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The Financial Crises in East Asia: The Cases of Japan, China, South Korea and Southeast Asia

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Southeast Asia (Clara GARCÍA and Iliana OLIVIÉ)

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IV. SOUTHEAST ASIA (Clara GARCÍA and Iliana OLIVIÉ)

1. Introduction

In July 1997 the economic problems that Thailand had been suffering since 1995 evolved into a financial crisis that rapidly spread to other countries of the area. The crisis affected the four countries we study (Thailand, Indonesia, Malaysia and The Philippines) before reaching South Korea (Korea hereafter) and even some industrial economies. It is too early to know if the Asian financial crises will eventually lead to a radical change in the international environment of trade and financial flows. But it is possible to anticipate that several developed and underdeveloped countries have already been affected, even outside Asia. Moreover, the Asian financial crisis has created a controversy on the risks associated with free international capital flows.

Besides the four countries mentioned above, we should point to other countries affected by the Souteast Asian turmoil. For instance, the economic crisis that Japan bore since the beginning of the 1990s became more acute as a consequence of the Southeast Asian financial crisis. Meanwhile, China is maintaining the value of its currency despite the devaluation of neighbouring currencies, but some experts think that China will end up devaluing the yuan. There are also affected countries outside Asia. The cases of Brazil and Russia (that asked for IMF help in July 1998) stand out. Finally, the crisis has reached the stock markets of industrial countries. Wall Street collapsed in October 1997 as a consequence of the crisis, and even today stock markets around the world have not yet stabilised.

In this paper we try to understand the origins and initial development of the crisis in the four countries selected. In section 2 we show a brief chronology of the evolution of the crisis. In section 3 we analyse the economic features of these countries with the aim of depicting the economic context in which the crisis occurred. In section 4 we describe some interpretations of the Asian crisis in order to contribute to understand the mechanisms of development of the crisis.

2. Evolution of the crisis

Thailand had already suffered speculative attacks before 1997. But until those of May 14th and 15th 1997 the pressure on its currency and its stock exchange market was bearable. After those attacks, on July 2nd the government let the currency float, so the baht's value plummeted. The following victims of the crisis were The Philippines and Malaysia which, as Thailand had done before, tried unsuccessfully to maintain the value of their currencies. Then the crisis reached Indonesia and Singapore.

In September it seemed that markets were stabilising. But since October, investors distrust also affected Northeast Asia. The devaluation of Singapore's currency was a problem for Taiwan, which announced a possible devaluation of the New Taiwan Dollar (NT$). In October 20th the NT$ had already lost 5% of its value.

Therefore the pressure on Hong Kong and Korea increased. Since this moment the crisis crossed the Asian borders and on October 27th, Wall Street collapsed.

2.1. Thailand

It could be said that the Thai crisis began well before the speculative attacks against the baht. In 1996 this country was already showing a high financial vulnerability, which is more carefully studied in section 3.3. It is sufficient to mention that Thailand had US$ 24 billion in short term investments that could abandon the country anytime. The attack against the baht was the first sign of alarm. Moreover, the government reacted in such a way that investors felt even more likely to take their money out of the country. Firstly, the Thai government fought to maintain the peg to the dollar until July 1997. At that time a big share of the reserves had already been spent (at the beginning of 1997 the Thai central bank had US$ 39 billion in reserves, and by the end of June this figure had fallen to only US$ 2 billion). Secondly, capital controls were introduced in order to prohibit the concession of baht-denominated commercial credits. Moreover, on May 23rd, Finance One, one of the biggest financial firms of the country, collapsed. Finally, on July 2nd, the Thai government had to give in to market pressures, and it widened the baht's fluctuation band. That same day the value of the currency slumped. On August 5th, the government announced an austerity and rationalisation plan for the financial sector. But even this measure was unable to stop the baht devaluation and the fall of the stock market index.

On August 20th, Thailand signed its first program with the IMF. Despite the strong measures that this program imposed, investors' trust was not restored. The stock market index and the currency's value continued to decrease. As the first program was ineffective, on November 25th Thailand signed a second program with the IMF. Once again, neither the currency nor the stock market index stabilised. It was necessary to wait for the government to guarantee the obligations of the Thai commercial banks for the exchange rate and stock market to recover (on January 21st).

2.2. The Philippines

In 1997 The Philippines were suffering the same kind of financial vulnerability as Thailand. In this case the facts that provoked the attacks against the currency and the stock market were the following. On the one hand, the real sector was beginning to send out bad signals, as for example the rumours about the insolvency of the company Megaworld at the beginning of 1997. On the other hand, the Thai crisis made the investors compare the countries of this area with Thailand, and thus reconsidered their investments in The Philippines. When the speculative attack occurred, the fall of the stock market was dramatic, and the inflows of foreign capital to Philippino banks decreased 97% between the last quarter of 1996 and the first quarter of 1997. Then the central bank of The Philippines intervened, selling dollars for pesos with the aim of supporting the value of the currency. Moreover, the interest rates were increased from 15% to 30% with the same goal. But these efforts

proved useless, and finally, on July 11th, the government decided to let the peso float in a wider band.

