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# The Causes of Asian Currency Crises

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## ABSTRACT

*This paper attempts to answer three questions: (1) does international finance in general and national and international monetary and financial institutions cause financial and economic instability for countries?; (2) Is it possible to prevent the benefits of increased access to international capital markets from being diminished and even reversed by international and national monetary and financial crises, and, as a corollary, (3) are current national currencies outdated?*

## 1. FREE TRADE AND LIBERALISATION OF CAPITAL MOVEMENTS

Since 1 January 1948, the GATT (General Agreement on Tariffs and Trade) and since 1 January 1995, the WTO (World Organization), which, after eight rounds of multilateral trade negotiations, strove to reduce and even eliminate barriers to the international mobility of goods and services<sup>1</sup>. The counterpart of the WTO (164 members) is the IMF (International Monetary Fund) with 189 members, originally designed at Bretton Woods in July 1944, to recycle surplus liquidity from developed to developed countries. Since 1973-74, this function has been carried out mainly in developing countries (Kirrane 1995). Unlike the WTO, in its field, the IMF's statutes do not require it to liberalise international capital movements. Article VI even explicitly allows the use of controls if capital flows threaten the economic stability of countries.

From a theoretical point of view, there are indeed major differences between the welfare contribution of free trade for goods and services and that which can be derived from the free international mobility of capital. In fact, there are two arguments that make international capital mobility less desirable and riskier for a country than free trade for goods and services.

The first argument is a real argument and goes back to David Ricardo (1817), author of the theory of comparative advantages, which remains one of the foundations of international trade. Countries benefit from international trade by specialising and exporting the production for which they are either the most efficient or the least ineffective, and importing other goods. For Ricardo, however, it was clear that his theory of comparative advantages rested on the assumption that the capital required for industrial investment does not move from one country to another. Ricardo approved restrictions on the mobility of capital and said he was 'disappointed if they were lowered'. In practice, however, obstacles to the mobility of capital are never completely removed, especially with regard to the stock of industrial capital.

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<sup>1</sup> The four main rounds of multilateral trade negotiations were the Kennedy Round (1964-67), the Tokyo Round (1973-79) and the Uruguay Round (1986-93) and the unsuccessful Doha Round (2001-2008).

International capital mobility reduces the comparative advantage of countries that have little absolute advantage in the costs of production relative to others. The exodus of domestic capital then becomes a substitute for international trade and must be accompanied sooner or later by an exodus of labour.

The second argument for not putting free trade and capital mobility on the same footing is a monetary and financial argument: the international mobility of stateless capital, by its ebb and flow, can be a source of monetary and financial crisis for small countries that do not have sufficient resources to defend themselves against speculative attacks. In fact, long-term capital inflows can be an important contribution to countries' economic growth. However, if these funds are short-lived and volatile, the influence they exert on exchange rates and interest rates can be a major source of financial and economic instability.

Thus, in the context of independent national currencies and independent monetary and fiscal policies, a sustained inflow of capital is a triple challenge for a small country:

- 1) Danger of a balance of payments crisis, when external debt becomes too large in relation to the national economy. This is a long-term challenge based on the assumption that foreign capital borrowed will be invested in tradable goods industries, so that the country's ability to export or substitute imports will be sufficiently increased to compensate for both the overvaluation of the exchange rate and the repatriation of interest and dividends.
- 2) Danger of a liquidity and exchange rate crisis, when there is an excess of short-term external borrowing compared to liquid external assets.
- 3) Danger of an internal banking crisis, when the national banks borrowed in hard currency to lend in local currency. Any collapse of the exchange rate affects the solvency of domestic banks.

Indeed, in the short term, inflows and outflows can dominate the exchange rate: if the latter is fixed, the country may lack international reserves to defend it, but, if the rate is flexible, the volatility of capital movements may subject it to a yoyo effect.

The inflow of capital, by creating excess demand for the national currency, almost inevitably leads to an appreciation of the national currency unless the central bank puts all its entries into its international reserves. For some time, monetary overvaluation keeps prices of imported goods low, while high prices for export goods are offset by investments financed by foreign loans.

Before productivity and the country's export capacity increases, the exchange rate will appear overvalued, and this will be all the more the case as the ratio of net external debt to the economy (GDP) rises. It is at this point that any error in policies, an excessive orientation of borrowed capital towards non-tradable goods, an excessive overvaluation of the currency and a large deficit in the current account, in a context of short-term external debts, may cause a crisis of confidence in the country, a sudden and massive exodus of capital and the collapse of the exchange rate. This occurred in Mexico in December 1994 and January 1995, in Thailand in July 1997, in Russia in August 1998 and in January 1999 in Brazil.

