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# The Boom in Capital Flows to Developing Countries: Will It Go Bust Again?*

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## Abstract

This paper argues that the policy of quantitative easing and maintaining close-to-zero interest rates in advanced economies, notably the US, has been generating a surge in speculative capital flows to developing countries in search of yield and creating bubbles in foreign exchange, asset, credit and commodity markets. This latest generalized surge constitutes the fourth postwar boom in capital flows to developing countries. All previous ones ended with busts, causing serious damage to recipient countries. The conditions driving the recent boom in capital flows and commodity prices are not sustainable, and they are likely to be followed by a sharp downturn. Various scenarios that can bring them to an abrupt end are discussed. Examining the policy responses and financial and macroeconomic developments in major emerging economies, the paper concludes that deficit commodity-rich economies that have been enjoying the dual benefits of global liquidity expansion – that is, the boom in capital flows and commodity markets – are most vulnerable to a possible reversal and urges them to manage capital flows more effectively.

**JEL codes:** F21, F32, F34, F44.

**Keywords:** Boom-bust cycles, global liquidity, capital flows, foreign exchange markets, commodity markets, developing countries.

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## 1. Introduction

The post-war period has seen three generalized boom-bust cycles in private capital flows to developing and emerging economies (DEEs), and we now appear to be in the boom phase of the fourth one. These booms have started under conditions of global liquidity expansion and low US interest rates, and all the previous ones ended with busts. The first one ended with a debt crisis in the 1980s, when US monetary policy was tightened, and the second one with a sudden shift in the willingness of lenders to maintain exposure in East Asia as financial conditions tightened in the US and the macroeconomic situations of recipient countries deteriorated because of the effects of capital inflows. The third boom developed alongside the subprime bubble and ended with the collapse of Lehman Brothers and the flight to safety in late 2008.

Unlike previous episodes, the Lehman reversal did not cause serious or widespread dislocations in developing countries (DCs) because of generally strong payments and reserve positions, reduced mismatches on balance sheets, and, above all, the short duration of the downturn. Indeed, it was soon followed by a rapid recovery in 2009 as major advanced economies (AEs), notably the US, responded to the crisis brought about by excessive liquidity and debt by creating still larger amounts of liquidity to bail out troubled banks, lift asset prices, and lower interest rates.

This quantitative easing and close-to-zero interest rates in the US have generated a surge in speculative capital inflows to DEEs offering higher interest rates and better growth prospects, giving rise to bubbles in currency, asset, credit, and commodity markets. Major deficit DEEs, such as Brazil, India, South Africa, and Turkey, have seen their currencies appreciate faster than surplus DEEs have. This development has paralleled an increased reliance on foreign capital to help them meet their growing external shortfalls. For their part, most East Asian countries have been successful in maintaining strong payments positions, but they have also been facing credit and asset bubbles. While it is almost impossible to predict how and when the current surge in capital flows will end, there can be little doubt that the conditions driving it at this time cannot be sustained indefinitely. Consequently, the major recipients are all exposed to the risk of a sudden stop and reversal—and, hence, to balance-of-payments and/or financial-market instability, to an even greater extent than that suffered after the Lehman collapse.

This paper examines the causes, nature, and effects of the current boom in capital flows to DEEs from a historical perspective, and the possible consequences of its reversal. Discussions will focus on private capital flows to

DEEs, including both the DCs as traditionally defined and the emerging economies of Central and Eastern Europe (CEE) and the Commonwealth of Independent States (CIS), which are now generally considered to be in the same class of investment risk as the DCs. However, for historical comparisons, data will also be presented for the DCs alone.[1] A distinction will be made between capital inflows and outflows. *Capital inflows* refer to the acquisition of domestic assets by private non-residents, while the sale of assets is defined as negative inflows. *Capital outflows* refer to the acquisition of foreign assets by private residents, including foreign companies and individuals that have established residence in DEEs, and sales are defined as negative outflows. *Net private capital flows* are the difference between net capital inflows and net capital outflows.[2]

The first two post-war cycles are briefly discussed in the following section. Section C examines private capital flows in the new millennium, including the factors driving the pre-Lehman surge in inflows, their brief reversal, and the reasons for their quick recovery. It is argued that the factors that gave rise to sharp swings in capital flows have also contributed to gyrations in commodity prices since the early years of the 2000s. Section D examines the changes in the composition of capital flows in comparison with previous cycles and their implications for the exposure of DEEs to the risk of instability and crises. This is followed in Section E by an examination of the impact of capital flows on the exchange rates, current accounts, and asset markets of DEEs in recent years. Section F discusses the possible developments that would end the current boom and the exposure of different categories of DEEs to a sudden stop and reversal. After a brief review of the policy response of DEEs to the boom, it is concluded that stronger, comprehensive, and permanent measures of con-

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1 Many of the emerging economies of CEE and the CIS did not exist as independent states before the 1990s. Here DEEs correspond to what the IMF WEO (October 2010) calls "Emerging and Developing Countries" plus the Newly Industrialized Economies (NIEs), Hong Kong (China), Korea, Singapore, and Taiwan Province of China. Until October 2009, the IMF's *World Economic Outlook* included NIEs among "Emerging and Developing Countries," but they are now treated as advanced economies.

2 This study uses data both from the IMF and the IIF (Institute of International Finance). These differ in country coverage, methodology, and classification of capital flows. The IMF data include all DEEs as defined above, whereas IIF data include the 30 most important emerging economies. In terms of coverage of items, IMF data are also more comprehensive. IMF data are organized around three categories: direct, portfolio, and other investments. The IIF distinguishes between equity and debt for both inflows and outflows. For inflows, a further distinction is made between portfolio and direct equity and between commercial bank lending and non-bank lending. Historical comparisons here rely on the IMF data, whereas both data sets will be used for the more recent period.

trol are needed in order to contain the build-up of fragility and imbalances that could eventually inflict serious damage when the boom ends with a bust.

## 2. Previous post-war boom-bust cycles

Until the second half of the 1970s, private capital inflows to DCs consisted primarily of foreign direct investment (FDI), and the main recipients were Latin American countries.[3] They were either tariff-jumping investments aimed at access to heavily protected domestic markets or investments for the exploitation of natural resources to be exported back to AEs. Portfolio inflows and private borrowing from international financial markets were almost non-existent, and sovereign borrowing was limited. Total private inflows to DCs were not only small but also relatively stable.

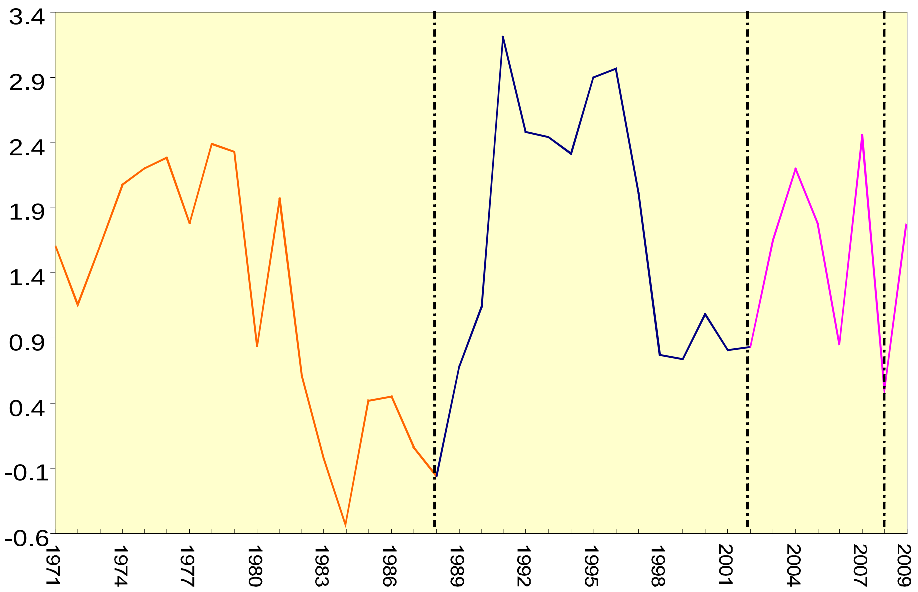
This picture changed in the 1970s with the first post-war boom in capital inflows to DCs (Figure 1). Much of this was in international commercial lending. FDI inflows remained relatively small, and there was hardly any portfolio investment. Lending was driven primarily by a rapid expansion of international liquidity associated with oil surpluses and growing US external deficits and facilitated by financial deregulation in AEs and the rapid growth of Eurodollar markets. Excess liquidity was recycled into syndicated bank credits at variable interest rates, and many of these were denominated in dollars. Borrowing from private markets was viewed as more attractive by DCs than loans from multilateral financial institutions because they did not come with policy conditionalities. Moreover, with booming commodity prices, real interest rates on these loans were often negative. Latin America was the main recipient. Feeding the boom in foreign borrowing were the Bretton Woods Institutions (BWIs) and the US, whose encouragement of the activity was prompted by their fear that the oil-price shocks could lead to a collapse of global demand and contraction of world output.

