Reserve Accumulation, Financial Instability and Global Capital Mobility in Historical Perspective

Moritz Schularick
(Free University of Berlin)*

Abstract

Over the past decade emerging markets accumulated foreign currency reserves to insure against the risks of global financial integration. They were wise to do so. Countries with large reserves have fared better in the crisis of 2008/09. Yet collectively reserve accumulation had unintended consequences. It has contributed to the build-up of global imbalances and financial distortions that helped create the macroeconomic backdrop for the crisis. This article looks at recent patterns of global capital flows from the perspective of economic history, trying to set events in a longer term perspective. It argues that the crisis could mark the end of the latest attempt to manage the financial stability risks of capital market integration. Emerging markets will not consent to facing global financial flows without large foreign currency reserves, but a return to currency interventions and reserve accumulation would be equally problematic. Historically, the ups and downs of global capital market integration have been driven by varying assessments of the benefits of capital mobility. With the recent crisis the time for such a reassessment might have come.

* The author is Professor of Economics and Economic History at Free University of Berlin, and currently a Visiting Scholar at the University of Cambridge.
Email: moritz.schularick@fu-berlin.de

Over the past decade, China and other emerging markets accumulated foreign currency reserves to promote export-led growth and insure against the economic vagaries of financial globalization. They were wise to do so. Countries with larger reserves have weathered the financial storm of 2008/09 relatively better than those who bought less insurance (Obstfeld et al., 2008). Yet while purchasing insurance policies might have been sensible from the perspective of each individual country, collectively these currency interventions had unintended consequences. In the past decade a vast amount of capital was flowing from developing countries to the richest economy in the world. As is now widely acknowledged, sizeable capital flows from comparatively poor emerging markets to the United States helped create the macroeconomic backdrop for the current financial crisis by distorting interest rates and subsidizing consumption in the United States (e.g. Calvo, 2009; Setser, 2009).[1] The paradox of reserve accumulation is that these rational attempts to make individual economies safer have contributed to macroeconomic imbalances and the mispricing of financial risk on a global level with devastating consequences for the world economy.

After the Asian crisis in 1998, Martin Feldstein suggested a policy of self-help for emerging markets to cope with the financial instability brought about by global capital market integration (Feldstein, 1999). Liquidity was to be the key element of this strategy. Feldstein explicitly recommended: "A country that has substantial international liquidity is less likely to be the object of a currency attack." At the time, his advice made much economic sense. So-called second generation crisis models have shown that in the presence of some structural weaknesses – and most developing countries have some structural weaknesses coupled with limited credibility of policy-making – multiple equilibria are possible and developing economies can be subjects of self-fulfilling attacks (Obstfeld, 1996). Feldstein correctly concluded that ample currency reserves would make such destabilizing speculative attacks much less likely *ex ante*. Shielded by ample liquidity, emerging markets could consequently enjoy the benefits of global market integration while minimizing the risks. Yet the crisis of 2008/09 has shown spectacularly

[1] A couple of years back, Niall Ferguson and I coined the term "Chimerica" to describe the historically unique financial symbiosis that had developed between Chinese saving and American consumption; see Ferguson and Schularick, 2007.

that a collective policy of self-insurance has made individual countries safer, but not the world economy as a whole. By depressing global interest rates, mispricing risks and financing over-consumption in the world's richest economy, a decade of emerging market reserve accumulation has played a key role in creating and sustaining the global imbalances that made the financial crisis so devastating.

This article looks at the phenomenon of reserve accumulation from the perspective of economic history, trying to set events in a longer term perspective. Over the past century, three different attempts have been made to integrate developing countries into the global capital market. While the experience of the first era of global finance (i.e. financial globalization 1.0 in the late 19th and early 20th century) has been broadly positive, the past 30 years have been certainly less encouraging. After the Asian crisis, emerging markets concluded that global capital flows were too fickle to be relied as part of a development strategy that built on importing foreign savings. The crisis of 1997/1998 marked the end of "financial globalization 2.0." This article argues that the crisis of 2008/09 could well mark the end of "financial globalization 3.0" as it showed that a global financial order built on currency intervention, reserve accumulation and capital flows from poor to rich also bears very significant financial stability risks.