On July 21st, the IMF renewed its program for The Philippines, increasing the funds provided. As in Thailand, the markets' reaction was not positive, so it wasn't possible to stop either the peso devaluation or the fall of the stock market index. In the following months the peso kept losing value, due in part to the bad news coming from Korea and Japan. At the beginning of January the peso registered historic minima.

2.3. Malaysia

Since the mid-1990s Malaysia had featured increasingly fragile financial and real sectors. The concerns of the Malaysian government pushed the central bank to impose, in March 1997, ceilings to the credits given for investments in real estate and equities. The stock market reacted negatively, falling 6.6% in just one week. As most of the investors were foreigners, capital quickly began to leave the country. Another factor that provoked instability in the Malaysian markets was the pronouncement of Prime Minister Mahathir, blaming the foreign investors for the problems in Southeast Asia.

Thus, on July 8th, Malaysia had to intervene in the financial markets in order to defend its currency. The evolution of the ringgit and the stock market was as unfavourable as in other countries of the area. On December 5th, the government announced a drastic change in its economic policy. An 18% reduction in public expenditure was approved. Also, several infrastructure projects were suspended and banking credit was restricted. The stock market reacted positively growing 11%. Nevertheless, in March 1998, rumours about possible failures of banking companies reactivated the instability of the Malaysian financial market.

2.4. Indonesia

One special feature of the Indonesian crisis is that its currency was attacked later than other currencies of the area. The reason is that at the beginning of the crisis the government reacted just like the foreign investors expected it to do. On July 11th, when the pressure on the rupiah became stronger, it widened the fluctuation band to 12%, which generated confidence among investors. But still the attacks against the currency kept coming, so the government had to intervene, spending a big share of the country reserves in order to keep the rupiah within the new fluctuation band. Finally, on August 14th, the government let the currency float. That same day, the exchange rate of the rupiah reached the maximum of 2,755 rupiahs per dollar.

During the following weeks, although the value of the rupiah and the stock market index continued to fall, the situation wasn't as critical as in the other countries of the area. Nevertheless the government applied for IMF aid. On October 31st 1997, Indonesia signed its first program with the Fund. The markets reacted positively but not dramatically. In December, the situation worsened, when rumours about the bad health of President Suharto spread. On December 5th he cancelled a trip abroad, and

on the 8th he began a ten day rest. The political uncertainty arisen from the eventual need of looking for a successor to Suharto, who had been ruling the country for more than 30 years, had negative effects on the financial markets. The currency fell to 4,020 rupiahs per dollar, and the central bank intervention stabilised it at 3,965 rupiahs per dollar (Roubini, 1998). On January 6th, the government announced a 32% expansion of the public expenditure in nominal terms (in rupiahs) for the following fiscal year. The US Federal Reserve and the IMF disapproved of this expansion, which provoked the collapse of the financial markets. But the point is that in real terms there was no expansion but a reduction of the public expenditure. A few weeks later, the IMF approved a budget that included a 46% increase in public expenditure in nominal terms. On January 15th, Indonesia signed the second agreement with the IMF. On this occasion, as in other countries before, the markets reacted negatively.

It was not until January 27th that the markets stabilised. The government announced the restructuring of the banking sector (managed by an institution created with that aim: the Bank Restructuring Agency). Moreover, it announced a short term debt rollover and a government guarantee for the commercial banks' obligations. Consequently the markets began to recover. The exchange rate decreased during the first half of the year, though with some oscillations. The facts that temporarily interrupted this trend were the tensions between Suharto and the IMF relating to the schedule of disbursements of funds in March, and the social and political uncertainties during the second fortnight of May.

3. Economic features before the crisis

In this section our aim is to disentangle the economic framework in which the crisis took place. With this purpose, we will describe the main economic features of the four Southeast Asian countries before the crisis. By means of studying such features, it will be easier to assess the sustainability of the growth achieved in previous years and to understand the interpretations of the crisis analysed in the next section.

3.1. The 1980s and Japanese foreign direct investment

Before studying the deficiencies that made these countries vulnerable, we should briefly revise the main features of their growth. Firstly, we must indicate that these countries began their rapid economic growth in the mid 1980s. These economies were highly indebted to foreign countries and the prices of their main export products (e.g. rubber and tin) were growing slower than the prices of their imports. Besides, these countries were applying structural adjustment programs. Thailand, Indonesia and The Philippines had signed agreements with the IMF, and Malaysia had its own adjustment program. These programs were meant to open these economies, liberalising financial and commercial flows. However, the liberalisation of financial movements was more pronounced than trade liberalisation, market deregulation and privatisation.

In such context, a crucial factor contributed to the growth in the 1980s and also allowed to impose some limits to the adjustments proposed by the IMF. This factor was the massive inflow of Japanese foreign direct investment (FDI). Between 1985 and 1990, it reached $15 billion. In Thailand, for example, Japanese investment in 1987 exceeded the investment accumulated in the 20 previous years (Bello, 1997). Furthermore, the Japanese investment favoured FDI inflows from other countries like Taiwan, Korea and Hong Kong.

This FDI reception was in part the result of the 1985 Plaza Agreement between Japan and the USA, according to which Japan let the yen appreciate. Consequently, Japan lost competitiveness and had to reallocate the most labour-intensive phases of its production to neighbouring countries (with the exception of The Philippines, which were going through a period of political instability after the Marcos era).

