# Chapter IV

## Exchange rate regimes and monetary cooperation

## A. Introduction: currency speculation and financial bubbles

The fact that the global financial crisis originated in a relatively obscure corner of the United States housing credit system means that it cannot be analysed adequately by just looking at this segment of the market while ignoring the huge asset-price bubbles that arose elsewhere seemingly independently. These burst almost simultaneously because the subprime credit collapse was the kind of idiosyncratic shock that highlighted the exposure to risk in many areas and triggered the sudden unwinding of speculative positions in the stock markets, the commodities market and in the market for currencies.

In an environment of generally weak national financial regulation and in the absence of a rule-based international monetary system, the crisis quickly spread. In this way the uncertainty associated with the subprime crisis generated an initial speculative unwinding of open currency positions in summer 2007 already resulting in a strong appreciation of the Japanese yen. Since August 2008 the unwinding of speculative currency positions has led to large depreciations of former highvielding currencies of developed economies (Australia, Iceland, New Zealand), a few emerging market economies (Brazil, Turkey, South Africa, Republic of Korea) as well as several transition economies (Hungary, Ukraine, Romania) and has put those countries into the spotlight of financial markets were currencies are fixed (Bulgaria and the Baltic States). As a result, in November and December two economies with formerly fast appreciating currencies and large external imbalances, Hungary and Iceland, called for IMF stand-by loans in face of their mounting currency and banking crises (IMF, 2008a, b). Likewise, Latvia, whose currency is pegged to the Euro, faced increasing interest-rate spreads due to uncertainty about its current account deficit and the mounting foreigncurrency indebtedness, asked for an IMF stand-by arrangement at the end of December 2008 (IMF, 2008c). Several other countries reached similar agreements, among them Ukraine and Pakistan, and many others are expected to come.

While these currency movements are the result of the unwinding of speculative positions and deleveraging of the financial sector at large, currency speculation contributed independently to the build-up of the financial crisis. It was encouraged by short-sighted domestic policies as well as by an unregulated international financial system that attracts financial investors to leverage the short-term opportunities provided by divergent monetary policies in different countries. Indeed, the typical configuration of interaction between incoherent global economic policies and private investors has been the blueprint for most recent financial crises and financial fragility in emerging market economies.

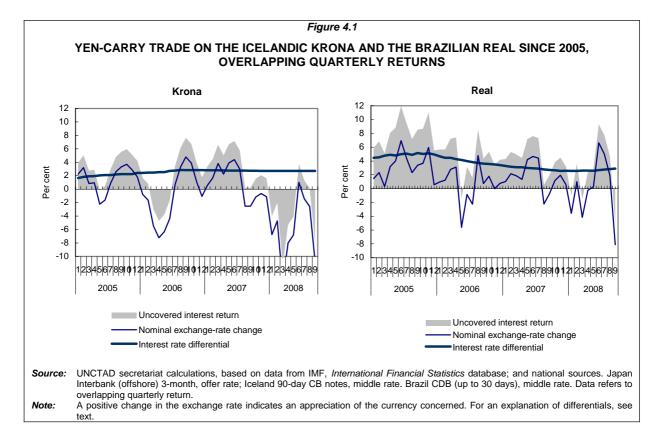
In this way, large interest rate differentials, typically associated with large inflation differentials, create the expectation of high nominal returns for financial investors. The latter are not concerned about inflation rates and other real fundamentals as long as they do not constitute a perceivable threat to currency stability and therefore to their expected profits over a short period of time. The interest rate differential is a plausible starting point for this kind of interest arbitrage because short-term interest rates are rather stable as central banks in both countries determine them according to actual national inflation and national inflation targets. Moreover, the capital inflows induced by nominal interest rates spreads, coupled with an exchange rate that is perceived either as being stable or as appreciating on average (even the expectation of depreciation may allow for sufficient returns), can have a cumulative effect on the currency market. This effect drives exchange rates away from what is traditionally considered by the Purchasing Power and Interest Rate Parity

theories as market equilibrium and a real exchange rate (the most comprehensive measure of competitiveness between countries) that is rather stable.

Whereas, under a fixed exchange rate or crawling peg regime, hot money inflows may boost money creation and credit expansion, a regime of floating exchange rates may induce nominal appreciation as well as reserve increases to the extent that the central bank, openly or implicitly, acts to contain exchange rate volatility. A *nominal* appreciation may restrain inflation by reducing import prices of intermediate and final goods. But an appreciated *real* exchange rate penalizes exports, deteriorates competitiveness and fosters import growth.

