

## Asia ten years later: recovering from the crisis and lessons learned

### EDITORIAL

Revisiting the 1997 East Asian crisis ten years later, this issue of *AFD's economic newsletter* implicitly addresses what appears to be a fixture of capitalism: recurrent financial crises. These crises seem to be the main adjustment mechanism for behaviors that are inherently incompatible with long-term stability. Evaluating them also can give perspective on the continuous efforts made in the wake of major crises to prevent the excesses that are believed to have triggered a particular crisis. However, there is such financial intensity in the global economy that, sooner or later, new excesses will occur despite any regulations that are introduced. Financial vulnerabilities seem to be shifting in time and space, receding for a while only to recur later differently configured, making crisis prevention somewhat reminiscent of the labors of Sisyphus.

Ten years on, the fundamental macro and micro-economic strategies applied in Asian countries have improved while growth has slowed, except in China, Vietnam and Cambodia. Asia has not yet been affected by the latest international financial crisis related to the "subprime" mortgage credit meltdown in the United States, and seems to be protected by a particularly ample cushion of reserves, which is probably larger than optimal requirements. However, in countries other than China these reserves have often been offset by a slowdown in investment, particularly in infrastructure, which is even more detrimental to potential growth and the long-term attractiveness of these economies.

A build up of reserves can also result in a marked imbalance in current accounts in the world, typified by the record American deficit and Chinese surplus. This imbalance has, in part, encouraged Chinese growth; but such conditions are not sustainable, both because the Central Bank of China could find more productive and profitable ways of investing its reserves and because it is increasingly clear that an opportunity cost exists for the accumulation of reserves in terms of unrealized imports and, consequently, external purchasing power. Global macroeconomic adjustment conditions would therefore inevitably lead to the depreciation of the dollar, the appreciation of the renminbi and a slow-down in American growth, and would require China to base its growth dynamics much more on internal demand. To achieve this with excess liquidity and an unprecedented rate of investment, China would need to allocate resources more effectively. The Bank for International Settlements (BIS) sounded the alarm in its 2007 report. Effectively regulating global capitalism, particularly the financial dimension, has once again, justifiably, become a key issue.

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# “ A Post-Crisis Change In Asia’s Growth Regime ”

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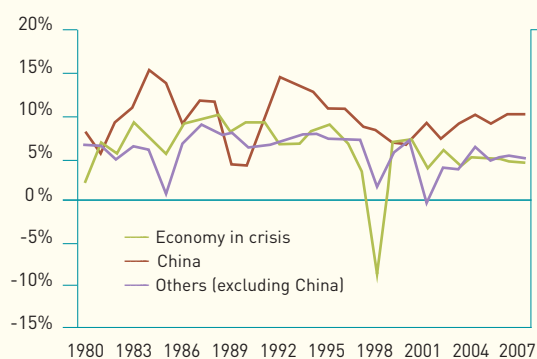
The Asian crisis in 1997 surprised all observers, including even the most skeptical. Two years beforehand, Paul Krugman had shocked everyone by comparing Asia with the Soviet Union. As Asian growth stemmed more from “perspiration than inspiration”, it was doomed to run out of steam. The Asian slowdown began with the decline in exports that had been affected by Chinese competition. This led to deepening current account deficits (Thailand, Indonesia, Malaysia), which explained the initial assaults on the Thai Baht at the end of 1996. Even though a currency correction was thought likely, no-one expected it to degenerate into a regional crisis. This contagion was a consequence of capital account liberalization reforms introduced by the IMF at the start of the decade that accelerated capital inflows without improving the country allocation: Thai banks speculated on the real estate market, Korean groups and Indonesian banks financed ambitious but at times poorly thought-out projects. Capital flowed indiscriminately in Thailand, Taiwan, Indonesia and Malaysia, but then rushed out of East Asia at the first sign of trouble.

In the spring of 1997, an increase in interest rates burst the real estate bubble in Bangkok. The Bank of Thailand resigned itself to floating the Baht on July 2, after having exhausted its reserves trying to save it. This decision reduced confidence in other currencies that were, to a greater or lesser extent, tied to the dollar. Capital outflows forced many countries into adopting floating exchange rates and changes in parity, which in turn led to a crisis in the banking sector and a regional recession. This crisis marked the “end of the Asian miracles” for many observers, and heralded a lost decade.

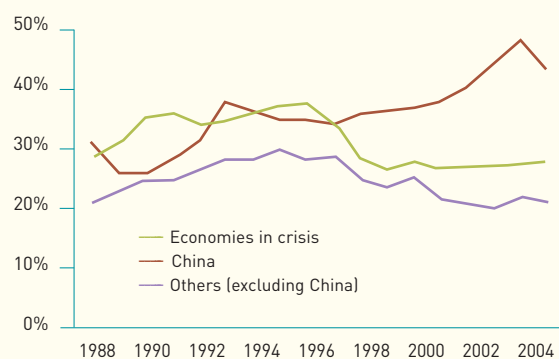
Ten years later, Asia “sparkles in the global economic landscape” and there is an “Asian renaissance”<sup>(1)</sup>. However, even though the region, from Tokyo to Singapore, has become more prosperous, its contribution to the global economy (measured in constant dollars) has remained stable with the increased importance of China offsetting the erosion of the Japanese economy and the stagnation of Asia outside of China.

