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Global imbalances, the US dollar, and how the crisis at the core of global finance spread to "self-insuring" emerging market economies

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Working Paper No. 591

Global Imbalances, the U.S. Dollar, and How the Crisis at the Core of Global Finance Spread to "Self-insuring" Emerging Market Economies

by

Jörg Bibow
Levy Economics Institute and Skidmore College

March 2010

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ABSTRACT

This paper investigates the spread of what started as a crisis at the core of the global financial system to emerging economies. While emerging economies had exhibited some resilience through the early stages of the financial turmoil that began in the summer of 2007, they have been hit hard since mid-2008. Their deteriorating fortunes are only partly attributable to the collapse in world trade and sharp drop in commodity prices. Things were made worse by emerging markets' exposure to the turmoil in global finance itself. As "innocent bystanders," even countries that had taken out "self-insurance" proved vulnerable to the global "sudden stop" in capital flows. We critique loanable funds theoretical interpretations of global imbalances and offer an alternative explanation that emphasizes the special status of the U.S. dollar. Instead of taking out even more self-insurance, developing countries should pursue capital account management to enlarge their policy space and reduce external vulnerabilities.

Keywords: Financial Crisis; Capital Flows; Self-insurance; Capital Controls; Bretton Woods II Hypothesis; Global Saving Glut Hypothesis

JEL Classifications: E12, E43, E44, F02, F10, F32, F33, F42

1. INTRODUCTION

Until the mid-2008, the "decoupling hypothesis"—that emerging markets would be sufficiently strong to escape infection from troubles at the core of the world economy—had currency among commentators and market players alike. In retrospect, emerging economies did indeed exhibit some resilience through the early stages of the financial turmoil that began in the summer of 2007, but they got hit hard in the second half of 2008. This paper investigates the spreading of what started as a crisis at the core of the global financial system to emerging economies. It argues that emerging economies' infection is only partly attributable to the collapse in world trade and sharp drop in commodity prices. Matters were made worse by exposures to the turmoil in global finance. The analysis focuses on countries that had taken out "self-insurance" and were able to avoid drawing on IMF help. Even in their case, however, self-insurance proved to be of limited effectiveness against the global "sudden stop" of 2008.

The analysis begins with a broad overview of the channels of transmission and crisis contagion in section 2. In section 3, a sample of 14 leading emerging economies then provides the basis for a comparative country analysis of the global crisis. Addressing some critical systemic issues regarding self-insurance and the implied need for someone to underwrite such self-insurance, section 4 critiques the loanable funds theoretical interpretations of global imbalances and offers an alternative explanation that emphasizes the special status of the U.S. dollar. The concluding section 5 discusses the policy options available to developing countries in light of the crisis experience, arguing in favor of capital account management to enlarge policy space and reduce external vulnerabilities.

2. DECOUPLING, INFECTION, RECOUPLING: CHANNELS OF TRANSMISSION AND CONTAGION

Arguably, the global equity market sell-off in late February and March 2007 provided the first warning of things to come. Rising delinquencies and defaults on subprime mortgages had started to cause some concerns earlier in December 2006. Announcements by HSBC of a higher-than-expected charge on its U.S. subprime loan portfolio for 2006 and a plunge on the Shanghai stock exchange then combined to send a shockwave through global equity markets. "Subprime king"

New Century Financial Corporation became the first prominent lender to go under in what was soon labeled the "subprime mortgage crisis" (Richardson and Zuckerman 2007; Zuckerman 2007). Yet as the Federal Reserve refrained from following through with a widely expected rate hike on March 21, dropping its tightening bias, markets recovered and reached new highs in the spring.

Not for long though. Market stress reemerged in June 2007 as several European banks and investment vehicles became implicated in subprime-mortgage-related losses and experienced funding problems as a result (Germany's IKB and France's BNP Paribas, for instance). August 9, 2007 marks the definite beginning of the severe turmoil at the core of the global financial system, forcing central banks to provide emergency liquidity as interest rates shot up and money markets seized up.

At this early stage, a prominent theme among commentators was that the turmoil might be contained as emerging market economies "decouple" from slowing growth in advanced economies (see Bergsten [2008], for instance). The IMF's World Economic Outlook of October 2007 also nourished the idea that emerging economies were strong enough to decouple from the storm that was building up force at the center of global finance, observing that "strong domestic demand growth in emerging market economies should continue to be a key driver of global growth, with more robust public balance sheets and policy frameworks providing scope for most countries to weather some weakening in external demand. Indeed, somewhat slower capital inflows from the torrid pace of the first half of 2007 may serve to ease concerns about excessive currency appreciation or too rapid credit growth" (IMF 2007). While risks to domestic demand were seen as downward in advanced economies, they were judged as "broadly balanced" in emerging economies.

The IMF became slightly more cautious in its April 2008 *World Economic Outlook* referring to "divergence" rather than full "decoupling." In any case, the Fund confirmed that developing and emerging economies had a remarkable resilience. This new found resilience was attributable, in the Fund's view, to sound policy choices since "most emerging and developing economies have maintained disciplined macroeconomic policies in recent years, bringing down fiscal deficits and reducing inflation. Public balance sheets have been strengthened, and external vulnerabilities have been substantially reduced as international reserves have risen to historic highs and reliance on external borrowing has been largely contained" (IMF 2008).

These supposedly sound policy choices and the issue of strong capital inflows as apparently posing policy challenges to receiving countries at that time will be discussed further below in section 4. Before that we first present some summary statistics that document the stark disappointment of these initial decoupling hopes.

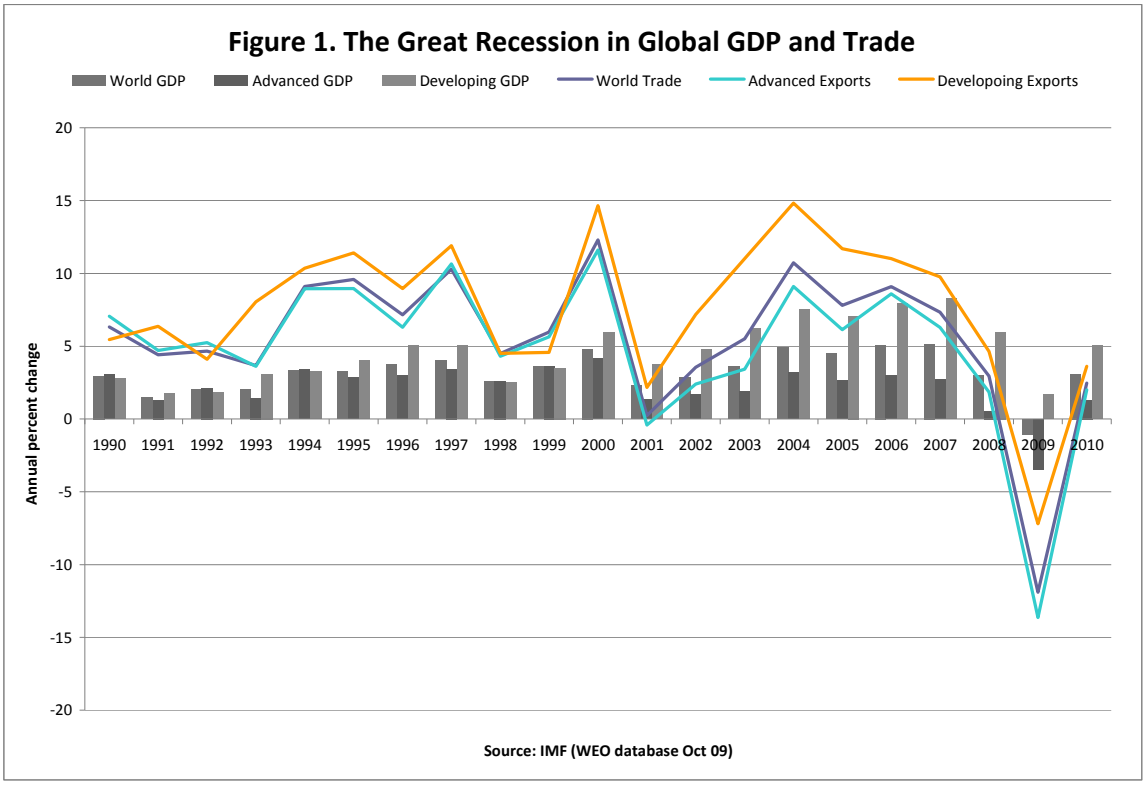
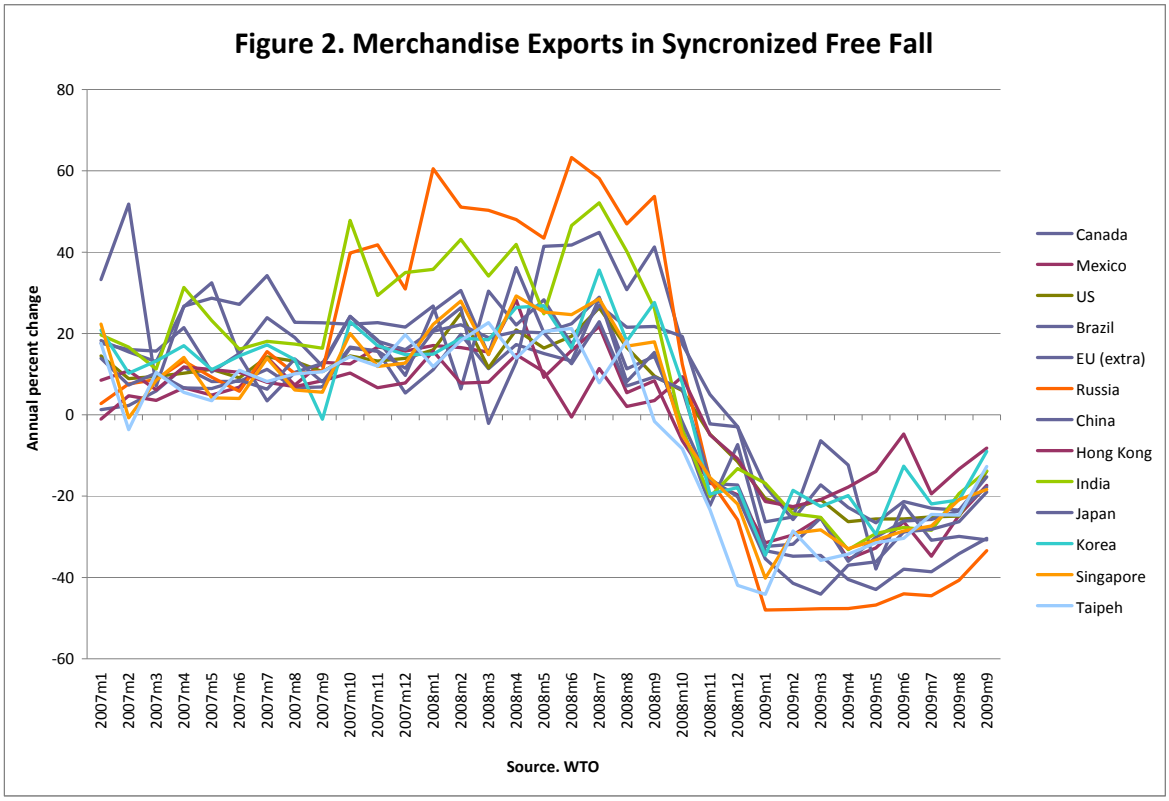


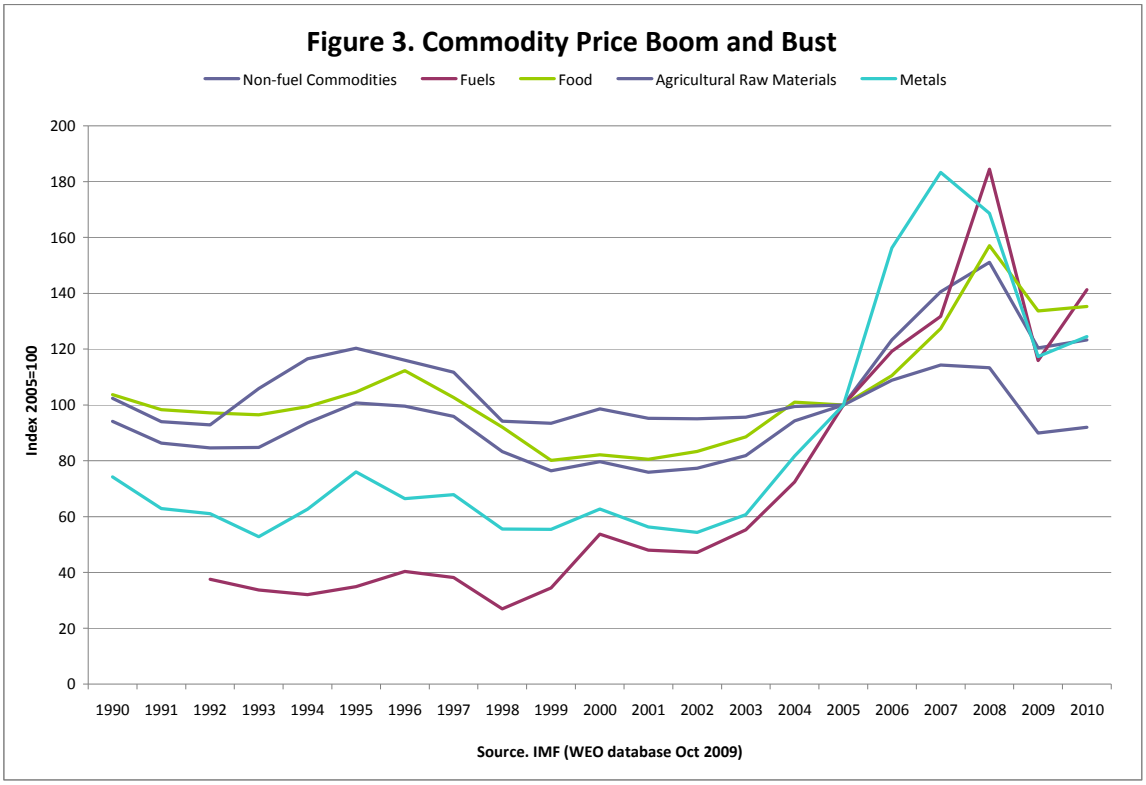
Figure 1 shows how much worse the world economy, both advanced and developing countries, fared in 2009 compared to both the Asian crises of 1997–98 and the global slowdown of 2001. In the developing world, GDP growth held up fairly well until mid-2008, but then plunged sharply until the spring of 2009 as international trade fell off the cliff; in fact, it declined more sharply than during the 1930s (Eichengreen and O'Rourke 2009). The high degree of synchronicity in the global trade slump is revealed in figure 2, which shows year-on-year growth rates in monthly merchandise trade (value). Figure 2 pinpoints the final quarter of 2008 and the first quarter of 2009 as the climax of decline, with recovery starting in spring 2009.