The recent financial crisis therefore poses a clear dilemma. It would be wrong (and close to impossible) to ask emerging markets to face the risks of global financial flows without insurance in the form of large and liquid foreign currency reserves. Yet a return to large-scale interventions and reserve accumulation would be equally problematic. The right policy answer therefore might turn out to be slowing down the pace of financial globalization and reducing the stability risks it creates. Throwing sand in the wheels of global finance could assume the shape that Brazil has recently chosen by imposing taxes on certain types of capital inflows, or it could be in the form of making cross-border bank lending more expensive through taxes or higher capital requirements. If recent research on the growth effects of financial globalization can be trusted, the economic loss from such measures is likely to be minimal, but the gains in terms of financial stability could be substantial.

In any case, the financial and economic crisis of 2008/09 is likely to change the perceived risk and benefits of unfettered international capital flows. Historically, the ups

and downs of global capital market integration have been driven by political and economic assessments of the benefits of capital mobility. The policy combinations imposed by the macroeconomic trilemma as well as different approaches to economic development and technological changes have been the key factors behind the path of international capital mobility in the 20th century (Obstfeld and Taylor, 2004). With the crisis of 2008 the time has come to ask again whether the cost-benefit analysis of global financial integration has changed.

I. Global Capital Mobility in the 20th Century

The patterns of capital flows in the global economy have changed markedly at various points in the 20th century. Broadly speaking, capital mobility over the past century followed a U-shaped curve – it was high at the beginning and the end of the 20th century, with a trough in the middle (Obstfeld and Taylor, 2006; Schularick, 2006). Financial integration was particularly high at the beginning of the 20th century in what is often called the first era of financial globalization. Restrictions on financial transactions were virtually absent, and cross-border financial flows reached unprecedented levels during the three decades of the classical gold standard. Moreover, capital flowed mainly from the rich core to the periphery, resulting in sizeable net transfers of savings. Between 1880 and 1914, Britain exported on average between four and five percent of her gross domestic product (GDP) abroad. Following in Britain's footsteps, the other developed European nations started to export capital in the last quarter of the 19th century and, after the turn of the century, the United States also joined the first global capital market boom as an exporter of capital. Almost half of all internationally mobile capital during the time found its way to poor countries.[2]

Financial globalization broke down in the interwar years. Burdened by war debts and reparations as well as chronic balance of payments disequilibria, the experience of the interwar period with capital mobility was not a happy one. The credibility of the gold

[2] Defined as countries with a per capita income of less than one-third of the rich European core. See Schularick (2006).

standard as a monetary order was much weakened, inviting speculative movements of capital in anticipation of parity adjustments. From the policy-maker perspective, financial flows were often seen as "speculative" and "destabilizing," complicating the task of managing economies.[3] Currency devaluations, trade protectionism and the imposition of capital controls during the Great Depression finally reduced international capital mobility to a fraction of what it had been at the beginning of the 20th century.

The negative experiences of the interwar period informed the postwar Bretton-Woods order. A key lesson learned and applied when rebuilding the world economy after 1945 was how destabilizing capital flows had been in the interwar period. Rightly or wrongly, policy-makers at the time concluded that the benefits of capital mobility were unlikely to outweigh the costs in terms exchange rate volatility and financial instability. The conference of Bretton-Woods designed a world economic order in which finance was to be "primarily national" – as Keynes had already suggested in the early 1930s (Keynes, 1933). The solution of the Bretton-Woods monetary system to the trilemma problem was to forsake capital mobility. Currencies were freely convertible for current account transactions, but not for capital account transactions.

The Bretton-Woods system collapsed in the early 1970s. Since then, global finance has made a stunning comeback. Capital account movements were liberalized successively from the late-1970s in the OECD and in the developing world starting in the late 1980s. The idea was that removing restrictions on capital account transactions would enable emerging markets to tap into the pool of global savings and import capital for development. Market forces would allocate capital efficiently to its most productive uses across the globe. Moreover, with exchange rates floating already a key political rationale for limiting capital mobility was gone. The memories of financial instability from the interwar period had faded. The political and economic assessment of the benefits had changed once again, this time in favor of capital mobility.

