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Some perspective gained from the
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What is Next for Financial Globalization: Some Perspective Gained from the Experience of Capital Flows to Emerging Market Economies

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From Hume’s discussion of the specie-flow mechanism under the gold standard to the Keynes-Ohlin debate on the transfer problem associated with German reparations after the First World War, understanding the flow of capital across national borders has been central to international economics. My work on the topic has focused mainly on the flow of funds between rich and poor countries. Theory tells us that, for the recipient, foreign capital put to good use can finance investment and stimulate economic growth. For the investor, capital flows can increase welfare by enabling a smoother path of consumption over time and, through better risk sharing as a result of international diversification, a higher level of consumption.

The reality is that the effects of such flows—both as seen from recent experience or the longer sweep of history—do not fit neatly into those theoretical presumptions. As a result, my research has mostly been directed at shedding light on four questions:

1. What motivates rich-to-poor capital flows?
2. Why doesn’t capital flow more from rich to poor countries?
3. What are the consequences of a surge of capital inflows for an emerging market economy?
4. How do policy makers typically respond to an incipient inflow of capital?

I will devote most of my discussion looking back to history—sometimes quite distant history—to shed light on these issues. If that seems odd on a program asking “What’s

next?” it should not. My reading of experience is that history repeats. Sometimes, as in the case of Argentina in the first half of the last century and the opening years of this one, it repeats first as tragedy and then as farce. But it repeats.

Indeed, I sometimes think that I could teach a course on the “Principles of Emerging Market Finance” entirely from the Old Testament of the Bible. We would learn that:

1. Officials are fallible;
2. People do not learn lessons from the past; and,
3. When the resulting wrath of the Lord is unleashed, it does not always discriminate between sinners and the virtuous.

So, I will talk about what is next—it is mostly what has been.

The Causes of Capital Inflows

The surge in capital inflows to emerging market economies in the early part of each of the past two decades was initially attributed to domestic developments, such as sound policies and stronger economic performance that would imply both the good use of such funds in the recipient and the informed judgment of investors in the developed world.¹ The widespread nature of the phenomenon became clearer over time, however, as most developing countries—whether having improved, unchanged, or impaired macroeconomic fundamentals—found themselves the destination of capital from global financial centers. The single factor encouraging those flows was the sustained decline in interest rates in the industrial world.² For example, short-term interest rates in the United States declined steadily in the early 1990s and by late 1992 were at their lowest level since the early 1960s. This experience was repeated as the federal funds rate touched 1 percent

in 2003. Lower interest rates in developed nations attracted investors to the high yields offered by economies in Asia and Latin America. Given the high external debt burden of many of these countries, low world interest rates also appeared to improve their credit-worthiness and reduce their default risk. Those improvements were reflected in a marked rise in secondary market prices of claims on most of the heavily indebted countries and pronounced gains in equity values. As night follows the day, the tightening of monetary policy in the United States and the resulting rise in interest rates made investment in Asia and Latin America relatively less attractive, triggering market corrections in several emerging stock markets and decline in the prices of emerging market debt.

This experience strongly suggests multiple forms of investor myopia: The initial decision to invest seemed more motivated by reaching for yield without an appropriate appreciation of risk and the sudden withdrawal similarly looked more like a quick dash for the exit door than a reasoned assessment of fundamentals. The common theme is that investors enter each episode of upsurge in capital flows confident in the belief that “this time it is different” and look too international financial institutions to make them whole when they later learn that it really wasn’t different.

Rich-to-Poor Capital Flows

To some, the mystery of cross-border flows is not these recurrent cycles unanchored from country conditions but the restricted volume of these flows overall. Most famously, Robert Lucas argued that it was a puzzle that more capital does not flow from rich countries to poor countries, given back-of-the-envelope calculations suggesting massive differences in physical rates of return in favor of capital poor countries.³ Lucas argued that the paucity of capital flows to poor countries must be rooted in fundamental

economic forces, such as externalities in human capital formation favoring further investment in already capital rich countries. My perspective, informed by work with Kenneth Rogoff and Miguel Savastano, is quite different.⁴

Throughout history governments have demonstrated that “serial default” is the rule, not the exception. (The discouraging record is listed in Table 1). Argentina has famously defaulted on five occasions since its birth in the 1820s. However, Argentina’s record is surpassed by many countries in the New World (Brazil, Liberia, Mexico, and Uruguay, Venezuela and Ecuador) and by almost as many in the Old World (France, Germany, Portugal, Spain, and Turkey). Rogoff, Savastano, and I argue that this history of repeated defaults makes some countries less able to bear debt. These “debt intolerant” countries typically have other indicia of governmental failures, including bouts of high inflation, variable macroeconomic policies, and a weak rule of law.