In general, the more open and export-dependent, the more strongly economies were impacted by the slump in trade volumes. Among advanced economies, Germany and Japan fared far worse than the United States and France, for instance. Among developing countries, China fared worse than India, as the latter is less open and its trade structure biased toward commercial services rather than manufacturing and merchandise trade.

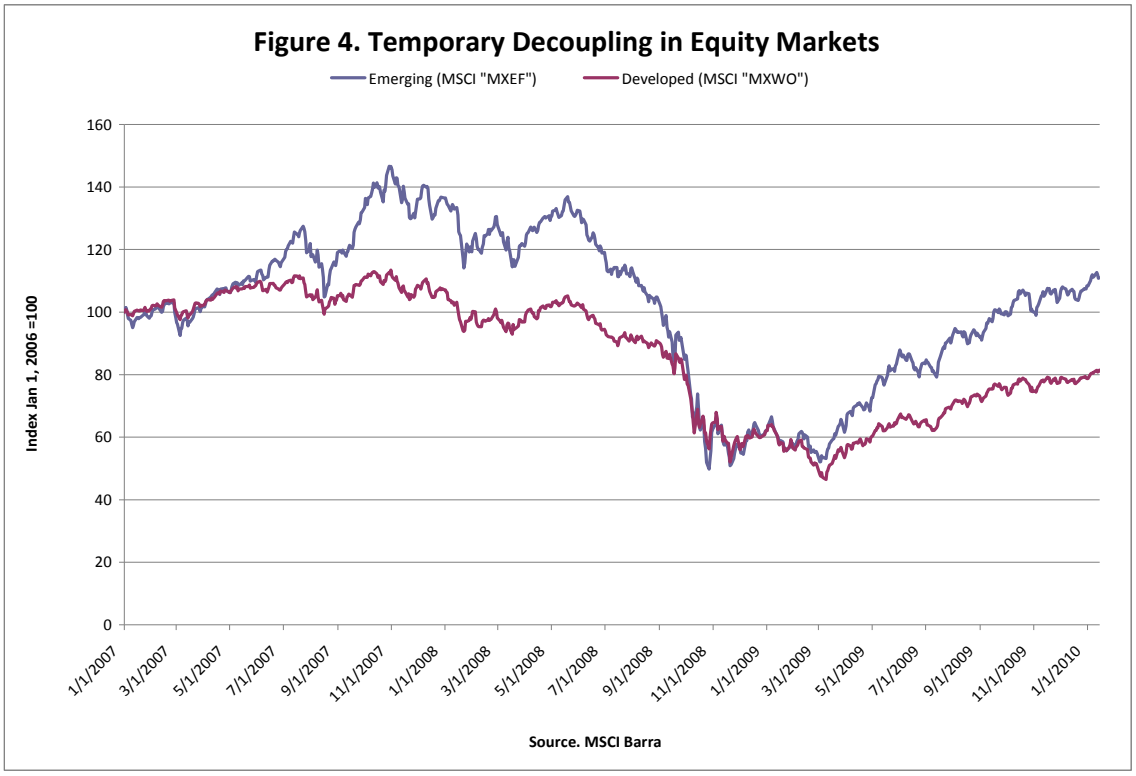
Commodity price developments provided another channel of transmission, albeit with diverse impacts on developing countries. Following years of booming commodity prices, the Great Recession featured a very sharp price decline. For instance, the oil price had reached record highs of over US$140 a barrel by mid-2008, only to crash subsequently and end the year below US$50 per barrel. The very sizeable terms-of-trade effects involved here impacted countries differently depending on whether the country was a net commodity importer or exporter. For instance, net oil-exporting regions in Northern Africa and the Middle East that had benefited from record fuel prices until mid-2008 saw their fortunes swiftly reverse (and previously bloated current account surpluses deflated accordingly) as the crisis reached its climax following the Lehman debacle. By contrast, for oil and/or commodity importing nations

such as the United States, EU, and China the commodity price bust meant significant relief. Note that the annual index numbers in figure 3 show that the commodity price boom only ended about a year after the financial crisis had started.[1] Commodity prices peaked in the summer of 2008, plunging sharply in the second half.

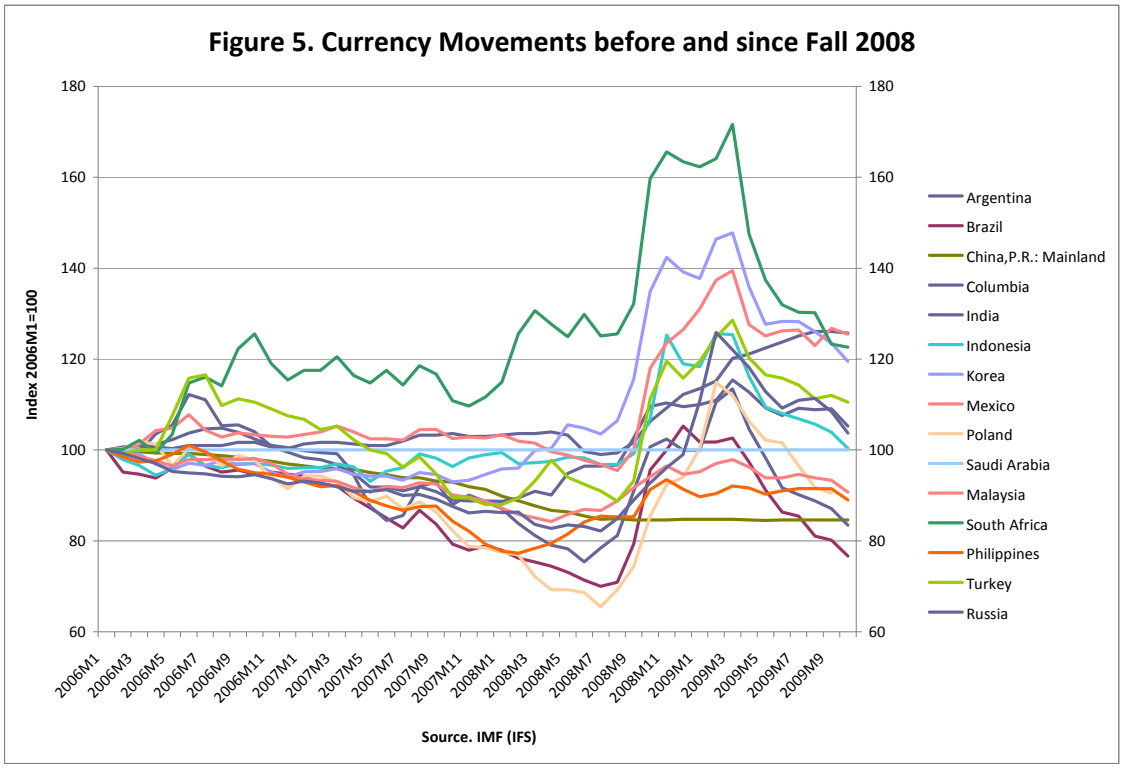


[1] Suffice to mention here that remittances have provided another channel of transmission through which developing countries were infected from the center. Remittances had grown strongly since 2001 to reach US$305 billion in 2008. World Bank (2009) estimates suggest an aggregate decline of 5–8 percent in 2009, but diversity exists regarding the timing and magnitude of the impact on individual countries. For instance, Mexican migrants felt the U.S. housing bust earlier than Indian migrants came to feel the oil-price bust hitting the Middle East. Remittances from the United States to Mexico for the first eleven months of 2009 registered a whooping decline of 16 percent on the same period of the previous year (Buchanan 2009).

Commodity prices thereby revealed similar patterns to those found in trends in global finance more generally around that time. For instance, emerging market equity indices soared in the fall of 2007, despite the turmoil that had emerged at the center over the summer, and then mostly held up well until the spring of 2008, while mature market indices moved sideways over 2007 as a whole and then sagged quite significantly in 2008, even before the Lehman bankruptcy (see figure 4).



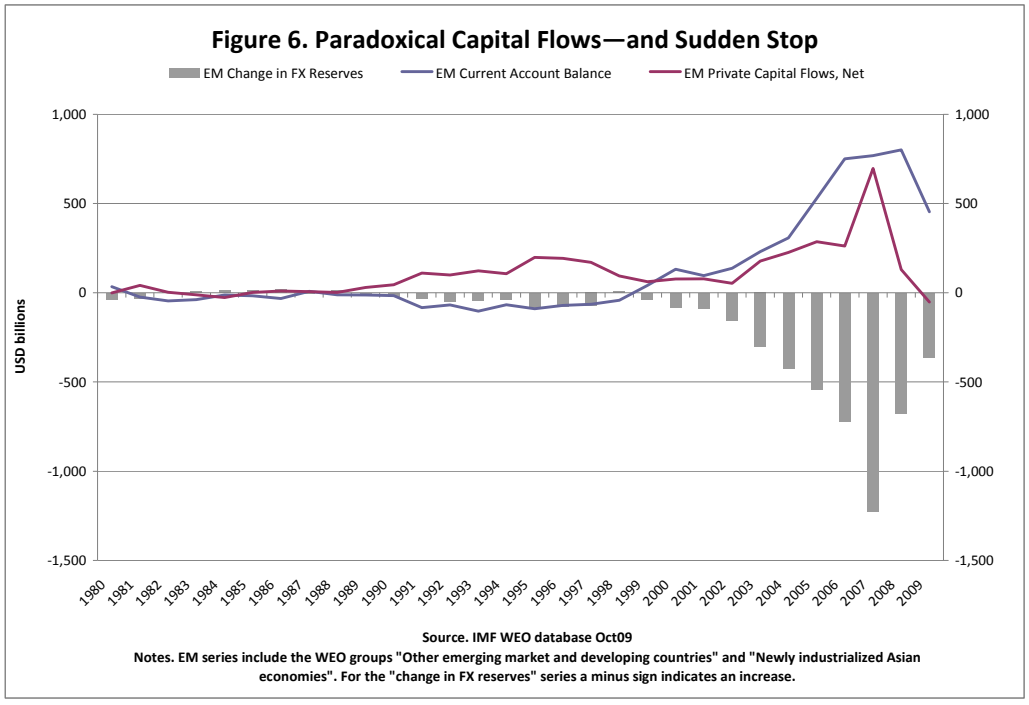
Furthermore, emerging market currencies generally continued to appreciate during the initial stages of the crisis, as shown in figure 5.



These broad trends only ended in the fall of 2008—rather abruptly—as the Lehman bankruptcy triggered a general crisis in confidence. With the ensuing general "flight for quality" focusing on U.S. Treasuries as "safe haven," the U.S. dollar appreciated sharply.[2] Commodity, equity, and currency trends during this period are indicative of the "sudden stop" (or reversal) in international capital flows that occurred in the fall of 2008. The sudden stop followed an initial surge in private flows towards emerging markets. As the "decoupling theme" was running high among players, the final surge even topped the series of boom years since 2002. Featuring the so-called global capital flows paradox of soaring foreign exchange (FX) reserve holdings in the developing world since the late 1990s—sourced both from current account surpluses and net private capital inflows—figure 6 shows an abrupt shrinkage or drying up of both sources in 2008.[3]

[2] Carry-trade unwinding was part of the play, too, with the Japanese yen surging even more than the dollar. See McCauley and McGuire (2009).

[3] Global foreign reserves peaked around US$7 trillion in mid-2008, but fell nearly 5 percent in the second half of the year, then to rise again and reach US$7.5 trillion in the third quarter of 2009. Roughly two-thirds of global reserves are held in U.S. dollars. See IMF COFER database.



To summarize this overview of broad trends and developments before and during the crisis, the infection of the developing world with the disease spreading from the core of global finance in advanced economies happened through both trade and finance channels. While the collapse in trade was highly synchronous across the globe, private capital flows at first followed the decoupling theme and flooded emerging markets, to then ebb abruptly—hitting with a vengeance delayed by about one year, which completed the recoupling of emerging market countries with advanced economies (see BIS [2009], Griffith-Jones and Ocampo [2009], IIF [2009a and b], and World Bank [2009]).

