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## Managing Financial Instability in Emerging Markets: A Keynesian Perspective

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## **TURKISH ECONOMIC ASSOCIATION**

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### **MANAGING FINANCIAL INSTABILITY IN EMERGING MARKETS : A KEYNESIAN PERSPECTIVE**

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## MANAGING FINANCIAL INSTABILITY IN EMERGING MARKETS: A KEYNESIAN PERSPECTIVE

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*Geneva, February 2008*

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### Abstract

The Keynesian analysis of financial instability as developed by Hyman Minsky provides considerable insights into understanding the nature and dynamics of boom-bust cycles driven by international capital flows in emerging markets. Its main policy conclusion that financial control rather than macroeconomic policy holds the key to financial stability is equally valid. There is, however, need to develop a new approach to financial control and place greater emphasis on managing capital inflows than has hitherto been the case.

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\* Former Director, Division on Globalization and Development Strategies, UNCTAD. An earlier version of this paper was presented in a conference “70 Years after the General Theory”, organized by the Turkish Social Science Association, The Middle East Technical University, Ankara. 1-2 December, 2006.

## **MANAGING FINANCIAL INSTABILITY IN EMERGING MARKETS: A KEYNESIAN PERSPECTIVE**

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### **1. Introduction**

With widespread deregulation and rapid growth of financial wealth, business cycles in both advanced economies and emerging markets are increasingly dominated by the financial system. It is true that there is not always a one-to-one correspondence between real and financial cycles, and recessions do not always go in tandem with financial crises. Nevertheless, the response of the financial system to impulses emanating from the real economy has become increasingly pro-cyclical, and this tends to reinforce expansionary and contractionary forces and amplify swings in investment, output and employment, creating new dilemmas for macroeconomic policy.

With rapid liberalization of the capital account, international capital flows have become the driving force behind financial cycles in developing countries, capable of producing unsustainable expansions followed by financial crises and recessions. While country-specific (pull) and global (push) factors can both play important roles in determining their direction, size and nature, evidence shows that the most damaging episodes of financial crises in emerging markets are those associated with boom-bust cycles in capital flows driven by special and temporary global factors beyond the control of the recipient countries.<sup>1</sup>

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\* Former Director, Division on Globalization and Development Strategies, UNCTAD. An earlier version of this paper was presented in a conference “70 Years after the General Theory”, organized by the Turkish Social Science Association, The Middle East Technical University, Ankara. 1-2 December, 2006.

<sup>1</sup> The independent role of global factors is also recognized by the World Bank (2003: 26): “dynamics of net capital inflows and the changes of official reserves over the cycle do indeed indicate that the push factor is more important for middle-income countries, while the pull factor dominates in high-income countries.” On post-war cycles in capital flows see UNCTAD TDR (2003: chap. 2) and for more recent episodes IMF (2007b: chap. 3).

Indeed, since the early 1990s currency and balance of payments crises have occurred under varying macroeconomic and financial conditions in Latin America, East Asia and elsewhere. They were seen not only in countries with large and widening current account deficits (e.g., Mexico and Thailand), but also where deficits were relatively small and presumed sustainable (Indonesia and Russia). A significant currency appreciation is often a feature of countries experiencing currency turmoil (Mexico, Russia, Brazil and Turkey) but this has not always been the case – appreciations in most East Asian countries experiencing speculative attacks during 1997 were moderate or negligible. In some cases crises were associated with large budget deficits, as in Russia, Turkey and Brazil, but in others (Mexico and East Asia) the budget was either balanced or in surplus. Crises occurred not only where capital flows supported a boom in private consumption, as in Latin America, but also in private investment, as in East Asia. Again, in some episodes of crises external liabilities were largely public (Russia and Brazil) while in others they were private (East Asia). Finally, most countries hit by balance of payments and financial crises are said to have been lacking effective regulation and supervision of the financial system, but Argentina could not avoid a payments crisis and default despite having one of the best systems of prudential regulations in the developing world and a financial system dominated by foreign banks.

Recurrent financial turmoil in emerging markets under varying conditions has raised serious questions about the mainstream economic thinking which has traditionally explained currency and balance of payments crises with macroeconomic policy inconsistency, notably lack of fiscal and monetary discipline, and regarded price stability as both necessary and sufficient for financial stability.<sup>2</sup> In reality, in most countries financial boom-bust cycles, asset-price and exchange rate gyrations, and credit surges and crunches have all occurred under conditions of low and stable inflation. In more extreme cases, as in Latin America, where price instability has traditionally been regarded as structural and chronic, single digit and stable inflation rates have been attained at the expense of increased financial fragility and instability through exchange-rate-based stabilization programmes relying on short-term, unstable

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<sup>2</sup> On the view that financial stability depends on price stability see Schwartz (1995) and Bordo and Wheelock (1998).

capital inflows.<sup>3</sup> The failure of the IMF to diagnose the nature of these crises and distinguish them from traditional payments difficulties caused by domestic demand expansion and inflation led to serious errors in policy response, notably in East Asia where pro-cyclical monetary and fiscal tightening served to deepen the economic contraction caused by the reversal of capital flows.

There has been a proliferation of *ex post* hypotheses and *ad hoc* models designed to explain the causes and dynamics of these crises, incorporating various features of financial markets including herd behaviour, collective action problem, moral hazard, asymmetric information and contagion. While bringing some valuable insights into cumulative financial processes, none of these could provide a fully fledged macrofinancial theory of instability integrating impulses emanating from both real and financial sectors. With its emphasis on such interactions, the Keynesian analysis of financial instability has thus emerged as a strong contestant, particularly as events have increasingly reaffirmed its fundamental proposition that the systemic problems facing modern market economies are unemployment and financial instability, rather than price instability.

This paper examines the extent to which the Keynesian thinking could help understand the causes and dynamics of crises in emerging markets and provide policy prescriptions for managing financial cycles without sacrificing employment and growth. It is concluded that at the analytical level the endogenous unstable dynamics analyzed by post Keynesians, notably Hyman Minsky, goes a long way in providing a powerful framework for explaining the boom-bust cycles driven by international capital flows in emerging markets. Its main policy conclusion that financial control rather than macroeconomic policy holds the key to financial stability is equally valid for managing capital flows. There is, however, a need to develop new instruments for stabilization, placing greater emphasis on countercyclical financial regulations and control than has hitherto been the case.

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<sup>3</sup> See UNCTAD (TDR 2003; chap. VI). See also Borio and Lowe (2002) on the emergence of financial imbalances and instability in a low inflation environment.