The crisis marked a change in Asia’s growth regime. Growth slowed, fewer jobs were created and there was less equality. It also changed Asia’s position in the global economy: it became a net exporter of capital instead of an importer of capital.

Graph 1: Growth rate  
(weighted average of GDP)



Graph 2 : Rate of investment  
(weighted average of GDP)



According to Chelem, Asian Development Bank and IMF.

(1) GILL, I. and H. KHARAS (2006) *An East Asian Renaissance: ideas for economic growth*, World Bank.

## ■ Slower growth

The Asian countries emerged from the crisis with varying economic situations. Growth continued at a slower pace in contrast to China's accelerated rates (Graph 1). This slowdown was a result of reduced investment (Graph 2). Initially considered as a simple correction after the 1990/1996 boom (investment in Korea and Thailand reached 40% of GDP in 1996), this reduction<sup>(2)</sup> seemed to be structural in nature. Econometric studies show that, with the exception of Korea, Asian countries invest less than other countries characterized by the same level of income. How can this be explained? Lack of credit is not to blame since the banking situation has improved and interest rates are low. However, it may be because companies that were adversely affected by the crisis are now acting more cautiously. The deterioration of infrastructure may also be a factor. Forced to take rigorous measures, nations made sweeping cuts<sup>(3)</sup> in equipment expenditures and companies are more reluctant to make investments, or choose to invest in China, where huge efforts have been made to improve infrastructure.

## ■ Fewer jobs are being created by industry and the inequality gap is widening

Industry is central to the Asian Emergence. From Japan to China, countries have followed the same path, progressing from textiles to electronics and capital goods with the aid of strategies that combine protectionism and export promotion. Thanks to the leverage effect of low wages, they were able to compete on markets for labor intensive products and then, as a result, were able to migrate upstream to more sophisticated industrial markets. Asia has thus become one of the main global manufacturing industrial centers: China is the 4<sup>th</sup> global producer behind the United States, Japan and Germany. Korea is 10<sup>th</sup>.

Since the crisis, the manufacturing sector has remained the most dynamic sector. Still, it creates fewer jobs everywhere<sup>(4)</sup> in Asia. The large Korean and Taiwanese companies create more jobs in China than at home. While unemployment has been reduced (except in Indonesia), part-time employment has now become the norm. This is also the case in China, where, in spite of "relocations" coming from elsewhere in Asia, the creation of new jobs has

only made up for the layoffs that occurred up to 2003. Urban unemployment remains high and the employment situation for new graduates is troubling.

The employment situation also affects equality. Until the beginning of the 1990s, Kuznet's theory could not be applied to Asian growth since it was not accompanied by a widening of the inequality gap. Since then, it has become more "standard" and the Gini coefficients have gone into decline everywhere except in Thailand<sup>(5)</sup>. In Korea, this deterioration has even been accompanied by a reduction in the real income of the poorest people. There was unemployment for the first time in Asian countries in 1997 but no social safety net existed. Ten years later, social expenditures have only slightly increased in Thailand and Korea (from 1% to 2% of GDP).

## ■ Asia is more open

Asian countries have not decreased but increased exports and trade has been redirected towards China, highlighting the importance of semi-finished products in Asian trade. However, this shift has not truly diminished the relative importance of the United States as the final market for Asian exports (see AFD's Economic Newsletter on "China – driver of development", no. 15, available only in French, January 2007).

## ■ An exchange rate policy combining a fixed and floating exchange rate

The crisis illustrated the impossible trinity described in Mundell-Fleming's model, where an economy that is open to capital flows cannot maintain an independent monetary policy while at the same time maintaining a fixed exchange rate which, in the case of Asia, is tied to the dollar. From July 1997, most Asian countries formally abandoned the fixed exchange rate system without really adopting a floating exchange rate. Hong Kong kept the peg that China had abandoned by moderately increasing the fluctuation margin of the renminbi. Thailand, Singapore and Malaysia maintain a "managed" floating exchange rate policy and Korea and the Philippines maintain a floating exchange rate policy. With appreciating currencies resulting from current

(2) Except for in Malaysia, this reduction affects the private as well as the public sector.

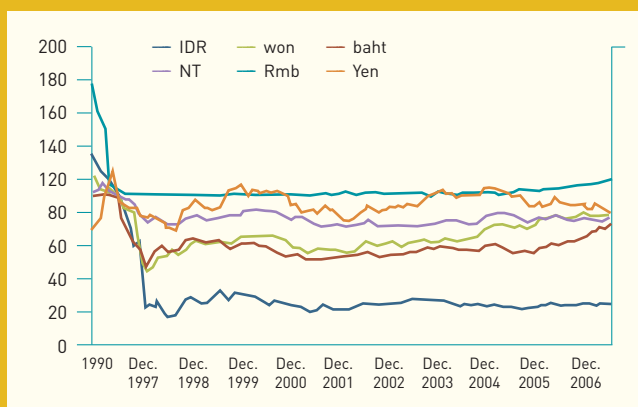
(3) The sweeping cuts sometimes have a dramatic impact on security (Indonesia).

