DEALING WITH GLOBAL FINANCIAL RISKS

Times of trouble prompt us to recall the ideals by which we live.

—Michael J. Sandel, *Democracy's Discontent: America in Search of a Public Philosophy*

The financial crisis of 1997–99 that affected most severely Brazil, the Russian Federation, and several countries in East Asia underscored the importance of financial stability as a contributor to the quality of growth. As with environmental sustainability, education, and good governance, managing the risks of financial instability, especially those of cross-country capital flows, can stimulate sustainable growth by reducing economic inequality, enhancing social stability, and strengthening democratic trends and institutions. Without social and political stability, "no amount of money put together in financial packages will give us financial stability" (Wolfensohn 1998).

Global financial integration has undeniable benefits for developing and industrial countries, but it also exposes countries to the vicissitudes of international capital markets, such as volatility in currency values, interest rates, liquidity, and volumes of capital flows, with important macroeconomic and growth consequences. These risks are pronounced and costly, as demonstrated recently by lost output and jobs, corporate and banking distress, and increased poverty in crisis-hit countries, especially in countries where the institutional and regulatory frameworks for open capital markets are not fully in place.

The high social and economic costs associated with financial instability are unacceptable and make a strong case for devising better ways to deal with financial risks and to ensure stable growth. Chapter 2 shows how policy distortions, subsidies, and unnumerated guarantees can cause

overinvestment in certain physical and financial capital, but underinvestment in other assets. This chapter turns to the factors that influence the volatility in capital flows to developing countries and the associated suboptimal investments that could lead to an increased vulnerability to financial turbulence. After a brief review of the benefits and risks of financial market integration, the chapter examines the causes and consequences of capital flow volatility and its implications for the poor. It then reviews the evolution of policy and institutional arrangements for managing risk and suggests a broad framework for risk management that integrates insights from the theory and practice of modern financial risk management with the political economy of open capital markets.

For growth to be relatively stable, governments can consider a spectrum of actions as follows:

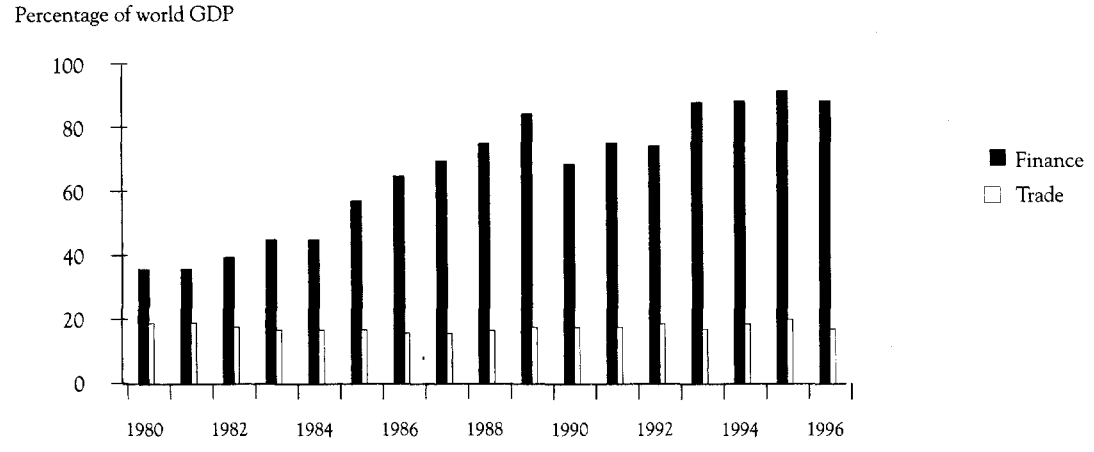
- Remove distortionary policies and implicit or explicit subsidized guarantees that provide incentives for short-term foreign capital inflows, which may accentuate vulnerability to financial shocks.
- Strengthen domestic regulation and supervision of banks and other financial intermediaries and improve corporate governance and transparency.
- Build a broad framework for risk management, based on an orderly opening of capital markets combined with measures for controlling short-term capital flows.
- Maintain public support for open capital markets by providing cushions against risks, either through the marketplace or through redistributive policies and a social safety net.

Expansion of Capital Markets and Volatility of Capital Flows

By any measure, the growth in international financial markets throughout the 1990s was astounding. International lending in new medium- and long-term bonds and bank loans reached US$1.2 trillion in 1997, up from US$0.5 trillion in 1988 (BIS various years). World trade in goods and services, though growing significantly since the early 1970s, is now dwarfed by international financial transactions of more than five times the value of world trade (figure 5.1).

OECD cross-border transactions in bonds and equities, less than 10 percent of GDP in 1980, reached more than 100 percent of GDP in 1995. Average daily turnover in foreign exchange markets reached US$1.6 trillion in 1995, up from US$0.2 trillion in 1986, and annual trade in goods and

Figure 5.1. Global Financial Market Size and World Trade, 1980–96



Note: Financial market size refers to world stock market capitalization plus stock of international bonds and loans outstanding. Trade figures are averages of imports and exports.

Sources: BIS (1997, 1998); International Finance Corporation (various years).

services reached US$6.7 trillion in 1998. Global market capitalization of stock markets relative to world GDP rose from 23:1 in 1986 to 68:1 in 1996, while derivative markets expanded from US$7.9 trillion in 1991 to US$40.9 trillion in 1997 (table 5.1).