Therefore, the general term financial crisis brings these three kinds of crisis, or the balance of payments crisis, the liquidity crisis and the exchange rate and domestic banking crisis. These crises have devastating effects on the economies of the countries, since the collapse of the national currency on the foreign exchange markets is accompanied by two deflationary phenomena, namely a sharp rise in interest rates which discourages investment and foreign debt

denominated in foreign currencies, which threatens the balance sheets of banks and companies. These deflationary effects resulting from monetary and financial crises may be of such magnitude as to nullify or even reverse the beneficial effects of the inflow of external capital.

Monetary and financial crises are inherent in a system of independent currencies and free international mobility of capital. To avoid financial crises, the free international mobility of capital would in theory require conditions of stability similar to those existing within countries or within monetary unions.

These conditions are fourfold:

1. The country or region that lifts all restrictions on mobility must have a common currency with its partners or, in the case of an independent currency, must have irremediably fixed exchange rate. This latter condition requires a system of issuing institutions and the absence of an independent monetary policy. This must result in an inflation rate identical to that of the partners, as well as comparable interest rates, once adjusted for risks.
2. The smooth adjustment of regional or national balances of payments requires a multi-branch banking system. In this way, a country or a region that loses long term capital can borrow short term capital: bank headquarters automatically become lenders of last resort to branches with liquidity needs. For a country, this means allowing branches of foreign banks to operate within its borders.
3. In the absence of participation in a multi-branch and inter-regional banking system, the region or country must have access to a highly liquid money market on a day-to-day basis, according to the US federal funds market model. In this way, the banks of the surplus regions can lend to banks in deficit regions in the very short term.
4. Finally, the solvency and liquidity of the monetary and financial system requires an official lender of last resort and certain government guarantees. Before national central banks existed and governments guaranteed the integrity of their banking systems, episodic crises of 'bank rushes' arose.

Internationally, it is not surprising that the lack of institutional leadership to free capital mobility produces a similar phenomenon of 'bank run', that is to say 'rushes on currencies'. There is currently no predictable source of international liquidity for otherwise solvent countries. The IMF provides credits from its own funds, but these loans are conditional, are slow in coming, and remain uncertain. The IMF is not an antidote to crises of confidence. Because these four conditions are not present internationally, the full international mobility of capital remains a risky policy for many countries.

A closer look at the conditions for capital mobility to contribute to the economic growth of countries without provoking monetary and financial crises that cancel out and even reverse the beneficial effects that flow from such mobility will now be made.

## 2. DOMESTIC FINANCIAL CRISIS AND EXTERNAL FINANCIAL CRISIS

Within an economy or monetary union, even if prices may diverge (because of the prices of fixed goods and services non-tradable), inflation rates are similar, and the same is true for nominal and real interest rates, adjusted for the risks incurred. That does not mean that there cannot, in theory, be a financial crisis within a country or monetary union. A financial crisis may appear when

there is widespread pressure to reduce or liquidate accumulated debts, starting with bank debts. The demand for cash to make repayments then exceeds the supply of liquidity, hence the financial liquidity crisis that pushes interest rates up. The explosion of interest rates and the collapse of the bond market can turn the liquidity financial crisis into a financial insolvency crisis, when the balance sheets of banks, companies and households deteriorate to the point of bankruptcy.

In the past, when there were no central banks, writers such as Thorstein Veblen (1904) and Wesley C. Mitchell (1941), and later Irving Fisher (1933) and Hyman P. Minsky (1964, 1977), focused on financial panics and bank panics as agents of economic crises.

Within countries and currency unions, this type of financial crisis is increasingly unlikely due to the four institutional factors already mentioned. First, in terms of liquidity, the central banks are ready to act as lenders of last resort, following the precept of the English economist Walter Bagehot (1873) according to which ‘in case of banking crisis, we must rediscount and rediscount strongly’. Secondly, central banks exercise continuous supervision and regulation of banking activities. Third, the banking system with multiple branches and overnight money market are important and automatic sources of liquidity. And, fourth, in terms of solvency, governments can increase their deficits in order to inject aggregate demand into the system and avoid an economic contraction.