In the same vein, speculative flows induced by differentials in returns on assets denominated in different currencies, generate unsustainable currency mismatches in the balance sheets of firms, banks and even households. While foreign speculators enjoy the larger returns by borrowing in a low yielding currency and lending in a high-yielding currency, domestic players access cheap credit in foreign low-yielding currencies and invest in higher-return financial, real estate and other speculative assets. This may work for a while to the benefit of all players. But those capital inflows lead to real appreciation of domestic currencies either via nominal appreciation, price inflation or both and seed the sows of the collapse by destroying the competitiveness of enterprises in the capital receiving country. Once the loss of competitiveness shows up in huge and rising current account deficits or large losses of market shares, devaluation is unavoidable but extremely costly given the widespread currency mismatch and the mushrooming debt burden for domestic companies and households (see UNCTAD, 2007c; UNCTAD, *TDR 2007*; and UNCTAD, *TDR 2008*).

The left panel of figure 4.1 shows the historical carry trade potentials driven by the nominal exchange-rate dynamics and the interest rate differentials between the Japanese yen and the Icelandic krona. The thick line represents a 3-month interest rate differential between a krona- and a yendenominated asset; the thin line is the exchange-rate change of the krona vis-à-vis the yen for the same period. Their sum (the shaded area) is the return on a 3-month (uncovered) lending in the Icelandic market by borrowing in Japan in local currencies. Since this return carries the risk of exchange-rate changes, it is called "uncovered interest return". The same logic applies to some emerging market economies that have experienced steady appreciations of their currencies despite fairly high inflation rates. For instance, the right panel of figure 4.1 makes the case of the Brazilian real where real appreciation induced by large interest rate differentials vis-à-vis the Japanese yen allowed large speculative gains between 2005 and 2008 (the shaded area).



In the last two decades, currency speculation of the carry trade type has been a recurrent phenomenon often associated with banking and financial crises at country and regional levels. The Argentinean and Chilean crisis in the 1980s, Mexico in 1994, East Asia in 1997–1998, the Russian Federation in 1998, Brazil in 1999, and Argentina in 2001–2002, all culminated in currency attacks and found their origins in the build up of financially fragile positions via currency speculation and/or widening external imbalances due to unsustainable pegs. Despite some political rhetoric about creating a "new international financial architecture", carry trade has substantially contributed to the widening of the global imbalances since the end of the Latin American crisis. For instance, between 2004 and 2008 the Icelandic krona, the Australian and New Zealand dollars, the Brazilian real, the Turkish lira, the South African rand and the Korean won as well as the currencies of some transition economies such as Hungary or Romania have experienced persistent trends of appreciation despite relatively high inflation rates.<sup>14</sup> The carry trade funding currencies, such as the Japanese yen, the Swiss franc and the United States dollar, were driven in the opposite direction, depreciation, despite very low inflation rates or even deflation as in the case of Japan.

The unwinding of carry trade positions has been typically triggered by changes in "conventional focal points" such as the external balance or expected GDP growth, or by the fear of an interest rate correction and an exchange rate jump caused, for example, by changing inflation prospects of the funding currency. The heightened uncertainty and risk of the new global financial climate and the increased fragility of many speculative positions sparked off the most recent period of unwinding of carry trade operations. The growing importance of speculation in the process of appreciation of exchange rates in countries with relatively "bad" fundamentals reflects the general trend of building up of risky leveraged positions in the "search for double digit yields of financial investment". The subsequent "flight to quality" and "the deleveraging fever" is, in the same way as

<sup>&</sup>lt;sup>14</sup> In fact what these economies needed was currency devaluation to compensate for the loss of competitiveness associated with the inferior inflation performance.

for stocks or commodities, just the result of the recognition that the system as a whole could not deliver what too many players expected.

## B. The history of different exchange rate regimes is of a series of failures

The dismal experience with floating rates or managed *but* floating rates in the current financial crisis shows, once again, one of the striking inconsistencies of global economic governance. On the one hand, a *stable exchange rate at an appropriate level* is crucial for a successful trade performance, growth, employment and the catching-up of developing countries. Sharp exchange rate fluctuations have a significant distorting impact on relative output prices, affecting directly trade performance. Unforeseen and volatile exchange rate changes represent shifts in the external value of money and disrupt the functioning of the global goods markets in the same way as do unforeseen and volatile national inflation rates (changes in the internal value of money). On the other hand, most attempts to stabilize exchange rates unilaterally have also failed.

