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Title: Introduction to "Capital Controls and Capital Flows
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Author: Sebastian Edwards

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Introduction

Sebastian Edwards

For a number of years economists have debated the optimal speed and sequencing of economic reform. These debates have been particularly heated regarding the lifting of capital controls and the opening of the capital account of the balance of payments. While for some authors the free movement of capital across borders is welfare enhancing, for others it represents a clear peril, especially for the emerging nations. According to the latter view, free capital mobility—and in particular the free mobility of fixed income securities—increases macroeconomic volatility and makes emerging countries vulnerable to the destabilizing effects of external shocks. Thus, the theory goes, restrictions on capital movements should be lifted gradually, toward the end of the reform process and only after other markets have been liberalized. The supporters of freer capital mobility, on the other hand, have argued that there are no reasons for postponing the opening of the capital account. These authors point out that restricting capital mobility results in serious economic costs in the form of capital market inefficiencies and resource misallocation. Discussions on the role of capital controls and capital flows—and, in particular, speculative capital flows—became particularly pointed in the aftermath of the East Asian currency crisis of 1997. According to Stiglitz (2002), for instance, the relaxation of capital controls was at the center of the crisis and of the East Asian nations' currency collapses.¹

Questions related to the speed and sequencing of reform are not new in

Sebastian Edwards is the Henry Ford II Professor of International Business Economics at the Anderson Graduate School of Management at the University of California, Los Angeles (UCLA), and a research associate of the National Bureau of Economic Research (NBER).

1. In preparing this introduction I have drawn on some of my previous writings on capital controls, capital account liberalization, and economic reform.

policy discussions. In fact, since the beginning of the economics profession these issues have arisen over and over again. Adam Smith, for example, argued in *The Wealth of Nations* that determining the appropriate sequencing was a difficult issue that involved, primarily, political considerations (see Smith 1776/1937, book IV, chapter VII, part III, p. 121). Moreover, Smith supported gradualism on the grounds that cold-turkey liberalization would result in a significant increase in unemployment. Consider the following passage from *The Wealth of Nations*: “To open the colony trade all at once . . . might not only occasion some transitory inconvenience, but a great permanent loss. . . . [T]he sudden loss of employment . . . might alone be felt very sensibly” (vol. II, chap. VII, part III, p. 120).

Speed and sequencing also became central in analyses on how to design a reform strategy for the former Communist countries. In discussing the problems faced by Czechoslovakia during the early period of its transition, then finance minister Vaclav Klaus (1991) pointed out that one of the main problems was deciding on “sequencing as regards domestic institutional and price measures on the one hand, and liberalization of foreign trade and rate of exchange on the other” (p. 18).

In the 1980s the World Bank became particularly interested in exploring issues related to sequencing and speed of reform and, in particular, issues related to the role of capital controls during the reform process. As a result of the discussion surrounding this work, a consensus of sorts developed on sequencing and speed of reform. The most important elements of this consensus included the following: (a) trade liberalization should be gradual and buttressed with substantial foreign aid;² (b) an effort should be made to minimize the unemployment consequences of reform; (c) in countries with very high inflation, fiscal imbalances should be dealt with very early on in the reform process; (d) financial reform requires the creation of modern supervisory and regulatory agencies; and (e) the capital account should be liberalized at the very end of the process, and only once the economy has been able to expand successfully its export sector. Of course, not everyone agreed with all of these recommendations, but most economists involved with reform did. In particular, people at the International Monetary Fund (IMF) did not object, or at least did not object openly and strongly, these general principles. For example, Jacob Frenkel, who was to become the IMF’s Economic Counsellor, had argued in the mid-1980s in an *IMF Staff Papers* article (Frenkel 1983) that the capital account should, indeed, be opened gradually and toward the end of the reform process.