A key feature of "emerging markets" is their greater financial openness compared to developing countries at large.[4] While individual emerging market experiences with global finance on the run will be investigated in the next section, trade finance may be singled out in advance here as the most general and direct link between trade and finance in the global crisis that affected the developing world at large. Market conditions for trade finance began to tighten in the first half of 2008 and worsened rather drastically after midyear. While difficult to quantify precisely, the World Bank estimates that the widespread trade credit squeeze may have been

[4] Bernanke (2009) provides broad evidence that financial openness was associated with greater declines in output in the crisis.

responsible for 10–15 percent of the decline in global trade (Auboin [2009]; see also Malouche [2009]).[5] As in the case of domestic production for domestic sale, production for international sale requires finance to be effectuated. While the short-term, self-liquidating nature of trade finance would seem to render it very secure, challenges posed by incomplete information and trust may loom especially large in transactions across borders and jurisdictions. A wide range of credit insurance products and guarantees provided by private and public institutions usually helps to facilitate international trade and its financing. Yet as global interbank markets seized up and large banks failed to refinance trade credit exposures on secondary markets, and as general deleveraging beset global finance, the general credit meltdown also squeezed access to trade finance.[6] *The point is that in a crisis of confidence, fears of failure to secure finance tomorrow may be sufficient to induce an urge to liquidate inventories and curtail production today*.[7] Facing buyers perceived to be more severely credit constrained will also encourage exporters to reduce their own risk exposures. In conjunction with the increased role of global supply chains in just-in-time production for international trade (see Escaith [2009], for instance), disruptions in trade financing operations further reinforced imploding trade multipliers. In short, in the sphere of trade finance, too, global finance also proved *non*-neutral and rather contagious in spreading the crisis globally. Further investigating the disruptive forces of global finance as they showed up in multifarious forms around the globe, the next section pays particular attention to emerging markets that had taken out "self-insurance" in their pursuit of disciplined macroeconomic policies.

[5] The global volume of trade finance is estimated at US$10–12 trillion (or 80 percent of trade flows valued at US$15 trillion in 2008), about 80 percent of which is supplied by private banks. Trade finance includes loans, insurance policies, and guarantees directly tied to international transactions. Loans may be bank loans or direct credit extended by exporters (i.e., "trade credit" by nonfinancial firms). Apart from the provision of working capital, the private financial sector offers preshipment export finance and export credit insurance, issues or endorses letters of credit, etc. National export credit agencies and other public sector institutions—as well as regional development banks and the World Bank/IFC—provide credit and guarantee products, too. See WTO (2009), Auboin (2004 and 2009), and Wynne and Kersting (2009).

[6] Among many other things, these experiences severely question the traditional dichotomy between international trade and international finance in the economics curriculum.

[7] This is a most drastic illustration of Keynes's "finance motive" at work; see Bibow (2009a).

3. EFFECTIVENESS OF "SELF-INSURANCE"?

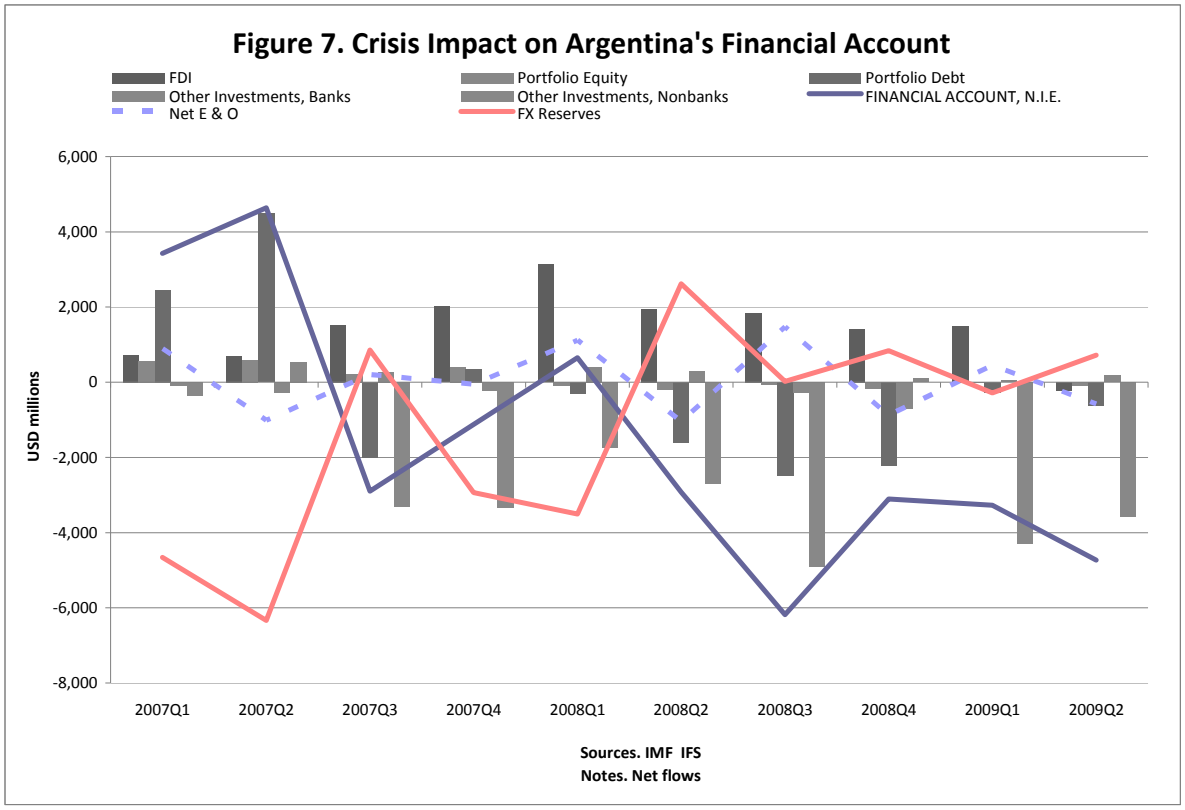
The decoupling hypothesis was based on the idea that disciplined macroeconomic policies had established strong fundamentals across much of the emerging market universe, including strong fiscal and external positions and low inflation. Policy choices in these countries judged as sound featured competitive exchange rates, current account surplus positions, and huge FX reserve holdings. Robust fundamentals established by such "self-insurance" policies would immunize countries against external shocks and contagion, allowing emerging markets to decouple from the faltering core, or so the story went. A look at the group of countries that was hit hard enough by "sudden reversals" in private capital flows to need to call in the IMF for their rescue would seem to provide some support for these ideas since these were invariably countries that had *large* current account deficits when global crisis struck, particularly central and eastern European (CEE) and Commonwealth of Independent States (CIS) countries.[8] Of more interest are therefore countries that got away without IMF help. This section will focus on a select group of 14 leading emerging economies, namely Argentina, Brazil, China, Columbia, India, Indonesia, Korea, Malaysia, Mexico, the Philippines, Poland, the Russian Federation, South Africa, and Turkey.[9] Investigating individual country experiences, the aim in this section is to identify both common features, as well as differences, in initial positions and policy responses, and to scrutinize to what extent "self-insurance" really proved effective for these countries.

Starting with Argentina, the country's current account turned into surplus in the aftermath of the 2001 crisis and the positive balance was little affected by the crisis as both exports and imports slumped in the fourth quarter of 2008. A relatively small financial account surplus in the years 2005–07 bolstered Argentina's reserve accumulation before turning sharply negative in 2008. As to the composition of capital flows, foreign direct investment (FDI) held up well until the second quarter of 2009 and cross-border banking flows, too, were little affected throughout

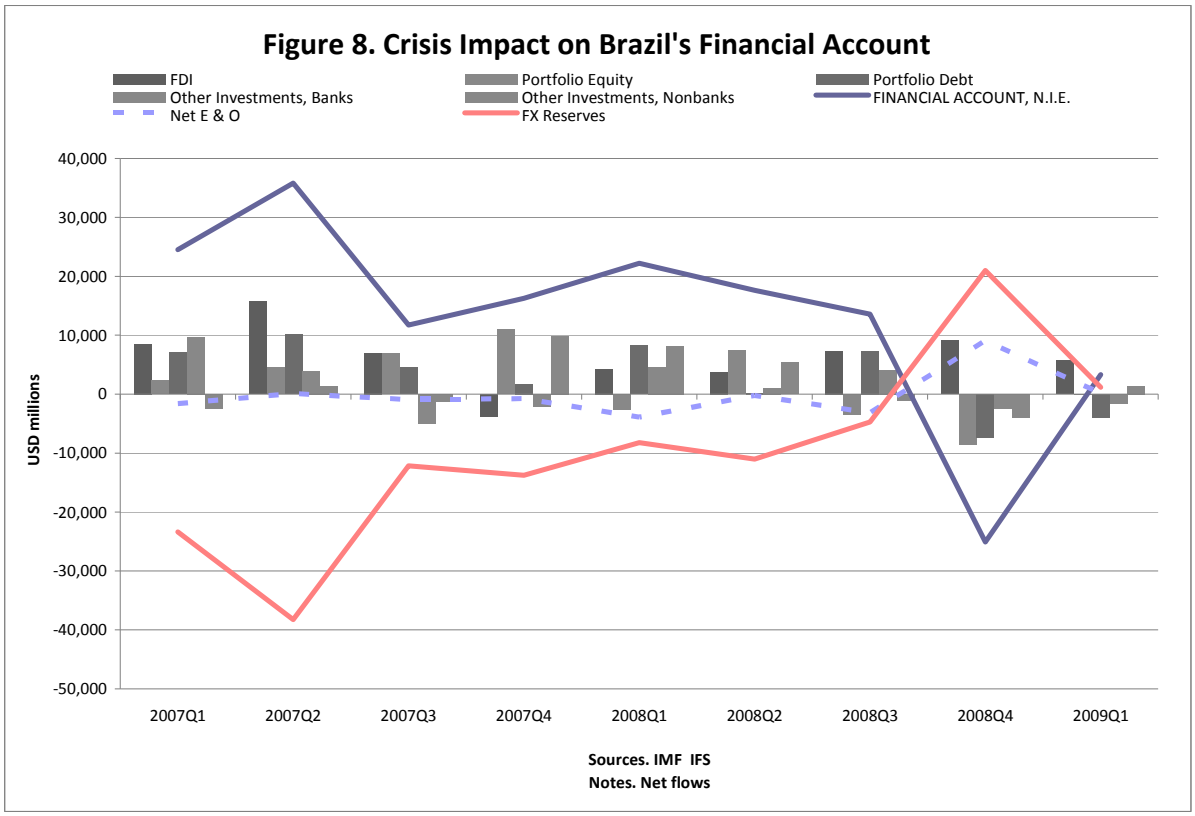
[8] IMF crisis programs have lent support to Armenia, Belarus, Bosnia and Herzegovina, Costa Rica, El Salvador, Georgia, Guatemala, Hungary, Iceland, Latvia, Mongolia, Pakistan, Romania, Serbia, and Ukraine; see IMF (2009a).

[9] My choice of countries was guided by the criteria of global relevance and data availability. In particular, selected countries are largely representative for emerging Asia and Latin America, regions that fared far better than CEE and CIS countries. G-20 Emerging Markets quarterly data from the IMF's International Financial Statistics is not available for China and Saudi Arabia. In the former case, I made use of data from China's State Administration of Foreign Exchange (SAFE) and the People's Bank of China (PBC) instead. Among this sample, the IMF's newly introduced "Flexible Credit Line" facility provided "insurance" for Mexico, Columbia, and Poland; see IMF (2009b).

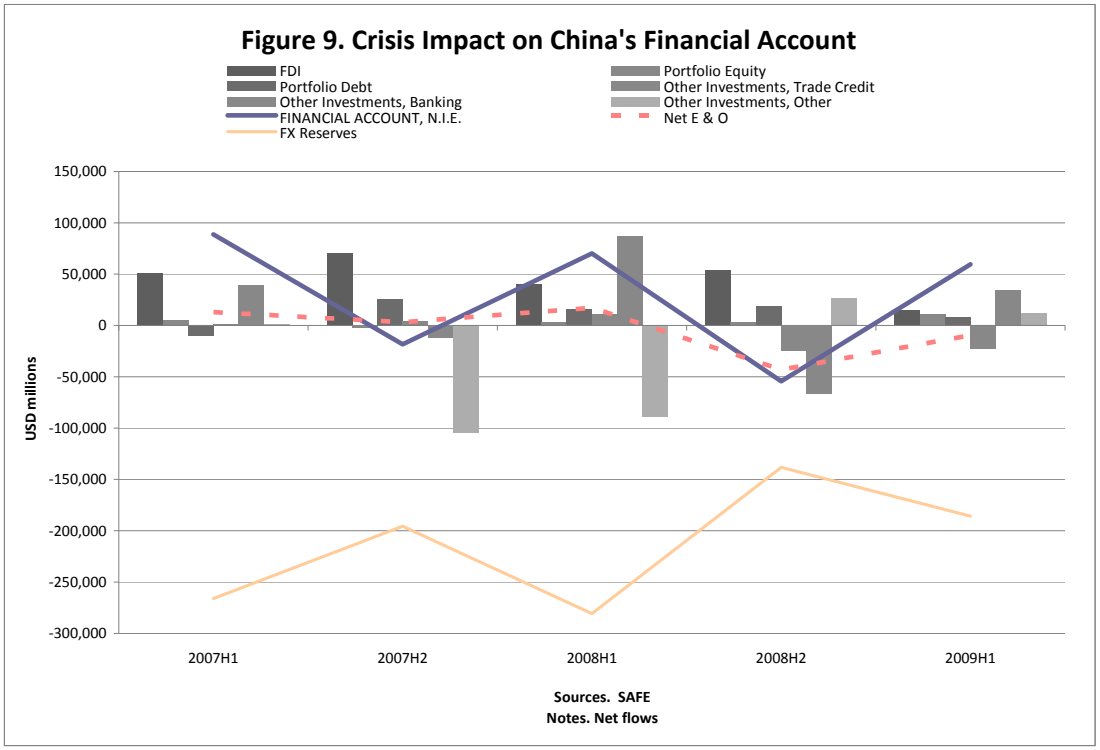
the crisis. By contrast, portfolio debt inflows reversed sharply in mid-2007 and (the less important) portfolio equity flows followed suit in early 2008. In Argentina's case, other investments by nonbanks proved most volatile, with outflows accelerating sharply in 2007 and inflows drying up in the last quarter of 2008. Some limited reserve deployment accompanied the peso's plunge.