The net flow of foreign private capital to developing countries also rose dramatically, from US$43.9 billion in 1990 to US$299 billion in 1997. Most of the capital came from foreign direct investment (FDI) and international capital markets, which include portfolio equity flows, commercial bank lending, and equity and bond issues in offshore markets. Flows of FDI to developing countries increased more than sixfold between 1990 and 1998, and the share of global FDI flows to developing countries rose from 18 percent in the mid-1980s to 24 percent in 1991 and 36 percent in 1997. However, when the financial crisis struck Asia beginning in 1997, capital flows from international capital markets to emerging market economies took a heavy hit, falling to their lowest point since 1992 at US$72.1 billion, while FDI remained resilient (figure 5.2) (World Bank 1999c).

Causes and Consequences of Capital Flow Volatility

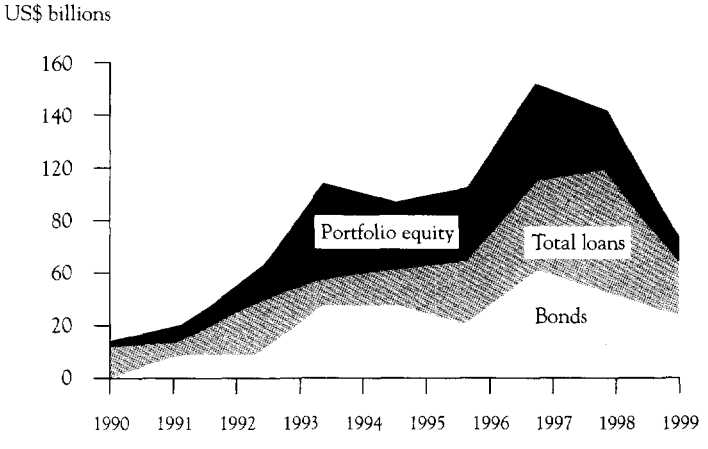
The large expansion in private capital flows to developing countries from 1990 to 1997 was positively affected by advances in communication and

Table 5.1. Growth of Derivatives Markets, 1991–97
(notional values in billions of US$)

	Instruments traded on exchanges					*Over-the-counter (OTC) instruments*				
Year	*Interest rate futures*	*Interest rate options*	*Currency futures and options*	*Stock market index futures and options*	*Total exchange traded*	*Interest rate options*	*Interest rate swaps*	*Currency swaps*	*Total*	*Total*
1991	2,157	1,073	81	109	3,420	577	3,065	807	4,449	7,869
1992	2,913	1,385	98	238	4,635	635	3,851	860	5,346	9,980
1993	4,959	2,362	110	340	7,771	1,398	6,177	900	8,475	16,246
1994	5,778	2,624	96	366	8,863	1,573	8,816	915	11,303	20,166
1995	5,863	2,742	82	502	9,189	3,705	12,811	1,197	17,713	26,901
1996	5,931	3,278	97	574	9,880	4,723	19,171	1,560	25,453	35,333
1997	7,489	3,640	85	993	12,207	5,033	22,116	1,585	28,733	40,940

Source: BIS (various years).

Figure 5.2. The Rise and Fall of International Capital Flows, 1990–99



Note: International capital market flows to developing countries (including Korea) consist of portfolio equity, international private bonds, and loans.
Source: World Bank (2000g).

information technologies, which reduced cross-border transaction costs.[1] The advances facilitating cross-border capital flows have included the creation of the Euro-currency money market, the spread of derivatives, and the rapid expansion of hedge funds. In addition, both industrial and developing countries have opened their financial markets by removing

barriers to cross-border capital flows.[2] However, various implicit or explicit government guarantees provided to banks, corporations, and investors in liberalized, but inadequately regulated, financial sectors, fueled overinvestment in certain industrial sectors in East Asian countries, on the one hand, and creating moral hazard and excessive risk-taking behavior among investors on the other hand.[3] The accumulation of contingent government liabilities and overleverged corporate indebtedness may have contributed to vulnerability, to the loss of investor confidence, and to the eruption of the recent financial crisis. Historically, shifts in the supply of foreign capital to developing countries have been caused by exogenous factors, such as the increase in oil prices in the 1970s, low interest rates, deregulation of institutional investors in industrial countries, and institutional innovation and competition in the 1990s.

The dismantling of barriers to capital flows across national boundaries, such as capital controls and foreign exchange restrictions, accelerated in OECD countries in the 1980s and spread to emerging markets. OECD countries liberalized almost all capital movements, including short-term transactions by enterprises and individuals, in compliance with the OECD Code of Liberalization of Capital Movements. The United Kingdom achieved full capital account convertibility in 1979, and in 1992 Greece, Ireland, Portugal, and Spain became the last OECD countries to fully abolish their capital controls (OECD 1990). By the early 1990s, the capital accounts of OECD countries were open to a wide range of cross-border financial transactions in capital market securities, money market operations, forward operations, swaps, and other derivatives.[4]

Many emerging market economies have also reformed their financial markets and liberalized cross-border capital movements. Based on an index of financial openness constructed for 96 countries, as of 1977, 46 can be classified as open and 10 as semi-open (box 5.1 and annex 5). As countries liberalized, banks and corporate borrowers gained access to a broader menu of foreign financing. The desirability of long-term capital, especially for funding infrastructure projects, provided a strong competitive advantage for foreign capital, particularly in countries with an exchange rate pegged to the U.S. dollar. Greater access to foreign capital in developing countries opens up possibilities for financing a broader set of investment projects, both sound and risky ones.

Despite the positive potential of foreign capital, weaknesses in domestic policy and liberalization measures, including subsidized guarantees, created incentives for imprudent behavior by banks, corporations, and investors that led to overinvestment in physical capital (for examples, see Demirgüç-Kunt and Detragiache 1998; Williamson and Mahar 1998).