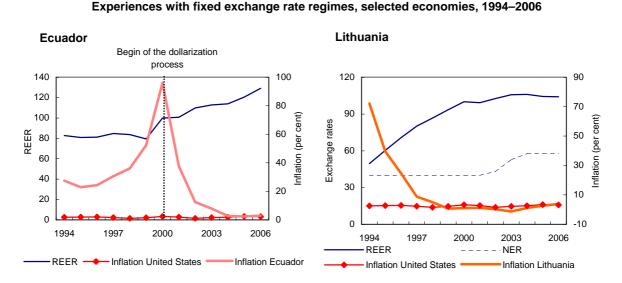
In fact, the adoption of pegged exchange rate regimes is considered to be one of the core causes of financial crisis in emerging countries during the 1990s. During the last decade, Argentina, Brazil, Indonesia, Mexico, the Republic of Korea, the Russian Federation and Thailand pegged unilaterally their exchange rate to an anchor currency, the United States dollar. The goal of the unilateral anchoring was to stabilize the external value of money and to force domestic inflation down through the channel of competitive pressure on domestic producers through cheap imports. However, the latter part of the strategy implied an overvaluation of the home currency even if the country succeeded in bringing inflation down (see box 4.1). This overvaluation normally resulted in a loss of international market shares and a deterioration of the current account balances.

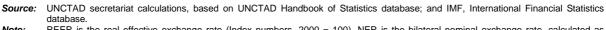
#### Box 4.1 Fixed exchange rate regimes and the overvaluation trap

Regimes of fixed exchange rates or "anchoring" have often been used to stabilize domestic inflation rates. While the reduction of domestic inflation has been achieved in many cases, the solution has not proved to be sustainable and has ended in crisis very often. Why? This is mainly due to accumulated losses in competitiveness or an appreciation (increase) of the real exchange rate. In fact, since the real exchange rate is defined as the nominal exchange rate adjusted for the inflation rates in the anchoring and in the anchor economy, fixing the nominal exchange rate leads to a situation where the real exchange rate is only driven by changes in the price differences. Therefore, even if the country succeeds in reducing its inflation rate gradually, the convergence process implies for most of the time positive inflation differentials between the anchoring country and the anchor country. This imbalance between the internal and external value of money is reflected in a continuous appreciation of the real exchange rate.

Figure B.1 shows the examples of Ecuador and Lithuania. In both cases, since the beginning of the peg (in the case of Lithuania in 1994) and the dollarization (in the case of Ecuador in 2000), the real exchange rate continuously appreciates while the inflation rate steadily decreases. The decrease in the inflation rate of the anchoring country looks like a domestic success but its price is an external overvaluation.

Figure B.1





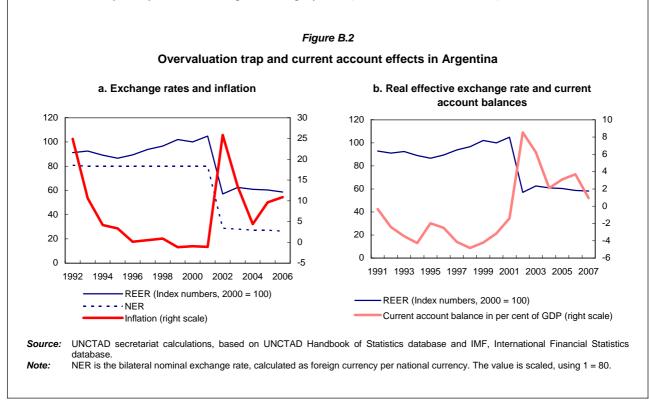
*Note:* REER is the real effective exchange rate (Index numbers, 2000 = 100). NER is the bilateral nominal exchange rate, calculated as foreign currency per national currency. The value is scaled, using 0.25 = 40 for Lithuania. In 1994, Lithuania established an exchange rate of 0.25 litas per US\$1 and switched from the dollar to the euro on February 2002.

As time passes by, the effects of the overvaluation trap on the anchoring economy become more and more visible. The real appreciation leads to an unsustainable situation because the prices of large amounts of goods of the anchoring country are higher in international currency than the goods of the anchor country and the former constantly loses market shares.<sup>15</sup> The unavoidable reduction of exports and the increase in imports eventually affects the trade balance and current account. Sooner or later the rising current account deficit accompanied by a real appreciation will be interpreted by the capital markets as an indicator for non-sustainability (UNCTAD,

<sup>&</sup>lt;sup>15</sup> The concept of price elasticity of the demand is important to determinate businesses and consumers respond to exchange rate fluctuations.

*TDR* 2007: 14) and may trigger speculative flows. Therefore, mostly episodes of real exchange rate appreciation are followed by abrupt nominal (and eventually real) exchange rate devaluation and the consequent abandoning of the peg.

