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A Review of Asian Financial Crisis in the End of 1990s

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Abstract: In Asian Financial Crisis during the end of 1990s, millions of people lost their money in one day, international investors were reluctant to lend to developing countries, leading to economic slowdowns in developing countries in many parts of the world. This paper will talk about how the crisis become, speculators how to speculated the financial market, a case in HK how to defeat speculators attack, and IMF provided support package for rescuing attacked countries. We hope our paper can give some ideas to people and show the importance on balancing the domestic economy to avoid the crisis happen again.

Keywords: Financial crisis, East Asian financial crisis, Southeast Asia in the end of 1990's, Stock and foreign exchange markets in East Asia.

Introduction:

On July 2nd, 1997, the Thai government bowed to the inevitable and announced that they would allow the baht to float freely against the dollar. The baht immediately lost 18% of its value, and started a slide that would bring the exchange rate down from $1=Bt25 to $1=Bt55. In the mean time, the Thai stock market dropped 75% also. After two weeks, the Malaysian ringgit, Indonesian rupiah and the Singapore dollar were all marked sharply lower. With its foreign exchange reserves down to $28 billion, Malaysia let its currency, the ringgit, float on July 14th, 1997. Prior to the devaluation, the ringgit was trading at $1=2.525 ringgit. Six months later it had declined to $1=4.15 ringgit. Singapore followed on July 17th, and the Singapore dollar (S$) quickly dropped in value from $1=S$1.495 prior to the devaluation to $1=S$2.68 a few days later. Next up was Indonesia, whose currency, the Rupiah, was allowed to float on August 14th. For Indonesia, this was the beginning of a precipitous decline in the value of its currency, which was to fall from $1=2,4000 Rupiah in August 1997 to $1=10,000 on January 6th, 1998, a loss of 75%. Because of sudden crisis on East Asia financial market, many businesses collapsed, millions of people fell below the poverty line at that time. The emergent countries: Indonesia, South Korea and Thailand were the countries most affected by the crisis.

Though called the "East Asian" crisis because it originated in East Asia, its effects rippled throughout the globe and caused a global financial crisis, with major effects felt as widely as Russia and Brazil, as investors lost confidence in emerging markets. The United States as an investor was briefly affected.

In the last few years there has been considerable discussion of the causes of the 1997 Asian financial crisis. Two main views have emerged. The first attributes the initial financial turmoil in some Asian countries in 1997 and its propagation over time mainly to sudden shifts in market expectations and confidence followed by regional contagion (Radelet and Sachs 1998; Marshall 1998; and Chang and Velasco 1999). While admitting the worsening of the macroeconomic performance of some affected countries in the mid-1990s, this view suggests that the extent and depth of the crisis should not be attributed to deterioration in fundamentals, but rather to panic on the part of domestic and international investors.

The second argues that the crisis occurred primarily as a result of structural and policy distortions (Corsetti, Pesenti, and Roubini 1998; Dooley 1999). According to this view, fundamental imbalances triggered the currency and financial crisis in 1997 even as after the crisis started, market overreaction and herding caused the plunge in exchange rates, assets prices, and economic activity to be more severe than warranted by the initial weak economic and financial conditions.

Shen Liantao claimed that one of the culprits of the Asian Financial Crisis was Japan. Because the Japanese government encouraged capital outflow, it let enterprises in the country to invest in SE Asia. At that time, governments in that region were implementing liberalization economies, so they were allowing foreign capital flow into their countries. As a result, Japan became the main foreign country investing in SE Asia, and countries in that region borrowed a lot of money from Japan.

In 1995, the Japanese economy went into recession. The government adopted a low interest rate policy in order to attract more foreign investments. The interest cost was just 3~5%. This provided an opportunity to loan Japanese YEN and bought in SE Asian currencies for making profit through interest rate differential. Moreover, Japanese Yen also devalued 50% in 1998. It brought international speculators earned huge profits from short-selling Yen and interest differential. Roughly guessed, speculators earned 169 billion during 1995~1998.

By 1997, some banks were bankruptcy. Japanese government decided to get back all foreign investment and foreign debt from oversea. Leading some banks in SE Asian bank run at the first of 1997, make the investment flow in SE Asia outward. In 1997, Thai outward investment dropped suddenly, primarily due to drastic slowdown in economic activity and liquidity problems faced by the private sector.

Due to these reasons, Thailand and other SE Asian countries became targets for international speculators to attack. Therefore, Shen Liantao believed that the policies of the Japanese government contributed to the Asian Financial Crisis.

In my thesis, we will review the incident of East Asian Financial Crisis in 1997, in which we divided into five parts. First, literature review, which will show out the literature and information idea about the financial crisis. Those are the useful material information for writing the thesis. In there include some financial terms, financial crisis theories, financial crisis types, financial risks and some literatures about the crisis, etc. Second, per-crisis period, we will step by step list out the flows that evolved from capital liberalization market (healthy economic market) into economic boom and until from debt boom, extended loan and speculator attacked to the crisis. Third, crisis, we will describe the circumstance during the crisis. It will talk about the speculator how to attack the stock and currencies. Some countries perform what kind of corresponding actions to fend off the speculators. And talk about the results of the crisis, how tragic on stock market and countries' currencies in South East Asia. How terrified on every countries from financial panic. Forth, after crisis storm, it will talk about IMF provided support package for rescuing the affected countries, what policies and conditions which IMF requested to reform, and what final decisions to be made on the internal problem, etc. Finally, we will summaries the whole thesis, and conclude the problems on this crisis.

Literature Review:

A Cyclical theory of financial crises:

Hyman Minsky has proposed a simplified explanation that is most applicable to a closed economy. He theorized that financial fragility is a typical feature of any capitalist economy. High fragility leads to a higher risk of a financial crisis. To facilitate his analysis Minsky defines three types of financing firms choose according to their tolerance of risk. They are hedge finance, speculative finance and Ponzi finance. Ponzi finance leads to the most fragility.

Financial fragility levels move together with the business cycle. After a recession firms have lost much financing and choose only hedge, the safest. As the economy grows, and expected profits rise, firms tend to believe that they can allow themselves to take on speculative financing. In this case they know that profits will not cover all the interest all the time. Firms, however, believe that profits will rise and the loans will eventually be repaid without much trouble. More loans lead to more investment and the economy grows further. Then lenders also start believing that they will get back all the money they lend. Therefore they are ready to lend to firms without full guarantees of success. Lenders know that such firms will have problems repaying. Still, they believe these firms will refinance from elsewhere as their expected profits rise. This is Ponzi financing. In this way the economy has taken on much risky credit. Now it is only a question of time before some big firm actually defaults. Lenders understand the actual risks in the economy and stop giving credit so easily. Refinancing becomes impossible for many and more firms default. If no new money comes into the economy to allow the refinancing process, a real economic crisis begins. During the recession firms start to hedge again and the cycle is closed.

Contagion:

In a modern open economy a country's finances are often dependent on international development. Contagion is the idea that a financial crisis in one country is very likely to cause a crisis in another. An example would be the Thai crisis in 1997. Then a foreign investor would become suspicious of the stability of any other not sufficiently developed economy and would decide to withdraw his or her money from such a country. This causes a sudden stop of funds for many economies and thus more financial crises. The interesting fact here is that firms in a stable economy, e.g. South Korea, would be denied financing simply because another economy in the region is failing.

Liberalization:

In general, liberalization refers to a relaxation of previous government restrictions, usually in areas of social or economic policy. Liberalization of autocratic regimes may precede democratization (or not, as in the case of the Prague Spring).

In the arena of social policy it may refer to a relaxation of laws restricting for example divorce, abortion, homosexuality or drugs.

Most often, the term is used to refer to economic liberalization, especially trade liberalization or capital market liberalization.

Liberalization and privatization

Although economic liberalization is often associated with privatization, the two can be quite separate processes. For example, the European Union has liberalized gas and electricity markets, instituting a system of competition; but some of the leading European energy companies (such as EDF and Vattenfall) remain partially or completely in government ownership.

Liberalized and privatized public services may be dominated by just a few big companies, particularly in sectors with high capital costs, or high sunk cost, such as water, gas and electricity. In some cases they may remain legal monopolies, at least for some part of the market (e.g. small consumers).

Liberalization is one of three focal points (the others being privatization and stabilization) of the Washington consensus's trinity strategy for economies in transition. An example of Liberalization is the "Washington Consensus" which was a set of policies created and used by Argentina.

Liberalization vs Democratization

There is a distinct difference between liberalization and democratization, which are often thought to be the same concept. Liberalization can take place without democratization, and deals with a combination of policy and social change specialized to a certain issue such as the liberalization of government-held property for private purchase, whereas democratization is more politically specialized that can arise from a liberalization, but works in a broader level of government.

Types of financial crisis:

Steven Rafelet and Jeffrey Sachs (1998) identified five types of financial crises, which will be useful for taxonomy of Asian financial crisis in this thesis involved.

1) *Macroeconomic policy-induced crisis*:

Following the canonical Krugman (1979) model, a balance of payments crisis (currency depreciation; loss of foreign exchange reserves; collapse of a pegged exchange rate) arises when domestic credit expansion by the central bank is inconsistent with the pegged exchange rate. Often, as in the Krugman model, the credit expansion results from the monetization of budget deficits. Foreign exchange reserves fall gradually until the Central Bank is vulnerable to a sudden run, which exhausts the remaining reserves, and pushes the economy to a floating rate.

2) *Financial panic*:

Following the Dybvig-Diamond (1983) model of a bank run, a financial panic is a case of multiple equilibria in the financial markets. A panic is an adverse equilibrium outcome in which short-term creditors suddenly withdraw their loans from a solvent borrower. In general terms, a panic can occur when three conditions hold: short-term debts exceed short-term assets; no single private-market creditor is large enough to supply all of the credits necessary to pay off existing short-term debts; and there is no lender of last resort. In this case, it becomes rational for each creditor to withdraw its credits if the other creditors are also fleeing from the borrower, even though each creditor would also be prepared to lend if the other creditors were to do the same.

The panic may result in large economic losses (e.g. premature suspension of investment projects, liquidation of the borrower, creditor grab race, etc.).

3) *Bubble collapse*:

Following Blanchard and Watson (1982) and others, a stochastic financial bubble occurs when speculators purchase a financial asset at a price above its fundamental value in the expectation of a subsequent capital gain. In each period, the bubble (measured as the deviation of the asset price from its fundamental price) may continue to grow, or may collapse with a positive probability. The collapse, when it occurs, is unexpected but not completely unforseen, since market participants are aware of the bubble and the probability distribution regarding its collapse. A considerable amount of modeling has examined the conditions in which a speculative bubble can be a rational equilibrium.

4) *Moral-hazard crisis*:

Following Akerlof and Romer (1996), a moral-hazard crisis arises because banks are able to borrow funds on the basis of implicit or explicit public guarantees of bank liabilities. If banks are undercapitalized or under-regulated, they may use these funds in overly risky or even criminal ventures. Akerlof and Romer argue that the "economics of looting," in which banks use their state backing to purloin deposits is more common than generally perceived, and played a large role in the U.S. Savings and Loan crisis. Krugman (1998) similarly argues that the Asian crisis is a reflection of excessive gambling and indeed stealing by banks that gained access to domestic and foreign deposits by virtue of state guarantees on these deposits.

5) *Disorderly workout*:

Following Sachs (1995), a disorderly workout occurs when an illiquid or insolvent borrower provokes a creditor grab race and a forced liquidation even though the borrower is worth more as an ongoing enterprise. A disorderly workout occurs especially when markets operate without the benefit of creditor coordination via bankruptcy law. The problem is sometimes known as a "debt overhang." In essence, coordination problems among creditors prevent the efficient provision of worker capital to the financially distressed borrower, and delay or prevent the eventual discharge of bad debts (e.g. via debt-equity conversions or debt reduction).

Three Classic Risks (Merton H. Miller (1998), Asia's Currency Crisis: Problems and Prescriptions)

Merton H. Miller, Professor Emeritus of Finance at the University of Chicago, blames three interrelated risks as the main causes of the Asian economic crisis: the interest rate risk, the double currency risk, and the Japanese "credit crunch" risk. Miller argues that inertia from Japanese internal politics is preventing solutions of simple economics, and suggests that more Asian countries should have currency boards to manage interest rates. Foreign investment and capital, argues Miller, can also help the Asian economies recover.

Interest Rate Risk:

The interest rate risk is that in principle, affects both lenders and borrowers, but which in the Southeast Asia crises has been falling mainly on borrowers. Borrowers are hit whenever interest rates rise unexpectedly. The hit is particularly bad when they are borrowing short-term and lending long-term as so many firms and banks throughout Southeast Asia were doing. The rise in interest rates then deals the borrowers a double blow: the value of their fixed-rate long-term assets declines, and, at the same time, the cost of renewing, or rolling over their short-term floating-rate borrowings increases.

The Double Currency Risk:

Borrowing short and lending long was precisely the source of the U.S. Savings and Loans crisis of the late 1970s and early 1980s. While the U.S. is certainly not immune from these maturity mismatches, the Southeast Asia maturity mismatches were magnified by Double Currency Risk. The Southeast Asian banks and firms were not simply borrowing short and lending long, but were borrowing short in one currency-typically the dollar or the yen-and lending in another, to wit the local currency. If, therefore, a country's exchange rate falls substantially relative to the dollar, the cost of renewing or rolling over those short-term floating rate dollar or yen loans can become very high in local, real terms.

The Credit-Risk Crisis:

Credit-risk is ever-present in financial markets, and is realized whenever borrowers cannot or will not repay their loans on the original terms. Normally, of course, these "bad loans" might seem of only local significance. But, in a properly regulated banking system, the rules would require banks to write those bad loans down to market value, taking the losses into income. Recognizing bad loan losses that way, however, erodes the bank's capital ratios, and banks whose capital ratios are impaired, or close to it, cannot make new loans. They can thus no longer play their traditional-to use the old cliché-role of greasing the wheels of commerce. Banks that are capital-impaired can't do that.

The Financial Crisis in Korea: Causes and Challenges

Yoon Je Cho pointed out the reason of financial and currency crisis in Korea that lies in the country's macroeconomic environment and structural problems, which led to (1) corporate overinvestment, (2) a highly vulnerable financial structure, and (3) banks' mismatch of foreign assets and liabilities. Except above, macroeconomic policies, structural problems and the development of the corporate financial structure led to the crisis.

East Asia and Europe During the 1997 Asian Collapse: A Clinical Study of a Financial Crisis

Rajesh Chakrabarti and Richard Roll have compared Asian stock markets with European market before and during the 1997 Asian crisis. The clinical issue is whether regional inter-dependence became larger around the crisis, fomenting investor fears of contagion and reducing asset values because of lower diversification potential. Statistical measures are developed to aid the inquiry. They find that European and susceptibility increased significantly in Asia with the onset of the crisis. Covariances, correlations and volatilities increased from the pre-crisis to the crisis period in both regions, but the percentage increase were much larger in Asia. Diversification potential was better in Asia diversification potency in Asia is reason enough for large declines in asset values.

Lending Booms, Real Estate Bubbles, and the Asian Crisis

Charles Collyns and Abdlhak Senhadji examined the link between lending booms, asset price cycles, and financial crises across East Asian countries. Both theoretical arguments and empirical evidence support a strong relationship between bank lending and asset price inflation, especially in the real estate market. While asset price bubbles were present in Asian countries during the 1990s, their subsequent bust has affected countries quite differently. Some countries underwent severe exchange and financial crises, while others were able to weather the storm with mush less damage. This experience underlines the importance of a strong bank regulatory system.

Resolution of Corporate Distress: Evidence from East Asia's Financial Crisis

Stijin Djankov and leora Klapper found the interaction between strong creditor right and a better judicial system increases the likelihood of bankruptcy. They had used a sample of 4,569 publicly traded East Asian firms, they observe a total of 106 bankruptcies in 1997 and 1998. They found that the likelihood of filing is lower for firms with ownership links to banks and families, controlling for firm and country characteristics. In addition, filings are more likely in countries with better judicial systems.

What Happened to Asian Exports During the Crisis?

Rupa Duttagupta and Antonio Spillmbergo found evidence that "competitive depreciation" did play a fundamental role in the propagation of the East Asian crisis through the trade channel, even at a monthly frequency. After the large exchange rate depreciations following the 1997 East Asian crisis, export volumes from East Asian countries responded with a notable lag. Two main explanations for this lag have been proposed: that the policy of high interest rates limited access to domestic credit and hence limited the supply of exports; and that "competitive depreciation" neutralized the effects on demand for exports. This paper considers that plausibility of these two mechanisms using a new monthly database on exports of selected industries.

Corporate Leverage, Bankruptcy, and Output Adjustment in Post Crisis East Asia

Se-Jik Kim and Mark R.Stone used different levels of corporate leverage to help explain the wide range of post-crisis output adjustment across East Asia. In the model developed highly leveraged eliminating investment and selling capital goods at a discount to try to stay afloat. Lower investment and wasteful capital sales shrink the aggregate capital stock, trigger deflationary pressures, and contract overall output. The available data are broadly consistent with the assumption and prediction of the model.

Mynskian theory of financial crises

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CRS Report for Congress: The 1997-98 Asian Financial Crisis

Dick K. Nanto summarized the financial crisis involves four basic problems or issues: (1) a shortage of foreign exchange that has caused the value of currencies and equities in Thailand, Indonesia, South Korea and other Asian countries to fall dramatically, (2) inadequately developed financial sectors and mechanisms for allocating capital in the troubled Asian economies, (3) effects of the crisis on both the United States and the world, and (4) the role, operations, and replenishment of funds of the International Monetary Fund.

The development of the Thailand Currency Crisis: A chronological Review

Takatoshi Ito analyzed the events that led to the currency crisis and deepening of the crisis in Thailand. He analyzed the situation at before the devaluation, devaluation and IMF package and reasons for a lack of recovery. These developments provide many lessons to other countries with emerging market economies. First, IMF should advise countries with a fixed exchange rate system when to exit from this arrangement. Second, countries should float their currencies with ample reserves. Exhausting the reserves like Mexico and Thailand makes it more difficult to regain confidence after devaluation (float). Third, in order to predict timing of crisis, a set of early warning signal may be developed. Forth, the strength of the financial system (banks and nonbanks) is crucial in fending off attacks on the currency and in rebuilding confidence after devaluation. Bank supervision has to be strengthened when capital controls on inflows are to be liberalized. Fifth, burden sharing by investors in emerging market financial instruments (bonds and bank deposits in particular) maybe considered when risky investments need later to be bailed out by an IMF program. Sixth, regional surveillance is even more important as contagion becomes a severe problem.

The Onset of East Asian Financial Crisis:

Steven Radelet and Jeffrey Sachs provided an early diagnosis of the financial crisis in Asia, focusing on the empirical record in the lead-up to the crisis. They emphasize the role of financial panic as an essential element of Asian Crisis. At the core of the crisis were large-scale foreign capital inflows into financial systems that became vulnerable to panic. They also found that while there were significant underlying problems and weak fundamentals besetting the Asian economies at both a macroeconomic and microeconomic level, the imbalances were not severe enough to warrant a financial crisis of the magnitude that took place in the latter half of 1997. A combination of panic on the part the international investment community, policy mistakes at the onset of the crisis by Asian governments, and poorly designed international rescue programs turned the withdrawal of foreign capital into a full-fledged financial panic, and deepened the crisis more than was wither necessary or inevitable.

Overview of Asian Financial Crisis on per-crisis period:

In the mid-1980s, the local economy began to grow rapidly, and Thailand began the process of liberalizing its financial system. Starting in 1990, as part of this process, Thailand lifted capital controls so funds could flow freely in and out of the country.

In 1993, the Bangkok International Banking Facilities (BIBF) was established. The BIBF permitted local and foreign commercial banks in Thailand to take deposits or borrowings in foreign currencies from abroad, and lend them both here and abroad. As a result, massive amounts of currency flowed into the Kingdom.

This was to a great degree caused by the interest rate spread and the fact that the baht's value was pegged at 25 to the dollar. Interest rates in Thailand were much higher than in many other countries, which caused large private firms in Thailand to begin borrowing from abroad to finance projects.

Banks and finance companies also found it advantageous to borrow funds from abroad and lend them to local borrowers. Moreover, the fixed value of the baht meant that the Bank of Thailand had essentially eliminated the exchange rate risk. Problems arose when the loans from abroad were misallocated - in other words, channeled to sectors of low productivity - and things rapidly grew worse because most of the loans were unhedged against currency fluctuations.

The steel and petrochemical industries were hit hard, but the real estate sector was devastated. The reasons were simple: Firms were borrowing funds in foreign currencies while their revenues were being generated in baht, and the funds were also being borrowed short-term to finance long-term projects. This, and the fact that most of the funds that were borrowed from abroad were unhedged, created an extremely unfavourable economic situation, a disaster waiting to happen.

Up until 1995, goods and wages in the real estate and financial sectors were highly overvalued which, in hindsight, seems to have been an economic 'bubble' waiting to burst. But this all changed in 1996, when a scandal involving the Bangkok Bank of Commerce prompted foreign money managers to begin carefully re-examining the value of the loans they had made to borrowers in Thailand.

At the same time there were signs of a weakening economy, the most alarming of which was the high percentage of current-account deficit to gross domestic product (GDP). This was primarily due to the fact that Thailand was importing much more than it was exporting. Exports became more sluggish, and the overvalued baht and increasing labour costs in the country caused Thailand to lose its competitive edge in the world market. In short, our exports had become more expensive than that of our competitors in the eyes of foreign consumers.

One of the main reasons for the baht being overvalued is that it was pegged to a 'basket of currencies', of which the US dollar made up over 80%. The baht and dollar inflation rates were roughly parallel until 1994, when the former jumped to 6% (annual rate), while the latter fell to 2%. As a result, the baht appreciated against the US dollar by roughly 4%, and this began to adversely affect our exports to the US.

As the US economy strengthened, the dollar appreciated relative to other major world currencies, including the mark, the franc, the pound and especially the yen. Being largely pegged to the dollar, the baht followed this trend, which further discouraged exports - particularly to Japan, Thailand's second largest export market.

To further aggravate the situation, important Thai exports such as textiles and canned goods were losing their share in the world market, a result of competition from countries with cheaper labour costs like China and Vietnam. And at the same time, imports of raw materials, capital goods and luxury goods did not decrease.

On top of the current account deficit, the real estate sector's bubble 'burst', resulting in a plunge in property prices and a contraction in the sector. This left many bad debts on the balance sheets of the finance companies, which had financed those loans primarily by borrowing from abroad.

When the foreign money managers realized what was going on, net capital inflows into Thailand began to run dry. Once it began to see a negative net inflow, the Thai economy slowed dramatically, which put pressure on the baht.

Economics overview (Per-crisis):

Before talking causes factors, we would like to introduce the SE Asia economic environments on per-crisis period. Since all of these information are very useful for us to understand the market environment at that time.

Interest prime rate:

Below is the interest prime rate of SE Asia market from 1990 to 1997. Since we will discuss per-crisis period first, the period on 1997 is for referencing now. And we can see table 1 that marked some different color on some field, which represent highest and lowest rate in each country during 1990 to 1996. It makes us easy to see different economic period.

Highest rate

Lowest rate

Do not calculate Highest / Lowest rate temporary. Now, just for reference

Table 1: Interest Prime Rate from 1990 to 1997

	HK	SINGAPORE	TAIWAN	KOREA	INDONESIAN	MALAYSIA	THAILAND
Q1 1990	10	5.5	#NA	#NA	9.74	6.75	#NA
Q2 1990	11	5.5	#NA	#NA	11.16	6.75	#NA
Q3 1990	11	7	#NA	#NA	16.87	6.75	#NA
Q4 1990	10.5	7.5	#NA	#NA	17.05	7.25	#NA
Q1 1991	10	7.25	#NA	#NA	17.61	7.25	#NA
Q2 1991	9.5	7	#NA	#NA	17.73	7.75	16
Q3 1991	9.5	7.5	#NA	#NA	11.51	7.75	15.5
Q4 1991	9	7.25	#NA	#NA	12.2	8.25	16
Q1 1992	8.5	6.5	#NA	#NA	12.88	8.25	14
Q2 1992	8.5	5.75	8.35	18	12.16	8.5	12.5
Q3 1992	7	5.25	8.35	16.95	12.06	8.9	12
Q4 1992	6.5	5	8.35	16.4	11.65	9	12
Q1 1993	6.5	5	8.3	15.35	11.49	9	11.5
Q2 1993	6.5	4.75	8.32	11.45	10.72	8.6	11.25
Q3 1993	6.5	4.75	8.32	13.05	6.68	8.6	11.25
Q4 1993	6.5	4.75	8	14.35	7.06	8.25	11.25
Q1 1994	6.5	4.75	8	12.05	8.15	7.8	10.5
Q2 1994	6.75	4.75	8	12.45	15.25	7.2	10.25
Q3 1994	7.25	5.25	7.775	12.75	10.14	6.85	11
Q4 1994	7.75	5.75	8	15.4	14.16	6.55	11.5
Q1 1995	8.5	6.25	8	15.4	11.65	6.55	11.75
Q2 1995	9	6.25	8	14.15	15.04	6.8	13
Q3 1995	9	6	8	14.8	12.16	7.1	13.5
Q4 1995	9	6	7.8	12.85	15.07	7.2	13.5
Q1 1996	8.75	6	7.8	12.3	13.5	7.7	13.75
Q2 1996	8.5	6	7.8	11.2	12.48	8.3	13.75
Q3 1996	8.5	6	7.7	12.5	14.64	9	13.25
Q4 1996	8.5	6	7.55	14.1	15.69	9	13.25
Q1 1997	8.5	6	7.525	13.6	10.34	9	13.25
Q2 1997	8.75	6	7.525	13.2	14.85	9.1	13.25
Q3 1997	8.75	6	7.525	11.9	13.25	9.1	12.75
Q4 1997	8.75	6	7.65	13.7	39.25	9.45	14.25

Source: World Development Indicators 2006

Table 2: Prime rate statistic:

Mean	HK	SINGAPORE	TAIWAN	KOREA	INDONESIAN	MALAYSIA	THAILAND
	8.392857	5.901786	8.021842	13.97368	12.73214	7.773214	12.70652
Max	11	7.5	8.35	18	17.73	9	16
Min	6.5	4.75	7.55	11.2	6.68	6.55	10.25

Note: Above prime rate statistic is calculate from 1990 Q1 to 1996 Q4

** Refer to the 3 color areas in table, below are the analyze details from each area:*

Pink area:

We can see that the interest rates are higher during 1990 to the late of 1992. There are 6 countries provided higher interest rate at this period.

Blue area:

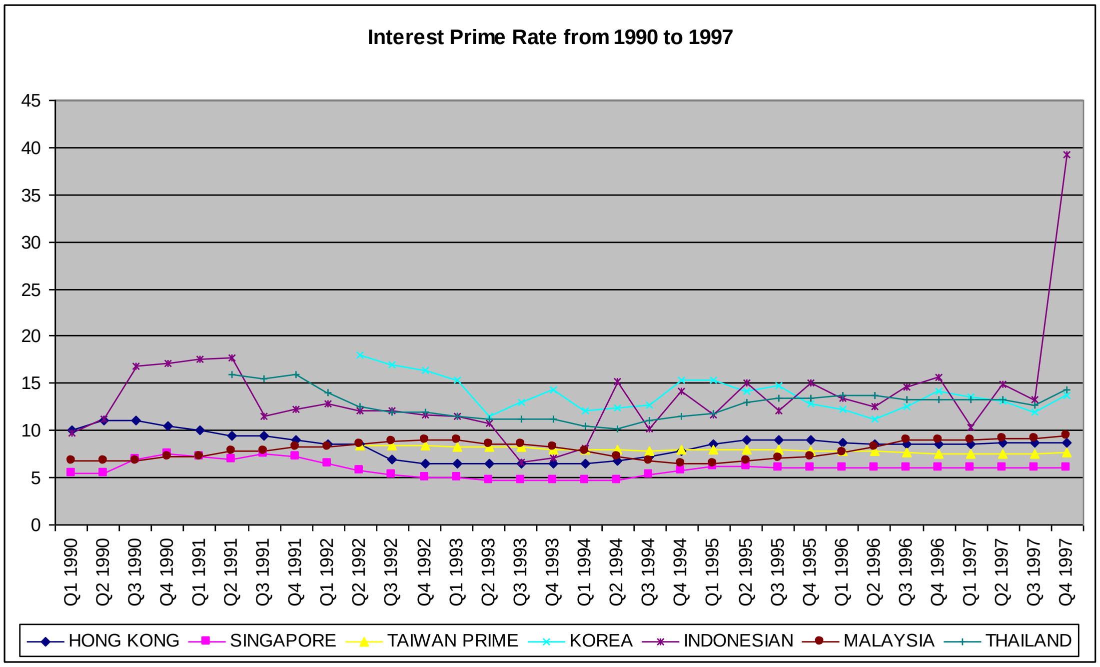
By 1993, the interest rates were declining, there are 4 countries had the lowest interest rate in 1993 to Q4 1994. So, we can see the lower interest rate distribution from Q2 1990 to Q3 1992, by 1992, the interest rates declined. And the lowest interest rate was distributed from 1993 to 1994. There are 5 countries at this moment.