(4) The manufacturing industry has even shrunk in Indonesia.

(5) This exception is a result of the measures taken by the Thaksin Shinawatra Government between 2002 and 2005 with regard to the rural market.

account surpluses and capital inflows, the monetary authorities restrict these movements because they are afraid that the currencies will appreciate against the renminbi (6). This results in an increase in reserves that are above the optimal protection levels, estimated to be equal to one year of short-term debt, according to the "Guidotti-Greenspan" rule (Graphique 4).

Graph 3: Changes in parity with the dollar (1990- 2007) (1995 rate = base 100)



Sources: Ecowin.

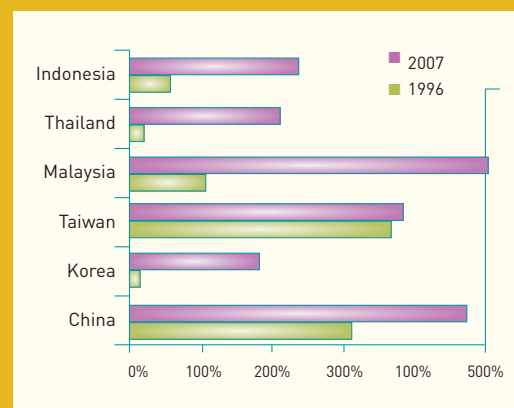
By amassing these reserves, the countries insure themselves against crisis. The opportunity cost of this insurance is even greater if the countries have invested in American Treasury Bonds. The central banks partially suppress this monetary creation (7) but not enough; cash generation contributes to the increase in speculative bubbles.

Maintaining excess reserves protects Asia from a repeat of the 1997 crisis. The region has therefore not been affected by the subprime mortgage crisis, whereas, previously, America merely had to sneeze for Asia to catch the flu. Nevertheless, these reserves do not protect Asia from other shocks, for example the sudden reversal of China's economy suggested in the 2007 report from the Bank for International Settlements. This report pointed out that the 1929 crisis and the Asian crisis followed periods of excessive and non-inflationary growth under favorable financial conditions; the BIS fears that China will make the same mistake

that Japan did in the 1980s. The undervaluation of the yen led to a speculative bubble that for China represents an unprecedented rate of investment (50% of GDP). Under these conditions, a confidence crisis could prompt investors to liquidate their positions and cause the boom to become an implosion, the effects of which would be felt throughout the region (8), putting the banking systems to the test.

Beyond these short-term uncertainties, reduced investment raises concerns for the medium and long-term future of Asia in view of China's emergence. If Asian exports are driven by the dynamics of China, then the continued development of sophisticated industrial markets in China could undermine the win-win aspect of China's emergence for Asia. Korea and Taiwan have once again joined the ranks of industrialized economies, but other countries are lagging behind and run the risk of joining the Latin-American countries in the "middle-income country trap".

Graph 4: Reserves as a % of short-term debt



(6) Since abandoning the peg (July 2005), the renminbi has appreciated by 8% against the dollar.

(7) The significance of this practice is measured by the gap between the increase in reserves and the monetary base: between 2000 and 2005, 4 points of GDP in China, 3.4 in Malaysia, 1.9 in Thailand and 1.4 in Korea. Source: World Bank: East Asian Update, March 2007.

(8) EICHENGREEN, B (2007), "Asian crisis 10 years later" *Vox*, (18 June, 2007) and *Telos*, July.

# Ten years after the Asian crisis: What has become of the macrofinancial zones of vulnerability in the emerging countries? <sup>(9)</sup>

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The financial crises that plagued the emerging economies at the end of the 1990s seem to be just a bad memory. The long period of financial crisis actually started in 1994 in Mexico, reached a climax with the Asian and Russian crises in 1997/98, and ended with the Turkish and Argentine crises in 2001 and 2002 <sup>(10)</sup>. Since then, certain countries have experienced periods of sometimes very pronounced financial tension <sup>(11)</sup> but these have never degenerated into outright crisis. This is mainly because these economies are now more resilient thanks to the correction of certain imbalances and the strengthening of their economic policies.

In addition, apart from a few periods of financial tension that were evident over the last few years, most emerging countries seem to be following much stronger growth paths than those predominant in the 1990s. Their surplus current balances result in rapid reduction of external debt (to the point that some countries have been able to repay the International Monetary Fund in advance) and low interest rates; strong growth facilitates the management of public debt that in most cases is considerably lower (particularly in countries that had amassed sovereign debt as a result of the financial crisis). In this context, the core of global systemic risk seems to be the United States, as shown by the increase in the external American imbalances for the last several years, and, since the summer, the subprime mortgage crisis and the strong downward movement of the dollar. Moreover, even though this crisis has provoked contagion in certain developed countries (particularly in Europe), the impact on emerging countries has been very limited. This provides new evidence of how resilient

emerging countries have become to external shocks, and even their ability to “decouple” from traditional developed economies.