Box 5.1. Openness to International Capital Flows

Evidence about the openness of emerging market economies to cross-border capital flows is scanty and fragmented. Information and methodology problems impede the development of proper quantitative measures. Most studies measure the incidence of capital controls rather than the intensity of restrictions and controls (see, for instance, Alesina, Grilli, and Milesi-Ferretti 1994; Razin and Rose 1994). However, not all transactions are subject to all controls, and most measures are intended to influence the incentives for certain activities. Controls range from direct quantitative limits on certain transactions or associated transfers, to such indirect measures as tax withholding or reserve requirements on external assets and liabilities. Such controls could also apply to transfers of funds associated with financial transactions or to the business activities themselves.

No single measure of openness exists. Any viable measure of financial openness needs to incorporate distinctions between the severity of controls and the types of transactions. The financial openness index, shown in annex 5 (table A5.5), addresses the relationships between types of control and transactions. It uses disaggregated measures of capital controls based on the classifications and information contained in the International Monetary Fund's *Annual Report on Exchange Arrangements and Exchange Restrictions*. Drawing on the coding methodology developed by Quinn and Toyoda (1997), the measure is a composite index of rules, regulations, and administrative procedures that affect capital flows for 27 transactions in the current and capital accounts of balance of payments for 96 countries.

Government guarantees took many forms, such as pegged exchange rates, directed lending, too-big-to-fail policies, and deposit insurance. Implicit or explicit government guarantees on liabilities encouraged excessive risk taking, influencing both domestic and international investors (see McKinnon and Pill 1997 for an analytical model). In essence, such weakness resulted in an underpricing of risk and lowering of margins on foreign currency denominated debt to emerging market economies, until just before the beginning of the East Asian crisis.

The Bangkok International Banking Facility, established in 1993 during financial liberalization, enabled Thai banks and firms to borrow in foreign currency at short maturities, which is a process called out-in lending. Because of bilateral tax treaties between Japan and Thailand, Japanese banks were willing to absorb the withholding tax and lend at very low spread to Thai companies. This infusion of Japanese money resulted in rapid growth of Bangkok International Banking Facility out-in lending: The foreign currency loans of Thai commercial banks rose to US$31.5 billion, 17 percent of private sector loans, by the end of 1996 (Alba and others 1998).

The Korean government directed lending to *chaebols*, which led to overinvestment in favored industries such as semiconductors, automobiles, steel, and shipbuilding. In Korea, the average debt-to-equity ratio of the top 30 *chaebols* was more than 500 percent by the end of 1996, and return on

invested capital was below the cost of capital for two-thirds of the top *chaebols* (Park 2000).

With excessive foreign short-term borrowing induced in part by subsidized guarantees, government contingent liabilities accumulated. Once investors realized that the government was no longer able to meet its obligations, they took the exit route. Once a crisis began in one country, investor herdlike behavior and contagion spread through international trade and financial linkages, which resulted in private capital flow reversals and considerable widening of spreads for almost all emerging market economies (see Calvo 1999; Reinhart and Kaminsky 1999; Van Rijckeghem and Weder 1999).

Benefits and Risks of Open Capital Markets

The benefits of open capital markets are indisputable; the policy debate concerns whether the benefits outweigh the risks. Governments can also consider employing instruments to minimize such risks.

Open capital markets bring many benefits to both borrowing and creditor countries. They offer developing countries broader sources of investment finance to complement domestic savings. They also result in increased efficiency in domestic financial institutions and more disciplined conduct of macroeconomic policy. In addition, by easing financing constraints, open capital markets provide time for countries to make payment adjustments to correct imbalances that were created in response to external shocks.[5] Open capital markets offer creditor countries broader investment- and risk-diversification opportunities, particularly as their aging populations with growing pension funds seek higher and safer returns on their investments.

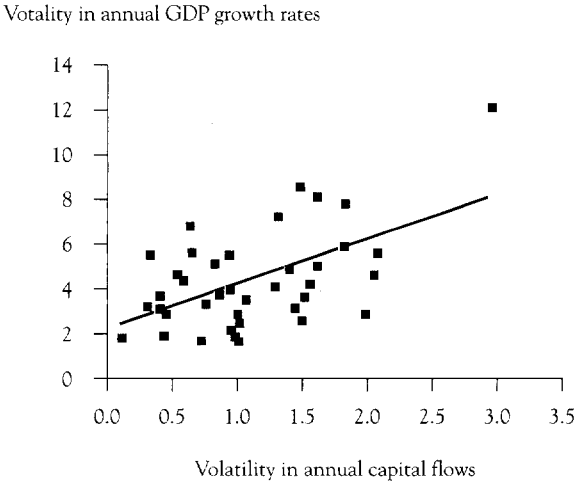
Open capital accounts also support the multilateral trading system, expanding the opportunities for portfolio diversification and for the efficient allocation of global savings and investment (Fischer 1998). An important property rights issue with regard to international finance also has attracted the attention of scholars and policymakers. Cooper (1998, p. 12) notes the view that embodies the thinking behind a liberal world order: "Individuals should be free to dispose of their income and wealth as they see fit, provided their doing so does not harm others." Others argue that openness to international capital flows is highly correlated with measures of political and civil liberty. The empirical evidence on the importance of financial openness and democratic governance is compelling, although the direction and nature of the link need study (see figure A5.1 in annex 5).

Openness also brings with it increased risks. Volatility in capital flows creates uncertainty in economic conditions, raises the cost of capital, may

adversely affect long-term investment and growth, and slows poverty reduction efforts. Based on data from 90 developing countries, a strong correlation exists between the volatility of capital flows and the volatility of growth, as measured by the standard deviation of annual growth rates in real GDP (figure 5.3). In addition, using data from 130 countries between 1960 and 1995, Easterly and Kraay (1999) found that growth volatility, based on the standard deviation of GDP growth, has a negative effect (–0.18) on average per capita growth.

