador followed the example of Mexican banks and raised $650 million from the international capital markets between 1998 and 2004 by securitizing future flows of remittances and, more recently, other

[123]Microfinance can be particularly important for channeling remittances to rural areas, where nearly 40 percent of recipients reportedly live—see Yang (2004) based on the 2002 round of the Encuesta de Hogares Propósitos Multiples.

[124]A bank account offers security and convenience for saving. Thus, a remittance recipient with a bank account is more likely to save a part of the remittance income than an unbanked person.

[125]For instance, in 2004, Banco Bilbao Vizcaya Argentaria (BBVA) of Spain reached an agreement to acquire Laredo National Bancshares of the United States with a view to tapping the Hispanic market in the Texas-Mexico border area.

[126]Grace (2005) based on data from the FEDECACES in El Salvador and the FENACOAC in Guatemala.

[127]In Guatemala, Bancafe, Banrural, and FENACOAC have partnerships with MoneyGram, Western Union, and Vigo, respectively. In El Salvador, FEDECACES has partnered with Vigo, and Procredit with Western Union, and several others with MiPueblo (see Orozco, 2004).

[128]See Orozco and Hamilton (2005); Isern, Deshpande, and van Doorn (2005); and Sander (2004).

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TABLE 5.2
Securitization of Future Remittances in El Salvador

Year	Issuer	Amount (in millions of U.S. dollars)	Flow Type	Transaction Rating	Sovereign Rating
1998	Banco Cuscatlán	50	Remittances	BBB	BB
1999	Banco Cuscatlán	25	Remittances	BBB	BB+
2002	Banco Cuscatlán	100	DPR	AAA	BB+
2002	Banco Agrícola	100	DPR	AAA	BB+
2002	Banco Agrícola	40	DPR	AAA	BB+
2003	Banco Cuscatlán	125	DPR	AAA	BB+
2003	Banco Agrícola	60	DPR	AAA	BB+
2004	Banco Salvadoreño	25	DPR	BBB	BB+
2004	Banco Salvadoreño	75	DPR	BBB	BB+
2004	Banco Cuscatlán	50	DPR	BBB	BB+
Total		650			

Sources: Ketkar and Ratha (2004); Fitch Ratings; and Standard & Poor's.

diversified payment rights (DPRs), such as export revenue and FDI (Table 5.2).

Securitization of future remittances (as well as tourism receipts and export receipts) can enable developing country borrowers (typically, financial institutions) to access international capital markets during hard times. By mitigating currency convertibility risk, a key component of sovereign risk, the securitization of future remittances allows securities to be better rated than the sovereign. These securities are typically structured to obtain an investment grade rating. In the case of El Salvador, for example, the remittance-backed securities were rated investment grade, two to four notches above the subinvestment grade sovereign rating. Investment grade rating makes these transactions attractive to a wider range of "buy-and-hold" investors (e.g., insurance companies that face limitations on buying subinvestment grade securities). As a result, the issuer can access international capital markets at a lower interest rate and longer maturity.

Perhaps the most important incentive for governments to promote this asset class lies in the externalities associated with it. Securitized transactions, as opposed to unsecuritized ones, involve a much closer scrutiny of the legal and institutional environment—the existence as well as the implementation of laws relating to property rights and bankruptcy procedures. A remittance securitization transaction backed by the government can also help usher in reforms of the legal and institutional environment.

Remittance securitization typically involves the borrowing entity such as a bank pledging its future remittance receivables to an offshore special purpose vehicle (SPV) that issues the debt (for an example, see Box 5.2). Designated correspondent banks are directed to channel all remittance flows of the borrowing bank directly to an offshore collection account managed by a trustee. The collection agent makes principal and interest payments to the investors and sends excess collections to the borrowing bank. Since remittances do not enter the issuer's home country, the rating agencies believe that the structure mitigates the usual sovereign transfer and convertibility risks. Such transactions also often resort to excess coverage to mitigate the risk of volatility and seasonality in remittances.