In our opinion, the scope of this theory needs to be clearly defined. The economic and financial risks for these countries have indeed been reduced if the “old” criteria are taken into consideration. But profound changes are now affecting these risks and these must be examined.

## ■ 1. External financing cycle in the emerging countries and the redistribution of financial bubbles

### 1.1. Financing cycle and risk assessment

The inflow of capital to the developing world has a major cyclical component that is linked to the economic and financial situation of developed countries. The inflow of private capital to developing countries, mainly to emerging Asia, began in the early 1990s in the wake of the recessions that affected most developed economies (Graph 1).

This movement of capital to high-growth Asian countries, particularly in the form of Foreign Direct Investment and bank loans, makes it possible for American and European investors to maintain high levels of return in a recessionary economic environment. In contrast, after 1997, the “flight to quality” following the Asian crisis fueled the technology assets bubble that developed in American and European financial centers.

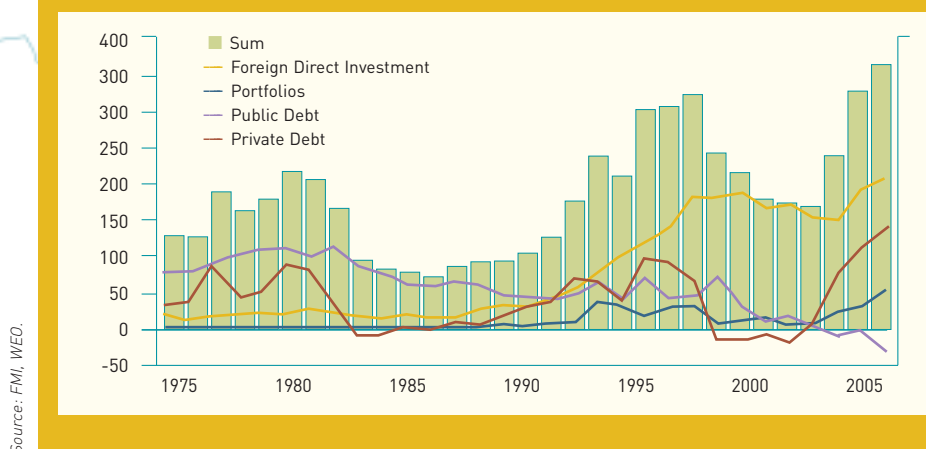
A new phase in this cycle began in 2001 when the Internet bubble burst and fears of a liquidity crisis following the September 11 attacks led the Federal Reserve to relax monetary policy, which quickly became exceptionally accommodating. The aim was

<sup>(9)</sup> This article is an extract from AFD Working Paper N° 60: “The financial balance of the world economy and the new zones of financial vulnerability in the developing world”.

<sup>(10)</sup> Between 1994 and 2002, the main crises affecting the developing world were as follows: Mexico (1994), Emerging Asia (1997-1998), Russia (1998), Brazil (1999), Turkey (1999 then 2001) and Argentina (2001-2002).

<sup>(11)</sup> Brazil during summer 2002, Turkey in spring 2003, Turkey then South Africa in spring 2006.

Graph 1:  
Capital flows to the developing world  
(in constant USD billions)



Source: FMI, WEO.

to combat the deflationary pressure that was developing within the American economy. This was in a context where the Fed feared a repeat of the scenario that had been unfolding in the Japanese economy since the start of the 1990s, where the economy and financial system were completely frozen due to deflation as a result of the bursting of the stock market bubble – the consequences of which had been poorly managed by macroeconomic policy. In 2001 and 2002, several conditions were present in the three main centers of the global economy (the United States, Europe and Japan) that once again triggered massive capital flows to emerging countries. These conditions included, simultaneously, low interest rates and low capital return in developed countries, an aversion to the risks associated with stock markets in the developed countries (bursting of bubbles and then Enron-type financial scandals), and the abundance of liquidity as a result of relaxed monetary policies.

While capital flows to the developing world went from 330 to 169 billion USD between 1997 and 2002, they then accelerated at a rate unseen over the previous 30 years, reaching 370 billion USD in 2005 (Graph 1). During this acceleration, capital flows changed significantly in nature. They were still mainly Foreign Direct Investment but there was an unprecedented increase in investment flows and

private debt flows (mainly financed by international banks). Conversely, public capital flows (from bilateral and multilateral donors) became negative, representing net repayments from the developing countries (and the start of existential questions by the IMF).