Some time during the early 1990s this received wisdom on capital restrictions, capital account liberalization, sequencing, and speed began to be challenged, and some authors began to call for simultaneous and very fast

2. Although what exactly was meant by “gradual” was never specified. Indeed, the (implicit) definition of “gradualism” seemed to change through time.

reforms. To a large extent the argument was based on political economy considerations. If reforms are not implemented rapidly and simultaneously, the argument went, opponents would successfully block liberalization efforts. In the early 1990s the U.S. government also began to argue that the time had come for the East Asian nations to liberalize their capital account restrictions and to allow capital to move more freely. Policymakers and academics throughout East Asia became concerned about these recommendations. They had two main worries. On the one hand, they argued that lifting capital controls and liberalizing the capital account would result in massive real exchange rate appreciation, something that had indeed happened in a number of Latin American countries during the early 1980s. The problem, of course, was that an appreciating real exchange rate was in contradiction with East Asia's decades-old policies of maintaining a highly competitive real exchange rate as a way of encouraging exports. The main worry was based on the possibility of a sudden stop of capital inflows. More specifically, it was argued that if after entering the country capital flows suddenly declined or, worse yet, reversed, the country would be left permanently with a smaller export market. A second concern was that massive capital inflows were likely to feed a real estate boom and bubble that would make the economy particularly vulnerable to financial shocks.

In a paper delivered at a conference organized by Korea University, Robert Mundell argued that most concerns on the rapid and early lifting of capital controls were well founded. Consider the following quotation:

Unfortunately . . . there are some negative externalities [of an early capital account liberalization]. One is that the borrowing goes into consumption rather than into investment, permitting the capital-importing country to live beyond its means . . . without any offset in future output with which to service the loans. Even if the liabilities are entirely in private hands, the government may feel compelled to transform the unrepayable debt into sovereign debt rather than allow execution of mortgages or other collateral. (Mundell 1995, p. 20)

At the same conference the late Manuel Guitián, then a senior official at the IMF, argued in favor of moving quickly toward capital account convertibility. Guitián's paper—suggestively titled “Capital Account Liberalization: Bringing Policy in Line with Reality”—was one of the first written pieces to document the IMF's change in views regarding sequencing and capital account convertibility. After discussing the evolution of the international financial markets and expressing reservations about the “capital-account-last” sequencing recommendation, Guitián summarized his views as follows: “There does not seem to be an a priori reason why the two accounts [current and capital] could not be opened up simultaneously. . . . [A] strong case can be made in support of rapid and decisive liberalization in capital transactions” (Guitián 1995, pp. 85–86).

During the second half of the 1990s the view that most emerging countries should lift capital controls and open up their capital account became dominant at the IMF and the U.S. Treasury. Starting in 1995 more and more emerging countries began to relax their controls on capital mobility. In doing this, however, they tended to follow different strategies and paths. While some countries relaxed bank lending only, other countries allowed only long-term capital movements, and yet others—such as Chile—used market-based mechanisms to slow down the rate at which capital was flowing into the country. Many countries, however—including some that later faced severe crisis—did not need any prodding by the IMF or the United States to open their capital account. Indonesia and Mexico, to mention just two important cases, had a long tradition of free capital mobility.

Malaysia's reliance on capital controls on outflows after the collapse of its currency in 1997 generated new debates in academic circles. It recovered fast after the 1997 crisis—although not as fast as South Korea—but it is not clear whether recovery was the result of the imposition of capital controls and of fixing of the exchange rate. In a paper presented at an NBER conference Kaplan and Rodrik (2002) provided a detailed discussion of Malaysia's unorthodox reaction to the currency upheaval of 1997–98. The authors note that the imposition of capital controls by Malaysia, in September 1998, was greeted with great skepticism by most analysts and observers. In particular, IMF officials and investment banks' analysts argued that these controls—and the accompanying decisions to peg the exchange rate and lower domestic interest rates—would result in a slower recovery and in a significant reduction in foreign direct investment (FDI) into Malaysia. This latter (potential) effect of the controls was considered to be particularly devastating, as Malaysia has traditionally relied heavily on FDI. Kaplan and Rodrik argue that this general perception is incorrect, and that once the appropriate econometric techniques are used there is evidence suggesting that Malaysia's unorthodox program yielded very positive results. The late Rudi Dornbusch (2002) took issue with this view, and argued that the relatively good performance of the Malaysian economy in the postcrisis period had little to do with the controls. In his opinion, a very friendly international environment—driven mostly by successive cuts in interest rates by the Federal Reserve—was the main force behind Malaysia's recovery of 1999–2000.