From this perspective, the key explanation to the “paradox” of why so little capital flows to poor countries may be quite simple--countries that do not repay their debts have a relatively difficult time borrowing from the rest of the world. The fact that so many poor countries are in default on their debts, that so little funds are channeled through equity, and that overall private lending rises more than proportionally with wealth, all strongly support the view that credit markets and political risk are the main reasons why we do not see more capital flows to developing countries.⁵

What’s next: If credit market imperfections abate over time due to better institutions, human capital externalities or other “new growth” elements may come to play a larger role. But as long as the odds of non repayment are as high as 65 percent for

some low income countries, credit risk seems like a far more compelling reason for the paucity of rich-poor capital flows.

The Consequences of Capital Inflows

The experience of many emerging market economies is that attracting global investors' attention is a mixed blessing of macroeconomic imbalances and attendant financial crises. As to the imbalances, a substantial portion of the surge in capital inflows ends to be channeled into foreign exchange reserves. For instance, from 1990 to 1994, the share devoted to reserve accumulation averaged 59 percent in Asia and 35 percent in Latin America. Moreover, in most countries the capital inflows were associated with widening current account deficits.

This widening in the current account deficit usually involved both an increase in national investment and a fall in national saving. As one would expect from the fall in national saving, private consumption spending typically rises. While disaggregated data on consumption are not available for all emerging market economies, the import data are consistent with the interpretation that the consumption boom is heavily driven by rising imports of durable goods. (This held with particular force in the Latin American experience of the early 1990s.) In almost all countries, capital inflows were accompanied by rapid growth in the money supply—both in real and nominal terms and sharp increases in stock and real estate prices. For example, during 1991, a major equity index in Argentina posted a dollar return in excess of 400 percent, while Chile and Mexico provided returns of about 100 percent.

Then comes the crisis because the surge in capital flows never proves durable. Unlike their more developed counterparts, emerging market economies routinely lose

access to international capital markets. Furthermore, given the common reliance on short-term debt financing, the public and private sectors in these countries are often asked to repay their existing debts on short notice. Even with the recent large-scale rescue packages, official financing only makes up for part of this shortfall. Hence, the need for abrupt adjustment arises

More often than not, contagion followed on the heels of the initial shock. The capacity for a swift and drastic reversal of capital flows—the so-called “sudden stop” problem—played a significant role.⁶ An analysis of the experience of contagious financial crises over two centuries (with my colleagues Graciela Kaminsky and Carlos Végh) found typically that the announcements that set off the chain reactions came as a surprise to financial markets.⁷ The distinction between anticipated and unanticipated events appears critical, as forewarning allows investors to adjust their portfolios in anticipation of the event. In all cases where there were significant immediate international repercussions, a leveraged common creditor was involved—be it commercial banks, hedge funds, mutual funds, or individual bondholders—who helped to propagate the contagion across national borders.

Additional work with Graciela Kaminsky indicated that contagion is more regional than global.⁸ We found that susceptibility to contagion is highly nonlinear. A single country falling victim to a crisis is not a particularly good predictor of crisis elsewhere, be it in the same region or in another part of the globe. However, if several countries fall prey, then it is a different story. That is, the probability of a domestic crisis rises sharply if a core group of countries are already infected. Is the regional complexion of contagion due to trade links, as some studies have suggested, or is it due to financial

links--particularly through the role played by banks? Our results suggest that it is difficult to distinguish among the two, because most countries that are linked in trade are also linked in finance. In the Asian crises of 1997, Japanese banks played a similar role in propagating disturbances to that played by U.S. banks in the debt crisis of the early 1980s.

I identified the links between these episodes of currency crises and banking crises in another paper with Graciela Kaminsky.⁹ In particular, problems in the banking sector typically precede a currency crisis, creating a vicious spiral in which the currency strains then deepen the banking problems. The anatomy of these episodes suggests that crises occur as the economy enters a recession, following a prolonged boom in economic activity that was fueled by credit, capital inflows and accompanied by an overvalued currency.

The Policy Response

Given this experience of wide swings in foreign funding, it is not surprising that policy makers in many emerging market economies have come to fear capital flows. This has been reflected in their behavior, which I believe results from four fears that lurk beneath the surface.