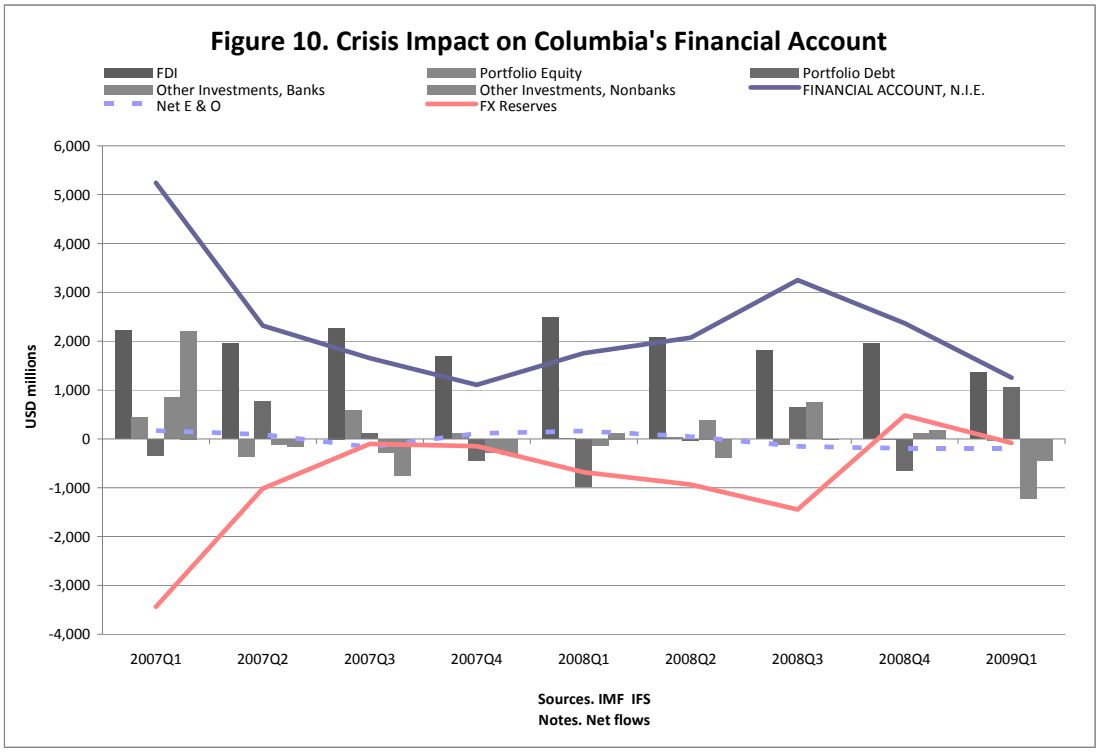
After turning positive following the 2002 crisis, Brazil's current account again deteriorated in 2007 and turned negative in 2008, largely due to a soaring negative income balance on the current account and a sharp real appreciation. Capital inflows and reserve accumulation continued at a high rate until the fall of 2008. Then, in the final quarter of 2008, while FDI flows held up well until year end, portfolio inflows and other investment flows were caught up in the sudden stop that hit Brazil at the time. Deleveraging of cross-border banking flows had started in the third quarter of 2007, but accelerated sharply in the final quarter of 2008. There was some deployment of reserves in the final quarter to counter the real's plunge.



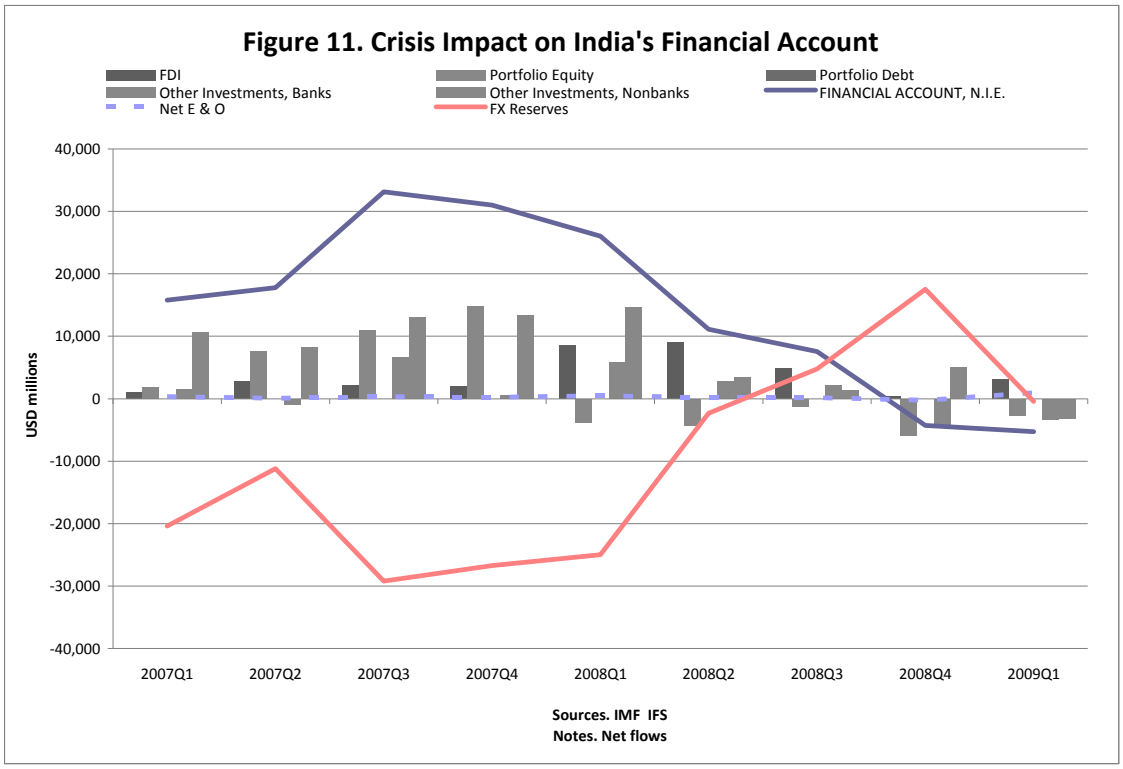
Starting in 1994, China has maintained both a U.S. dollar peg and current account surplus position. The country's current account surplus ballooned in recent years, rising from US$35 billion in 2002 to US$426 billion in 2008. The global crisis then took a severe hit on China's trade; goods exports plunged from US$764 billion for the second half of 2008 to US$521 billion in the first half of 2009, nearly halving China's trade and current account surpluses. When viewed relative to its large trade flows and huge stock of reserves (making up some 80 percent of China's net foreign assets), the impact on China's comprehensively managed financial account proved more limited though. Traditionally, capital account management in China has strongly favored direct investment, therefore making up the bulk of the country's foreign liabilities while restricting other forms of inflows (Ma and McCauley 2007). In recent years China has started liberalizing capital outflows to assist in keeping the financial account in check and thereby containing soaring reserve accumulation. While not apparent from half-yearly SAFE statistics, PBC statistics show reserve losses in October 2008, as well as in January–February 2009. Following a gradual 20 percent renminbi appreciation vis-à-vis the U.S. dollar since July 21, 2005, China has kept the renminbi stable to the U.S. dollar since August 2007, officially moving to a managed float vis-à-vis a basket of currencies in July 2005.



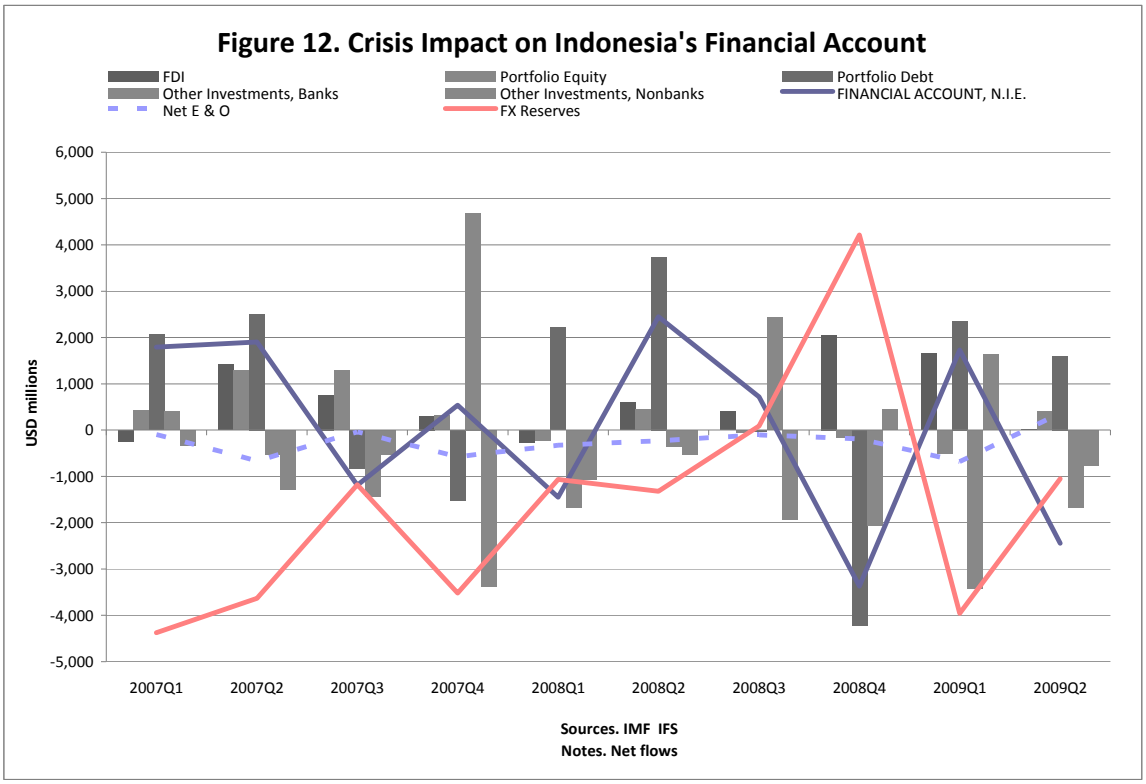
Columbia ran current account deficits for much of the 1990s and again after 2001. Current account deficits increased strongly since 2005, but capital inflows surged even more, allowing reserve accumulation at a moderate rate. Capital inflows fell off in the course of 2007 and, after some recovery in the first three quarters of 2008, they declined again in the final quarter of that year. The outstanding facts are that direct investment inflows held up well through 2008, while nondirect investment flows only play a relatively minor role in Columbia's case. Reserve deployment occurred on a small scale in the final quarter of 2008, while the Columbian peso saw quite a marked depreciation from its peak in the spring of 2008 until year-end.



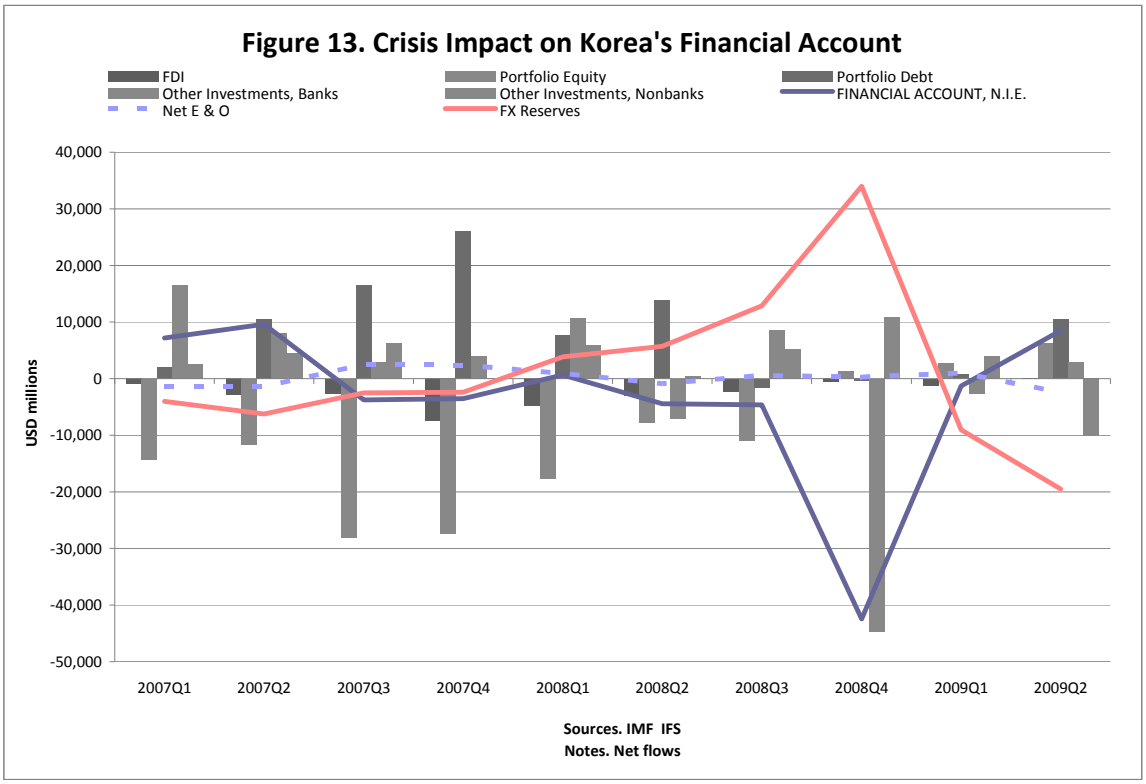
India's current account was in deficit during the 1990s, in surplus in the years 2000–04, and again in deficit thereafter. Following a sharp commodity-driven rise in 2008, the global crisis then turned the current account deficit into a small surplus in first quarter of 2009. India had gradually opened its financial account to capital inflows (excluding portfolio debt; see Mohan [2009]) and experienced a surge in inflows in 2007 before being subjected to a sudden reversal in 2008. Portfolio equity inflows reversed in the first quarter of 2008, followed by other investment inflows by nonbanks in the second quarter. In the final quarter of 2008, cross-border banking flows were then caught up in the global banking deleveraging, although to a relatively small extent. Meanwhile, direct investment inflows fell back from their alleviated 2008H1 level. In the second half of 2008 the authorities deployed reserves to contain the rupee's plunge.