The papers and commentary presented in this volume were presented at a conference held in December 2004 in Santa Barbara, California. The main purpose of the conference was to analyze the mechanisms that different countries have used to slow down, or control, capital inflows, and in particular capital inflows associated with fixed income securities. We were interested in exploring country experiences and in evaluating whether the tools chosen by different countries were effective in reducing the flow of capital, altering the maturity of the resulting external debt, and reducing

macroeconomic vulnerability. We were also interested in investigating the extent to which the different tools used to (partially) control capital inflows implied efficiency costs. One of the salient features of the country-specific papers collected in this volume is that they all provide detailed chronologies on the evolution of capital controls in each of the countries. These chronologies focus on the specific tools used to control flows, as well as on the liberalization efforts undertaken during the last few years. They also provide information on crises and other important events.

The volume is divided into two parts. Part one contains five chapters that deal with systemic issues related to capital mobility, with an emphasis on fixed income securities. These chapters discuss analytical and theoretical issues and provide cross-country evidence on the effectiveness, consequences, and costs of restricting capital mobility. Part two comprises nine policy and applied papers. There are eight country case studies, for Chile, Brazil, Argentina, South Korea, Malaysia, China, Singapore, and India, and a broad paper that evaluates, from a comparative perspective, the effects of capital controls on economic performance.

Capital Controls in the Emerging Countries: Analytical Issues and Cross-Country Evidence

The first chapter is “Capital Flows in a Globalized World: The Role of Policies and Institutions,” by Laura Alfaro, Sebnem Kalemli-Ozcan, and Vadym Volosovych. In this chapter the authors use data for 1970–2000 to analyze the patterns of international capital flows. They are particularly interested in analyzing what determines capital flow in certain directions, and what the main determinants of capital flow volatility are. In analyzing these issues Alfaro, Kalemli-Ozcan, and Volosovych pay particular attention to the role played by economic policy and by the quality of national institutions. The authors point out that in spite of their large increase during the last few years, capital flows to the emerging countries continue to be significantly lower than what is predicted by theory (this is the so-called Lucas paradox). Using data on flows extracted from balance-of-payments statistics, Alfaro, Kalemli-Ozcan, and Volosovych use regression analysis to determine whether institutional factors can explain (at least partially) the Lucas paradox. They conclude that the quality of institutions—measured by variables such as the origin of the country’s legal system and the mortality rate of original colonial settlers—plays an important role in explaining the direction and magnitude of capital flows in the 1970–2000 period. But institutions are not the only determinant of capital inflows. The authors find that, for given institutional quality, economic policy plays an important role. This is particularly the case when policy is measured by inflation, the degree of financial development, and the extent of capital controls. The authors also provide evidence suggesting that the quality of institutions and economic policy have played an important role in the

determination of the (relatively) high degree of volatility of capital flows to the emerging markets in the 1970–2000 period. A particularly interesting finding reported by Alfaro, Kalemli-Ozcan, and Volosovych is that local financial structure—measured as the share of bank credit in total credit—has been positively related to capital flows’ volatility in the 1970–2000 period.

