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Some Perspective on Capital Flows to Emerging Market Economies

Carmen M. Reinhart*

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 WWI, 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 — as seen from either 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 policymakers typically respond to an incipient inflow of capital?

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 attributed initially to domestic developments, such as sound policies and stronger economic performance, implying both the good use of such funds in the recipient country and the informed judgment of investors in the developed world.¹ The widespread nature of the phenomenon became clearer over time, though, as most developing countries whether thev had 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, shortterm interest rates in the United States declined steadily in the early 1990s and by late 1992 were a their lowest level since the early 1960s. 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 to reduce their default risk. Those improvements were reflected in a marked rise in secondary market prices of bank claims on most of the heavily indebted countries and pronounced gains in equity values. Thus, 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 a 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. Looking back,

one is struck by an overwhelming sense of "déjà vu." It certainly seems a mystery why these wide swings in capital flows recur, in spite of the major costs associated with them. 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 to 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 crossborder flows is not these recurrent cycles unanchored from country conditions but rather 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. 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 intoler-

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ant" 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. If credit market imperfections abate over time because of better institutions, then 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 tends 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 involves 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 often are 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.⁵ An analysis of the experience of contagious financial crises over two centuries (with my colleagues Graciela Kaminsky and Carlos Vègh) finds typically that the announcements that set off the chain reactions came as a surprise to financial markets.6 The distinction between anticipated and unanticipated events appears critical, because advance warning 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 indicates that contagion is more regional than global.⁷ We find

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 attributable to trade links, as some studies have suggested, or to financial links — particularly through the role played by banks? Our results suggest that it is difficult to distinguish between the two, because most countries 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 identify the links between these episodes of currency crises and banking crises in another paper with Graciela Kaminsky.⁸ 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 policymakers in many emerging market economies have come to fear large current account deficits, irrespective of how they are financed, but particularly if they are financed by short-term debt. The capital inflow slowdown or reversal could push the country into insolvency or drastically lower the productivity of its existing capital stock. These multiple concerns have produced multiple responses to capital inflows.

The policy of first recourse across countries and over time has been sterilized intervention. 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.10 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 to "sterilize" the expansive monetary effects of foreign exchange purchases.

The process of 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.

Liberalization of capital outflows also has 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.11 (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.) One 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.¹² For instance, a reduction in the capital account balance by 5 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.

Allowing the nominal exchange rate to appreciate (or be revalued in cases where the exchange arrangement is less flexible) also has to be considered as part of the menu of viable policy responses, particularly as inflows become persistent. As noted in my paper with Reinhart, long-lived attempts to avoid a nominal appreciation via unsterilized foreign exchange market intervention will fuel a monetary expansion (owing to the accumulation of foreign exchange reserves), which may prove inflationary. While sterilized intervention may curtail the monetary expansion, it can become both increasingly difficult to implement and costly over time. 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.

Often, policymakers 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 altogether avoid 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 when expectations are buoyant.

¹ The experience of the early 1990s is discussed in G.A. Calvo, L. Leiderman, and C.M. Reinhart, "Inflows of Capital to Developing Countries in the 1990s," Journal of Economic Perspectives, 10 (2) (Spring 1996), pp. 123-39. Comparisons between that episode and the Asian crises are drawn in G. L. Kaminsky and C.M. Reinhart, "Financial Crises in Asia and Latin America: Then and Now," American Economic Review, (May 1998), pp. 444-8. ² Regression evidence on the determinants of regional capital flows is provided in C.M. Reinhart and V. R. Reinhart, "What Hurts Most: G-3 Exchange Rate or Interest Rate Volatility?" in S. Edwards and J. A. Frankel, eds. Preventing Currency Crises in Emerging Markets, Chicago: University of Chicago Press, 2001, pp. 73-99.

³ R. Lucas, "Why Doesn't Capital Flow from Rich to Poor Countries," American Economic Review, (May 1990), pp. 92-6.

C.M. Reinhart and K.S. Rogoff, "Serial Default and the 'Paradox' of Rich-to-Poor Capital Flows," NBER Working Paper No. 10296, February 2004, and American Economic Review, 94 (2), (May 2004), pp. 53-9, and C.M. Reinhart, K.S. Rogoff, and M. Savastano, "Debt Intolerance," NBER Working Paper No. 9908, August 2003, and Brookings Papers on Economic Activity, (Spring 2003), pp. 1-74.

À term coined by Guillermo A. Calvo (see the discussion in G.A. Calvo and C.M. Reinhart, "When Capital Inflows Come to a Sudden Stop: Consequences and Policy Options" in P. Kenen and A. Swoboda, eds., Reforming the International Monetary and Financial System, Washington DC: International Monetary Fund, 2000, pp.175-201.)