## 2. The Keynesian instability hypothesis and financial cycles

Keynes's analysis of financial instability in the *General Theory* is all too familiar, coloured by several metaphors such as Beauty Contest, Musical Chairs and the Game of Snap. Nevertheless, in the *General Theory* Keynes was not very much occupied with the causes of financial instability but, rather, its effects on employment and income. Nor did he spend much time on examining the behaviour of investment, income and employment over the entire business cycle concentrating, instead, on underinvestment and unemployment and what to do about them. Even though he insisted that his was a theory of fluctuations in production and employment originating from financial markets and referred repeatedly to cycles, it remains true that the *General Theory* did not develop a fully fledged analysis of boom-bust cycles of the kind that pervades financial markets today. This we owe to Hyman Minsky who analyzed and advanced financial instability as an intrinsic feature of market economies, following in the footsteps of Irwin Fisher and Keynes – a hypothesis which he called “an interpretation of the substance of Keynes's ‘General Theory’.”<sup>4</sup>

The essence of the financial instability hypothesis is the procyclical response of financial markets to impulses emanating from the real economy. This not only amplifies swings in investment, output and employment, but also generates endogenous fragility wherein periods of deep recessions associated with financial crises are the outcomes of financial excesses in the preceding booms. The procyclical effects of finance on real economic activity derive mainly from procyclical risk assessments by lenders and investors: namely, risks are underestimated at times of expansion and overestimated during contractions.

Minsky (1977 and 1986; chap. 8) explains this with the proposition that stability (tranquillity), including that of an expansion is, destabilizing since it increases the confidence, reduces the value placed on liquidity and raises the acceptable debt-to-equity ratios. Increased optimism and sense of security generated by an economic expansion often results in declines in risk spreads and provisions, and

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<sup>4</sup> Minsky (1992: 1). For Minsky's financial instability hypothesis, including its historical and intellectual background see Papadimitriou and Wray (1998), De Antonio (2006) and Kregel (2007); and for its relation to Irwin Fisher's debt deflation theory of the Great Depression see Davis (1992).

improves credit ratings.<sup>5</sup> Given the herd behaviour intrinsic in modern financial markets and “mark-to-market” practices in the valuation of assets, these tend to produce a cumulative process of credit expansion, asset-price bubbles and over-indebtedness which, in turn, add to spending and growth. Asset prices at such times are driven not so much by improved prospects of income streams as expectations of further price increases, pushing price-earnings and price-to-rent ratios to unsustainable levels. Stock and property booms give rise to credit expansion by raising collateral values and reducing loan-loss provisions. Faster growth in lending, in turn, adds fuel to increases in the market valuation of assets, making investment even more attractive.

However, as balance sheets adopt smaller margins of safety, the system develops endogenous fragility, and financing positions are increasingly translated from hedge to speculative and, eventually, to Ponzi finance.<sup>6</sup> With a cyclical downturn in economic activity and/or increased cost of borrowing, incomes on assets acquired can no longer service the debt incurred. Increased loan delinquency leads to a widening of risk spreads and falling asset prices and collateral values, producing a credit crunch. As risks are overestimated even the borrowers that normally qualify for credit become unable to borrow. This in turn puts further pressure on debtors, forcing them to liquidate assets, setting off a process of debt deflation and deepening the contraction in economic activity.<sup>7</sup>

Minsky’s financial instability hypothesis emphasizes the finance-investment link; it is built around “a financial theory of investment and an investment theory of the cycle” (Minsky 1978: 31). Indeed, financial bubbles almost always give rise to excessive investment in certain sectors which become unviable with the return to

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<sup>5</sup> For a survey of the evidence on procyclical behaviour of risk assessments, credit and asset prices see Borio, Furfine and Lowe (2001).

<sup>6</sup> The hedge position describes a situation where expected cash flows are more than sufficient to meet all debt commitments now as well as in the future. In speculative finance there are short-term liquidity problems, requiring debt rollover, but over the longer term debt is likely to be payable. In the case of Ponzi finance there is no such likelihood – see Minsky (1986: 206-07).

<sup>7</sup> For such episodes of financial and investment cycles in industrial and developing countries see UNCTAD TDR (1992, chap. II; 1998, chap. III; 2001, chap. I); and Davis (1992).



normal conditions. This is true not only for investment in areas susceptible to speculative influences such as residential and commercial property, but also in machinery and equipment, as in Japan in the late 1980s, in the United States during the dot-com bubble of the second half of the 1990s, and in East Asia in the run up to the 1997 crisis. However, with increased access of households to credits the Keynesian link between income and consumption has also become weaker. As a result, consumption booms produced by asset-price inflation and credit expansion can be a driving force of the aggregate demand, reducing household savings and raising indebtedness in the course of expansion. This was the case in Latin America in the 1990s where surges in capital inflows were generally associated with booms in consumption. Similarly, much of the stimulus to growth in the United States' economy since the mid-1990s came from increased consumer spending encouraged by speculative boom in equity and property markets, and greatly facilitated by mortgage equity withdrawal.<sup>8</sup>

In the traditional Keynesian analysis, no special attention is paid to the role that may be played by international capital flows and exchange rates in financial cycles. With rapid capital account liberalization, however, international capital flows have increasingly dominated economic cycles in emerging markets because of extensive dollarization and widespread currency and maturity mismatches in balance sheets. The effect of capital flows on domestic spending tends to be procyclical: surges in capital flows and currency appreciations lead to increases in net worth in balance sheets, encouraging spending. This is reinforced by the real-balance effect to the extent that nominal exchange rate stability or appreciation helps bring down inflation. Similarly, depreciations resulting from sudden stops and reversals add to contractionary impulses.<sup>9</sup>

The response of capital flows to domestic economic conditions is also procyclical. Economic expansion and booms in asset markets often attract foreign

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<sup>8</sup> On the wealth effect of the equity boom on private consumption and savings in the United States during the second half of the 1990s see Maki and Palumbo (2001).

<sup>9</sup> For evidence on the procyclical effects of capital flows on economic activity in emerging markets see Prasad *et al.* (2003).

investment and lending which can, in turn, appreciate the currency, add to asset price inflation, raise aggregate demand and growth, thereby making such inflows even more attractive. However, this process can also increase vulnerability to exchange rate swings by generating unsustainable trade deficits and currency and maturity mismatches in balance sheets. When capital flows stop as a result of rapid accumulation of risks, or a negative shock to growth, or a deterioration in global financial conditions with respect to liquidity and risk appetite, or contagion from a crisis in another developing country considered in the same asset class by markets, this process could be rapidly reversed resulting in sharp depreciations, credit crunch, debt deflation and economic contraction.

In a world of unstable capital flows, every financially open economy is vulnerable to sharp and unexpected swings in the external value of its currency. However, because of extensive dollarization and maturity mismatches in balance sheets and greater presence of foreigners in domestic asset markets, destabilizing feedbacks between domestic financial markets and capital flows are much stronger in developing than industrial countries. Exchange rate turbulence rarely spills over to domestic capital markets and the banking sector in industrial countries.<sup>10</sup> By contrast, in emerging markets major payments and currency crises are seldom contained without having a significant impact on domestic financial conditions and economic activity. This is a main reason why about 85 per cent of all defaults in developing countries during 1970-99 were linked with currency crises (Reinhart 2002). Credit rating agencies often fail to anticipate currency crises, but they are pretty good in predicting defaults – downgrades follow, rather than lead, currency crises. Similarly, major banking and/or asset-market crises in emerging markets often have adverse effects on capital flows and currency markets, but this is not always the case in industrial countries.<sup>11</sup>

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<sup>10</sup> A classical example is the 1992 EMS crisis which produced sharp drops in the lira and pound sterling without provoking financial crises in Italy and the United Kingdom. Similarly, at the end of the 1990s the dollar-yen rate was seen to change by over 20 per cent within a matter of a week. Such swings were comparable to those experienced in East Asia in 1997 but did not produce widespread defaults and bankruptcies. A notable exception is the 1987 stock market break which was closely linked to the instability of the dollar after the Plaza agreement.