This boom ended when the US Fed shifted to monetary tightening in order to bring inflation under control. Hikes in policy interest rates in the early 1980s immediately increased the burden of external debt of DCs as rates on their outstanding loans were swiftly adjusted. At the same time, commodity prices and export earnings faltered as recession in the US, triggered by contractionary monetary policy, took hold. The combination of a heavier debt burden and reduced capacity to service it resulted in several recipient countries falling into arrears. A sharp cutback in bank lending followed, forcing many debtor countries to generate trade surpluses to make net transfers abroad

3 For a further discussion of previous post-war cycles, see UNCTAD TDR (2003).

through cuts in investments, imports, and growth. The result was a debt crisis and a lost decade for many DCs, notably in Latin America.

**Figure 1. Net Private Capital Flows to DCs, 1971-2009 (Percent of GDP)**

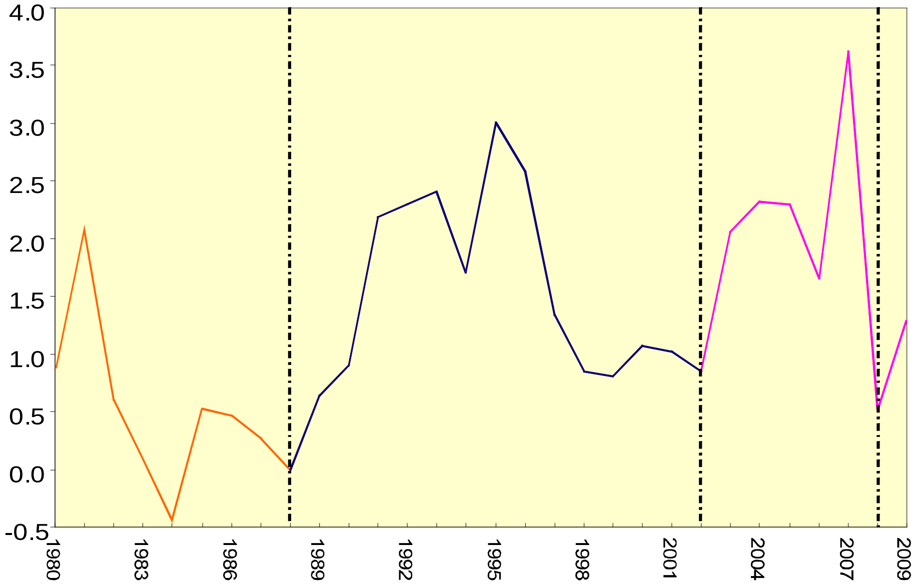



**Source:** IMF, WEO, 2010 database, IFS; UNCTAD, Trade and Development Report 2003.

**Note:** Real flows are nominal flows adjusted for changes in the United States GDP deflator.

The second boom came after almost 10 years of denial of access for most DEEs to international financial markets (Figures 1 and 2). Once again, it was associated with rapid expansion of liquidity and deep cuts in interest rates in the US and Japan. The US entered the 1990s with a recession made worse by the Savings and Loans crisis of the previous decade. The response was a sharp lowering of interest rates, which allowed domestic debtors to refinance their debt at substantially lower rates and banks to build up capital by arbitraging between the Fed and the Treasury and riding the yield curve. Japan also engineered a massive liquidity expansion in response to its recession, brought about by the collapse of stock- and property-market bubbles in the late 1980s. The surge in capital inflows was also greatly encouraged by the success of the Brady Plan for sovereign-debt restructuring in Latin America and rapid liberalization in many DEEs. This time, Latin America, East Asia, and the CEEs all received large amounts of foreign capital. A larger proportion of inflows went into FDI and portfolio equities than in the first boom of the 1970s.

**Figure 2. Net Private Capital Flows to DEEs, 1980-2009 (Percent of GDP)**




**Source:** IMF, WEO, 2010 database; BOP.

Despite a crisis in Mexico in 1994 brought on by an unexpected spike in US interest rates and political uncertainty, the generalized boom in capital inflows to DEEs continued, but switched to East Asia. Net private capital flows peaked in 1995 before drying up altogether when the Thai crisis burst on the scene in July 1997 and then spread to several other countries in the region. Capital inflows plummeted as a result of a cutback in international bank lending and a plunge in portfolio inflows. The East Asian crisis was followed by a series of crises in several other emerging economies, including Brazil and Russia in 1998, Turkey in 2000-01, and Argentina in 2001-02.

While the nature, composition, and destination of capital flows varied between these two post-war cycles, there were also important similarities. In both episodes, booms were associated with a rapid expansion of liquidity and low dollar interest rates. Both petered out under tightened financial conditions in the US, including higher interest rates and a stronger dollar. In both episodes, rapid shifts in market assessments of borrowers' risk-return profiles and loss of appetite for risk played a key role in the reversal of capital flows. Deteriorations in the macroeconomic fundamentals and the external positions of recipient countries were no doubt crucial in causing international lenders and investors to have a change of heart about maintaining exposure. In the first cycle, worsening payments difficulties were largely the outcome of external shocks caused by a sudden change in US monetary policy. In the second cycle, reversals of capital flows were often associated with a deterioration of the external positions of the recipient countries, but in most cases this resulted mainly from the effects of capital flows themselves. And East Asian countries faced rapid outflows despite strong macroeconomic fundamentals and fiscal discipline (UNCTAD TDR, 1998 and 1999).

## 3. Capital flows in the 2000s

### 3.1 The third post-war boom

The third boom in private capital inflows started in the early years of the new millennium. Again it was triggered by exceptionally low interest rates and rapid expansion of liquidity in major AEs–factors that subsequently led to the most severe post-war global financial crisis and economic contraction. Fearing asset deflation and recession, the US Fed responded to the bursting of the dot-com bubble and the steep fall in equity markets by bringing policy rates to historical lows. The US policy of easy money and low interest rates was also mirrored in several other AEs. Interest rates in Japan were brought down to almost zero as the government tried to break out of a deflationary spiral. Even the otherwise conservative European Central Bank (ECB) joined in and set interest rates at unusually low levels.

The surge in private capital inflows was also helped by the willingness of surplus DEEs to invest in US Treasuries. China had had twin surpluses in its current and capital accounts since the beginning of the decade, investing both of them fully into reserves, mostly in dollars.[4] About two-thirds of the oil surpluses of fuel exporters (FEs) earned after 2002 went into reserve accumulation, and the rest was used for FDI and portfolio investment. Large acquisitions of US Treasuries by China and FEs helped to keep long-term rates relatively low, even as the US Fed started to raise short-term rates.[5] Thus, while widening US external deficits were being financed "officially," there was plenty of highly-leveraged private money searching for yield in DEEs. A mutually reinforcing process emerged between private flows to DEEs and official flows to the US–the former were translated into reserves in DEEs and

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4 Here, capital-account surplus is used for surplus on non-reserve financial account.

5 Bernanke (2011) argues that not only *net* capital inflows from surplus DEEs but also *gross* capital inflows from Europe, leveraged by issuing sovereign debt and bank deposits, raised net demand for safe US assets and brought down long-term rates.

constituted an important part of official flows to the US, which, in turn, supported lower rates there and private flows to DEEs.

Both net inflows and net flows to DEEs peaked in 2007 before the explosion of the subprime debacle (Table 1, Figure 2). FDI in DEEs increased rapidly with the acceleration of growth, but a major part of the increase in inflows was in portfolio investment. Lending attracted by carry-trade profits due to large interest-rate differentials with major AEs, notably the yen carry-trade, played an important part in this process. Many unleveraged Japanese investors also joined in the search for yield in conditions of near-zero interest rates and stagnant equity prices in that country. Such inflows into target countries, such as Brazil and Turkey, with much higher interest rates often led to appreciation of their currencies, thereby raising the return on arbitrage capital. Short-term money was also attracted by the prospect of currency appreciation in countries like China, where interest rates were relatively low (IIF, October 2008; SAFE, 2011). Favorable interest-rate differentials and upward pressures on currencies made a major contribution to the escalation in private borrowing abroad in several DEEs.