By the mid-1990s global foreign capital stocks relative to global output surpassed the levels reached at the beginning of the 20th century (Schularick, 2006). Emerging markets from Mexico to Thailand tapped the global market and imported capital to finance current account deficits. For a few years in the 1990s, financial globalization

[3] See the excellent discussion in Eichengreen (1996).

looked similar to the historical precedent seen at the beginning of the century. Free capital mobility led to increasing flows of capital to developing countries. Financial globalization was back. Yet financial globalization 2.0 lasted hardly a decade before it ended painfully in the Asian crisis. During 1997/98 it became clear that private capital flows, especially portfolio investments, were volatile and pro-cyclical. They could reverse as easily as they came in and were too unstable to be relied upon as part of a long-term development strategy. Korea and other Asian nations learned that in difficult times large short-term liabilities could seriously complicate economic management, reminiscent of the unpleasant experience with short-term capital movements in the interwar year. In 1998, a number of emerging markets' governments had to go on a humiliating trip to Washington to ask the IMF for emergency financing. After that experience, governments in the developing world were easily convinced by Feldstein's advice to protect themselves from the instability of the global financial market through ample liquidity buffers.

II. Reserve Accumulation and the Crisis

What followed was financial globalization 3.0. Capital accounts remained open and financial globalization continued at a rapid clip, but emerging markets heeded Martin Feldstein's advice and took out an insurance policy against the vagaries of financial globalization. By running current account surpluses and intervening in foreign exchange markets they built up an unprecedented amount of currency reserves. Such policies turned developing markets into net capital exporters to the developed world, mainly to the U.S. For the first time in modern financial history, poor countries with a potentially higher marginal productivity of capital turned into net capital exporters to the world's rich countries.

Between 1990 and 1998 emerging and developing economies (according to the IMF classification) were running an average current account deficit of about 1.7% of their GDP. Between 1999 and 2008 – during financial globalization 3.0 – this deficit

turned into a surplus of 2.5% of GDP.[4] Looking more closely at the patterns of reserve accumulation in recent years, Maurice Obstfeld and his co-authors have shown that varying degrees of openness to financial globalization go a long way towards explaining the differences in international reserve holdings between countries (Obstfeld, Shambaugh, and Taylor, 2009). The more financially integrated a country is, the more it aims to protect against the risks stemming from such financial openness, in particular if high trade openness makes the real economy sensitive to exchange rate swings.

Just like its predecessor, financial globalization 3.0 seemed a success story for a while, generating financial stability and high rates of economic growth. Yet the accumulation of large war chests of foreign reserves through currency intervention carried negative externalities. The arrangement opened up a Pandora's box of financial distortions that eventually came to haunt the global economy. As Ben Bernanke noted, a "glut" of savings from emerging markets has been a key factor in the decline in US and global real-long term interest rates – despite the parallel decline in US savings.[5] Lower interest rates drove asset prices and enabled American households to increase consumption levels and worsened the imbalance between savings and investment. And because foreign savings were predominantly channeled through government (or central bank) hands into safe assets such as treasuries, private investors turned elsewhere to look for higher yields. This led to a more general re-pricing of financial risks and unleashed the ingenuity of financial engineers to develop new financial products for the low interest rate world – such as securitized debt instruments.[6]

Over the past decade, China alone amassed close to 15% of U.S. GDP in dollar reserves (assuming a 70% dollar share in total Chinese reserves). According to IMF data, emerging and developing economies had about 630 billion dollars of currency reserves in 1998 when the Asian crisis struck. By 2008, emerging market currency reserves had grown by a factor of 6 to 4.2 trillion (IMF, 2009b). Owing to the dominant role of the dollar in international trade and finance, reserve accumulation led to capital inflows into

[4] Data from the IMF (2009)
[5] See Bernanke (2007) and the discussion in Hunt (2008). The drop in savings in the US (relative to desired investment) should have led to an increase in real-long term interest rates. A similar argument can be made on the global level where increased returns on capital coincided with a lower cost of capital (Ferguson and Schularick, 2007).
[6] Economic Report of the President (2009); see also Hunt (2008)

U.S. economy. These capital inflows allowed the United States to outspend its national income cumulatively by about 50% since 2000 (Reisen, 2009).

This is not to say that reserve accumulation was the only cause for the current crisis. One certainly has to add more ingredients to achieve the financial disaster recipe: fraudulent lending and short-term incentives for bankers; loopholes and mistakes in financial regulation and oversight; Federal Reserve policy that failed to spot and stop the credit cycle because the market apparently knew better than policy-makers; and last but not least, the willingness of consumers to turn themselves into levered investment vehicles. Yet the core issue remains the emerging market's willingness to fund America's consumption and borrowing habit. Without this support, interest rates in the United States would almost certainly have been substantially higher – acting as a circuit breaker for the developing debt-consumption bubble (Setser, 2009).