Argentina has been the classical case (figure B.2). In April 1991, Argentina's currency board established a fixed pegging of one-to-one parity between the peso and the U.S. dollar. Its main achievement was to bring inflation down from more than 3,000 per cent in 1989 to 3.4 per cent in 1995. However, the real appreciation, which in the last stage was fuelled additionally by depreciations of important trading partners like Brazil, had severe consequences for the Argentinean economy and its export performance. The system led the economy to a point were the peg was no longer sustainable and the national currency had to be depreciated. However, the final correction is very costly in terms of output and employment (UNCTAD, *TDR 2007*: XV).



Any external or political shock could trigger a loss of confidence in the regime and set off an avalanche of speculative capital outflows in such a situation. The flight of short-term capital would sooner or later mark the collapse of the exchange rate regime, as the monetary authorities trying to fend off the attack on the currency have to use precious foreign exchange to buy their own currency. However, the reserves of foreign exchange are limited and experienced market participants anticipate the depletion of reserves and the final surrender of the Government in the country with the currency under pressure to depreciate. That is why the accumulation of foreign exchange reserves is rarely sufficient for Governments and central banks to prevail over speculative attacks, even if the amount of reserves is huge like in the Russian Federation.

The global imbalances that have plagued the world for so many years reflect vital systemic deficiencies, especially the lack of a viable multilateral financial system that balances the symmetric obligations of surplus and deficit countries. These deficiencies in the global economic order did not led to deflation earlier owing mainly to the flexibility and pragmatism of United States macroeconomic management. Meanwhile, more and more developing countries have followed a similar path of adjustment by stabilizing their exchange rate at a relatively low level, running sizeable current-account surpluses and accumulating huge dollar reserves.

While this practice is widely suspected to be sub-optimal, in many respects it represents the only feasible way in which developing countries can successfully adapt to the absence of symmetric

obligations of surplus and deficit countries. It is no surprise that the "undervaluation-*cum*-intervention strategy" (UNCTAD, *TDR 2006*, chapter I: 10) is especially prevalent among developing countries that have gone through currency crises in the wake of liberalization of their financial systems and capital accounts. Having learned the hard way that reliance on supposedly benign capital inflows rarely pays off as a sustainable development strategy, a growing number of developing countries have shifted to an alternative approach that relies on trade surpluses as their engine for investment and growth. This strategy presupposes that at least one country in the global economy can afford to run the corresponding trade deficit.

The problem is that the United States became overburdened by having played the lead role as global growth engine for so long. It could largely ignore its external imbalance because it created no serious conflict with sustaining full employment and price stability. Now the turning point has to be found under extremely difficult circumstances, with the world facing a deep recession and the threat of global deflation. However, the main reason for the increasingly unmanageable global burden of the United States was not the rising numbers of developing countries running current-account surpluses *per se.* Rather, the failure of other key industrial countries, such as Japan and Germany, to do more to contribute to the reduction of the global imbalances lies at the heart of the matter. Their huge external surpluses, based on improved competitive positions, suggest that the required competitiveness gains of the United States needed to reduce global imbalances should mainly come at their expense. This recovery process would be greatly eased if it were to occur in the context of buoyant domestic demand in these economies.

In conclusion, the exchange rate must be flexible enough to prevent persistent misalignments that would harm the competitiveness of domestic producers and their trade performance. At the same time, excessive volatility of the exchange rate must be avoided, as this heightens the risks for long-term investment, increases domestic inflation and encourages financial speculation. The idea that the "corners" of absolute fixing or free floating offer a simple way out is flawed. Both corners are based on purely hypothetical and unrealistic assumptions. In the case of free floating, it is assumed that international financial markets smoothly adjust exchange rates to their "equilibrium" level. In the case of a hard peg the product, financial and labour markets would always smoothly and rapidly adjust to a new equilibrium at the predetermined exchange rate. In reality, however, exchange rates under a floating regime have proved to be highly unstable, leading to long spells of misalignment, with dire consequences for real economic activity. The experience with hard pegs has not been satisfactory either: as the exchange rate cannot be corrected in cases of external shocks or the failure of domestic adjustment, corrections can be extremely costly in terms of lost output, and the setbacks to the real sectors of the domestic economy.

#### C. Global exchange rate management, trade and investment

A long run solution for the international financial system has to start with the recognition that the exchange rate of any country is, by definition, a multilateral phenomenon, since any rate change in open economies produces externalities and multilateral repercussions. Similar to multilateral trade rules, a rule-based global financial system would create equal conditions to all parties involved and help avoid unfair competition. Avoiding competitive depreciations and other monetary distortions that have negative effects on the functioning of the international trading system is gaining more and more importance, as the world economy is getting more and more interdependent.