**Table 1. Private Capital Flows to Emerging Economies (billions of dollars)**

| | 2003 | 2005 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|
| **Net Private Inflows** | **280** | **642** | **1285** | **594** | **644** | **990** |
| Equity | 185 | 360 | 597 | 422 | 490 | 571 |
| Direct Investment | 137 | 289 | 500 | 509 | 357 | 371 |
| Portfolio Investment | 48 | 71 | 97 | -86 | 133 | 200 |
| Private Creditors | 95 | 282 | 688 | 172 | 154 | 419 |
| Commercial Banks | 24 | 189 | 451 | 29 | -10 | 172 |
| Non-banks | 71 | 93 | 237 | 143 | 164 | 247 |
| **Net Private Outflows** | **-143** | **-497** | **-825** | **-772** | **-453** | **-573** |
| Equity Investment | -46 | -89 | -277 | -229 | -268 | -269 |
| Resident Lending/Other | -97 | -407 | -547 | -544 | -185 | -305 |
| **Net Private flows** | **137** | **145** | **460** | **-178** | **191** | **417** |

**Source**: IIF (October 2010 and June 2011).

The surge in capital inflows was accompanied by rapidly narrowing spreads on emerging-market debt. The average spread, which had peaked at 1400 basis points after the Russian crisis, fell continuously from mid-2002 onwards, coming down to 200 basis points in the first half of 2007. As noted by the IMF GFSR (2004: 66), “liquidity and an increase in risk appetite [were] relatively more significant influences on spreads than fundamentals.” Indeed, most DEEs enjoyed the increased risk appetite and shared in the boom in capital inflows, irrespective of their underlying fundamentals. During 2002-

07, the emerging economies of CEE received as much foreign private capital as Asian DEEs, even though their total income was one-fifth of the total income of Asia, and their economic performance was not as impressive.

### 3.2 The Lehman collapse and contraction in capital flows

As the subprime debacle started to reverberate across the world, private capital inflows to DEEs initially held up, despite the growing strains in credit and asset markets in the US and Europe. However, with the collapse of a number of leading financial institutions in the US, notably Lehman Brothers, the boom came to a halt in the second half of 2008. Net portfolio equity and debt inflows and net commercial lending all collapsed, turning negative in the course of 2008-09 as non-residents pulled out of equity and bond markets and international banks cut lending. Total net private inflows were more than halved, but resident outflows proved to be more resilient. Consequently, there was a massive drop in net flows from the peak reached in 2007 (Table 1, Figure 2).

There were many reasons for this sudden stop and reversal. First, the volatility racing through financial markets led to extreme risk aversion on the part of international lenders and investors. Before the outbreak of the crisis, premiums on credit-default swaps (CDS) were below 200 basis points for most DEEs. They started to shoot up at the end of August 2008, reaching, on average, almost 600 basis points for Latin America and CEE. Similarly, the average EMBI Global Yield Spread rose from some 170 basis points at the end of 2006 to over 720 basis points at the end of 2008 (IMF GFSR, April 2009; BIS, 2009). This resulted in a narrowing of the margin of return over risk on arbitrage money, thereby triggering a rapid reversal of the carry-trade and a flight to safety into US Treasuries.

Global deleveraging by highly indebted investors, tightened liquidity constraints, and higher margin calls added momentum to the exit, while falling commodity prices forced a rapid decline in investment in commodity-rich economies. Foreign bank subsidiaries in some DEEs also funded their parent banks in AEs during the crisis in order to strengthen the latter's liquidity and overall financial positions (BIS, 2010a). Finally, as it became clear that DEEs would not be immune to the turbulence rocking the AEs, and that prospects for any economic growth there were not encouraging, there was not much appetite for equity investment.

Also, greater international financial instability and the disappearance of appetite for risk were reflected in a strengthening of the dollar vis-à-vis other major currencies, notably the Euro, even though the US was at the center of the crisis. The dollar in general and US Treasury Bills in particular were regarded as a safe haven, a perception that was reinforced by the reversal of the carry-trade. The surge in dollar funding costs and currency mismatches on corporate balance sheets generated by losses on dollar securities also added to the demand for dollar assets (McCauley and McGuire, 2009).

### 3.3 The current boom

Both the strength of the dollar and the contraction in capital inflows to DEEs were short-lived. The dollar started to weaken during the first half of 2009. Simultaneously, private capital inflows to DEEs started to recover, led by purchases of equities, although FDI inflows remained weak. According to the IMF WEO (April 2011), after falling from $1.64 trillion in 2007 to $484 billion in 2009, inflows would climb back to $812 billion in 2011. Again, according to the latest estimates by the IIF (June 2011), net private inflows to the 30 most important emerging economies would be some $1.04 trillion in 2011, compared to an all-time high of $1.285 trillion in 2007.

As in previous episodes, a key factor in the ongoing boom in capital flows is a sharp cut in interest rates and rapid expansion of liquidity in major AEs, notably the US. This has not been translated into a significant increase in private lending and spending within the US because of problems on both the supply and demand sides of the credit markets. Rather, this excess liquidity has spilled over into the global arena in a search for yield in DEEs, and this has put many of these governments on the defensive, believing that the US is deliberately carrying out a competitive devaluation of the dollar.

Another factor in the post-Lehman surge in capital flows to DEEs is their superior economic performances and prospects for future growth when compared to the AEs. In addition, although interest rates in many major DEEs were initially brought down in reaction to crisis-caused dislocations, the arbitrage gap widened in 2010 as they reversed course and pushed interest rates upward again. At the same time, US interest rates have continued unchanged at very low levels. As a result, the carry-trade has been re-established, and key emerging economies with high interest rates, such as Brazil, India, and Turkey, have become the main targets (IIF, October 2010). Low interest rates in the US, together with the ongoing weakness of the dollar, made the dollar the new funding currency for the carry-trade, replacing traditional carry-trade currencies like the yen and the Swiss franc (BIS, 2010b).

Furthermore, due to the unprecedented difficulties encountered by large financial institutions in the US and Europe and the towering nature of public-sector deficits and outstanding debt there, the crisis has produced a sea change in investors' perception of geographical risks. Suddenly, AEs are not automatically superior to DEEs as investment destinations. Perhaps for the first time in post-war history, the risk margin between AEs and DEEs has narrowed as certain members of the industrialized world seem likelier to default on their public and private debts. A natural outcome is that DEEs are now given greater weights in the equity and bond portfolios of investors within AEs.[6] The reduced risk margins, together with increased interest-rate differentials, have widened the arbitrage opportunities beyond those of the pre-Lehman years, making the carry-trade type of borrowing and lending even more attractive.

## 3.4 Financial and commodity cycles in the 2000s

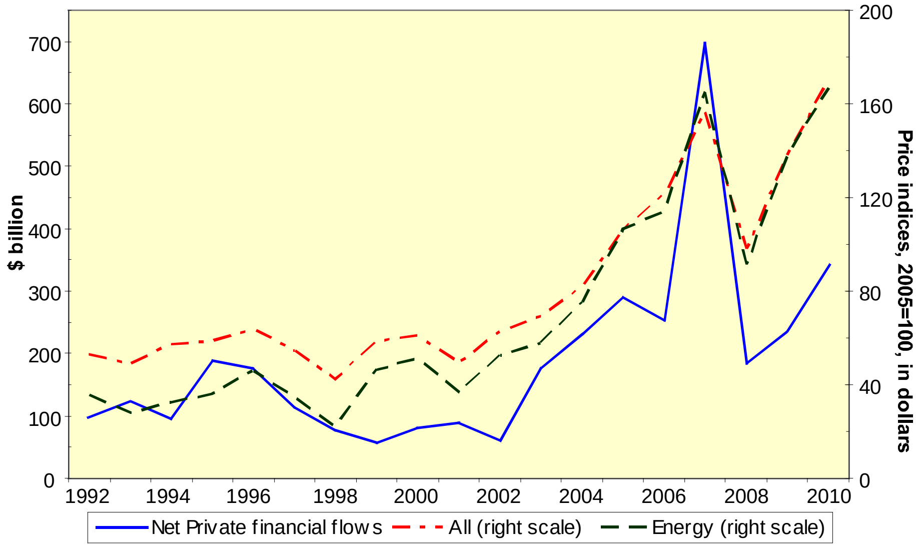
Like capital flows to DEEs, commodity markets have shown considerable swings in the 2000s, according to shifts in the markets' assessment of risks and returns. This is largely because these markets have rapidly become more like financial markets, with several commodities being treated as a distinct asset class and attracting larger amounts of money in search of profits from price movements (Domanski and Heath, 2007; IATP, 2008; Mayer, 2009). During 2003-10, assets allocated to commodity-index trading strategies are estimated to have shot up from $13 billion to $320 billion, and the number of outstanding contracts in commodity futures and options soared from 13 million to 66 million (Masters, 2008; World Bank, 2011a; BIS, 2010b).