<sup>11</sup> For instance despite persistent difficulties in the financial sector in Japan throughout the 1990s, the yen saw periods of strength as well as weakness. By contrast, the recent instability of the dollar is influenced, at least partly, by the subprime mortgage crisis.

### 3. Investment and jobs over the financial cycle

Episodes of exceptionally rapid economic expansion driven by financial bubbles can no doubt bring greater prosperity than expansions where finance plays a more passive and accommodative role. But they are also susceptible to producing deeper recessions or longer periods of stagnation. Moreover, sharp swings in asset prices, exchange rates and aggregate demand cause a fundamental uncertainty regarding the return on capital, shorten planning horizons and promote defensive and speculative strategies in investment which can, in turn, exert a significant adverse influence on the pace and pattern of capital accumulation and result in considerable waste of resources.<sup>12</sup>

Tracking the behaviour of investment and employment over the entire expansion-recession-recovery cycle dominated by the financial sector shows that losses of investment and employment incurred at times of recessions are not fully recovered when the economy turns up from its trough, giving rise to the phenomenon of jobless recovery.<sup>13</sup> In this respect there are considerable similarities between emerging markets and advanced industrial countries, notably the United States where business cycles have been increasingly shaped by financial sector developments over the past three decades.

In the United States the dot-com expansion in the 1990s was characterised by asset-price inflation, over-indebtedness and over-investment in certain sectors linked to information and communication. The recession that followed in Spring 2001 involved widespread financial difficulties. The subsequent recovery was the weakest in terms of investment since 1949. It was also jobless: it took 38 months for employment to recover whereas in a typical expansion in the period 1960-89 employment recovered its recessionary losses in eight months. Furthermore, there was an increased resort to flexible employment practices, including temporary and part-time employment and overtime (Schreft, Singh and Hodgson 2005).

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<sup>12</sup> For firms' investment and employment decisions under uncertainty see Dixit and Pindyck (1994).

<sup>13</sup> Here recovery refers to the phase of expansion where growth is only enough to make up for income losses during the preceding recession. It is jobless if the growth rate of employment is not positive.

Many explanations have been offered, but there is an agreement that financial factors played a significant role in job losses over the entire cycle.<sup>14</sup> The deflation-*cum*-recession following the dot-com bubble exposed the over-indebtedness in the corporate sector, forcing them to focus on restoring the health of balance sheets during the subsequent recovery. Increased profits were thus used either for industrial restructuring or for reducing debt rather than expansion of production capacity and employment. The consequent downsizing and labour shedding resulted in a combination of falling employment with rising labour productivity and profits.<sup>15</sup> The industries that lost jobs during the 2001 recession were exactly those that saw rapid expansion during the dot-com bubble and these went on losing jobs in the subsequent recovery (Groschen and Potter 2003). The continued tight conditions in financial markets during the recovery also impaired the ability of small firms to create jobs, particularly in services which typically rely on equity financing and venture capital rather than debt. After the dot-com bubble burst, such financing almost disappeared because of heightened uncertainty, making it difficult for small firms to expand.<sup>16</sup>

There are often considerable uncertainties about the strength of a recovery from finance-driven recessions. This discourages firms from making long-term commitments to employment, promoting a wait-and-see attitude in hiring more permanent workers (Schreft, Singh and Hodgson 2005). Indeed, under conditions of increased uncertainty, even longer periods of growth may fail to generate jobs. This is noted in the case of Turkey: “the growth that did occur [during 1993-2004] was relatively ‘jobless’ as the volatility of the economy made employers less likely to hire new workers than to extend work hours of existing employees” (WB/IEG 2006: 4). One of the consequences of increased financial instability is the growing demand by firms for more flexible hiring-and-firing practices as a buffer against large and unexpected swings in economic activity. Such practices could also protect firms’

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<sup>14</sup> For a discussion of various explanations offered see Bernanke (2003) who emphasizes increased productivity and Freeman and Rodgers (2005) who reject it.

<sup>15</sup> UNCTAD TDR (2003: 6-9). For corporate debt see Arestis and Karakitsos (2003).

<sup>16</sup> According to Chichilnisky and Gorbachev (2005) such financing declined by 86 percent during 2001-03. Earlier Groschen and Potter (2003: 5) had argued that “financial headwinds (particularly for risky new ventures) might arise from the collapse of initial public offering and venture capital financing” noting that “such ‘financial headwinds’ were blamed for extending the 1990-91 recession and cited as a reason for monetary easing at that time by Federal Reserve Chairman Alan Greenspan.”

profits against unexpected shifts in international competitiveness resulting from instability in exchange rates – a phenomenon which gains added importance in emerging markets.

The expansion-recession-recovery cycles driven by international capital flows in emerging markets produce even greater and more durable dislocations in investment and employment. Not only is the composition of investment distorted towards speculative activities, but its average level also falls over the entire cycle. In the four countries hit by the 1997 crisis in East Asia, the boom supported by capital inflows in the mid-1990s raised the average investment ratio by some 7 percentage points of GDP while during the crisis the average decline was more than 16 percentage points. Investment stagnated in the subsequent recovery with the result that there was a sharp decline in the investment ratio over the entire cycle (UNCTAD TDR 2000).

In the labour market, booms generated by capital inflows often raise real wages, but the behaviour of employment depends on several factors.<sup>17</sup> Employment in traded-goods sectors tends to fall if the currency appreciates significantly and investment and productivity growth is sluggish, and this may be offset only partly by expansion in services. Evidence shows that in almost all emerging markets real wages rose during the boom phase but in Latin America where productivity lagged there was little change in unemployment while in East Asia overall unemployment fell. In all these countries real wages fell and unemployment rose sharply during recessions, and in many of them unemployment rates exceeded the levels reached before the boom. Again in all these cases the subsequent recoveries were jobless; the unemployment rates remained above the rates attained during expansion by between 4 and 6 percentage points even after income losses had been fully recovered.

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<sup>17</sup> For the evidence on the evolution of employment and wages in boom-bust-recovery cycles in emerging markets see UNCTAD TDR (2000:chap. 4), ILO (2004), and van der Hoeven and Lübker (2005), analysed in greater detail in Akyüz (2006).