Two broad risk categories, those related to distorted domestic policies and those associated with external factors, can create economic problems for foreign investors and policymakers. Distorted domestic policies and weak regulatory and institutional environments provide incentives for banks and corporations to build up excessive short-term external liabilities relative to their short-term assets or unhedged foreign exchange positions. Examples of domestic sources of such risks include explicit and implicit government guarantees, pegged exchange rates, directed lending to investment projects, and mounting contingent liabilities. Dooley (1996) argued that the adoption of fixed exchange rates and deposit guarantees, in the context of a liberalized but poorly regulated financial sector, may induce foreign investors to reap

Figure 5.3. Relationship between Economic Growth Variability and Volatility in Private Foreign Capital Flows, 1975–96



Note: y = 2.02x + 2.15, r = 0.57.
Source: See annex 5 for definitions and sources.

high private rates of return that do not benefit the borrowing countries. This underpricing of the true risks of underlying investments must be addressed to ensure balanced investment that could stimulate long-term growth and poverty reduction in borrowing countries.

The second category of risk relates to the functioning of international financial markets, external factors, and foreign lender and investor shifts in sentiment, belief, and confidence that are not necessarily related to a country's long-term creditworthiness. Thus, Calvo, Leiderman, and Reinhart (1994) found that external factors, such as U.S. interest rates and volatility in OECD growth could explain 30–60 percent of the variance in capital flows to Latin America. Shifts in investors' sentiment and beliefs, as reflected in a sharp turnaround in capital flows and/or a spike in emerging market economies' borrowing costs, can be caused by coordination failures on the part of creditors. This coordination problem could happen because of incomplete information between creditors that could render their decision to run or flee from a particular country dependent on the behavior of others. This dependence can generate a run, analogous to a bank run in domestic settings, adding a noncooperation premium on top of other country risk premiums (see Haldane 1999 for further elaboration of this point).

Countries need to be prepared to deal with the risks associated with financial integration and capital flow volatility. Because countries' preparedness varies and institution building takes time, governments can consider a spectrum of policy and regulatory actions as they open up to international capital flows in an orderly fashion.

Growth Volatility and the Poor

Financial crises are extremely costly. Latin America lost a decade of economic and social progress following the debt crisis of the early 1980s. East Asian countries lost an estimated US$500 billion, based on 1996 prices and exchange rates, in aggregate domestic output between 1997 and 1999, as measured by deviation from historical trends, or nearly 1.3 times the external debt of those countries in 1996 (see annex 5 for the method of calculation). In addition, the international financial community extended substantial financial assistance through multilateral and bilateral rescue loans to crisis-affected countries in the 1990s.

In particular, growth volatility has severe consequences for the poor, who lack assets to smooth their consumption during economic downturns.[6] The social costs associated with the crises in emerging market economies have been substantial. In just one year, unemployment doubled in Thailand

and tripled in Korea, while standards of living fell 14 percent and 22 percent, respectively. Indonesia also experienced a 25 percent decline in its standard of living (Stiglitz and Bhattacharya 1999) and a sharp increase in the number of poor. By the third quarter of 1998, Thai workers' real-wage income had fallen 24.8 percent from the noncrisis, trend rate (Krongkaew 1999). Levinsohn, Berry, and Friedman (1999) examined the impact of price hikes on the cost of living of poor households and found that in Indonesia, the poor were indeed hit the hardest compared with other groups. Because of a dramatic rise in food prices, the cost of living for the poorest income decile rose more than 130 percent after the crisis. The urban poor, who lack access to land and do not own their homes, were the most adversely affected by the crisis. Thus, as a result of the crises, East Asian countries experienced sharp reversals of their previous achievements in poverty reduction (see World Bank 2000a).

Past and Present Risk Management

To protect their growth and gains in poverty reduction, developing countries must be better prepared to deal with the risks associated with financial integration and capital flow volatility. Global financial risk and the strategies for managing it have changed substantially over the past 50 years, and new approaches are needed to deal with the new risks.

Early Mechanisms and Arrangements for Managing Risk

Viewed from the perspective of financial risk management, the Bretton Woods period (1945–73) exhibited a high degree of stability by judiciously combining fixed exchange rates with capital controls on the external side, and Keynesian macroeconomics and welfare state positions on the domestic side.[7] The Bretton Woods approach gave priority to fixed exchange rates and national policy autonomy. Capital controls were an accepted norm of the international monetary system in the 1950s and 1960s. Not until September 1997 did the Interim Committee of the International Monetary Fund agree that the Fund's Articles of Agreement "should be amended to make the promotion of capital account liberalization a specific purpose of the Fund and to give the Fund appropriate jurisdiction over capital movements" (Fischer and others 1998, p. 47).[8] With economies relatively closed to capital flows, governments could exercise fiscal and monetary policy in pursuit of national objectives, such as full employment and social equity, without fear of capital flight. This high degree of policy autonomy also served the cause of democracy, particularly in Western Europe.[9]

In the 1970s, once Western European countries had achieved currency convertibility in their current accounts, the free movement of capital across national boundaries began to emerge as an important policy priority. The collapse of the Bretton Woods system between 1971 and 1973, the move toward a floating exchange rate regime, rising oil prices, chronic inflation, and slumping global economic conditions intensified currency- and interest-rate risks in global financial markets. The responses were principally market-based solutions, exemplified by the drive toward the international diversification of capital and the rapid expansion of derivatives markets (interest and currency forwards, options, and swaps). Macroeconomic policy in OECD countries shifted from an emphasis on full employment to greater attention to macroeconomic stability, defined as smaller fiscal deficits and lower inflation and interest rates.