Evidence suggests that the spreading phenomenon of financialization has reduced the traditional segmentation of commodity markets by ushering in a diversity of new factors to affect real supply and demand for different products. There has thus been an increased correlation among commodities, particularly those subject to index trading, and synchronization of boom-bust cycles in various commodity markets (Tang, 2011, Nissanke, 2011).

The post-2000 swings in commodity markets show a strong correlation with capital flows to DEEs and the exchange rate of the dollar (Figures 3 and 4). The evolution of the stock-market value of a typical commodity-related company and mutual-fund investments in commodities also looks strikingly similar to the boom-bust cycles in capital flows to DEEs–after rising steadily, they both declined in late 2008, but recovered rapidly afterward (Oliver Wyman, 2011).

6 The weight of emerging-market equities in the All-Country World Index of the MSCI (Morgan Stanley Capital International) rose from less than 5 percent in 2003 to 13 percent in 2009, and this is expected to increase further in the coming years – see IIF (January 2011) and IMF GFSR (October 2010).

**Figure 3. Net Private Capital Flows to DEEs and Commodity Prices, 1998-2010**

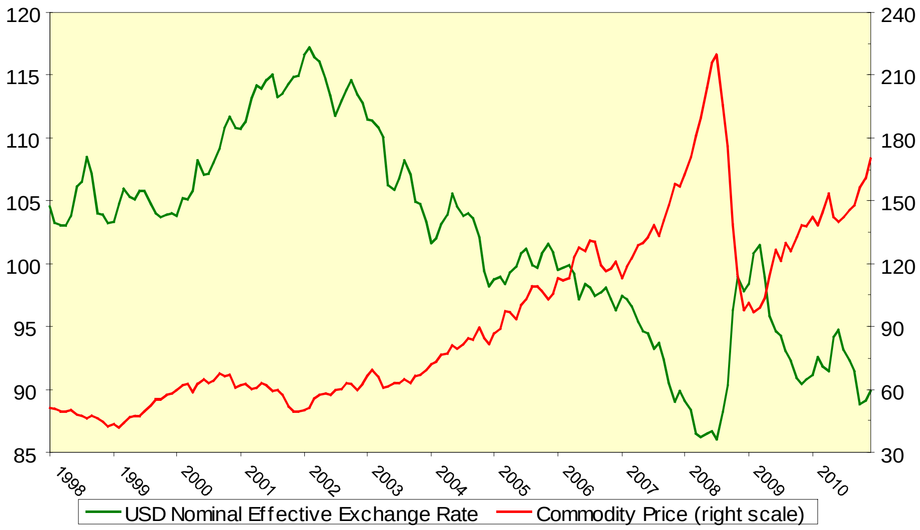



**Source:** IMF, WEO, 2010 database.

With rapid liquidity expansion and acceleration of growth in the global economy, both oil and non-oil commodity prices started to rise in 2003, gaining further momentum in 2006. The factors driving the boom included the strong pace of economic activity in those DEEs where the commodity-intensity of growth was high, low initial stocks, weak supply response, and a relatively soft dollar. In the case of food, diversion to bio-fuels, droughts, changing demand patterns in DEEs, and the high cost of fertilizers and transport due to high fuel prices all played a role. The upward trend in prices also attracted index-based investments in commodity futures, creating bubble-like increases (Gilbert, 2010).

Despite growing financial strains in the US during 2007 and much of 2008, index trading in commodity futures continued to forge ahead, contributing to the acceleration of price increases. Prices reached a peak in July 2008, when investment in commodity futures reached an unprecedented $317 billion, and the number of contracts for commodity derivatives rose rapidly (Masters and White, 2009; BIS, 2010b). However, they all experienced a sharp downturn in August 2008, as investors unwound big positions in oil and non-oil futures, more or less at the same time as capital flows to DEEs were reversing and the dollar was starting to strengthen.

**Figure 4. Commodity Prices and the Dollar (Index numbers, 2005=100)**




**Source:** IMF (commodity prices) and BIS (nominal effective exchange rate).

This boom-bust cycle in commodity prices in the middle of the subprime crisis was largely due to shifts in market sentiment regarding the future course of prices. Initially, throughout 2007 and much of 2008, the subprime crisis was seen as a hiccup. It was not expected to generate a deep recession or a glut in commodity markets, particularly since DEEs were expected to evade any ripples that might spread outward from the mature markets. Any downturn in economic activity was expected to be short, followed by a rapid and robust recovery. For its part, the IMF was quite optimistic, downplaying the difficulties and revising its growth projections upwards during early summer 2008 (Akyüz, 2010c; IMF WEO Update, July 2008). However, with the economic and financial picture in the US darkening by the day, crowned by the collapse of Lehman Brothers, sentiments turned sour. Almost simultaneously, there was a rushed exit of capital from commodities and DEEs and a flight to the perceived safety of the dollar. By the end of October 2008, food was 27 percent and oil 45 percent below their peaks.

The post-Lehman upturn in commodity prices also coincided with the recovery of capital flows to DEEs and the decline of the dollar. Index trading has played an important part in this. After falling in late 2008 and early 2009, this activity started to gain momentum as commodity prices turned up in spring 2009 on the back of quickening demand from DEEs, notably China. This demand was fanned by an environment of expanding international liquidity and historically low interest rates. Investment in commodities reached $320 billion in mid-2010, a figure last seen during July-August 2008, when commodity prices peaked, while the number of exchange-traded options and futures rose to unprecedented levels (World Bank, 2011a; BIS, 2010b).

The parallel movements in capital flows, commodity prices, and the dollar are driven not only by such common influences as market assessments of risks and return and global liquidity conditions. They are also directly linked to one another. A weaker dollar often leads to higher commodity prices because, *ceteris paribus*, it raises global demand by lowering the non-dollar prices of commodities. Moreover, changes in commodity prices have a strong influence on investments in commodity-rich DEEs. This is not limited to oil and minerals. With increased interest in bio-fuels and hikes in food prices, acquisition of farmland in DEEs has become an attractive form of investment. In Africa alone, such deals made in 2009 are estimated to have reached 56 million hectares (World Bank, 2011b).

## 4. The changing nature of capital flows and the vulnerability of DEEs to boom-bust cycles

In comparison with previous cycles, private capital flows to DEEs are now manifesting certain distinct features regarding their destination, size, and composition. They are now more synchronized across countries than in the past. The amounts involved are much higher. They are no longer unidirectional, from AEs to DEEs–there are significant resident outflows from DEEs, and capital flows among DEEs have been growing rapidly.

More importantly, the composition of inflows has shifted significantly towards local-currency instruments of recipient DEEs, including highly volatile portfolio equity investments–described as the “canary in the coal mine in emerging-market capital-flow cycles” (IIF, October 2009: 10)–and borrowing and investments related to the carry-trade. With the opening of local stock markets to outsiders and generous incentives for FDI, an ever-greater part of capital inflows has gone into equity investments. On the other hand, because of their stronger payment positions, the need of DEEs for foreign-currency debt has diminished significantly, and the debt of these countries held by nonresidents is increasingly dominated in domestic currencies. Likewise, there has been a rapid increase in local-currency debt issued by government and corporate borrowers in emerging economies, from some $92 billion in 2003 to $437 billion in 2010, and a growing number of DEEs have opened their domestic debt markets to non-residents (Curran, 2011). Although there are no comprehensive statistics on the extent to which such debt is held by non-residents, available evidence suggests that debt-related flows "have become increasingly dominated by local market instruments, with creditors eager to take both currency and interest-rate risks." (IIF, October 2008: 6). Similarly, the IMF GFSR (June 2011: 3) notes that emerging-market corporate bonds are now increasingly seen as substitutes for US corporate high-yield bonds. As a result, the share of direct plus portfolio investment in total inflows to DEEs has been rising—in the pre-Lehman boom, these two accounted for about 70 percent of total inflows, compared to some 40 percent during the 1990s.

The bigger role of portfolio inflows is mirrored in the presence of more non-residents in the securities markets of DEEs. In some Latin American and European emerging economies, the share of non-residents in actively traded shares has come to exceed that of residents. Even many Asian economies with stricter conditions of access have seen rapid growth of the foreign presence in their stock markets (Balakrishnan *et al*., 2009, and McCauley, 2008, BIS, 2009). The share of non-residents in long-term local-currency-denominated bonds also climbed substantially in several Southeast Asian countries (World Bank, 2009).

These changes in the composition of capital flows have important consequences for the nature of the vulnerability of DEEs to external financial shocks and boom-bust cycles in capital flows. Instability generally results from macroeconomic imbalances and financial fragility built up during the surge in capital inflows in three main areas.