The growth rates recorded by these countries during that period were surprisingly high (almost an average of 6.5% in Thailand, Malaysia and Indonesia between 1983 and 1989). This record indicates that the FDI inflows were productive for these economies. It was not only due to the big amount of capital received, but also because this capital was moving towards production processes which were increasingly capital intensive. As a result, it favoured structural change, the generation of a middle class, and an increase in competitiveness. But there was a counterpart: the situation generated a high dependency upon the Japanese conglomerates and their technology. When, in the 1990s, the growth of Japanese FDI inflows began to slow down, the governments had to look for new sources of capital, in order to maintain high growth rates.

3.2. The 1990s and new financial inflows

Though the pace of growth of Japanese FDI decreased, the total amount of foreign capital inflows continued to increase. The share of debt (mostly short term debt) and portfolio investments in those new funds was growing faster than the share of FDI. In Thailand net capital inflows reached 10% of GDP in the first half of the 1990s, and they amounted to 13.4% in 1995. In Malaysia, they reached 9% of GDP in 1990-1995, and more than 15% in 1992 and 1993 (one special feature of Malaysia is that a large part of this inflow was still FDI). In Indonesia, the share of capital received as a percentage of GDP was notoriously lower: 4.2% between 1989 and 1995 (IMF, 1997).

We have already mentioned that there were several reasons for these countries to receive large amounts of foreign capital. Firstly, some special characteristics in the international financial markets favoured investment in emerging markets. Secondly, some features of the Asian economies provoked the inflow of a big share of those capitals from industrial countries.

With regards to the characteristics of the international markets, at the beginning of the 1990s interest rates in the USA and Japan were relatively low, thus favouring the outflow of capital from these countries in search of better rates in other

markets. The Southeast Asian countries offered high interest rates with the aim of attracting foreign capital. As a consequence, they received a big share of capital looking for higher profitability. The globalisation process in the financial markets, as well as new investment products, facilitated capital movement towards emerging markets.

As to the internal features of South East Asia, one factor that attracted foreign capital was the high growth rates recorded in those countries, which also displayed low levels of inflation, low public deficits and high savings and investment rates. All these factors seemed to guarantee exchange rate stability.

Moreover, the governments accomplished a triple strategy in order to attract foreign capital, consisting of high interest rates, liberalisation of financial markets, and the use of a peg exchange rate of their currencies to the dollar. We have already mentioned that high domestic interest rates attracted foreign capital due to the relatively low rates in industrial countries. The downside of maintaining high interest rates was that they lessened the financing capacity of the domestic industry, and within it the one of the export industry.

Regarding financial liberalisation, some barriers to capital movements were removed. This process was supported by the IMF and Western governments, banks and firms. For example, authorities allowed foreign investors to participate in the stock market and in national banking operations. They also reduced the control on foreign debt of national companies and abandoned the coordination between credit and investment.

Further on, we will study how this liberalisation process, without being accompanied by an improvement in banking supervision, provoked more fragility and vulnerability in the financial system. Likewise, it may be argued that the control measures and the government coordination of credit and investment were basic pieces of the prevailing economic system. This is to say, without government coordination it is more probable that credits obtained by domestic companies tend to finance less productive activities. It also becomes more difficult for the economic authorities to carry out a national development strategy through credit controls (Wade and Veneroso, 1998a and b).

The third way of attracting capital consisted in maintaining their currencies pegged to the dollar, so that foreign investment would not suffer the possibility of a devaluation. Like high interest rates and financial liberalisation, the peg to the dollar had its pitfalls. The currencies of these countries appreciated 26.5% between 1990 and 1996. The baht appreciated 20%, the rupiah 20% and the ringgit 22%. The most extreme case is that of The Philippines, whose currency appreciated 44% in the same period.

The reasons for the appreciation were the massive inflow of foreign capital or the inflation differentials with regard to their commercial partners. But the appreciation of the currencies became more and more pronounced when the yen was devalued from the beginning of 1995. The yen exchange rate to the US dollar went up from 85 yen per dollar in June 1995 to 127 yen per dollar in April 1997. The consequence for the Southeast Asian countries was a loss of competitiveness in

markets such as Japan and Europe. So maybe the peg should have been established with a more equilibrated basket of currencies so as the dollar would not have carried so much weight. Anyway, if the peg remained a problem for these economies (because of the appreciation and because of the efforts to maintain the exchange rate) we should not blame those governments exclusively. The money managers were pressing the authorities on behalf of the peg so as to reduce the risk of their investments.

Besides these three strategies mentioned above, governments encouraged foreign investment through other measures. For instance, in Thailand they created the Bangkok International Banking Facility (BIBF), which had a special fiscal treatment because it was exclusively dedicated to lend and borrow in foreign currency. In The Philippines, while the banks were forced to create a 13% reserve for deposits denominated in pesos, they did not need to create reserves for deposits denominated in foreign currency.