In “Capital Controls, Sudden Stops, and Current Account Reversals,” I use a broad multicountry data set to analyze the relationship between restrictions to capital mobility and currency crises. My analysis focuses on two manifestations of external crises: (a) sudden stops of capital inflows, where capital flowing into a country experiences a major reduction (at least 4 percent of gross domestic product [GDP] in one year); and (b) current account reversals, where a country reduces its deficit by at least 3 percent of GDP in one year. I address two important policy-related issues. First, I analyze whether the extent of capital mobility affect countries’ degree of vulnerability to external crises. In doing this I consider several manifestations of external crises. Second, I analyze whether the extent of capital mobility determines the depth of external crises—as measured by the decline in growth—once a crisis occurs. I use a new index of the degree of capital mobility, which has greater country coverage and allows for a broader spectrum of policies than previous indexes. I use both nonparametric statistical techniques and regression analyses. In particular, I rely on treatment models, where the probability of facing a crisis and the effects of the crisis on growth are estimated simultaneously. Overall, my results cast some doubts on the assertion that increased capital mobility has caused heightened macroeconomic vulnerability and has increased the probability of an external crisis. I find no systematic evidence suggesting that countries with higher capital mobility tend to have a higher incidence of crises, or tend to face a higher probability of having a crisis, than countries with lower mobility. My results do suggest, however, that once a crisis occurs, countries with higher capital mobility may face a higher cost in terms of growth decline. My results also indicate that a country’s degree of trade openness is an important determinant of the growth costs of current account reversals. Countries that are more open to international trade tend to suffer smaller declines in GDP growth than countries that are less open to international trade.

In “Currency Mismatches, Debt Intolerance, and Original Sin: Why They Are Not the Same and Why It Matters,” Barry Eichengreen, Ricardo Hausmann, and Ugo Panizza analyze the role of balance sheet effects in financial crises. Their work focuses on problems with the structure of global financial markets that result in the inability of economies to borrow abroad in their own currencies. In particular, they inquire whether the degree of capital mobility affects countries’ ability to borrow internationally in their own currency. Eichengreen, Hausmann, and Panizza analyze the impact

of balance sheet variables on the volatility of output, the volatility of capital flows, the management of exchange rates, and the creditworthiness of countries. They argue that when considering the behavior of such variables it is important to distinguish clearly three concepts: “original sin,” “debt intolerance,” and “currency mismatches.” They argue that macroeconomic stability, strong institutions, and a record of low inflation are not enough for countries to be able to borrow in their own currency. Chile, they point out, is a case in point. Being unable to borrow in its own currency, Chile relied on controls on capital inflows as a way of reducing its vulnerability to external shocks. The authors show that countries that are unable to borrow in their own currency tend to hold larger stocks of international reserves and tend to have more rigid exchange rate regimes. The extent of currency mismatches, however, has no effect on exchange rate policy. It does affect, on the other hand, the level of international reserves held by the monetary authorities. Eichengreen and his coauthors also show that the degree of debt intolerance has no statistical effect on the volatility of GDP growth. It does appear to affect, however, the degree of volatility of capital flows. Eichengreen and his coauthors investigate why some countries are unable to borrow internationally in their own currency. Their results suggest that original sin is robustly related to country size and to countries’ status as financial centers, advanced economies, or emerging markets, but that it is only weakly related to institutional variables like rule of law and measures of policy like inflation and fiscal history.

In “The Microeconomic Evidence on Capital Controls: No Free Lunch” Kristin J. Forbes discusses the microeconomic consequences of capital controls. She argues that although macroeconomic analyses of capital controls are useful, they have faced a number of imposing challenges and have yielded inconclusive results. In order to have a more complete sense of the effects of capital controls it is important to understand how this policy affects incentives and microeconomic decisions. In this paper Forbes surveys an emerging literature that evaluates various microeconomic effects of capital controls and capital account liberalization. Several key themes emerge. This literature has focused on several microeconomic effects of capital controls. First, controls on capital mobility—controls on both inflows and outflows—tend to reduce the supply of capital, raise the cost of financing, and increase financial constraints. This is particularly the case for smaller firms that don’t have access to international capital markets or to preferential lending. Second, capital controls affect market discipline. There is indeed evidence suggesting that the existence of controls leads to a more inefficient allocation of capital and resources. Third, the existence of capital controls distorts decision making by firms and individuals. This is because economic agents will spend time and resources attempting to evade the controls or minimize their costs. Fourth, the effects of capital controls can vary across firms and countries, and may even magnify exist-

ing economic distortions. Finally, Forbes also argues that capital controls (on both inflows and outflows) can be difficult and costly to enforce, even in countries with sound institutions and low levels of corruption. A particularly useful contribution of Forbes's paper is that she summarizes the evidence on the microeconomic consequences of the well-known and often praised Chilean controls on capital inflows. She argues that this policy generated nontrivial microeconomic costs, through resource misallocation and by increasing the reliance on retained earnings as a source of firms' financing.