The existing global economic governance system lacks the institutional arrangements to exercise multilateral discipline on exchange rates. Until the early 1970s under the Bretton Woods system, the power of markets to generate unexpected and erratic movements in exchange rates was constrained by capital controls and the obligation of central banks to intervene in foreign-exchange markets in order to maintain exchange-rate stability in normal times. This systematically limited the influence of short-term capital flows that were motivated by interest arbitrage. By defining narrow exchange-rate bands, the system also limited the ability of Governments to manipulate the exchange

rates of their currencies. This was intended to prevent beggar-thy-neighbour policies based on competitive depreciation, which had been one of the big and eventually damaging policy failures of the interwar period of the last century. The Bretton Woods system tried to ensure a balance between national policy autonomy on the one hand and multilateral disciplines on the other. To a certain extent, formal monetary autonomy was sacrificed for some stability in the financial markets and a balanced international trade (UNCTAD, 2007c: 47–48).

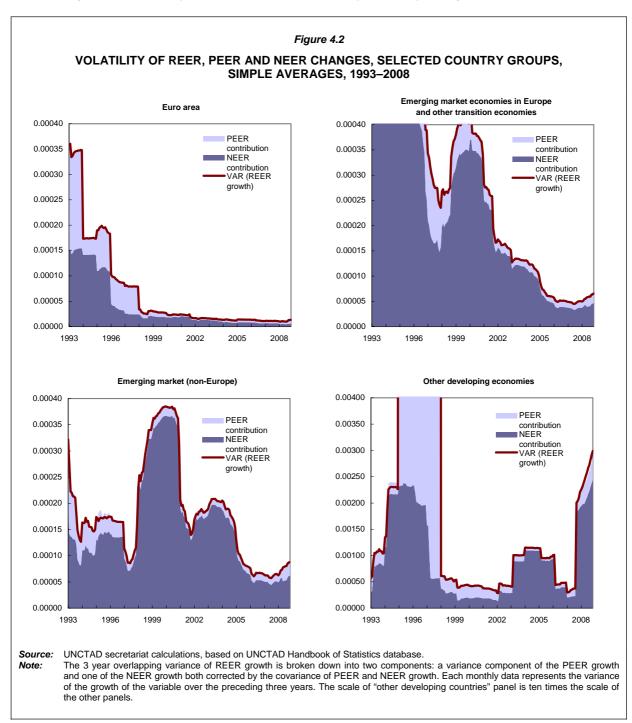
The preceding analysis of exchange rate dynamics shows that the idea of having national monetary sovereignty in markets with open borders for goods and capital is an illusion and the exchange rate cannot be considered as a tool of domestic economic policy. There is not only, as many believe an *impossible trinity* of national monetary policy autonomy, open capital accounts and fixed exchange rates. There is an *impossible duality*: with open capital accounts national monetary policy is no longer autonomous since no exchange rate regime can isolate a country under these conditions. Therefore, multilateral or even global exchange rate arrangements are clearly necessary to achieve and maintain global monetary and financial stability and to combine such stability efficiently with an open trading system.

An important purpose of the founding of the IMF was to avoid competitive depreciations. In a well-designed global monetary system, the need and the advantages of currency depreciation of one country would have to be balanced against the disadvantages to the others. Such a multilateral regime would, among other things, require countries to justify real depreciations and the dimension of necessary changes. If such rules were strictly applied, the real exchange rate of all the parties involved would remain more or less constant, as strong arguments for creating competitive advantages at the national level would rarely be accepted by the parties that would lose their competitiveness (UNCTAD, *TDR 2004*, chapter V).

The strength of the case for reform of the current global non-system draws from the huge and distorting influence that the present monetary chaos exerts on the effectiveness of international trade. An exchange rate system is needed that enables companies in all countries to compete on more or less the same terms internationally as they do nationally. Schumpeter (1911) pointed to the importance of innovative investment for economic development, and Baumol (2002) argues that innovation, and the consequent rise in productivity, account for much of the extraordinary growth record that has occurred in various parts of the world since the Industrial Revolution. Both argue that market pressures force firms to integrate innovative investment into their routine decision processes and activities. In this way, markets are able to produce a stream of more efficient production processes and of products that better respond to consumer demand.