1. ***Fear of appreciation.*** Being the darling of investors in global financial centers has the decided, albeit often temporary, advantage of having ample access to funds at favorable cost. With the capital inflow comes upward pressure on the exchange value of the currency, rendering domestic manufacturers less competitive in global markets, and especially so relative to their close competitors who are not so favored as an investment

vehicle. A desire to stem such an appreciation (which Calvo and Reinhart, 2002, refer to as “fear of floating”) is typically manifest in the accumulation of foreign exchange reserves. Over time, though, sterilizing such reserve accumulation (the topic of Reinhart and Reinhart, 1998) becomes more difficult, and more direct intervention more appealing.

2. ***Fear of “hot money.”*** For policy makers in developing countries, becoming the object of foreign investors’ attention is particularly troubling if such affection is viewed as fleeting.¹⁰ The sudden injection of funds into a small market can cause an initial dislocation that is mirrored by the strains associated with their sudden withdrawal. Such a distrust of “hot money” was behind James Tobin’s initial proposal to throw sand in the wheels of international finance, an idea that has been well received in at least some quarters. Simply put, a high-enough tax (if effectively enforced) would dissuade the initial inflow and pre-empt the pain associated with the inevitable outflow.
3. ***Fear of large inflows.*** Policy makers in emerging market economies do not universally distrust the providers of foreign capital. Not all money is hot but even then, sometimes the sheer volume of flows matters. A large volume of capital inflows, particularly when it is sometimes indiscriminate in the search for higher yields (in the manner documented by Calvo, Leiderman and Reinhart, 1994), causes dislocations in the financial system. Foreign funds can fuel asset price bubbles and encourage excess

risk taking by cash-rich domestic intermediaries. Again recourse to tax may seem to yield a large benefit.

4. *Fear of loss of monetary autonomy.* The interests of global investors and domestic policy makers need not always—or even often—align. But a trinity is always at work that it is not possible to have a fixed (or highly managed) exchange rate, monetary policy autonomy, and open capital markets (as discussed in Frankel, 2001). If there is some attraction to retaining some element of monetary policy flexibility, something has to give up. However, in the presence of the aforementioned fear of floating, giving up capital mobility may seem more attractive than surrendering monetary policy autonomy.

In light of these fears, the policy of first recourse across countries and over time has been sterilized intervention.¹¹ To avoid some (or all) of the nominal exchange rate appreciation that would have resulted from the capital inflow, monetary authorities have tended to intervene in the foreign exchange market and accumulate foreign exchange reserves. To offset some or all of the associated monetary expansion, central banks have most often opted to sell Treasury bills or central bank paper. Central banks also have tools to neutralize the effects on the money stock of their foreign exchange operations beyond offsetting domestic open market transactions. Importantly, the effect of the sale (purchase) of domestic currency can be offset by raising (lowering) reserve requirements to keep the money stock constant.¹² However, as long as domestic reserves do not pay a competitive interest rate, reserve requirements are a tax on the banking system. Changes in the tax can have real effects, including on the exchange value of the currency.

Moreover, depending on the incidence of the reserve tax, domestic spending and production may change as well.

Fiscal austerity measures, particularly on the spending side, have been used to alleviate some of the pressures on the real exchange rate and to cool down overheating in the economy. Furthermore, fiscal surpluses deposited at the central bank have helped "sterilize" the expansive monetary effects of foreign exchange purchases.

Trade liberalization has been accelerated in some cases, in the hope that productivity gains in the nontraded sector could dampen pressures on the real exchange rate. Moreover, reducing distortions associated with controls on trade may temporarily widen the current account deficit--effectively absorbing some of the inflows without boosting domestic demand.

Revaluation of the nominal exchange rate has also been restored to, particularly as inflows became persistent and curtailing the monetary expansion associated with the accumulation of foreign exchange reserves became increasingly difficult and costly. In some cases, the authorities reached the conclusion that, if an appreciation of the real exchange rate was inevitable, it was better that it occur through a change in the nominal exchange rate than through a pick-up in domestic inflation.

Liberalization of capital outflows has also been a popular response to rising capital inflows. By permitting domestic residents to hold foreign assets, the conventional wisdom holds, gross outflows would increase--thereby reducing net.