#### 4. The policy problem

The task of managing financial cycles in order to mitigate their adverse consequences for investment and employment is overwhelming even for major advanced countries where domestic institutions are robust and financial conditions are relatively resilient to instability in international capital flows and exchange rates. It calls for more than macroeconomic fine-tuning or aggregate demand management à la Keynes. Minsky (1986: 287) knew this too well when he remarked that “I feel much more comfortable with my diagnosis of what ails our economy and analysis of the causes of our discontents than what I do with the remedies I propose”, noting that once-and-for-all resolution of the flaws of capitalism cannot be achieved because financial innovations introduce new mechanisms of instability.

In the Keynesian tradition not much faith is placed in monetary policy either in smoothing financial excesses at times of expansion or fighting unemployment during recessions. Minsky (1986: 304) views it as counterproductive for the former task and impotent for the latter: “Monetary policy to constrain undue expansion and inflation operates by way of disrupting financial markets and asset values. Monetary policy to induce expansion operates by interest rates and the availability of credit, which do not yield increased investment if current and anticipated profits are low.” Instead, he favours a system of financial institutions designed to dampen instability, including by controlling the level and growth of bank assets through instruments such as capital adequacy requirements (Minsky 1986: 320-1). However, like Keynes, he also focuses on preventing depression-*cum*-recessions and recommends a Big Bank, a lender of last resort, to deal with debt deflations and credit crunches; and a Big Government, a spender of last resort, to prevent economic contraction and unemployment. It is, however, recognized that Big Bank and Big Government can create moral hazard and this makes financial regulations all the more important.

In practice central banks in industrial countries do not generally respond to asset price inflations but tend to relax policy when the bubble bursts.<sup>18</sup> Certainly there

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<sup>18</sup> For a discussion of monetary policy and asset prices see the papers in ECB (2003); and Detken, Masuch and Smets (2003) for a summary of the issues raised.

are serious difficulties in identifying when asset price increases represent a bubble rather than improved fundamentals, but these are not insurmountable.<sup>19</sup> As argued by Kindleberger (1995: 35) monetary policy authorities would need to use judgement and discretion, rather than “cookbook rules of the game”, when speculation threatens substantial rises in asset prices and exchange rates with a possible subsequent harm to the economy. However, they often refrain from doing that in the belief that their task is to keep inflation under control, a monetary policy stance that maintains price stability would also promote financial stability, and financial markets do not need intervention as they regulate themselves. These explain why, for instance, the Fed refrained from acting during the dot-com bubble in the 1990s even when its chairman recognized that the United States economy was suffering from "irrational exuberance" or from using either monetary instruments or the regulatory authority it had been granted to stem speculative lending during the subprime bubble of the 2000s, despite repeated warnings.

In advanced countries the ability to respond to an eventual financial turmoil and recession by expanding liquidity and lowering policy interest rates mitigates the consequences of this indifference of monetary policy to credit and asset bubbles. The United States, for instance, responded to several instances of turmoil in financial markets and the threat of economic contraction by aggressive monetary easing and/or massive liquidity injections, including during the 1987 stock market break, the 1990-91 recession, the panic in the international bond market and the Long-Term Capital Management debacle triggered by the Russian crisis, the bursting of the dot-com bubble of the 1990s, and now the subprime crisis.

However, while such interventions are generally successful in averting deep and prolonged recessions, they often carry the risk of sowing the seeds of subsequent troubles. The response of the Fed to the bursting of the dot-com bubble by rapid liquidity expansion and historically low interest rates, as well as its reluctance to curb rapidly growing speculative lending, is clearly at the origin of the current subprime

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<sup>19</sup> According to Borio and Lowe (2004: 18) “identifying **in a timely way** the developments of financial imbalances with potential unwelcome implications for output and inflation, while very hard, is not impossible.”

mortgage crisis.<sup>20</sup> Again, it is now increasingly argued that sharp cuts in policy interest rates and massive liquidity injection in response to the subprime crisis would only serve to compound the problems faced by the United States economy by preventing the much needed correction in asset prices.<sup>21</sup>

Emerging markets do not generally have the option of countercyclical monetary policy response to a financial crisis and economic contraction resulting from sudden stops and reversals in capital flows, because they cannot easily control outflows, stabilize the debt contracted in foreign currencies and undo the balance of payments constraint. In a credit crunch involving foreign lenders and investors, central banks cannot act as lenders of last resort to stabilize the exchange rate and avoid hikes in the debt burden. Nor is there an international lender of last resort to undertake this task.<sup>22</sup> Consequently, even when the problem is, in essence, one of lack of international liquidity, the collapse of the currency and hikes in interest rates could lead to the insolvency of otherwise sound debtors.

Even in industrial countries where balance sheets are largely insulated from the impact of large currency swings, monetary easing designed to weather difficulties in the domestic financial system can run against external hurdles. It could weaken the currency and increase inflationary pressures, particularly when there is a large current account deficit that needs to be financed. This is exactly the dilemma that the United States Fed may now start facing in designing an effective response to the subprime crisis and the threat of recession – that is, its autonomy to run an independent monetary policy is now threatened in a big way, for the first time in the post-Bretton Woods world.

The problem is certainly more acute in developing countries where external obligations are in foreign currencies. In Korea, for instance, as in Japan, corporations

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<sup>20</sup> For the reasons behind the subprime crisis, including the role of deregulation, see Kregel (2007) and Kuttner (2007).

<sup>21</sup> It is notable that such warnings are also coming from financial markets – see Roach (2007).

<sup>22</sup> That establishing an international lender of last resort could bring a host of other problems and may not be the appropriate response see Akyüz and Cornford (2002).



had traditionally pursued aggressive investment strategies with a high degree of leverage, and the government often stood as a lender of last resort to bail out their creditors. This approach was underpinned by a strong government guidance of private investment to avoid moral hazard, speculation and excess capacity. However, in the 1990s when investment guidance was dismantled and corporations were allowed to borrow freely abroad, lack of an international counterpart to the domestic lender of last resort to smooth out liquidity problems drove a number of them into serious problems, including bankruptcy (Akyüz 2000).

This is why in emerging markets it is all the more important to start countercyclical policy during expansion and manage surges in capital inflows so as to prevent macroeconomic and balance-sheet imbalances and exposure to a sudden stop and reversal of international capital flows. Here we focus on two main areas of response: countercyclical macroeconomic policy, notably monetary policy, and financial regulations including direct (administrative) or indirect (market based) restrictions over capital flows.<sup>23</sup> Reference will also be made to the role that fiscal policy may play in managing surges in capital inflows.

## **5. Capital flows and countercyclical monetary policy**

It has long been recognized that the capital account regime has important bearings on the scope and effectiveness of monetary and exchange rate policies. According to the standard economic theory, policymakers cannot simultaneously pursue an independent monetary policy, control the exchange rate and maintain an open capital account. All three are *potentially* feasible but only two of them could be chosen as *actual* policy – thus, the dilemma known as impossible trinity. Once the capital account is opened, a choice has to be made between controlling the exchange rate and an independent monetary policy. Using monetary policy as a countercyclical tool to stabilize economic activity could result in large cyclical swings in the exchange rate and the balance-of-payments. Conversely, if monetary policy is used to

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<sup>23</sup> For a discussion of policy options available in managing capital inflows see Williamson (1995).

stabilize the exchange rate, it cannot act as a countercyclical macroeconomic tool and prevent large cyclical swings in economic activity.