Besides, we can see the interest rate was more stable in HK, Singapore and Taiwan. The sequence of this data more stable, But the other 4 countries are fluctuation. We can see the most fluctuation country is Indonesia. Second is Korea. Below has a graph chart to show the interest rate trend.

Grey area:

Although the prime rates were decreased during 1992~1995, by 1995, the prime started to increased. And we can notice that after 1996, the prime rates were still increasing. And the trend was going higher and higher. That is what we will discuss what happen during 1997 in next chapter. Now, we just review the economic environment at this moment.

Diagram 1



From diagram 1, the interest rate in Hong Kong, Singapore and Taiwan is at the around 5-7%. The fluctuation is not very big. On the contrary, other countries are extremely different. We can see that the most unstable country is Indonesia. On diagram 1 show that from 1994 Q1, the trend went up and down continually in every quarter. Until Q4 1997, the interest rate went up to 39.25% suddenly. We can see on average annually before 1997 is around 13%. So, we can see that Asian Financial crisis was great impacted on the Indonesia market. Others SE Asian countries were kept the same level during 1997.

Exchange rate:

(pink)	Highest rate
(blue)	Lowest rate
(grey)	Do not calculate Highest / Lowest exchange rate index temporary. Now, just for reference

Table 3: Real Exchange Rate Index (Base on WPI; Trade-Weighted, 1990=100)

Year	Indonesia	Malaysia	Philippines	Thailand	Korea
1988	98	98	90	102	102
1989	93	94	85	98	95
1990	100	100	100	100	100
1991	99	99	82	97	99
1992	92	87	69	90	94
1993	88	88	71	88	93
1994	92	86	62	89	91
1995	89	84	53	87	88
1996	80	78	56	80	88
Q1 1997	75	72	53	75	89
Q2 1997	78	75	54	76	89
Q3 1997	99	92	66	104	88
Q4 1997	150	108	75	124	157

Notes: 1. An increase means depreciation.

2. End-of-Period Exchange Rates

Source: World Development Indicators 2006

Table 4: Exchange rate statistic:

	Indonesia	Malaysia	Philippines	Thailand	Korea
Mean	92.33	90.44	74.22	92.33	94.44
Max	100	100	100	102	102
Min	80	78	53	80	88

Note: Above exchange rate statistic is calculate from 1988 to 1996 Q4

** Refer to the 3 color areas in table, below are the analyze details from each area:*

Pink area:

From above table, we can see the lowest exchange rate during 1988~1990. Over view on the whole trend, the exchange rate was increasing during pre-crisis period.

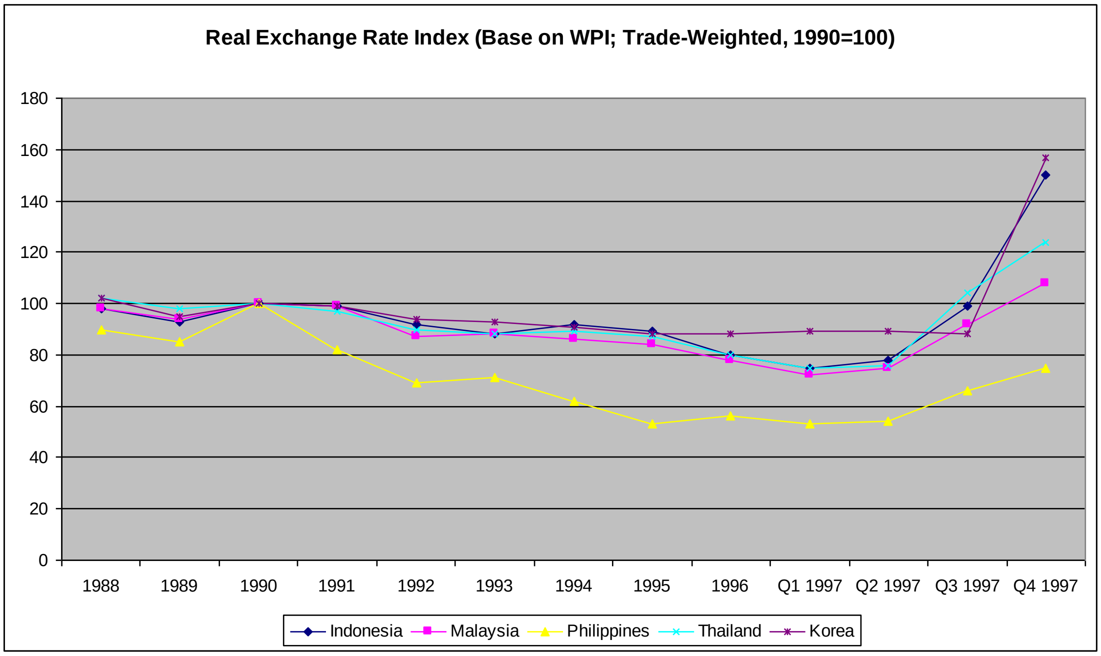
Blue area:

By 1996, it is the time of highest exchange rate period. We can see blue color areas are distributed in 1995~1996.

Grey area:

But in 1997, we can see the exchange rate was hit by great impact at Q4 1997. That is the time which Asian financial crisis occurs.

Diagram 2:



Obviously, all stock market indexes were gone up rapidly at the late of 1997. Since international speculators found the economics in SE Asia were poor and easily vulnerability at that time. All of them knew this is a chance to earn profit for buying short. Thus, a huge amount attacked to the currency market in SE Asia which occurred in 1997. And made some SE countries currency devaluated, and especially made Thai baht went worthless. From above diagram, it shows Korea, Indonesia and Thailand were the most affected countries by this financial crisis.

Stock Market Price Indexes:

	Highest rate
	Lowest rate
	Do not calculate Highest / Lowest price index temporary. Now, just for reference

Table 5: Stock Market Price Index

Year	Hong Kong	Indonesia	Malaysia	Thailand	Philippines	Singapore	Korea
1991	4,297	247	556	711	1,151	1,490	610
1992	5,512	274	643	893	1,256	1,524	678
1993	11,888	588	1,275	1,682	3,196	2,425	866
1994	8,191	469	971	1,360	2,785	2,239	1,027
1995	10,073	513	995	1,280	2,594	2,266	882
1996	13,451	637	1,237	831	3,170	2,216	651
1997	10,722	401	594	372	1,869	1,529	376

Source: World Development Indicators 2006

Table 6: Market Price Index Statistic:

	HK	Indonesia	Malaysia	Thailand	Philippines	Singapore	Korea
Mean	8,902	455	946	1,126	2,359	2,027	786
Max	13,451	637	1,275	1,682	3,196	2,425	1,027
Min	4,297	247	556	711	1,151	1,490	610

Note: Above market price index statistic is calculate from 1991 to 1996

** Refer to the 3 color areas in table, below are the analyze details from each area:*

Pink area:

At the first of 90s, we can see the Market Price Index is at the lowest level. Since the economic is at the stage of beginning. All countries are developing their market environment.

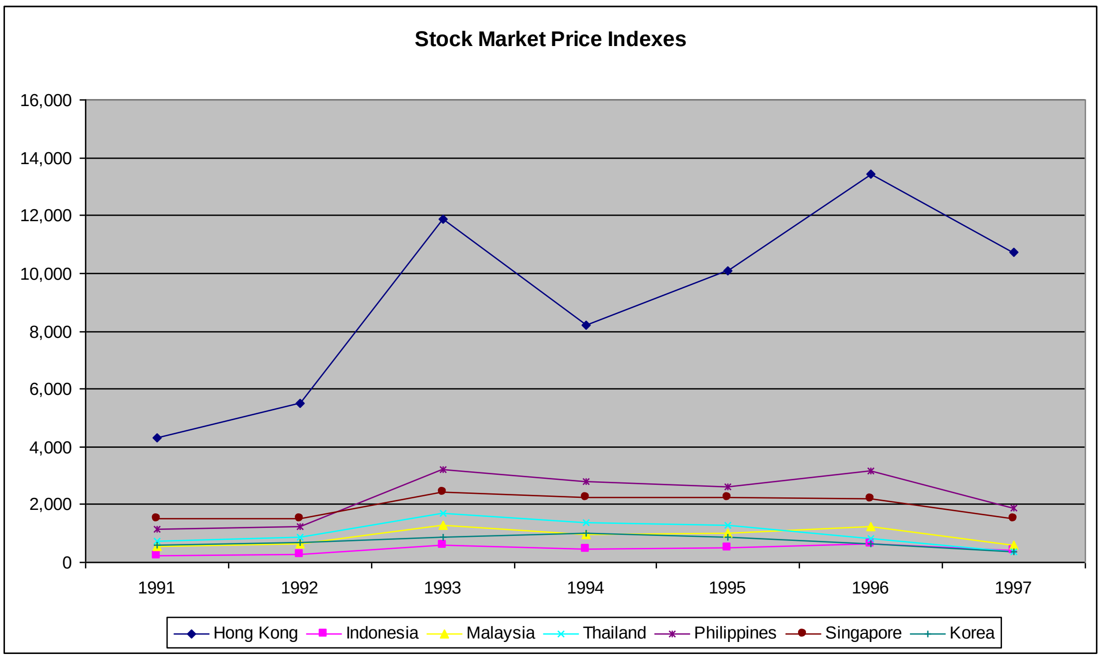
Blue area:

By 1993, we can see the indexes are increased explicitly in Southeast Asia. All countries in Southeast Asia have a highest Market Price Index. We can know how prosper in South East Asia during this period.

Grey area:

By 1997, since Asia financial crisis occur, make all indexes in Southeast Asia decline. Compare with previous data, the lowest level is at this period.

Diagram 3:



On stock market, it also affected by the crisis. Since currency was attacked, it made the exchange rate decreased. The currency is worthless on that country at the same time. Stock Market Index is a listing of stocks and a statistic reflecting the composite value of its components in one country. When the currency value goes down, it means the stock market in that country was declined, either. And it also affects the import and export growth (we will mention it later). From above graph, the stock market price indexes in all countries are declined in 1997. But it is not great impact on SE Asian countries, except Hong Kong. Since Hong Kong is an International Financial center. They have 34 component stocks. Thus, when stock market was attacked by international speculators, it will lead financial panic, and make many investors sell short immediately. Therefore, the stock market price index in Hong Kong was the region decreased the most.

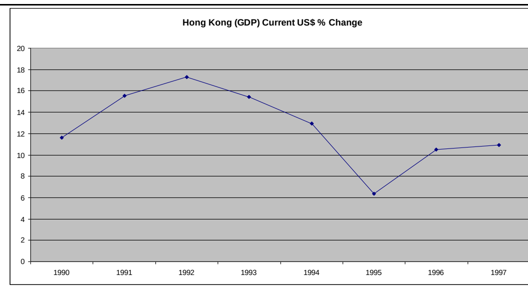
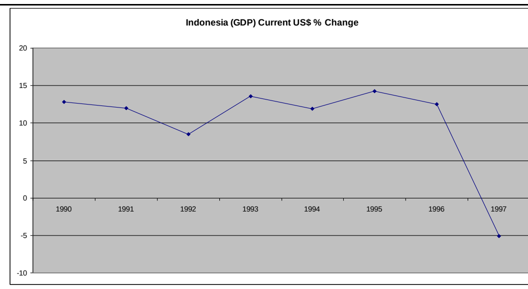
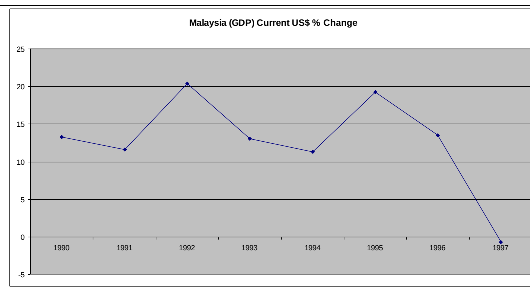
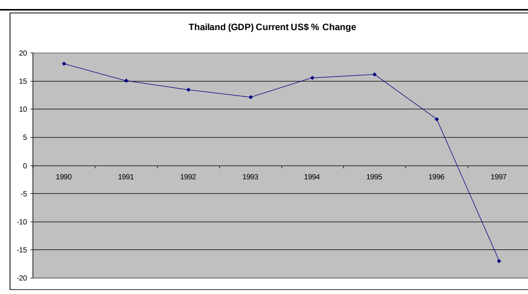
GDP:

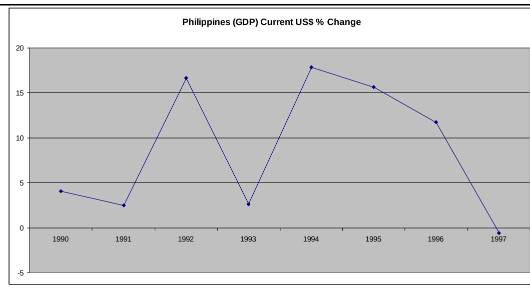
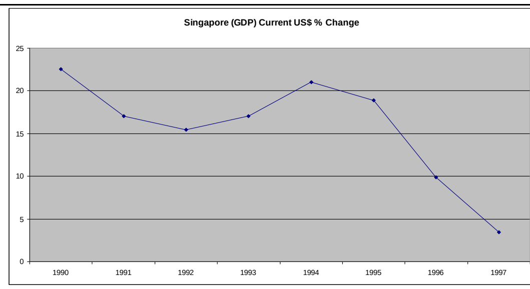
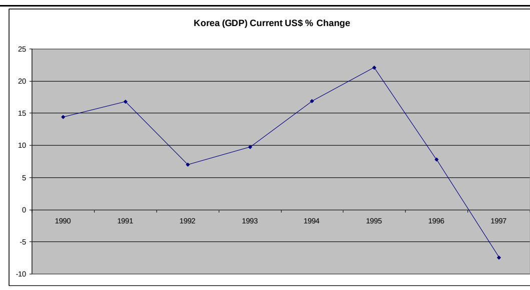
Table 7: GDP (Current US$) % Change

Year	Hong Kong	Indonesia	Malaysia	Thailand	Philippines	Singapore	Korea
1981	7.21	18.54	2.11	7.7	9.85	18.51	11.96
1982	3.83	2.42	7.16	5	4.19	9.93	6.64
1983	-7.63	-9.87	12.44	9.44	-10.58	13.87	10.88
1984	12.08	2.63	12.66	4.38	-5.43	8	10.29
1985	6.35	-0.31	-8.08	-6.93	-2.15	-5.77	3.66
1986	14.89	-8.33	-11.11	10.79	-2.82	1.51	15.2
1987	23.11	-5.16	13.95	17.26	11.14	14.4	25.79
1988	18.24	16.93	9.6	22.03	14.13	23.3	33.89
1989	15.36	14.27	10.14	17.16	12.38	18.89	22.95
1990	11.63	12.79	13.32	18.12	4.08	22.53	14.45
1991	15.53	12.01	11.61	15.1	2.5	17.04	16.84
1992	17.3	8.54	20.39	13.46	16.64	15.45	7.04
1993	15.43	13.58	13.09	12.16	2.63	17.03	9.78
1994	12.93	11.95	11.34	15.61	17.87	21	16.93
1995	6.35	14.27	19.27	16.17	15.66	18.87	22.12
1996	10.48	12.49	13.53	8.22	11.78	9.87	7.84
1997	10.92	**-5.11**	**-0.68**	**-16.95**	**-0.61**	**3.44**	**-7.42**

Source: World Development Indicators 2006

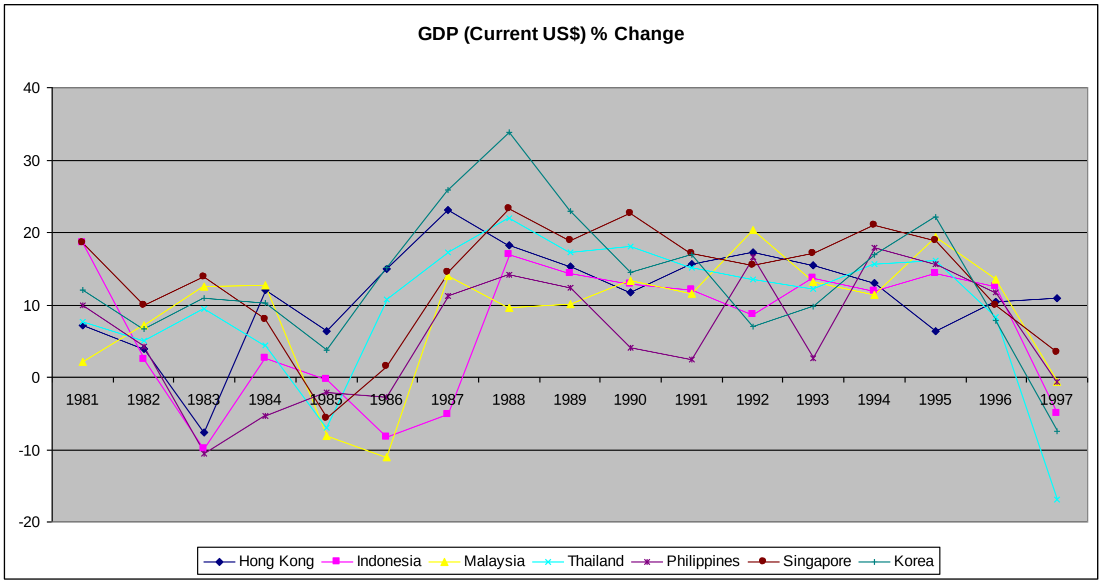
From table 7, we can see the GDP started to decline from 1994. Till 1997, the GDP in most countries were declined to negative figures. So, we can know that how deep impact on SE Asia economic on this finance crisis. We can see the graphic which show the next.

Hong Kong: The GDP started to decline from 1992 to 1995. The lowest level is at the year of 1995. Although it rose next year, it still cannot achieve to the level in 1994.	
Indonesia: The GDP is stability from 1993 to 1996. It's around at 12~13 % level. But after 1996, the GDP declined rapidly to -5.11% in 1997 which was the year Asian financial crisis occurred.	
Malaysia: The highest GDP in 1992 (20.39%). Then, it declined continually, except in 1995. (rose around 8 %) But after that, it decline rapidly. Until 1997, the GDP went to negative figure. (-0.68%)	
Thailand: The shape is little bit like Indonesia. But the declining status is more rapid than Indonesia. From 1991 to 1995, the GDP were stable, But after 1995, it slide rapidly. By 1997, the GDP was -16.96%. The economic in Thailand	

was very poor at that time.	
Philippines: The GDP is the most fluctuate which compare with other countries during 1991 to 1995. By 1994, it started to go down continually. By 1997, GDP was -0.61 at that time.	
Singapore: This shape is a little bit like Indonesia and Thailand. The most different is that the figure is not negative in 1997 (3.44%).	
Korea: The shape is quite traditional. GDP increased from 1992 to 1995. By 1995, it started to slide. Until 1997, the GDP was -7.42.	

Below is the gathering GDP graphics of SE Asia countries, it shows GDP are slide from 1996 to 1997. Obviously, the economic was going poor before the crisis. Thus, it attracts speculator to attack SE Asia market. By the year of 1997, their attacked was successful, and made economic collapse. On the other side, we can also see the GDP in 1997, most of the countries were negative figures which also can reflect the economic status at that time.

Diagram 4:



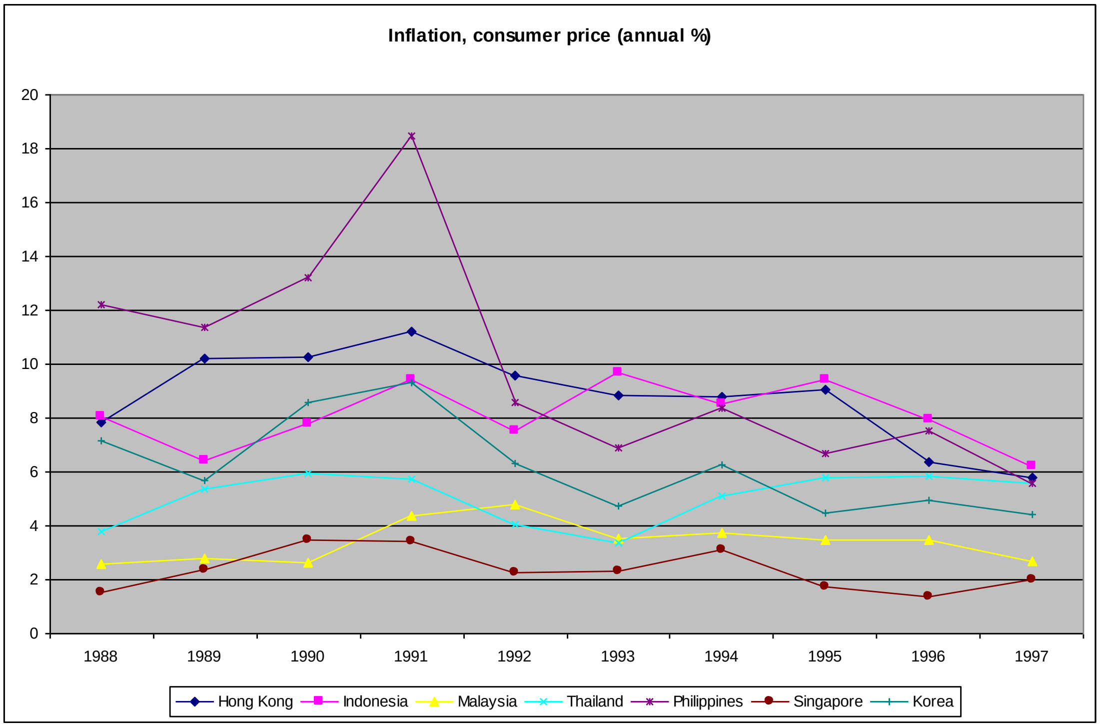
Inflation, unemployment and import/export trade:

Table 8: Inflation, consumer price (annual %)

Year	Hong Kong	Indonesia	Malaysia	Thailand	Philippines	Singapore	Korea
1988	7.84	8.04	2.56	3.8	12.23	1.52	7.15
1989	10.22	6.42	2.81	5.36	11.37	2.35	5.7
1990	10.26	7.81	2.62	5.95	13.2	3.46	8.58
1991	11.22	9.41	4.36	5.73	18.49	3.43	9.3
1992	9.59	7.53	4.77	4.07	8.59	2.26	6.31
1993	8.82	9.68	3.54	3.37	6.88	2.29	4.75
1994	8.78	8.52	3.72	5.09	8.36	3.1	6.26
1995	9.03	9.43	3.45	5.8	6.71	1.72	4.48
1996	6.37	7.97	3.49	5.83	7.51	1.38	4.93
1997	5.78	6.23	2.66	5.6	5.59	2	4.43

Source: World Development Indicators 2006

Diagram 5:



From diagram 5, we can see that the inflation is growing during 1989 to 1991, but it declined the following years. We can know the economics is good. At that time, the new electronic industries were developing very fast, like walkman, micro electronic chips, and many electronic products were very popular at that time. Due to the labor cost was low at SE Asia, many big enterprises would like to make investment to build their manufacturers at those regions. Thus, the job market was increased at that time.

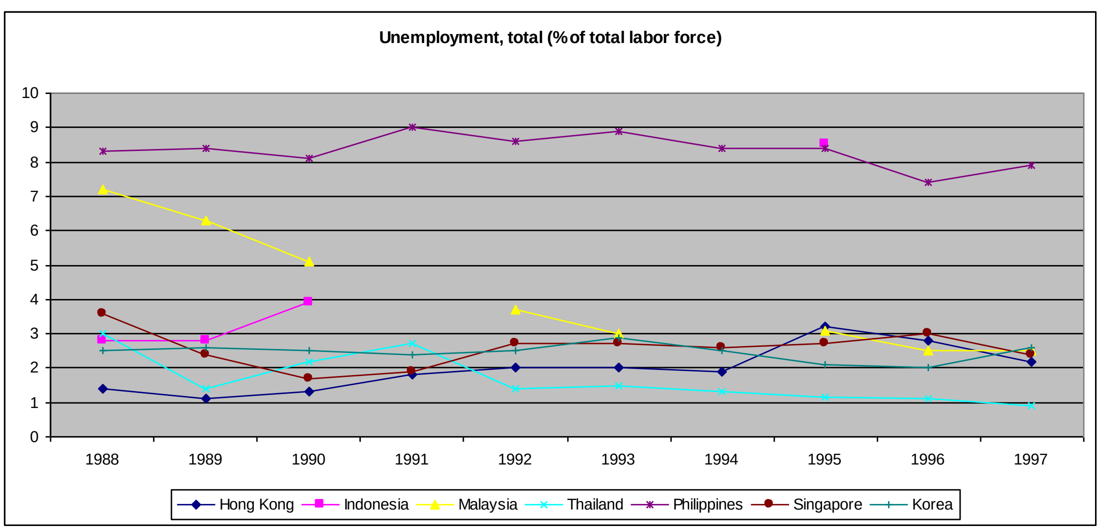
We can also notice below unemployment table or graphic. Unemployment status declined to 1990 in Singapore and Malaysia (around 2% in those regions). In order to the low unemployment rate, and the purchasing power of local resident increased, it made demands over the supply. Thus, suppliers cannot provide enough goods to fulfill the market. So, suppliers need increase their production. But increasing the production, it needed to increase some tools for producing, like machines or human resource. Since both of these are the costs, then the cost will be calculated on the product price for balance their profit. Finally, inflation will also make buyers suffer from the loss from difference cost.