The next paper is by Linda S. Goldberg. In "The International Exposure of U.S. Banks: Europe and Latin America Compared" she documents the changing international exposures of U.S. bank balance sheets since the mid-1980s. Goldberg does this by using a new and unique data set on cross-border transactions by U.S. banks. The data set is a time series panel of individual U.S. exposure to foreign markets. Each bank reports a country-by-country distribution of foreign claims. In addition, the data set contains detailed information on the type of claims, valuation of derivatives positions, maturity composition, and categories of recipient of the claims. Goldberg finds that U.S. banks have foreign positions heavily concentrated in Europe. She also finds that in recent years some cross-border claims on Latin American countries have declined, while claims extended locally by the branches and subsidiaries of U.S. banks have grown. Goldberg investigates whether bank size matters for explaining foreign claims' volatility. She finds that the foreign exposures of larger U.S. banks have tended to be less volatile than claims of smaller banks, and locally issued claims have tended to be more stable than cross-border flows. Goldberg also analyzes the way in which the cycle affects foreign claims of U.S. banks. She finds that business cycle variables have mixed influence on U.S. bank cross-border and local claims. The cross-border claims of U.S. banks on European customers tend to be procyclical. This contrasts with the case of local claims and cross-border claims on Latin American customers of U.S. banks. Neither of these claims is significantly related to variables that capture either the U.S. or the international business cycle. U.S. banks do not appear to be an important channel for transmitting U.S. cycles to smaller economies (including emerging economies). Indeed, Goldberg's results suggest that U.S. banks may even play a positive role in helping reduce the amplitude of business cycles in smaller nations.

Country Studies

In "International Borrowing, Capital Controls, and the Exchange Rate: Lessons from Chile" Kevin Cowan and José De Gregorio discuss Chile's experience with capital account restrictions and exchange rate policy. During the late 1970s and early 1980s syndicated loans were the most important form of capital inflows into Chile. As a way of controlling capital in-

flows and avoiding (real) exchange rate appreciation, the authorities imposed severe restrictions on bank lending to Chile. Only longer-maturity loans (maturities in excess of sixty-six months) were allowed freely; any loan with a maturity shorter than twenty-four months was forbidden. In spite of these severe restrictions, in 1982 Chile experienced a deep and highly traumatic currency crisis. The authors argue that one of the reasons for the severity of this crisis was that in the 1980s the Chilean economy was characterized by significant currency mismatches. Many of the firms that had borrowed in foreign currency produced nontradable goods and had peso-denominated assets. In the main part of the paper Cowan and De Gregorio analyze the effectiveness of Chile's well-known and often-discussed policy of controlling capital inflows during the 1990s. They conclude that capital controls were only partially effective and that the main source of macroeconomic vulnerability during the 1990s was an overly rigid exchange rate policy. In their analysis the authors discuss three important characteristics of the Chilean experience during the 1990s. First, most international borrowing was done directly by firms and thus was not intermediated by the banking system. Second, the free trade agreement between Chile and the United States put some limits on Chile's ability to rely on capital controls in the future. And third, after examining Chile's experience after the Asian-Russian crisis, they conclude that Chile did not suffer a sudden stop but a current account reversal due to policy reactions and a "sudden start" in capital outflows.