According to the theoretical model developed in the 1990s, these capital flows have solely positive impacts on the recipient countries. Companies in these countries are able, through greater international financial integration, to benefit from financing conditions that are much more accommodating and thus increase their levels of investment <sup>[12]</sup>. However, studies have shown that the rate of investment in certain emerging Asian countries fell considerably at the end of the 1990s. This reduction prompted excess savings resulting in a current surplus in the external accounts. There was also a sharp increase in asset prices, mainly fueled by inflows of foreign capital into most emerging countries <sup>[13]</sup>. As a result, the stock market indexes in these countries soared compared to the indexes in developing countries and the spread of their sovereign debt fell to levels never before seen (Graph 2 and 3).

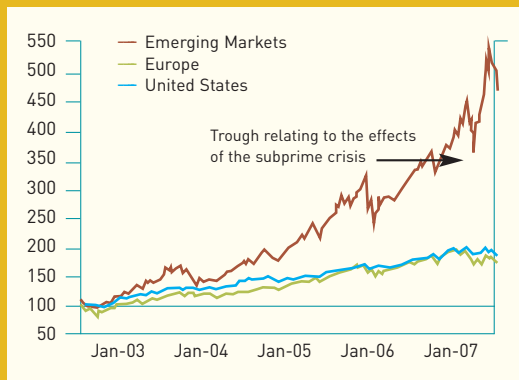
[12] For example, see: HENRY, P. (2000), "Stock Market Liberalization, Economic Reform, and Emerging Market Equity Prices", in *Journal of Economic Finance*, Vol. 55, April.

STULZ, R. (1999), "Globalization of Equity Market and the Cost of Capital", NBER Working Paper, 7021, March.

More generally, Prasad Rogoff et al. present the whole series of studies that constitute this model and provide a keen review based on major empirical studies. See: PRASAD E., K. ROGOFF, S.-J. WEI AND A. KOSE (2003), *Effects of financial globalization on developing countries: some empirical evidence*, an IMF report.

[13] And increasingly in certain African countries recently identified as "newcomers" in financial globalization by the World Bank: Kenya, Nigeria, Zambia and Ghana.

Graph 2: Stock market Indexes  
(100 = January 2003)



Source: Ecwin.

Graph 3:  
Spreads on sovereign debts  
of the emerging countries



Source: JPMorgan à partir d'Ecwin.

Assessing risks in a world of abundant liquidity is therefore a key issue in international financial macroeconomics. Sovereign risk assessment by financial markets has led to some important studies aimed at determining the causes of the radical narrowing of spreads since 2002 (14). Two econometric models can be used for determining the significance of two categories of factors that triggered tighter spreads: exogenous factors associated with the extremely favorable global financial conditions and endogenous factors resulting from improved economic and financial conditions in emerging economies. Most of these studies emphasize that exogenous factors have the greatest impact

on the reduction in spreads. Low international interest rates and the increase in international liquidity play particularly important roles (15).

Spread reduction has combined with spread compression, signaling greater convergence among investors in this asset class (16). With liquidity being directed mainly to the securities of countries offering the highest returns, risk premiums automatically tend to converge. However, this mechanism means that those countries that initially generated investor aversion benefit from a reduction in their spread which may occur more rapidly than the improvement of their macro-financial situation. In other words, it is theoretically possible that a reduction in the spread may not be related to changes in the key economic indicators in all countries and that there are a certain number of freeloaders who profit from tighter spreads created by exogenous factors linked to the global financial economic situation. In 2005 the Fitch Agency expressed concern about the disconnect between the sovereign risks assessed by its economists and the risks priced by the markets based on sovereign debt spreads.

In view of the unprecedented growth in foreign debt that has been contracted in the developing world through private lenders (Graph 1), it is debatable whether the financial markets can accurately determine risks when there is abundant liquidity within the system. This increase in debt is generally accompanied by accelerated growth and improvements in the current account balances, and thus does not necessarily signify that the external vulnerability of these countries has once again increased. In some cases there has been a sharp increase in foreign debt in the private sector coupled with rapid growth in the current account deficit.

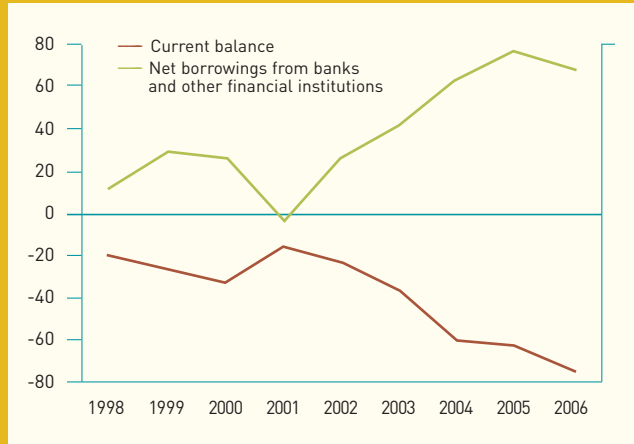
However, continuing on this path over the long term is far from being sure: a widening of the current account deficit means that the production system in these economies does not generate net inflows of currency through the exchange of goods and services with the rest of the world while at the same time foreign currency debt repayment commitments increase with the growth of foreign debt. The Central and East European Countries (CEEC) are currently following this path, which is almost certainly not sustainable (Graph 4).