III. Reassessing the Benefits of Financial Globalization

This brings us back to the paradox raised before: there are several good reasons to argue that individual policies at the country level meant to insure against financial crisis have collectively distorted global interest rates, helped to sustain excess demand and contributed to the mispricing of financial risks. Moreover, it is unlikely that emerging markets' behavior will change. From the perspective of emerging markets, the academic debate about whether reserve levels have grown excessive has been answered almost over night in the current crisis.[7] It is clear to policy-makers from Buenos Aires to Budapest and Bangkok that there is no such thing as excessive reserves in a world of volatile capital flows. This raises the troubling possibility that reserve accumulation and the distortions it caused, whilst being a key ingredient of the crisis, might continue for longer in the absence of policy solutions.

[7] See the debate in Summers (2006), Stiglitz (2006) and Jeanne (2007)

The failure of financial globalization 3.0 to generate financial stability raises the question of whether we have once again come to a crossroads for financial globalization and a reassessment of the benefits of capital mobility. In a historical perspective, one can already point to a number of signs that we have reached a point in time when the need to rethink the organization of capital flows in the world economy is great. First, in the light of the current crisis, the economic case for a world economic order in which capital flows from poor to rich countries is even weaker now than it has been before. In addition doubts over the economic wisdom of transferring of savings from the developing to the developed world, a new lesson from the crisis is that sizeable official capital flows that do not chase higher returns on investment are likely to end up distorting prices and inflating an asset or consumption bubbles of some kind. Second, emerging market governments will feel strengthened in their belief that openness to global financial flows without the protective shield of large currency reserves is economic suicide. Emerging markets are less likely today than at any point during the past decade to embrace the instability of global capital flows and accept large swings in exchange rates. The dilemma is clear.

Have we again arrived at a turning point in the history of global capital mobility? A reassessment of the risks and benefits of global financial integration seems warranted. Dani Rodrik and Arvind Subramanian have started this discussion already in an insightful paper (Rodrik and Subramanian, 2009). They argue that a paradigm shift is necessary in our thinking about the case for free global capital mobility. The question should be how financial globalization can be made safe for the world instead of trying to make the world safe for financial globalization. Given the growth spurt that some emerging markets have had in recent years despite the net transfer of savings to developed countries, the argument that insufficient savings are a major constraint on growth in emerging markets looks less convincing. Moreover, the risks that (perhaps excessively) volatile financial markets bring may be greater than the potential economic gains from financial integration – with the potential exception of foreign direct investment (FDI). In the presence of other distortion, the second best solution of limiting capital market integration or taxing capital flows might produce superior results.

Given large scale capital flows from poor to rich, it comes as no surprise that recent empirical studies have by and large failed to identify a robust growth effect of

financial integration. One key reason could be that financial integration today is essentially uncorrelated with investment rates, presumably the main channel through which foreign capital would spur growth (Schularick and Steger, forthcoming). Globalization during the past decade was diversification finance, not development finance in the form of net transfers of capital as it was at the beginning of the 20th century. Even a study by the research department of the International Monetary Fund (IMF), one of the main proponents of capital account liberalization in the 1990s, reached a rather sobering conclusion in this regard: "…taken as a whole, the vast empirical literature provides little robust evidence of a causal relationship between financial integration and growth." (Kose et al., 2006, p.8)

IV. Conclusions

The past decade has shown that reserve accumulation by emerging markets has contributed to the build-up of macroeconomic imbalances and financial risks that brought the world financial system to the brink of collapse in 2008. After the dust has settled, members of the economics profession must think hard about what the right policy advice drawn from the past two decades of financial globalization should be. In light of recent evidence, the question as to whether the benefits of financial globalization outweigh the costs will have to be addressed with new rigor.