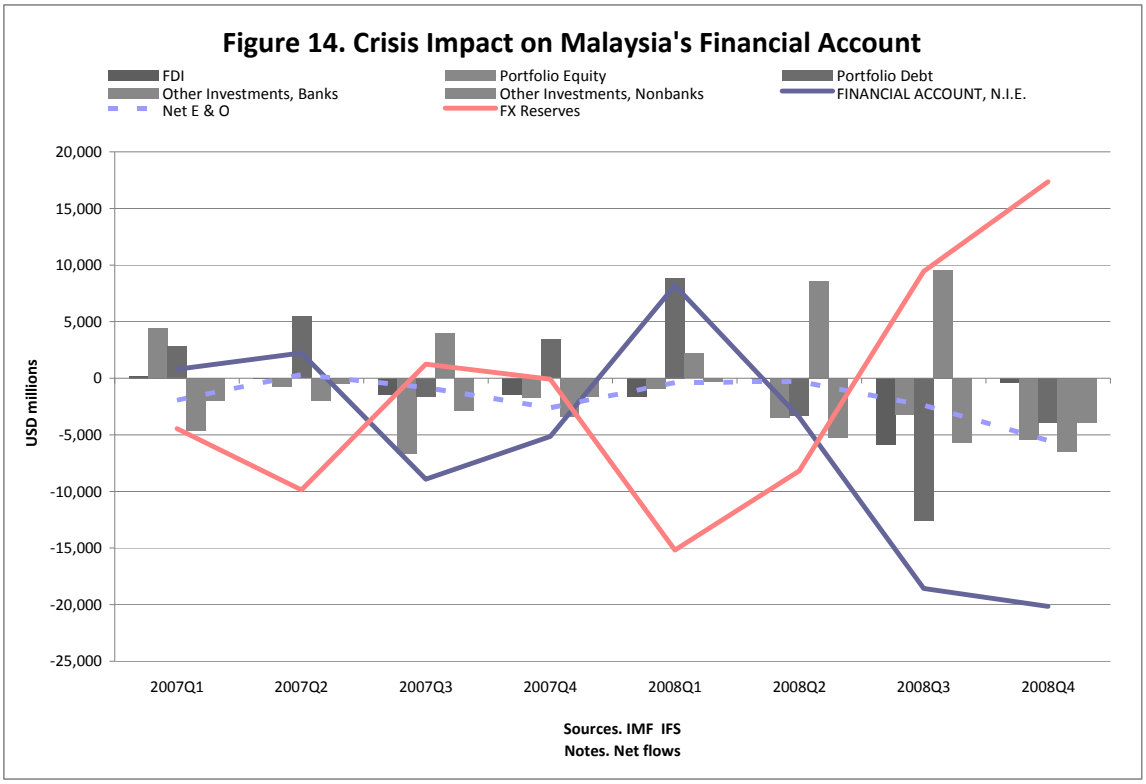
Indonesia had current account surpluses since 1998. Both exports and imports suffered similar compression in the context of the crisis. Following financial account deficits from 1998 until 2005, the financial account registered surpluses in 2006–07, although small compared to the pre-1997 period. With portfolio equity flows playing only a minor role, reversals in portfolio debt inflows—first in the final quarter of 2007 and again a year later—featured more prominently. As to other investments, outflows by both banks and nonbanks proved more volatile than inflows. Deployment of reserves in the final quarter of 2008 occurred as the rupee's dollar peg gave way to market pressures.



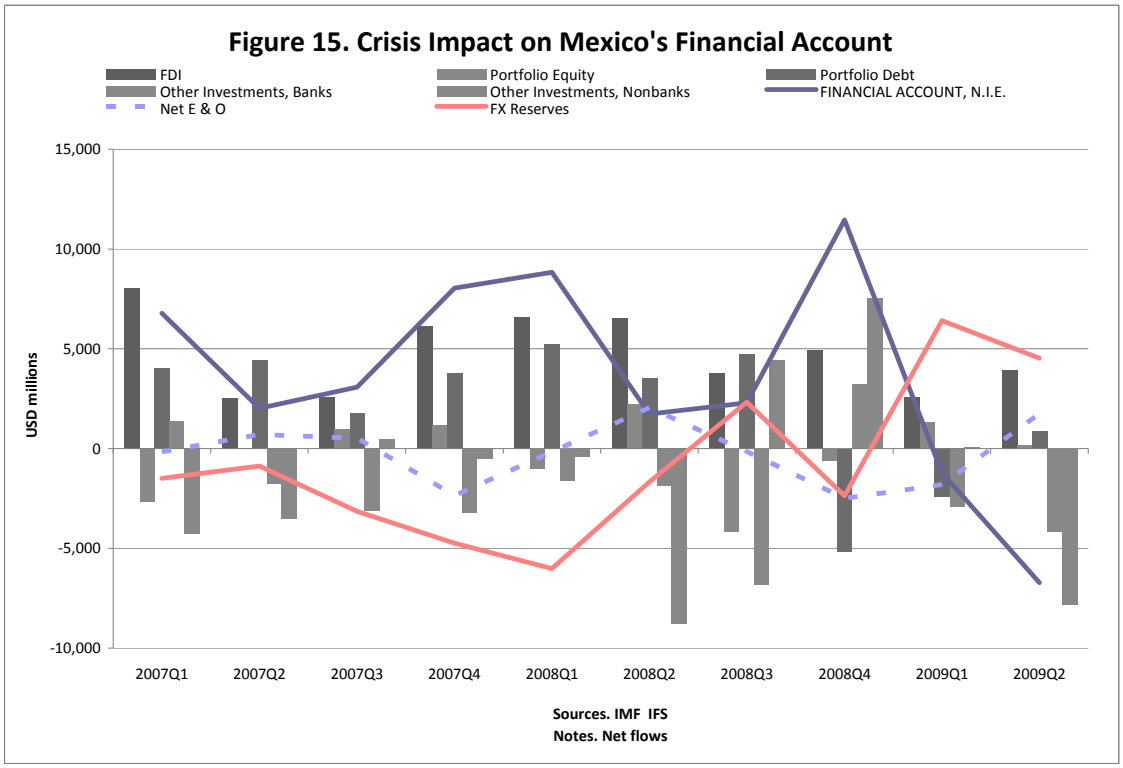
Korea's current account surplus position since 1998 briefly turned into deficit during the first three quarters of 2008, but quickly reversed into surplus in the final quarter as commodity prices deflated and import compression exceeded the falling off of exports. Portfolio equity inflows experienced a sharp reversal starting in mid-2007 and through 2008, while portfolio equity outflows and portfolio debt inflows then reversed in the second half of 2008. However, the sharpest reversal occurred in banks' other investment inflows in the final quarter of 2008, when derivative flows also added to Korea's financial account deficit. Sizeable deployment of reserves throughout 2008 did little to contain the won's very sharp depreciation.



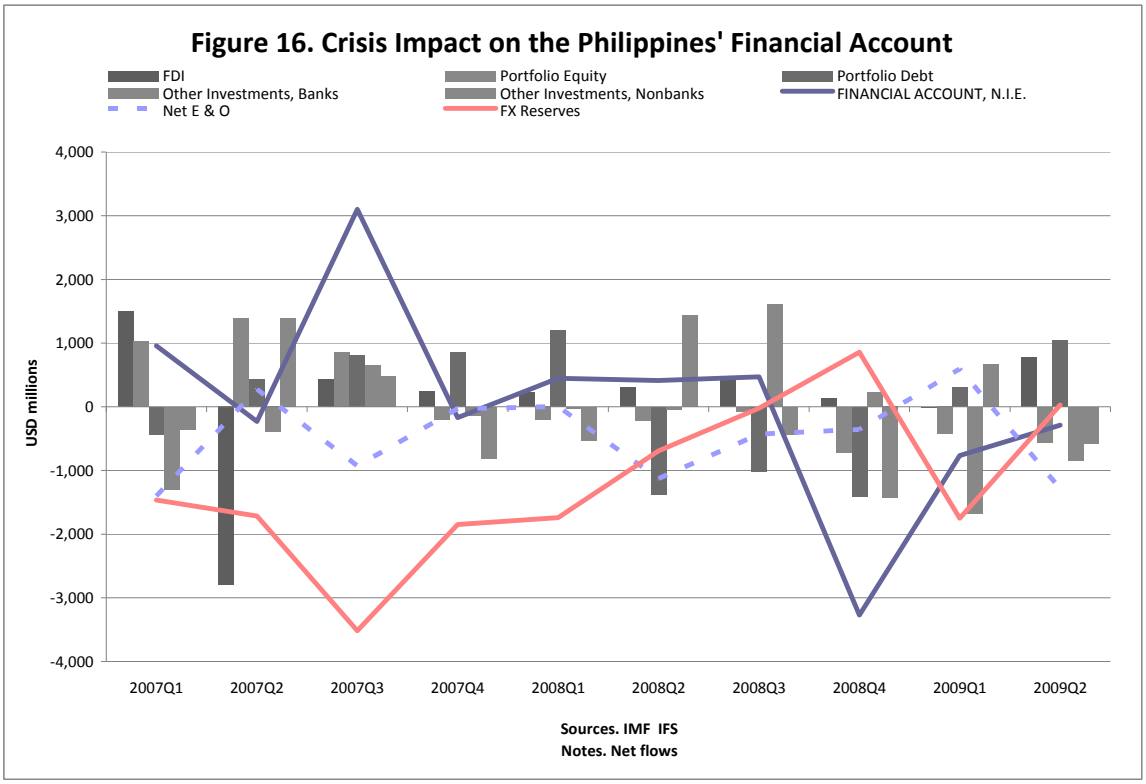
Current account surpluses, together with financial account deficits overall resulting in reserve accumulation, characterized Malaysia's balance of payments from 1998 until mid-2008, after which the financial account deficit worsened sharply. Portfolio equity inflows reversed early in the second quarter of 2007 with portfolio debt inflows following suit a year later. Banks' other investment outflows reversed in the second quarter of 2008, while corresponding inflows reversed in the final quarter. Reserves were deployed as the ringgit depreciated.



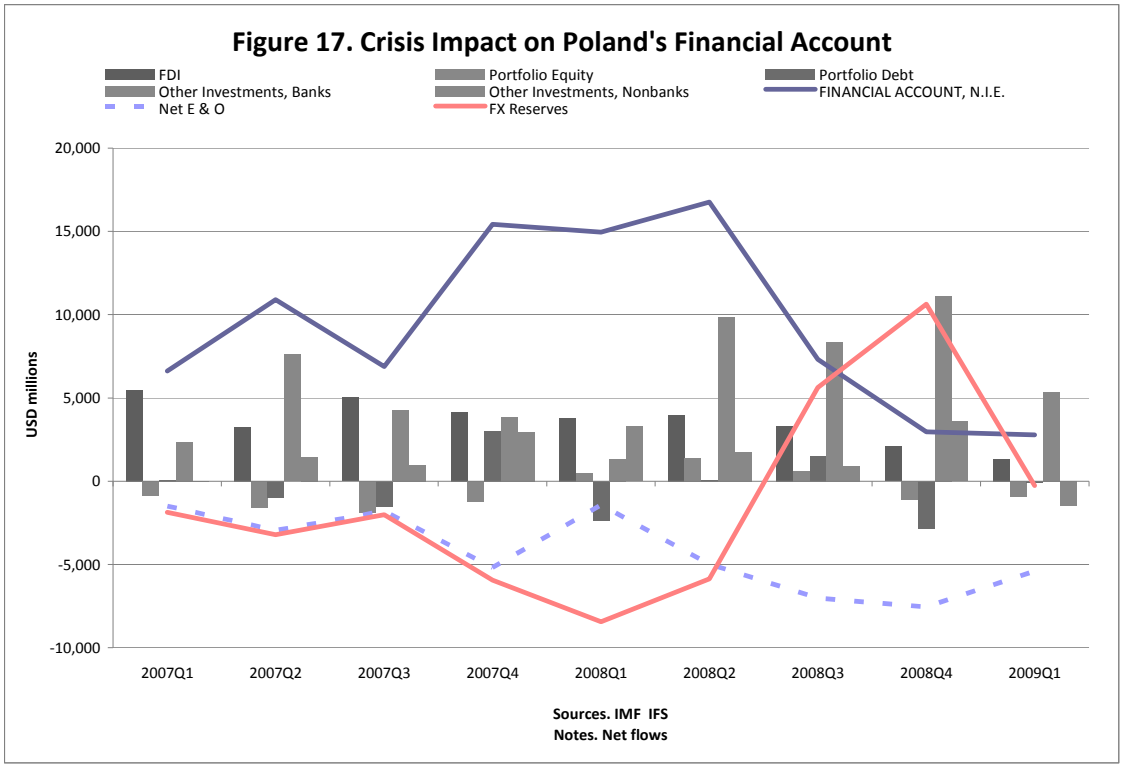
Mexico had a current account deficit for decades that, except for the 1995 crisis, was overcompensated by financial account surpluses in the year 2006, resulting in generally rising reserves. With volatile portfolio equity inflows playing a lesser role, more important portfolio debt inflows saw a sharp reversal in the fourth quarter of 2008, which was, however, more than compensated by a conspicuous temporary reversal in both banks' and nonbanks' other investment outflows occurring in the same quarter. While some small reserve declines had been registered in the third quarter of 2008 as the Mexican peso depreciated together with other emerging market currencies, the financial account deficit arising in the first half of 2009 meant more sizeable reserve deployments, even as the current account improved.



