

International Policy Center

Post-Crisis Global Financial Flows

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Theory tells us that, for recipient countries, foreign capital put to good use can finance investment and stimulate economic growth. Opening to global financial markets should stimulate the flow of capital from capital-rich to capital-poor countries and reduce the cost of capital in markets where capital is scarce. Capital flow can increase the efficiency of the financial sector and facilitate the transfer of technology. A second-order effect is to help diversify risk, by reducing local investors' exposure to country-specific risk.

Experience, however, tells us that capital flows in practice often do not fit theory. International capital markets are dominated by flows between industrialized countries. Further, the financial crises of the 1990s suggest that even when capital does flow to poorer countries, the results are not always positive. Lucas (*AER* 1990) has 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. Others have argued that credit risk is the main culprit; the record of default for poorer countries simply makes them less attractive to potential investors.

Understanding what drives international capital flows, why they differ so markedly from what theory suggests, how they impact recipient country investment and growth, and why they often prove temporary are all important topics that are currently being studied in both policy and academic circles. Our proposal is to take historical patterns of capital flows as given, and examine what changes have occurred in the post-financial crisis era. Numerous (micro and macro) reforms were put in place by developing countries prior to the crisis to attract capital flows. We propose to examine whether these reforms were maintained, and whether the resultant patterns of capital flows provide new lessons on the value of these reforms.

Capital market reforms of the 1990s

Under the auspices of the Washington Consensus, policymakers encouraged reforms that would lead to more capital flow from rich to poor countries. Underlying the consensus was the view that developing countries needed to make institutional and macroeconomic changes that would make them more attractive to international investors. First, the consensus was that developing countries should have greater macroeconomic discipline, including: a reduction in fiscal deficits, reprioritization of expenditures and tax reform. The second major component was to encourage policies that foster the market economy: to liberalize interest rates, liberalize the banking system, deregulation, privatize government-run enterprises, encourage greater securitization and increase shareholder

protections. More generally, countries were to allow a greater role for market-determined prices, and especially market-determined exchange rates, to affect allocations. The third component was to open economies to the global marketplace, through trade liberalization and, to some extent, capital account liberalization.

Economists predicted that such reforms would generate a number of benefits for emerging markets. If one strategically stops time in 1997, it appears that capital flow largely responded as economists predicted it would, with a quadrupling of total flow from industrialized countries to developing countries from \$75 billion in 1990 to over \$300 billion in 1997. Emerging markets experienced stock market booms and rapid economic growth. Of course, the clock did not stop in the mid 1990s, and beginning with the Mexican crisis in December 1994, global markets were buffeted with a series of financial shocks that seemed to spread from one market to the next. These crises resulted in (or some would say were caused by) a sudden reversal of capital flow from emerging markets, speculative attacks on fixed exchange rates and the Central Banks that supported them, collapses in the financial sectors of many Latin American and Southeast Asian countries, liquidity crises and ultimately widespread defaults.

In the aftermath of these financial crises, capital flows have generally reverted back to their previous rich-to-rich country patterns, suggesting that from the poorer country's perspective both wealth and the allocation of capital went from bad to worse after the crisis. In some cases developing countries dismantled many of the reforms put in place prior to the crisis, but even countries that kept the "Washington Consensus" reforms in place saw little reward in terms of new capital flow. Flow to some developing countries has subsequently resumed but the structure of the capital flow has changed, with a greater role for FDI in the form of mergers and acquisitions and a much smaller flow through banks and securities markets.

Our proposal

Our proposal is to form a study group to examine the global financial system in this post-crisis era. Our focus is on post-crisis flows in part because much of the existing literature is focused exclusively on *pre*-crisis flows. Our plan is to draw on this rich literature and examine whether the lessons drawn from the crises are useful or relevant for understanding current (post-crisis) capital flow dynamics. The various research projects discussed below adopt different approaches and methodologies, but share a common goal of attempting to make sense of global financial flows.

1. The role of institutional investors in financial contagion

It has often been suggested that the contagious financial crises of the last two decades could be attributed to the trading activity of sophisticated investors and speculators. Consistently, many recent models of rational contagion emphasize the role played by their trading behavior. Fleming et al. (1998) and Kodres and Pritsker (2002) argue that the portfolio rebalancing activity of privately informed, price-taking investors, driven by risk aversion, may mislead the updating process of other, uninformed investors, thus eventually inducing financial contagion. Pasquariello (2005a) shows that such

rebalancing activity may be explained by strategic behavior in the presence of information heterogeneity among better informed traders. Finally, Calvo (1999), Kyle and Xiong (2001), and Yuan (2005) explore the consequences of insiders being financially constrained for the propagation of liquidity shocks across equilibrium prices. Empirical evidence on these arguments is unfortunately either scarce, indirect, or merely anecdotal.

The objective of our research is to fill this gap in the literature on international spillover events. We plan to utilize a novel database of the portfolio allocations of several hundred funds investing in emerging economies to determine the empirical relevance of the above mentioned theories in explaining the spillover effects following the events that took place in Mexico at the end of 1994, in East Asia between 1997 and 1998, in Russia during the summer of 1998, in Brazil in 1999, in Turkey in 2001, and in Argentina in 2001/2002. The project will require data resources for a) the identification of specific episodes of return and/or volatility spillover, b) the measurement of rebalancing activity, and c) the development of several proxies capturing the intensity of information asymmetry and heterogeneity, as well as of financial and wealth constraints.

2. Mergers and acquisitions in emerging markets: Outsourcing v. market access

While the other types of flow to emerging markets declined, FDI appeared to be resilient to financial crises, particularly in the form of “brownfield” mergers and acquisitions. By 2001 FDI accounted for 80 percent of the total volume of flow to developing countries.