(14) In the secondary market JPMorgan's EMBI Global synthetic spread measures, for comparable maturities, the difference between the yield of national debt certificates issued in a foreign currency by the emerging and developing countries and national debt certificates issued by US Treasury (the latter are perceived to have a minimal risk). The spread therefore represents the risk premium demanded by the investors for them to invest funds in emerging markets. Therefore, when demand for bonds from emerging countries increases, the price of these securities increases and their yield decreases. If the US Treasury bonds remain stable, then the spreads in emerging economies will diminish.

(15) See for example: ARORA, V. and M. CERISOLA (2001), "How does US monetary policy influence sovereign spreads in emerging markets?", IMF Staff Papers, Vol. 48, n°3. KASHIWASE, K. and L.E. Kodres (2005), "Emerging market spread compression: is it real or is it liquidity, IMF Working Paper, October.

(16) FX Belloq (2003), "Towards a long-term reduction in spreads and their compression", in "Review of Emerging Markets", MINEFI (French Ministry of the Economy, Finance and Industry), February.

Graph 4: Current account balance and foreign debt in the CEEC private sector (in USD billions)



CEEC = Albania, Bulgaria, Croatia, Czech Rep., Estonia, Hungary, Latvia, Lithuania, Macedonia, Malta, Poland, Romania, Slovakia, Turkey.

Source: IMF, author's calculations.

## 1.2. The subprime mortgage meltdown: a breakdown or an expansion of the financing of emerging economies?

Do the pressures seen in the American and European interbank markets following the subprime<sup>(17)</sup> mortgage meltdown represent the initial stages of a breakdown in the financial situation that began in 2001/2002? So far, the emerging markets have been able to withstand the impact of this crisis: the spreads on sovereign debt are stretched but remain at very moderate levels; there have been severe stock market corrections, especially in Asia, but recovery occurred almost immediately; currencies that were *a priori* vulnerable (due to significant current account deficits) – such as the Turkish lira or the South African rand – were not fundamentally destabilized, in contrast to the international financial tension evident in spring 2006. However, it is difficult to imagine that the crisis currently unfolding at the heart of the global financial system will not have any effect on the developing world. Two potential scenarios exist, each with specific risks:

- In the first scenario, uncertainty would increase in the financial centers in developed countries, leading to a general repricing of risks that would ultimately affect the emerging countries, particularly those with large current account deficits. This scenario would signify the end of the financial cycle that began in 2001/2002 and would represent a real risk for the “freeloaders”, i.e. the countries and stakeholders (companies, banks) who took advantage of an economic environment typified by abundant liquidity and the quest for yields but where the fundamentals and balance sheets were still vulnerable. Major corrections in the exchange rate and asset markets may potentially occur as a result.

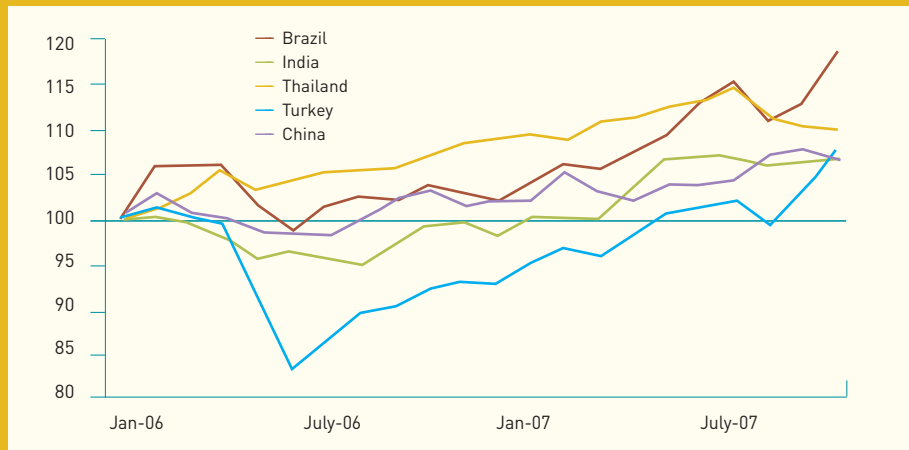
- In the second scenario, there would be an accelerated increase in global liquidity as a result of intervention by the central banks in a situation where certain segments of the financial markets would continue to cause mistrust (securitized products and financial assets, for example) and where the banking model “origination-structuring-distribution” would remain under threat. With the potential for creating ever more abundant liquidity limited, liquidity would shift towards markets considered to be favorable by the investors (equity shares and emerging bonds, raw materials) at the risk of creating or fueling new bubbles. The sharp increase in the price of shares and the increased exchange rates in evidence since the end of the summer in certain emerging countries would seem to confirm this scenario.