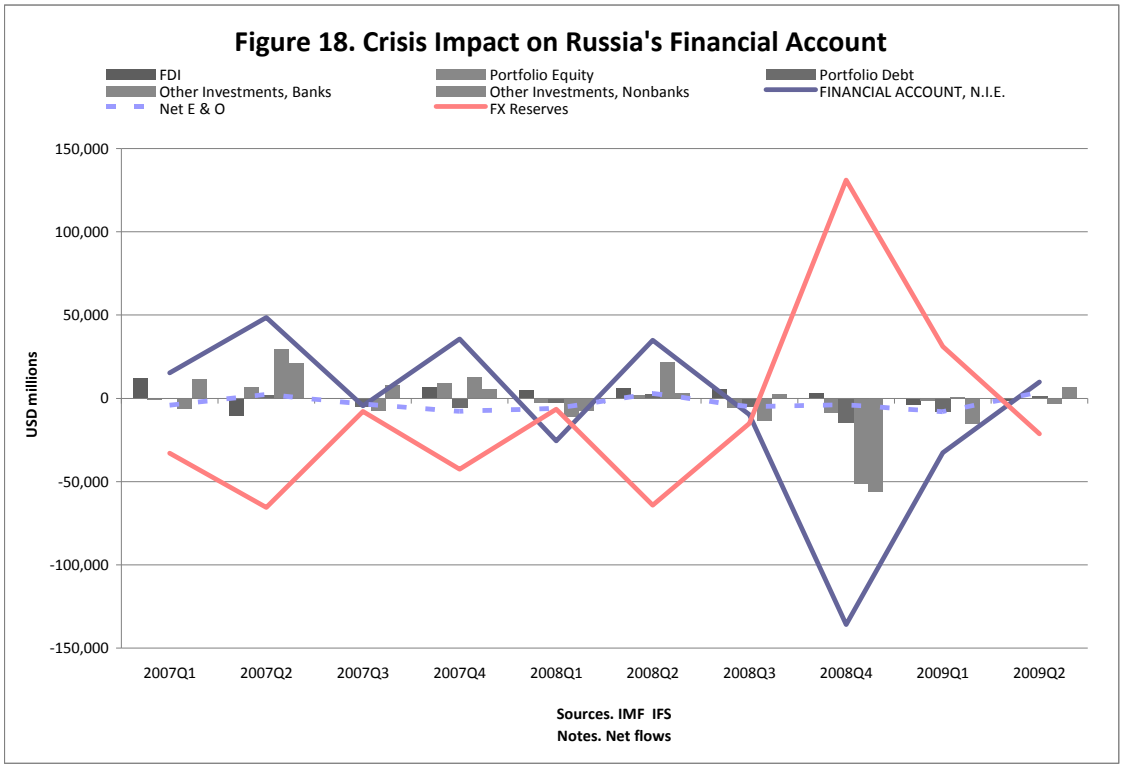
The Philippines had twin surpluses on current and financial account in recent years (including 2007) with correspondingly rising reserves. Portfolio equity inflows reversed in the fourth quarter of 2007, followed by reversals in portfolio debt in- and outflows in the second quarter of 2008. A similar retrenchment in cross-border engagements of banks' and nonbanks' other investments was seen starting in the third quarter of 2007. The financial account turned into a deficit in the final quarter of 2008, with reserve deployment to contain the Philippine peso's depreciation.



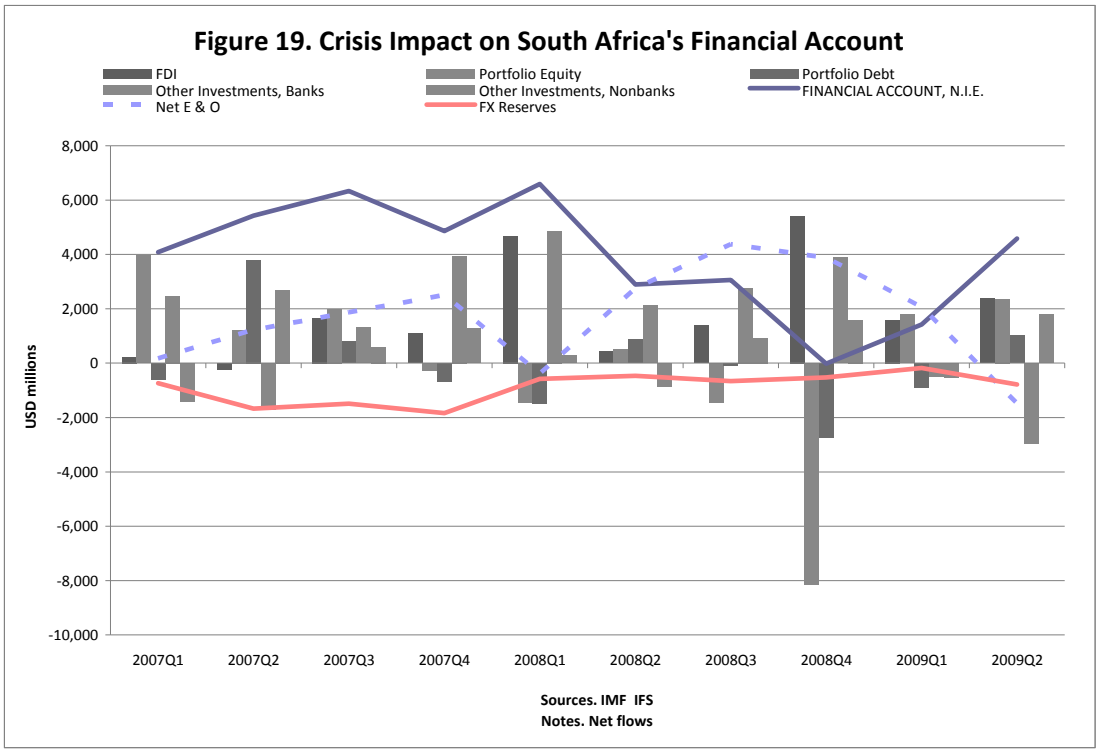
Poland has generally run current account deficits during its transition process. The deficit had soared after 2006, but trade compression during the crisis delivered a balanced position in the first quarter of 2009. Poland experienced rising capital inflows and reserves for four quarters starting in mid-2007, followed by a sharp decline in inflows and reserve losses in the second half of 2008. Direct investment inflows declined significantly since mid-2008, but stayed positive. Portfolio equity flows played only a minor role, shifting from negative net flows into positive territory during the first three quarters of 2008. Heightened volatility befell portfolio debt flows after mid-2007. Rather unusually, banks' other investment inflows even rose in 2008, while the corresponding outflow category shows retrenchment in most quarters since early 2007, resulting in a sizeable net positive contribution. Reserve deployment started in mid-2008 as the zloty depreciated sharply.



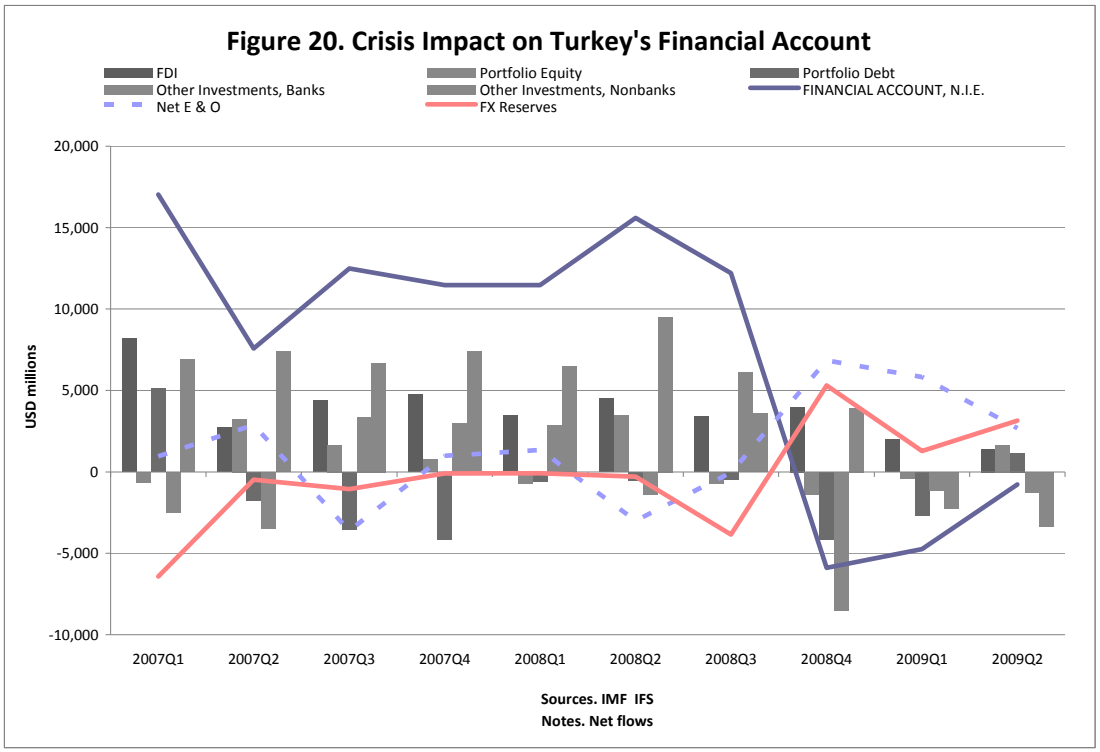
Following the 1998 crisis, Russia saw rising current account surpluses until 2008, helped by the oil price boom. The global crisis and oil-price bust then crushed the surplus after mid-2008. Reserve accumulation was temporarily bolstered as capital inflow liberalization led to a surge in inflows in 2007. A sudden reversal occurred after mid-2008 involving portfolio equity and debt and, especially pronounced, other investment inflows. While direct investment inflows held up fairly well, accelerating direct investment outflows shifted this category, too, into negative territory in the first half of 2009. Large-scale reserve deployment occurred during three quarters starting in mid-2008 as the ruble plunged sharply.



Following small current account surpluses early on in the decade, South Africa ran soaring current account deficits since 2003, which were more than offset by capital inflows, overall feeding into reserve accumulation at a moderate rate. Trade compression contracted the current account deficit and capital inflows came to a halt in the second half of 2008. The sudden stop in capital inflows was dominated by sharp reversals in portfolio equity and debt inflows and rising portfolio equity outflows, especially in the fourth quarter of 2008, with a partial offset coming from banks' other investment flows, which saw high inflows and reversing outflows. All along, direct investment flows held up. Apparently, the South African authorities refrained from deploying reserves as the rand saw one of the sharpest plunges vis-à-vis the U.S. dollar among emerging market currencies.



Following its latest crisis early on in the decade, Turkey ran rising current account deficits since 2003 that were more than offset by capital inflows, overall resulting in reserve accumulation at a very moderate scale. Trade compression during the crisis reduced the current account deficit, while a sudden reversal in the financial account occurred in the fourth quarter of 2008 that was accompanied by reserve deployment to contain the lira's plunge. In Turkey's case, the sudden reversal was dominated by other investment inflows in the second half of 2008, both banks' and nonbanks'. Portfolio debt inflows had reversed earlier in mid-2007, while direct investment inflows only declined in 2009. Portfolio equity inflows proved rather volatile since 2007, with a negative contribution to the financial account during the three quarters starting in mid-2008.



The overall picture emerging from these findings here confirms that emerging markets experienced the repercussions of the crisis at the core of global finance largely as a common event, a sudden stop or reversal in private capital flows that was hitting countries quite indiscriminately, even countries that had appeared to be in a "sound and safe" position due to robust fundamentals. As to the composition of capital flows, the current crisis also confirmed earlier experiences in showing direct investment flows as a relatively stable category whereas other types of flows proved generally far more flighty. While deleveraging of key global banks at the core of global finance (in conjunction with repatriation of portfolio investments from advanced country investors) sent a common shock wave throughout the emerging market universe in the final quarter of 2008, our comparative country analysis reveals variety in the degree of flightiness and timing of nondirect investment flows. All countries experienced sudden stops or reversals in portfolio inflows at some point, but portfolio outflows naturally only played a role in cases that had liberalized this category. Reversals in banks' other investments featured prominently in the cases of Korea, Russia, and Turkey, whereas this category of capital flows acted in a stabilizing way in Malaysia, Poland, and South Africa. Similar contrasts are seen in nonbanks' other investments, including trade credit.