Mistakes in monetary policies or fiscal policies in the course of the economy are still possible. There is no doubt that the Great Depression of the 1930s was aggravated, and for some such as Milton Friedman and Anna Schwartz (1963), even caused by such errors. Today, there is no central bank governor who is not convinced of the need to safeguard the integrity of the banking system and the financial system at all times. Financial bubbles are still to be feared, but no central bank would accept cascading bank failures and sudden contractions in the money supply. This does not mean that economic cycles have been abolished and that fluctuations in investments and their profitability no longer influence the evolution of the real economy. It is the financial earthquakes that modern monetary institutions have in theory and in practice halted.

At the international level, when financial crises arise from the decline in capital flows and excessive external indebtedness, they become much more difficult to prevent and correct because they are compounded by currency crises. Indeed, it is the fear of future devaluations of currencies, rather than the insolvency of debtors, that can lead to massive outflows of capital. These financial and external monetary crises materialise in five stages.

First, a country is leaving its level of external indebtedness at critical levels relative to its gross domestic product and its ability to export; second, the negative current account ceases to be fully covered by net capital inflows; third, a crisis of confidence in the stability of the external value of the currency precipitates a liquidation of debts, an exodus of volatile capital and a collapse of the exchange rate; fourthly, the central bank is being forced to let interest rates go upwards in order to retain capital and avoid a rise in domestic inflation, with negative results for the real economy and, fifth, the collapse of the exchange rate makes the relative cost of external capital borrowed in foreign currencies also explode, threatening the solvency of local borrowers (banks or firms).

To some extent, any wave of international investment into a convertible country, whether its exchange rate is fixed and defended by international reserves, or flexible, involves some sort of Ponzi scheme. Indeed, the more the current account is in deficit, the more capital inflows must be significant. But the more capital inflows are abundant, the more the current account is in

deficit, either because the domestic monetary supply increases, or because capital inflows appreciate the exchange rate of the currency.<sup>2</sup> It is when this external financing mechanism is reversed that there is a crisis.

### *2.1 Experiences of monetary and financial crises*

When capital inflows slow down or reverse with the liquidation of external debts, the country faces a current account deficit, only sudden and violent exchange rate adjustments and in interest rates can quickly correct it. Chronic deficits in current account were observed in Mexico before the 1994-95 crisis, and in Asia before the 1997-98 crisis.

The experience of countries in crisis seems to show that deficits in the external current account that exceed 3% of GDP for several years may be followed by a slowdown or a reversal of net external capital flows and thus provoke a monetary and financial crisis. Before a crisis, peaks in the deficit ratio of the current account/GDP exceeding 6% can be observed. This is why international finance can be, in some cases, so destabilising for the real economies of small countries.

The example of the monetary and financial crisis experienced in 1997-98 by several Asian countries, starting with Thailand, Indonesia, Malaysia, South Korea and the Philippines, by the crisis experienced by Mexico in 1994- 95, by the Russian crisis of August 1998, as well as the Brazilian crisis of January 1999, testifies to the danger of having independent currencies and of resorting at the same time to external portfolio capital (Kirrane 2017). These almost inevitably lead to monetary and financial crises if this recourse is too important and lasts too long. There is even some inevitability to these crises in the current international institutional framework.

At the institutional level, these monetary and financial crises arise from the incompatible combination, for small open economies, of three phenomena, namely:

- the free international mobility of capital, especially short-term portfolio capital and bank loans, as part of a financial liberalisation of the capital account of the balance of payments;
- independent national currencies with fixed or flexible exchange rates, but usually with insufficient official international reserves to cover short-term external debts
- and, national autonomy of monetary and fiscal policies.

One must not make too much difference between a fixed but adjustable exchange rate situation and a flexible exchange rate situation with intervention by the central bank. In the first case, it is the depletion of official foreign exchange reserves that triggers the crisis of confidence in the currency and the flight of capital. In the second case, it is the fall in the forward exchange rate, added to the decline in official reserves, which precipitates the flight of capital and the currency crisis.

The experience of several countries shows that even relatively large official reserves do not in any way prevent the sudden exodus of capital as soon as a depreciation or devaluation of the currency is anticipated.

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<sup>2</sup> A Ponzi scheme exists when disbursements are covered by new loans. An economic agent (firm, household, government) who borrows to pay interest on outstanding debt uses Ponzi financing: his debt grows without an increase in income-generating assets.

In the 1997-99 financial crises, the two most volatile forms of external capital were external bank credit and portfolio capital. The two most stable forms of external capital were direct capital and commercial credits.