Table 9: Unemployment, total (% of total labor force):

Year	Hong Kong	Indonesia	Malaysia	Thailand	Philippines	Singapore	Korea
1988	1.4	2.8	7.2	3	8.3	3.6	2.5
1989	1.1	2.8	6.3	1.4	8.4	2.4	2.6
1990	1.3	3.9	5.1	2.2	8.1	1.7	2.5
1991	1.8			2.7	9	1.9	2.4
1992	2		3.7	1.39	8.6	2.7	2.5
1993	2		3	1.5	8.9	2.7	2.9
1994	1.9			1.3	8.4	2.6	2.5
1995	3.2	8.5	3.1	1.14	8.4	2.7	2.1
1996	2.8		2.5	1.1	7.4	3	2
1997	2.2		2.5	0.9	7.9	2.4	2.6

Source: World Development Indicators 2006

Diagram 6:



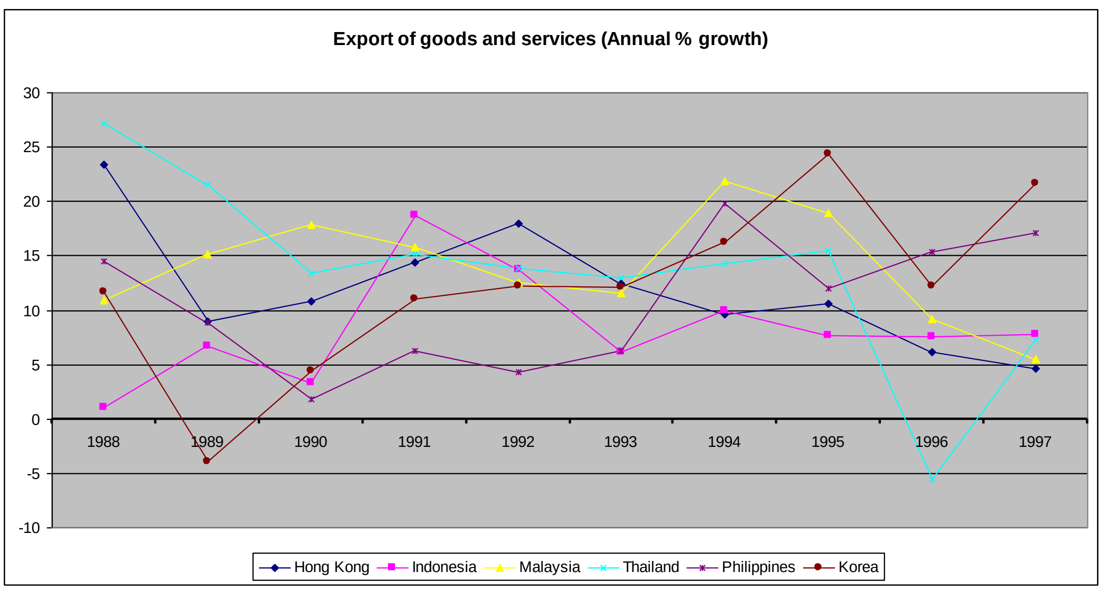
Export and Import:

Table 10: Export of goods and services (Annual % growth)

Year	Hong Kong	Indonesia	Malaysia	Thailand	Philippines	Korea
1988	23.35	1.05	10.9	27.17	14.53	11.66
1989	8.96	6.74	15.19	21.54	8.87	-3.97
1990	10.8	3.36	17.82	13.39	1.86	4.45
1991	14.37	18.78	15.77	15.14	6.27	11.07
1992	17.96	13.71	12.6	13.81	4.28	12.21
1993	12.4	6.11	11.54	12.98	6.22	12.15
1994	9.64	9.94	21.91	14.28	19.79	16.28
1995	10.65	7.72	18.96	15.44	12.04	24.39
1996	6.14	7.56	9.23	-5.52	15.4	12.17
1997	4.65	7.8	5.49	7.23	17.15	21.63

Source: World Development Indicators 2006

Diagram 7:



From above graph, we can see that export growth rates were increasing during 1993 ~1995 period in most countries. But later, it seemed slide down. We can see that economic is good during 1993 ~1995. By 1995, due to investment boom, there were many competitors in market. Make the supply too much. But the demand from abroad didn't need that much. Thus, it made the growth of export rate decline. In Thailand, it is strange that the export growth rate rose up again in 1997. Actually, this is what IMF provided rescue packages to Thailand. Make the economy recover, since increasing exports amount will increasing the income to countries. Therefore, for recovering the economy, need to raise the income to recover the debt.

Table 11: Import of goods and services (Annual % growth)

	Hong Kong	Indonesia	Malaysia	Thailand	Philippines	Korea
1988	25.13	-18.7	19.71	39.56	19.62	13.73
1989	8.49	11.57	25.7	21.59	15.18	17.46
1990	12.93	23.16	26.29	23.69	10.04	13.78
1991	17.8	15.73	25.21	12.94	-1.12	18.65
1992	20.52	8.69	6.37	8.97	8.69	5.38
1993	11.88	4.17	15.04	13.23	11.5	5.95
1994	13.47	20.3	25.64	14.43	14.5	21.32
1995	12.37	20.94	23.7	19.97	16.02	22.95
1996	4.4	6.86	4.89	-0.61	16.74	14.32
1997	6.92	14.72	5.82	-11.3	13.49	3.46

Source: World Development Indicators 2006

Diagram 8:

It is same that the import growth rates were better during 1993~1995. Since the demand from abroad is high, for fulfilling the supply, the manufacturers need to increase their productivity. But increasing the productivity needs more materials. And some materials were not available in local. Therefore, manufacturers will import more materials to control the productivity and maintain the market requirement. But by 1995, the import growth rate decreased. This is because that the abroad markets declined the export rate. Thus, it also needed to decline the import amount for controlling the material cost. So, the import rate declined after 1995.

Comparing with export and import growth rate, we know that the economy was prospect during 1993~1995. Since the abroad demand is very high, need to product more to fulfill the market. But 1995 later, economy started to slowdown, it made export and import rate also slowdown. The demand from abroad decreased finally; manufacturers also adopt to decrease the amount of input and output for controlling the cost. Therefore, we can see export and import rates were slowdown after 1995.

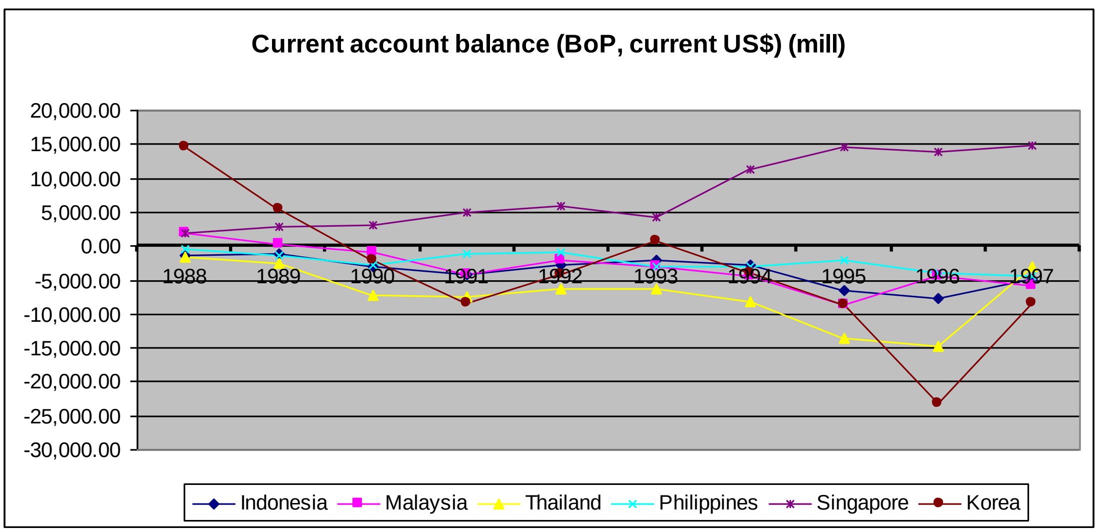
Current account balance (Balance of Payment):

Table 12: Current account balance (BoP, current US$) (mill)

	Indonesia	Malaysia	Thailand	Philippines	Singapore	Korea
1988	-1,397.00	1,867.28	-1,654.36	-390	1,936.92	14,505.40
1989	-1,108.00	314.53	-2,497.93	-1,456.00	2,963.66	5,344.20
1990	-2,988.00	-869.91	-7,281.10	-2,695.00	3,121.87	-2,014.40
1991	-4,260.00	-4,182.81	-7,571.45	-1,034.00	4,880.32	-8,417.40
1992	-2,780.00	-2,167.32	-6,303.41	-1,000.00	5,914.85	-4,095.20
1993	-2,106.00	-2,990.95	-6,363.58	-3,016.00	4,211.06	821.1
1994	-2,792.00	-4,520.14	-8,085.37	-2,950.00	11,399.76	-4,024.20
1995	-6,431.00	-8,643.57	-13,553.95	-1,980.00	14,708.13	-8,665.10
1996	-7,663.00	-4,461.95	-14,691.46	-3,953.00	13,853.18	-23,209.80
1997	-4,889.00	-5,935.25	-3,021.08	-4,351.00	14,912.54	-8,383.70

Source: World Development Indicators 2006

Diagram 9:



Balance of payment (BoP) is a record of all transactions made between one particular country and all other countries during a specified period of time. BOP compares the dollar difference of the amount of exports and imports, including all financial exports and imports. A negative balance of payments means that more money is flowing out of the country than coming in, and vice versa.

But above data is the difference between a nation's total exports of goods, services and transfers, and its total imports of them. Current account balance calculations exclude transactions in financial assets and liabilities.

From above graph we can see that most SE Asia countries were suffered from current account deficits during 90s, except Singapore. It means that when a country's total imports of goods, services and transfers is greater than the country's total export of goods, services and transfers. This situation makes a country a net debtor to the rest of the world. Therefore, we can see the economics in SE Asia is not good, and the level was kept stay in deficit continually. Never went well. So, this is one of the reasons that make Asian financial crisis occurred.

Now, we have overviewed the SE Asian economic on pre-crisis period. We can see that all figures showed that the economic were better during 88~94s. After that, it slowdown, and some countries were suffered from deficits. Next chapter, we will discuss about what factors makes the SE Asian economics from good to bad. And what happened occur in Asian financial crisis in 1997.

Market environment:

The seeds of the 1997-98 Asian financial crisis was sown during the previous decade when these countries were experiencing unprecedented economic growth. Although there were and remain important differences between the individual countries, a number of elements were common too most. Exports had long been the engine of economic growth in these countries. A combination of inexpensive and relatively well educated labor, export oriented economies, falling barriers to international trade, and in some cases such as Malaysia, heavy inward investment by foreign companies, had combined during the previous quarter of a century to transform many Asian states into export powerhouses. Over the 1990-1996 period, for example, the value of exports from Malaysia had grown by 18% per year, Thai exports had grown by 16% per year, Singapore's by 15% per year, Hong Kong's by 14% per year, and those of South Korea and Indonesia by 12% per year. The nature of these exports had also shifted in recent years from basic materials and products such as textiles to complex and increasingly high technology products, such as automobiles, semi-conductors, and consumer electronics.

In general, the Asian economies had been growing at rates of 5 to 10% per year for the past decade. They were opening their economies to foreign direct investments, foreign goods and services, capital flows, and were relying on dollar markets, particularly the United States, to absorb their exports. In order to attract foreign investments and facilitate capital flows, their currency exchange rates were kept in fairly close alignment with the U.S. dollar or a basket of currencies dominated by the dollar.

The financial services sector in most of these newly industrialized economies had been developing rapidly and without sufficient regulation, oversight, and government controls. As capital markets were liberalized, banks in Asian countries could borrow abroad at relatively low rates of interest and re-lend the funds domestically. Over the past decade, foreign borrowing by these countries had shifted from preponderance of government to private sector borrowing. Whereas in the 1970s, the government might have borrowed for infrastructure development from the World Bank or a consortium of international banks, in the 1990s, a local bank might borrow directly from large New York money center bank.

Capital liberalization:

Starting in the early 1990s, there was a rapid increase in short-term lending by commercial banks to both banks and firms in the region. Most bank lending was non-syndicated and directed to non-financial private firms, but in the Republic of Korea, and to a lesser extent elsewhere, the financial sector was also an important recipient of funds. Clearly, such transactions must have been perceived to be profitable by both international lenders and the Asian borrowers. However, it turned out that more capital flowed into these economies than could be profitably used at modest risk; i.e. there was a misjudgment of return and risks by both lenders and borrowers.

In the early 1990s, the major industrial countries adopted low interest rates in response to the recession. Interest rates in Japan were reduced dramatically after the failure of its economy to recover from the collapse of property and stock market bubbles in 1989–1990, while in the United States official rates were cut drastically in an effort to overcome debt deflation. The relatively higher returns in high-growth, low-risk Asian economies with a record of relatively stable exchange rates made them attractive investment locations. By 1994 an increasing volume of this investment consisted of short-term arbitrage funds seeking to profit from the interest rate differentials, rather than funds seeking long-term returns on productive investment.

Financial deregulation:

Certainly, financial policies in debtor countries have considerable influence on how much the private sector can borrow, at what terms, and what they do with the money.

But The East Asian economies were being urged to follow Japan on a path of financial liberalization, granting financial institutions more freedom in their borrowing and lending decisions, and introducing market-based monetary policy by loosening regulatory controls. In the Republic of Korea the departure from the post-war practice of control over private external borrowing coincided with the country's bid for membership of OECD[1]. However, financial liberalization went further among the second-tier NIEs **(Newly Industrialized Economies)**[2]. Thailand created the Bangkok International Banking Facility to intermediate foreign investment expected to be directed to the next tier of Asian NIEs, which might otherwise have gone to Singapore or Hong Kong (China). In reality, it served instead as a conduit for short-term foreign lending to the liberalized Thai banks and finance houses. Offshore borrowing was also encouraged by tax breaks.

Due to financial deregulation, together with capital account liberalization, this gave more freedom to financial institutions to diversify their portfolios for higher returns. In SE Asia, with rapid growth and increasing foreign interest, the commercial and residential property sector emerged as an attractive area of high return. Construction and property development companies thus appeared to be good investments from the point of view of both expected returns and diversification by banks.

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[1] The Organization for Economic Co-operation and Development (OECD) is an international organization of those developed countries that accept the principles of representative democracy and a free market economy.

[2] The term "Newly Industrializing Economy", coined by the Organization for Economic Cooperation and Development (OECD), describes developing countries that have enjoyed rapid economic growth and can be described as "middle-income" countries.

The term was first applied to Hong Kong, Singapore, South Korea, and Taiwan, but it is often extended to other countries. Also known as NIC (Newly industrialized countries).

In liberalization capita periods, banks and financial institutions were more freedom to borrowing and lending money with low interest rate easily. And the economics were growing at the same time. Thus, many investors would not miss this change and to make investment. During 80~90s, many semi-product companies, electronic manufacturers and garment factories, etc were build mass in SE Asia. Moreover, labor cost and the other operation expense were cheap in SE Asia. For those companies, this is a great saving cost policy to operate their business. And their business target was producing their product in local and exports their product to international. We can go back to see table 10, the export peak was during 1990~1995 (Around 12% annual growth in SE Asia market). But good things will not continually. The following topics will discuss about what matters lead investment boom.

Investment Boom:

The wealth created by export led growth helped to fuel an investment boom in commercial and residential property, industrial assets, and infra-structure. The value of commercial and residential real estate in cities such as Hong Kong and Bangkok started to soar. In turn, this fed a building boom the likes of which had never been seen before in Asia. Office and apartment building were going up all over the region. Heavy borrowing from banks financed much of this construction, but so long as the value of property continued to rise, the banks were more than happy to lend. As for industrial assets, the continued success of Asian exporters encouraged them to make ever bolder investments in industrial capacity. This was exemplified most clearly by South Korea's giant diversified conglomerates, or chaebol[3], many of which had ambitions to build up a major position in the global automobile and semi-conductor industries.

[3] Chaebol is a South Korea's form of business conglomerates. The Korean word means business group, trust (as in Standard Oil Trust), and is often used the way "Big Business" is used in English.

An added factor behind the investment boom in most SE Asian economies was the government. In many cases the government had embarked upon huge infrastructure projects. In Malaysia, for example, a new government administrative center was been constructed in Putrajaya for M$20 billion (US$8 billion at the pre July 1997 exchange rate), the government was funding the development of a massive high technology communications corridor, and the huge Bakun dam, which at a cost of M$13.6 billion was to be the most expensive power generation scheme in the country.

Throughout the region governments also encouraged private businesses to invest in certain sectors of the economy in accordance with "national goals" and "industrialization strategy". In South Korea, long a country where the government played a pro-active role in private sector investments, President Kim Young-Sam urged the chaebol to invest in new factories. Mr. Kim, a populist politician, took office in 1993 during a mild recession, and promised to boost economic growth by encouraging investment in export-oriented industries. Korea did enjoy an investment led economic boom in the 1994-95 periods, but at a cost. The chaebol, always reliant on heavy borrowings, built up massive debts that were equivalent, on average, to four times their equity.

In Malaysia, the government had encouraged strategic investments in the semi-conductor and automobile industries, "in accordance with the Korean model". One result of this was the national automobile manufacturer, Perusahaan Otomobil Nasional Bhd, which was established in 1984. Protected by a 200% import tariff and with few other competitors, the Proton, as the car was dubbed, sold well in its captive market. By 1989 Perusahaan Otomobil Nasional Bhd was selling 72,000 cars out of a total market of 117,000. By 1995 it had a 62% share of a market that had grown to 225,000 cars annually. Whether this company could succeed in a competitive marketplace, however, was another question. Skeptical analysis note that in 1987 an average 1,600cc Proton cost about three times per capita income in Malaysia; by 1996 a 1,6000cc Proton costs 5.5 times per capita income – hardly what one would expect from an efficient enterprise.

In Indonesia, President Suharato has long supported investments in a network of an estimated 300 businesses that are owned by his family and friends in a system known as "crony capitalism". Many of these businesses have been granted lucrative monopolies by the President. For example, in 1990 one the President's youngest son, Mr Hutomo, was granted a monopoly on the sale of cloves, which are mixed with tobacco in the cigarettes preferred by 9 out of 10 smokers in Indonesia. In another example, in 1995 Suharato announced that he had decided to build a national car, and that the car would be built by a company owned by Mr Hutomo, in association with Kia motors of South Korea. To support the venture, a consortium of Indonesian banks was "ordered" by the Government to offer almost $700 million in start-up loans to the company.

In sum, by the mid 1990s SE Asia was in the grips of an unprecedented investment boom, much of it financed with borrowed money. Between 1990 and 1995 gross domestic investment grew by 16.3% per annum in Indonesia, 16% per annum in Malaysia, 15.3% in Thailand, and 7.2% per annum in South Korea. By comparison, investment grew by 4.1% per annum over the same period in the US, and 0.8% per annum in all high income economies. Moreover, the rate of investment accelerated in 1996. In Malaysia, for example, spending on investment accounted for a remarkable 43% of GDP in 1996.

Excess Capacity

Southeast Asia is a major factor in the global imbalances because it produces and exports far more than it imports. With their colonial memories still fresh, Southeast

Asian governments have not been willing to let market forces alone determine patterns of trade. Believing in export-led growth, Southeast Asian leaders have promoted investment and restrained domestic consumption. The resulting excess capacity in key industries— especially electronics—contributed significantly to the economic crisis.
As Japan and China are relatively closed and export-oriented as well, they do not serve as significant customers for Southeast Asia. Consequently, the region—like many others—has become overly dependent on the U.S. market. This harms American workers though not necessarily multinational companies. Just as important, it results in ever higher U.S. trade deficits and mounting pressure on the dollar that creates dangerous problems for its role as the major international currency.

As might be expected, as the volume of investments ballooned during the 1990s, often at the bequest of national governments, so the quality of many of these investments declined significantly. All too often, the investments were made on the basis of projections about future demand conditions that were unrealistic. The result was the emergence of significant excess capacity.

In this regard, a complicating factor was that by the mid 1990s although exports were still expanding across the region, so were imports. The investments in infrastructure, industrial capacity, and commercial real estate were sucking in foreign goods at unprecedented rates. To build infrastructure, factories, and office buildings, SE Asian countries were purchasing capital equipment and materials from America, Europe, and Japan. Boeing and Airbus were crowing about the number of commercial jet aircraft they were selling to Asian airlines. Semi-conductor equipment companies such as Applied Materials and Lam Materials were boasting about the huge orders they were receiving from Asia. Motorola, Nokia, and Ericsson were falling over themselves to sell wireless telecommunications equipment to Asian nations. And companies selling electric power generation equipment such as ABB and General Electric were booking record orders across the region.

Reflecting growing imports, many SE Asian states saw the current account of their Balance of Payments shift strongly into the red during the mid 1990s. By 1995 Indonesia was running a current account deficit that was equivalent to 3.5% of its Gross Domestic Product (GDP), Malaysia's was 5.9%, and Thailand's was 8.1%. With deficits like these starting to pile up, it was becoming increasingly difficult for the governments of these countries to maintain the peg of their currencies against the US dollar. If that peg could not be held, the local currency value of dollar dominated debt would increase, raising the specter of large-scale default on debt service payments. The scene was now set for a potentially rapid economic meltdown.

Financial cost competitiveness:

There can be little doubt that a large part of the inflows was due to the attempt of domestic financial and non-financial firms to reduce their financing costs by borrowing from cheaper foreign markets, thus accumulating foreign-currency liabilities that were not balanced by foreign-currency assets. However, firms were also driven by reduced earnings resulting from a series of external and internal factors to seek lower financing costs. For a number of reasons, the growth of export earnings dropped markedly after the mid-1990s throughout the region. While the 1990–1991 recessions in industrial countries had little impact on Asian export growth, paradoxically trade started to slow when recovery started in those countries in 1994–1995, because of a decline in their import propensities. For many countries it was also becoming increasingly difficult to maintain competitiveness in labor-intensive manufactures because of the entry of low-cost producers. This was reflected in the emergence of the global excess supply and rapidly falling prices of many of the manufactured products exported from East Asia.

Dollar prices of semiconductors, which accounted for more than 40 per cent of exports of some countries in the region, fell by 80 per cent in 1996. Many East Asian firms reacted to loss of competitiveness by augmenting investment in productive capacity in the hope of increasing productivity and market shares, and by expanding into new areas of production, but added in the process to global excess supply. In a sense the process was similar to the post-Plaza response of Japanese firms to loss of competitiveness; there, too, rapid expansion of production capacity was a key factor in the subsequent financial difficulties.

Two examples of excess capacity in Korea and Thailand

This is a case of investments made by Korean chaebol in semi-conductor factories. Investments in such facilities surged in 1994 and 1995 when a temporary global shortage of Dynamic Random Access Memory chips (DRAMs) led to sharp price increases for this product. However, by 1996 supply shortages had disappeared and excess capacity was beginning to make itself felt, just as the Koreans started to bring new DRAM factories on stream. The results were predictable; prices for DRAMs plunged through the floor and the earnings of Korean DRAM manufacturers fell by 90%, which meant it was extremely difficult for them to make scheduled payments on the debt they had taken on to build the extra capacity in the first place.

In another example, a building boom in Thailand resulted in the emergence of excess capacity in residential and commercial property. By early 1997 it was estimated that there were 365,000 apartment units unoccupied in Bangkok. With another 100,000 units scheduled to be completed in 1997, it was clear that years of excess demand in the Thai property market had been replaced by excess supply. By one estimate, by 1997 Bangkok's building boom had produced enough excess space to meet its residential and commercial need for at least five years.

Bad Loan:

In Asia, the financial difficulties stemmed primarily from the questionable borrowing and lending practices of banks and finance companies in the troubled Asian economies. Companies in Asia tend to rely more on bank borrowing to raise capital than on issuing bonds or stock. Governments also have preferred developing financial systems with banks as key players. This is the Japanese model for channeling savings and other funds into production rather than consumption. With bank lending, the government is able to exert much more control over who has access to loans when funds are scarce. As part of their industrial policy, governments have directed funds toward favored industries at low rates of interest while consumers have had to pay higher rates (or could not obtain loans) for purchasing products that the government has considered to be undesirable (such as foreign cars). A weakness of this system is that the business culture in Asia relies heavily on personal relationships. The businesses which are well-connected (both with banks and with the government bureaucracy) tend to have the best access to financing. This leads to excess lending to the companies that are well-connected and who may have bought influence with government officials.

Korean banks and large businesses borrow in international markets at sovereign (national) rates and re-lend the funds to domestic businesses. The government bureaucrats often can direct the lending to favored and well-connected companies. The bureaucrats also write laws regulating businesses, receive approval from the parliament, write the implementing regulations, and then enforce those regulations. They have had great authority in the Korean economic system. The politicians receive legal (and sometimes illegal) contributions from businesses. They approve legislation and use their influence with the bureaucrats to direct scarce capital toward favored companies.

Credit Risk:

Credit-risk is ever-present in financial markets, and is realized whenever borrowers cannot or will not repay their loans on the original terms. Normally, of course, these "bad loans" might seem of only local significance. But, in a properly regulated banking system, the rules would require banks to write those bad loans down to market value, taking the losses into income. Recognizing bad loan losses that way, however, erodes the bank's capital ratios, and banks whose capital ratios are impaired, or close to it, cannot make new loans. They can thus no longer play their traditional-to use the old cliche-role of greasing the wheels of commerce. Banks that are capital-impaired cannot do that.[4]

This is an example of Finance One which is the country's largest financial institution in Thailand. Finance One had pioneered a practice that had become widespread among Thai institutions --- issuing Eurobonds denominated in US dollars and using the proceeds to finance lending to the country's booming property developers. In theory, this practice made sense because Finance One was able to exploit the interest rate differential between dollar denominated debt and Thai debt (i.e. Finance One borrowed in US dollars at a low interest rate, and lent in Thai Baht at high interest rates). The only problem with this financing strategy was that when the Thai property market began to unravel in 1996 and 1997, the property developers could no longer payback the cash that they had borrowed from Finance One. In turn, this made it difficult for Finance One to pay back its creditors. As the effects of over-building became evident in 1996, Finance One's non-performing loans doubled, and then doubled again in the first quarter of 1997.

[4] Captured from **Asia's Currency Crisis: Problems and Prescriptions** - Professor Merton H. Miller to the Asia Society in Hong Kong at the Conrad International Hotel on January 19, 1998

In February 1997, trading in the shares of Finance One was suspended while the government tried to arrange for the troubled company to be acquired by a small Thai bank, in a deal sponsored by the Thai central bank. It didn't work, and when trading resumed in Finance One shares in May they fell 70% in a single day. By this time it was clear that bad loans in the Thai property market were swelling daily, and had risen to over $30 billion. Finance One was bankrupt and it was feared that others would follow.

Debt Boom:

In Thailand, foreign funded domestic lending was 1.8 times the size of the country's monetary base by 1996. Coupled with this increasingly vulnerable position was a growing perception that banks and finance companies were carrying worrying levels of non performing loans and that the country's financial authorities were not overseeing the situation effectively.

Massive investments in industrial assets and property had created a situation of excess capacity and plunging prices, while leaving the companies that had made the investments groaning under huge debt burdens that they were now finding difficult to survive.

To make matters worse, much of the borrowing to fund these investments had been in US dollars, as opposed to local currencies. At the time this had seemed like a smart move. Throughout the region local currencies were pegged to the dollar, and interest rates on dollar borrowings were generally lower than rates on borrowings in domestic currency. Thus, it often made economic sense to borrow in dollars if the option was available. However, if the governments in the region could not maintain the dollar peg and their currencies started to depreciate against the dollar, this would increase the size of the debt burden that local companies would have to service, when measured in the local currency. Currency depreciation, in other words, would raise borrowing costs and could result in companies defaulting on their debt payments.

In 1990, the Bank of Thailand reported an external debt of US$25.1 billion. By the end of 1995, this figure had grown 172 percent to 68.1 percent. At the end of 1996, this figure was $79.8 billion, 17 percent higher than the previous year. Once the financial crisis for Thailand on July 2, 1997, the Bank of Thailand reported revised debt figures for 1995 and 1996. Both the original and revised 1995 and 1996 debt figures captured the foreign borrowing of banks in the Bangkok International Banking Facility, the primary offshore center for Thai banks to obtain foreign funds. But prior to 1997, external debt figures excluded foreign liabilities contracted directly by nonfinancial entities that were not recorded in foreign exchange transactions reported by banks, although an estimated of this debt based on enterprise surveys had been included. Total external debt for 1995 turned out to be $82.6 billion, a 21 percent upward adjustment over the previously reported 1995 value, while the figure for 1996 was revised up by 13 percent, to $90.5 billion.

Economic boom:

By late 1996 Thailand was coming off a remarkable economic boom, prolonged by the inflow of foreign capital. Real GDP growth slowed from 8.8 percent in 1995 to 6.0 percent in 1996, paralleled by a sagging stock market. Two issues were of particular concern: the widening current account deficit (growing from an already-large 8.1 percent of GDP in 1995 to 8.4 percent in 1996) and unease about over-borrowing and mismanagement in the financial sector. The deteriorating current account position reflected a number of factors: sustained real currency appreciation, strongly rising real wages, declining demand in key export markets, and a realignment of the yen-dollar relationship. In the financial sector, a very rapid expansion of domestic credit was funded by international borrowing (particularly short term borrowing).

Boom and Bust

In Thailand, the economy was booming from 1991 to 1995. Private fixed investment was rising at 9 to 13 percent in 1993 to 1996, while consumption was rising at 6 to 8 percent a year.

Table 13: % change from previous year (Billion Baht)

	1993	1994	1995	1996
Private Consumption	1585	1711	1835	1949
	8.0%	8.0%	7.3%	6.2%
Government Consumption	1380	1380	1614	1712
	8.4%	7.9%	8.3%	6.1%
Private Investment	806	877	987	1035
	10.5%	8.8%	12.5%	4.8%
Public Investment	191	235	271	308
	4.6%	22.5%	15.6%	13.5%
Exports	1048	1197	1375	1410
	12.7%	14.2%	14.8%	2.6%
Imports	1108	1269	1484	1525
	11.6%	14.5%	16.9%	2.8%
GDP	2481	2702	2936	3124
	8.5%	8.9%	8.7%	6.4%

Also, the trade structure reveals that consumption was not the origin. The import increase in 1995 was mostly in raw materials, semi-finished goods, and capital goods. In particular, steel and ICs showed growth rates near 40%. It was more an investment boom than a consumption boom.