From a historical perspective, the record of the past 20 years of global capital market integration does not look convincing. The lessons of the Asian crisis are that a return to the late 19th and early 20th century patterns of large-scale net flows of savings from rich to poor is unlikely in today's world of volatile short-term flows and self-fulfilling attacks. The record of the past ten years suggests that emerging markets attempts to self-insure against risks come at the cost of mispricing financial risks globally. Yet it would be equally wrong to demand that emerging markets run the risks of smaller reserve cushions.[8]

[8] Although some countries like China are almost certain to have built up excessive reserve levels by almost any standard.

The best policy advice might turn out to lie somewhere in middle. Slowing down the pace of financial globalization could reduce the financial stability risks that emanate from today's volatile cross-border flows. Brazil's recent decision to apply modest brakes to capital flows could be a step in the right direction. Imposing taxes on certain types of inflows discourages very short-term behavior and forces international investors to pay for some of the stability risks that global financial flows create. Recent empirical suggests that the negative effects of such policy steps on economic growth are likely to be nil while the gains in financial stability could be potentially large. Such reassessments of the relative benefits of capital mobility over other policy goals have taken place before in the last 100 years. After two decades of frequent financial crisis and now strained public finances, it might be time to give financial stability concerns a greater role in our thinking about the optimal degree of global capital mobility.

References

Bernanke, Ben (2007) "Global Imbalances: Recent Developments and Prospects", Bundesbank Lecture, Berlin, September 11, 2007

Calvo, Guillermo (2009) "Reserve accumulation and easy money helped to cause the subprime crisis", VoxEu.org, October 27

Dooley, Michael, David Folkerts-Landau and Peter Garber "Bretton Woods II Still Defines the International Monetary System", Deutsche Bank Global Markets Research, February 11, 2009

Economic Report of the President (2009), Washington D.C., January 2009

Eichengreen, Barry (1996), Globalizing Capital, Princeton: Princeton University Press.

Ferguson, Niall and Moritz Schularick (2007) "Chimerica and the Global Asset Market Boom", International Finance 10(3): 215-239

Hunt, Chris (2008) "Financial Turmoil and Global Imbalances - the End of Bretton Woods II?", Reserve Bank of New Zealand Bulletin, Volume 71 No. 3, September 2008

International Monetary Fund (2009a), World Economic Outlook Database, January 2009

International Monetary Fund (2009b), Currency Composition of Official Foreign Exchange Reserves (COFER), September 2009

Jeanne, Olivier (2007) " International Reserves in Emerging Market Countries: Too Much of a Good Thing?", Brookings Papers on Economic Activity 1:2007

Keynes, John Maynard (1933) "National Self-Sufficiency," *The Yale Review*, Vol. 22, no. 4 (June), pp. 755-769.

Kose, Ayhan, Eswar Prasad, Kenneth Rogoff, and Shang-Jin Wei1 (2006) "Financial Globalization: A Reappraisal", IMF Working Paper 06/189, August 2006

Obstfeld, Maurice, Jay Shambaugh and Alan Taylor (2008) "Financial Instability, Reserves, and Central Bank Swap Lines in the Panic of 2008", Paper presented at the ASSA Meetings, January 2009

Obstfeld, M. (1996). Models of currency crises with self-fulfilling features. *European Economic Review* 40, 1037–47.

Obstfeld, M. and A. M. Taylor (2004). Global Capital Markets: Integration, Crisis, Growth. Cambridge, Cambridge University Press.

Reisen, Helmut (2009), “Shifting Wealth: Is the U.S. Dollar Empire Falling?,VoxEu.org, June 20.

Rodrik, Dani and Arvind Subramanian (2009) "Why Did Financial Globalization Disappoint?", IMF Staff Papers 56, 112–138

Schularick, Moritz, “A Tale of Two ‘Globalizations’: Capital Flows From Rich to Poor in Two Eras of Global Finance,” International Journal of Finance and Economics 11:4 (2006), 339-354.

Schularick, Moritz and Thomas Steger (forthcoming) " Financial Integration, Investment, and Economic Growth. Evidence From Two Eras of Financial Globalization", Review of Economics and Statistics

Setser, Brad (2009) "Debating the global roots of the current crisis", VoxEu.org, January 28.

Stiglitz, Joseph, Making Globalization Work, London: Penguin Books

Summers, Lawrence (2006) "Reflections on Global Account Imbalances and Emerging Markets Reserve Accumulation", Speech at the Reserve Bank of India, March 24, 2006

Wolf, Martin (2009), Fixing Global Finance, New Haven: Yale University Press