In previous research Chari, Oimet and Tesar (2004) used stock returns to assess whether cross border M&As in emerging markets create or destroy value. Our analysis found that there were substantial gains for acquirers from the announced purchase of firms in emerging markets when the acquirer obtains control of the emerging market firm. Interestingly, *only in emerging markets* does the acquisition of majority control lead to a statistically significant increase in acquirer returns. This suggests that there is something special about M&As in emerging markets related to the ultimate control of the assets in the emerging market. In some cases, the magnitude of the gain from the acquisition is larger than the market capitalization of the target itself.

The finding that shareholders in acquiring firms benefit from acquiring control of firms in emerging markets leaves open the question of the source of those gains. At least two hypotheses come to mind. The first interpretation of the large acquirer gains is that they represent the benefits of *access to a larger global market*. The newly merged firm can now expand, both in the home and the target country as the firm increases its presence in a larger global market. An alternative hypothesis, and one that is on the minds of policymakers, is that acquisitions in emerging markets are the mechanism through which corporations *outsource production* to countries with lower wages and more favorable tax codes. The returns to the acquisition in this case represent the gain to owners of capital (the shareholders) and management, possibly at the expense of employees.

We propose to answer this question by combining data from SDC Thompson’s International Mergers and Acquisitions database with data from the Longitudinal Business Database (LBD). This dataset will allow us to see if M&As in emerging

markets result in an overall expansion of the firm, or whether resources within the firm are reallocated, resulting in a net loss of jobs and production in the US. Similar research has been done using the LBD to study the effects of domestic acquisitions on productivity, investment and employment (see for example, Frank R. Lichtenberg, *Corporate Takeovers and Productivity*, MIT Press 1992). To our knowledge we are the first to study the impact of acquisitions in emerging markets on the US economy at the firm level.

3. Understanding the global distribution of capital and wealth

One fundamental question about the merits of financial globalization is whether global financial markets have provided a mechanism for a global redistribution of wealth and income. Until recently, information on the wealth positions of a large number of countries did not exist, making such analysis impossible. A new dataset compiled by Lane and Milesi-Feretti, augmented by the IMF, now provides information on the cumulated net foreign holdings by asset type for a large number of countries. We propose to combine these measures of external wealth with data on domestic wealth extracted from national income accounts (Penn World Tables) in order to study the distribution of income and wealth on a global scale.

Initial results based on this data suggest that capital markets did not deliver on the promise of redistributing wealth from the rich to the poor. A Lorenz curve of the distribution of wealth for 59 countries, which shows the fraction of global wealth accounted for by each decile of countries ranked by wealth, shows very little change between 1970 and 1995. (Wealth here includes the capitalized value of a country's capital stock as well as its stock of foreign assets.) If wealth were distributed approximately evenly, the poorest 10 percent of countries would have 10 percent of global wealth. The data suggest that 10 percent of global wealth is shared by the bottom 50 percent of countries. These figures are an underestimate of the uneven distribution of wealth, because the sample excludes most of sub-Saharan Africa, the poorest countries in Asia, and Eastern Europe because of the lack of information on capital stocks and net foreign assets in those regions.

Even if one thought that *wealth* might not be affected by the opening of capital markets, one would hope that the allocation of *capital* would be affected. That is, open capital markets would encourage investment in capital-scarce countries even if ownership of that capital, and therefore wealth, remained in the hands of investors in industrialized countries. Unfortunately, the data suggest that there was also very little change in the distribution of capital across countries between 1970 and 1995. In 1995, the richest 50 percent of countries accounted for 85 percent of the global capital stock.

We propose to use this dataset to study changes in the distribution of capital, wealth and income over time. In particular, we will use the data to ask whether the globalization of financial markets has had a statistically significant impact on the distribution of capital, income and wealth and if so, in what way. Ultimately, we plan to build a model that can explain the global distribution of wealth as a function of the shocks that affect national

economies and the financial links that connect them.

4. The Role of International Reserves in International Capital Markets

Asia as a whole currently holds more than \$2.5 trillion dollars in international reserves. The combined reserves of the People's Bank of China and the Hong Kong Monetary Authority alone exceed \$850 billion. The Bank of Japan, likewise, currently holds around \$830 billion. Asian international reserves, which make up two-thirds of the world total, have grown dramatically in the post-financial crisis period in large part in reaction to the crisis. Much of the focus on these reserves has been to link them to the sustainability of the U.S. current account deficit. Indeed, a commonly held view is that the purchases of U.S. Treasury securities by Asian central banks have sustained and amplified global imbalances by serving to both finance the U.S. deficit and maintain a high value of the dollar. This situation, in turn, increases U.S. vulnerability to a change in sentiment (toward the dollar) by these few key players. From the point of view of the Asian countries, the build-up of dollar reserves necessitates continuous sterilization in order to offset inflation of their domestic money supplies, and also puts the countries at risk of enormous losses were the value of the dollar to dramatically fall.

We propose to study the role of international reserves in both the “reserve building” and “reserve selling” countries. It seems likely that “reserve building” countries will begin to diversify their holdings, both in terms of currency denomination and yields (indeed, there is evidence that this process has already begun). We will examine the implications of such a shift in terms of the value of the dollar and the sustainability of the US current account deficit. We will also examine the relationship between pre-crisis reserve holdings, intervention operations during the crisis, and the subsequent severity and duration of financial crises. Dominguez (1998b, 2003ab, 2005) and Pasquariello (2004b, 2005b) have found evidence from developed countries that intervention operations in foreign exchange markets can influence exchange rates in certain circumstances. The influence of interventions on developing country exchange rates is less well understood, especially in times of crisis. Finally we will study the efficacy of sterilization in limiting the influence of “reserve building” on domestic money supplies.

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