Various forms of controls on capital inflows—whether in the form of taxes, quantitative restrictions, or in the guise of “prudential measures”—have been imposed on the financial sector, usually with the aim of deterring short-term inflows.¹³ (Sometimes

these controls take the form of prudential measures to curb the exposure of the domestic banking sector to the vagaries of real estate prices and equity markets.) A main finding of my paper with Todd Smith, however, is that the tax rate on capital inflows must be very high in order to have much effect on the capital account balance.¹⁴ For instance, a reduction in the capital account balance by five percent of GDP would require a tax rate on net interest payments on foreign-held debt on the order of 85 percent for one year or 60 percent for two years.

Often, policy makers have resorted to some combination of these policies. A repeated lesson is that the law of unintended consequences has not been repealed. Multiple policy responses to capital inflows have tended to interact in ways that were probably not anticipated by the framers of such policies. Most likely, even the best policy mix cannot avoid altogether the eventual reversal of capital flows given that they are so sensitive to the behavior of investors in financial centers. The appropriate policy mix may dampen the amplitude of the swings in capital flows, thus ensuring a softer landing when international investors retrench. The strongest policy lesson is that conservative fiscal policy and zealous supervision of the domestic financial sector are essential at all times, especially so when expectations are buoyant.

This, of course, might be viewed as hard work for policy makers, particularly ones who focus exclusively on near-term results. That may be why some of them more readily resort to capital controls to dampen swings in capital flows. It would be an understatement to say that international economists do not speak with one voice as to the efficacy of capital controls. To my mind, part of the problem is that the literature on

capital controls co-mingles (at least) four very serious issues that make it difficult, if not impossible, to compare across theoretical and empirical studies.

1. There is no unified theoretical framework (say, as in the currency crisis literature) to analyze the macroeconomic consequences of controls;
2. There is significant heterogeneity across countries and time in the capital control measures implemented;
3. There are multiple definitions of what constitutes a “success” (capital controls are a single policy instrument—but there are many policy objectives); and
4. The empirical studies lack a common methodology and are furthermore significantly “overweighted” by two poster children--Chile and Malaysia.

In joint work with Nicholas Magud, I attempted to address some of these shortcomings by being very explicit about what measures are construed as capital controls (Magud and Reinhart, 2006). Also, given that success is measured so differently across studies, we sought to “standardize” the results of over 30 empirical studies by constructing indices of capital controls. Inasmuch as possible, we brought to bear the experiences of less well known episodes than those of Chile and Malaysia.

To sum up our long paper, capital controls on inflows seem to: make monetary policy more independent; alter the composition of capital flows; reduce real exchange rate pressures (although the evidence on this latter point is more controversial). Capital controls on inflows, however, seem not to reduce the volume of net flows (and hence, the current account balance)

As to controls on capital outflows, there is Malaysia... and there is everybody else. In Malaysia, controls reduce outflows, and may give room for more independent monetary policy. There is little evidence of “success” in other countries attempting to control outflows, either in terms of altering the volume or regaining monetary policy independence. These findings are in line with those of an earlier literature focused on capital flight (as in Mathieson and Rojas Suarez, 1996) and dual or parallel exchange markets (as in Kuigel and Lizondo, 1997). While their effectiveness varies across time, countries, and types of measures used, limiting private external borrowing in the “good times” plays an important prudential role because more often than not countries that are “debt intolerant”. Indeed, often the critical problem in good times is that countries borrow too much!

While our study made the case for the need to distinguish between measures primarily designed to discourage inflows versus curbing outflows, it would be worthwhile for future research to attempt to ascertain whether there are also important differences in achieving “success” between measures that are more market friendly (as in the Chilean reserve requirements) versus those that are based on more blunt quantitative restrictions. Furthermore, it would be interesting for policy purposes to examine differences between short run and long run impacts of the measures, so as to ascertain how quickly do control measures lose their effectiveness. As long as capital flows to emerging markets remain volatile and potentially disruptive, the discussion of capital controls in academic and policy circles will remain alive and hence there is a real need, to evaluate their effectiveness, however defined.

Concluding Comments: What's Next

My own view as to what's next might best be summed up in the title of a book that Ken Rogoff and I are presently working on: *This Time It's Different*. We have learned from our initial discussion with the editors that it is difficult to convey irony with a simple title—so much so that we may have to add a more explicit subtitle such as: *A Short History of Financial Folly*. History teaches that any understanding of the effects of financial globalization must include an appreciation of the almost-willful disregard of precedent by global investors at times. Such disregard makes it difficult to use market acceptance as a gauge of meaningful progress in improving economic fundamentals in borrowing nations. And without improved fundamentals, an economy's ability to cope with its debt burdens is ultimately compromised—it becomes debt intolerant.