Kathryn M. E. Dominguez and Linda L. Tesar deal with the case of Argentina. In "International Borrowing and Macroeconomic Performance in Argentina" Dominguez and Tesar analyze the evolution of capital flows and macroeconomic performance in Argentina from the adoption of the Convertibility Plan in 1991 until the collapse of the pegged exchange rate regime in early 2002. The authors place particular emphasis on the external shocks that affected the Argentine economy during this period. In the first part of their paper Dominguez and Tesar analyze the analytical and policy underpinning of the 1991 Convertibility Plan, which established a currency board type of monetary system. They also deal with the structural reforms aimed at opening the economy and privatizing state-owned enterprises. The authors argue that in spite of these reforms the Argentine economy was vulnerable to external shocks and, in particular, to sudden stops of capital inflows. In section 7.3 of their paper Dominguez and Tesar analyze in great detail how the major emerging countries' crises of the 1990s affected the Argentine economy. But external shocks are only part of the story. Argentina also made some serious policy mistakes. In section 7.4 of their chapter, Dominguez and Tesar argue that the inability to control fiscal finances was at the heart of Argentina's problems. This forced the country to borrow heavily; much of the borrowing took place overseas. Dominguez and Tesar provide a detailed discussion of the unraveling of

the Argentine experience with a currency board and unrestricted capital mobility. They point out that after exchange and capital controls were imposed in late 2001—through the so-called *Corralito*—the stock market experienced a 50 percent gain. They attribute this to the fact that the purchase of Argentine stock had become the only way of transferring money abroad via American depository receipts.

The chapter by Ilan Goldfajn and André Minella deals with Brazil's experience with capital controls. In "Capital Flows and Controls in Brazil: What Have We Learned?" the authors deal with the 1974–2004 period, and discuss Brazil's experience with several currency crises. The authors provide useful stylized facts regarding the evolution of the balance of payments and its components, focusing on current account cycles, capital flow cycles and composition, and debt accumulation. The authors argue that during the last three decades—and in spite of the crises—there has been significant progress in macroeconomic management. Throughout the 1970s and 1980s Brazil had pervasive controls on capital. During the 1990s, however, a process of gradual capital account liberalization began. By 1993, capital inflows had increased significantly, putting significant appreciating pressure on the currency. At that time the government adopted a mechanism for restricting capital inflows. The private sector rapidly discovered ways of circumventing the controls, and capital inflows continued. In 1997–98, however, conditions changed as a result of the East Asian and Russian currency crises, and controls on inflows were relaxed. In the year 2000, Brazil adopted a floating exchange rate regime and implemented inflation targeting. This allowed the country to liberalize the current account further. According to the authors, in spite of the significant progress in terms of capital account liberalization and currency convertibility attained since the early 1990s, current regulations continue to be cumbersome and complex.

The chapter by Eswar Prasad and Shang-Jin Wei, "The Chinese Approach to Capital Inflows: Patterns and Possible Explanations," deals with China's experience with capital flows and capital account restrictions. In order to provide a benchmark for comparison the authors adopt a cross-country perspective to examine the evolution of capital flows into China since the early 1980s. Their analysis focuses both on the volume of capital flows and on their composition. China's inflows have generally been dominated by FDI. According to Prasad and Wei this is a positive pattern in light of the recent literature on the experiences of developing countries with financial globalization, capital flow volatility, and macroeconomic vulnerability. The authors provide detailed data and analysis of the evolution of China's capital controls, and discuss the possible determinants of the pattern of capital inflows. The authors argue that, contrary to popular belief, capital flows into China come mainly from other advanced Asian countries that have net trade surpluses with China, rather than from the

United States and Europe, which constitute China's main export markets. They also show that China has maintained its external debt at low levels; non-FDI private capital inflows have typically been quite low, until very recently. In section 9.3 of their paper Prasad and Wei discuss the recent surge in international reserve accumulation in China. According to them a key finding is that the drastic surge in the pace of reserve accumulation since 2001 is mostly the consequence of an increase in non-FDI capital inflows; reserve accumulation has not been the result of an increased current account surplus. Prasad and Wei discuss the costs and benefits of holding a stock of reserves in the neighborhood of 40 percent of GDP. The authors analyze why capital flows into China have been concentrated so heavily on FDI flows. In order to do this they analyze in great detail the nature of China's capital account restrictions. They argue that "while controls on non-FDI inflows as well as tax and other incentives appear to be proximate factors for explaining the FDI-heavy composition of inflows, other factors may also have contributed to this outcome." They also argue that the evidence in existence does not support the view that the composition of capital flows into China is the result of a deliberate neomercantilist policy aimed at accumulating inordinate amounts of international reserves.