Financial Risk Management in the 1990s

In the 1990s, numerous liquidity and currency crises erupted in both industrial and developing countries: the European Monetary System during 1992 and 1993, Mexico between 1994 and 1995, East Asia in 1997, the Russian Federation in 1998, and Brazil and Ecuador in 1999. All these emerging market economies first experienced a surge in capital flows (from the early to mid-1990s) and then fell victim to sudden reversals; East Asia experienced reversals on the order of 10 percent of GDP. The crises of the 1990s exposed several weaknesses in international financial markets, namely:

- World capital markets failed at several levels. Borrowing countries were not monitoring the high exposure of their domestic banks and corporations to foreign currency risk. Credit rating agencies and other major international players failed to properly assess country risk in the globalizing financial environment of the 1990s. Regulators failed because of weak regulatory and supervisory frameworks. Financial risk management specialists underestimated the positive correlations between the quality of private sector credit and the quality of sovereign credit, and so failed to identify the causes of contagion in emerging market economies.
- Capital flows into many developing countries were channeled through short-term banking instruments because of implicit government guarantees for banks. Many market participants succumbed to the moral hazard in these perceived government guarantees. Credit standards and prudent project appraisals were often compromised, leading to overinvestment in sectors with surplus

capacity or declining demand. The result was simultaneous domestic banking system collapse and foreign exchange liquidity crises in countries with fixed exchange rates.

- The primary sources of instability were in the capital account, not in the current account, a situation that the Bretton Woods institutions were designed to prevent. In today's global financial environment, a country's total balance sheet, defined by its assets and its debt and equity liabilities, should be the measure of its external payments position.

These weaknesses reflect major shifts in the global financial landscape, which can be characterized by the internationalization of the banking business; the breakdown of traditional boundaries between financial and insurance functions; the new investment opportunities in emerging markets; and the broader investor bases in emerging market economies, such as commercial banks, pension funds, hedge funds, and insurance industries. These shifts put new demands on risk management; governments must employ more judicious strategies at international, institutional (corporate and financial institutions), and national levels.

A Broad Framework of Risk Management

Much current activity in risk management concerns how best to handle, through better crisis prevention, the risks of capital flows to developing countries, and through containment and orderly resolutions when crises do occur.

We present a broad, two-part framework for risk management that favors a moderate view. An appropriate regulatory framework and related instruments for controlling short-term capital flows should accompany an orderly opening up of financial markets. Public support for openness should be maintained by government provision of cushions against risks, such as social safety nets and well-designed and cost-effective redistribution policies.

International Policy and Regulatory Responses

With the memory of the 1980s debt crisis and its prolonged resolution still fresh, governments promptly implemented international policy and regulatory responses to the 1997–99 crises. In major industrial countries, they eased monetary policy, extended large rescue loans, developed international standards of good practice and disclosure, and established high-level committees to strengthen the soundness of banks and other financial institutions (see Drage and Mann 1999 for more examples of crisis resolution).

In February 1999, the G-7 (which comprises Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States) finance

ministers and central bank governors endorsed the creation of the Financial Stability Forum. At the new roundtable, the G-7 convened monetary authorities, principal regulatory agencies, and multilateral institutions to assess vulnerabilities in the global financial system and identify responses.

Institutional Responses

Financial risk management at the institutional level advanced significantly in the late 1990s. Today, financial and nonfinancial institutions use quantitative risk measurement techniques such as value at risk, volatility and beta measures, option pricing models, and Sharpe ratios. Using these tools, financial institutions have the ability to systematically measure and control market-related risk under normal volatility. In addition, the rapid expansion in the credit derivatives market is fundamentally altering the banking business by providing opportunities to trade credit risk. Risk management at the corporate level is moving toward a companywide integrated approach that encompasses credit, market, and liquidity risks.

National Responses: Reconciling Financial Integration and National Policy Autonomy

The integration of financial markets imposes a much more severe constraint on national policy choice than do other aspects of globalization, such as trade in goods and services, on which liberalization efforts had concentrated since World War II. Capital market integration reduces the ability of national governments to conduct policy, especially macroeconomic policy, because of the risk of capital exit. Those holding this view, which is based on the Robert Mundel and J. Marcus Fleming model of an open macroeconomy, argue that countries can attain only two of the following three conditions: capital mobility, fixed exchange rates, and monetary policy autonomy.

Redistribution to Mitigate Risk. Democratic societies need to resolve the tension between financial market integration and national policy autonomy to pursue their democratically defined economic and social goals. This tension relates to the ability of national governments to regulate, tax for redistributive purposes, and share risk while following the discipline needed in a global setting. In a world of high international mobility of capital, open democratic societies must balance the threat of capital exit, made easier by the open capital markets, with political demands for voice and government intervention to cushion market dislocations. Investors dissatisfied with the host countries' policies or prevailing investment climate find it easier to shift their financial resources to other countries and regions,

with a subsequent disproportionate distribution of costs borne by less mobile factors of production, that is, labor and land. Thus, the motivation for redistribution as income insurance—distinct from altruism and other motives related to poverty reduction—is induced by volatility and insecurity in underlying economic conditions and when citizens are risk averse. The risk of capital exit intensifies economic insecurity and risk for a broad section of society. Because the rich are likely to benefit relatively from capital market liberalization, at least initially, while the poor may bear the costs, the political dimension of capital market liberalization is important and requires careful attention.