There is still considerable uncertainty about the outcome of the subprime mortgage crisis and its potential impact on emerging countries. The euphoria that has gripped some of the emerging financial centers over the last few years and, in particular, in the last few weeks should be viewed with caution. It is not a coincidence that the IMF now focuses much more on the imbalances associated with the upward phases in the financial cycle in emerging countries – there have been three very pronounced upward phases over the last 30 years (the end of the 1970s to the early 1980s, the early 1990s to 1997/98 and a third phase which began in 2003<sup>(18)</sup>). The first two ended with major financial crises for the emerging countries.

<sup>(17)</sup> The subprime mortgage meltdown has shaken confidence in the system, vital for the financial markets to operate effectively. Consequently, the spread between the American and European interbank market rates and the central Bank rates have noticeably increased to between 50 and 80 bps in September before decreasing again to a level that was still higher than before the crisis.

<sup>(18)</sup> Regional dynamics (in Latin America then in emerging Asia) triggered the first two upward phases, which then resulted in financial crises (debt crisis in Latin America in 1982 and Asian crisis in 1997). The phase that began in 2003 is also associated with pronounced regional dynamics relating to the Central and Eastern European Countries (CEEC), Central Asia as well as East Asia (in the CEEC, debt flows are now higher than direct foreign investment even though current account deficits are high and exchange rate systems are often tied to the euro).

Graph 5: Real effective exchange rate in certain emerging countries (100 = January 2006)



Source: BIS, author's calculations

## 2. Capital inflows and macroeconomic policy: a new area of risk for emerging countries

### 2.1. Capital inflows and currency appreciation

Foreign capital flows that are much higher than external financing requirements lead to “external over-funding” in the economy, i.e. major surpluses in the global balance of payments <sup>(19)</sup> in accounting terms. In some cases, such surpluses may even be desirable since they can make it possible to increase currency reserves and hence improve the economy’s resilience to external shocks. However, in the long term they can trigger a rapid appreciation of the domestic currency exchange rate, which is currently the case in some countries (Brazil, Turkey, India – Graph 5).

Currency appreciation, which is normal for a recovering economy with increasingly sophisticated production equipment, is not really a problem in itself. But the rate of this appreciation could be a source of potential risk. In theory, there is no reason why the rate of currency appreciation should match the rate of structural change within these economies. At the microeconomic level, “hot money” investment inflows, i.e. hedge fund strategies as well as the carry trade transactions that sometimes make up a major part of capital inflows, are made more on the basis of the short-term pro-

fitability of the capital invested and not simply on an analysis of the structural dynamics of the recipient country.

External over-funding can therefore present serious challenges for economic policy. When over-funding is accompanied by high current account deficits that are increasing rapidly it interferes with the control mechanisms that are theoretically linked to the widening of the current account deficit, i.e. currency depreciation if there is a flexible exchange rate system. In addition, local currency appreciation is a strong incentive to increase foreign currency debt, particularly when domestic interest rates are much higher than international interest rates. In some countries, external debt has increased significantly whereas the ability of the production system to generate foreign currency through the exchange of goods and services with the rest of the world is declining or increasing slowly. External debt in the private sector in Turkey is increasing while the current account deficit is widening (in microeconomic terms, this results in a currency mismatch in the private sector balance sheet). In India, the debt in yen and the currency mismatch of companies should also be monitored.

In order to avoid these sorts of macro-financial dynamics, certain nations are now trying to contain the appreciation of their currencies by adjusting the regulatory frameworks that control capital

(19) The global balance of payments is the sum of the current account balance and the capital account balance.

Table 1: Foreign exchange reserves  
(in USD billions and contribution to variation in %)

	1998	2006	Variation in USD billions	Contribution to total variation (in %)
<b>AFRICA</b>	41.4	208.8	167.4	7.2
<b>CEEC</b>	89.7	225.9	136.2	5.9
<b>IEC</b>	15.1	338.2	323.1	13.9
<b>DEVELOPING ASIA</b>	15.1	338.2	323.1	13.9
<b>CHINA</b>	149.8	1 062.5	912.7	39.2
<b>MIDDLE EAST</b>	116.8	477.4	360.6	15.5
<b>SOUTH AMERICA</b>	153.4	302.0	148.6	6.4
<b>TOTAL</b>	<b>691.0</b>	<b>3 019.1</b>	<b>2 328.1</b>	<b>100.0</b>

Source: IMF, WEO, author's calculations

inflows and outflows. There is a tendency to relax control of the outflows in order to encourage local companies to invest abroad (Brazil, South Africa and Thailand). Through regulation, some countries are now trying to limit capital inflows, introducing a form of taxation on inflows <sup>[20]</sup> (Thailand and certain Latin American countries). This is a reversal that would have been inconceivable 10 years ago.