True, some emerging-market economies have graduated in the past few decades, as most of the Old World did before them. But all too often, indiscriminate market acceptance abroad and reliance on impediments to the effects of capital flows at home hide the differences between those policymakers who have made progress and those who put off such hard work to their successors. No doubt, more ready flows of capital across national borders can benefit both lenders and borrowers, but in the world we have lived in, there have been bumps along the road to enjoying those gains.

TABLE 1. SELECTED CASES OF SERIAL DEFAULT IN THE OLD AND NEW “EMERGING MARKETS”: 1501-2002

Country	Number of default (or restructuring) episodes			Total Number
	1501-1800	1801-1900	1901-2002	
Spain	6	7	0	13
Ecuador	n.a.	3	6	9
Venezuela	n.a.	5	4	9
France	8	n.a.	0	8
Germany	1	5	2	8
Mexico	n.a.	5	3	8
Uruguay	n.a.	2	6	8
Brazil	n.a.	2	5	7
Colombia	n.a.	4	3	7
Liberia	n.a.	1	6	7
Peru	n.a.	2	5	7
Turkey/Ottoman Empire	n.a.	1	6	7
Portugal	1	5	0	6
Argentina	n.a.	2	3	5
Austria	n.a.	5	4	5
Bulgaria	n.a.	2	3	5
Greece	n.a.	4	1	5
Yugoslavia (Former)	n.a.	1	4	5
Chile	n.a.	2	2	4
Russia	n.a.	1	3	4
Poland	n.a.	n.a.	3	3
China	n.a.	n.a.	2	2
Egypt	n.a.	1	1	2

Sources: Reinhart, Rogoff, and Savastano (2003) and sources cited therein and Standard and Poor's *Credit Week*, various issues.

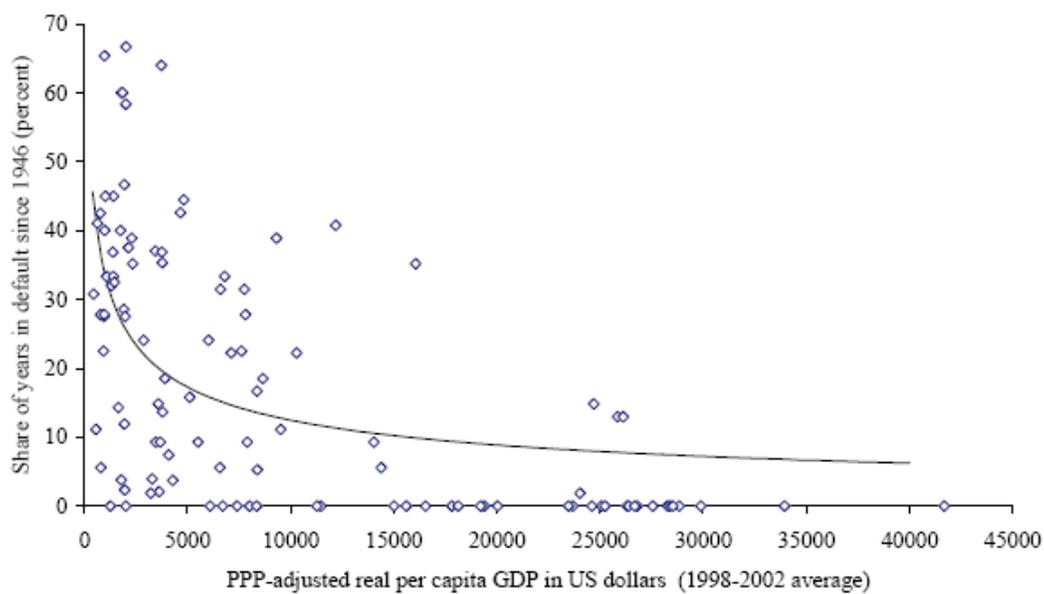


Figure 1. Share of Years in Default and Income Levels

Sources: World Economic Outlook, International Monetary Fund, various issues, Reinhart, Rogoff, and Savastano (2003) and sources cited therein.

Notes: If the country gained its independence after 1946, we calculate the shares for the post independence period.

Table 2: Frequency of Crises over Time

Type of crisis	Number of crises					
	1970-1995		1970-1979		1980-1995	
	Total	Average per year	Total	Average per year	Total	Average per year
Balance-of-payments	76	2.92	26	2.60	50	3.13
Twin	19	0.73	1	0.10	18	1.13
Single	57	2.19	25	2.50	32	2.00
Banking	26	1.00	3	0.30	23	1.44

Note: Episodes in which the beginning of a banking crisis is followed by a balance-of-payments crisis within 48 months are classified as twin crises.