However, in most developing countries with open capital accounts, the erosion of monetary policy autonomy is often greater than is typically portrayed in economic theory. It cannot always secure financial and macroeconomic stability whether it is geared towards a stable exchange rate or conducted independently as a countercyclical tool. On the one hand, as already noted, because of large-scale liability dollarization, there are strong spillovers from exchange rates to domestic economic and financial conditions. Thus using monetary policy as a domestic countercyclical tool does not guarantee stability when there are large swings in capital flows and exchange rates. On the other hand, the effect of monetary policy on exchange rates is much more uncertain and unstable than is typically assumed in the theory of impossible trinity because of volatility of risk assessments and herd behaviour. During financial turmoil hikes in interest rates are often unable to check sharp currency declines while at times of favourable risk assessment a much smaller arbitrage margin can attract large inflows of private capital and cause significant appreciations.

Even when authorities are prepared to use greater judgement and discretion in monetary policy, they may face serious trade offs because domestic conditions may call for one sort of intervention and external conditions another. This is most clearly seen at times of rapid exit of capital when liquidity expansion and cuts in interest rates needed to prevent financial meltdown and stimulate economic activity could simply accelerate flight from the currency. As a result, monetary authorities are often compelled to pursue procyclical policy in an effort to restore confidence. However, under crisis conditions the link assumed in the traditional theory between the interest rate and the exchange rate also breaks down. When the market sentiment turns sour, higher interest rates aiming to retain capital tend to be perceived as increased risk of default. As a result, the risk-adjusted rate of return could actually fall as interest rates are raised. This is the main reason why procyclical interest rates hikes implemented as part of IMF support during several episodes of financial crises were unable to prevent the collapse of the currency, serving instead, to deepen economic contraction.

Monetary policy also faces hurdles at times of economic expansion and asset bubbles associated with surges in capital inflows. Tightening monetary policy in order to check asset-price bubbles and overheating could encourage external borrowing and short-term arbitrage flows while lower interest rates would discourage such flows but lead to domestic credit expansion and overheating. A way out could be to employ countercyclical monetary tightening while intervening in the foreign currency market to resist to appreciations and sterilizing its impact on domestic liquidity by issuing government debt. This can succeed when capital inflows are moderate in size and concentrated in the market for fixed-income assets. However, under surges across various segments of asset markets, sterilization could result in higher interest rates, attracting even more arbitrage flows. Furthermore, since interest earned on reserves is usually much lower than interest paid on public debt there will be quasi-fiscal costs, which can be large when interest rate differentials are wide and the surge in capital inflows is strong.<sup>24</sup>

There are less costly methods of sterilization such as raising non-interest-bearing reserve requirements of banks. This would also increase the cost of borrowing from banks, thereby checking domestic credit expansion. However, it could also encourage firms to go to foreign creditors. Banks may also shift business to offshore centers and lend through their affiliates abroad, particularly where foreign presence in the banking sector is important. A certain degree of control over the banking system would thus be needed to prevent regulatory arbitrage and reduce the cost of intervention.

Countercyclical fiscal policy has no doubt a role to play in managing expansions. When the economy is overheating due to a boom in private spending supported by capital inflows, fiscal tightening would obviate the need for tighter monetary policy and higher interest rates and, hence, prevent encouraging further

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<sup>24</sup> The fiscal cost of each dollar of reserves can be written as:  $i_g - i_r = (i_g - i_x) + (i_x - i_r)$  where  $i_g$ ,  $i_r$  and  $i_x$  are the rates, in common currency, on government domestic debt, reserve holdings and external borrowing, and typically  $i_g > i_x > i_r$ . The margin between  $i_x$  and  $i_r$  is determined mainly by the credit risk and between  $i_g$  and  $i_x$  by the exchange rate risk. When non-resident claims are only in foreign currencies, the first term on the RHS is captured by the holders of public debt at home and the second term is the net transfer abroad – what Rodrik (2006) calls the social cost foreign exchange reserves. For the distinction between the two types of transfers and costs see UNCTAD TDR (1999: chap. V). Mohanty and Turner (2006) provide some estimates of fiscal cost of intervention in emerging markets.

arbitrage inflows and appreciations. If budget revenues and expenditure structures are appropriately designed, much of this task could be done through automatic stabilizers. Furthermore, a budgetary surplus can also facilitate sterilization by absorbing excess liquidity without issuing government paper. But this would not eliminate the fiscal cost of sterilization since the surplus could be used to reduce the stock of public debt. In reality, governments in emerging markets often run procyclical fiscal policy, particularly in countries with chronic fiscal deficits and large public debt (Akyüz 2006).

During the recent surge in capital flows several developing countries have intervened in currency markets to absorb excess capital inflows and avoid sharp appreciations. Evidence from work in the BIS (2005) suggests that sterilized intervention has generally been more successful in emerging markets than in advanced countries, particularly where the banking sector is closely controlled.<sup>25</sup> In China intervention has not only been successful in stabilizing the exchange rate but is also less costly to the government because of its control over the banking system.<sup>26</sup> This is also true for several other countries in East Asia, including those hit by the 1997-98 crisis, which have returned to quasi dollar pegs, stabilizing their currencies within relatively narrow margins. There have also been examples of successful intervention in other parts of the developing world where capital inflows were relatively small.<sup>27</sup>

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<sup>25</sup> See notably Disyatat and Galati (2005) and Mihajjek (2005); and for a general survey of the issues involved see Sarno and Taylor (2001). However, examining several episodes of surges in capital inflows since the early 1990s the IMF (2007b: 124) concludes that “a policy of resistance to exchange rate pressures does not seem to be associated with lower real appreciation, while countercyclical fiscal policies have had the desired effect”, and that sterilized intervention is likely to be ineffective when the influx of capital is persistent. According to Mohanty and Turner (2006), over the period 2002-06 most central banks in Asia eased monetary policy and lowered interest rates as they were building reserves without losing control over inflation. This stands in sharp contrast to the conclusion reached by the IMF (2007b: 122) that “the policy of sterilized intervention ... often tends to be associated with higher inflation.” It is notable that the IMF does not make a single reference to work undertaken at the BIS in these areas.

<sup>26</sup> In China where over 80 per cent of central bank securities are held by banks, reserve requirements were raised from 7 per cent in 2003 to 15 per cent in early 2008, and the share of central bank bills in total assets of banks more than doubled.

<sup>27</sup> In Argentina, for instance, sterilization has been successful in keeping the real exchange rate within a target range and absorbing resulting excess liquidity through emission of central bank paper since 2002-03 despite opposition from the IMF – see Damill, Frenkel and Maurizio (2007).