**First,** surges can produce or contribute to unsustainable exchange rates and current-account deficits. This effect is largely independent of the composition of capital inflows. A surge in FDI could have the same effect on the exchange rate, exports, and imports, as would a surge in portfolio investment or external borrowing. If such imbalances are allowed to develop, sudden stops and reversals could result in currency and balance-of-payments crises, particularly when external liabilities are short-term and denominated in foreign currencies, unless there are adequate reserves or unlimited access to international liquidity.

**Second,** extensive dollarization of liabilities and currency and maturity mismatches on balance sheets create financial fragility. This would be the case particularly when borrowing is in foreign currency and short-term. When capital flows dry up and the currency dives, mismatches could result in increased debt-servicing troubles and defaults.

**Finally,** capital surges can produce credit and asset bubbles. Credit expansion can occur when banks borrow abroad to fund domestic lending, currency-market interventions are not fully sterilized, or inflows lower long-term interest rates. The link between capital flows and asset markets becomes more influential with a greater presence of foreigners in domestic markets. Asset bubbles feed on portfolio investments as well as many types of capital inflows that are traditionally included in FDI, such as acquisitions of existing firms and real-estate investments.[7] Reversal of capital flows could then leave behind a credit crunch and asset deflation, with severe macroeconomic consequences.

The rising proportion of the external liabilities of DEEs that is denominated in their own currencies is something of a game-changer where non-resident lenders are concerned. To be sure, it transfers the currency and interest-rate risks to international lenders and investors, and reduces currency mismatches on balance sheets, which wreaked havoc in past DEE crises. However, it also reinforces the influence of capital flows on domestic securities markets and heightens the risk of exposure to international contagion, as seen during the Lehman mess. Amplifying this exposure even further is the spreading tendency of DEE residents to diversify their portfolios by investing abroad. Indeed, stock prices in DEEs are now almost in lockstep with net private capital flows, and a correlation between global and emerging-market equity returns has become more visible in recent years as the two-way traffic in capital flows between emerging and mature economies has burgeoned (IIF, October 2007; BIS, 2007).

In previous booms, it was the debtors who were highly leveraged, taking on both currency and interest-rate risks by borrowing short-term in foreign currencies. Now international lenders and investors have become increasingly leveraged by borrowing in their own currencies and investing in the local-currency instruments of DEEs. Thus, tightened credit conditions in AEs can lead to a rapid withdrawal by highly leveraged investors from DEEs, causing asset and currency crashes, as observed during the Lehman meltdown. Furthermore, with a heavier foreign presence, domestic bond markets may no longer be relied on as a "spare tire" for local private and public borrowers, providing an escape route when access to external funding is interrupted (Jara, Moreno, and Tovar, 2009). Still, on the basis of past experience, many DEEs believe that running the risk of instability by over-borrowing in local currency is considerably less serious than having exposure to liability dollarization.

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7 The distinction between direct and portfolio investment is quite arbitrary, and because of the way FDI is defined and recorded, it is not possible to identify the extent to which FDI really consists of investment in productive assets rather than in equities or debt instruments. For a discussion, see UNCTAD TDR (1999), and for the definition and coverage of FDI, see IMF (2010).

## 5. The impact of recent capital flows on DEEs

In previous boom-bust cycles, surges in capital flows generally created imbalances in all three areas noted above and in almost all major recipient countries. Consequently, when the flows suddenly stopped or reversed themselves, local currencies plunged, widespread debt-servicing pains and outright defaults became more common, and credit crunches and asset deflations began to crop up. The surge of recent years, on the other hand, did not always foster such imbalances in the major DEEs. The reason was that the nature and composition of capital flows had changed, as had the policy response. As a result, the impact on DEEs of the post-Lehman reversal of capital inflows was much less uniform than in the past (BIS, 2010a).

### 5.1 Build-up of fragility and imbalances during the pre-Lehman boom

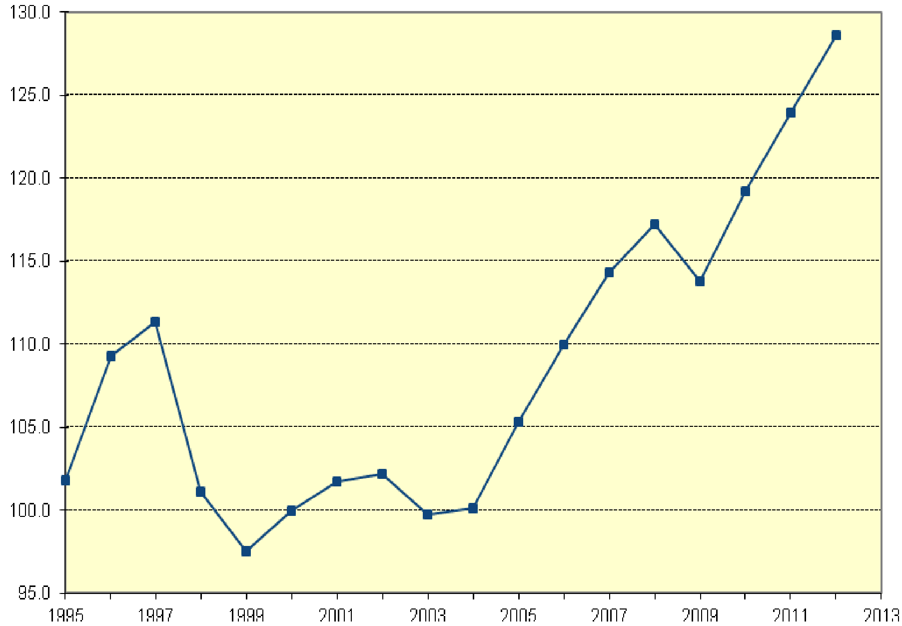
Generalized boom-bust cycles in capital flows are almost fully mirrored by movements of exchange rates of DEEs: rapid appreciation of the currency during surges followed by sudden wilting in the wake of the pull-out of capital. As seen in Figure 5, this pattern was clearly visible during the mid-1990s for the 30 top emerging economies. The 2000s also saw a similar boom-bust cycle in the currencies of major DEEs, except that currency-value rises during the pre-Lehman boom were much faster than those in the 1990s, and the downturn during 2008-09 was more moderate and shorter.

While all the major emerging economies faced upward pressures on their currencies during the pre-Lehman boom, the extent of appreciation varied significantly, depending on the policy response. Drawing on the lessons from the 1997 crisis, most East Asian countries avoided unacceptable upward movement of their monetary units, maintained healthy current-account positions, and accumulated large stocks of international reserves as self-insurance by intervening in the currency market. Conversely, several emerging economies in Latin America and CEE saw sizable appreciation of their currencies, even though some of the Latin Americans had also intervened in the foreign-exchange markets and added much to their international reserves.[8] Every single emerging economy in CEE ran a current-account deficit during 2002-07, with the average hovering around 6 percent of GDP. This was also true for Turkey and South Africa; in the former, capital inflows added to deficits by leading to a substantial rise in the lira. Brazil, too, experienced overvaluation

[8] See Akyüz (2010b) for Asia, and Jara, Moreno, and Tovar (2009) for Latin America. See also UNCTAD TDR (2007), IIF (October 2007), and BIS (2007).

of its currency but managed to maintain its current account broadly in balance, thanks to booming commodity prices.[9]