At given wages, successful innovative investment will be reflected in growing market shares, if the investor passes on the innovation rents in form of lower prices; or it may lead to (temporary) monopoly profits if the investor is able to leave sales prices unchanged and to enjoy innovation rents from the rising revenue-cost ratio until competitors succeed to catch-up. At the international level very often the link between productivity gains of a single company – based on innovation – and rising profits or rising market shares is severed by exchange rate changes. If the exchange rate of the currency of a country deviates considerably from the difference of the price level in the home country and its trading partners, the mechanism of innovative (or creative) destruction will be distorted. Companies in countries with few innovations may thrive because of an undervalued exchange rate and vice versa. Companies that display the same cost level as their competitors in other countries may lose out because the currency of their country is appreciated and forces them to squeeze their profit margins to avoid losses in market shares.

There is only one exchange rate/price adjustment rule that can restore the level playing field for all companies in international trade: nominal exchange rate changes should follow the difference in the price levels of the countries involved in international trade. However, nominal exchange rate changes appear to explain most of the real exchange rate changes; which implies that nominal exchange rate fluctuations do not adjust to relative price changes, in the short run. Figure 4.2 shows a decomposition of the variance of real effective exchange rate (REER) changes into a component that depends on the nominal effective exchange rate, a "NEER contribution", and a component that depends on the relative price, a "PEER contribution".<sup>16</sup> The nominal exchange rate contribution to the variance of the real effective exchange rate growth is large in all four major groupings of economies, confirming that the volatility of the REER has been mostly driven by changes in the NEER.



<sup>&</sup>lt;sup>16</sup> The real *effective* exchange rate, REER, measures the relative price levels of one country vis-à-vis all trading partners. It is calculated as the ratio of the weighted average of foreign price indices (each multiplied by the relevant exchange rates) and the domestic price index. The nominal *effective* exchange rate, NEER, is the average of one country's nominal exchange rates vis-à-vis partner countries weighted with their trade shares. The price component of the REER is a weighted average of trade partners' price indices over the domestic price index. We can name it PEER, and it is defined as PEER=NEER/REER.

## D. Currency crisis prevention and resolution

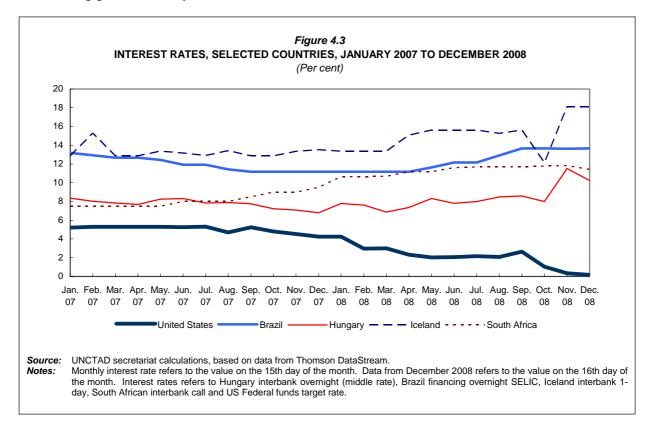
There are four policy implications of the preceding analysis:

- *First*, changes in the nominal exchange rate that are caused by "autonomous" capital flows (i.e. that are unrelated to the flow of goods) can very much like protectionist measures fully offset competitive advantages of firms and likewise increase the competitiveness of otherwise non-competitive companies.
- *Second*, nominal exchange rate stability is not sufficient to achieve the level playing field if price differentials between countries still deviate.
- *Third*, as, over the medium or long-term the inflation rate is mainly determined by unit labour costs, i.e. the sum of wages that is paid to generate one unit of a product (Flassbeck and Spiecker, 2007: 66–70), fixing the exchange rate requires harmonizing labour market conditions in the countries involved.
- *Fourth*, the ideal of free competition of innovative firms can be achieved in a world with inflation differentials and different currencies. However, with the failure of floating and of unilateral fixing a multilateral exchange rate framework is needed that pursues rather constant real exchange rates among its members. All participating countries should agree that competition shall take place at the micro level only and not between nations.

As important as the trade distortion effect of real exchange rate changes is the impact that a large deviation of nominal exchange rates from the inflation difference has on the volatility of capital flows and on the ability of countries to pursue a growth oriented countercyclical monetary policy. This is highlighted by the current crisis. The countries most exposed so far are those that combine high current-account deficits with a substantial build-up of foreign liabilities by the private sector and have been the victims of carry trade. Triggered by the subprime collapse, this currency speculation unwound and caused a sharp depreciation of the nominal and real exchange rates of the affected countries.