Social Sector Spending, Openness, and Political Liberty. The counterbalance to the threat of exit of capital is the political voice of citizens demanding protection against external risks through redistribution, social safety net programs, and other insurance-like measures.[10] In the absence of a market for such risk insurance, rational citizens will structure nonmarket institutions to reduce the welfare losses incurred from volatility in economic conditions. Thus, in this interpretation voice belongs to the political sphere, and how it is exercised is a function of the underlying political institutions and, in particular, the strength of democracy and the corresponding degree of political and civil liberty: the higher the degree of democracy, the greater the need to balance the threat of capital flight with political demands, which include political incentives to increase government intervention in cushioning market dislocation. It is fair to say that the political voice of citizens, who demand protection through redistribution, social safety nets, and other insurance-like measures, has been critical in easing the tension between politics and financial openness in OECD countries. Government spending on health, education, social security, and welfare in high-income countries between 1991 and 1997 averaged about 25 percent of GDP, with relatively small, open European countries such as Denmark, Norway, and Sweden spending as much as 30 percent.[11] A positive association exists among redistribution, financial openness, and civil and political liberty for a large sample of countries (table 5.2). Statistical analysis confirms that financial openness, democracy (as defined by political and civil liberties),[12] and government social spending go hand in hand (table 5.3, figures 5.4, 5.5, and 5.6).

Yet, because redistribution often needs to be financed through discretionary taxation, policymakers need to assess the associated fiscal and macroeconomic costs.

Almost all modern, advanced democracies are open to international capital movements. The relationship between financial openness and democracy appears to be primarily a function of per capita income: with few exceptions, rich countries have democratic governments and are

Table 5.2. Country Grouping by Financial Openness

Category	Open	*Largely open*	*Largely closed*	*Closed*
1 Democracy index[a]	0.81	0.71	0.63	0.48
2 Civil liberties[b]	2.28	3.30	3.38	4.55
3 GDP per capita, 1990–97	13,147	3,051	2,317	1,557
4 Social expenditure (percentage of GDP)[c]	22.30	23.50	12.50	6.70
5 Total government expenditure (percentage of GDP)[d]	26.00	19.90	23.40	27.70
6 General government consumption (percentage of GDP)[e]	16.10	17.90	15.50	14.70
Number of countries	46	10	34	11

Note: Table displays the group averages computed for countries with data. Definition of variables:

a. Ranges from 0 (lowest) to 1 (highest), computed on the bases of political rights and civil liberties indices, see endnote 11 for details.

b. A measure of respect for and protection of a country's citizens' religious, ethnic, economic, linguistic, and other rights, including gender and family rights, personal freedoms, and freedoms of the press, belief, and association.

c. Sum of health, education, and social security and welfare; average 1991–97.

d. Average of central government and budgetary accounts plus state or provincial government, 1990–97.

e. All current expenditures for purchases of goods and services by all levels of government, excluding most government enterprises, 1990–97.

Source: Annex 5.

Table 5.3. Estimation Results of the Binomial Logit Model on the Likelihood of Countries Belonging to the High Democracy and High Financial Openness Categories

Independent variable	*Coefficient*	*Standard error*	*Marginal effect*[a]
Constant	−11.234**	2.7500	−2.0296
Log (ratio of social expenditure to GDP)	1.534*	0.6146	0.2772
Log of GDP per capita	0.795*	0.3156	0.1436
Actual number of countries in the target group	28		
Predicted number of countries in the target group[b]	20		
Actual number of countries in other groups	39		
Predicted number of countries in other groups	32		
Log likelihood	−27.744		

*$p \leq 0.05$.

**$p \leq 0.01$.

Note: The dependent variable is coded 1 if the country falls into the financial openness–high democracy, and 0 otherwise.

a. Marginal change in the probability resulting from an infinitesimal change in the explanatory variable.

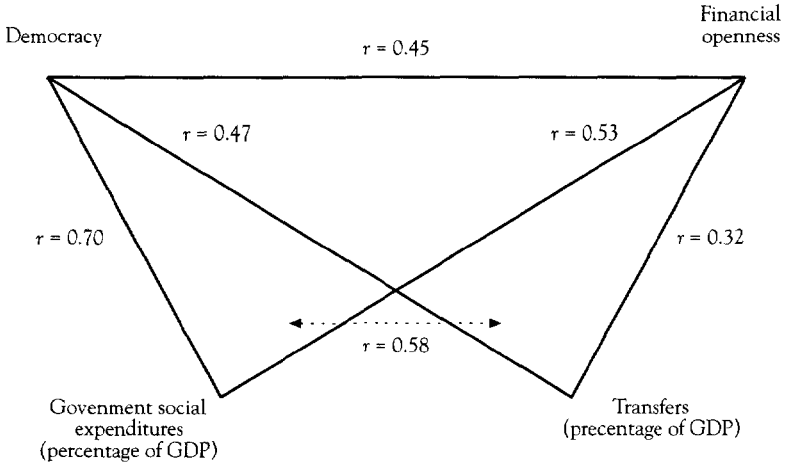
b. Target group refers to countries with high level of political rights and high financial openness.