3.3. Vulnerability of the financial system

We have analysed the internal and external factors explaining the inflow of foreign funds. We should now study what kind of funds those countries received in order to understand the vulnerability of the financial system. The new funds were mainly loans, except in Indonesia, where the inflow of foreign loans (in percent of GDP) decreased between 1985 and 1996. In Thailand, the most extreme case, foreign loans amounted to 7.1% of GDP in 1990-1995, while portfolio investment reached 1.5% and FDI also 1.5%. The Philippines displayed similar figures but in Malaysia FDI was 6.9% of GDP, which is much higher than the share of loans received (3.8%). It is significant that loans to the public sector in each of these countries represented less than 0.5% of GDP, except in The Philippines, where this percentage was 1.1% (table 1).

As the banks were the main borrowers (except in Indonesia), the external debt of the banking system grew notoriously. In The Philippines it grew from 8.8% of GDP in 1995 to 21% in mid 1997. In Thailand, since the creation of the BIBF, the external debt of financial institutions and banks went up to 28% of GDP in 1995. Indonesia is, logically, where this share was the lowest, reaching only 5.6% of GDP in 1996 (Radelet and Sachs, 1998a). Regarding the origin of the new funds, these were mainly from the USA, although most debts were owed to Japanese banks (table 2).

Short term loans (with a maturity of one year or less), as a proportion to the total debt, were quite high. From 1995 to mid 1997, short term debt amounted to almost 61.7% of the total debt (table 3). As a comparison, Mexico had 45% of short term debt at the end of 1995. The country with the lowest short term debt share was Malaysia, the highest being Thailand (only slightly lower than Korea).

Due to the reception of foreign funds, and to the fact that most borrowers were domestic banks, internal credit expanded. Domestic financial sector claims over the domestic private sector jumped from 67.7% of GDP in Thailand and 77% of GDP in

Malaysia in 1991 to 101.9% of GDP in Thailand and 93.4% of GDP in Malaysia in 1996 (IMF, 1997). In the Philippines the internal credit was considerably lower (48.4% of GDP in 1996), but its annual growth reached 22.4% between 1993 and 1996. Only in Indonesia growth of internal credit was relatively low (from 50.3% of GDP in 1991 to 55.4% of GDP in 1996), owing to the fact that the private companies borrowed directly from abroad, thus domestic banks did not act as intermediaries, unlike in the other Southeast Asian countries.

We should now try to understand why the reception of loans and the expansion of internal credit contributed to market instability. Firstly, the liberalisation of the financial system and the expansion of new banking services were not supported by the necessary regulation and supervision. Furthermore, before liberalisation, the financial system was used to a government which coordinated the activities of the banking system according to the needs of the industry. Some examples of the deficiencies of these financial systems after liberalisation were that credit classification was too lax, or that there was not enough transparency in credit operations, or that bankruptcy legislation was inadequate. Despite the subsequent risks that could be found in an open and slightly regulated financial system, we should not blame these countries' governments because it is difficult to regulate a financial system at the pace that foreign capitals were arriving to the region: "institutional change generally cannot keep pace with the high levels of international capital flows" (Radelet and Sachs, 1998a, p.10).

Some authors (Krugman, 1998a; Corsetti *et al.*, 1998) state that another element that contributed to the fragility of the financial sector was that the credit was given according to the existing links between banks, politicians and industry, instead of to expected profitability. Besides, they argue that domestic banks felt protected from losses because their obligations were implicitly guaranteed by the governments. This provoked, on the one hand, the over-indebtedness of banks, and on the other, that banks did not have to worry about the destination of their credits.

The lack of supervision, combined with the institutional guarantees, allowed two facts that weakened these financial systems. Firstly, banks were indebted in foreign currency (mainly in US dollars) while they were lending in domestic currency. This implies that if the domestic currency devaluates (if the peg is abandoned), it is more difficult for the banks to service their debt in appreciated dollars, and even more because they continue to recover their loans in domestic currency. Secondly, banks were indebted in short term liabilities while they were lending on a long term basis. This increases the probability of a financial panic, given the risk of iliquidity in this kind of operation. In fact, a good indicator of the vulnerability of the financial system is the ratio of short term debt to reserves (Radelet and Sachs, 1998b). If this ratio is high, the withdrawal of funds caused by financial panic becomes more probable.

Another problem is that the credits given to the private sector were financing unproductive projects. There is no consensus about this fact. Some authors magnify the over-investment in non-productive activities (Krugman 1998a), whilst others state that only a modestly increasing share of the credit was invested in such activities,

while most of it was still invested in productive projects (Radelet and Sachs, 1998b). Anyway, it seems that there were many speculative acquisitions in real estate and equities. For example, in 1996 loans and advances to financial and real estate sectors amounted to 21.5% of total loans in Thailand and to 39.2% in Malaysia (Radelet and Sachs, 1998b). There was also over-investment in public infrastructure projects which proved too ambitious. The negative effects of these new investments are evident in several indicators. First of all, the investment efficiency, measured by the ICOR (investment as percentage of GDP divided by the annual growth rate, table 4) decreased. Second, there was a high rate of bad loans before the crisis (over 15% in Thailand, Indonesia, Malaysia and Korea, according to Corsetti *et al.*, 1998), particularly among those given to the real estate sector (around 50% of unpaid loans at the beginning of 1997). Finally, the prices of the real estate sector and the stock exchange market tended to grow.