The first major securitization deal involving international migrant remittances occurred in 1994 in Mexico. Since then, the volume of remittance securitization has grown rapidly. Using this instrument, Mexico, Turkey, and El Salvador raised about $2.3 billion during 1994–2000. As electronic transfers became more prevalent and made it easier to track complex transactions, remittance securitization gave way to securitization of DPRs including mainly migrant remittances, but also payments related to exports and FDI. Between 2000 and 2004, a total of $10.4 billion was raised through securitization of DPRs by Brazil ($5.3 billion),[129] Turkey ($4.1 billion), El Salvador, Kazakhstan, Mexico, and Peru (although remittances remain dominant).

[129]These bonds resulted in a spread saving of over 700 basis points compared with Brazil's sovereign spread.

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Box 5.2. Banco do Brasil's Nikkei Remittance Trust Securitization[1]

Amount:	$250 million.
Collateral:	U.S. dollar– or Japanese yen–denominated worker remittances.
Transaction rating:	BBB+ versus Banco do Brasil's and Republic of Brazil's foreign currency rating of BB–Stable.

This deal involved Banco do Brasil (BdB) selling its future remittance receivables from Brazilian workers in Japan directly or indirectly to a Cayman Island–based offshore special purpose vehicle (SPV) named Nikkei Remittance Rights Finance Company (see the figure). A New York city–based SPV issued and sold the debt instrument to investors, receiving $250 million. BdB Japan was directed to transfer remittances directly to the collection account managed by the New York–based trust. The collection agent was to make principal and interest payments to the investors. Excess collections were to be directed to the originator BdB via the SPV.

Since remittances did not enter Brazil, the rating agencies believed that the structure mitigated the usual sovereign transfer and convertibility risks. The structure also mitigated the bankruptcy risk because the SPV had no other creditors, and risk of bankruptcy was minimal given the government-owned BdB's dominant position in Brazil. Furthermore, legal opinion held that creditors would continue to have access to the pledged security (i.e., remittances) even if BdB were to file for bankruptcy.

A number of residual risks remained that were difficult to structure away. These included performance risk—the ability and willingness of BdB to garner remittances and deliver them to the collection account managed by the New York–based trustee; product risk—the ability and willingness of Japan to generate remittances; and diversion risk—the possibility of BdB selling the remittance rights to another party. The performance risk is generally captured in the issuer's local currency rating. For entities such as banks, Fitch uses the going concern and Standard & Poor's (S&P) the "survival" assessment of the originating entity in rating an asset-backed transaction higher than the issuer's local currency rating. This was the case for the BdB's Nikkei Remittance Trust transaction, which was rated BBB+ versus BdB's BB+ local rating. In reaching this decision, S&P took into account BdB's position as the largest financial institution in Brazil (with a 2,900-strong branch network) that makes it a natural conduit for funds transfers, the long-established presence of BdB in Japan since 1972, and the importance of worker remittances in generating foreign exchange for the Brazilian government. The product risk from volatility and seasonal fluctuations in remittances was mitigated via over-collateralization or excess coverage, with a debt service coverage ratio of 7.64.[2] Another element of product risk was partially mitigated by recognizing Japan's need for workers to supplement the native workforce, and the availability of Brazilians of Japanese descent to fill this demand. S&P, however, recognized as constraints on the rating the possibilities of Japan obtaining workers from countries other than Brazil and BdB selling remittance rights to another party. It expressly identified the latter as an event of default, triggering early amortization.

Some elements of sovereign risk cannot be totally eliminated. For example, the Central Bank of Brazil can compel BdB to pay remittances directly to the central bank instead of the trust. A degree of protection against this risk is provided by the fact that BdB is majority owned by the government of Brazil. In other instances, remittance securitized transactions have made designated correspondent banks sign a

[1]This box draws on Ketkar and Ratha (2004).

[2]While excess coverage helps to mitigate elements of product risk, it also reduces the total amount of funds that can be raised with future flow receivables.