**Figure 5. Emerging Markets Real Effective Exchange Rate (2005=100)**




**Source**: IIF (June 2011). 2012 and 2013 are projections.

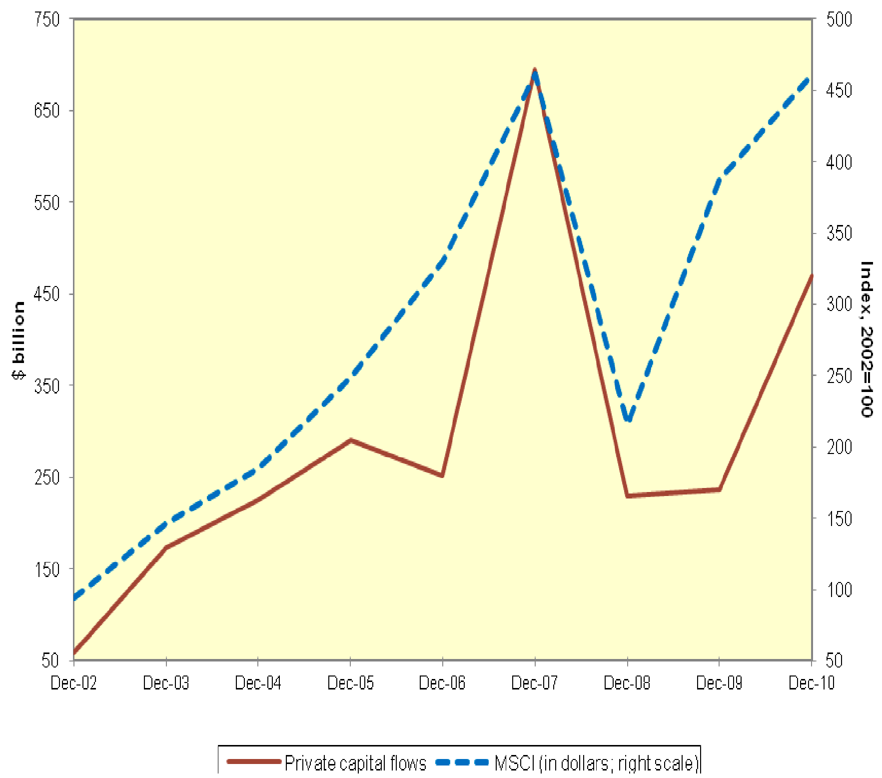
Public borrowing in foreign currencies slowed almost everywhere, but there was a rush into private borrowing in several DEEs. In Asia, private financial and non-financial corporations in India, Korea, and the Philippines are known to have engaged in "carry-trade-style" short-term external borrowing, particularly through low-interest yen-linked loans (ESCAP, 2010; BIS, 2009; and Lee, 2010). In CEE, banks borrowed abroad in both short-term and long-term markets in order to fund their domestic lending (IIF, January 2009). Foreign banks in particular carried considerable currency mismatches on their balance sheets (BIS, 2010a). In Latin America, the degree of currency and maturity mismatches in the corporate sector fell compared to the 1990s, but there was still considerable off-balance-sheet foreign-exchange exposure

9 It is estimated, for Latin America as a whole, that terms-of-trade gains after 2002 improved the current-account balance by some 4 percent of GDP; see Jara and Tovar (2008).

through derivative positions, notably in Mexico and Brazil (Jara, Moreno, and Tovar, 2009; BIS, 2009).

During the pre-Lehman surge, domestic equity markets in major DEEs also raced upward (Figure 6). Rapid domestic credit expansion and low interest rates were mostly responsible for this. As in mature economies, monetary policy was expansionary, and interest rates were low by historical standards. However, the flood of capital from abroad also contributed to the rapid expansion of liquidity, since government intervention operations in their foreign-exchange markets could not always be fully sterilized.

**Figure 6. Net Private Capital Flows and Equity Market Index in DEEs**




**Source**: IMF, WEO, 2010 database and MSCI.

Equity prices in most emerging economies shot up between 2002 and 2007, both in dollar and local-currency terms. The performance was particularly robust in Brazil, China, India, and Turkey. That such increases more likely reflected speculative bubbles than improvements in underlying fundamentals was cautioned by the IIF (March 2005: 4): “There is a risk that the pickup in flows into some emerging-market assets has pushed valuations to levels that are not commensurate with underlying fundamentals.” Some Asian countries, notably China and India, also experienced property bubbles that were fueled by cheap money, speculation, and increased foreign demand for commercial real estate (Akyüz, 2010a).

## 5.2 The Lehman collapse and the reversal of capital flows

With the global flight of money to safety in autumn 2008, there was a generalized downward pressure on the currencies of almost all DEEs (Kohler, 2010). In the end, most saw declines, even those with strong payments and reserve positions. Among the major DEEs, India, Korea, Turkey, and South Africa suffered heavy selling pressures and sinking exchange rates. Brazil, Korea, Mexico, and Singapore established or bolstered bilateral swaps with the US Fed, and some DEEs, including Mexico and Colombia, sought access to the newly established Flexible Credit Line at the IMF. Fleeing capital and falling exports meant large reserve losses for India and Korea, while most countries finding themselves in the same predicament actually welcomed the weakening of their currencies and abstained from using their reserves to try to stabilize them.

Even worse, external adjustment proved highly deflationary for those whose current-account deficits were large, such as Turkey and several countries in CEE. Even though many of these were less dependent on exports for growth, and their trade was not as badly affected as East Asia’s had been, they endured contractions in GDP, and these were commensurate with the losses incurred during the crises of the 1990s and early 2000s. This negative growth could have been much greater had capital flows failed to recover quickly in 2009.

Equity markets in all the DEEs underwent heavy selling pressures following the Lehman implosion. Over 80 percent of the gains enjoyed by these markets during the earlier boom were lost in a matter of months. The property bubble in China came to an end in December 2008, with house prices falling for the first time in many years. This forced the Chinese authorities to take measures to prop up the property market. Other governments came to the rescue of their highly exposed private sectors, which had to repay maturing debt at a time when their access to international markets was practically nonexistent. Central banks in Brazil, Mexico, and Russia dipped into their reserves to supply liquidity so that local businesses could keep current on their payments to their international creditors (IIF, June 2009; BIS, 2009). This interlude of currencies heading downward caused comparatively little damage to corporate financial positions, unlike the earlier Asian Crisis, because of government support, limited exposure to currency risks, and, above all, the short duration of the lull in capital inflows and the nervousness in the foreign-exchange markets.

## 5.3 Recovery and renewed surge in capital inflows

With the return of capital flows in early 2009, the downward pressures on currencies were soon reversed, and most of them have since seen momentum carry them upward. Several economies with relatively large and growing current-account deficits, notably Brazil, India, Turkey, and South Africa, have had their currencies appreciate faster than East Asian surplus countries–China, Korea, Malaysia, Thailand, the Philippines, and Singapore.[10] Turkey and South Africa, which had had large and widening current-account deficits in the high-spirited pre-Lehman days but saw these narrow significantly during the Lehman collapse, have been witnessing widening deficits and appreciating currencies again. This is also true of Brazil and India, which had managed to maintain broadly balanced current-account positions before the outbreak of the global crisis.

Equity markets bounded back starting in 2009, and the MSCI index for emerging-market equities in local currency leapt by about 60 percent in that year and another 12 percent in 2010. Increases were even faster in dollar terms because of the higher value of local currencies—by 75 percent and 16 percent, respectively. However, with the downside risks of weak or no growth and instability in AEs, and rising inflation in certain DEEs, markets displayed renewed volatility through 2011.

In a number of DEEs, the continued flood of capital has been adding to credit expansion, posing the risk of overheating the economy and guaranteeing a hard landing later–something now recognized by the IMF (2011). In most major emerging economies, including Brazil, China, India, and Turkey, private-sector credit has been rising faster than nominal GDP. China has introduced several measures to tame commodity and housing prices. In Brazil, domestic credit expansion and debt accumulation have become so fast-moving that there are suggestions that the country may be heading for its own subprime crisis (Marshall, 2011). The Central Bank of Brazil tightened

[10] While currency appreciation in surplus Asian countries, notably China, could be seen as a welcome development for its role in reducing global imbalances, it is not clear whether currency movements alone could overcome the problem of underconsumption in China and overconsumption in the US. For a discussion, see Akyüz (2011).

monetary policy and raised interest rates in January 2011 in order to bring inflation closer to its target. The Indian Reserve Bank has also taken similar action. In Turkey, there has been not only a worrisome expansion of credit but also growing current-account deficits, expected to reach double-digit figures as a percentage of GDP. The Central Bank cut the policy rate in August 2011 in an effort to prevent a significant fall-off of growth after a record-breaking first quarter and to engineer an orderly external adjustment.

## 6. What is next?

The build-up of macroeconomic imbalances and financial fragility in several DEEs that had started with the subprime bubble but was interrupted by the Lehman panic has thus resumed with greater force since early 2009. The extent to which the ongoing wave of capital movements presages instability and another crisis depends very much on how long it will last and how it is managed by the recipient countries. Experience shows that it is almost impossible to predict the timing of stops and reversals in money flows, given that the events that set them off lie in the future. This is true even when the conditions that drive the surge in capital flows are seen to be unsustainable by most observers.

The most recent projections by the IMF WEO (April 2011) and IIF (June 2011) are for further increases in capital inflows to DEEs during 2011-12. How far the boom will continue depends largely on what happens to the attractive attributes of DEES that are now drawing international investors and lenders, including higher interest rates, reduced risk margins, and faster economic growth. The demand for external borrowing remains subdued in many DEEs, and FDI inflows may not return to the levels of the pre-Lehman boom years to take up the slack. Likewise, the recent tightening of monetary policy in several major DEEs in an attempt to tamp down inflation may moderate portfolio investments. Nevertheless, no major let-up in overall capital flows to DEEs is expected as long as the risk-return profile and growth differentials continue to favor them.