3.4. Loss of external competitiveness

There was another feature of Thailand, Indonesia, Malaysia and The Philippines that contributed to their financial vulnerability: These countries had increasing current deficits and their export growth rates had been falling since the mid 1990s. Thailand displayed the highest current deficit in the first half of the decade, but Malaysia suffered the biggest decline (from a surplus of 2.4% of GDP in 1985-1989 to a deficit of 5.6% of GDP in 1990-1995). The opposite case is Indonesia, whose deficit did not grow at all since the previous decade (remaining at a level of 2.5% of GDP). Curiously, Indonesia has been one of the most seriously affected countries after the crisis erupted. The growth rate of exports decreased steeply in almost every country in 1995-1996 (table 5). Thailand experienced the worst decline (its export growth was 25.1% in 1995 and -1.3% in 1996). The less dramatic cases were Indonesia and The Philippines: in 1996 their exports grew even more than in 1994 and 1993 respectively.

There are several factors that might explain the increase in the current account deficit and the decrease in the growth rate of exports. Firstly, the US dollar's appreciation respective to the yen implied, because of the peg, the appreciation of these countries' currencies in terms of yen. Another reason could have been the increased international competitiveness of China. Its manufacturing exports grew 46% per year from 1989 to 1994 in nominal terms (Chelem database, CEPII), and it became the 11th biggest world export powerhouse. Also Mexican competition may have lessened Southeast Asian competitiveness. Mexico devalued the peso in 1994, and its exports increased from US$ 52 billion in 1993 to US$ 96 billion in 1996.

It is possible that the third reason might be the saturation of the world market of products in which these countries were specialised (automotive industry, semiconductors, petrochemicals...). World prices of manufacturing exports taken as a whole fell around 2% in 1996. Semiconductors were specially affected, and their price fell 80% in 1996. Malaysia and Korea suffered this fall more than others. That is why the unit value of their exports slumped, even more than their volume. Finally, the

deceleration of Japanese growth in the 1990s also contributed to the decrease of the demand for products coming from these countries.

Deficits were not alarming until quite late, because, before the crisis erupted, it seemed that it was not so dangerous to have a current account deficit if foreign capital was being used in investment instead of in consumption, and if borrowers were private agents instead of governments. But when the crisis broke out, current deficits contributed to the outflow of foreign funds, because it corroborated the lenders' perception that these economies did not have enough funds to service their debt.

4. Interpretations of the crisis

We have described the economic framework of the Southeast Asian countries affected by the crisis, but we have not explained why a financial crisis did happen. It is possible to find different interpretations of what caused the crisis. We will study two of them (the "fundamentals and moral hazard" hypothesis and the "financial panic" hypothesis). Obviously there are more types of financial crises. For example we will not analyse the macroeconomic policy-induced crisis (or *canonical* model following Krugman, 1979). This type of crisis happens when the central bank excessively expands the domestic credit in order to finance a budget deficit or to assist a weak banking system. Such macroeconomic management is incompatible with the maintenance of a fixed exchange rate, and when the amount of foreign exchange reserves falls to a critical level a speculative attack occurs. But we will not study this model because it can't explain the Southeast Asian crisis, as the countries we deal with had a small budget deficit and they did not issue money to finance it.

Neither will we study the "second generation models". There are many variants of these models, but all of them accept the possibility of self-fulfilling crises: "second generation models emphasise the reinforcing effects of the actions of economic agents in determining the movements from one equilibrium position to another" (Esquivel and Larraín, 1998, p. 4). Some second generation models consider that even countries with "good" fundamentals can suffer one of these self-fulfilling crises. But others consider that a crisis won't happen without a bad position of the fundamentals.

4.1. Fundamentals and moral hazard

There is a frequent interpretation of the crisis that explains it according to structural problems and among them the "moral hazard" issue. This explanation argues that in the Southeast Asian economies there were several domestic fundamentals that provoked the crisis, and that such "bad" fundamentals (described in section 3) were the consequence of mistakes in economic policy-making. The principal mistake was the pursuance of a high growth rate through a fixed nominal peg, the favouring of investment in non-profitable projects, and the institutional guarantees for domestic borrowers. According to Corsetti *et al.* (1998, p.10) "in the

1990s, such policies produced exchange rate misalignment, an investment boom in wrong sectors, an asset price bubble, and current account deficits".

This interpretation emphasises the role that public guaranties played in the birth of the crisis, through the so called moral hazard. According to this approach the loans borrowed by domestic banks from abroad are supported by public guaranties. The bank whose obligations are guaranteed "likes investments that could yield high returns if (it) gets lucky, even if there is also a strong possibility of heavy losses" (Krugman, 1998a, p. 4). That is, foreign capital is deviated towards less efficient and riskier projects than the projects a non-guarantied intermediary would invest in. In Southeast Asia these risky projects consisted mainly in investing heavily in real estate and equities. On the other hand, moral hazard leads to over-investment. When granting a loan, guarantied intermediaries do not consider the expected profitability of the project but the highest profitability possible for such project (the so called "pangloss value"), so for these intermediaries there are more profitable projects to invest in. That is why investors that receive loans from guarantied intermediaries will be willing to pay more than others for certain assets, thus pushing up the price of those assets, generating a speculative bubble.