## 2.2. Capital inflows and management of foreign exchange reserves

The surpluses in the global balance of payments, generated by surplus current account balances and the massive inflow of capital have led to the restructuring of macroeconomic policies in the emerging Asian countries. New sources of tension have also become apparent. The monetary authorities in these countries amass foreign exchange reserves in order to combat the tendency of their currencies to appreciate and thus maintain their outward-oriented growth. In most of these countries, particularly in China, these reserves are now significantly higher than levels generally recommended for avoiding external liquidity problems. The prudential standard in the Guidotti-Greenspan rule indicating that reserves should cover at least 100% of external debt in the short term has generally been greatly exceeded (in some cases by 4 to 5 times <sup>[21]</sup>). This was indicated on Graph 4 in Jean-Raphaël Chaponnière's article in this editorial.

This policy does, however, have limits for Asian central banks' balance sheets since it helps to fuel an exchange risk that should instead promote a more diversified asset structure <sup>[22]</sup>. In certain cases, the high level of reserves can also result in a potentially significant cost since the interest received on the shares in dollars (U.S. Treasury bonds, for example) is lower than the interest paid on the liabilities that were contracted as a result of sterilization. This exchange rate policy is probably limited in terms of long-term growth forecasts because preventing an appreciation of the exchange rates, despite surpluses in the current balance of payments and in the capital account, hampers effective resource allocation in the tradable and non-tradable goods sectors. There is thus a danger of prompting the over-accumulation of resources and the hidden problems associated with profitability in the tradable goods sector. This is a risk that is likely to exist within Chinese growth dynamics.

## 2.3. Capital inflows and bank credit dynamics

International financial integration can also present major challenges for local regulators. The central banks may sometimes resort to sterilization, but they still struggle to control the increase in money supply resulting from massive capital inflows (China, Vietnam, Thailand and Turkey, for example). Strengthening the financial system (measured in

[20] Requirement to freeze a portion of the inflows in an interest-free account.

[21] ROUBINI, N. (2007), "Asia is learning the wrong lessons from its 1997-98 financial crisis: The rising risks of a new and different type of financial crisis", first draft.

[22] On average, two thirds of their reserves are made up of assets denominated in dollars, and a quarter is denominated in euros.

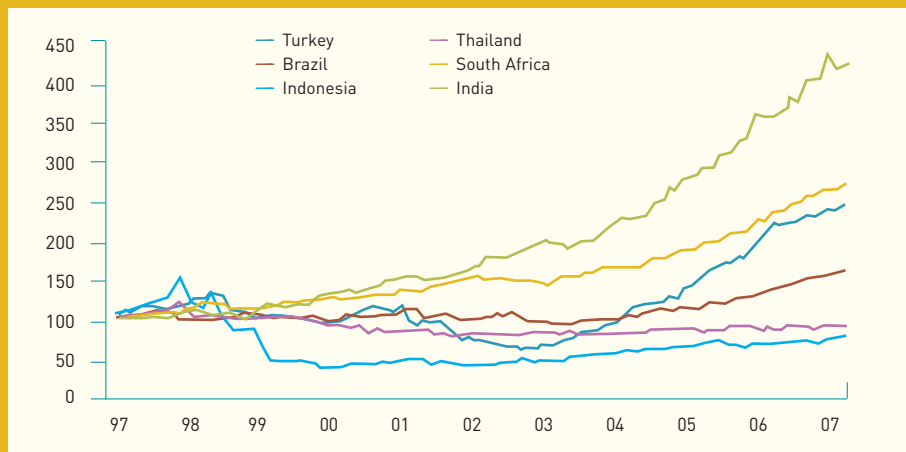
terms of the increase in the credit/GDP ratio) has the advantage of improving banking intermediation and thus increased capacity to finance the domestic economy. Despite being difficult to measure, institutional quality should be taken into consideration to sustain the considerable growth in banking credit over the long term. Another cause for concern: weak risk management monitoring and debtor transparency in nations such as Vietnam that are experiencing increased liquidity fueled by foreign capital.

In addition, even though the increase in credit may lead to accelerated economic growth and a drop in the rates for non-performing loans, resource allocation could, in the long term, fail to such an extent that it could increase financial vulnerability in the balance sheets of banks and companies. At the macroeconomic level, these vulnerabilities – in particular, overly high gearing ratios or significant foreign currency balance sheet mismatches – are key risk factors and can increase financial pressure when shocks occur (in particular, a reduction in the exchange rate or an increase in interest rates).

## Conclusion

Sources of financial vulnerability in the emerging countries have changed greatly the last 10 years but have not, in our opinion, completely disappeared. Current account surpluses, reduced external debt and increased foreign exchange reserves have considerably reduced the liquidity and external creditworthiness risks in most of these countries. But other risks are emerging or have intensified. The abundance of liquidity in both global and domestic financial systems may now result in major imbalances that must be regulated by the macroeconomic policies of these countries.

Graph 6:  
Banking credit by volume  
(deflated by the CPI, 100 = Jan.97)



Source: EcoWin, AFD calculations

Note: These calculations were made by Matteo Mogliani (Research Department intern) as part of a study on the credit cycles of emerging countries. This study will be the basis of an AFD Working Paper in the first quarter of 2008.



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