Whether countries had a surplus or moderate deficit on their current account, depreciation of emerging market currencies against the U.S. dollar represented another common phenomenon, a general flight to quality away from emerging markets (and abrupt carry-trade unwinding that also favored the Japanese yen). Rare exceptions included China and Saudi Arabia—steadfastly maintaining the U.S. dollar peg under adverse conditions. While currency depreciation may be seen as a relief factor in the context of an export plunge, even if providing only minor reprieve in a crisis scenario, it must be remembered that depreciation was not the result of deliberate policy choices, but abruptly thrashed upon countries by markets in panic. Following a period during which emerging market policymakers had been challenged by surging capital inflows and currency appreciation, as the IMF observed in the quotation further above, the opposite challenge was hardly any more welcome. Arguably, crisis contagion across the emerging market universe followed a surge in capital inflows that was driven by, as well as driving, the "decoupling" theme in 2007 and until mid-2008 as the global carry-trade received a final massive boost—before its abrupt implosion.

In conclusion, it seems fair to say, then, that neither initial current account surplus positions nor large FX reserve holdings properly insulated countries from the common external shock.[10] Rather, self-insurance strategies merely provided a certain margin of safety that determined, first of all, whether IMF support was needed in the event and, second, the particular country's policy space for implementing countercyclical policies on their own. No doubt these may well be judged as important advantages offered by self-insurance, retrospectively perhaps, especially as seen by countries that failed to take out sufficient self-insurance. But does it really follow that the best advice we might therefore offer in the light of these experiences is that emerging markets should from now on aim at taking out even more self-insurance?[11]

It may be rash to jump to that conclusion. While self-insurance (cum neo-mercantilist) strategies have seemingly turned emerging markets into "safe and sound" investment destinations for advanced country investors, it should not be overlooked that the strategy cannot work globally unless somebody out there acts as global "borrower and spender of last resort," thereby *selling* insurance—on demand—along the way. Historically, at first the era of financial liberalization produced a surprising proneness for recurrent financial crises among emerging market countries. As the developing periphery learned their lesson and took out self-insurance instead, turning themselves into "safe and sound" places, financial fragility built up at the advanced core instead. Yet, in the end, as the key reserve currency issuer acting as global insurer became overburdened in meeting the worldwide demand for self-insurance and finally stumbled, emerging market insurees got hit again anyway. In other words, whatever may seem to be the case *individually*, self-insurance has not reduced *global* systemic risk, but merely transferred risk from one party, emerging markets, to another, the United States—whose role as key reserve currency issuer (and self-insurance underwriter) is the subject of the next section.

[10] Similarly, Berkmen et al. (2009) did not find a statistically significant effect of the stock of reserves on growth revisions.

[11] For instance, Dooley, Folkerts-Landau, and Garber (2009) suggest that the crisis experience might encourage countries in this direction. Subramanian (2008) recommends that India should step up its self-insurance efforts.

4. SYSTEMIC ISSUES: GLOBAL IMBALANCES, THE U.S. DOLLAR, AND REBALANCING

The point is that a general tendency among countries to seek protection (or self-insure) by maintaining a competitive exchange rate vis-à-vis the U.S. dollar, through running up current account surpluses and accumulating soaring foreign exchange reserves (predominantly denominated in U.S. dollars), has important systemic implications. In particular, if everybody pushes exports and aspires to accumulate dollar reserves, strong deflationary forces arise in the system as a whole. Luckily, under the prevailing de facto international U.S. dollar standard, global liquidity is not physically constrained as in the case of gold, but generally depends on the evolution of the U.S. balance of payments over time, as well as on U.S. macroeconomic policy decisions at critical junctures. In principle, there are three sources of U.S. dollars made available to the world economy: U.S. current account deficits, private U.S. capital outflows, and official U.S. lending.

It is therefore not clear that U.S. current account deficits inevitably pose a risk to global stability. Much depends on the demand for U.S. assets, global liquidity in particular. The point was made forcefully by the authors of the "Bretton Woods II (BWII) hypothesis," hypothesizing in their influential "Essay on the Revived Bretton Woods System" that global imbalances featuring a quasipermanent U.S. current account deficit may be *sustainable* (Dooley, Folkerts-Landau, and Garber 2003). In this view, global current account imbalances reflected a *symbiosis of interests* among deficit (United States) and surplus (developing world) countries. The developing world's interest is to sell its products in the large U.S. market as a way of stimulating employment growth and development. The U.S. economy, on the other hand, is flexible enough to tolerate the resulting quasipermanent drag on U.S. income growth, given its comparative advantage in creating safe assets that the periphery wishes to accumulate for precautionary reasons.

While we have a lot of sympathy with the chosen perspective, placing the global monetary and financial order right at the center of an analysis of global "imbalances" that are actually interpreted as a balanced situation, the BWII hypothesis fatefully ignored that the domestic counterpart to the U.S.'s external deficit was based not on (safe) public debts, but on (toxic) private debts, mortgage debt in particular. Skepticism regarding soaring household

indebtedness and the implications for the solvency of lenders ended the party when underlying collateral values stopped rising in 2006. In essence, as foreign official authorities came to hold a rising share of the outstanding stock of U.S. Treasuries, U.S. consumer spending was fired by households taking on ever more debt relative to income. While falling interest rates helped keep the private debt burden in check to some extent, trends like these can clearly not continue forever (as the Levy Institute's periodic *Strategic Analysis* warned; see Godley et al. [2007], for instance).

We can clearly see here how the world monetary and financial order nurtured the U.S. consumer in its role as "borrower and spender of last resort." Over the 1990s, domestic demand stagnation became entrenched in Japan, Germany, and core Euroland. In the aftermath of the 1997–98 Asian crisis, increasing numbers of developing countries began seeking safety in pursuing current account surplus rather than deficit positions. China represents a special case within this group. China had pegged the renminbi to the U.S. dollar back in 1994. China's current account surplus really only soared since 2003 (Bibow 2007). Oil producers then turned into another important group of current account surplus countries and dollar investors in the final years of the global boom until mid-2008.

With much of the rest of the world becoming ever keener to export and accumulate dollars, systemic deflationary forces mounted that hit the domestic economy of the key reserve currency issuer by putting downward pressure on wages and prices in general. Given the Federal Reserve's dual mandate of maintaining price stability and high employment, the Fed was forced to ease its policy stance sufficiently to meet its mandate. Monetary policy encourages private spending by lowering interest rates, easing credit, and boosting asset prices. The Fed battled the jobless recovery following the 2001 recession by keeping rates at low levels for a sustained period of time. Rising household indebtedness seemed fine as long as net worth kept on rising, too—as it did as long as the housing boom lasted. As the rest of the world took out ever more self-insurance, U.S. households' balance sheets became increasingly leveraged and fragile.

Do not overlook that the argument put forward here contrasts in important ways with the "global saving glut hypothesis." Bernanke (2005) argues that "over the past decade a combination of diverse forces has created a significant increase in the global supply of saving—a global saving glut—which helps to explain both the increase in the U.S. current account deficit and the relatively low level of real long-term interest rates in the world today." Of course even

the notion of a saving glut as such seems rather suspicious from a Keynesian perspective. This suspicion is confirmed when Bernanke goes on and asserts that "in practice, these countries increased reserves through the expedient of issuing debt to their citizens, thereby mobilizing domestic saving, *and then* using the proceeds to buy U.S. Treasury securities and other assets. Effectively, governments have acted as financial intermediaries, channeling domestic saving away from local uses and into international capital markets" (Bernanke 2005; italics added).

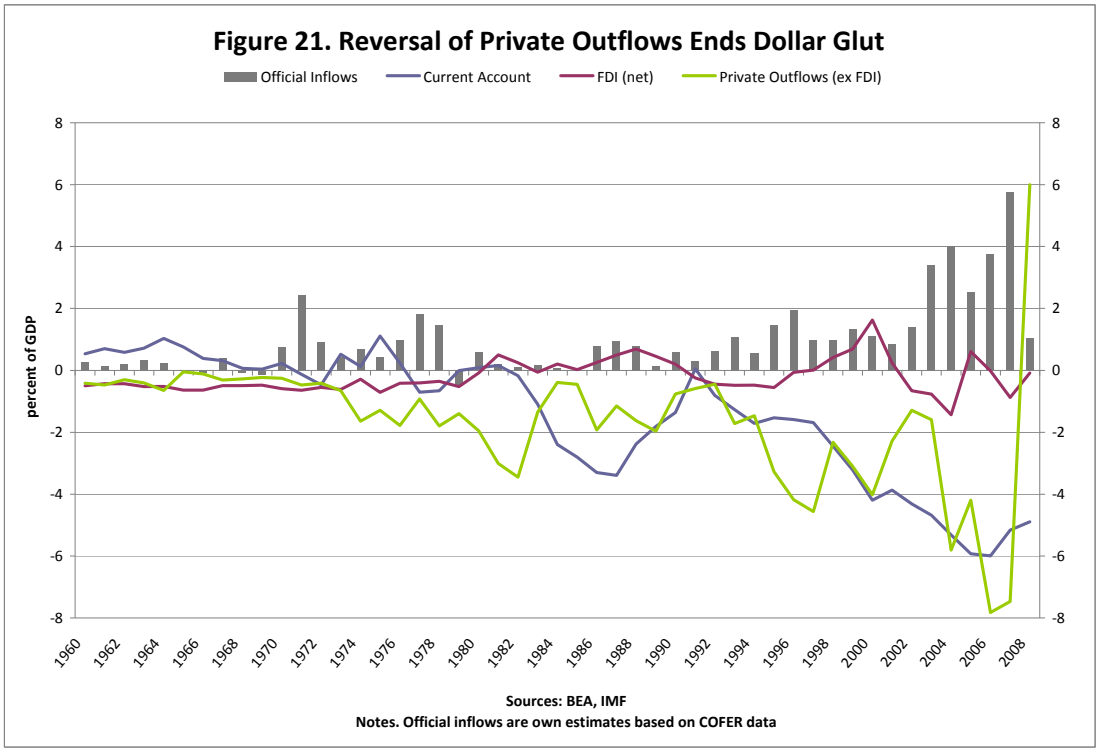
This last statement clearly reveals loanable funds theory as the theory of interest behind Bernanke's conjectures about a perceived global saving glut and how that glut supposedly depressed interest rates. Following the classical vision of saving as leading and somehow financing investment, Bernanke's saving glut idea presumes that those "excess savings" in the developing world are already there, waiting to be collected (through national debt issuance) *and then* invested (in U.S. Treasuries), with developing world governments as intermediaries channeling the saving from poor to rich through international capital markets.

While Bernanke's intuition about the relevance of foreign policies in inducing certain developments in the United States may not be altogether wrong, it is important to see exactly how certain market mechanisms and policy adjustments come into play. Bernanke singled-out financial crises in emerging markets as inducing the observed shift in developing-world current account positions and the related spurt in reserve accumulation. In practice, the said policy shift meant that crisis countries, following currency depreciation, made it their priority to *maintain* a competitive exchange rate vis-à-vis the U.S. dollar, paired with an eagerness to add to their depleted dollar reserves as a precaution or "self-insurance." To think of any saving glut emerging here that would depress interest rates is a "nonsense theory," as Keynes explained in his *General Theory*. Instead, as was described above, for the United States as a trade counterparty, such behavior, and the corresponding upward pressure on the U.S. dollar it gives rise to, produces deflationary forces in the domestic economy. The resulting weakness in U.S. labor markets and downward pressures on wages and prices in general will induce the Federal Reserve to ease interest rates as a policy response.

The essential point is that it is not any saving glut that depresses interest rates in any imaginary (classical) capital market, but deficient demand in *U.S. product and labor markets*—arising from other countries' export-oriented (cum self-insurance) growth strategies—that triggers low interest rate policies from the key global reserve currency issuer. From a liquidity

preference theoretical perspective, low U.S. interest rates resulted from the Federal Reserve's expansionary policy stance and financial markets that went along with it, rightly perceiving vastly expanded global supply potential and a lack of inflationary pressures in labor markets.

On top of U.S. current account deficits as the first source of global liquidity, there is a second source coming into play here, too: private capital outflows. Low Federal Reserve interest rates encouraged private U.S. capital outflows and dollar weakness. Amplified by capital outflows, the resulting *global dollar glut* transmitted the easy monetary policy stance set at the center to the global economy. Or, rather, other countries faced the choice of either following suit or seeing their currencies appreciate. A popular intermediate course featured reserve accumulation to maintain a competitive exchange rate and continued reliance on export-led growth. In this way, the global dollar glut sourced from both U.S. current account deficits and private capital outflows sponsored the record five-year global boom of 2003–07.



All went well as long as it lasted. As the global boom saw emerging markets building up strong fundamentals and becoming ever more attractive destinations for private capital inflows, reserve accumulation (i.e., soaring official inflows into the United States, in particular, as seen in

figure 6) was an important counterpart flow (or sponge) to the global dollar glut. Alas, after mid-2008 the global dollar glut suddenly turned into a dollar shortage—the key in transmitting the crisis at the center of global finance globally. Figure 21 reveals a conspicuous reversal in "other private capital outflows" from the United States. Notably, as nonbanks' "other" outflows began to reverse sharply in the third quarter of 2007, this was at first partly compensated by banks' "other" outflows.[12] A global dollar shortage then emerged in mid-2008 as massive deleveraging by global banks set in.