This process ends when the government eliminates the institutional guaranties in view of the losses born by the intermediaries. That is, there is a moment when banks are unable to make their investments profitable because they were too risky. Therefore, the borrowers can not service their debt and institutional guaranties must come into play. When the cost of supporting the obligations of the banking system is too high, governments remove their guaranties. Then, banks have to reduce their investment so that the prices of real estate and equities fall, causing higher losses in the banking system. Thus the crisis starts: withdrawal of funds, attacks on domestic currency... In short, the financial crisis, following this interpretation, would be the result of over-investment in scarcely profitable sectors favoured by public guaranties. When the low profitability of these projects becomes evident, the authorities take the guaranties away, the bubble bursts and the crisis erupts.

4.2. Financial panic

This interpretation of the crisis considers that the "bad" fundamentals, on which the previous interpretation is supported, didn't cause the crisis. Investors don't remove their capital because the countries have solvency problems, but because they have liquidity problems. "A panic is an adverse equilibrium outcome in which short term creditors suddenly withdraw their loans from a solvent borrower" (Radelet and Sachs, 1998a, p. 3). This situation may occur under three circumstances: When short term debt exceeds short term assets; when there is no lender that can individually lend enough money for the borrowers to service their short term debt; and when there is no lender of last resort.

Under all these conditions, crisis begins when the financial market is unable or does not want to give more credit to certain borrowers (in this case, the Southeast Asian countries). Each individual lender stops renewing its credit when he considers

that the other lenders are not going to renew theirs. The reason for the individual lender to remove its credit is that the borrowers are perceived to be unable to finance their investments with just one more credit, meaning they won't be able to achieve enough money to pay the debt. And logically, there is no individual lender who wants to be the one who gives that one more credit, because the borrowers will not return it. When all this happens, each individual lender, apart from not giving more credit, wants to be the first one to get his money back before the borrower runs out of funds, which accelerates the withdrawal of credit. A consequence of this withdrawal of foreign credit is the contraction of internal credit, which implies the bankruptcy or the fall in the value not only of inefficient firms, but also of profitable and efficient ones that can not find financing sources anymore.

There are more explanations about how financial panic works. One of them may be that information in financial markets is uneven. If an investor takes his credit away because the information he has access to is not positive, it could be that a second investor imitates the first one's decision although he has good news, because he knows that he is missing the information the other one has. After these two, there may be a third investor, that also has positive information about the markets, but that also withdraws his credit because he supposes that the information the other two had was negative, and so on (Krugman, 1998b, p.7).

Radelet and Sachs (1998a and b) consider that financial panic is the better explanation for Southeast Asian countries. On the one hand, the fundamentals were not as unfavourable as to impede the service of the debt (that is to say that these countries were solvent), and it was possible to adjust the exchange rate in the mid 1990s without a financial collapse. On the other hand, these countries complied with the three conditions described above. Short term debt was higher than short term assets (in all these countries the ratio of short term debt to reserves in foreign currency exceeded one); there was no individual investor who could lend that amount of short term debt; and there was no lender of last resort. These authors study which variables entail a higher financial vulnerability (Radelet and Sachs, 1998b, p.25), and they conclude that the most significant variable is precisely the ratio of short term debt as a proportion to reserves, this is to say, the economy's liquidity, but not its solvency. "The defining element of such crisis has been the vulnerability to panic, as measured by high levels of short term debt to reserves" (Radelet and Sachs, 1998b, p.27).

We have studied how Southeast Asian countries were vulnerable to financial panic because of their liquidity problems. But what caused the withdrawal of funds? According to these same authors, it may be that in Thailand the failure of important financial companies (e.g. Finance One) and political uncertainties provoked the panic. In Malaysia, contagion played a crucial role. In The Philippines and Indonesia political uncertainties and contagion also stand out.

Other authors (Wade and Veneroso) agree with Radelet and Sachs in that the crisis was a problem of illiquidity more than of insolvency. Moreover, they agree with them in the reason why creditors withdrew their capital: An individual investor reacts according to how he thinks other lenders are going to react. They also think that the financial market overreacted so that the grab race of funds led even solvent companies

to bankruptcy. All these facts indicate that Wade and Veneroso accept the financial panic explanation for the outbreak of the South East Asian crisis. But there is one important difference between one approach and the other: Wade and Veneroso emphasise the role of financial deregulation as a cause of the crisis "It (the crisis) happened partly because of excessive financial *deregulation*, including, above all, allowing banks and firms to borrow abroad without any government control or coordination" (Wade and Veneroso, 1998b, p.1-2). That is, Wade and Veneroso consider the existence of structural problems among the causes of the crisis.

The inclusion of structural problems in their proposal could bring them near to the fundamentals hypothesis. But there is also an important difference. Corsetti *et al.* criticise the lack of institutional supervision over the Asian financial sector after liberalisation. They plead for a Western type of control over a non-indebted banking system and they criticise the so called "crony capitalism". Instead, Wade and Veneroso defend the control system functioning before liberalisation, which did not necessarily implicate corruption and favouritism but also "the financial rationale for cooperative, long term, reciprocal relations between firms, banks and governments in a system which intermediates high savings into high corporate debt/equity ratios" (Wade and Veneroso, 1998b, p.3).