Source: Annex 5.

open to international capital movement because they have a high degree of financial sector development and enjoy macroeconomic stability, stable expectations of peaceful regime change, domestic rule of law, and stable institutions that guarantee civil and political liberties (for a more

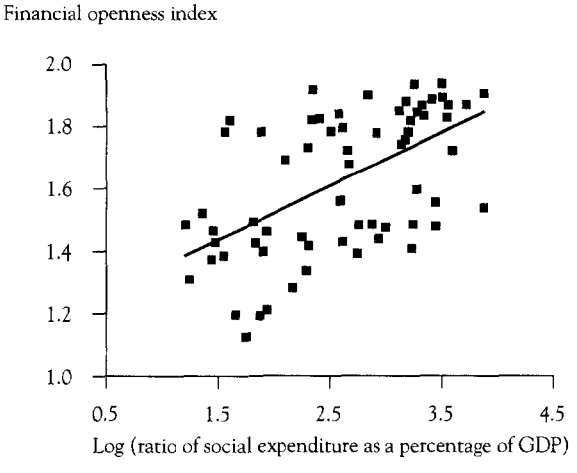
Transfers and social spending ease the tension between financial openness and politics

Figure 5.4. Relationships among Democracy, Financial Openness, Capital Mobility, and Government Social Expenditures



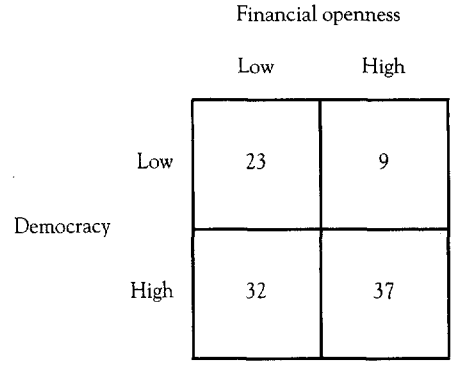
Note: The cross-country data, with sample sizes ranging from 70 to 140, show statistically significant results at 1 percent (except for the correlation between transfers and financial openness, which is siginificant at 5 percent) for all relationships.
Source: Annex 5 (table A5.5).

Figure 5.5. Relationship between Financial Openness and Social Expenditure
(controlling for per capita income)



Note: y = 0.17x + 1.17
R^2 = 0.32
Source: See annex 5 for a description of the data.

Figure 5.6. Country Classification: Political Rights and Financial Openness



Note: The level of democracy is derived from the political rights and civil liberties indexes from the Freedom House survey of Freedom in the World. The level of financial openness is defined by a score of >1.6 in the financial openness index (see table A5.2 in annex 5).

Source: Author's calculation.

detailed discussion of the link between democracy and financial openness, see Dailami 2000).

However, the link between democracy and financial openness proves to be more complex; analysis reveals that more than just income influences this link. International policy coordination in macroeconomic policy and financial regulation and supervision is part of the answer. It has been instrumental in reducing payment imbalances, in stabilizing expectations for currency and interest rate movements, and in lessening the volatility of capital flows across borders. The coordination of international banking regulation in industrial countries, such as the Basel Capital Accord of 1992 and the subsequent Core Principles for Effective Banking Supervision, has also been a significant factor in providing economic stability to OECD democracies.[13]

Empirical investigations of country classifications along the two axes of democracy and financial openness support the view that distribution policy contributes to democracies and open markets (figure 5.6 and table 5.3). Using logit analysis it can be shown that both per capita income and the ratio of social expenditures to GDP are statistically related to the likelihood that a country will be both financially open and democratic (see annex 5 for model specification and estimation, and Dailami 2000 for a more detailed analysis). After controlling for income in the analysis, redistributive policy, which includes programs for public expenditure on social security, health, housing, welfare, education, and transfers, figures prominently in the link between democracy and financial openness.

Capital Controls as Instruments of Risk Management. Capital controls can be employed as an alternative approach for resolving the tension between capital market integration and national policy autonomy. Interest in this approach has been rekindled by the 1997–99 financial crises in Asia and Latin America. Capital controls, particularly on short-term flows, are desirable to reduce volatility under some circumstances, such as weakness in local financial markets, euphoric or panic behavior by foreign investors, and structural balance of payments problems.

Many policy interventions are available for managing capital flows, including taxes and market-based instruments, such as contingent liquidity facilities and remunerated or nonremunerated reserve requirements on risky short-term flows. Argentina and Mexico have used contingent liquidity facilities and remunerable liquidity requirement for banks, and Chile used nonremunerable reserve requirements on risky short-term capital inflows between 1991 and 1998.

Controls on short-term capital in Chile have attracted considerable interest, partly because they are market based, transparent, and easier to phase out than quantitative controls (box 5.2). The controls were effective

Box 5.2. Chile: Openness, Capital Controls, and Social Protection

With the reestablishment of democracy in 1990, Chile has pursued an explicit strategy of growth with equity, while maintaining a market-oriented policy framework. The government has taken many measures for risk management in an open trade and investment regime.

Chile's social investments were extremely low during the late 1980s. They did not measure up to the spending levels of the premilitary regimes. However, since 1990, Chile has implemented a highly targeted system of social assistance in areas such as health, education, and housing. It has also used income transfers to improve conditions affecting human capital. Social investments increased by 75 percent between 1987 and 1994, which contributed positively to poverty reduction.

In response to the rapid expansion of capital inflows between 1988 and 1990, in 1991 the Central Bank of Chile imposed an unremunerated reserve requirement on selective inflows. At the same time, the government lifted several administrative controls on outflows, including ceilings on foreign asset holdings by banks, insurance companies, and pension funds, and the requirement that exporters surrender their export proceeds to the central bank. The unremunerated reserve requirement has increased the scope for an independent monetary policy. The reserve requirement contributed to changing the composition of inflows toward long-term maturities. However, the drop in short-term flows was only partly compensated for by the increase in long-term inflows. The reserve requirement does not seem to have affected the pattern of real exchange rates: to increase short-term interest rates, thereby adversely affecting the investment that it has directly contributed to. Furthermore, it involved transaction costs in monitoring commercial banks.