As experience with this instrument broadens and investors become more comfortable with its characteristics, it is possible that it could be used by a wider range of countries (including poor countries) and for a broader range of external flows (remittances, tourism receipts, commodity earnings). Financial institutions in the Central American countries that receive significant amounts of remittances can potentially raise financing from international capital markets using the future remittance-backed securitization structure. However, to the extent remittances finance consumption and imports, they will not be available as collateral.

One of the main problems with future flow securitization is that it increases the level of inflexible debt of the issuer, usually private financial institutions.[130] Although the current level of debt pledged to future flows is not alarming, such debt reduces the flexibility and ability to service other nonpreferred debt. Securitization of future remittances (and other

[130]See IMF (2003); and Chalk (2002).

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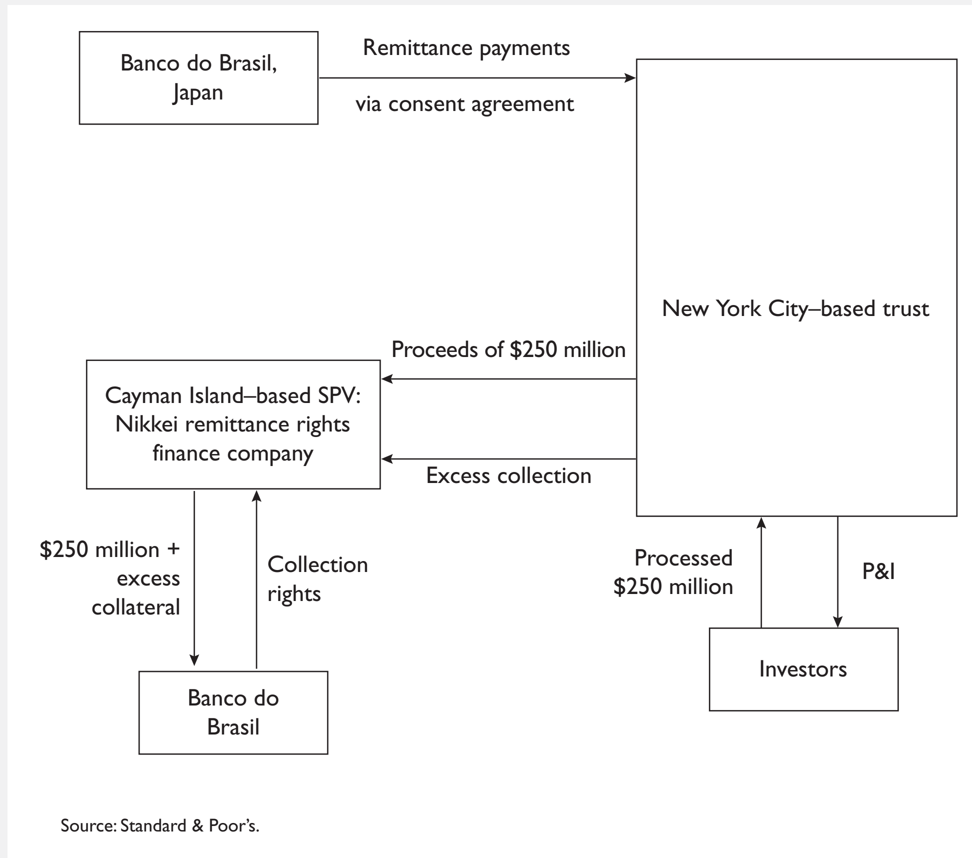
Structure of Banco do Brasil's Remittance Securitization



Source: Standard & Poor's.