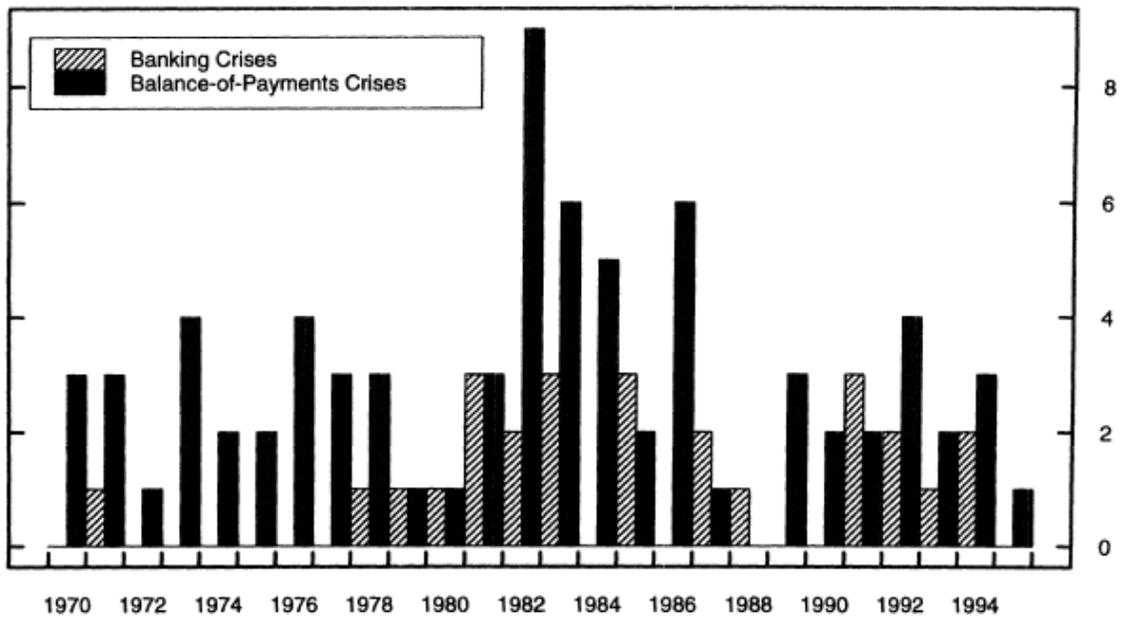


Figure 2: Number of Crises per Year

Source: Kaminsky and Reinhart (1999).

Table 3. Selected Large Reversals in Net Private Capital Flows
(as a percent of GDP)

Country/Episode	Reversal
Argentina, 1982-83	20
Argentina, 1994-95	4
Chile, 1981-83	7
Chile ¹ , 1990-91	8
Ecuador, 1995-96	19
Hungary, 1995-96	7
Indonesia, 1996-97	5
Malaysia ¹ , 1993-94	15
Mexico, 1981-83	12
Mexico, 1993-95	6
Philippines, 1996-97	7
Venezuela, 1992-94	9
South Korea, 1996-97	11
Thailand, 1996-97	26
Turkey, 1993-94	10

Sources: World Bank, *World Debt Tables*, various issues and Institute for International Economics, *Comparative Statistics for Emerging market Economies, 1998*.

¹ Reversal owing to the introduction of controls on capital inflows.

Source: Calvo and Reinhart (2000).

References

Ariyoshi, Akira, Karl Habermeier, Bernard Laurens, Inci Okter-Robe, Jorge Canales-Kriljenko, and Anderi Kirilenko, "Capital Controls: Country Experiences with Their Use and Liberalization", International Monetary Fund Occasional Paper 190, 2000.

Guillermo A. Calvo, Leonardo Leiderman, and Carmen M. Reinhart, "Inflows of Capital to Developing Countries in the 1990s," *Journal of Economic Perspectives*, Spring 1996, vol 10, no. 2, pp. 123-139.

Calvo, Guillermo and Carmen Reinhart, "When Capital Inflows Come to a Sudden Stop: Consequences and Policy Options" in Peter Kenen and Alexandre Swoboda, eds. *Reforming the International Monetary and Financial System*, (Washington DC: International Monetary Fund, 2000), 175-201.