5. Conclusions

The four countries studied show many common characteristics, though there are some important differences that we should not forget. For example, Malaysia stands out due to the high share of FDI received, Indonesia for the better fundamentals it had before the crisis, or The Philippines for the slower pace of its growth. But in summary, all these countries have suffered a financial crisis because the variables in which their growth was supported became unsustainable in a context of a rapid liberalisation process.

The financial crisis has revealed that there were domestic and external problems that drove them (necessarily or not, depending on the interpretation preferred) into a financial crisis. The internal facts have been mainly the lack of supervision of the newly open financial sector and the decreasing links between the banking system, the entrepreneurial sector and the government, all of which led to high vulnerability of the financial systems of these countries. The external facts were, for instance, the evolution of demand for their exports or the US dollar's appreciation respective to the yen. But most important was the so called globalisation process that is taking place in the financial market and that allowed the massive inflow (and then outflow) of foreign capital. We will not discuss how to avoid these kind of internal and external difficulties. But we can indicate that, regarding the domestic problems of these countries, it is important to study carefully the internal features of these economies so as to identify their particularities and to recommend specific policies for their specific problems. And regarding the external facts, globalisation implies such a speed in capital movements that it makes very difficult for those countries to achieve growth and stability without a well regulated financial system. A possible solution

could be the creation of an international institution able to control the capital flows, or the permission given to governments to impose some limits to capital inflows.

Regarding the interpretations of the crisis (studied in section 4) we consider that it is possible to combine some elements of both. This is to say, they are not totally incompatible. The “financial panic” hypothesis states that structural deficiencies existed and that the crisis was supported on them, but that they didn’t cause the crisis. Moreover, it states that the problem of these economies was not of solvency, but of liquidity. On the other hand, the “fundamentals” hypothesis considers that structural problems led to the crisis and that these countries had solvency problems caused by the bad quality of their investments. Therefore, it could be that a difference between both approaches is that the “financial panic” hypothesis takes into account short term variables (impossibility of paying the short term debt), while the “fundamentals” hypothesis takes into account long term variables (insolvency caused by the bad quality of investments in the long run). In this way, both interpretations could be accepted at the same time in the sense that it is possible for a country to have structural problems that ultimately provoke solvency problems, but that already in the short term provoke liquidity problems which cause the financial panic.

Table 1. Balance of payments (as % of GDP)

	Indonesia		Malaysia		Philippines		Thailand	
	1985-89	1990-95	1985-89	1990-95	1985-89	1990-95	1985-89	1990-95
Current Account	-2.5	-2.5	2.4	-5.6	-0.5	-3.3	-2	-6.8
Balance of Trade	5.9	4.5	13.7	3.2	-2.9	-8.7	-2.2	-4.7
Exports	21.9	24.2	56.1	73.2	17.1	17.4	22.9	29.6
Imports	-15.9	-19.7	-42.5	-70	-20	-26.1	-25.1	-34.3
Capital and Financial Account	3.5	4.1	0.5	9.6	1.4	5.5	4.2	10.2
Direct Investment (net)	0.5	1.2	2.4	6.9	1	1.1	1.1	1.5
Portfolio Investment (net)	0	0.9	1	-1	0.2	0.3	1.2	1.5
Equity Securities	0	0.5	0	0	0	0	0.8	0.7
Debt Securities	0	0.4	1	-1	0.2	0.3	0.4	0.9
Other Investment (net)	3	2	-2.8	3.8	0.2	4	2	7.1
Monetary Authorities	0	0	0	0	-0.6	0	0	0
General Government	2.6	0.5	-1.7	-0.3	2.3	1.1	0.2	-0.4
Banks	0	0.4	-1	1.8	-0.2	1.4	0.2	3.5
Other Sectors	0.4	1.2	0	2.4	-1.2	1.6	1.5	4
Financing	-0.1	-1.1	-2.9	-5	-1.8	-1.8	-3	-3.6
Reserve Assets	-0.2	-1	-2.7	-5	-1	-1.7	-2.7	-3.5

Source: Radelet and Sachs

Table 2. International claims held by foreign banks, distribution by country of origin (US$ billion)

	Total	Japan	USA	Germany	All Others
A. End 1995					
Indonesia	44.5	21	2.8	3.9	16.8
Malaysia	16.8	7.3	1.5	2.2	5.8
Philippines	8.3	1	2.9	0.7	3.7
Thailand	62.8	36.9	4.1	5	16.8
Sub-Total	132.4	66.2	10.4	11.8	84.2
Total, all reporting countries		429.3	132.6	264	
B. End 1996					
Indonesia	55.5	22	5.3	5.5	22.7
Malaysia	22.2	8.2	2.3	3.9	7.8
Philippines	13.3	1.6	3.9	1.8	6
Thailand	70.2	37.5	5	6.9	20.8
Sub-Total	161.2	69.3	16.5	18.1	57.3
Total, all reporting countries		389.4	165.7	292.3	
C. Mid 1997					
Indonesia	58.7	23.2	4.6	5.6	25.3
Malaysia	28.8	10.5	2.4	5.7	10.2
Philippines	14.1	2.1	2.8	2	7.2
Thailand	69.4	37.7	4	7.6	20.1
Sub-Total	170.3	73.4	13.8	20.9	62.8
Total, all reporting countries		404.4	166.3	301.2	