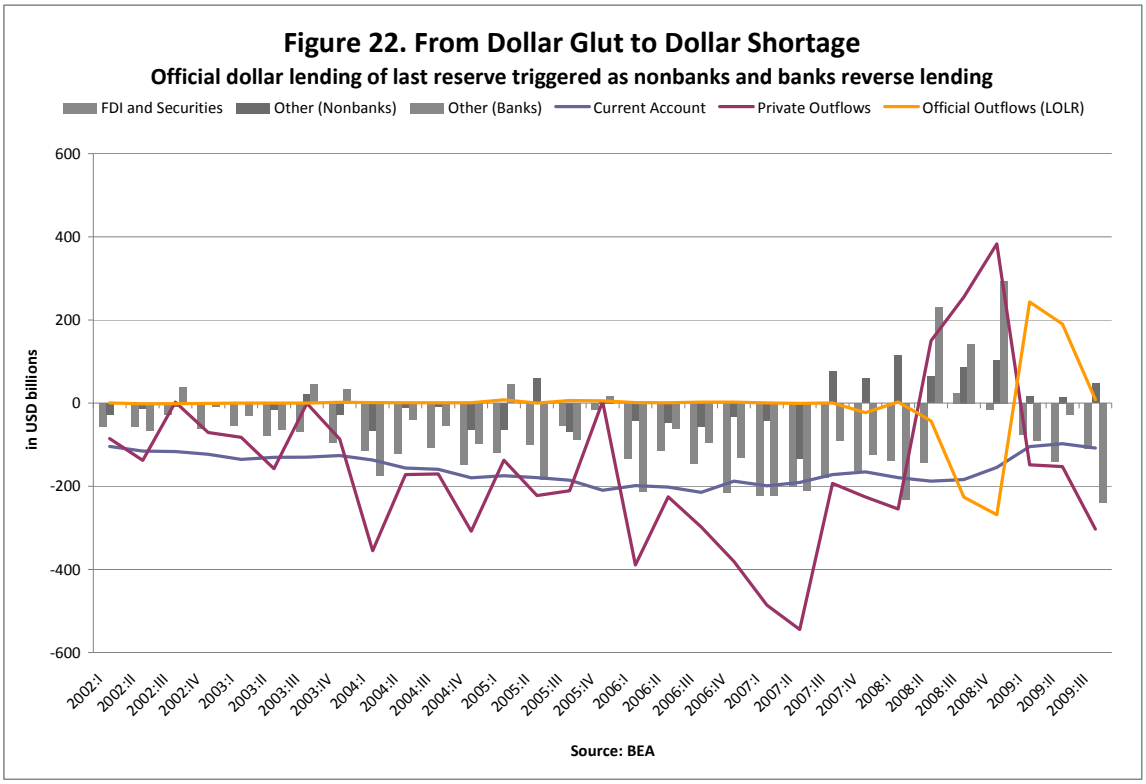


Figure 22 illustrates the third source of global dollar liquidity in action: official U.S. outflows. In the second half of 2008, "lending of last resort" through Federal Reserve swap lines with other central banks filled the gap created by bank deleveraging and dislocations in money

[12] In the IMF's classification scheme, "other" assets are the residual investment category, including trade credit, loans, currency, and deposits.

markets. In the first quarter of 2009 these offsetting measures and trends again reversed direction as the situation began to calm and normalize.[13]

It is important to reemphasize here that the developing world was largely hit as "innocent bystanders" by a crisis at the center of global finance, a crisis nurtured by advanced economies. We argued above that the BWII hypothesis correctly diagnosed that developing countries were keenly accumulating safe assets (U.S. Treasuries, in particular), but that BWII ignored that U.S. spending was actually sponsored by unsafe assets fueling the U.S. property boom. We also argued that Bernanke was wrong in suggesting that foreign Treasury purchases sourced from some imaginary "saving glut" depressed interest rates and thereby induced the U.S. property boom. Instead, we argued that low interest rates were essentially the result of easy Federal Reserve policies[14] prompted by weakness in U.S. labor and product markets—stemming not least from policies pursued in the rest of the world.

I do not just mean here the demand policies pursued by other advanced, as well as developing, countries. For while U.S. financial regulators and supervisors surely blundered in letting home mortgage finance get out of control, European financial regulators and supervisors are equally to blame for letting European banks off the leash in their international adventures. In their investigation of the U.S. dollar shortage in global banking, McGuire and von Peter (2009) highlight the aggressive global business expansion of European banks in the 2000–07 period, especially Swiss, Dutch, French, German, and U.K. banks. "In aggregate, European banks' combined long U.S. dollar positions grew to more than US$800 billion by mid-2007, funded by short positions in pounds sterling, euros, and Swiss francs" (McGuire and von Peter 2009). Their investments featured large exposures to U.S. mortgage credit risk and were mainly long term. Their funding was mainly through money markets, also exposing them to roll-over (liquidity) risk.[15] Innovative kinds of risk management principles must have guided bank managers in their

[13] While large, global banks could also access the Federal Reserve's liquidity fountain directly through their U.S. branches, provided that they held adequate collateral in that location, smaller banks had to take the indirect route involving the international swap grid between the U.S. Fed and other central banks.

[14] In view of the Federal Reserve's mandate it is not clear that the monetary policies of the Federal Reserve as such deserve blame—which is *not* to suggest change to that mandate.

[15] In this context, Baba, McCauley, and Ramaswamy (2009) analyze the role of U.S. dollar money market funds in the crisis. They find that up to August 2008 money market funds received safe heaven inflows that helped the funding of non-U.S. banks. However, following Reserve Primary Fund's "breaking-the-buck" event caused by the Lehman failure, a wholesale run on money market funds cut off non-U.S. banks' funding from this source. As liquidity demand shifted away from riskier commercial paper (CP) and bank certificates of deposit (CD) toward Treasuries and out of money market funds into bank deposits, they conclude that "if U.S. banks received the

yearning for yield (and big bonuses). As European financial supervisors were dozing away, their supervisees' leveraged U.S. mortgage engagements first helped to compress credit spreads during the housing boom. Then, as the boom turned bust, European banks were immediately found at the center of what became a global financial crisis as turmoil was not contained locally where fragility had been nurtured.[16] Through deleveraging by global banks and distress selling in asset markets all around by global investors from advanced countries, the crisis spread to the developing world.

In conclusion, widespread reliance on self-insurance strategies through the BWII model has not reduced global systemic risk, but merely transferred risk from EM insurees to the key reserve currency issuer acting as global insurer. Ironically, the crisis at the core of global finance has both once again underlined that emerging markets have every reason to desire taking out self-insurance, while also illustrating that only limited protection is actually obtainable in this way against the unintended consequences of unfettered global finance.

5. CONCLUSION: LESSONS FROM THE CRISIS AND DEVELOPING COUNTRIES' POLICY OPTIONS?

At the bottom of the global crisis of 2007–09 are systemic deficiencies in the global monetary and financial order. In particular, advanced countries with large current account surpluses, such as Germany and Japan, are not held to account for perpetually freeloading on external demand for their growth. Moreover, financial instabilities created since global finance has been unleashed induced a widespread urge to secure policy space among emerging markets. While far more excusable, the general self-insurance rush saw the global insurer's risk exposure balloon in the form of unsustainable U.S. internal imbalances—until the bubble burst, proving the effectiveness of self-insurance to be limited. Given the U.S. dollar's role as key reserve currency, the U.S. consumer had been lured in to act as global borrower and spender of last resort—an invitation far too pleasant to let pass by as long as the party went on.

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deposits while European banks repurchased their CP and CDs, then the latter needed to bid in the already strained interbank market." See also ECB (2009).

[16] Bibow (2009c) argues that apart from Europe's pivotal role in the crisis at the center of global finance, which itself made the crisis an internal crisis from the start, Europe was also simultaneously hit by other, properly homegrown crises stemming from imploding intra-Euroland and intra-EU imbalances. Moreover, Euroland's lack of proper policy defenses made the supposed "island of stability" a drag on global growth.

The global crisis triggered a massive macro policy response around the globe and, at the start of 2010, it seems as if the world economy may be on track for recovery, led by emerging Asia in particular. Certainly stock markets have rallied strongly and recovered about half of their earlier losses. Moreover, near-zero monetary policy rates in the United States and other advanced economies have not failed to reignite surging private capital flows toward emerging markets, giving way to significant financial easing in many of these economies.[17] To be sure, in addition to what we said above about the limited effectiveness of self-insurance in barring contagion, rock-bottom policy rates and successful rebooting of financial systems at the core have been absolutely vital for recovery in emerging markets, too.

What policy options present themselves to developing countries at this juncture and what would they suggest for the unfolding recovery in the medium term? At the peak of the crisis developing countries had a strong self-interest to stimulate domestic demand as their export motor stalled, with international cooperation helping to forestall a general recourse to beggar-thy-neighbor policies. Propelled by a US$586 billion (or 14 percent of GDP) fiscal stimulus program and mind-boggling loan expansion, China has emerged as global leader in the recovery. Can the emerging market consumer be expected to replace the U.S. consumer and carry the torch for global growth from here on?

Beware that this would be no less than a U-turn in general policy orientation if carried to the point where emerging markets at large returned to the pre-1999 world of running a current account deficit position. While countries followed their short-term self-interest in stimulating domestic demand as their exports plunged, it seems doubtful that the latest crisis experiences may have convinced them that the world has become a safer place in which routine emerging market financial instabilities that characterized the pre-2002 world could be easily avoided.

On the other hand, in case of a continuation or return to previous patterns featuring self-insurance (cum neo-mercantilist) strategies, renewed pressure would arise for the United States to act as global spender and borrower of last resort, with U.S. trade and current account deficits (which shrunk to less than half of their 2006 peak value during the first half of 2009) becoming

[17] Reporting that the decrease in interbank positions and in international credit to nonbanks slowed during the first quarter of 2009, Baba, Gadanecz, and McGuire (2009) observe: "banks also trimmed their international credit to emerging markets, but their local lending from offices in emerging market host countries remained stable." IMF international financial statistics (IFS) data up to the second quarter of 2009 (used above) also show some early indications of a renewed reversal in capital flows. Anecdotal evidence suggests that portfolio equity flows towards emerging markets in the later part of 2009 may have exceeded previous peaks, even as mature market funds continued to see outflows—a replay of the decoupling theme may thus be under way.

reestablished as a quasipermanent feature of the global economy. In replacement of the "maxed-out" U.S. consumer, U.S. fiscal policy and public debt would need to become the new engine of growth, transforming BWII into what I dubbed elsewhere: "Bretton Woods III" (Bibow 2009b and 2009d). Bretton Woods III (BWIII) may arise by default. For lack of alternatives, a dollar crisis looks decidedly unlikely.

The need and scope for the United States to play along the BWIII script also depends on whether other advanced countries like Japan and Germany (or Euroland at large) might finally mature and pursue domestic-demand-led growth strategies. In this regard, "dollar diplomacy" will be the foremost instrument in keeping pressure away from the United States as key reserve currency issuer. As for developing countries, reform of the global order is the key issue. At this point though reform of the global monetary order or evolution towards some multipolar or proper international ("bancor") currency regime seems unlikely for some time. While the establishment of a Financial Stability Board at the G-20 level represented a nice gesture at a time when global systemic financial meltdown was looming, it currently looks like serious reforms to unfettered global finance may not be forthcoming either. In principle, greater collective insurance provision (through the IMF, etc.) should tend to reduce developing countries' recourse to self-insurance (and hence pressure on the United States to act as spender of last resort, too), but IMF distrust in view of past crisis experiences may be too strong without any more fundamental IMF overhaul—with some groups of countries seeking collective insurance mechanisms at a regional level instead.

Capital account management presents itself as an alternative to self-insurance under financial globalization, which is generally available to individual countries unless they have signed away their sovereignty in this area through bilateral or multilateral commitment (Bibow 2008–09; Chandrasekhar 2008; UNCTAD 2009).[18] In fact, in light of the crisis of 2007–09, developing countries would seem to be well-advised to pursue policies of comprehensive capital account management and cautious financial liberalization at their own pace—in denial of IMF preaching of the alleged, but unproven, universal benefit of the opposite. The above comparative country study may be seen as a step towards a study of factors that tend to make countries more or less vulnerable to the vagaries of global finance, especially as some countries (China and

[18] In the fall of 2009 some countries introduced specific measures to cool "hot money," including Brazil's 2 percent levy on portfolio inflows and a similar move in Taiwan (see Beatti et al. [2009]).

India, for instance) have continued to employ capital account management techniques. Generally speaking, anything but direct investments does not seem worth paying for at all. Even if self-insurance were actually effective, and our analysis exposed severe limitations in this regard, the strategy would still not at all be a free lunch for developing countries. Especially for countries running a current account surplus position, taking out self-insurance essentially presents a bargain for yield-hungry foreign investors who do not really sponsor any growth at all—other than growth in low-yielding FX reserves that are the basis for the rent extraction involved in this peculiar asset-return swapping "self-insurance" transaction (Bibow 2008–09).[19]

[19] In a related paper (Bibow 2009d) I observed the following irony: "unfettered global finance seems to have both increased the demand for defensive policies in the rest of the world and the extraction of rent available from meeting that demand." The reverse is true as well. As an alternative to self-insurance, capital account management also enables countries to contain rent extraction through foreign (nondirect) investment.

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