Calvo, Guillermo A. and Carmen M. Reinhart, "Fear of Floating," *Quarterly Journal of Economics*, Vol. CXVII No. 2, May 2002, 379-408.

Chanda, Areendam, "The Influence of Capital Controls on Long Run Growth: Where and How Much?" Mimeograph, North Carolina State University, September 2003.

De Gregorio, José, Sebastian Edwards, and Rodrigo Valdés, "Controls on Capital Inflows: Do They Work?" *Journal of Development Economics*, Vol. 3 No. 1, 2000, 59-83.

Desai, Mihir, Fritz Foley, and James Hanes, "Capital Controls, Liberalizations, and Foreign Direct Investment", National Bureau of Economic Research Working Paper 10337, March 2004.

Dornbusch, Rudi, "Malaysia: Was It Different?" National Bureau of Economic Research Working Paper 8325, June 2001.

Edwards, Sebastian, "How Effective Are Controls on Capital Inflows? An Evaluation of Chile's Experience," Mimeograph, UCLA, June 1999.

Edwards, Sebastian, "How Effective are Capital Controls?" *Journal of Economic Perspectives* Vol. 13 No.4, Fall 1999, 65-84.

Edwards, Sebastian and Roberto Rigobon, "Capital Controls, Managed Exchange Rates, and External Vulnerability," Mimeograph, UCLA, February 2004.

Forbes, Kristen, "One Cost of the Chilean Capital Controls: Increased Financial Constraints for Smaller Trade Firms", National Bureau of Economic Research Working Paper 9777, June 2003.

Edison, Hali and Carmen Reinhart, "Stopping Hot Money: On the Use of Capital Controls during Financial Crises", *Journal of Development Economics*, Vol. 66 No. 2 December 2001, 533-553.

Edison, Hali, Michael Klein, Licca Ricci, and Torsten Slok, "Capital Account Liberalization and Economic Performance: Survey and Synthesis", International Monetary Fund Working Paper 02/120, July 2002.

Johnson, Simon, and Todd Mitton, "Cronyism and Capital Controls: The Case of Malaysia," *Journal of Financial Economics*, 2003.

Johnston, Barry. and Natalia Tamirisia, "Why do Countries Use Capital Controls?", International Monetary Fund Working Paper 98/181, December 1998.

Kaminsky, Graciela, and Carmen Reinhart, "Financial Crises in Asia and Latin America: Then and Now," *American Economic Review*, Vol. 88, May 1998, 444-448.

Kaminsky, Graciela and Carmen Reinhart, "The Twin Crises: The Causes of Banking and Balance-of-Payment Problems," *American Economic Review*, Vol. 89, No. 3, June 1999, 473-500.

Kaminsky, Graciela and Carmen Reinhart, ““The Center and the Periphery: The Globalization of Financial Shocks,” (with Graciela L. Kaminsky) NBER Working Paper 9479, February 2003 forthcoming in Carmen M. Reinhart, Carlos A. Végh and Andres Velasco eds. *Capital Flows, Crisis, and Stabilization: Essays in Honor of Guillermo A. Calvo*.

Kaminsky, Graciela, Carmen Reinhart, and Carlos Végh, “The Unholy Trinity of Financial Contagion” (with Graciela L. Kaminsky and Carlos A. Végh), *Journal of Economic Perspectives*, Vol. 17 No. 4, Fall 2003, 51-74.

DeKaplan, Ethan and Dani Rodrik, “Did the Malaysian Capital Controls Work?” in S. Edwards and J. Frankel, eds., *Preventing Currency Crises in Emerging Markets*, (Chicago: University of Chicago Press for the NBER, 2002).

Labán, Raul M., and Felipe Larraín, “What determines Capital Inflows? An Empirical Analysis for Chile,” Faculty Research Working Paper Series R97-09, JFK School of Government, Harvard University, April 1997.

Labán, Raul M., and Felipe Larraín, “The Return of Private Capital to Chile in the 1990s: Causes, Effects, and Policy Reactions,” Faculty Research Working Paper Series R98-02, JFK School of Government, Harvard University, January 1998.

Le Fort, Guillermo and Carlos Budnevich, “Capital Account Regulations and Macroeconomic Policy: Two Latin Experiences,” Mimeograph, Banco Central de Chile, March 1996.

Lucas, Robert, “Why Doesn’t Capital Flow from Rich to Poor Countries,” *American Economic Review*, May 1990, 92-96.

Magud, Nicholas and Carmen Reinhart, “Capital Controls: An Evaluation” in Sebastian Edwards (ed.), *International Capital Flows* (Chicago: Chicago University Press for the NBER, forthcoming 2005).