At the time of economic boom, 1993~1995, lending to real estate had risen fast, especially from finance companies. About a quarter of the loans from finance companies were concentrated in the real sector, while only 10 percent of commercial banks were directed to the real estate sector.

Loans classified by sectors.

Table 14: Credit Granted from Thai Commercial Banks to Various Sectors (unit, million baht)

	1994, Dec	1995, Dec	1996, Dec	1997, May
Total	3,051,311	3,646,821	4,187,037	4,336,576
Manufacturing	670,434	824,011	985,808	1,041,648
	21.97%	**22.60%**	**23.54%**	**24.02%**
Commercial	592,370	733,011	840,050	896,578
Banking & Finance	169,717	210,953	227,087	219,583
Construction	130,139	166,787	209,672	223,519
Real Estate	316,636	353,484	380,692	377,208
	10.38%	**9.69%**	**9.09%**	**8.70%**
Others	1,172,015	1,358,575	1,543,728	1,578,040

Source: Bank of Thailand

Table 15: Loan extended from Finance Companies, classified by Sectors (unit= million baht)

	1993, Dec	1994, Dec	1995, Dec	1996, Dec	1997, May
Total	702,946	937,514	1,213,971	1,398,795	1,334,849
Manufacturing	98,731	127,457	175,274	218,041	209,242
	14.44%	**13.60%**	**14.44%**	**15.59%**	**15.68%**
Commercial	69,072	91,739	120,792	155,329	146,765
Banking	68,642	101,074	133,167	149,718	139,148
Construction	19,441	26,504	40,191	56,738	55,653
Real Estate	163,417	237,897	321,454	365,579	364,719
	23.91%	**25.38%**	**26.48%**	**26.14%**	**27.32%**
Others	283,643	352,843	423,093	453,390	419,322

Source: Bank of Thailand

As the economy slowed down, the real estate bubble burst. Some of the bank credit, which has increased in 1994, went to the real estate sector. Office buildings were over-built. As the financial bubble collapsed, stock prices and real estate prices declined sharply, and nonperforming loans increased. The stock price index, SET[5], peaked at 1,754 in January 1994, and stayed at around 1,200 in 1994 and 1995. Then it declined sharply in 1996, from 1200 in January to 800 in December. By the time the currency was devalued, the stock price index had become 500. The bubble burst in the stock market preceded devaluation by at least 18 months.

Land price had been declining sharply for a year or two before the currency crisis hit. The real estate industry was in trouble and banks and non-banks, which lend to the sector, were accumulate nonperforming loans. Finance companies, which were fast

[5] The SET (Stock Exchange of Thailand) Index is a market capitalization-weighted price index which compares the current market value of all listed common shares with its value on the base date of April 30, 1975, which was when the SET Index was established and set at 100 points.

expanding to non-blank financial institutions, were particularly hard hit by the bubble bursting. A sign of weakness appeared first when the Bangkok Bank of Commercial failed in 1996.

Export slowdown was not limited to Thailand, although it was most dramatic in Thailand. Most of the de facto dollar-pegged Asian countries, from Thailand, to Malaysia, to South Korea, had experienced a slowdown in export.

The problem of overvaluation was aggravated by a slump in the worldwide semiconductor industry in 1995~96. The growth in electronic exports declined from 27.2 percent in 1995 to 5.5 percent in 1996, and 8.9 percent in the first half of 1997. For Thailand, the above problems were further complicated by the loss of competitiveness in less sophisticated manufactured goods. Its textile exports declined by 16.8 percent in 1996 compared to 1995.

In regard to exports, these grew at a phenomenal average rate of 17 percent per annum during 1970s, slowed down to a little over 11 percent during 1980s, but increased again almost 17 percent in the first half of the 1990s. But falling dollar prices caused a slowdown in 1996 and 1997, and a contraction of almost 9 percent took place in the wake of the crisis in 1998. This indicates that the East Asian companies' economics were not able to achieve proportionally greater sales from lower export prices stemming from currency devaluation. Although South Korea did increase export to volumes throughout the crisis period, dollar revenues suffered from the lower price obtained.

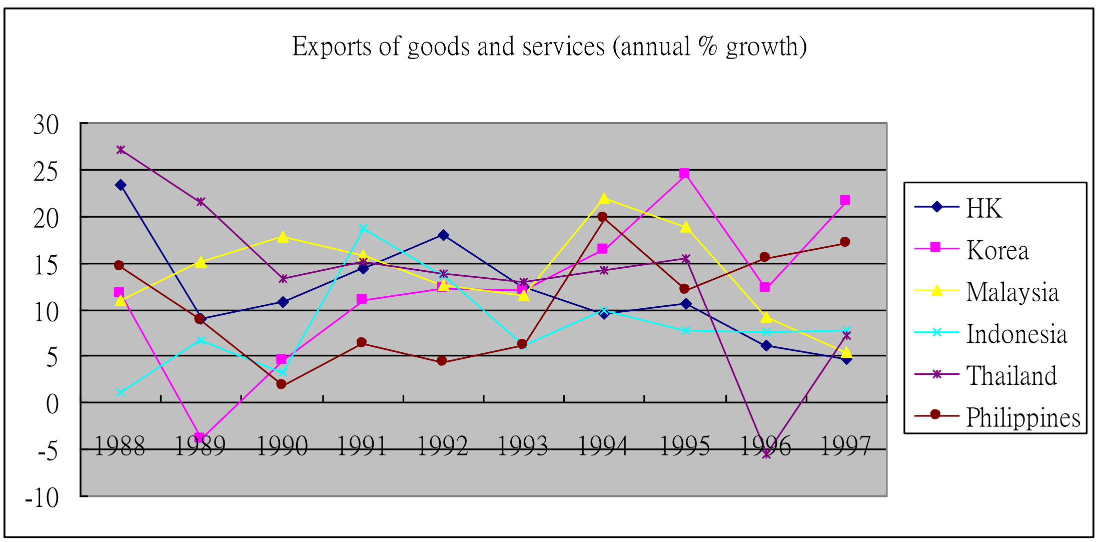
Below are the SE Asia's export and import of goods and services data during 1988 to 1997. For comparing the countries balance, we can compare and find the differences. Then, we can know the countries inflow and outflow situation.

Table 16: Exports of goods and services (annual % growth)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
HK	23.35	8.96	10.8	14.37	17.96	12.4	9.64	10.65	6.14	4.65
Korea	11.66	-3.97	4.45	11.07	12.21	12.15	16.28	24.39	12.17	21.63
Malaysia	10.9	15.19	17.82	15.77	12.6	11.54	21.91	18.96	9.23	5.49
Indonesia	1.05	6.74	3.36	18.78	13.71	6.11	9.94	7.72	7.56	7.8
Thailand	27.17	21.54	13.39	15.14	13.81	12.98	14.28	15.44	-5.52	7.23
Philippines	14.53	8.87	1.86	6.27	4.28	6.22	19.79	12.04	15.4	17.15

Source: World Development Indicators

Diagram 10:



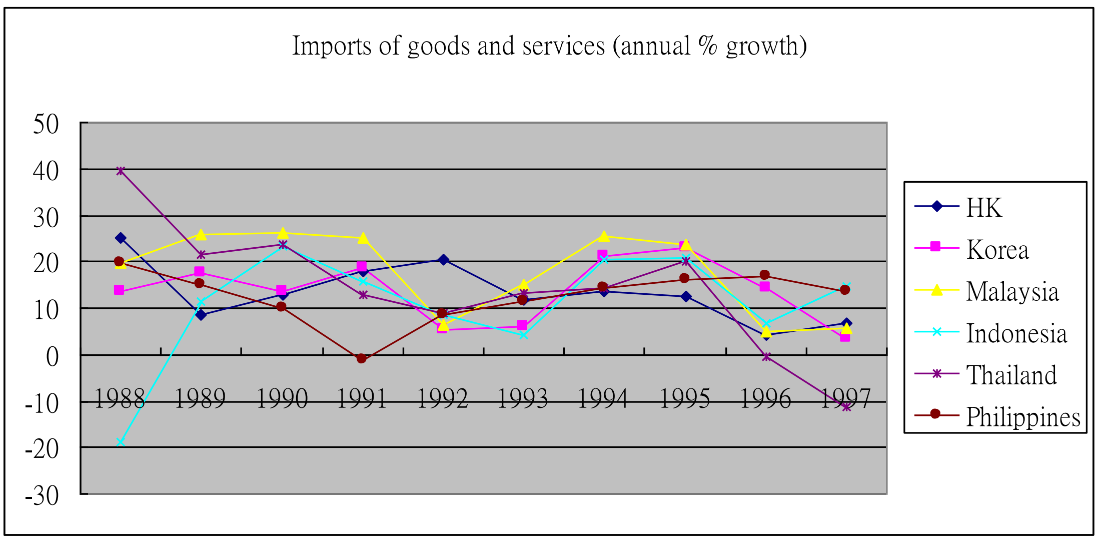
Source: World Development Indicators

Table 17: Imports of goods and services (annual % growth)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
HK	25.13	8.49	12.93	17.8	20.52	11.88	13.47	12.37	4.4	6.92
Korea.	13.73	17.46	13.78	18.65	5.38	5.95	21.32	22.95	14.32	3.46
Malaysia	19.71	25.7	26.29	25.21	6.37	15.04	25.64	23.7	4.89	5.82
Indonesia	-18.7	11.57	23.16	15.73	8.69	4.17	20.3	20.94	6.86	14.72
Thailand	39.56	21.59	23.69	12.94	8.97	13.23	14.43	19.97	-0.61	-11.3
Philippines	19.62	15.18	10.04	-1.12	8.69	11.5	14.5	16.02	16.74	13.49

Source: World Development Indicators

Diagram 11:



Source: World Development Indicators

Below is current account balance of SE Asia data, BoP is stand for Balance of Payment, which is the sum of the current account and the capital account.

Balance of Payments = Current Account + Capital Account + Change in Official Reserve Account

Current account =

- Trade Balance
    - Net Exports (Exports - Imports) of Merchandise (tangible goods)
    - Net Exports (Exports - Imports) Services (such as legal and consulting services)
- + Net Factor Income From Abroad (such as interest and dividends)
- + Net Unilateral Transfers From Abroad (such as foreign aid, grants, gifts, etc.)
- Current account balance (BoP, current US$) (thou)

Capital account =

- Increase in foreign ownership of domestic assets
- - Increase of domestic ownership of foreign assets

Change in Official Reserve Account =

- Official gold reserves
- + Foreign exchange reserves
- + IMF Special Drawing Rights (SDRs)

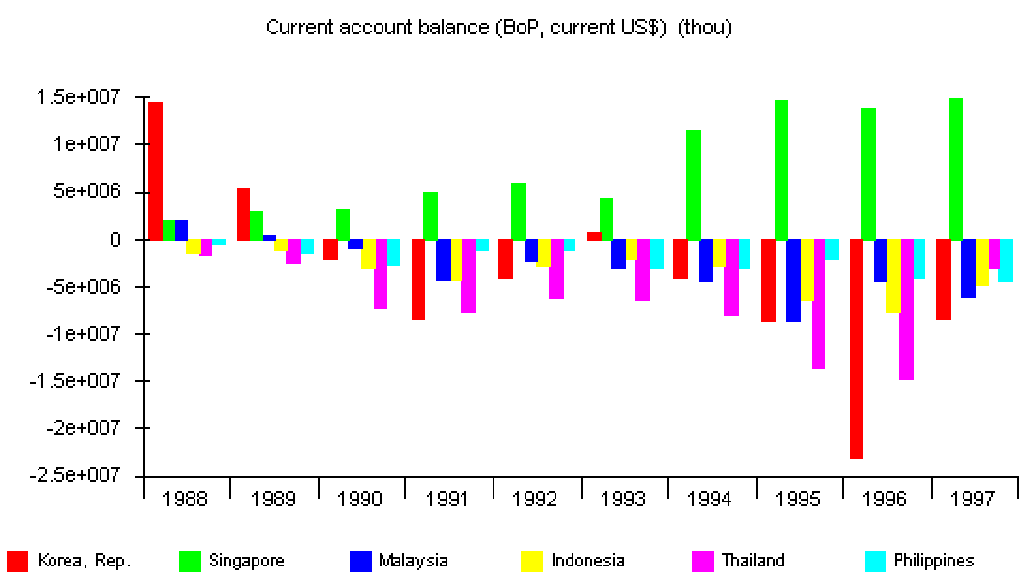
Below is the BoP table in SE Asia, we can see that the BoP started to decline from 1993 to 1996. And the economics trended go worse and worse, except Singapore. From above export and import table, we can find that exports amount were less than imports. Therefore, SE Asia countries were keeping at outflow status. From below table, BoP was calculated on import, export, domestic capital asset and domestic reserve, etc. From the table and graph show, the worst country during economic slow down period is Korea and Thailand, both were suffered very big loss.

Table 18: Current account balanece (BoP, current US$) (thou)

	Korea	Singapore	Malaysia	Indonesia	Thailand	Philippines
1988	14,505,400	1,936,917	1,867,279	-1,397,000	-1,654,360	-390,000
1989	5,344,200	2,963,659	314,526	-1,108,000	-2,497,933	-1,456,000
1990	-2,014,400	3,121,874	-869,911	-2,988,000	-7,281,096	-2,695,000
1991	-8,417,400	4,880,322	-4,182,808	-4,260,000	-7,571,452	-1,034,000
1992	-4,095,200	5,914,854	-2,167,322	-2,780,000	-6,303,407	-1,000,000
1993	821,100	4,211,065	-2,990,954	-2,106,000	-6,363,577	-3,016,000
1994	-4,024,200	11,399,762	-4,520,137	-2,792,000	-8,085,369	-2,950,000
1995	-8,665,100	14,708,133	-8,643,573	-6,431,000	-13,553,955	-1,980,000
1996	-23,209,800	13,853,180	-4,461,946	-7,663,000	-14,691,463	-3,953,000
1997	-8,383,700	14,912,540	-5,935,251	-4,889,000	-3,021,083	-4,351,000

Source: World Development Indicators 2006

Diagram 12:



Source: World Development Indicators 2006

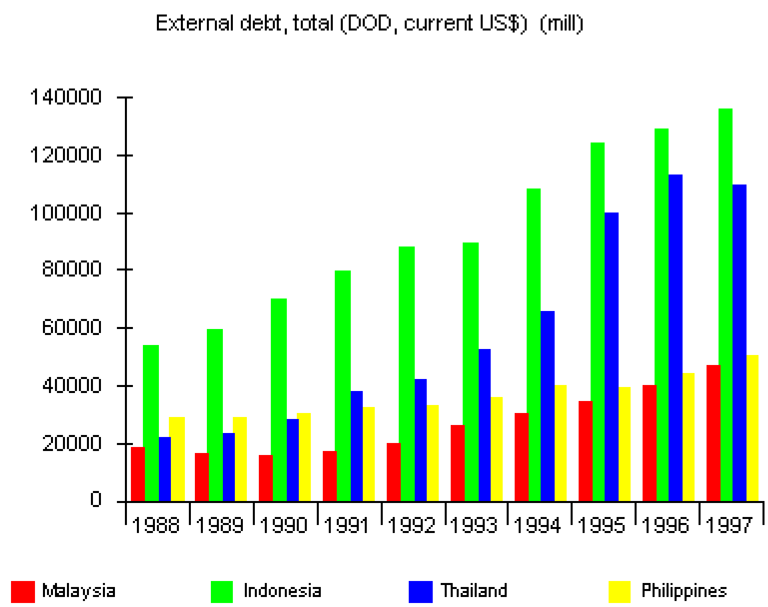
Extended loan to finance companies:

In the spring of 1997, the Bank of Thailand has to start a liquidity support for the troubled finance companies, because funds started to flee institutions that were perceived to be weak.

The central bank extended loan to finance companies through Financial Institutions Development Fund (FIDF), which is vaguely similar to a deposit insurance system. By the time these finance companies were suspended (13 in June and another 42 in August), 430 billion baht had been lent. These financial troubled weakened the confidence of foreign investors in the economy and currency. Thailand had large inflows to its banking sector. Hence impacts on foreign investors' confidence in the financial system being lost on the capital flows and on the economy in general were much stronger than otherwise would have happened.

In order to alleviate the property loan problem, Thai authorities set up the Property Loan Management Organization (PLMO) in the spring of 1997 to help restructure property loans. However, finance companies became cash strapped before PLMO became operational.

Diagram 13: External Debt in SE Asia from 1988~1997



Insufficient reserve & Speculator attack:

In general, weak macro fundamentals, such as large current account deficits and slow growth, are a first sign of currency depreciation pressure. The banking and currency crises go hand in hand. When the banking sectors are weak (i.e., undercapitalized and with large nonperforming loans), the currency becomes vulnerable. Hiking the interest defense in the hope of stopping capital outflows cannot be deployed when financial institutions are weak, and capital flight becomes a serious concern. Precisely at this moment, the probability of success for speculative attack increases. Thailand was picture perfect for this. Speculative attacks took place in little waves in January, February, and March 1997. However, it was not until May 1997, that speculative attacks became so massive that they changed a course of the economy permanently.

A massive speculative attack on the baht took place in the week of May 12. The baht was sold both in the spot and forward markets. The forward selling took place in the form of swap arrangements, that is, speculators effectively bought the baht in the spot and sold baht forward, paying the interest rate costs, but expecting that devaluation would take place soon. The central bank countered by intervention, defending the de facto dollar peg. When the central bank becomes a counterparty of swap deals, the central bank is able to acquire dollars on the balance sheet (as a result of the spot transaction, the first leg of the swap arrangement) while having dollar liability as an off-balance sheet item.

If the future liability of dollar selling and buying baht were to be consolidated, the true foreign reserve level at the end of May would have revealed a substantial decline in foreign reserves. At that point, keep the de facto fixed rate would have become impossible. The Thai authorities must keep have hoped for some event that would make the central bank regain a comfortable level of foreign reserves before the forward liability would become due, but no such event took place, and worse, some residents started to become less confident in the fixed exchange rate. It would be revealed later that the central bank in fact engaged in forward contracts for more that $17 billion in the offshore market (mostly in Singapore).

On May 15, the central bank advised domestic bank to refrain from providing liquidity to offshore banks. The baht market was segmented into onshore and offshore markets. The intended effect was to squeeze “speculators”, or short sellers or forward sellers. Those nonresidents who had sold the baht short were caught. They had to pay a very high rate to obtain the baht which was needed to close the contract delivering the baht and receiving the dollars. The two-tier market was formed. Offshore baht started to be traded at a premium. The two-tier market continued to exit until the end of June. Those who took the short-selling of baht position in the one-month forward market in May must have had losses due to the two-tier market.

Announcement of Foreign Reserves

On June 26, the Bank of Thailand announced that it had lost $4 billion in foreign reserves during the month of May, and the level stood at $33.3 billion, the lowest level in two years. The loss in reserves was attributed to the currency defense. The market knew at this point that the central bank had engaged in forward contracts and the announced reserved did not include the potential reserve loss from forward contracts. The market also realized that private debt had far exceeded the level of foreign reserves. But, there was no panic.

> "The fall in reserves is worrying for two reasons, analysts said. First, the number does not reflect the amount of forward contracts the central bank took out last mount defending the currency. Most of those contracts are expected to come due in Mid-August, when many analysts believe Thailand will experience another bout of currency instability.
>
> "Second is that the country has as much as $66 billion in private sector debt coming due in the next year. If that credit is not rolled over and Thailand keeps facing a balance of payment deficit, the country may not have enough dollars to pay those loans back.
>
> "Nevertheless, analysts said that foreign capital may start to flow back into Thailand if the country's new measures to deal with cash-strapped finance companies are implemented successfully and quickly."[6]

[6] Captured from Financial Times, June 27,1997

What the market did not know was the size of forward contracts that the central bank had engaged in. The exact size of forward contracts, more than $17 billion in offshore and $23.4 billion altogether remained as the best kept secret until it was forced to be revealed at the same time of IMF program in late August.

The fact that announced foreign reserve level change little from May to June reflected the fact that the central bank countered spot selling of the baht by intervening in the market, while engaging in swap arrangements of a similar magnitude. Although the central bank would manage to keep the fixed rate until July 2, and the squeeze play worked in June, it could not keep the tightrope operation going any longer.

At this point, another problem was how to deal with the finance companies, which were known to be burdened by the nonperforming loans. Liquidity was supported by the central bank (through BIBF). The central bank suspended operations of 16 finance companied on Friday, June 27, a day after it announced the drop of $4billion in foreign reserves in the month of May. The central bank was to set up panels to take control of each company. The step was regarded as positive, and the stock market went up by 1.6%. How to rehabilitate or liquidate these institutions was not decided upon at this point, although the 16 finance companies were ordered to submit rehabilitation plans in 14 days. It took another six months, instead of 14 days, for them to submit plans to be evaluated as event world evolve. There were other finance companies with weak balance sheets, and obviously how the 16 would be dealt with would affect the business of other operating finance companies. At the point, the monetary authorities seem to have leaned toward a merger plan, rather than liquidation of troubled companies.

Overview of Asian Financial Crisis on crisis period:

In late 1997, hedge fund managers and currency traders like George Soros began to make speculative attacks on the baht. They realized early on that the Thai currency was overvalued and that speculative attacks would be successful in lowering the value of the baht.

One of the ways hedge fund managers go about attacking a currency is to enter into forward contracts to sell it. In Thailand's case, fund managers would promise to sell another party a certain amount of baht for dollars at 25 to the dollar after three months, entering into these agreements in the hope that a float of the baht would lead to a more favorable return for their dollar, which is exactly what happened.

Before long, though, local investors started to realize what was happening and began selling baht for dollars in an attempt to hedge against the depreciation of the baht. Exporters with similar motives who received payments in foreign currencies found that it was in their best interest to wait a while before converting those currencies into baht.

This widespread selling only hastened the depreciation of the baht, because while there was a huge supply of baht in the money market, there was little demand for it.
In an unsuccessful attempt to defend the baht, the Bank of Thailand used the country's reserves of foreign currencies to buy up the excess supply. But in the process, foreign reserves began to dwindle, while the speculative attacks continued.

The foreign reserves were also being used to bail out financial institutions such as the Bangkok Bank of Commerce and 16 other finance companies which had massive 'nonperforming' loans - loans that they could not collect, most of which were made to the real estate sector.

By August 1997, the situation in the financial sector had become critical, and 42 more finance companies were shut down. By that time, Thailand was in serious danger of running out of reserves, and it was clear that the currency defense and the other bailout attempts had failed.

By July 1997 more than US$30 billion of foreign reserves had been used in the unsuccessful defense of the baht. On 2 July, The Bank of Thailand, unable to defend the baht any longer, announced that a 'managed float' system would be adopted to replace the 13-year-old pegged exchange rate system. This meant that the baht's value would be determined by the demand and supply of the baht in the world money market.

Since that time, the baht has fallen dramatically, reaching record lows of nearly 44 baht to the dollar in early December. This seems to contradict earlier research that had indicated that the reasonable or equilibrium value of the baht was around 32 baht to the dollar.

With the depreciated baht the private sector, particularly the banking sector, found it even more difficult to repay their foreign debts because the float had caused the debt in baht terms to rise. And because it was impossible to obtain any more foreign funds, more and more firms were forced to shut down.

With an economy left with virtually no foreign reserves and a weak private sector weighed down with foreign debts, Thailand decided to seek foreign aid to help revive its economy.

In mid-August, the International Monetary Fund (IMF) stepped in and organized a package of $17.2 billion in loans to Thailand from various Asian nations. The main condition of the bailout package was a Bt60 billion-budget surplus, which meant that the government's revenues would have to exceed its expenditures by that amount.

This led to huge cuts in government expenditures, in the neighborhood of 100 billion baht. But even with these cuts, unless the government was able to raise more revenue, it would not be able to attain a 60 billion baht surplus. Thus, the value-added tax (VAT) was increased from 7% to 10%, and other taxes on luxury items were imposed. However, even with the spending cuts and higher tax revenues, the government is still 40 billion baht short of meeting the surplus requirement.

Most analysts agree that the present economic crisis is Thailand's worst since World War II. The consequences are being felt by Thais from every economic background, but those who are feeling it most are workers in the finance and real estate sectors, as well as construction and other industries that produce goods with high import content. The skyrocketing unemployment rate in these sectors - it is estimated that about 600,000 workers have been laid off already - suggests that it will be some time before the situation improves.

Sectors that may potentially come out ahead include exporting companies that use mainly local raw materials or labor in the production process. These include industries such as rice cultivation, frozen shrimp and chicken, and rubber. Because they use raw materials, success in these industries will help boost income in the agricultural sector, which accommodates 64% of Thailand's labor force.

This is just an overview of the drastic economic changes that have affected Thailand in 1997. The following will have detail information to describe what happened in Asian Financial crisis.

Chronology of the Asian Financial Crisis:

- Early May (1997) - Japan hints that it might raise interest rates to defend the yen. The threat never materializes, but it shifts the perceptions of global investors who begin to sell Southeast Asian currencies and sets off a tumble both in currencies and local stock markets.
- July 2 - After using $33 billion in foreign exchange, Thailand announces a managed float of the baht. The Philippines intervenes to defend its peso.
- July 18 - IMF approves an extension of credit to the Philippines of $1.1 billion.
- July 24 - Asian currencies fall dramatically. Malaysian Prime Minister Mahathir attacks "rogue speculators" and later points to financier George Soros.
- Aug. 13-14 - The Indonesian rupiah comes under severe pressure. Indonesia abolishes its system of managing its exchange rate through the use of a band.
- Aug. 20 - IMF announces $17.2 billion support package for Thailand with $3.9 billion from the IMF.
- Aug. 28 - Asian stock markets plunge. Manila is down 9.3%, Jakarta 4.5%.
- Sep. 4 - The peso, Malaysian ringgit, and rupiah continue to fall.
- Sep. 20 - Mahathir tells delegates to the IMF/World Bank annual conference in Hong Kong that currency trading is immoral and should be stopped.
- Sep. 21 - George Soros says, "Dr Mahathir is a menace to his own country."
- Oct. 8 - Rupiah hits a low; Indonesia says it will seek IMF assistance.
- Oct. 14 - Thailand announces a package to strengthen its financial sector.

- Oct. 20-23 - The Hong Kong dollar comes under speculative attack; Hong Kong aggressively defends its currency. The Hong Kong stock market drops, while Wall Street and other stock markets also take severe hits.
- Oct. 28+ - The value of the Korean won drops as investors sell Korean stocks.
- Nov. 5 - The IMF announces a stabilization package of about $40 billion for Indonesia. The United States pledges a standby credit of $3 billion.
- Nov. 3-24 - Japanese brokerage firm (Sanyo Securities), largest securities firm (Yamaichi Securities), and the 10th largest bank (Hokkaido Takushoku) collapse.
- Nov. 21 - South Korea announces that it will seek IMF support.
- Nov 25 - At the APEC Summit, leaders of the 18 Asia Pacific economies endorse a framework to cope with financial crises.
- Dec 5 - Malaysia imposes tough reforms to reduce its balance of payments deficit.
- Dec 3 - Korea and IMF agree on $57 billion support package.
- Dec 18 - Koreans elect opposition leader Kim, Dae-jung as new President.
- Dec 25 - IMF and others provide $10 billion in loans to South Korea.
- Jan 6 - Indonesia unveils new budget that does not appear to meet IMF austerity conditions. Value of rupiah drops.
- Jan 8 - IMF and S. Korea agree to a 90-day rollover of short-term debt.
- Jan 12 - Peregrine Investments Holdings of Hong Kong collapses. Japan discloses that its banks carry about $580 billion in bad or questionable loans.
- Jan 15 - IMF and Indonesia sign an agreement strengthening economic reforms.
- Jan 29 - South Korea and 13 international banks agree to convert $24 billion in short-term debt, due in March 1998, into government-backed loans.
- Jan 31 - South Korea orders 10 of 14 ailing merchant banks to close.
- Feb 2- The sense of crisis in Asia ebbs. Stock markets continue recovery.