While this exchange rate adjustment usually improves the overall international competitiveness of a country's enterprises, which will eventually benefit their external account and help the real economy to recover, it entails major adverse balance-sheet effects for households and banks, at least in the short term. These short-term effects may cause severe stress in the domestic banking sector and a decline in household consumption, with serious consequences for growth and employment. A secondary negative impact stems from the efforts of central banks to defend the (depreciated) level of the currency through monetary and fiscal tightening at a certain point to contain the above-mentioned balance-sheet effects. But such tightening – reminiscent of the IMF-supported policy response to the Asian crisis – is jeopardizing their economic recovery and unnecessarily tightens the global policy stance now, during one of the most severe recessions of the past century.

IMF assistance – at times combined with swap agreements or direct financial assistance from the EU or, recently, the United States – has helped ease the immediate pressure on the currencies and banking systems of the troubled countries. But the origin of the problem – speculation of the carry trade type – raises doubts about the adequacy of the traditional IMF approach for tackling such a crisis. Raising interest rates to avoid further devaluation is like the tail wagging the dog (figure 4.3) because traditional assistance packages or swap agreements, combined with restrictive policy prescriptions are clearly pro-cyclical. Indeed, countries that have been exposed to carry trade speculation need a real devaluation in order to restore their international competitiveness. They also need assistance to avoid a downward overshooting of the exchange rate, which would both hamper their ability to check inflation and unnecessarily distort international trade. But they do not need belttightening. Rising interest rates and falling government expenditure will only reinvite speculation and worsen matters in the real economy. In such situations, even countries with current account deficits and weak currencies need expansionary fiscal and monetary policies to compensate for the fall in domestic demand, as long as the expansionary effects of devaluation have failed to materialize in a contracting global economy.



Stopping an overshooting devaluation – which is the rule and not the exception – is very costly if attempted unilaterally, but very inexpensive if countries under pressure to devalue are joined in their fight against speculation by countries on the other side of the fence, namely those facing revaluation of their currencies. Countries that are struggling to stem the tide of devaluation are in a weak position, as they have to intervene with foreign currency, which is available only in limited amounts. If the countries with appreciating currencies engage in a symmetrical intervention to stop the "undershooting", international speculation would not even attempt to challenge the intervention, because the appreciating currency is available in unlimited amounts: it can be printed. Multilateral or even global exchange rate arrangements are clearly necessary to achieve and maintain global monetary and financial stability and to combine such stability efficiently with an open trading system.

#### E. A multilateral approach to global exchange rate management

The preceding sections, based on historical and theoretical considerations, laid out the guiding principles for a global multilateral financial framework. A set of basic principles derived from the analysis above would make a practical implementation of the core ideas feasible and could provide monetary and financial stability to all participating countries while restoring the conditions for Schumpeterian innovation. To achieve this, a multilateral monetary framework would be based on rather free movement of capital and would be governed by strong global institutions. To ensure the functioning and the efficiency of such a framework, the following principles need to be applied (Flassbeck, 1988; Clarida, 1999; Bofinger, 2000; UNCTAD, *TDR*, various issues):

## *Ensure level playing field – stable real exchange rates:*

- The real exchange rate is kept constant among a group of countries (one region or more). Fundamental and long lasting trade imbalances are prevented since all participating countries maintain their level of competitiveness.
- Real exchange rates are normally kept constant by way of setting labour market institutions that allow steering nominal wages in a way that reflects productivity increases and the growth rate of inflation in each country.
- If nominal wages fail to adjust or if inflation targets diverge, nominal exchange rates need to be adjusted to exactly compensate the emerging gap in competitiveness.

## Avoid currency speculation – interest rate parity:

- To avoid large speculation gains in currency markets, nominal exchange rates need to adjust to changes in interest rate levels of countries along the interest parity condition (relative UIP developments).
- Even if inflation rates do not converge over time, the reflection of relative PPP in exchange rates on a regular basis (monthly or quarterly) will remove most of the incentives for short-term speculation in currencies.

## Enduring symmetric response:

- As unilaterally pegged exchange rate arrangements and floating are prone to speculative attacks, an international financial system designed to minimize speculative attacks needs to be built on a symmetric responsibility that commits interventions to be carried out by the central banks of both the depreciating and the appreciating currencies if an exchange rate comes under unjustified attack.
- The country with an appreciating currency has unlimited intervention potential (since the means can be printed and the result of foreign exchange market interventions on the domestic money market can normally be sterilized). In this case the need to hold foreign exchange reserves to "insure" against depreciation pressures is minimal for all individual countries.
- Symmetric response also means that cost and profits of intervention will be equally shared. For instance, the central bank of the appreciating currency will incur a valuation loss of its foreign exchange reserves in its own currency, while the central bank of the depreciating currency will make a valuation profit of its exchange reserves in its own currency. Likewise, cost of sterilization may incur on one side that need to be shared with the partner central banks.