Therefore, a first lesson emerges from recent experience for developing countries that aspire to own an independent convertible currency in a context of international capital mobility. Short-term bank loans are the most volatile and, to a lesser extent, portfolio investment in the form of bonds or securities. This category of short-term external capital is attracted to emerging countries by the generally higher interest rates that are found there, despite the current currency risk.

Conversely, the most stable external capital is direct capital, which comes in the wake of the establishment of foreign companies and the commercial credits that flow from the normal course of export-import activities. Any country with short-term external debts in excess of its reserves and international lines of credit may be subject to a speculative currency attack.

The 1997-1999 financial crisis is the first currency and financial crisis of the 20<sup>th</sup> century when private capital dominated and mostly credit banking, and where the main debtors were private sector borrowers, including national banks. In 1996, just prior to the onset of the crisis, for example, international bank lending to Asian countries accounted for 60% of outstanding debt, while short-term portfolio capital accounted for 13% of the total. In 1997, these two categories of volatile capital reversed and became negative, triggering the crisis.

## CONCLUSION

Developing countries adopting the path of financial liberalisation are faced with a conflict between independent convertible currencies, full international capital mobility and macroeconomic stability of their economies. This analysis makes it possible to make some observations for countries wishing to open up to external capital, while maintaining a high degree of monetary autonomy and a high degree of fiscal autonomy.

1. Given the high volume and high speed of movement of international portfolio capital, a fixed and adjustable exchange rate removes any possibility for a country to pursue an independent interest rate policy. In theory, the central bank might want to sterilise the effects of capital movements on the domestic money supply. In doing so, however, it is likely to artificially drive up interest rates and accelerate capital inflows, further increasing the risk of future capital outflows and an exchange rate crisis.<sup>3</sup>

2. If it wants to have a convertible currency, the minimum for a country integrated in international capital markets is to adopt a flexible exchange rate with official intervention in the foreign exchange market. This does not prevent confidence crises in central bank monetary policy and government fiscal policy, but one-way speculative attacks and capital outflows are partly absorbed by the exchange rate. The price to pay, however, is a volatile exchange rate,

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<sup>3</sup> As long as domestic and international bonds are not perfect substitutes (Calvo, 1997), domestic interest rates may persist higher than outside, offset by anticipation of a future depreciation of the currency. Lower domestic interest rates than international markets require anticipation of future appreciation of the currency. If the fundamental conditions in favor of such an assessment do not exist, an outflow of capital logically follows, (which is halted only by depreciation or devaluation). The example of Canada in 1995-97 illustrates this structural lack of monetary autonomy: to stimulate domestic demand, the Bank of Canada maintained short-term interest rates lower than US rates. The deterioration in Canada's current account balance, following the Asian crisis, caused the Canadian dollar to fall and Canadian interest rates again at a premium to US rates.

which goes up and down. And as the experience of South Korea in 1997 illustrates, having a floating exchange rate and a positive current balance is not an insurance against speculative attacks. If a country becomes too illiquid, that is, if it has too much short-term external debt relative to its short-term availabilities, it is vulnerable to a currency crisis caused by speculators.

3. A condition sine qua non for maintaining a certain level of monetary autonomy, is to invest in important external official reserves. The higher the reserves relative to external debt in the short term, the more the central bank is able to absorb abrupt exchange rate and interest rate fluctuations. Recent experience shows, however, that this is not enough to avoid sudden exchange rate crises when there are liquidations of external debts and a massive exodus of capital.

4. Banking authorities should pay particular attention to the vulnerability of national banks that have borrowed in hard currency to lend in local currency. Such vulnerability only appears once the national currency is heavily devalued.

5. The only definitive way for a country that wants to have both a convertible currency and full integration into international capital markets is to free itself from the game of uncovered interest rate parity and speculation by transforming its central bank into a formal issuing institution or de jure joining a monetary union (Kirrane 2003). This is what Argentina did in April 1991, with the transformation of its central bank into an issuing institution. An issuing institution guarantees a fixed exchange rate against an anchor currency, as well as automatic external convertibility.