Speculator Attacked:

The crisis was initiated by two rounds of currency depreciation that began in early summer 1997. The first round was a precipitous drop in the value of the Thai baht, Malaysian ringgit, Philippine peso, and Indonesian rupiah. As these currencies stabilized at lower values, the second round began with downward pressures hitting the Taiwan dollar, South Korea won, Brazilian real, Singaporean dollar, and Hong Kong dollar. In countering the downward pressures on currencies, governments have sold dollars from their holding of foreign exchange reserves, bought their own currencies, and have raised interest rates to foil speculators and to attract foreign capital. The higher interest rates have slowed economic growth and have made interest-bearing securities more attractive than equities. Stock prices have also fallen.

Speculated Thailand:

Eight months before Thailand finally succumbed and devalued the baht, the speculators had been on the prowl. They saw the Thai economy not as one of Asia's tigers, but more like wounded prey. Unable to resist, each predator began to plan his attack. "By culling the weak and infirm, we help maintain the health of the herd," said the trader. And cull they did.

The Speculators were an amorphous group that includes secretive hedge funds as well as groups within banks with names as familiar as Citibank, began tracking the region in earnest in 1994. Economist Paul Krugman piqued speculator interest when he published a prescient article in *Foreign Affairs* titled **"The Myth of Asia's Miracle,"** in which he argued that the Asian boom owed more to hard work and a shift from farms to industry than it did to investments in productivity. As a speculator put it, "We read this and thought, 'Well, well--Asian growth may have a limit.'"

Attention quickly focused on Thailand, which was being buffeted by a series of external and internal events. China devalued its currency 33% in 1994, allowing it to underprice neighboring economies on low-cost goods. Thai exports further eroded as the Japanese yen weakened, undercutting any Thai advantage in high-value products. With the baht tied to the strengthening U.S. dollar, the kingdom had little room to maneuver. Moreover, despite its large population, Thailand had a relatively small pool of educated, healthy workers, and wage inflation further undermined Thailand's competitiveness with surrounding countries.

Even as exports diminished, the flood of foreign investment continued. On the surface Thailand still looked good, with its open markets and a fiscal surplus, but underneath, the balance sheet was rotting. Foreign reserves remained steady at about $38 billion, but the amount of money Thailand owed to foreigners skyrocketed to $106 billion. By 1996 cash outflow exceeded inflow by 8% of the nation's gross domestic product, and the net foreign assets owned by the Thai government and commercial banks shriveled as the nation covered the outflow with borrowing. While in earlier years most of these loans had gone to build industrial capacity, now the money poured into real estate speculation, the stock market and finance companies, supporting an unproductive boom as consumers bought Mercedes sedans and cellular telephones. The Thai economy had become one big bulging bubble and late 1996 the speculators took notice.

Currency speculators love a bubble economy because bubbles always pop. By December 1996, speculators realized that Thailand's policymakers were trapped and bewildered. They had to keep interest rates high to dampen wage inflation and attract the foreign money to which the kingdom had become addicted. On the other hand, the high rates were badly hurting the debt-burdened economy.

One way out was to devalue the baht. This would hurt those who owed money in dollars. A confidential analysis done by a group of speculators estimated that a pre-emptive devaluation would cost the treasury about $10 billion of its $38 billion in reserves, which it would quickly recoup because of the credibility it would earn in the international marketplace. (It should be noted, however, that Indonesia did not oppose an attack on its currency, and its markets still got hammered mercilessly.)

The speculators guessed that the Thais would rather fight than devalue. Devaluation would hurt the elite, who would watch principal and interest payments soar for their dollar-denominated loans. The alternative to devaluation was a further hike in interest rates, but that would produce a flood of bankruptcies and further weaken a banking system that was already in trouble because lax government supervisors had allowed their banker cronies to ignore capital requirements.

Sensing that their prey had been cornered by their own venality, the speculators began to circle in early 1997. The amoral pursuit of profit was about to punish the sins of cronyism and corruption. Drawing from multibillion-dollar war chests, hedge-fund operators such as George Soros and Julian Robertson intensified their attack on the baht. One way the speculators bet against the currency was by entering into contracts with dealers who would give dollars in return for an agreement to repay a specific amount of bahts some months in the future. If the baht rose in value, the seller of the contract made money; but if it fell, the buyer profited because he could repay the contract with cheaper bahts. Demand for such contracts started to drive up interest rates, and the Bank of Thailand began issuing many of these so-called forward contracts itself.

This action turned out to be a fatal misstep that placed in the hands of speculators the perfect weapon with which to attack the currency. "It's as though an unarmed gunslinger walked into town and the sheriff handed him a pistol," remarked a beneficiary of the central bank's unintended largesse. Now speculators had access to an estimated $15 billion in forward contracts issued in February and March that they would not have to cover for as much as a year. An estimated 80% to 90% of these forward contracts ended up in the hands of speculators. By May the central bank realized it was contributing to the baht's undoing and abruptly stopped issuing any more forward contracts.

Sensing blood, traders began moving in for the kill and in mid-May flooded the market with orders to sell bahts. But the government began playing hardball. The central bank invoked a mutual-assistance agreement with monetary authorities in Singapore, Hong Kong and Malaysia and spent more than $10 billion in just a few days buying bahts and selling dollars.

The Bank of Thailand also squeezed the speculators by sharply raising interest rates, which restricted access to bahts that traders needed to cover short-term contracts. Holders of long-term forward contracts, however, knew the government could not pursue this painful course for long, and they emerged unscathed. "When governments resort to these tactics, you know the game is over," said a veteran of many currency battles. Indeed, the government tried ever more desperate measures. Finance officials allegedly used threats and bribes to try to get banks to divulge who owned which contracts, so they could exert strategic pressure. The Interior Minister, Sanoh Thienthong, threatened prosecution of newspapers that spread information damaging to the economy, and the special-branch police were authorized to track down callers to talk-radio shows who voiced the wrong opinions.

These antidemocratic actions turned out to be very expensive. They only served to convince foreign investors that the end was near. But what end would it be? Thai officials were so enraged by the attack that many speculators feared the government would default on its obligations, bringing down the speculators along with the Thai economy. California banks began taking out ads in Bangkok newspapers offering help for those who wanted to get money out of Thailand. Importers settled accounts early in anticipation of the fall of the baht, while exporters hoarded dollars offshore. Both reactions greatly exacerbated the drain of dollars. The government also tried to hide the extent of the damage, estimating that the loss of reserves in May was a moderate $2 billion. The speculators, relying on their own analysis and what they could glean from sources within the central bank, were estimating that the real number was $5 billion.

The question by then was not whether but when there would be a devaluation or default. Many speculators bet that the government would hold out until July so that companies could push losses into the second half of the year. "It's the old Asian idea that if you don't say it, it isn't true," remarked a player, "as if the market couldn't figure it out." And on July 2, the baht was devalued, setting off a chain reaction throughout the region's currency markets and then, last week, around the world's stock exchanges. While no hard number is available, the speculators who started all this turmoil were very well fed, probably with profits in excess of $3 billion.

Devaluation:

The baht was freely floated on July 2. It was de facto devaluation, since the currency immediately depreciated by 17 percent. At this time, Thai government announced it was abandoning the old exchange rate regime, the basket system. The basket system was a de factor dollar peg, since the weight on the U.S. dollar was overwhelming. The new system was called managed float but was a de facto free float. The exchange rate immediately depreciated by 17 percent from B24.5 to B28.8. The decision to go off the 13-year-old regime did not surprise many informed observers, since it was made after several speculative attacked and countermeasures. However, the timing was somewhat surprising, in that measures to strengthen financial institution, that were regarded as effort to avoid devaluation, had just been taken, which was raised in defense of the baht, would be lowered.

The Bank of Thailand did not appear to intervene after the de facto devaluation. There are two reasons why the Bank of Thailand did even try fixing the exchange rate at new rate. First, Mexico did not adopt once-and-for-all devaluation in an attempt to find a new equilibrium was not known, the Bank of Thailand wished to let the market find a new equilibrium rate. Second, although it was not public knowledge, the level of net foreign reserves was extremely low, and it was impossible to defend another attack.

The exchange rate movement was relatively calm just after the baht was floated. In the case of Mexican peso, the devaluation by 15 percent on December 20, 1994 was followed by massive capital outflows and the new level was not defendable. The new peg had to be abandoned in two days and the exchange rate went to a free float. The peso vis-à-vis the U.S. dollar depreciated by 50% in one week. This kind of crash did not happen for the baht. After the devaluation, the baht was sliding down, but after one month, the rate was still within 20 percent devaluation.

The Thai monetary authorities asked for support from Japan and the United States in mid-July. The Thai finance minister met with the Japan finance minister on July 18, in Tokyo. However, the Thai delegation was told to consult with IMF. Thailand officially asked for IMF support on July 29.

Table 19: Thai Baht Exchange Rate in 1997-98 (US/Baht)

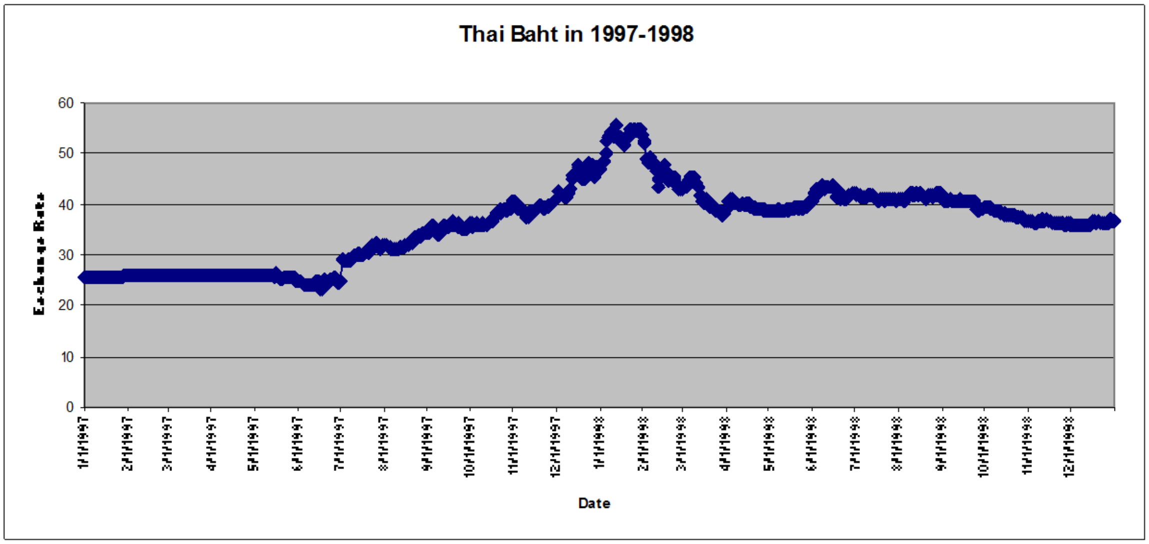
Table : Thai Baht Exchange Rate in late 1997

Date	June	July	Augest	September	October	November	December
1	25	24.8	31.95	34.435	36.3	40.5	40.925
2	24.87	29.25	31.95	34.6	35.65	40.15	41.35
3	24.76	29.35	32	35.35	36.45	40.1	42.65
4	24.45	29	31.75	36.05	36	39.1	41.85
5	24.05	29	31.5	35.48	35.85	39.5	41.7
6	24	29.25	31.185	35.15	36.4	39.35	41.7
7	24.05	28.92	31.15	35.25	35.95	38.5	41.45
8	24.1	29	31.25	34.48	35.95	38.65	41.64
9	24.15	29.05	31.25	33.85	35.85	38.65	42.325
10	24.25	29.05	31.2	34.2	36.28	37.31	42.26
11	23.94	29.9	31.25	34.7025	35.9	37.6	43.15
12	24.18	30	31.5	35.825	35.8	38.2225	45.1
13	24.4	30.005	31.4	35.55	36.1	38.7825	45.7
14	24.8	30.25	31.55	35.5	36.4	38.55	45.3
15	24.8	30	31.72	35.4	36.78	38.6	46.25
16	24.3	30	32.1	35.65	36.88	38.525	47.95
17	23.2	30.15	32.075	36.1	37.1625	38.95	47.4
18	23.305	30.4	32.15	35.79	37.5	39.525	45.5
19	25.35	30.7	32.75	36.9	38.175	40.015	45.9
20	25.4	30.7	32.45	35.9	37.85	39.94	44.95
21	24.5	30.5	32.4	35.95	38.43	39.55	45
22	24.41	30.65	33.5	36.365	39.1	39.3	46.775
23	24.85	31.3	33.75	35.55	38.25	39.1	48.1
24	25.4	32	33.749	35.4	38.7	39.45	46.95
25	25.4	32	33.9	35	39	39.65	47.6
26	25.5	32.2	33.75	35.16	38.8	39.95	47.75
27	25.15	32.2	33.74	35	38.7	39.9	45.7
28	25.15	31.97	34.2	35.05	39	40.25	45.5
29	24.3	31.35	34.35	35.8	39.27	40.8	46.65
30	24.75	31.7	34.4	36.1	39.75	40.8	47.35
31		32	34.5		40.55		47.25

Table 20: Thai Baht Exchange Rate in early 1998

Date	January	February	March	April	May
1	47.1	52.55	43.2	39.15	38.65
2	48.35	52.15	43.7	40.7	38.6
3	48.2	48.9	43.31	41.15	38.65
4	48.5	48.2	44.05	41.2	38.85
5	50.25	49.25	44.675	41.1	38.85
6	52.5	48.55	45.475	40.2	38.85
7	53.15	47.7	45.475	40.15	38.957
8	53.3	48	45.25	40.45	38.75
9	53.9	47.9	45.225	40	38.8
10	53.5	46.4	44.1	39.8	38.8
11	53.25	43.6	43.35	40	38.65
12	55.775	44.9	43.25	40.075	38.6
13	**55.8**	46.75	41.8	39.975	39.05
14	53.15	46.3	40.5	40.15	38.8
15	53	46.5	40.5	40.05	38.895
16	53.35	47.825	40.3	40.15	38.95
17	52	46.6	40.2	39.53	38.95
18	51.7	45.7	41.05	39.6	39.23
19	52.9	44.6	40.7	39.475	39.45
20	53.2	44.95	39.65	39.32	39.3
21	53.35	44.8	40	39.2	39.2
22	54.25	44.85	39.65	39.15	39.35
23	54.785	45.3	38.95	39.25	39.6
24	54.5	44.3	38.8	39.07	39.6
25	54.5	43.15	38.65	39	39.22
26	54.75	43.2	38.65	38.9	39.32
27	54.55	43.05	38.5	39.015	39.3
28	54.8	43.2	37.8	38.73	39.795
29	54.89		37.9	38.65	40.28
30	54		38.35	38.8	40.44
31	53.5		38.95		40.55

Diagram 14:



Financial Panic:

After the hit hard in Thailand, many creditors appeared to treat the region as a whole, and assumed that if Thailand was in troubled, the other countries in the region probably had similar difficulties. Part of the contagion effect was the sudden loss of government credibility throughout the region. After all, the Thai government had pledged for months that Finance One was in good shape, that plenty of foreign exchange reserves were available, and that the baht would be devalued. Malaysia, the Philippines, and Indonesia were all hit hard by contagion effects.

Philippine:

The Philippines central bank raised interest rates by 1.75 percentage points in May 1997 and again by 2 points on 19 June. Thailand triggered the crisis on 2 July. On 3 July, the Philippines central bank was forced to intervene heavily to defend the peso with $1.6 billion, raising the overnight rate from 15% to 24%. But foreign reserves steady remained at about $9.6 billion. Actually, how such these reserves could maintain the import quotas in coming 3 months. By 11 July, the Philippine government devalued the peso on July 11 this year, which immediately caused the peso to lose about 10.36 per cent on its value. Finally, Philippine was the second country floated its currency freely.

During the tenure of former President Joseph Estrada, the Philippine economy recovered from a contraction of 0.6 % in GDP during the worst part of the crisis to GDP growth of some 3% by 2001. Unfortunately, scandals rocked his administration in 2001, most notably the "jueteng" scandal, became a significant factor to calls for his ouster which caused significant falls in the share prices of companies listed on the Philippine Stock Exchange. The PSE Composite Index, the main index of the PSE, fell to some 1000 points from a high of some 3000 points in 1997. The peso fell even further, trading from levels of about 35 pesos to 56 pesos. Later that year, he was impeached but was not voted out of office. Massive protests caused EDSA II, which led to his resignation and lifted Gloria Macapagal-Arroyo to the Philippine presidency. Arroyo did manage to end the crisis in the Philippines, which led to the recovery of the Philippine peso to about 50 pesos by the time Arroyo became president.

Diagram 15: Philippine PSE Composition index from 1997-98

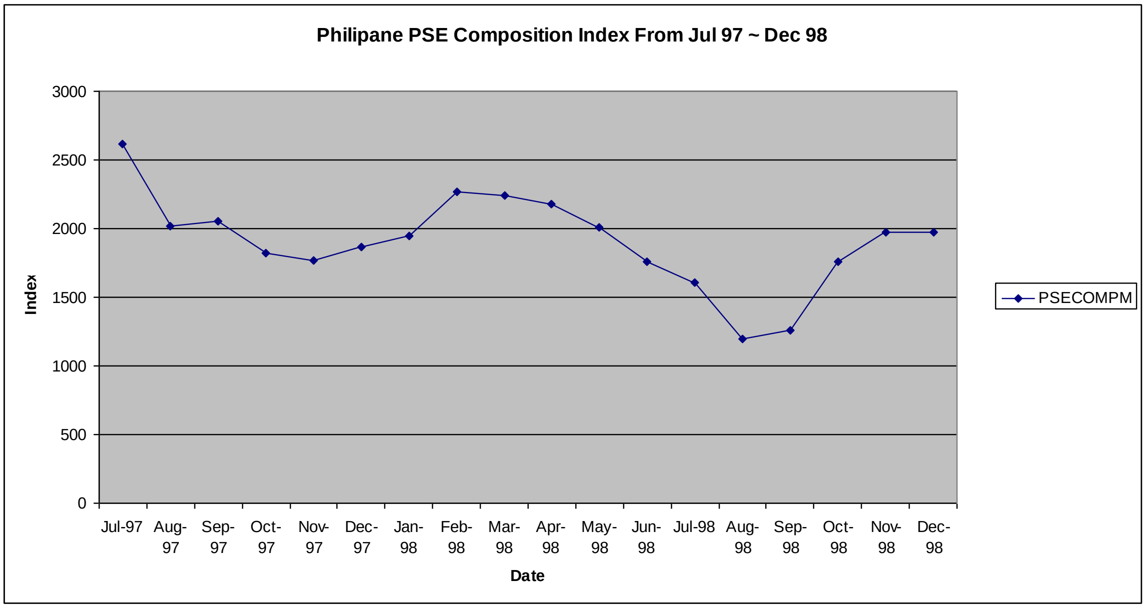


Diagram 16: Philippine Peso Exchange Rate in 1997-98 (US/Peso)

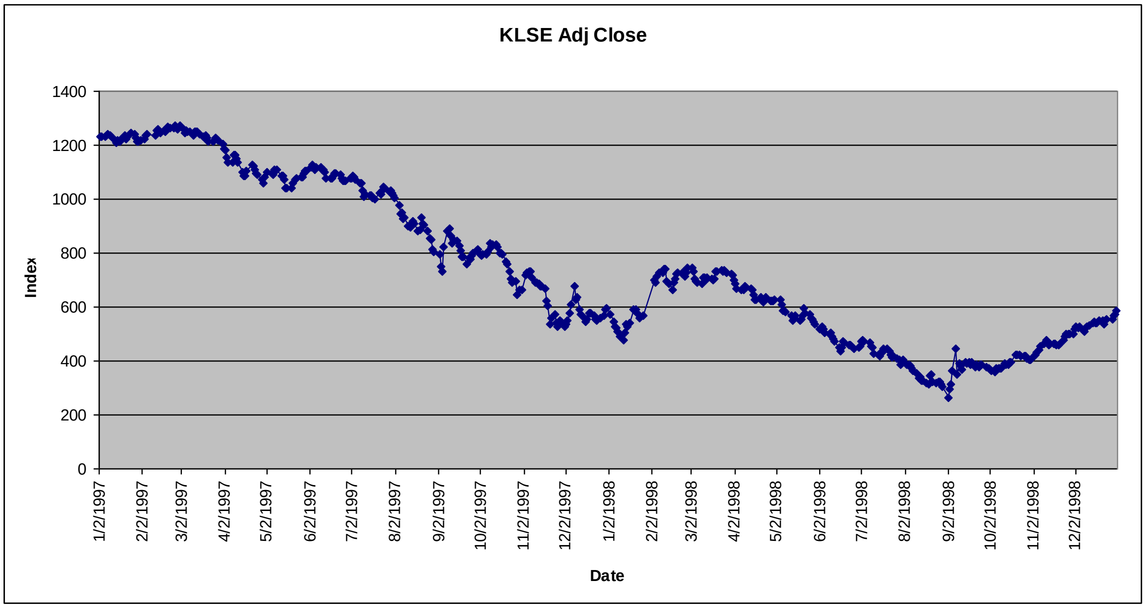
Malaysia:

As at start of 1997, the KLSE Composite index was above 1,200, the ringgit was trading above 2.50 to the dollar, and the overnight rate was below 7%.

In July, within days of the Thai baht devaluation, the Malaysian ringgit was "attacked" by speculators. The overnight rate jumped from under 8% to over 40%. This led to rating downgrades and a general sell off on the stock and currency markets. By end 1997, ratings had fallen many notches from investment grade to junk, the KLSE had lost more than 50% from above 1,200 to under 600, and the ringgit had lost 50% of its value, falling from above 2.50 to under 3.80 to the dollar.

As the ringgit declined against the US dollar, the Malaysia's Prime Minister, Dr. Mahathir Mohammed, gave speeches asserting that the international financier, George Soros, was the arch villain in a conspiracy to impoverish Southeast Asian nations by attacking their currencies. According to Dr. Mahathir, foreign fund managers were selling Malaysian shares because they were racists; currency traders were ignoring Malaysia's sound economic fundamentals; the West was gloating over the crisis in SE Asia; rumor mongers who "should be shot" were spreading lies and a "Jewish" agenda was at work against the country. Unfortunately for Dr. Mahathir, every time he gave free rein to his thoughts on the matter, the Malaysian currency and stock market declined even further. He even tried to outlaw short selling on the Malaysian stock market, but this too had the opposite effect of that intended, and the policy had to be pulled shortly after it was introduced.

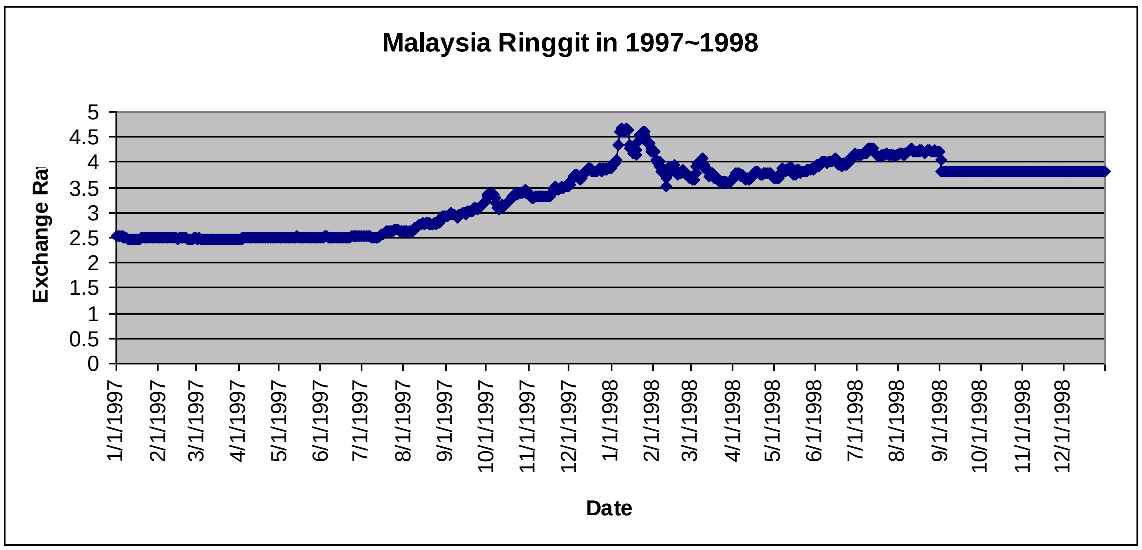
Diagram 17: Malaysia KLSE Composite Index (Adj Close) from 1997~1998



By Autumn Malaysia's government seems to have come around to the view that it needed to put its own house in order, rather than blame others for its problems. In early September the government deferred spending on several high profile infra-structure projects including its prestigious Bakun dam project. This was followed in December 1997 by the release of plans to cut state spending by 18%. The government also stated that it will not bail out any corporations that become insolvent as a result of excess borrowing. Then in January 1998, IMF managing director Michel Camdessus, stated that Malaysia was correct in asserting that it did not need an IMF rescue package to get it through the regional financial crisis. "Malaysia is not facing a crisis in the same way as some of the other countries in the region, " he said, noting the authorities have taken measures to deal with the difficulties, particularly on the fiscal side. On the other hand, he did state that the government needed to raise interest rates to slow credit growth, moderate inflationary pressures and support the weakening currency.

In 1998, the output of the real economy declined plunging the country into its first recession for many years. The construction sector contracted 23.5%, manufacturing shrunk 9% and the agriculture sector 5.9%. Overall, the country's gross domestic product plunged 6.2% in 1998. During that year, the ringgit plunged below 4.7 and the KLSE fell below 270 points. In September that year, various defensive measures were announced to overcome the crisis.

Diagram 18: Malaysia Ringgit Exchange Rate in 1997-98 (US/Ringgit)



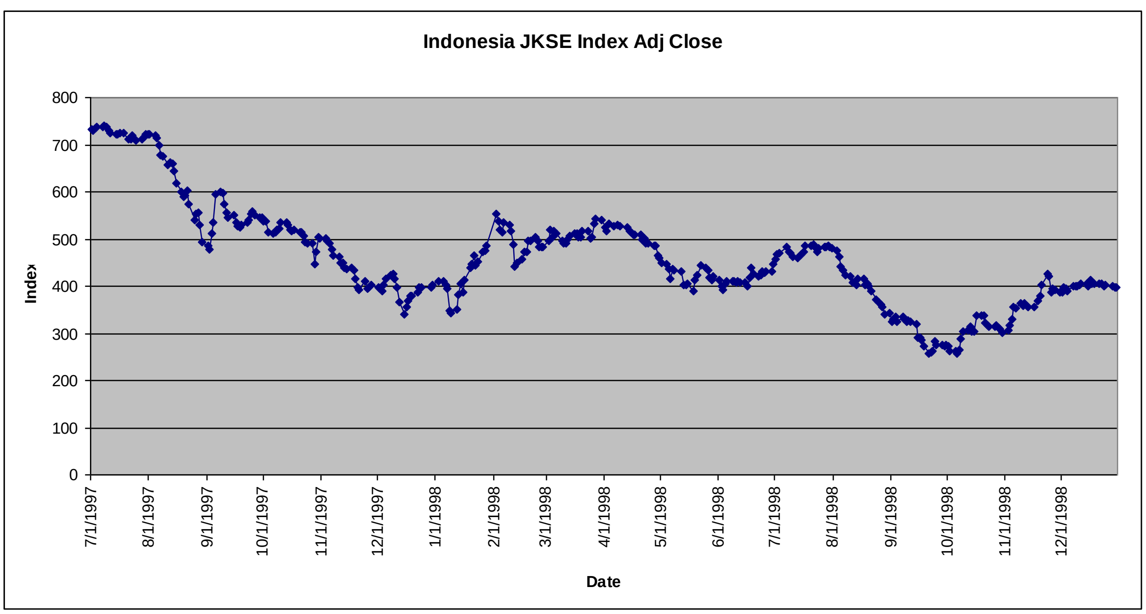
Indonesia:

In June 1997, Indonesia seemed far from crisis. Unlike Thailand, Indonesia had low inflation, a trade surplus of more than $900 million, huge foreign exchange reserves of more than $20 billion, and a good banking sector.