A steady return to “normalcy” in the US and Europe, featuring economic growth, an easing of unemployment, and gradual monetary and fiscal tightening, could no doubt stabilize capital inflows to DEEs without the painful accompaniment of sudden stops and reversals. However, such a process is not in sight. The US economy is now marked by deflation-like conditions, and, in order to sustain recovery and accelerate growth, the Fed wants to encourage inflation in both product and asset markets through aggressive monetary easing (Bernanke, 2010). However, so far, there has not been much evidence of this happening. Rather, US monetary expansion is boosting the quickening pace in commodity, credit, and asset markets in major DEEs, many of which are already risking overheating.

If the easy-money policy in the US, strong growth in the DEEs, and political unrest in some oil exporters continue to support the boom in commodity markets, the Fed could eventually face inflation, but not the kind it wants. In such a case, the onrush of funds into DEEs could be ended in much the same way as the first post-war one was in the early 1980s–that is, by an abrupt shift of the US Fed to a contractionary monetary policy even before the economy fully recovers. However, a wage-price spiral is much less likely to emerge today than in the 1970s: it is a new world for labor, and its bargaining power is now only a shadow of its former self.

As already noted, the continuing high performance of commodity prices depends very much on strong growth in major commodity importers, notably China. Thus, a key question is if China can maintain vigorous growth in the face of sluggish markets in the AEs. As argued elsewhere (Akyüz, 2011), this calls for an expansion of domestic consumption, which, in turn, depends on a rapid increase in the share of household income in GDP. During 2008-09, China reacted to the fall-off in exports not so much with a consumption-centered stimulus package, but with a massive investment program. What followed was considerable excess capacity, not only in property and infrastructure but also in industries like steel, financed by rapid credit expansion and debt accumulation by local governments. As the effects of this package fade out, growth could decelerate to a rate far below the double-digit levels achieved before the global crisis hit, since exports cannot be expected to grow at the kind of rates–some 25 percent annually–seen before. If the US and EU enter a second dip due to mounting debts and growing pressures for spending cuts, China will be in much too weak a position to act aggressively to stoke rapid growth.

Moreover, a continued commodity boom could destabilize China far more than the US. Indeed, higher commodity prices appear to have worsened inflation in China more than in any other major economy. Chinese consumer prices have been rising rapidly, peaking at a rate of 6.5 percent in July 2011, the highest in more than three years. Interest rates and banks' reserve requirements have therefore been raised several times since October 2010 in an effort to bring inflation under control.

Thus, the combination of the slowdown in exports and monetary tightening designed to control inflation is likely to reduce growth in China to below pre-crisis levels. The decline will be even more severe if asset and credit bubbles come to an abrupt end, and non-performing loans dominate the banking system. Such a scenario in China can, in turn, lead to a rapid turnaround in commodity prices and capital flows to DEEs, notably to commodity-rich countries.

A scenario along the latter lines was recently presented by Oliver Wyman (2011). According to this, the continued boom in commodity prices could cause rampant inflation in China. This could lead to a real appreciation of its currency, as long advocated by the US, but also slow its growth by triggering tighter monetary policy. A major slowdown of growth in China would reduce demand for commodities, both for real use and as hedges against inflation. This, together with the global oversupply built up during the boom, would bring down commodity prices, and the downturn would be aggravated by an exit of large sums of money from commodity futures. This would make investments in commodity-rich countries unviable and loans non-performing. Then risk aversion and a capital flight to safety, meaning out of and away from DEES, would be the order of the day.

Renewed financial turmoil in AEs can also destabilize DEEs by stirring up sentiment toward a flight to safety and bringing on reversal of capital flows and asset price declines. Despite the attention given to rising public debt in the US and the political battle over the debt limit and spending cutbacks, a sovereign debt crisis and sharp increases in rates on US government debt are highly unlikely. Indeed, even after the S&P downgrade, US bond rates have remained very low. The real Achilles' heel of global finance is now Europe, where default looms as an all-too-real possibility in the highly indebted periphery. As long as the EC and the ECB continue to pretend that this is mainly a liquidity crisis, the region will be mired in extreme instability and, eventually, messy defaults, with the attendant consequences for capital flows and financial stability in DEEs.

The flow of capital can also be brought to an end by a balance-of-payments crisis in a major emerging economy. An overnight about-face in the willingness of international creditors and lenders to maintain exposure to one such country with a mounting current-account deficit could set off a reversal of capital flows, leading to a fire sale throughout the DEEs, as in East Asia in the 1990s. Reversals can also happen as a result of a domestic banking and debt crisis brought about by credit, asset, and investment bubbles.

In all likelihood, the end of the current boom in capital flows will be disorderly and coincide with a reversal of the upswing in commodity prices. Those countries that have been enjoying the twin benefits of global liquidity expansion–that is, the boom in commodity prices and capital inflows–are especially vulnerable. Most of these are in Latin America and Africa, and some of them, e.g., Brazil and South Africa, have been running relatively large current-account deficits despite the commodity bonanza. These countries could thus be hit twice, as happened to Mexico in the early 1980s, by falling capital inflows and commodity prices. The Southeast Asian countries and FEs, which have also been enjoying the run-up in commodity prices, are much less vulnerable because many have been running current-account surpluses, preventing inordinate currency appreciation, and accumulating large stocks of international reserves.

Exporters of manufactures and services that have also been running growing current-account deficits, such as India and Turkey, can benefit from a downturn in commodity prices, notably in oil, as they did during the Lehman bankruptcy and its aftermath, but they could still be laid low by declines in exports and a reversal of capital flows. They could encounter sudden downswings in the value of their currencies, asset price declines, and insolvency of companies in the private sector that suddenly find themselves on the wrong side of interest-rate and exchange-rate arrangements. Turkey, with double-digit current-account deficits, is particularly vulnerable to global financial stresses and a reversal of capital inflows.

The exporters of manufactures with large current-account surpluses and well-stocked international reserves, such as China and a few smaller East Asian economies, are less vulnerable to a new crisis, but they would not totally escape the shock waves. For these countries, a slowdown in capital flows and a softening of commodity prices brought about by exogenous factors could be benign, with a favorable impact on their balance of payments, exchange rates, and price stability. However, a rapid withdrawal of capital and reduced risk appetite on the part of the international investor community could set the stage for a painful asset-market correction and bring down growth considerably.

## 7. Managing capital inflows

### 7.1 Currency market interventions

The build-up of external imbalances and financial fragility in several major emerging economies during the current surge in capital flows, including currency appreciation, widening current-account deficits, and credit and asset bubbles, suggests that efforts to control and manage the surge have not always been very successful. A common response has been government intervention in currency markets. This has been widely practiced in East Asia, where various shades of managed floating have been followed since the 1997 crisis and, in a few major cases, elsewhere. In Latin America, however, with some notable exceptions (e.g., Argentina), such interventions have seldom been practiced; instead, most have adopted inflation-targeting, leaving the currency largely to the free market. Since Central Bank purchases of foreign exchange imply expansion of the monetary base, interventions are often accompanied by efforts to sterilize their side effects on domestic credit conditions. These efforts may take the form of issuing interest-bearing government (or Central Bank) paper, creating fiscal surpluses, and raising reserve and liquidity requirements for the banking system.

Foreign-exchange market interventions in DEEs are relatively successful in stabilizing nominal exchange rates and preventing large-scale appreciation of the currency.[11] The consequent piling up of international reserves also provides self-insurance against sudden stops and reversals in capital flows. However, interventions are not of much use against other adverse consequences of an excess of capital flows. First, full sterilization is often difficult to achieve, and credit expansion cannot always be prevented. This may lead to price increases in both product and asset markets, thereby forcing up the real exchange rate. Second, interventions and reserve accumulation do not prevent currency and maturity mismatches on private balance sheets; they can only provide public insurance for private risks. Furthermore, they are costly both to the government and the nation as a whole because income earned on international reserves is typically much lower than the cost of foreign capital and the interest on government debt.[12] Sterilization by issuing government paper can also raise this cost by pushing up interest rates when inflows are largely into equity investments. In any case, accumulating reserves from unsustainable capital inflows has little economic rationale–in effect, this would mean that the foreign money entering the economy is not used for any productive purpose but kept in low-yielding foreign assets as an insurance against its exit!

## 7.2 Liberalizing outflows

Another response to a surge in capital inflows is to ease restrictions on outward investment by residents. This was practiced in several Asian countries during the pre-Lehman free-for-all, and it has again been introduced by some amid the renewed stream of money unleashed by the quantitative easing in certain AEs. Capital-account opening for resident outflows is clearly an alternative to sterilized intervention and has the advantage of avoiding carry-

[11] For a discussion of the issues reviewed in this paragraph and the Asian experience, see Akyüz (2009 and 2010a); for Latin America, see Jara and Tovar (2008).