Miniane, Jacques and John Rogers, “Capital Controls and the International Transmission of U.S. Money Shocks,” Board of Governors of the Federal Reserve, mimeograph, June 2004.

Montiel, Peter and Carmen M. Reinhart (1999), “Do Capital Controls and Macroeconomic Policies Influence the Volume and Composition of Capital Flows? Evidence from the 1990’s,” *Journal of International Money and Finance*, Vol. 18 No. 4, August, 619-635.

Nitithan Prapas, Isriya, Sunil Rongala, and Thomas D. Willett, “The Role of Capital Controls and Currency Regimes in the Asian Crisis, Mimeograph School of Politics and Economics Claremont Graduate University, August 2002.

Reinhart, Carmen and Vincent R. Reinhart “Some Lessons for Policy Makers Who Deal with the Mixed Blessing of Capital Inflows,” in Miles Kahler, ed. *Capital Flows and Financial Crises*, Council on Foreign Relations Book (Ithaca, NY: Cornell University Press, 1998), 93-127.

Reinhart, Carmen and Vincent R. Reinhart, “On the Use of Reserve Requirements in Dealing with the Capital-Flow Problem,” *International Journal of Finance and Economics*, Vol. 4 No.1, January 1999, 27-54.

Reinhart, Carmen and Vincent R. Reinhart, “What Hurts Most: G-3 Exchange Rate or Interest Rate Volatility?” in Sebastian Edwards and Jeffrey Frankel, eds. *Preventing Currency Crises in Emerging Markets* (Chicago: University of Chicago Press for the NBER, 2001), 73-99.

Reinhart, Carmen and Kenneth Rogoff, “Serial Default and the “Paradox” of Rich-to-Poor Capital Flows,” *American Economic Review*, Vol. 94, No. 2, May 2004, 53-59.

Reinhart, Carmen, Kenneth Rogoff, and Miguel Savastano, “Debt Intolerance,” *Brookings Papers on Economic Activity*, Spring 2003, 1-74.

Reinhart, Carmen and Todd Smith (1998), “Too Much of a Good Thing: The Macroeconomic Effects of Taxing Capital Inflows,” in Reuven Glick, ed. *Managing Capital Flows and Exchange Rates: Perspectives from the Pacific Basin*, (Cambridge: Cambridge University Press), 436-464.

Reinhart, Carmen and Todd Smith, “Temporary Controls on Capital Inflows”, *Journal of International Economics*, Vol. 57 No. 2, December 2002, 327-351.

Tamirisia, Natalia, “Do Macroeconomic Effects of Capital Controls Vary by Their Type? Evidence from Malaysia”, International Monetary Fund Working Paper 04/3, January 2004.

Tamirisia, Natalia, “The Malaysian *Batik* of Capital Controls,” International Monetary Fund, mimeograph 2004.

Ulan, Michael K. “Is a Chilean-Style Tax on Short-Term Capital Inflows Stabilizing?” *Open Economies Review*, Vol. 11.

Valdés-Prieto, Salvador, and Marcelo Soto, “New Selective Capital Controls in Chile: Are They Effective? Mimeograph, Universidad Católica de Chile, September 1995.

¹ The experience of the early 1990s is discussed in Calvo, Leiderman, and Reinhart (1996). Comparisons between that episode and the Asian crises are drawn in Kaminsky and Reinhart (1998).

² Regression evidence on the determinants of regional capital flows is provided in Reinhart and Reinhart (2001).

³ Lucas (1990).

⁴ Reinhart and Rogoff (2004) and Reinhart, Rogoff, and Savastano (2003).

⁵ The link between default and income is painfully evident in Figure 1.

⁶ A term coined by Guillermo Calvo (see the discussion in Calvo and Reinhart, 2000).

⁷ Kaminsky, Reinhart, and Vègh (2003).

⁸ Kaminsky and Reinhart (2003).

⁹ For a fuller discussion, see Kaminsky and Reinhart (1999). The basic evidence on banking and balance-of-payment crises is repeated here in Table 2 and Figure 2.

¹⁰ Current account reversals can be both large and sudden, as is evident in Table 3.

¹¹ I have documented the typical policy responses in Reinhart and Reinhart (1998).

¹² This is discussed in Reinhart and Reinhart, (1999).

¹³ A survey of the literature on capital controls is provided in Magud and Reinhart (2005).

¹⁴ Reinhart and Smith (2002).