But a large number of Indonesian corporations had been borrowing in U.S. dollars. During preceding years, as the rupiah had strengthened respective to the dollar, this practice had worked well for those corporations -- their effective levels of debt and financing costs had decreased as the local currency's value rose.

In July, when Thailand floated the baht, Indonesia's monetary authorities widened the rupiah trading band from 8% to 12%. The rupiah came under severe attack in August. On 14 August 1997, the managed floating exchange regime was replaced by a free-floating exchange rate arrangement. The rupiah immediately started to decline, as did the Indonesian stock market. By October the rupiah had dropped from \$1=Rp2,400 in early August to \$1=Rp4,000, and the Jakarta stock market index had declined from just over 700 to under 500. At this point the now desperate Indonesian government turned to the IMF for financial assistance. After several weeks of intense negotiations, on October 31st the IMF announced that in conjunction with the World Bank and the Asian Development Bank it had put together a \$37 billion rescue deal for Indonesia. In return, the Indonesian government agreed to close a number of troubled banks, to reduce public spending, balance the budget, and unravel the crony capitalism that was so widespread in Indonesia.

Diagram 19: Indonesia JKSE Index from 1997~1998



The initial response to the IMF deal was favorable, with the rupiah strengthening to \$1=Rp3,200. However, the recovery was short lived. As November lengthened so the rupiah resumed its decline in response to growing skepticism about President Suharto's willingness to take the tough steps required by the IMF. Moreover, currency traders wondered how Indonesia was going to be able to deal with its dollar denominated private sector debt, which stood at \$80 billion. With both the economy and exchange rate collapsing, there was clearly no way that private sector enterprises would be able to generate the rupiah required to purchase the dollars needed to service the debt, and so the decline feed on itself. In December Moody's, the US credit rating agency, feed fuel to this fire when it downgraded Indonesia's credit rating to junk bond status.

On January 5th 1998 President Suharto seemed to confirm the skepticism of currency traders when he unveiled Indonesia's 1998-99 budgets. The budget immediately came in for criticism because it made optimistic assumptions about Indonesia's economic growth rate in 1998. It projected GDP growth at 4%, inflation contained at single digit levels (in 1997 it was around 20%), and assumed a rupiah-US dollar exchange rate of \$1=Rp4,000 (the rupiah closed 1997 at an exchange rate of \$1=Rp5,005). Moreover, no plans were announced to abolish the lucrative state licensing monopolies that had benefited his family and friends. An "unnamed" IMF sokesman informed the Washington Post that the Indonesia government did not seem to be following through on pledges to restructure the economy and warned that the IMF might hold back funds. International investors and currency traders responded by selling their rupiah holdings, or selling the rupiah short, and the exchange rate plunged through the floor, hitting \$1=Rp10,000 a few days later.

At this point IMF officials, together with US deputy Treasury Secretary Lawrence Summers, made a second visit to Jakarta to "re-negotiate" the IMF terms of agreement. On January 15th they reached a revised agreement which committed Indonesia to a tough budget. Among other things, this pledged budget cuts, including cuts in sensitive energy subsidies, trade deregulation that would wipe out many of the business privileges enjoyed by Suharto's family and friends, and accelerated structural reform of the banking sector.

Whether Suharto will follow through on these commitments, however, remains to be seen. On January 20th the 76 year old President announced his intention to run for a seventh term as President. The outcome does not seem to be in doubt, since the election in undertaken by hand picked delegates, and Suharto faces no opponent. The rupiah, meanwhile, which was trading at around $1=Rp8,5000 just before the announcement, dropped sharply, reaching an all time low of $1=Rp14,500 on January 22nd, 1998 before clawing its way bask up to $1=Rp12,5000.

The sharp drop reflected two concerns. First, fear that Suharto's apparent unwillingness to step down in the face of an economic collapse may lead to social breakdown and political violence in Indonesia. Second, growing realization that hundreds of Indonesian businesses were now technically insolvent and would not be able to pay back the estimated $65 billion of dollar denominated debt they owed without substantial debt restructuring and rescheduling of the debt payments. The IMF deal, for all of its good points, had not addressed this critical issue.

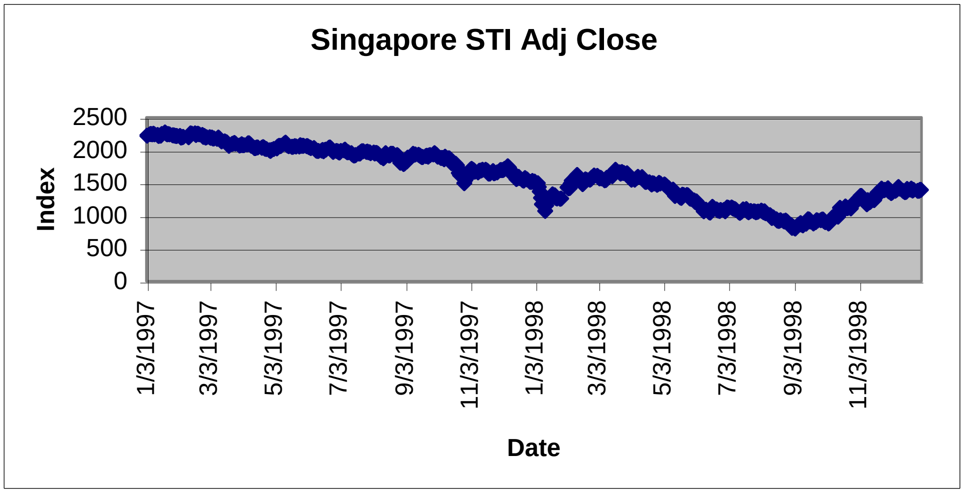
Diagram 20: Indonesia Rapiah Exchange Rate in 1997-98 (US/Rapiah)

Singapore:

After Thailand long battle against currency attacks, the Thai baht was finally freed on July 2, 1997 from its peg to the US dollar. The Singapore dollar was not spared the contagion effects. From a high of S$1.43 per US dollar on the day before the float of the Thai baht, the Singapore dollar went all the way down to S$1.75 per US dollar on January 7,1998, a decline of 18.3 percent over the six month period. But compare with other regional currencies, Singapore nominal and a real effective exchange rate was relatively stable both before and during the crisis.

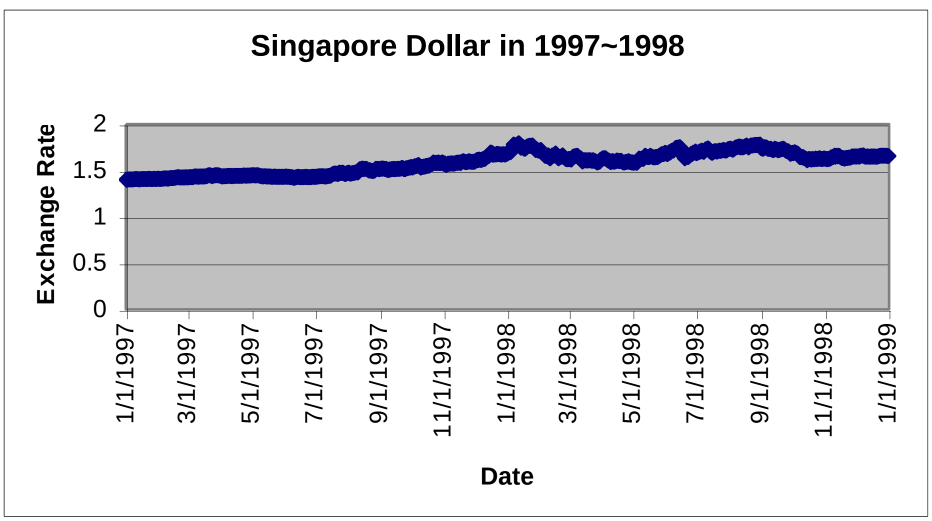
The Stock market and the property market in Singapore were badly hit by the crisis. The stock market opened January 1997 with the Straits Times Index (ST Index) at 2,055.44. The ST Index dropped drastically to a 10-year low of 856.43 in September 1998, a decline of some 60 percent over a fourteen-month period.

Diagram 21: Singapore STI from 1997~1998



In less than a year, the Singapore economy recovered, and continued on its growth trajectory.

Diagram 22: Singapore Dollar Exchange Rate in 1997~1998:



Second round attacked:

A second round of the currency crisis can be identified starting in early November, 1997 after the collapse of Hong Kong's stock market (with a 40 percent loss in October). This sent shock waves that were felt not only in Asia, but also in the stock markets of Latin America (most notably Brazil, Argentina and Mexico). In addition to these stock markets, were those of the developed countries (e.g. the U.S. experienced its largest point loss ever in October 27, 1997, which amounted to a 7 percent loss). These financial and asset price crises also set the stage for this second round of large currency depreciations. This time, not only the currencies of Thailand, the Philippines, Malaysia, Indonesia and Singapore were affected, but those of South Korea and Taiwan also suffered. In fact, the sharp depreciation of Korea's Won beginning in early November added a new and more troublesome dimension to the crisis given the significance of Korea as the eighth largest economy in the world; the magnitude of the depreciation of its currency which took place in less than two months; and the Korean Central Bank's success in maintaining the peg ever since the Thai's first devaluation (i.e. the "nominal anchor" of the largest of the Asian Tigers was suddenly lost). In addition, was the other important component of this second round: the complete collapse of the Indonesian Rupiah that started at about the same time.

Finally, starting in January of 1998, the currencies of all of these countries regained part of what they had lost since the crises started. It is also important to note that at a great cost Hong Kong was able to maintain its peg after the crisis first erupted. This required that interest rates be raised to fend-off these currencies from repeated speculative attacks.

South Korea:

Initially South Korea seemed to be insolated from the currency turmoil sweeping through the region. As the world's 11th largest economy, and a member of the Organization of Economic Cooperation and Development, Korea was clearly in a different league from Thailand, Indonesia, and Malaysia. However, underneath the surface Korea too had serious problems.

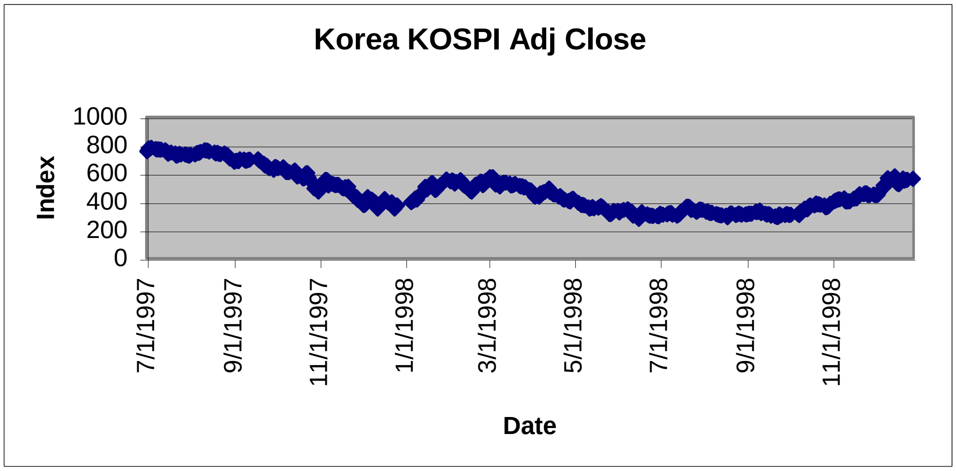
During much of the 1990s foreign banks had been eager to lend US dollars to Korean Banks and the chaebol. A significant proportion of this was short-term debt that had to be paid back within a year. This money was used to fund investments in industrial capacity, which as suggested earlier, was often undertaken at the encouragement of the government. By late 1996 it was clear that the debt-financed expansion was beginning to unravel. Economic growth had slowed, excess capacity was emerging in a number of industries, prices for critical industrial products such as semi-conductors were falling, and imports were on the rise (Korea ran a current account deficit of $23.7 billion in 1996).

The Korean debt problem started to deteriorate in January 1997 when one of the chaebol, Hanbo collapsed under a $6 billion debt load. A 1993 decision to build the world's fifth largest steel mill proved to be Hanbo’s undoing. Costs for the project escalated from Won 2,700bn to Won 5,700bn while steel demand proved sluggish. Following Hanbo’s collapse there were widespread allegations in Korea that the project had been funded only because of the government pressured Korean banks to lend to Hanbo. Moreover, allegations soon surfaced that government officials had been bribed by Hanbo to pressure the banks.

The situation deteriorated further in July 1997 when Kia, Korea’s third largest car company, ran out of cash and asked for an emergency bank loan to avoid bankruptcy. At about the same time Jinaro, Korea’s largest liquor group, filed for bankruptcy. These events prompted international credit agencies to start downgrading the ratings of banks with heavy exposure to the chaebol. This raised the borrowing costs of the banks, and led them to tighten credit, making it even more difficult for debt heavy chaebol to borrow additional funds. By October 1997 it was clear that additional funds for Kia would not be forthcoming from private banks, so the government took the company into public ownership in order to stave off bankruptcy and job losses. This followed hard on the heels of a decision by the Korean government to invest an equity stake in Korea First Bank, to stop that institution from collapsing due to a its bad loans. The nationalization of Kia transformed its private sector debt into public sector debt. Standard & Poor's, the US credit rating agency, immediately downgraded Korea's debt, causing the Korean stock market to plunge 5.5%, and the currency, the Korean won, to fall to $1=Krw929.5. According to S&P, "the downgrade of ratings reflects the escalating cost to the government of supporting the country's ailing corporate and financial sectors."

The S&P downgrade was the trigger that precipitated a sharp sell-off of the Korean won. In an attempt to protect the won, the Korean central bank raised short-term interest rates to over 12%, more than double the inflation rate. The bank also intervened in the currency exchange markets, selling dollars and purchasing won in an attempt to keep the dollar/won exchange rate above $1=Krw1, 000. The main effect of this action, however, was to rapidly deplete its foreign exchange reserves. These stood at $30 billion on November 1st, but fell to only $15 billion two weeks later. That contributed to a further decline in Korean shares since stock markets were already bearish in November. The Seoul stock exchange fell by 4% on 7 November 1997. On November 8, it plunged by 7% the biggest one-day drop recorded there to date. And on November 24, stocks fell another 7.2%.

Diagram 23: Korea KOSPI from 1997~1998



To make matters worse, the wave of bankruptcies continued among the chaebol. Haitai, Korea's 24th largest business, filed for bankruptcy protection at the beginning of November, and rumors suggests that New Core, another chaebol would soon follow. This meant that one-fifth of the country's thirty largest businesses had now filed for bankruptcy protection. Moreover, there was speculation that as many as half of the top 30 chaebol might ultimately have to file for bankruptcy. International lenders, fearing that Korea was about to become a financial black hole, refused to roll over short-term loans to the country, an action made all the more serious by revelations that Korea had about $100 billion in short term debt obligations that had to be paid within 12 months.

With Korea facing imminent financial meltdown, the prospect of an IMF led bailout of the country was being openly discussed. On November 13th, the Korean government declared that it "did not need help from the IMF", apparently believing that it would be able to arrange bilateral loans from the US and Japan. They were not forthcoming, and on November 17th, with the nation's foreign exchange reserves almost exhausted, the Korean Central bank gave up its defense of the won. The won immediately fell below the psychologically important $1=Krw1, 000 exchange rate, and it kept going down. On

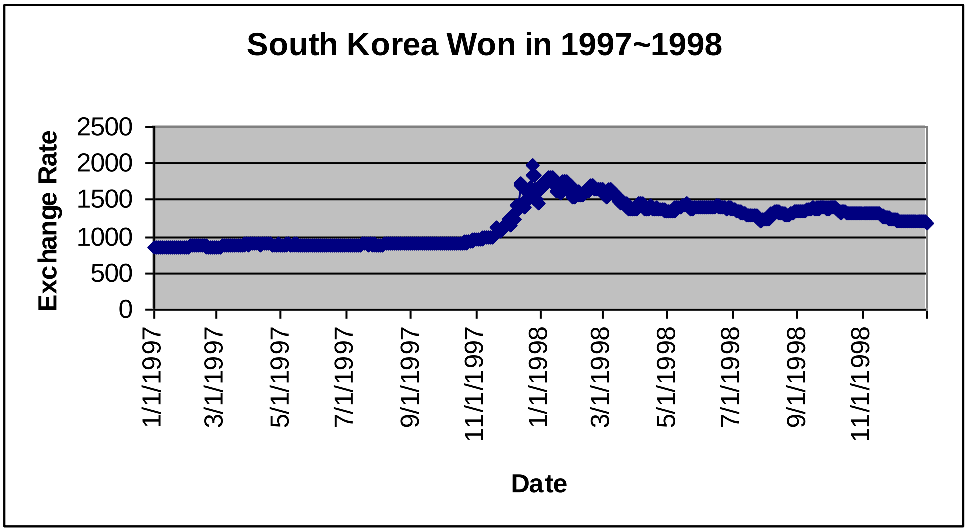
November 21st the now humiliated Korean government was forced to reverse course and formally requested $20 billion in standby loans from the IMF.

The process was complicated considerably at this point by the fact that Korea was facing a presidential election campaign on December 18th. The IMF, therefore, had to negotiate terms with a lame duck President, Kim Young-sam, who has required stepping down by the constitution, while the three main candidates criticized the process from the sidelines. As the negotiations progressed, it soon became apparent that Korea was going to need far more than $20 billion. Among other problems, Korea’s short-term foreign debt was found to be twice as large as previously thought at close to $100 billion, while the country’s foreign exchange reserves were down to under $6 billion.

On December 3rd the IMF and Korean government reached a deal to lend $55 billion to the country. The IMF had tried to insist that all three Presidential candidates promise, in writing, to obey the agreement. However, Kim Dae-jung, the centre-left opposition leader, said he would refuse to sign any guarantee with the IMF because "it violated national pride," although he did signal general compliance with the measures. The agreement with the IMF called for the Koreans to open up their economy and banking system to foreign investors. Prior to the deal foreigners could only own 7% of a Korean company's shares. This was lifted to 50%. South Korea also pledged to restrain the chaebol by reducing their share of bank financing and requiring them to publish consolidated financial statements and undergoes annual independent external audits. On trade liberalization, the IMF said South Korea will comply with its commitments to the World Trade Organization to eliminate trade-related subsidies and restrictive import licensing, and streamline its import- certification procedures, all of which should open up the Korean economy to greater foreign competition.

Initial reaction in the stock and currency markets was very favorable, with the Korean stock marketing registering a 7% gain, its biggest one-day advance ever. However, the package started to unravel on December 8th when the Korean government said that it would take two trouble banks into public ownership, rather than closing them. On the same day, Daewoo, one of the chaebol, announced that it would purchase debt laden Ssangyong Motor under a deal that forced Ssangyong's creditor banks to share much of the burden. Foreign investors saw these moves as an attempt to get around the harsh measures imposed by the IMF. Further compounding matters were criticisms from presidential candidate Kim Dae-jung. Kim argued that the IMF agreement represented a loss of national sovereignty and he promised that, if elected, he would renegotiate the deal to avoid job losses. In response to these developments, foreign banks refused to roll over short term loans investors sold out of the Korean stock market and won, and both dropped like stones. The won began a precipitous fall that was to take it down to the 2,000 level in two short weeks, a decline that effectively doubled the amount of won Korean companies would have to earn to finance their dollar denominated debt. By mid December foreign banks were only rolling over 20-30% of Korean short-term debt as it matured, requiring that the rest be paid in full. Despite the IMF funds, foreign currency was leaving the country at the rate of $1 billion a day.

Diagram 24: South Korea Won in 1997~1998



Following pressure from the other presidential candidates, Kim Dae-jung, reversed his position and sent a letter to Michael Camdessus, the head of the IMF, stating that if elected, he would comply with the IMF's terms. On December 18th, Kim Dae-jung was elected president of South Korea by a narrow margin. He immediately turned his attention to the debt crisis. His attention was heightened by the uncomfortable fact that Korea was on the verge of default. His first priority was to rebuild confidence and persuade foreign banks to roll over Korean short-term debt, thereby staving off an immediate default. The international community was also concerned by the possibility that a Korean default would trigger a banking crisis in Japan, which held $25 billion of Korean debt, an event that would send economic shock waves surging around the world.

In the event, a second agreement was reached between Korea, the IMF, and a number of major American and British banks with large exposure to Korea. Singed on Christmas Eve, the agreement called for the IMF and eight major banks to accelerate a loan of $10 billion to Korea to prevent a debt default. For his part, Kim Dae-jung spelled out in clear language that Korean businesses and jobs could no longer be protected from foreign competition. Korea also agreed to an accelerated timetable for opening up its financial markets to foreign investors, permitting foreign takeovers, and allowing foreign companies to establish subsidiaries in Korea. The government also agreed to raise interest rates in order to attract foreign capital, force the chaebol to restructure their operations, selling-off loss making units and demanding clearer accounting. If the government follows through with these reforms, the effect could be to transform Korea's economy from one in which the government plaid a major role in regulating and directing investment activity into one of the most market-oriented economies in Asia. In response, for now Korean stock and currency markets have stabilized, but it would be naive to expect anything approaching a full recovery until the country has put its house in order.

The situation in South Korea improved still further on January 28th, 1998 when a consortium of 13 international banks with exposure to Korea agreed to reschedule their short-term debt to Korea. According to the Bank for International Settlements, in early 1998 South Korea was sitting on $74 billion in debt that was coming due for repayment in the next two years. This added up to a cash flow squeeze of major proportions that the earlier IMF deals had fully come to grips with. Under the plan South Korean banks will exchange short term debt valued at $24 billion for new loans with maturities of one, two, and three years, bearing interest rates of 2.23, 2.50, and 2.75 percentage points higher than the six month London Interbank rate. By effectively rescheduling so much of its short-term debt, the deal gave South Korea some breathing room in which it could begin to rebuild confidence in its shattered economy.

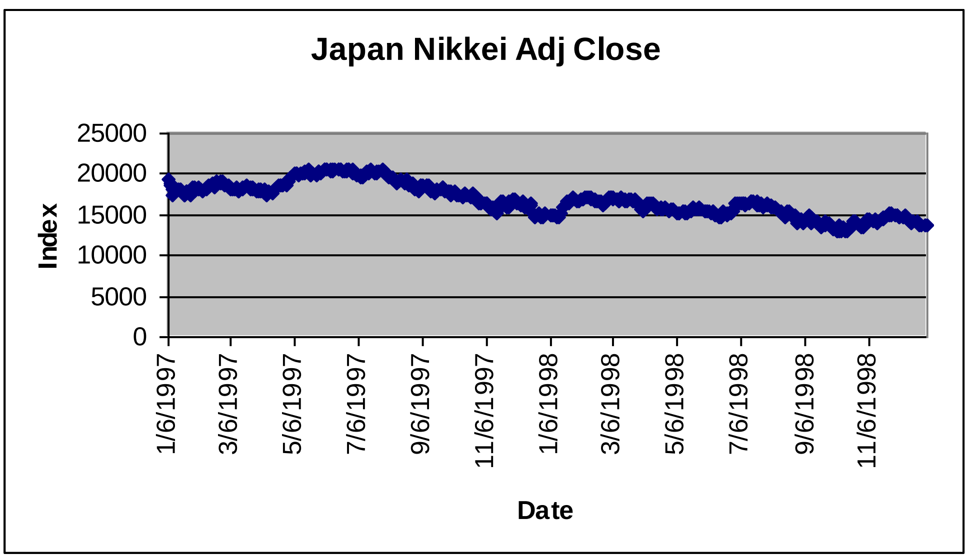
Japan:

As the crisis unfolded, most Japanese felt that it had little to do with them. At worst, there were some concerns that the turmoil might harm some of the nation's exporters. Indeed, the main issue for debate was whether Japan should take a leadership role in handling the crisis. This sense of insulation was always rather myopic given that Japanese banks had major exposure throughout Asia. For example, more than half of the total foreign lending to Thailand was by Japanese Banks. The possibility always existed, therefore, that a collapse in many of the SE Asian economies could have serious repercussions for Japan.

The confidence of the Japanese was finally shaken on November the 3rd 1997, when Sanyo Securities, the nation's seventh largest stock brokerage firm, announced that it would file for bankruptcy. This was followed on November 17th by the collapse of Hokkaido Takushoku, Japan's 10th largest bank, and on November 22nd, by the announcement that Yamaichi Securities, the fourth largest stockbroker in Japan, would close its doors. The Japanese stock market fell on the news to its lowest level in years, and for a moment it looked like the Asian financial crisis might spill over into Japan.

The closure of these three institutions dated back to events almost a decade earlier. In the late 1980s when Japan's stock market and property bubble was at its peak, Japan's financial institutions went on a lending binge. In 1989 the Nikki stock market index briefly rose to within striking distance of 40,000 before the bubble burst and the market fell to 15,000 three years later. Following the collapse of stock and property prices in Japan, many of the loans made in the bubble years became non-performing. They were, however, kept on the books for years as performing loans, often with the tacit support of the Bank of Japan, in hopes that the companies involved would work their way out of financial difficulties. Moreover, many financial institutions held a good portion of their asset in stock. With the collapse in the value of the Japanese stock market, the value of these assets had also plummeted, leaving the institutions with a diminished asset base and an increased portfolio of non-performing loans. To compound matters even further, security houses such as Yamaichi frequently guaranteed major customers a certain minimum rate of return on and investments they managed for the customer, and would make up the difference from their own pocket if they failed to exceed that minimum. In the years that followed the 1989 collapse, this meant that Yamaichi and its kin had to absorb losses associated with business taken on at the height of the boom. The securities houses also indulged in the questionable practice of tobashi in which brokerages temporarily shift investment losses from one client to another to prevent a favored customer from having to report losses.

Diagram 25: Japan Nikkei from 1997~1998



There is only so long that a bank or security house can continue to undertake such practices without an improvement in their underlying fundamentals. After eight years of recession, in late 1997 that time had arrived for Sanyo Securities, Hokkaido Takushoku, and Yamaichi Securities. All three were sinking under the burden of excessive debt and non-performing loans. That all three had survived this long was a testament to the willingness of Japan's powerful Ministry of Finance (MOF) to guarantee support for the country's shaky financial institutions. That all three collapsed in late 1997 signaled a clear change of course by the Ministry of Finance.

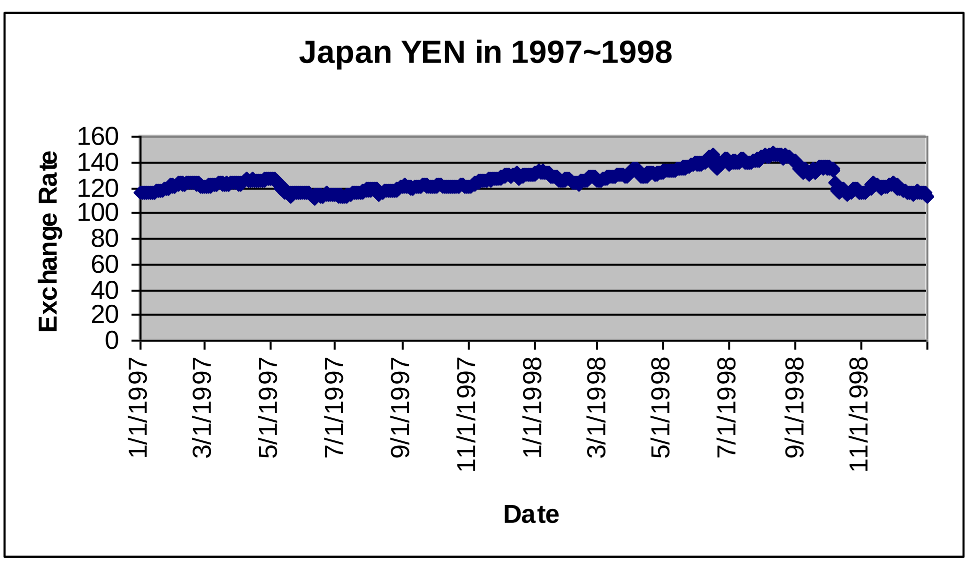
Exactly why the MOF decided to change course is not completely clear. Some speculate that the MOF wanted a "shock" of this sort to persuade politicians and the public to use public funds to help bail out Japan's troubled financial sector (up until this point there had been widespread resistance to using public funds for this purpose). Another factor in the Yamaichi case was that Fuji Bank, the traditional ally of the securities firm, finally withdrew its support. In any event, the result was to send the Japanese stock market into a steep fall. With investors fearing that more bankruptcies might follow, the Nikki Index declined from 17,000 to close to 14,500. The 14,000 level is particularly significant in Japan, where financial institutions hold assets in the form of stock. If the Nikki falls below 14,000, many financial institutions will not have enough assets on their books to cover their liabilities, and they will have to sell stock to reduce the ratio. Once this happens, the Japanese market could implode, transforming the country's long running recession into a full blown economic depression. A depression in the world's second largest economy would have disastrous implications for the health of the global economic system.