## **6. Reserve accumulation as self-insurance**

A policy of accumulating reserves through intervention in the foreign exchange market at times of strong capital inflows and using them during sudden stops and reversals appears to be a sensible counter-cyclical response to instability in international capital flows. When successful, interventions would prevent destabilizing currency appreciations and deterioration in the trade balance and, thus, lower the likelihood of currency turmoil, secure insurance against speculative attacks and reduce the degree of payments adjustment needed in the case of such an event.

This strategy, however, lacks a strong rationale since it implies that a country should borrow only if the funds thus acquired are not used to finance investment and imports, but held in short-term foreign assets. Moreover, it does not prevent currency mismatches and exposure in private balance sheets. Finally, even when quasi-fiscal cost of interventions is reduced by control over interest rates or higher reserve requirements, there could be a large transfer of resources abroad since the return on reserves is less than the cost of external borrowing.

Traditionally, reserves covering three months of imports were considered adequate for addressing the liquidity problems arising from time lags between payments for imports and receipts from exports. The need for reserves was also expected to lessen as countries gained access to international financial markets and became more willing to respond to balance of payments shocks by adjustments in exchange rates. However, capital account liberalization in developing countries and their greater access to private finance has produced exactly the opposite result. Private capital flows have allowed running larger and more persistent current account deficits beyond the levels that could be attained by relying on international reserves. But this has also resulted in an accumulation of large stocks of external liabilities. As a result debtor countries have become increasingly vulnerable to sudden stops and reversals in capital flows, and this has increased the need to accumulate reserves to safeguard against currency turmoil and speculative attacks. Indeed, evidence shows a strong correlation between capital account liberalization and reserve holding, and a growing tendency to absorb capital inflows into reserves rather than current payments (Aizenman and Lee 2005; and Choi, Sharma and Strömquist 2007).

After the East Asian crisis, emerging markets were strongly advised by the IMF to have adequate international reserves to cover their short-term debt – debt with the remaining maturity of up to one year – in order to reduce their vulnerability to sudden stops in capital flows.<sup>28</sup> Reserve accumulation accelerated with the strong recovery of capital inflows in the early years of the 2000s. It has gained further momentum as developing countries taken together started to run twin surpluses in their balance of payments; that is, on both current and capital accounts.<sup>29</sup> Since 2001 reserves have increased at an average rate of \$500 billion per year, exceeding \$4 trillion or 6.8 months of imports at the end of 2007.<sup>30</sup>

Of the \$3.2 trillion additional reserves accumulated after 2001, two-thirds are earned and one-third borrowed.<sup>31</sup> Since in previous decades the current account of developing countries was in deficit, the entire stock of reserves held at the beginning of this decade was borrowed reserves. This means that almost half of the current stock of reserves in developing countries – that is, some \$2 trillion – are borrowed reserves. This is about 250 per cent of their short-term debt and 65 per cent of their total debt to private creditors. Assuming a moderate 500 basis points margin between the borrowing rate and return on reserves, the annual carry cost of these reserves would reach some \$100 billion.<sup>32</sup> This constitutes a net transfer of resources to major reserve-currency countries and exceeds the total official development assistance to developing countries.<sup>33</sup>

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<sup>28</sup> This is known as the Greenspan-Guidotti rule. A problem with such rules is that vulnerability is not restricted to short-term debt; what matters in this respect is liquidity rather than maturity of liabilities: see UNCTAD TDR (1999; chap. V). For an attempt to empirically determine the optimum level of reserves based on welfare criteria see Jeanne and Rancière (2006).

<sup>29</sup> Here capital account refers to non-reserve financial account as defined in IMF (2007a).

<sup>30</sup> These figures, derived from the IMF *World Economic Outlook Database*, exclude the first-tier Newly Industrialized Economies – Korea, Taiwan, Singapore and Hong Kong.

<sup>31</sup> Borrowed in the sense that they accompany increased claims by non-residents in one form or another, including direct and portfolio equity investment, which generate outward income transfers.

<sup>32</sup> The average spread of emerging-market bonds exceeded 700 basis points during the 1990s and never fell below 400 basis points. It reached 1400 basis points after the Russian crisis, falling by half towards the end of the decade. Until 2002 it was over 600 basis points, falling rapidly afterwards and hovering around 200 basis points in recent months – World Bank (2007).

<sup>33</sup> The method used here to estimate the cost of reserves differs from the procedure applied in the literature (e.g. Rodrik 2006) in making a distinction between borrowed and earned reserves. Polak and

There is considerable diversity among developing countries in the sources of reserves. Outside China and Fuel Exporters reserves in developing countries are entirely borrowed since, taken together, their current account has been in deficit. Both in China and Fuel Exporters current levels of reserves are very high, covering around 13 and 10 months of imports, respectively. China enjoys twin surpluses in its balance-of-payments and over a third of its reserves are borrowed although in recent years reserves have been coming increasingly from its current account surpluses. By contrast reserves in Fuel Exporters are entirely generated by oil surpluses; in these countries the current account surplus is partly used for net investment abroad, mostly through Sovereign Wealth Funds (SWF), and gross capital outflows exceed gross inflows.<sup>34</sup>

Some other countries such as Brazil generate relatively smaller amounts of current account surplus while at the same time receiving net inflows of capital. In Brazil, unlike in China, however, these are accompanied by sluggish growth. Because of a high degree of vulnerability to deterioration in the market sentiment and reversal of capital flows, monetary and fiscal policy are both kept tight, depressing growth and lowering import demand. Despite a strong appreciation, slow growth and favourable export markets have helped generate a small current surplus. In most other emerging markets reserves are fully borrowed. This includes India where the currency has been kept relatively stable and the current account broadly in balance. There has been a rapid accumulation of reserves coming from net capital inflows, covering 6 months of imports and exceeding short-term debt by a large margin. Finally, a few emerging markets, including the most vulnerable ones, do not appear to have taken adequate self-insurance by translating capital inflows into additional reserves. These include Turkey where reserves barely match short-term external liabilities, accumulated primarily by the private sector in recent years in search of cheap credits abroad, and Mexico where they cover just over two months of imports. In both countries

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Clark (2006) also refer to borrowed reserves in their estimation of the cost to poorest developing countries.

<sup>34</sup> According to some estimates total assets of SWF in Fuel Exporters now exceeds \$1.5 trillion with an important part invested in equity abroad: see IMF (2007c; Annex 1.2), and Truman (2007). But there is considerable hostility in the United States towards investment by SWF, sometimes seen as cross-border nationalization – see Weisman (2007).

currencies have appreciated significantly. In Turkey this, together with a relatively strong growth supported by unprecedented levels of capital inflows, has pushed the current account deficit to almost 8 per cent of GDP while in Mexico the deficit has been contained due to slower growth and strong oil revenues.<sup>35</sup>

## **7. Financial regulations, capital controls and risk management**

There are thus limits to monetary policy in emerging markets in managing surges of capital flows with a view to reducing vulnerability to sudden stops and reversals. While foreign exchange market interventions and reserve accumulation can succeed in preventing appreciations and trade deficits, these do not only entail significant costs, but also fail to check the build-up of fragility and exposure in balance sheets to external shocks and contagion. Under most circumstance, regulation and control of capital inflows would be the only viable option to address this problem.