An issuing institution system, however, does not provide a hermetic insurance against currency crises. The example of Hong Kong in 1997-98 and that of Argentina after the Mexican crisis of 1994-95, and after the Brazilian crisis of 1998-99, are the proof. Fixing the exchange rate of a currency to a key currency such as the US dollar and resting the monetary base, i.e. banks' reserves and paper money in circulation, on key-currency holdings, are not enough to avoid confidence crises and sharp increases in interest rates. As long as the national currency unit differs from the key currency, there is a risk that the country will one day withdraw from the system.<sup>4</sup>

With a central bank system, a country avoids transaction costs and foreign exchange risks but has to pay an interest rate premium from time to time. To take full advantage of the issuing institutions' system with a stable exchange rate and international interest rates, the country must consider full 'dollarisation' or full 'euronisation' (Ize and Yeyati, 1998), which means in practice adopt a key currency as the domestic currency.

Some countries, such as Panama and Liberia, already use the US dollar as the domestic legal currency. In the future, some African countries may find it to be more profitable to use the euro than the CFA (African Financial Community), which is based on the French franc and French Treasury credit facilities.

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<sup>4</sup> Also, in October 1998, the 30-day rates in Argentina climbed to 12% and 11% in January 1999, while 30-day US Treasury bills of comparable maturity were around 4%. These increases were caused by the outflow of capital from Argentina, after the surge in short-term (30-day) rates in Brazil, which in turn reached 48% in January 1999. Such interest rate differentials on securities in the pesos and the US dollar securities were in themselves an indication of the market's doubts about the durability of the issuer institution system for Argentina.



6. In order to minimise the political factor, the International Monetary Fund should serve as an intermediary in the creation of enlarged currency unions around a few anchor currencies. The IMF should create a special fund for the use of key currencies. This special fund would have two functions, that of receiving annual interest on the amounts of key currencies in circulation in the participating countries and that of constituting a stabilisation fund and loans of last resort for the countries of each monetary zone.

7. Countries whose economies are not diversified and relatively untouched by foreign trade, and whose national labour markets are too inflexible, may come to the conclusion that their full integration into international markets capital and the external convertibility of the currency are not worth the abandonment of monetary and financial sovereignty.

Whether the exchange rate of the independent currency is fixed, adjustable in a range or flexible, the country must protect itself against currency crises by holding adequate international reserves and by controlling or imposing short-term transactions on the capital account. . The central bank must ensure that the liabilities of the domestic banking system in foreign currencies (bank deposits, certificates, etc.) are covered by sufficient short-term liquid external assets.

Some control over volatile short-term capital, especially those that pass through the national banking system, is needed if the country is to be free from destabilising currency and financial crises. Countries that have come to this conclusion, such as Chile and Colombia, manage to avoid being dragged into uncontrollable crises. Others learn the hard way.<sup>5</sup>

The experience of the last decade has shown that it is the short-term capital, and especially the external bank credits, which are the most destabilising.

8. For emerging countries, the real choice is not between fixed exchange rates or flexible exchange rates, but rather between a monetary regime based on an anchor currency (US dollar or Euro), with credits as a last resort, and a fixed or floating rate national currency regime, but with appropriate taxation or control of short foreign borrowing.

9. It must be concluded that the IMF and the G7 countries, led by the United States, may have put the cart before the horse by encouraging the globalisation of the money and financial markets and by development to liberalise all capital movements. It would have been more cautious and wiser to carry out in-depth reform of the international monetary and financial system beforehand, in order to regulate the most volatile and destabilising stateless capital flows, and to establish a stable and credible source of international liquidity for solvent countries. The monetary and financial crises in many countries are the result of this imprudence and this improvidence.

Rather than amending its statutes to outlaw capital controls, the IMF should instead take the initiative to create the necessary political and monetary mechanisms to allow countries that wish to achieve monetary stability. The current institutional framework is indeed too primitive and too

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<sup>5</sup> In the case of Chile, since 1991, and also of Colombia, the accent was placed on the use of long-term foreign capital, while controlling, by limiting taxation, short-term capital inflows (Velasco and Cabrezas, 1996). Initially, in Chile, the implicit tax on foreign short-term capital borrowing took the form of a mandatory deposit at the central bank, not paying interest, equal to 20% of the foreign loan, and this for a period ranging from 90 days to one year, depending on the duration of the loans. This implicit tax on short-term capital inflows in Chile was in addition to the requirement for foreign direct investment to be for a minimum of one year. Subsequently, this implicit taxation of short external capital (lasting less than one year) was sometimes reinforced, sometimes relaxed, with the implicit rate ranging from 2.6 to 3.9% (French-Davis and Agosin, 1995).

fragile to support a heavy traffic of stateless and volatile international capital, as the new communication technologies allow.

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