It was at this point that Japanese government stepped in with the announcement that it planned to use public funds to guarantee Yamaichi's debts. This was followed by a commitment to use public finds to recapitalize Japan's troubled financial institutions. By January 1998 the amount of public funds earmarked for this task had reached

Y30,000 billion (around $230 billion). This commitment helped to stabilize Japan's stock market, and the country pulled back from the brink of financial meltdown. The commitment of public funds also illustrates the difference between Japan and the other Asian countries afflicted by financial crises. Unlike the troubled Tiger economies, Japan had amassed a huge amount of reserves that could be used shore up its trouble financial system.

Although Japan did not suffer the fate of other Asian countries, the problems in Japan did have an impact on the situation, for it considerably weakened Japan's ability to step in and take a lead roll in solving the wider Asian debacle. Instead of Japan, its was left to the IMF, in conjunction with the United States, to step in and stop the free fall in Asian stock markets and currencies. The credibility of Japan both as a source of stability within the region, and as the de-facto economic leader of the Asia Pacific economies, has been severely and perhaps permanently damaged by its inability to take a leadership role in solving the crisis.

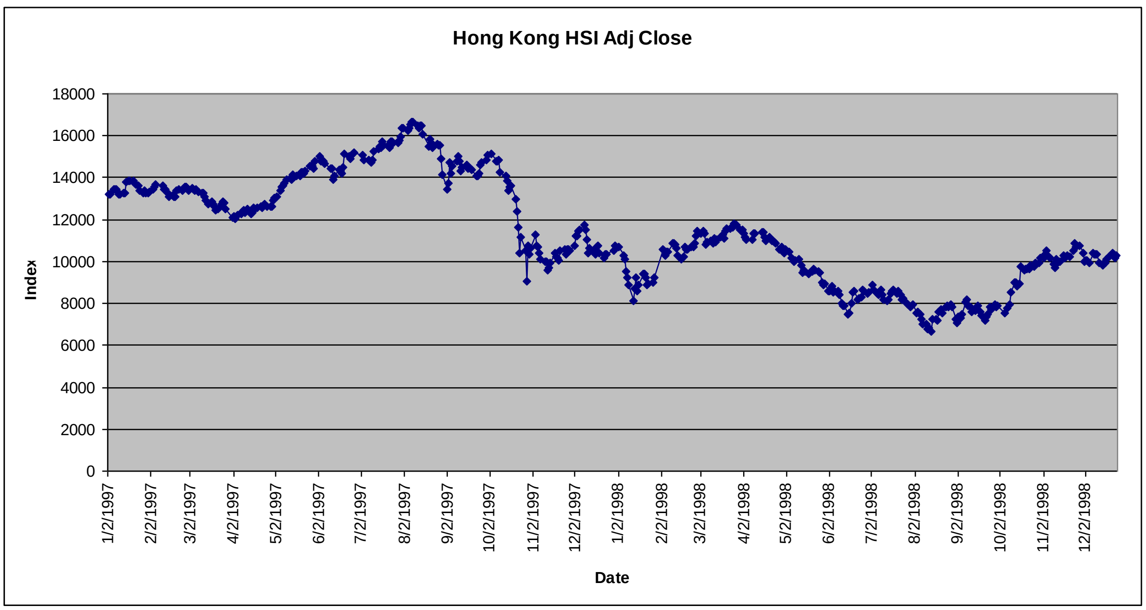
Diagram 26: Japan YEN in 1997~1998



Hong Kong:

In Hong Kong, Asia financial crisis also affected the economics of HK. It was roughly 50% decline in the value of property and stocks, unemployment rose, and a contraction of 4% GDP in 1998. Although of that, Hong Kong is the smallest effected region by this crisis. The stability of financial system made the smallest fluctuation on currency and stock market. Now, let me introduce the strategy which HK government defeated the manipulators.

Diagram 27: Hong Kong HSI from 1997~1998



Since the crisis erupted in July, the Hang Seng Index was seen the smallest decline of any stock market in SE region. Hong Kong banking system remained stable and solvent. Interest rates rose, either, but not as far as elsewhere. It was marginally higher than US dollar interest rates at the short end and at a premium of about 100 basic points for 3-month money at that time. Of course, inflation decline. On currencies, others went substantial devaluations, but the Hong Kong dollar remained stable. Since HK dollars is the only free convertible currency in Asia: the linked exchange rate - $7.8 Hong Kong dollars to the U.S. dollar – is as solid as ever. And the tenacity and credibility of the link is one of the main reasons why Hong Kong weathered the crisis better than most of its neighbors.

One troubling aspect of the Asian crisis, and a sign of larger problems in the world financial system, has been the extreme volatility in markets created by the rapid flows of highly leveraged funds around the world. As markets in the region became more vulnerable, these flows increasingly took on a predatory character and became more and more subtle in their planning and sophistication. In August 1997, the Hong Kong financial markets became the target of a well planned attack by international hedge funds. HK government took unconventional actions to fend off that attack and to fortify their financial system against future attacks.

Oddly enough, Hong Kong became a target because of the transparency of its financial system: it was singled out for its efficiency and predictability rather than for any fundamental flaws. Under the rule-based currency board system, any change in the Hong Kong dollar monetary base must be strictly matched, at the linked exchange rate, by a corresponding change in the amount of foreign reserves held by the currency board. This is an autopilot mechanism, in which the Hong Kong Monetary Authority (HKMA) has minimal discretion: the currency board simply acts passively in response to capital flows. Under the autopilot mechanism, an expansion of the monetary base causes interest rates to fall; a contraction causes them to rise. The crucial element in the monetary base influencing the rise and fall of interest rates is the aggregate balance that banks maintain in their clearing accounts held with the currency board. Notwithstanding the enormous volume of transactions that goes through the banks, the aggregate balance is minimal, because the financial infrastructure is so efficient. They have a real-time interbank payment system and no reserve requirements, so that banks in Hong Kong do not need to maintain large balances in their clearing accounts with the currency board: in August the aggregate balance was as low as HK$2 billion. This meant that the aggregate balance, and hence interbank interest rates, was highly sensitive to speculative attack.

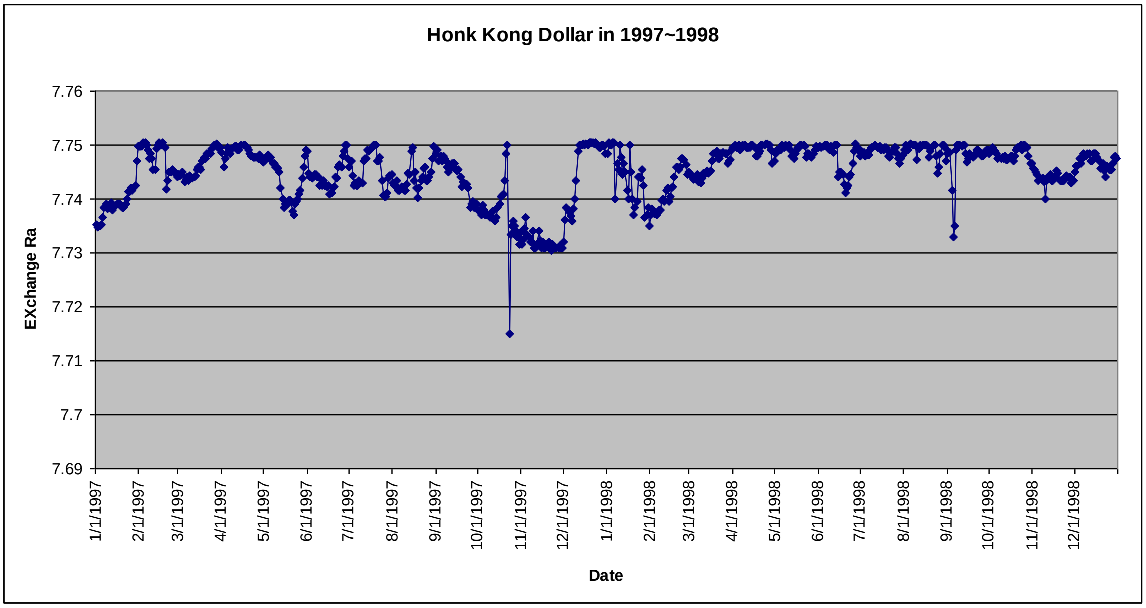
There were a series of such attacks over the past year, when various currency speculators took large short positions against the Hong Kong dollar with the aim of destabilizing the linked exchange rate. On all these occasions the attacks drove up the interbank interest rates to very high levels. To the extent that the speculators had to borrow in the interbank market to fund their short Hong Kong dollar positions, the interbank interest rates were high enough to force the currency speculators to abandon the attacks, unwind their short positions, and incur substantial losses. The finely tuned currency board system worked well, but the interest rate volatility was extreme: during one attack, on 23 October 1997, the overnight interest rate shot up to nearly 300%. The stock market took a nosedive, and the HKMA was sharply criticized for relying on this single tool, the interest rate, to defend the Hong Kong dollar.

In August the speculators adopted a more sophisticated ploy. They introduced a form of double play aimed at playing off the currency board system against the stock and futures markets. First, to avoid being squeezed by high interest rates, they prefunded themselves in Hong Kong dollars in the debt market, swapping US dollars for Hong Kong dollars with multilateral institutions that have raised Hong Kong dollars through the issue of debt. At the same time, they accumulated large short positions in the stock index futures market. They then sought to engineer extreme conditions in the money market by dumping huge amounts of Hong Kong dollars. This sell-off was intended to cause a sharp interest rate hike, which in turn would have sent the stock market plummeting. The collapse of the stock market would have enabled them to reap a handsome profit from the futures contracts they had taken out.

There are a few figures will give some idea of the scale of this attack and the vulnerability of Hong Kong's markets at that time. The hedge funds involved had amassed in excess of HK$30 billion in currency borrowings, at an interest cost of around HK$4 million a day. They also held an estimated 80,000 short contracts, which translated into the following calculation: for every fall of 1,000 points in the Hang Seng index they stood to make a profit of HK$4 billion. If they could have engineered that fall within 1,000 days they would have broken even. If they could have achieved it within 100 days they would have netted HK$3.6 billion. All they had to do was to wait for the best moment to dump their Hong Kong dollars, to drive up interest rates and send a shock wave through the stock market. August was an opportune time: turnover in the stock market had shrunk to about a third of its normal level; there was bad news as the government announced that first-quarter GDP growth had been negative; and rumors were flying around predicting the devaluation of the Renminbi and the severing of the link between the Hong Kong dollar and the US dollar.

HK government acted swiftly to defeat the manipulators at their own game with a series of measures that threw them off their guard, drove them out of the market, and raised the defenses against future attacks. First, drawing on the official reserves, government went into the stock and futures markets. In the second half of August it accumulated US$15 billion worth of shares: After a year, it worth US$19 billion. It was simply to deter manipulation by making sure that it did not pay off. That objective was achieved. The manipulators were forced to close out their short positions, in many cases with heavy losses. And HK government followed through with a package of technical measures to strengthen their currency board arrangement to make their money market less susceptible to manipulation. These measures are working well. Further reforms are being introduced in the securities and futures markets to reduce the possibility of market dislocation.

Diagram 28: Hong Kong Dollars in 1997~1998



The actions of HK government served attackers' purpose of deterring market manipulation. Since they know they could not passively sit through the speculative attack and see the markets overshoot to produce profits for the manipulators, and the entire financial system brought to the brink of collapse. And this action involved many risks, not least among investors the risk of being misunderstood. Their critics, both at home and abroad, have accused HK government of intervening with the aim simply of propping up the stock market; of being too afraid to face the pain from the necessary interest rate volatility under a strict currency board system operating in difficult conditions; even of trying to introduce a novel form of state ownership by acquiring a substantial interest in Hong Kong's major corporations. The essence of these charges is that what they did in August marked the end of their long-standing and hugely successful philosophy of non-intervention in the markets.

Currencies Correlation in South Eest Asia

	Thailand	Malaysia	Philippine	Indonesia	Singapore	South Korea	HK	Japan
Thailand								
Malaysia								
Philippine								
Indonesia								

IMF (International Monetary Fund):

The International Monetary Fund has arranged support packages for Thailand, Indonesia, and South Korea, and extended and augmented a credit to the Philippines to support its exchange rate and other economic policies. The three support packages are summarized in table 19. The total amounts of the packages are approximate because the IMF lends funds denominated in special drawing rights (SDRs)[7], and because pledged amounts may change as circumstances change. The support package for Thailand was $17.2 billion, for Indonesia about $40 billion, and for South Korea $57 billion. The United States pledged $3 billion for Indonesia and $5 billion for South Korea from its

[7] Special Drawing Rights (SDRs) is a potential claim on the freely usable currencies of International Monetary Fund members. SDRs are used as a unit of account by the IMF and several other international organizations. A few countries peg their currencies against SDRs, and it is also used to denominate some private international financial instruments.

Exchange Stabilization Fund (ESF)[8] as a standby credit that may be tapped in an emergency. The U. S. Treasury lends money from the ESF at appropriate interest rates and with what it considers to be proper safeguards to limit the risk to American taxpayers.

IMF Financial Support Packages

Table 21: (Amount in U.S. $Billion)

	Thailand	Indonesia	South Korea
Date Approved	(1997) August 20	November 5	December 4
Total Pledged	$17.2	$40	$57
IMF	$3.9	$10.1	$21.0
U.S.	None	$3.0	$5.0
World Bank	$1.5	$4.5	$10.0
Asian Development	$1.2	$3.5	$4.0
Bank Japan	$4.0	$5.0	$10.0
Others	$6.6	$26.0	$7.0
Change in Exchange Rate (7/1/97 – 1/22/98)	-38%	-81%	-50%
Change in Stock Market (7/1/97 – 1/19/98)	-26%	-40%	-30%

Source: International Monetary Fund, Dialogue Database, Wall Street Journal, Financial Times.

[8] The Exchange Stabilization Fund (ESF) is a branch of the United States Treasury Department which manages a portfolio of domestic and foreign currencies for the purpose of foreign exchange intervention. This particular arrangement (as opposed to having the central bank intervene directly) allows the US government to influence the exchange rate without affecting domestic money supply.

Objective of the IMF:

The major objectives of the IMF are to promote stability, balanced expansion of trade, and growth, but because of the Asian financial crisis, it has deepened its activities in four directions. They are:

- Strengthening IMF surveillance over member countries' policies.
- Helping to strengthen the operation of financial markets (technical assistance).
- Providing policy advice and financial assistance quickly when crises emerge.
- Helping to ensure that no member country is marginalized (being left behind in the expansion of world trade and being unable to attract significant amounts of private investment).[9]

The support packages are initiated by a request from the country experiencing financial difficulty. This request then requires an assessment by IMF officials of the conditions in the requesting nation. If a support package is approved, the IMF usually begins with an initial loan of hard currency to the borrowing nation. Subsequent amounts are made available (usually quarterly) only if certain performance targets are met and program reviews are completed. If the financial situation continues to deteriorate, commitments for funds that have been pledged by the World Bank, Asian Development Bank and certain nations may be tapped. The funds borrowed by the recipient country usually go into the central bank's foreign exchange reserves. These reserves are used to supply foreign exchange to buyers, both domestic and international.

[9] At the September 1997 annual meeting of the IMF in Hong Kong, the Board of Governors approved moving ahead to develop an amendment of the IMF Articles of Agreement to make the liberalization of international capital flows one of the purposes of the Fund. For the United States, this change would presumably require Congressional approval.

IMF support:

On August 11, the Tokyo meeting for supporting Thailand took place. The IMF realized that the support of IMF could give to Thailand fall far short of what Thailand needed, just as in the case of Mexico. Mexico obtained five times its IMF quota. The same multiple would mean that Thailand would receive $4 billion. However, it was soon to be revealed that the forward contract that the central bank had committed to $23 billion and the private external debt (bank borrowings) amounted $438 billion. The IMF and Japan asked Asian countries to contribute to the package so that Thailand could obtain liquidity in foreign reserves. In total, $15.7 billion was pledged at the time of meeting, and in a few days, $17.2 billion became the total package.

> IMF $4 billion; World Bank, $1.5 billion; ADB $1.2 billion; Japan $4 billion; China $1 billion; Australia $1 billion; Hong Kong $1 billion; Malaysia $1 billion; Singapore $1 billion; Korea $0.5 billion; Indonesia $0.5 billion; and Brunei $0.5 billion. The United States was conspicuously absent from the rescue package.

By this time, a consensus was emerging that Thailand and liberalized financial market too hastily without sufficient supervision. Therefore, when the United States sent a mission to Asia in mid-August to force further liberalization in the financial services so that WTO negotiation would proceed, it was greeted with skepticism.

On August 20, the IMF board approved a three-year stand-by arrangement (SBA) in an amount of SDR 2,900 million (505 percent of quota), about US$3.9 billion. The Board considered the request under the emergency procedure, so that the review was only for a week, and the front-loaded disbursement of US$1.6 billion was immediate.

Main contents of the program were as follows:

1. Growth rate target was 2.5% in 1997 and 3.5% in 1998.
2. Inflation target is 4~5 percent.
3. Financial sector restructuring has to be carried out, identifying and effectively closing insolvent financial institutions, and with a temporary guarantee to remaining financial institutions.
4. Target fiscal surpluses of 1 percent. VAT should be increased.
5. The exchanging rate system will remain as a managed float, but intervention must be limited to smoothing fluctuations.
6. Target of broad money growth is 7 percent in 1997.

Whether a fiscal surplus of 1 percent GDP is needed would become controversial. The IMF maintains that at the time of program, the economy was not expected to become too weak (3% GDP growths were targeted) and the 1 % surplus was needed to pay for the financial sector restructuring. However, the growth forecast would turn out to be too optimistic.

As a part of the conditions for the IMF program, the Bank of Thailand announced that it had forward liability of $23 billion. The market participants know the fact that the central bank and engaged in the swap arrangements, but they did not have precise information on the size of the swaps that the central bank had engaged in. The amount, $23 billion, included both on-shore and offshore forward contracts. The on-shore contracts were mainly for counter measures against speculation. However, the distinction was too subtle, and the size surprised the market. The IMF packaged looked too small for these kind forward liabilities.

The IMF Support Package for Thailand:

The support package for Thailand announced by the IMF on August 20, 1997, (eventually worth $17.2 billion) included:

An IMF stand-by credit of up to SDR 2.9 billion 10 (about US$3 .9 billion) over the ensuing 34 months to support the government's economic program [Of the total, SDR 1.2 billion (about US$1.6 billion) was available immediately and a further SDR 600 million (about US$810 million) was to be made available after November 30, 1997, provided that end-September performance targets had been met and the first review of the program has been completed. Subsequent disbursements, on a quarterly basis, would be made available subject to the attainment of performance targets and program reviews.

- Loans of up to $1.5 billion from the World Bank.
- Loans of up to $1.2 billion from the Asian Development Bank. The package also included the following pledges.
- Credit of $4 billion from Japan’s Export-Import Bank.
- Credits of $1 billion each from Australia, Hong Kong, Malaysia, Singapore, and China.
- Credits of $0.5 billion from Indonesia, Brunei, and Korea (Korea's was later retracted). According to the IMF, the proceeds from the credits extended by the IMF and the bilateral lenders are to be used solely to help finance the balance of payments gap in Thailand and to rebuild the official reserves of the Bank of Thailand.

The IMF also placed certain conditions on Thailand. These reportedly included that the country commit itself to maintain foreign exchange reserves at $23 billion in 1997 and $25 billion in 1998, slash its current account deficit to about 5% of GDP in 1997 and to 3% of GDP in 1998, and show a budget surplus equal to 1% of its GDP in FY1998.

The IMF Support Package for Indonesia:

For Indonesia, the IMF announced a support package on November 5, 1997, that totaled $40 billion. The package included first-line financing amounting to about $23 billion to include:

IMF standby credit of SDR 7.338 billion (about $10.14 billion) with SDR 2.2 billion (about $3.04 billion) available immediately and further disbursements after March 15, 1998, provided that certain targets have been met; technical assistance and loans from the World Bank of $4.5 billion, technical assistance and loans from the Asian Development Bank of $3.5 billion, and $5.0 billion from Indonesia's contingency reserves. In addition, a number of other countries or monetary authorities have committed to provide a second line of supplemental financing "in the event that unanticipated adverse external circumstances create the need for additional resources to supplement Indonesia's reserves and the resources made available by the IMF." These include: Japan-$5.0 billion, Singapore-$5.0 billion, United States-$3.0 billion, $1.0 billion each from Australia, Malaysia, China, and Hong Kong. Previously, Singapore also had promised an additional $5 billion to Indonesia in foreign exchange, if needed, to purchase rupiah. 13 Funds from the United States are in the form of a back-up line of credit from the Exchange Stabilization Fund[10] at appropriate interest rates. The U.S. Treasury characterized this as contingent financial support to be used as a temporary "second line of defense" in the event that unanticipated external pressures were to give rise to a need to supplement Indonesia's own reserves and the resources made available

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[10] As of December 1997, the United States had assets equivalent to about $30 billion, excluding SDRs and accounts receivable, in its Exchange Stabilization Fund (ESF). This was about 22% less than ESF assets of $38.2 billion as of December 31, 1994, at the onset of the Mexican Peso crisis. Mexico drew a total of $12.0 billion in short and medium-term swaps from the ESF. Mexico also drew $1.5 billion in short-term swaps under lines of credit with the U.S. Federal Reserve. If activated, the standby credit line for Indonesia of $3.0 billion would equal about 10.1% of ESF assets at the end of March 1997. For background on the Exchange Stabilization Fund, see: CRS Report 95-262, The Exchange Stabilization Fund, by Arlene Wilson.

by the IMF. Since the fund is under the control of the Secretary of the Treasury, use of its funds does not require congressional approval. Treasury, however, has indicated that if funds are disbursed, they would carry proper safeguards to limit the risk to American taxpayers.[11]

As part of the support package, Indonesia was required to restructure certain banks, dismantle a quasi-governmental monopoly on all commodities (except rice), cut fuel subsidies, increase electricity rates, increase the transparency of public policy and budget-making processes, and speed up privatization and reform of state enterprises. It was not required, however, to change its national car policy or aircraft development program.

The IMF Support Package for South Korea:

The IMF support package for South Korea was announced in Seoul on December 3, 1997 and was formally approved by the IMF on the following day. It eventually consisted of $57 billion as follows: [12]

- IMF – three-year standby credit of SDR 15.5 billion (about $21 billion).
- World Bank-$10 billion.
- Asian Development Bank-$4 billion.
- United States-$5 billion from its Exchange Stabilization Fund.[13]
- Japan-$10 billion.

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[11] Summers, Lawrence, Testimony on the Asian Financial Crisis, November 13, 1997.

[12] International Monetary Fund. IMF Approves SDR 15.5 Billion Stand-By Credit for Korea. Press Release No. 97/55, December 4, 1997. Reuters. Korean IMF Bailout. Reuters Newswire. December 3, 1997. Yoo, Cheong-mo. Korea, IMF Agree on Terms, Including Foreign M&A of Korean Firms, Ownership Limit Rise. Korea Herald, December 4, 1997. And a special drawing right (SDR) had a value of about 1.4 dollars.

[13] Korea Bailout Conditioned On Structural Reforms. DowJones Newswire. December 3, 1997.

- $ 1 billion each from the United Kingdom, Germany, France, Australia, Canada, and Italy.
- Additional support from Belgium, the Netherlands, and Switzerland. The funds are contingent upon South Korea's remaining in compliance with the IMF arrangement.

In return for accepting the IMF emergency loans, Korea agreed to several conditions and reforms in order to strengthen its economy. On the macroeconomic side, the conditions included:

- Reducing its current-account deficit to no more than 1% of GDP for 1998 and 1999 (about $5 billion).
- Capping its yearly inflation rate at 5% in 1998 and 1999.
- Building international reserves to more than two months of imports by the end of 1998.
- Recognizing that economic growth (in terms of GDP) for 1998 would likely fall from 6% to around 3%.

In terms of financial restructuring, the IMF required a comprehensive restructuring and strengthening of Korea's financial system in order to make it more sound, transparent, and efficient. The strategy comprised three broad elements: a clear and firm exit policy, strong market and supervisory discipline, and increased competition. The measures included:

- Requiring that all banks that fail to meet the Basle Committee capital standards be restructured and recapitalized to include mergers and acquisitions by foreign institutions and losses by shareholders.
- Replacing the government guarantee of bank deposits by the end of the year 2000 with a regular deposit insurance system.
- Upgrading accounting and disclosure standards to include audits of financial statements of large financial institutions and semi-annual disclosure of

nonperforming loans, capital adequacy, and ownership structures and affiliations.

- Requesting passage of legislation to make the Bank of Korea independent with price stability as its overriding mandate and setting up an agency to consolidate financial sector supervision.
- Allowing foreign banking and securities companies to establish affiliated companies in Korea by the middle of 1998. In terms of structural policies, the IMF package required the Korean government to take several measures. These included:
    - Setting a timetable in line with World Trade Organization commitments to eliminate trade-related subsidies, restrictive import licensing, and Korea's import diversification program (aimed at Japan).
    - Increasing to 50% (from 26%) the ceiling for foreign investment in listed Korean firms and further increasing it to 55% by the end of 1998.
    - By the end of February 1998, taking steps to liberalize other capital account transactions, including restrictions on access by foreigners' to domestic money market instruments and corporate bond markets.
    - Easing labor dismissal restrictions under mergers and acquisitions and corporate restructuring. 18 Frank-Sanders Amendment

Financial Reform:

After the IMF package of August, financial reforms did not proceed as quickly as envisaged in the letter of intent. The political base was weak to carry out a decisive reform, especially in dealing with the suspended 58 finance companies. In October, Finance Minister Thanong resigned after a tax increase did not pass the parliament. Prime Minister Chavlit resigned in early November. Reform had to be carried by a new government, formed on November 9, by Prime Minister Chuan. It was decided on December 8, that 56 out of 58 finance companies would be closed.

Political Uncertainty:

The financial reforms were top priority after the IMF agreement of August 20. Under the IMF program, it was envisaged that the fate of 58 finance companies would be decided in one month. However, the screening committee was twice abandoned partly because of political pressure and lack of authority, before the task was handed over to a newly created Financial Restructuring Authority (FRA) in late October. The FRA asked finance companies to submit rehabilitation plans by the end of November.

Among others, the focus of the market was on how to "close" permanently or revive 58 finance companies that had been "suspended". The major problem was the legal authority to do so. Although there was a committee to consider the resolution of finance companies, its authority and mandate was unclear. Since a bankruptcy law for financial institution was not available, it was legally and politically difficult for the committee to decide the fate of the finance companies. In particular, the following problems and questions were insurmountable for the committee. First, the legal authority to decide upon the failure of financial institutions had to be decided. Second, criteria to separate suspended finance companies into ones to be liquidated and ones to be rehabilitated had to be set. Third, the central bank had injected 430 billion baths ($12 billion at 35 baht to a dollar) into the troubled finance companies. Any resolution plan had to address how to repay these senior credits to the central bank. Forth, treatment of foreign creditors to finance companies had to be addressed fairly.

A turning point came in mid-October. The government prepared for decisive action on the closed finance companies. The action was prepared in advance of the first view by IMF. The steering committee on the finance companies could not make a decision and the chair, Amaret Sila-on[14], resigned on October 12, citing political interference in the criteria for dissolving the finance companies. A reform package was announced on October 14, a day earlier than expected. The package included the following measures: (1) to allow foreigners to own majority stakes in all financial institutions for at least 10 years; (2) to provide a government guarantee to both depositors and creditors of banks and finance companies excluding the 58 suspended finance companies; (3) to enact new laws permitting the central bank to take control of troubled institution and make shareholders pay for losses; (4) to establish the Financial Restructuring Authority (FRA) to decide how to close or rehabilitate 58 finance companies; (5) to give suspended finance companies until the end of October to submit rehabilitation plans; (6) to establish an Asset Management Company (AMC) to manage assets of failed financial institutions, (7) to improved the bankruptcy law so that creditors can collect collateral faster; and (8) to tighten loan classification rules and bring provisioning rules up to international standard by 2000.