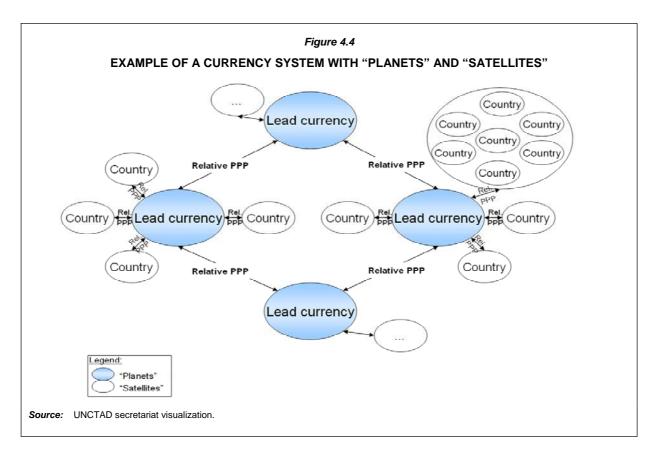
## *Multilateral code of conduct:*

- The code of conduct needs to reflect the new sprit of multilateralism in global economic governance based on the need to balance the advantages of one country against the disadvantages of other directly or indirectly affected countries.
- The code of conduct ends the competition of nations. It is not countries that should compete with each other but companies on a level playing field.

## Global organization of the system:

- The present Bretton Woods institutions have to be fundamentally redesigned or a new global institution with supervisory and advisory powers has to be created and has to practically manage the new financial system.
- Lead currencies have to be found ("planets"); given the economic power shift away from a singular economic leader in the post-war financial system, several lead currencies (existing or artificial) should be envisaged in today's multi-polar economic system (figure 4.4).

- The lead currencies will be linked with each other through symmetric managed floating systems with exchange rates automatically adjusted by relative price differentials (relative PPP).
- Regional blocks can be formed ("satellites") to be linked to one of the "planets" or a group of them. Alternatively, individual countries may choose to be associated as "satellites" with one or more of the "planets".
- Entry and exit criteria will need to be defined *a priori* and include provisions on domestic monetary and fiscal policy.



The authority managing a multilateral exchange rate system needs to assume a series of fundamental responsibilities to ensure its efficient functioning through rules that keep the real exchange rate stable. An international monetary authority would need a mandate to enforce such regulations, including through adjustments to members' nominal exchange rates. The surveillance function needs to be complemented by an enforcement capacity so as to be able to implement binding commitments for necessary adjustments within the system. The authority also has to assume the role of a lender of last resort so as to supply liquidity to the system's members in case of crisis. A common currency unit could be envisaged under its surveillance, the seignorage of which would be shared among all members. To efficiently face stress in the financial and exchange rate system the managing authority will have to assign tasks and responsibilities in a symmetric fashion, i.e. through the involvement of the depreciating and the appreciating currencies. At the same time, the institution will ensure that costs and profits of symmetric interventions are shared among all parties concerned. Finally, the governing institution of the new exchange rate system would act as the highest authority for the establishment and monitoring of a true global financial multilateralism.

## F. Conclusion

In the second half of 2008 the sharp devaluation of the Icelandic krona (51 per cent against the United States dollar) has been followed by a larger wave of currency depreciations, such as of the Hungarian forint (34 per cent), the South African rand (38 per cent), the Brazilian real (34 per cent), the Turkish lira (33 per cent), the Mexican peso (29 per cent) and the Chilean peso (28 per cent). Many others are likely to follow in 2009, for instance in Eastern Europe, where the pressure on currency markets has been ever-increasing over recent months. Countries like Estonia, Lithuania, Rumania and Bulgaria are under rising distress and the region as a whole is now under serious danger of economic meltdown.

But the combination of huge current-account and budget deficits, devaluation pressures, sometimes pegged exchange rates and diminishing foreign exchange reserves lead to the same old policy prescriptions of austerity again and again. It is high time to act and break this vicious cycle. Countercyclical macroeconomic policies – enabled and supported by a global multilateral financial framework – are urgently needed.

The bold departure proposed here is needed not only to counter the adverse effects of the current global financial crisis, but also to prevent similar crises in the future. It is clear that vulnerable countries in crisis do not need assistance packages that oblige them to fiscal austerity and restrictive monetary policy measures. Just as the advanced economies need expansive monetary policy and fiscal stimulus to break the negative feedback of the financial crisis on economic activity, so do developing countries, transition economies and emerging markets. They all need a combination of financial stabilization with expansive monetary and fiscal polices. In the absence of such a policy mix more and more countries will quickly end up on the verge of collapse.