[12] The annual cost of holding capital inflows in reserves was estimated to be around $100 billion for DEEs as a whole in 2007; see Akyüz (2008).

ing costs for reserves. Private direct and portfolio investments abroad could also bring greater benefits than international reserves.

However, like interventions, such a policy cannot prevent currency and maturity mismatches on companies' balance sheets or reduce vulnerability to shocks arising from the greater presence of foreigners in domestic asset markets. Furthermore, liberalization of outward investment introduced as a counter-cyclical measure may not be easily rolled back when conditions change. Unlike official reserves, private assets abroad do not provide self-insurance for the economy against payment shortfalls and currency instability. Money going out in good times is not necessarily repatriated when needed. Rather, outflows may continue with full force and even pick up speed when inflows are reversed. In the emerging economies of the CIS, for instance, net private inflows fell by $120 billion between 2007 and 2008, while net private outflows rose by $100 billion (IMF WEO, October 2010).

## 7.3 Capital controls

Given the limits of interventions and liberalization of outward investment in dealing with some of the most damaging effects of money surges, capital controls remain a viable alternative. In principle, they can be applied either by source countries on outflows or by recipient countries on inflows or by both. While much of the recent debate has focused on controls over inflows into recipient countries, some have also called on the US government to manage speculative outflows for its own benefit (Griffith-Jones and Gallagher, 2011).

The US indeed imposed an interest-equalization tax in the 1960s to deter capital flight, but the conditions then were quite different. At the time, the principle of the gold-convertibility of the dollar (at a fixed rate) meant that outflows would deplete US gold reserves without bringing the benefits of a weaker dollar. This is certainly not the case today, when outflows from the US effectively put upward pressure on the currencies of its main trading partners, tantamount to a competitive devaluation of the dollar. On the other hand, it is not clear if control over outflows would lead to faster private spending in the US, since there are impediments to credit expansion on both the demand and supply sides. More importantly, the carry-trade brings considerable advantages to US financial institutions, helping them consolidate their balance sheets, which were gutted by the subprime debacle. Hence, the burden of control falls on the recipient countries.

A myth was promoted after the East Asian crisis to the effect that free capital movements should not cause concern if accompanied by effective prudential regulations. In the wake of the subprime crisis, it is now evident that conventional regulations cannot secure the stability of the banking system, let alone the stability of capital flows. Still, since international capital flows are partly intermediated by domestic banks, if prudential regulations were appropriately extended to transactions involving foreign assets and liabilities, it would go a long way toward containing the destabilizing infections thrown off by capital rocketing around the world. Specifically, such beefed-up regulations would address the fundamental causes of fragility: maturity mismatches, currency mismatches, and exchange-rate-related credit risks (Akyüz, 2008).

However, even that would not be enough to guarantee stability, since even a higher proportion of capital flows occurs outside the banking system. Almost 70 percent of the total cumulative inflows to DEEs during 2002-07 were in the form of direct and portfolio investments. Thus, measures designed to control the entry of non-residents into equity and bond markets and manage the external borrowing of non-banks would also be needed.

Capital controls recently introduced by DEEs generally consist of market-friendly taxes on selected inward investments rather than direct and comprehensive restrictions.[13] These are now conveniently called macroprudential, with the growing acceptance of the concept by the mainstream.[14] FDI, among others, has often been exempted from the taxes, even though a surge in direct investment could have the same effect on the currency as other types of inflows. Besides, many inflows classified as FDI do not create new productive assets and are not distinguishable from portfolio investment. There are ways of slowing FDI without closing the doors to foreign investors in productive assets–e.g., through licensing procedures.

Measures recently adopted include taxes on portfolio purchases of fixed-income instruments and equities (Brazil), on foreigners' acquisitions of government bonds and banks' foreign-exchange borrowing (Korea), or on interest income and capital gains earned by foreigners (Thailand and Korea). These taxes are quite low compared to the profit opportunities presented by interest-rate differentials and capital gains from currency appreciation and hikes in

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13 For a summary, see World Bank (2011a) and IIF (January 2011). For the Asian experience, see Nomura (2010). Some countries already had measures of control in place before the recent surge in capital flows. India, for instance, had ceilings on foreign purchases of sovereign and corporate debt and a withholding tax (Subbarao, 2010). However, this has not been enough to stem the upward pressure on its currency since mid-2009.

14 Strictly speaking, macroprudential policy refers to regulations applied to banks with a view to preventing practices that may threaten the stability of the financial system and the economy as a whole, as opposed to microprudential policy, which is designed to secure the financial health of individual institutions. For the origin and the current use of the concept, see Clement (2010) and Galati and Moessner (2011).

share prices. When interest-rate differentials and rises in equity prices are in double-digit figures, and the currency is on an upward trend, a 4 percent tax on portfolio investment or a 20 percent tax on capital gains and interest income would not make much of a dent in arbitrage profits and windfalls.[15] Thus, it should not come as a surprise that the Brazilian entry tax is found to have had only a small impact on interest-rate arbitrage and to be ineffective in checking not only the overall volume of capital flows but also inflows into bonds.[16] It is often such half-hearted attempts that lend support to the orthodox contention that capital controls do not work.

Experience shows that when policies fail to manage capital flows, there is no limit to the damage that international finance can inflict on an economy. This is now recognized even by some of the keenest advocates of financial globalization as a key lesson from the subprime catastrophe:

> *"Looking back on the crisis, the United States, like some emerging-market nations during the 1990s, has learned that the interaction of strong capital inflows and weaknesses in the domestic financial system can produce unintended and devastating results. The appropriate response is … to improve private-sector financial practices and strengthen financial regulation, including macroprudential oversight. The ultimate objective should be to be able to manage even very large flows of domestic and international financial capital in ways that are both productive and conducive to financial stability."* (Bernanke, 2011: 24).

Likewise, the IMF also appears to be breaking away from its doctrinaire single-minded opposition to restrictions on capital flows, recognizing that for both macroeconomic and prudential reasons, there may be circumstances in which capital controls are a legitimate policy response to capital surges. However, while it is recognized that "controls seem to be quite effective in countries that maintain extensive systems of restrictions on most categories of flows," those with "largely open capital accounts" are not advised to go in that direction but to use restrictions as a last resort and on a temporary basis (Ostry *et al*., 2010: 5).

It is not, however, clear if the kind of approach advocated by the Fed and the IMF would protect DEEs against the risks posed by unstable capital flows. In all likelihood, macroprudential regulations would not be sufficient to contain the fragilities that capital flows could create in all three areas discussed above. Moreover, unlike the US, DEEs cannot adopt a policy of benign ne-

15 Indeed, return on emerging-market fixed-income securities in 2010 is reported to have ranged between 12 percent and 13 percent–see Curran (2011).

16 IMF GFSR (October 2010). Brazilian controls excluded not only FDI but also dollar borrowing by Brazilian banks and firms.

glect of their exchange rates nor ignore the consequences of unrestricted capital flows; they need to apply restrictions outside the banking system in order to limit external imbalances and head off fragility. Controls over both inflows and outflows should be part of the arsenal of public policy, used as and when necessary and in the areas and doses needed, rather than introduced as *ad hoc*, temporary measures, as advocated by the IMF. The instruments are well known, and many of them were widely used in AEs during the 1960s and 1970s (Swoboda, 1976).

## 8. Conclusions

At a time when the worst was generally thought to be over, DEEs have started to feel powerful destabilizing impulses from the AEs, notably the US, through capital flows sparked by their self-centered policy responses to the crisis. Bubbles have again been forming in credit, equity, and property markets, currencies are riding upward, and deficits are widening in several leading emerging economies. To contain the damage that would eventually be inflicted by their reversal, DEEs need to take much more determined action and introduce a comprehensive and effective system of controls.

Collectively, DEEs have been running a current-account surplus, and they do not need capital from AEs for external financing. In fact, they have been recycling their twin surpluses to AEs in the form of investments in reserve assets. However, a number of DEEs have been running structural deficits and are dependent on capital inflows to finance imports, investment, and economic growth. There is thus a need to establish, both at the regional and global level, reliable and stable mechanisms for South-South recycling from surplus to deficit countries without going through Wall Street or the City.

Finally, the current headaches produced by unstable capital flows and commodity prices show once again that the international monetary and financial system needs urgent reforms. Ways and means should be found to prevent major reserve-issuing countries from pursuing beggar-thy-neighbor monetary and exchange-rate policies and creating destabilizing impulses for others. The international reserve system should be reformed so that global monetary and financial stability is not left to the whims of the self-seeking policies of a single country enjoying an “exorbitant privilege.” The question of regulation of commodity speculation should also be placed squarely on the table in order to put a stop to gambling with the livelihoods of the poorest segment of the world population and to promote food and energy security.

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