Source: Bank for International Settlements

Table 3. International claims held by foreign banks, distribution by maturity and sector (US$ billion)

		Obligations by Sector					
	Total	**Banks**	**Public Sector**	**Non-bank Private**	**Short Term**	**Reserves**	**Short Term/ Reserves**
A. End 1995							
Indonesia	44.5	8.9	6.7	28.8	27.6	14.7	1.9
Malaysia	16.8	4.4	2.1	10.1	7.9	23.9	0.3
Philippines	8.3	2.2	2.7	3.4	4.1	7.8	0.5
Thailand	62.8	25.8	2.3	34.7	43.6	37	1.2
Total	132.4	41.3	13.8	77	83.2		
B. End 1996							
Indonesia	55.5	11.7	6.9	36.8	34.2	19.3	1.8
Malaysia	22.2	6.5	2	13.7	11.2	27.1	0.4
Philippines	13.3	5.2	2.7	5.3	7.7	11.7	0.7
Thailand	70.2	25.9	2.3	41.9	45.7	38.7	1.2
Total	161.2	49.3	13.9	97.7	98.8		
C. Mid 1997							
Indonesia	58.7	12.4	6.5	39.7	34.7	20.3	1.7
Malaysia	28.8	10.5	1.9	16.5	16.3	26.6	0.6
Philippines	14.1	5.5	1.9	6.8	8.3	9.8	0.8
Thailand	69.4	26.1	2	41.3	45.6	31.4	1.5
Total	171	54.5	11.6	104.3	104.9		
Mexico							
End 1994	64.6	16.7	24.9	22.8	33.2	6.4	5.2
End 1995	57.3	11.5	23.5	22.3	26	17.1	1.5

Source: Bank for International Settlements

Table 4. Incremental Capital-Output Ratios

	1987-1989	**1990-1992**	**1993-1995**
Indonesia	4	3.9	4.4
Malaysia	3.6	4.4	5
Philippines	3.3	22.8	6
Thailand	2.9	4.6	5.2

Source: World Bank

Table 5. Changes in Exports and Imports

	Exports Value Growth		Exports Volume Growth		Change in Unit Value	
	1995	**1996**	**1995**	**1996**	**1995**	**1996**
China	22.9	1.6	15.3	8.3	6.6	-6.2
India	22.7	7.4	22.4	16.9	0.2	-8.1
Hong Kong	14.8	4	1.9	-8.6	12.6	13.8
Korea	30.3	3.7	24	19.1	5	-12.9
Singapore	22.1	5.7	15.7	6.3	5.6	-0.6
Indonesia	13.4	9.7	10.3	4.8	2.8	4.7
Malaysia	26	5.8	15.6	13.6	9	-6.9
Philippines	31.6	16.7	17	18.8	12.4	-1.8
Thailand	25.1	-1.3	14.2	-0.7	9.5	-0.6
Argentina	33.9	13.6	17.8	3.2	13.7	10
Mexico	40.3	22.6	24.5	14.7	12.7	6.9
Poland	34.3	6.8	30.8	6.9	2.7	-0.1

	Imports Value Growth		Imports Volume Growth		Change in Unit Value	
	1995	**1996**	**1995**	**1996**	**1995**	**1996**
China	11.6	7.6	15.1	16.4	-3	-7.5
India	28.6	8.3	23.6	18.9	4	-8.9
Hong Kong	19.2	3	13.6	4	4.9	-1
Korea	32	11.3	21.2	11.9	8.9	-0.6
Singapore	21.3	5.5	13	6.4	7.3	-0.9
Indonesia	27	5.7	17.4	10.7	8.2	-4.6
Malaysia	30.5	0.9	23.4	17.7	5.8	-14.3
Philippines	25.7	20.4	14.6	24.2	9.7	-3
Thailand	30	3.8	15.9	-3.6	12.1	7.7
Argentina	-6.5	18.1	-17.5	25.2	13.3	-5.7
Mexico	-23.1	30.4	-14.9	20.8	-9.6	8
Poland	35.9	27.8	24.5	28.9	9.1	-0.8

Sources: IFS, BIS

Table 6. Crisis Indicators

	Current Account (% of GDP) 1996	Real Exchange Rate (1990=100) 1996	Financial Institutions Claims on Private Sector (% of GDP) 1996	Short Term Debt / Reserves	
				June 1994	June 1997
Indonesia	-3.5	80	55.4	1.7	1.7
Malaysia	-5.3	78	144.6	0.3	0.6
Philippines	-4.3	56	48.4	0.4	0.8
Thailand	-8	80	141.9	1	1.5
Taiwan	4.4		165	0.2	0.2
Mexico	-0.6	95	21.6	1.7	1.2
Venezuela	13.1		9.6	0.8	0.3
Argentina	-1.4	44	18.4	1.3	1.2

Sources: Bank for International Settlements, IMF, Radelet and Sachs

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