⁶ G.L. Kaminsky, C.M. Reinhart, and C.A. Vègh, "The Unholy Trinity of Financial Contagion," NBER Working Paper No. 10061, November 2003, and Journal of Economic Perspectives, 17 (4), (Fall 2003), pp. 51-74.

G.L. Kaminsky and C.M. Reinhart, "The Center and the Periphery: The Globalization of Financial Shocks,"

NBER Working Paper No. 9479, February 2003, forthcoming in C.M. Reinhart, C. A. Végh and A. Velasco, eds. *Capital Flows, Crisis, and Stabilization: Essays in Honor of Guillermo A. Calvo.*

⁸ For a fuller discussion, see G.L. Kaminksy and C.M. Reinhart, "The Twin Crises: The Causes of Banking and Balance-of-Payment Problems," *American Economic Review*, 89 (3), (June 1999), pp. 473-500.

⁹ I have documented the typical policy

responses in C.M. Reinhart and V.R. Reinhart, "Some Lessons for Policy Makers Who Deal with the Mixed Blessing of Capital Inflows," in M. Kahler, ed., *Capital Flows and Financial Crises*, Council on Foreign Relations Book, Ithaca, NY: Cornell University Press, 1998, pp. 93-127.

¹⁰ This is discussed in C.M. Reinhart and V.R. Reinhart, "On the Use of Reserve Requirements in Dealing with the Capital-Flow Problem," *International Journal of Finance and Economics*, 4 (1),

(January 1999), pp. 27-54.

¹¹ A survey of the literature on capital controls is provided in N. Magud and C.M. Reinhart, "Capital Controls: An Evaluation" in S. Edwards, ed., *International Capital Flows*, forthcoming from the University of Chicago Press. ¹² C.M. Reinhart and R.T. Smith, "Temporary Controls on Capital Inflows," NBER Working Paper No. 8422, August 2001, and *Journal of International Economics*, 57 (2), August 2002, pp. 327-51.

Prospects for Social Security Reform in the United States

Kent Smetters*

One of the most far-reaching shifts in fiscal policy around the world during the past two decades has been the fundamental restructuring of public pension systems. Over two dozen countries across five continents have converted at least part of their pay-asyou-go, defined-benefit, public pension systems into systems based on funded, defined-contribution accounts. Several additional countries are currently in the process of conversion, and even more countries, including the United States, are debating it.

The shift toward defined-contribution plans in the *private* sector has increased the mobility of workers, because traditional defined-benefit plans have a "lock-in effect" that discourages employees from switching employers. Therefore, the conversion of *public* pension plans to the defined-contribution model sometimes has been lumped together as part of this same "modernization" movement. However, that explanation is problematic, because public pension plans are

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typically already fairly portable across employers. With a few exceptions, the public pension benefit formula in most countries is dependent on the wages of the worker regardless of the actual employer.

In fact, the public plan conversions seem fairly puzzling at first. To be sure, many common arguments have been put forth in favor of "personal accounts" including the potential to earn higher rates of return in equities, increased national savings, as well as greater bequeath-ability. However, even if we believed that a portion of the equity premium were a "freebie" and not just a compensation for risk, higher returns could be earned by a public pension system by investing in equities, which has the added benefit of potentially improving risk sharing across generations.1 National saving also could be increased by pre-funding the traditional pension system. The traditional pension scheme also could be complemented with a life insurance payment upon death that replicated the bequeath-ability aspect of personal accounts.

Indeed, in a deterministic setting, the traditional public defined benefit pension systems in theory could achieve the same economic objectives as personal accounts. In the presence of idiosyncratic risks, traditional defined-benefit systems more easily allow for sharing wage and longevity uncertainty.² Relatively larger transaction costs in defined contribution plans, as well as problems associated with financial literacy, moral hazard, and adverse selection, only seem to buttress the case for the traditional design. So why are more and more countries abandoning the traditional design for the funded, defined contribution model that, in theory, is no better than the traditional design and potentially even worse?

Adding to the puzzle is that these reforms have taken on numerous shapes and sizes across the world. While, politically, the adoption of personal accounts are often linked to demographic concerns (for example, retirement of baby boomers in the United States), the actual evidence does not seem to support this motive for personal accounts. Indeed, the largest reforms occurred in less developed countries where future demographic problems are projected to be the least severe, including Chile (1981), Columbia (1993), Peru (1993), Mexico (1997), Bolivia (1997), El Salvador (1998), and Kazakhstan (1998). In each of these countries, the vast majority of the final expected retirement benefit is