Sources: Ferreira and Litchfield (1999); Gallego, Hernandez, and Schmidt-Hebbel (1999); World Bank (1997b). See also Ariyoshi and others (1999) and Edwards (1999) for a survey of country experiences on capital controls.

in changing the composition of debt by reducing short-term capital inflows while increasing long-term flows and allowing for a larger wedge between domestic and foreign interest rates. The measures were countercyclical; they were imposed in 1991 after a growing tide of capital inflows, between 1988 and 1990, and phased out in September 1998 when they were no longer needed during the global financial crises.

Conclusions

Countries face two challenges in integrating their capital markets. The first is the pace at which countries dismantle administrative controls over capital flows and move toward capital account convertibility. The second is the incentive system and regulation of international financial flows to minimize risks and panics. Countries need suitable mechanisms to balance both the benefits and the risks of financial integration. Technological advances and the sheer size of financial markets make the risk of panic and crisis ever present. However, governments have various options for significantly reducing that risk.

Pursuing sound macroeconomic policies is an obvious first step, but not sufficient. Recent experience shows that macroeconomic stability is not enough to guarantee enduring results and sustainable growth. To ensure sustainable growth it must be reinforced by actions that remove distortionary policies that provide incentives for short-term foreign capital inflows that could lead to heightened financial vulnerability. Domestic regulation and supervision of banks and other intermediaries need to be strengthened and corporate governance improved.

With the move toward democracy worldwide, mechanisms for providing citizens with insurance against the risks of capital mobility, through either the marketplace or redistributive policies, are equally important if political pressure for capital controls is to be averted. In the long run, the globalization of capital requires an open institutional framework to ensure transparent accounts; secure property rights; and permit enforceable contracts, regulations, and mechanisms to manage risks. Establishing such a framework enhances assurance that open financial markets will contribute fully to stable growth and poverty reduction.

The remarkable economic turnaround in crisis-hit countries over the past months, reinforced by measures already taken at the international level to strengthen the architecture of international financial markets, bodes well for the prospects of greater financial stability and collective commitment to an open and liberal international financial system in the new millennium.

Notes

1. A large body of literature has developed over the last few years discussing the causes and consequences of recent financial crises in emerging market economies. See Calvo and Mendoza (1996); Corsetti, Pesenti, and Roubini (1998); Krugman (1998); Obstfeld (1996); Radelet and Sachs (1998); and Sachs, Tornell, and Velasco (1996). On causes of capital flow volatility, see Dooley (1996), Lopez-Mejia (1999), Montiel (1998), and World Bank (1997f).

2. From a historical perspective, the globalization of finance in the 1990s is equivalent to the level reached during the gold standard period of 1870–1914. However, during the gold standard only a few industrial countries were involved in capital flows (see Verdier 1998).

3. Moral hazard is a key concept in the economics of asymmetric information. Moral hazard occurs when economic actors covered by some form of insurance take more risks than they would otherwise take. Typical examples include an insured driver driving recklessly or an insured banker engaging in imprudent lending practices.

4. See also Helleiner (1994) for an account of how in 1974 the United States lifted the temporary capital restrictions of the mid-1960s.

5. Markets will provide leeway only if lenders perceive that countries are undertaking adjustments that fundamentally address existing and prospective imbalances. Otherwise, markets will eventually exert discipline that may brutally shorten the time allowed for readjustment (Dailami and ul Haque 1998).

6. See, for example, Diwan (1999); Krongkaew (1999); Levinsohn, Berry, and Friedman (1999); Lustig (1999).

7. This policy mix was referred to by Ruggie (1983) as "a compromise of embedded liberalism." It connotes a commitment to a liberal order different from both the economic nationalism of the 1930s and the liberalism of the gold standard. For further elaboration, see Garrett (1998). Sally (1998) also referred to embedded liberalism as "mixed system thinking." Also see Dailami (2000).

8. Reflecting the understanding of the time, Keynes expressed the issue succinctly in his often quoted 1944 speech to Parliament, stating: "Not merely as a feature of the transition, but as a permanent arrangement, the plan accords to every member government the explicit right to control all capital movements. What used to be heresy is now endorsed as orthodox... It follows that our right to control the domestic capital market is secured on firmer foundations than ever before, and is formally accepted as a part of agreed international agreements" (Gold 1977, p. 11).

9. However, in the Bretton Woods era there were periodic balance of payments crises, exchange rate devaluations, and stop-go growth episodes.

10. The idea of distribution as insurance has a long tradition in welfare economics going back to Harsanyi (1953), Lerner (1944), and Rawls (1971).

More recently this issue has been analyzed from the perspective of constitutional political economy (see Mueller 1998; Wessels 1993).

11. Focusing on globalization through trade, Rodrick (1997b) also emphasizes the relationship between redistribution and openness.

12. More precisely, one measure of democracy, following the recent literature exploring the role of democracy on economic growth, income levels, and wages, defines democracy as a composite index and draws on the Freedom House measures of political and civil liberty; that is:

$$\text{Democracy} = \frac{14 - \textit{civil rights} - \textit{political rights}}{12}$$

This index will be defined from 0 to 1, with 0 indicating low democracy and 1 indicating high democracy. Political and civil liberty indexes are from the *Comparative Survey of Freedom* that Freedom House has provided on an annual basis since 1973.

13. See Bryant and Hodgkinson (1989) and Webb (1994) for a discussion of international policy coordination in macroeconomic terms and Kapstein (1989) for information on international coordination of banking regulation. For selected readings in the voluminous literature on the need for better regulation and supervision, see Alba and others (1998); Caprio and Honohan (1999); Claessens, Djankov, and Klingebiel (1999); and Stiglitz 1993.