Notice and Acknowledgement, binding under the U.S. law (or the law of a highly rated country), that they will make payments to the offshore trust. That would make the sovereign reluctant to take the drastic step of requiring payments into the central bank. Currency devaluation is yet another element of sovereign risk that cannot be totally eliminated even in structured transactions. For instance, currency devaluation may impact the size and timing of remittances, particularly through formal channels.

future flows) can potentially conflict with the negative pledge provision included in the World Bank loan and guarantee agreements. While this clause does not prevent a borrower from pledging assets to other lenders, it prohibits establishing a priority for other lenders over the World Bank.[131]

Several policy hurdles need to be surmounted before securitization deals can proceed. High fixed costs of legal, investment banking, and credit rating services as well as long lead times can pose difficulties for developing countries with few large entities and high borrowing needs. A master trust arrangement can permit issuers to structure a large deal but tap the market in several tranches. Pooling receivables of several branches (or even several borrowers) could also help to increase the deal size to justify large fixed costs. Absence of an appropriate legal in-

[131]The IMF does not have any formal negative pledge provision, but it could take into account collateralized future receipt agreements in making financing decisions under Article V. See IMF (2003), p. 14.

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frastructure is yet another constraint on issuance. Overcoming this constraint need not call for a grand overhaul of the entire legal system—a more focused approach that concentrates on bankruptcy law may suffice, by making sure that pledged assets remain pledged in the event of default.[132]

Conclusions

Migrant remittances are the largest source of external financing and a large source of funding in relation to the size of the Central American economy. Remittances are, therefore, a significant part of the retail payment system covering small-value transfers or transactions where one of the counterparty is an individual.

From a financial sector point of view, large remittance flows raise two sets of issues: how to reduce cross-border remittance costs, and how to leverage remittances for improving financial deepening in the recipient countries. A related and somewhat under-researched issue is the use of remittances as collateral for raising external financing.

Measures to reduce remittance costs and strengthen the financial infrastructure include encouraging competition among remittance service providers, harmonizing regulation, introducing electronic remittance instruments, harmonizing payment systems, and extending banking access of remittance recipients at home and migrants overseas.

Improving data on remittances, especially bilateral flows and corridor-specific data, would help to encourage competition in the larger corridors. Officially recorded remittance data are believed to significantly underestimate the true size of remittance flows. An international working group comprising the World Bank, the IMF, the European Central Bank, the Inter-American Development Bank, the OECD, and the United Nations, is currently looking into improving data on remittances. Another task force jointly set up by the World Bank and the CPSS, in which the IMF is also participating, is currently developing voluntary principles for remittance service providers and regulators to improve transparency in the remittance market.

[132]Tran and Roldos (2003) outline a broader set of policy actions and reforms for securitization. Although these recommendations are for securitization of existing (and local currency) assets such as mortgage loans, they also apply for securitization of future flow (and hard currency) assets.

Many of these efforts to facilitate cross-border remittances would require bilateral cooperation between the Central American countries and the U.S. government, since the United States is the most important source of remittance flows to Central America. These efforts would also require regional cooperation as intraregional remittance flows are sizable.

Efforts to reduce costs have to be carefully balanced with efforts to fight money laundering and the financing of terrorism. While, for instance, documentation requirements can add to the cost of remittances and restrict access to formal channels, they are necessary to prevent the abuse of remittance services for money laundering or terrorist financing purposes. Strengthening the formal remittance infrastructure by offering the advantages of low cost, flexible hours, expanded reach, and knowledge of foreign languages, and increasing efforts to identify and regulate the unregulated sector, would be effective ways to facilitate remittance flows while preserving their integrity.

Banks and smaller financial institutions, such as credit unions and microfinance institutions, can play a role in delivering low-cost and convenient remittance services. Remittances, in turn, may bring new customers and business, such as consumer loans, mortgages, and life insurance, to these institutions. Banks in Central American countries have been active in this market for some time, including through branch networks in sender countries. Larger international banks have more recently shown interest in tapping this market.

There is potential for mobilizing financing from international bond markets by securitizing future remittance flows in Central America, especially during times of low liquidity and heightened perception of country risk. Future flow securitization, however, increases the level of inflexible debt of the issuer (usually, financial institutions). This activity may also be constrained because remittances tend to feed directly into consumption and imports and thus do not constitute increased financial savings.

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