In "South Korea's Experience with International Capital Flows," Marcus Noland discusses the way in which South Korea has managed the capital account during the last twenty years. During the 1980s (and 1970s, for that matter) Korea had a highly regulated domestic capital market and maintained tight controls on capital mobility. Growth during this period was nothing short of spectacular. In the early 1990s Korea initiated a process of capital account liberalization. According to Noland this process was implemented for pragmatic reasons. Liberalization, however, was uneven and asymmetric and encouraged short-term bank borrowing. By 1997 the amount of short-term debt accumulated by Korean banks and large conglomerates was very high, increasing the country's vulnerability to external shocks. In late 1997, in the midst of a massive speculative attack, Korea succumbed to a major currency and financial crisis. Noland argues that until the late 1980s the control of capital mobility—and overall "financial repression," for that matter—was a key (and required) component of an export-led development strategy that was mostly managed by the state. According to Noland one of the fundamental objectives of capital controls was to ensure that the complex system of domestic controls, prohibitions, and subsidies would be operative and effective. This meant that until the late 1990s capital inflows—including FDI and remittances—were closely monitored and controlled. Until early 1980 Korea's exchange rate was pegged to the U.S. dollar. At that point a basket peg was adopted, an effort by the authorities to maintain an undervalued currency. In the late 1980s the U.S. Treasury labeled Korea an "exchange rate manipulator," and urged the country to adopt a more flexible regime that would reflect

market forces. In 1990 Korea implemented a band system. During the late 1980s and early 1990s the U.S. pressured Korea to open its capital markets to international flows. During the mid-1990s Korea authorized the creation of merchant banks. These had a close relationship to local conglomerates (*chaebol*) and engaged in heavy related lending. Many of these loans were used to finance questionable projects, and by early 1997 the Korean financial system was overextended and highly vulnerable.

The next chapter, “Malaysian Capital Controls: Macroeconomics and Institutions,” is by Simon Johnson, Kalpana Kochhar, Todd Mitton, and Natalia Tamirisa. The authors’ goal is to evaluate Malaysia’s experience with capital controls in 1998–99. They provide background information going back to the early 1990s, and discuss the authorities’ objectives when imposing the controls. At least on paper, the objective of the controls, as explained by Mahathir’s administration, was to help deinternationalize the ringgit. In September 1998 the administration required investors to repatriate ringgit held in offshore accounts, and prohibited trading the Malaysian currency in offshore markets. According to the authors the controls were imposed after Malaysia’s crisis had already reached its peak, and it is not clear whether they were really needed. In addition, in their view it is not clear that the controls helped Malaysia to recover. In late 1998, shortly after Malaysia imposed the controls, all East Asian countries—Malaysia as well as those nations that did not impose controls—began to recover. Finally, the authors find no evidence suggesting that the imposition of the controls had negative macroeconomic effects. In the main part of the paper the authors look at firm-level data to determine which firms won and which ones lost as a result of the controls. They argue that in Malaysia this type of analysis is particularly pertinent, since large firms usually have close ties with senior politicians. Their analysis focuses on the connection between large firms and two politicians: the prime minister (Mohammad Mahathir) and the finance minister (Anwar Ibrahim). In 1998 there was a falling out between Mahathir and Ibrahim, and the latter was sent to jail. After analyzing in great detail a number of micro performance indicators, such as growth of sales, investment, indebtedness, profitability, and leverage, the authors conclude that the imposition of controls benefited firms associated with Prime Minister Mahathir. The authors also conclude that the data are inconclusive with regard to the macroeconomic benefits and costs of Malaysia’s experience with controls.