In restraining the build up of financial fragility at times of expansion Minsky favours, as noted, controlling the level and growth of bank assets rather than interest rate hikes. Conventional prudential regulations including capital and liquidity requirements and provisions for non-performing portfolios impose a certain degree of control over lending by banks while seeking to ensure their solvency. However, rather than reducing the cyclical nature of the financial system, in reality risk assessment methods and prudential rules, including Basel I and Basel II, tend to aggravate procyclical behaviour. Since rules about provisions are often based on current rates of loan delinquency, they result in inadequate provisioning and overexpansion of credit at times of boom when asset prices and collateral values rise and loan performance improves. When the down-turn comes, loan delinquency rises rapidly and standard rules on provisions can lead to a credit crunch. Similar difficulties apply to capital charges. Banks typically lose equity when an economy is hit by a massive exit of capital, hikes in interest rates, and asset-price and currency declines. Enforcing capital charges under such conditions would only serve to deepen the credit crunch

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<sup>35</sup> For currency movements and current account balances in emerging markets in recent years see UNCTAD TDR (2007: chap. I).



and recession.<sup>36</sup> Again, in determining capital adequacy, Basel I assigned low risk weights to inter-bank claims, encouraging short-term lending. But such loans driven by interest arbitrage were a major factor in exposure to short-term debt in the East Asian crisis. There are similar pro-cyclical provisions in Basel II.<sup>37</sup>

It is possible to design prudential regulations in a counter-cyclical fashion to make them act as built-in stabilizers and reduce the cyclicity of the financial system.<sup>38</sup> Forward-looking rules may be applied to capital requirements in order to introduce a degree of countercyclicity. This would mean establishing higher capital requirements at times of financial booms, based on estimation of long-term risks over the entire financial cycle, not just on the actual risk at a particular phase of the cycle. Similarly, not current but future losses can be taken into account in making loan-loss provisions, estimated on the basis of long-run historical loss experience for each type of loan – a method practiced in Spain. Again, long-term valuation rather than mark-to-market valuation may be used for collaterals in mortgage lending in order to reduce the risks associated with ups and downs in property markets, as done in many European countries. Finally, other measures affecting conditions in credit and asset markets, such as margin requirements, could also be employed in a countercyclical manner, tightened at times of boom and loosened during contractions.

While appropriately designed prudential regulations could help smooth financial cycles and provide greater safeguards, they encounter limits in preventing financial instability and crises (Akyüz and Cornford 2002). This is clearly exemplified by continued incidence of instability and crises in the United States– the country with the most sophisticated financial system in the world and state-of-the-art prudential regulation and supervision. Regulatory safeguards are pretty ineffectual in the face of macroeconomic shocks which can drastically alter the quality of bank assets. Furthermore, rules on standards for risk assessment, capital requirements and

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<sup>36</sup> This happened in Asia when the IMF tried to strengthen regulatory regimes in the middle of the 1997 crisis – see UNCTAD TDR (1998: chap. III, Box 3).

<sup>37</sup> On Procyclicality of Basel I and Basel II see Akyüz and Cornford (2002), Cornford (2005), and Francis (2006).

<sup>38</sup> This approach is finding considerable support in the BIS (2001: chap. VII); see also Borio, Furfine, and Lowe (2001) and White (2006).

provisions designed to check excessive risk taking and provide safeguards against such risks are constantly circumvented by moving highly risky activities off balance sheets involving financial derivatives products (such as structured investment vehicles widely used during subprime mortgage expansion in the United States) and guarantees and letters of credits that create contingent assets and liabilities – a tendency increasingly facilitated in the United States by the deregulation of banks' activities that has the effect of removal of firewalls between commercial and investment banking (Kregel 2007).

Since a large proportion of cross-border and cross-currency operations are intermediated by domestic financial institutions, notably banks, prudential rules have no doubt implications for international capital flows. Similarly, market-based (indirect) measures of control over capital flows, such as unremunerated reserve requirements, can be considered as part of prudential regulations in so far as they contribute to the solvency of these institutions. This means that measures to control capital flows cannot always be distinguished from prudential rules, and several measures that normally come under prudential policies can in fact be used for managing capital flows.

This overlap is sometimes taken to an extreme position that capital account liberalization should not be a cause for concern if it is accompanied by stronger and more comprehensive prudential regulations and effective supervision designed to manage risks associated with international capital flows and borrowing and lending in foreign currencies. Under capital account openness prudential regulations become even less effective because of increased exposure to macroeconomic and exchange rate shocks. Furthermore, it is not always possible to regulate and control capital flows through prudential measures because they are not always intermediated by the domestic financial system – for instance, when local firms directly borrow or invest abroad, or non-residents enter domestic securities markets. Therefore, direct restrictions over foreign borrowing and investment, and market access would need to complement prudential regulations appropriately extended to address the risks associated with capital flows through the banking system.

These risks could be addressed by applying more stringent rules for capital charges, loan-loss provisions, liquidity and reserve requirements for transactions involving foreign currencies. More specifically, banking regulations for the management of risks involving foreign exchange positions need to address three fundamental sources of fragility: maturity mismatches, currency mismatches and exchange–rate related credit risks.

Maturity transformation is a traditional function of the banking system, but this should not be encouraged in the intermediation between international financial markets and domestic borrowers particularly since national monetary authorities cannot act as lenders of last resort in foreign currency. Banks tend to rely on central banks for the provision of international liquidity, trying to shift the cost of carrying large stock of reserves onto them. This exposes them to exchange rate and interest rate risks since in the event of a sudden stop in capital inflows and inadequate central bank reserves, they may not be able to obtain international liquidity or do so only at very high costs. To reduce the liquidity risk, restrictions can be applied to maturity mismatches between foreign exchange assets and liabilities of banks with a view to preventing borrowing short in international markets and lending long at home, through stricter liquidity and reserve requirements and even direct limits.

Similarly it is important to restrict currency mismatches between banks assets and liabilities and discourage banks from assuming the exchange rate risk. Banks with short foreign exchange positions (that is, where forex liabilities exceed assets) run the risk of losses from depreciations while those with long positions lose from appreciations. Furthermore, maturity mismatches between forex assets and liabilities can lead to exchange rate risks even when assets are matched by liabilities in the aggregate. Currency mismatches can be restricted through quantitative limits on short and long positions (e.g. as a proportion of equity or total portfolios) or minimum capital requirements on foreign exchange exposures. In most cases it may be more appropriate to prohibit currency mismatches altogether.

The third important risk associated with foreign exchange borrowing and lending by banks is the exchange-rate related credit risk. Banks can eliminate currency and maturity mismatches by lending in foreign currency, but unless their

borrowers have foreign exchange earning capacity, this simply implies migration of the exchange rate risk to borrowers which, in turn, results in greater credit risk. This kind of lending is particularly common in economies where an important part of bank deposits are in foreign currencies. It also proved problematic in some countries in East Asia where banks lent heavily in foreign currency for investment in property as well as to firms with little foreign exchange earning capacity in the run up to the 1997 crisis. Such practices could be discouraged by applying higher risk weights and capital charges for foreign assets and more stringent standards of provision for foreign currency loans, or prohibited altogether. However, evidence suggests that only a few emerging markets have addressed the vulnerabilities arising from currency-induced credits risks even though many of them appear to have taken measures to reduce exposure to foreign exchange risks (Cayazzo *et al* 2006).

Emerging markets with stronger fundamentals regarding savings and investment, and current account and external debt positions appear to be more willing to introduce measures of control over inflows at times of surges while severely indebted countries highly dependent on foreign capital are more inclined to allow in speculative, short-term capital even when potential risks they pose are clearly visible. In fact, in most of the latter countries the capital account appears to be financially more open than those with stronger fundamentals.<sup>39</sup>

Naturally, the effects of the measures introduced depend, *inter alia*, on their nature.<sup>40</sup> In 1994 Malaysia imposed direct restrictions on acquisitions of short-term securities by non-residents, and these were largely effective in improving the external debt profile, preventing asset bubbles, and allowing greater space for macroeconomic policy. By contrast Chile used market-based unremunerated reserve requirements in a

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<sup>39</sup> In various measures of financial openness most economies in South and East Asia are classified as partially or largely closed while Latin America economies with weaker fundamentals are generally found more open; see e.g. Dailami (2000), notwithstanding the caveat in the next footnote.

<sup>40</sup> The effectiveness of capital control measures is a highly contentious issue and is not addressed here. Cross-country comparisons of capital account regimes and their economic impact are generally based on indices constructed on the basis of on/off dummies according to whether or not there is a restriction in a particular area, without consideration of the nature of the restrictions and their enforcement — for a description of such measures see Miniane (2004) and Eichengreen (2001). According to the IMF (2007b: 114) “episodes characterized by tighter controls on inflows are associated with narrower current account deficits and lower net private inflows.”

countercyclical manner, applied to all loans at times of strong inflows in the 1990s, but phased out when capital dried up at the end of the decade. This was effective in improving the maturity profile of external borrowing, but not in checking aggregate capital inflows, appreciations and asset-price bubbles. Similar measures have been introduced in 2006 and 2007 in Thailand and Colombia, respectively.<sup>41</sup>

Periods of strong capital inflows also create the opportunity to strengthen controls over capital account measures so as to bring greater stability over the longer term. For instance at the end of 2007 the Indian government adopted a proposal by the Securities and Exchange Board to restrict foreign buying of shares through offshore derivatives despite an adverse initial reaction from the stock market. This move was designed not so much to relieve the upward pressure on the rupee as to bring greater transparency by restricting the activities of the hedge funds (Kansara and Kansara 2007).

When capital inflows are excessive, it is also possible to adjust the regime on resident outflows to relieve the upward pressure on the currency. Chile followed this path in the 1990s for direct investment abroad. More recently China took a decision to permit investment by its residents in approved overseas markets for mitigating the pressure for appreciation and Brazil loosened restrictions on residents' outflows, allowing mutual funds to invest abroad up to 20 per cent of assets. Chile and Korea have also liberalized rules limiting individual or institutional investments abroad.

Such a policy response is, in fact, an alternative to sterilized intervention, but does effectively nothing to prevent currency and maturity mismatches in balance sheets. Furthermore, liberalization of outflows may result in increases in inflows, particularly through the return of flight capital of residents.<sup>42</sup> Besides, once introduced for cyclical reasons they cannot be easily reversed when conditions change. Therefore, greater attention would need to be paid to longer term

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<sup>41</sup> For an assessment of the experiences in the 1990s see Epstein, Grabel and Jomo (2003) and for the more recently introduced capital account measures see IMF (2007b; and 2007c).

<sup>42</sup> For evidence on this effect see Reinhart and Reinhart (1998).

implications of removing restrictions over resident outflows at times of temporary surges in capital inflows.

## **8. Conclusions**

Real economic activity is increasingly shaped by developments in the sphere of finance both in advanced economies and emerging markets. Boom-bust cycles in assets, credits and foreign exchange markets have become more frequent and damaging for productive investment and labour. These cycles are more difficult to manage in emerging markets since they are increasingly linked to boom-bust cycles in international capital flows, determined by factors beyond their control, including monetary policies and conditions in major advanced economies. This is particularly true for countries with weak fundamentals with respect to external payments and asset positions and a high degree of dollarization. Since policy options during rapid exit of capital are highly limited, emerging markets cannot afford to be complacent at times of booms in capital inflows and economic expansion. Rather, countercyclical policies should start in good times in order to reduce vulnerability to sudden stops and reversals.

The Keynesian analysis of financial instability provides considerable insights into understanding the dynamics of financial cycles in emerging markets, notably the interactions among assets, credits and currency markets and their impact on private spending and economic activity, which hold the key to determining the vulnerabilities involved. Its policy conclusion that financial regulation and control, rather than macroeconomic policy, provides the principal tool for securing financial stability is equally valid for managing capital inflows in emerging markets. There is a strong case for prudential regulations to be appropriately extended to address specific risks associated with international capital flows and borrowing and lending in foreign currencies. These should be combined with direct controls over access of foreign lenders and investors to domestic financial markets and over investment by residents abroad, and designed and used in a countercyclical manner— a conclusion that stands

in sharp contrast with official advice to developing countries for dealing with surges in capital inflows.<sup>43</sup>

It should also be noted that financial regulations and direct and indirect control over capital flows are not foolproof. This means that monetary policy would need to be directed, from time to time, towards stabilization of the exchange rate, and this task would be easier if price stability is broadly assured and fiscal policy can be deployed as a countercyclical tool. These conditions are not always secured and there is considerable diversity among emerging markets in the space available for countercyclical macroeconomic policy. It is much more limited where there are structural savings, fiscal and foreign exchange gaps, high levels of sovereign and external debt, and excessive dependence on foreign capital. Such countries are systemically vulnerable to the whims of international capital flows and in need of much more fundamental changes than strengthening financial regulations and control or countercyclical macroeconomic policy.

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<sup>43</sup> Although according to a recent report by the Independent Evaluation Unit “the IMF has learned over time on capital account issues” and “the new paradigm ... acknowledges the usefulness of capital controls under certain conditions, particularly controls over inflows” (IMF/IEO 2005, p. 11), the Fund continues to be ambivalent even towards market-based measures to stem speculative inflows, advocating instead fiscal tightening and exchange rate flexibility even though, as noted in the same report, none of these standard measures recommended by the Fund is a panacea, and each involves significant costs or dilemmas (IMF/IEO 2005: 60). For a critique of IMF’s approach to capital account issues see Akyüz (2005).

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