In “Capital Flows and Exchange Rate Volatility: Singapore’s Experience,” Basant K. Kapur discusses the behavior of capital flows in Singapore, as well as Singapore’s experience with capital account regulations. He argues that, in contrast with the rest of the East Asian nations, Singapore’s experience with international capital flows over the past two decades has been a rather—although not completely—benign one. The reason for this has to do with Singapore’s strong fundamentals and generally well-

conceived macroeconomic policies, including its fiscal policy. In order to provide a point of comparison, Kapur begins his analysis with a discussion of the experience of Hong Kong during the 1998 crisis. Hong Kong is another city-state with a well-developed and sophisticated banking system and equities market. It also has a currency board (CB) system similar to that of Singapore, although with some differences. Using Hong Kong as a point of comparison, Kapur discusses Singapore's early experience and policy stance. In his analysis he emphasizes Singapore's exchange rate policy and its policy of noninternationalization of the Singapore dollar. He also analyzes the interaction and interplay between equity and currency markets. Kapur shows that Singapore emerged relatively unscathed from the 1997 Asian crisis. Finally, Kapur presents an extensive discussion on the evolution of Singapore's debt markets. He shows that, in order to promote it, debt market restrictions on capital account convertibility—and, more specifically, the noninternationalization policy—have been progressively relaxed, while at the same time some key safeguards have been maintained.

In "India's Experience with Capital Flows: The Elusive Quest for a Sustainable Current Account Deficit" Ajay Shah and Ila Patnaik discuss India's policies toward capital flows during the last two decades. The authors open their paper with an analysis of India's reforms. They point out that since the early 1990s India has implemented policies aimed at liberalizing trade and deregulating investment decisions. Throughout most of this period India has maintained strong controls on debt flows and has encouraged FDI and portfolio flows. At the same time the Indian authorities have adopted a pegged nominal exchange rate regime. According to Shah and Patnaik domestic institutional factors have resulted in relatively small FDI flows and relatively large portfolio flows. They also point out that one of India's most severe policy dilemmas during this period has been related to the tension between capital flows and the currency regime. As in a large number of emerging countries—both in Asia and elsewhere—large capital inflows have put significant appreciation pressure on the real exchange rate. This has affected the country's degree of international competitiveness, and has eroded the support to the liberalization policies. According to Shah and Patnaik, many tactical details of the intricate reforms to the capital controls derive from the interlocking relationships between monetary policy, the currency regime, and capital flows. The authors point out that recently the accumulation of international reserves has played an important role. An additional manifestation of the tension between exchange rate policy and capital flows has been the significant increase in the volatility of nominal rupee-dollar returns. The authors argue that in spite of the progress achieved since the reforms were adopted, the goal of the early 1990s—of finding a consistent way to augment investment using current account deficits—has remained elusive.

The volume closes with a broad and comprehensive evaluation of the functioning of capital controls and their effects on macroeconomic performance. In “Capital Controls: An Evaluation,” Nicolas Magud and Carmen M. Reinhart analyze the literature on capital controls and economic performance. They argue that this literature is confusing and has been characterized by at least five major shortcomings. First, there is no unified theoretical framework to analyze the macroeconomic consequences of capital controls; this is the case both for controls on outflows and for controls on inflows. Second, most of the literature has not taken into account the fact that there is a significant heterogeneity across countries and time in the control measures implemented. Not all countries are similar; moreover, different episodes in the same country tend to have significant differences. Third, there are many (and very different) definitions of what constitutes a successful experience with capital controls. Many times authors don’t specify what specific criterion they are using for defining success. Fourth, the existing empirical studies lack a common methodology. Finally, the empirical evidence on the effects and effectiveness of capital controls has been dominated by the experiences of only two countries: Chile and Malaysia. In this paper, Magud and Reinhart address some of these shortcomings in several ways. First, the authors are very explicit about what measures are construed as capital controls. Also, given that “success” is measured so differently across studies, Magud and Reinhart try to standardize the results of more than thirty empirical studies on capital controls and economic performance. This standardization process was done by constructing two indexes of capital controls. The first one is called the Capital Controls Effectiveness index (CCE index), and the second one is referred to as the Weighted Capital Control Effectiveness index (WCCE index). The difference between the two is that the WCCE controls for the differentiated degree of methodological rigor used in each of the papers. Also, the authors present evidence on episodes with capital controls that are not as well known as those of Chile and Malaysia.

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Capital Controls in the Emerging Countries Analytical Issues and Cross-Country Evidence