On October 21, the Emergency decrees were approved by the cabinet. The decrees, drawn up by experts from the World Bank, would amend the Commercial Banking Act and the Finance Business Act to allow the central bank to intervene in institutions more quickly, and the FRA and AMC were established.

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[14] "Amaret Sila-on, along with three other "neutral" members of the six-member committee who also resigned, were afraid that last week's intense lobbying of Chavalit Yongchaiyudh, prime minister, and Chatichai Choonhavan, a senior adviser, by executives of the suspended companies would result in a relaxation of the committee's tough criteria for suspended companies to reopen. A key component of that programmer is a quick and orderly resolution to the fate of the suspended companies, who borrowed Bt430bn ($12bn) in emergency liquidity from the central bank before the International Monetary Fund put a half to the practice. Mr. Amaret's committee who think most of the suspended companies should be shut permanently" (Financial Times, October 13, 1998)

As the financial reforms moved ahead, the pressure mounted for a political change. Finance Minister Thanong, resigned on October 19. The coalition government also pressed the Prime Minister reshuffle the government by collecting resignation letters from other cabinet members on late in the evening of the 19th. The cabinet was reshuffled on 24th, and Kosit Panpiemras became the new finance minister was. However, the financial markets were not impressed by the developments, and the baht continued to decline, and reached a psychological of 40 baht/dollar on October 31. The reshuffle without changing the Prime Minister did not boost confidence.

Prime Minister Chavlit Yongchaiyungh announced his resignation on November 3. At that point, there were two contenders for the top post: Chatichai Choonhavan (head of the second largest party in the ruling six-party coalition) and Chuan Leekpai (the opposition leader). Chatichai, age 77, would become Prime Minister if the coalition held, but the market regarded him as a part of the Chavlit government which brought Thailand into a crisis. Chuan, age 59, had been Prime Minister from 1992 to 1994, and had led the second largest party since the end of military rule in 1992. When Chuan succeeded in drawing supporters from the coalition, it became certain that Chuan would become Prime Minister. When the news was revealed on November 7, the SET responded positively.

The markets reacted positively to news that Chavlit would resign and that Chuan was getting support from some members of the coalition. For example, the baht rose 6.1 percent (to B38.60/$) on November 4 and 2.6% (to B37.95/$) on November 7. On November 9, Chuan formally became prime minister, and shortly afterward, Tarrin Nimmanhaeminda was named Finance Minister.

Finance companies:

The Thai monetary authority hurried reforms to prevent further depreciation. In consultation with IMF, the financial sector fragility was identified as the crucial point in economic reforms. On August 5, the Bank of Thailand and the Ministry of Finance announced that 42 finance companies would be closed, in addition to the 16 that had been suspended. Then, how to deal with the 42 finance companies became the problem, even before the final solution for the 16 were decided upon. The criteria for suspension, one of which is that borrowing from FIFD exceeded the capital of the finance company, were made public.

What made difference between the 16 finance companies, 42 finance companies, and 33 surviving finance companies were their loan decisions. More than 40 % of the loans from the 16 finance companies were direct to the real estate sector, as opposed to only 25% or less for the 42 companies and 33 companies.

Table 22: Finance companies, Balance sheets items

	16 Finance Companies	42 Finance Companies
Deposits (Promissory notes to public)	B 125,030 million (US$ 4bn)	B 294,006 million (US$ 9.3bn)
Domestic Creditor claims	B 186,466 million (US$ 6bn)	B 184,106 million (US$ 5.8bn)
Foreign creditor claims	B 16,354 million (US$ 0.5bn)	B 22,194 million (US$ 0.7bn)
Assets	B 379,116 million (US$ 12bn)	B 602,744 million (US$ 19.1bn)
FDIF liquidity support as of August 5	B 163,000 million (US$ 5bn)	B 269,000 million (US$ 8.5bn)
Total Lending	B 324,218 million	B 516,048 million
Real Estate sector lending In % of Total lending	B 110,415 million (43%)	B 129,842 million (25%)
Creditors protection		
Shareholders	0%	0%
Creditors	0%	100% KTB bonds
Depositors (PN holders)	100% with KTT bonds	100% KTB bonds

Source: Bank of Thailand

Notes: all numbers are at the end of June 1997, unless otherwise noted. The surviving 33 finance companies has assets 545.185 million, of which 126,277 million (23%) were lent to real estate sector.

KTT bonds and KTB bonds will carry an interest rate substantially lower than the market rate, so that the protection is only a fraction of the discounted present values of original claims.

At this point, finance companies were being managed by the managers who had managed them before suspension, under close supervision by the Bank of Thailand. At this point (mid-August 1997), it was determined that the fate of 16 finance companies would be decided by September 27, and that of the 42 finance companies would be decided by November 3, after plans for rehabilitation strategies covering due diligence were submitted within 60 days from suspension (by October 3). There was no question that 16 finance companies had the worst asset quality. However, some doubts were raised whether all 42 deserved to be suspended. The criteria were applied mechanically, in pursuit of transparency, and the asset quality may not have been evaluated carefully. Hence, the chance to rehabilitate should be given, it was argued.

The pattern of FDIF support was also worrisome. First, the FDIF support to the 16 finance companies increased sharply in March and continued to increase until they were suspended in June. Then FDIF support to 42 finance companies increased sharply in June and July. They ended up suspended on August 5. There was no guarantee that other weaker financial institutions (33 surviving finance corporations and 15 commercial banks) would not receive FDIF support after August.

Creditors and Depositors (Promissory note holders) are protected even under the suspension. However, they receive bonds which carry an interest rate substantially lower than the market rate (which turned out to be 2%), so that they share the burden. Creditors and Depositors of the surviving institutions were given a full guarantee, in order to avoid bank runs.

Decision to close finance companies:

The new government started to negotiate with IMF on revision of the conditions set in the agreement of August. By this time (late-November), the crisis had spread to Indonesia and South Korea. Indonesia had agree with IMF, World Bank, and ADB on a $23 billion package with additional funding if necessary from Japan, Singapore, the U.S., and other Asian countries. South Korea was negotiating intensely with the IMF. The conditions in Thailand and among its trading partners were much weaker than those in late August. This warranted revision of growth forecasts, and policy conditionality. The growth forecasts for 1997and 1998 were reduced to 0.6 and 0.1 percent, respectively, from previous target levels of 2.5 and 3.5, respectively. On November 25, a second tranche was requested.

One of the greatest challenges for the new Thai government, and one of the conditions for IMF second tranche to be released was to press for a conclusion on the fate of the 58 finance companies. At the time of the IMF agreement on August 25, it was planned to finish the work by October. Later, it was delayed due to a change in the steering committee. Then the deadline for submitting rehabilitation plans was set for October 31 and the FRA decision was to be made by November 30. Additional documentation and clarifications continued to be filed until November 30. Now that the decrees had been issued, the new government was in a position to take decisive action.

The decision was reportedly made on November 30, but sealed until December 8, due to the national holiday (December 5). By November 30, 38 rehabilitation proposals were filed. Since some of them had a merger proposal, the number of plans was less than the number suspended finance companies. Only two out of 38 proposals were accepted. This meant that only two finance companies would be reopened, and it was decided to close 56. This decision was welcomed by IMF and the market. FRA had set conditions for mergers and capital injection after due diligence. It also required them to pay back FDIF lending to the central bank within a certain period. Only two proposals satisfied these tough conditions. With this decision, the most difficult problem was overcome.

Special managers were sent to the 56 institutions to separate good and bad assets, and then auction off good assets, while collecting bad assets. AMC would make sure that the auction would be successful.

The market conditions, including stock prices and the baht, were dampened by spillovers from Indonesia and South Korea in December and January. The trouble in the banking sector was not over either. The Thai monetary authorities had to take over weaker institutions in the first quarter of 1998. However, the progress in reforms was sufficient to convince IMF to release the third disbursement of $3 billion and the World Bank the disbursement of $3.5 billion in March.

Finance One:

Finance One, hypothetical disposal plan

Reconstituted Balance sheet of Finance One (Fin One) Before its suspension and after closure per FRA decision in Baht Million	Starting Point 1996/97 data for Fin One		*Liquidation Procedure Per FRA Rules* Asset Valuation assumption (% of book value)	Liquidation Proceeds & Revenue	Payment of Creditors per FRA rules (proportion of outst, credits)	Payment of Shareholders per FRA rules after creditors are paid first	*Benefits/Losses* Benefits (+) or Loss (-) by class of asset/liability Baht Billion	% of Stake
	(1)		(2)	(3)=(1)x(2)	=(4)	=(5)	(7)=difference	=(8)=(7) as % of (1)
Assets	1,417		**Asset Disposal**				0	0%
Cash and cash equivalent	27,840	x	100% =	1,417			0	0%
Securities	0	x	100% =	27,840				
Government Bonds	0	x	100% =	0				
Corporate Bonds	3,808	x	100% =	0			-952	-25%
Other assets corrected (Premises &	0	x	75% =	2,856				
Equip)	0	x	100% =	0				
Provision for loan losses	65,628	x	100% =	0			-28,192	-43%
Accrued interest receivable	42,058	x	57% =	37,436			-10,515	-25%
Loans and advances to customers	23,570	x	75% =	31,544			-17,677	-75%
o/W Good Assets (*)	3,718	x	25% =	5,892			-929	-25%
Impaired Assets (*)	102,411	x	75% =	2,788			-30,073	-29%
Other assets								
Total Assets	50,153						-9,118	-18%
Liabilities	10,020						-1,822	-18%
Due to FIDF (*)	16,452						-2,991	-18%
Foreign Debt (creditors) (**)	76,625							
Borrowing from financial institutions	11,785						-2,142	-18%
Total Borrowings	0						0	
Promissory Notes	88,410			**72,337**	--- Proceeds to be used for payment			
Accrued interest and others								
Total Liabilities	4,140							
	3,190			to FIDF	41,035			
Issued and paid-up capital	14,001			to Foreign	8,198			
Un-appropriated retained earnings				To other	13,461			
Total shareholders' equity = (6)	102,411			Creditors			-14,001	-100%
					9,643			
Total Liabilities and shareholders'				To prom. Notes	0			
equity				Acc. Interest	72,337			
				Paid total to Creditors				
				Paid total to shareholders		0		

Source: Published Balance Sheets of Finance companies for end-1996 except for (*), where source is Rehabilitation Plan submitted December 10,1997

For calculation of liquidation re-payment process FRA rules were used; asset valuation assumptions are our own

(**) assumes that 50% of foreign debt of the 16 suspended finance companies is owed by the Gin One.

Finance One, the largest finance company, with of B102 billion in December 1996, was the focus of attention, since many foreign creditors were hoping to reopen it. The balance sheet shows that B65 billion were loaned out. With an assumption of recovery ratios of 75% for good assets (B42 billion), and 25% of impaired assets (B23 billion), about 28 billion was lost. Combined with possible loss of B2billion from other assets, a loss of about B30billion has to be recovered. The amount exceeds shareholders equity (B14billion) by B16billion. This has to be charged to creditors: FDIF (B50billion), foreign debt (B10billion), borrowings from financial institutions (B16billion), and depositors or promissory note holders (B12billion). If creditors were proportionally charged for the loss, it meant that the creditors would take an 18% loss on their holdings. If the loan recovery ratio is much lower, the loss for creditors would be more.

Before November 30, Credit Suiss First Boston (CSFB), a creditor of Finance One, had proposed to rescue Finance One, with a debt-for equity swap.[15] CSFB held $63m Eurobond of Finance One. It tried to inject capital to save the Eurobond as detailed in its plan. On December 3, Westdeutsche Landesbank, in cooperation with J.P. Morgan, was making a last minute attempt to take over Finance One with capital injection.

[15] On December 4, CSBF revealed the details of its proposal, countering the WL proposal. According to the Finance Times, CSFB would inject Bt 6.24bn ($146m) into Finance One to purchase between 70.5 percent and 80 percent of the company. The Thai government and other senior creditors would be issued new notes at 66.67 percent of face value of their original debt. The new debt would mature in eight years. In addition, the creditors would receive 29.5 percent of the equity of the reopened company. Eurobond holders would receive a new note equal to 30 percent of their original debt, carrying a 10-year maturity. "CSFB, which is a significant creditor of Finance One through its holding of 48 percent of the Thai company's 63m Eurobond, make a bid for Finance One in mid-November that irked senior creditors who have direct loans to Finance One. On Wednesday [December 3] the senior creditors enlisted WestLB, the German bank, to submit a rival offer." (Finance Times, December 5,1997)

Their proposals are believed to have included a condition to convert FDIF lending to Finance One into equities, or to shelve the FDIF lending for the time being, in return for converting proposing institution lending to equity holdings and, in the case of Westdeutsche Landesbank, fresh capital injection. It would have been hard to believe why senior creditors would recover bad assets as well as good assets, when the chance to bid for good assets are provided for in the future FRA disposal plan, unless enough losses were somehow shifted to FDIF. Both proposals were rejected.

Even after the decision of December 8, some creditors tried to make an exception for Finance One. International Finance Corporation, a member of the World Bank group, tried to purchase Finance One as a whole.

Road to Recovery:

With the IMF second disbursement, other supporting institutions disbursed their contribution. The ADB Board approved the Thai financial market reform and released $0.3 billion on December 19. On December 23, the World Bank Board approved the Thai financial sector reform, and the release of $0.35 billion. The Export-Import Bank disbursed its second installment of 99.3 billion yen on January 6.

The baht weakened to 47.95 to the U.S. dollar on December 15, mainly due to the spillover from South Korea and Indonesia. On that day, the Bank of Thailand announced that foreign reserves had fallen to $26.3 billion at the end of November, primarily due to unwinding of six-month forward contracts that had been taken bank in May. Outstanding forward contracts were disclosed to be $18.3 billion, and cost of settlement was increasing quickly, as the baht fell. Although the level of $26.3 billion exceeds the target of $23 billion set by IMF, the baht was weakened because of the Thai corporation hedging for their payments of $6 billion in foreign debts, and speculators taking positions on the news that the central bank had lent another B59.9 billion ($1.24 billion) to troubled financial institutions in the preceding two weeks.

Summary:

After reviewed the Asian financial crisis, now let me conclude the factors leads to occur this financial crisis. Below is the incident flow of Asian Financial Crisis. We divided into 4 periods to explain each economic environment in every period. At bottom, there are also marked the status at current economic. Now, let me go through the flow first.

Asian Financial Crisis Incident flow:

	Growing Period	Maturity Period	Boom Period	Crisis
Years Period	80s~90s		90s	97
Asian Market	Liberalization market ↓ Attract more foreign investor ↓ Encourage bank loaning ↓ Investment increased		Investment Boom ↓ Non-performance loan increased ↓ Bankruptcy increased ↓ Debt boom ↓ Extended loan to finance companies ↓ Domestic reserve exhausted	Speculator attack ↓ Exchange rate peg ↓ Currency and Stock devaluation ↓ Financial panic ↓ Domino Effect ↓ IMF rescue
Economy	Growing		Slow down	Decline
Interest rate	Low		High	Low
Inflation rate	Increasing			Low
Currency and Stock Market	Increasing		Declining	Low
GDP	Increasing		Declining	Declining
Unemployment rate	Declining		Increasing	Increasing
Export - Import	Increasing		Declining	Decrease to negative
Non-performance loan	Low		High	High
Reserve	N/A		Low	Low

In the 80s, many international investors started to invest in Southeast Asia. Since the governments in that region started to implement a capital liberalization market for expanding local economic environment at that time. Many local banks were provided various loan with low interests rates and also provided some capital trade on international market, etc. In addition, the wages and local consuming requirement are much lower than other Western and North American countries. So, these advantages attracted many international investors to invest in SE.

Numerous investors started to make investment in Thailand, Malaysia, Singapore and Indonesia, etc. And the governments also encouraged local banks to provide loaning to those investors with low interest. When in 80s, many manufactories, real estate and some big constructions were built. And those manufactories were mainly produced semi-finished goods, electronic product and some garment, etc. All of those products were very demanded in global market actually. Therefore, the trading market was very busy during 80s. Due to the bright prospects in SE Asia, the economic were boosted up continually. GDP, export and inflation rates were high. And the unemployment rate was low. But the investors were increasing continually. They all wanted to earn more money during that such great time. Thus, it appeared that some investors speculated in real estate or other investment. Before making investment, they all loaned a lot of money from bank, and it was easy to credit money at that time. Almost all loan were approved. Then, those investors put that money in real estates, stock and some light industries.

By 90s, the prospect in SE Asia economic was going to peak. The local competition was also at violent situation. There are too many foreign companies and manufactories were located in SE Asia regions. At that time, they noticed that their operating cost was going higher and higher. And the inflation rate, labor incomes were also going up. In addition to the more competitors entered, it made labors cost and other operational cost hard to make adjustment. Cost control was always cannot fulfill the operating environment. For example, labor recruitment problem. At that time, labors did not worry about no job they have, they just caring about better payment job. Due to many foreign companies settle down, it gave many chances for local labors to choose better job. Next, inflation problem, everybody knows that better economic have higher inflation. Higher inflation will make the cost of material higher. And then it will make the cost of companies' product higher. Thus, the cost control policies were necessary to implement on those companies. Besides, many companies entered, it also leaded the pricing competitive. Many companies would implement low price strategy to attract more customers to purchase their product. Thus, all of these factors lead to the cost rising problem. And SE Asia is not the regions for them to achieve the original purpose on cost saving. So, some investors started to find another region and moved their manufactories to there, like China. (China implemented liberalization market at that time.)

On the other side, due to many foreign investors invested in SE Asia, they all loan a lot of capital to make investment. In addition to low interest rate, it attracted many investors to make investment in SE Asia regions. But by 1993, the trading market went to industrial depression. Many manufactories supply too much products, and the market requirement was not high. It made the equilibrium went down. But the producing cost was still rising. It started to excess capacity, supply over demand. Therefore, it always made some manufactures cannot maintain the high cost business, and went to bankruptcy. Since bankruptcy, it always leaded bad loan and non-performance loan problems to local banks. But the circumstance of bad loan was not just for one or two cases in SE Asia. It appeared on many manufactories and companies. Therefore, debt boom occurred at that time. So, many banks and financial companies were facing the problems of financial deficit. They were all difficult to maintain their operations. Thus, governments adopted some actions to support those banks and financial company for keeping their operations. (Transferring domestic funds from central bank to local banks and some financial institutions.)

Due to the poor economics occurred in SE Asia, of course, international speculators would not miss this chance to attack those countries currencies for earning profit.

By 1997, Thailand was the first countries which speculators attacked. They attacks took place in little waves in January, February and March. However, it was not until May, the speculative attacks became so massive. By July 2, Thailand could not keep their fixed rate and keep the tightrope operation going any longer. And made Thai baht depreciate as much as it actually did, and the crisis would spread to other countries in the region, especially to South Korea, in the following several months. From the end of June to the end of December, the Indonesia rupiah depreciated more than 140 per cent, while Korean won and the Thai baht depreciated more than 80 per cent, vis-à-vis the US dollar. Malaysian ringgit and Philippine peso depreciated about 50 per cent. The least affected was the Hong Kong dollar.

Soon, the International Monetary Fund has arranged support packages for Thailand, Indonesia, and South Korea, and extended and augmented a credit to the Philippines to support its exchange rate and other economic policies. The total amounts of the packages are approximate because the IMF lends funds denominated in special drawing rights (SDRs), and because pledged amounts may change as circumstances change. The support package for Thailand was $17.2 billion, for Indonesia about $40 billion, and for South Korea $57 billion. The United States pledged $3 billion for Indonesia and $5 billion for South Korea from its Exchange Stabilization Fund (ESF) as a standby credit that may be tapped in an emergency.

Conclusion:

Asian Financial crisis is not come from natural disaster. This is come from lax regulation on domestic risk management. And lack of financial avoidance system from speculator attack.

In Asian Financial Crisis, we can see how importance on foreign reserves. Through the foreign reserve, we can know that central banks would stabilize the issued currency from excessive volatility, and protect the monetary system from shock, such as from currency traders engaged in flipping. To defense speculators attacked, and maintain domestic's economic balance, rescue local enterprise's operation, etc. Large reserves are often seen as strength, as it indicates the backing a currency has. Low or falling reserves may be indicative of imminent bank run on the currency or default, such as in a currency crisis.

Accordance with weaker foreign reserve in South East Asia, they don't have sufficient capital to defense the attacked from speculators. Let the countries' currencies float freely finally. All of these are come from poor economics in those SE countries. In 90s, SE Asian economies have greater strides toward liberalizing capital flows. The developed countries, led by the United States, have increasingly pressured the developing countries to open their finance and banking sectors to foreign investment. In the case of Thailand, the increased number of Bangkok International Banking Facilities (BIBFs) resulted in a dramatic increase in debt held by Thai firms, including short-term dollar denominated debt for longer-term projects. Also, a number of non-competitive projects were able to secure financing for project start-up; this was particularly true in the real estate sector. On trading market, total export value decreased by 6.8 percent, resulting from the slowdown of world economy. Thus, some investors tempted away by investment incentives and cheap labour in neighbour countries such as China, Vietnam. In terms of purpose of imported goods, it is clear that more than three-quarters of SE Asian imports are capital goods, and intermediate products and raw materials. These types of goods and materials are used in expanding industrial capacity and supply inputs into many of SE Asian's export industries. Regarding to the SE Asian imports, nearly one-quarters were originated in Japan. This reflects Japan's high level investment in SE Asian. The NAFTA, the ASEAN and EU member countries are other major source countries.

Through Shen Liantao claimed that one of the culprits of the Asian Financial Crisis was Japan, we do agree his viewed point that since the main sources of Thailand's inward foreign direct investment have historically been Japan. When Japan went recession, Japan adopted to return oversea capital. Make the capital in SE Asian decreased. In addition to capital excess and real estate boom, it leaded many financial problems, like non-performance loan, bad debt and bank-ran, etc. Therefore, domestic government intervened local central bank to transfer capital to rescue local banks and some financial companies. By 1997, the international speculators started to attacked Asian currencies. Actually, Asian countries did peg their currency with foreign reserve to keep their market value at balance level. Due to foreign reserve exhausted finally, on July 2, 1997, Thailand was the first countries let their currency floated freely. Next, Philippine, Indonesia, Malaysia were being floated freely also in summer 1997.

Actually, the Asian Financial Crisis had not finished. By October 1997, the second round crisis was started; South Korea, Hong Kong and Japan were being the target to attack by international speculators. Although all these countries were being hurt seriously, Hong Kong was still keeping USD 1 to HKD 7.8 currency level. The exchange rate did not devalue at last. Since the foreign reserve in HK was around 86 billion foreign reserves. Compare to other countries, Hong Kong had sufficient foreign reserves to peg against the currencies rate for defense speculators' attacked. Maintain the international currency position in the world.

Second, the Bank of Thailand should have devalued the currency much early than July 2. The currency was under attack periodically since the summer of 1996. Speculative attacks in January, February and March were relatively large, although much smaller than the eventual attack in May. A Decision could have been made back then before losing a massive amount in foreign reserves in forward contracts. The lesson from Mexico, that is, if devaluing, do it when foreign reserves are still ample, was not learned. The IMF insists that it had advised Thailand repeatedly to change the exchange rate regime to a more flexible one. The outcome might have been different if the baht was floated before May. This scenario poses a general question on the exit strategy for a country with a fixed exchange rate and the early warning signals of a currency crisis.

Third, if the finance companies problem had been dealt with decisively, namely closure and liquidation of the worst, insolvent finance companies, early in the stage (say, before devaluation), then confidence would have been maintained, and the currency crisis might have been avoided, and certainly the "cleaning-up" cost for the government would have been much less. Real estate loans and declining land prices should have been a warning signal. Even after the devaluation, and even after the IMF program, the decision could have been made quicker. It was envisaged at the time of the IMF program, the decision on 42 finance companies would be made by early November. It was delayed by one month, during which Indonesia and South Korea became victims of contagious currency crises. This experience shows how important it is to have sound bank supervision and a legal framework to close and liquidate financial institution orderly.

Fourth, the size of the IMF package could have been larger. It was unfortunate that a 500% of quota was the de facto limitation for Thailand. Only when South Korea became a problem, was another facility created to provide ample liquidity from IMF. (South Korea obtained 2000% of quota, of which 1500% was under the newly created facility.) The market was not convinced that Thailand was out of woods when the IMF package was announced. If in addition, the United States had contributed to the IMF package, it might have stabilized the baht level at the time of the Tokyo meeting. This aspect, in conjunction with slow financial restructuring, contributed to a further decline of the baht after August, and possible caused the contagion for the rest of region.

It can be conclude that precious time was lost from late August to December in settling on framework to resolve the problem of weak and debt-ridden financial institutions and strengthen the rest. It may have been necessary for the democratic process to take time. It took a new government to implement necessary reforms.

However, the SE Asian government could have taken more decisive action right after the IMF program, and the World Bank could have taken more prompt action in advising Thailand. The delay was costly: the baht and the stock prices continued to slide and the government had to change to restore confidence.

Recommendation:

(1) Exit Policy:

IMF has to come up with a better plan for a country with a peg system on how to exit from a (dollar) peg regime without losing the confidence of investors. The peg system often invites overvaluation, leading to current account deficits. It is easy to say that the currency has to be "flexible." However, a flexible exchange rate under heavy capital inflows would appreciate the currency, and aggravate the misalignment. Both Mexico and Thailand, in the midst of 8 percent current account deficits, were accumulating foreign reserves in the presence of current account deficits, up to only months before their crisis. Going flexible a year earlier would have meant appreciation, making the subsequent crash of the currency harder. A counter-argument would be that by making the exchange rate flexible, currency risk would have alerted investors, thus reducing inflows.

(2) Early warning signals:

Developing early warning signals that predict a crisis in the near future, is crucial for IMF to warn a country. However, once it is developed reliably, investors will change their behavior in order to be on step ahead of the signal. The so-called Lucas critique applied here.

(3) Bank supervision:

The IMF, the World Bank, and the BIS are working on the standard of bank supervision. It has become a standard interpretation that the mistake committed by some of the emerging market economies was to liberalize capital accounts without an adequate change in bank supervision. When short-term capital came in, bank management operated as if deposits came from domestic investors who would have little choice in their portfolio management. Bank management, and also foreign institutional investors, counted on implicit guarantee on deposits by the government. Under these conditions, banks tend to over-lend to risky projects, (usually the real estate sector) as liquidity becomes abundant due to capital inflows, and lenders did not check the bank's risky investment. When supervision is tightened, capital markets can be liberalized, the reformer would argue. However, it is difficult to train human capital in supervision as well as in bank management. Even the United States, United Kingdom, Japan, and the Scandinavian countries, among others, suffered from lax bank supervision. How quickly financial and capital markets can be liberalized basically depends on how quickly human capital standards in finance can be met.

(4) Burden sharing

IMF should devise some ways to prevent moral hazard of lenders, while preventing a systemic risk. It is clear that over borrowing is also over lending. When IMF programs continue to bail out lenders, investors become more convinced that country and default risk is minimal. After the Mexico crisis, there was an argument that even a sovereign debt (i.e. Tesobonos in the case of the Mexican crisis) should not be considered risk free (Group of Ten (1996)). Hence, there was no guarantee that Thailand's private bank would have been protected. Of course, in reality, it was difficult not to guarantee the stakes of the creditors with the fear of liquidity crisis arising. At the time of June 27 announcements, if a blanket guarantee had not been provided, a panic withdrawal might have occurred (just as the case in Indonesia several months later). It is the role of IMF to determine how burden sharing can be arranged without causing a systemic risk.

(5) Regional surveillance:

Regional surveillance will become important in light of the contagion. Also peer pressure may work better than the IMF warning or conditionality. As the contagion is a real threat, neighbors may have more at stake and creditability in putting pressures on a country in a near-crisis. Regional surveillance became a part of the Manila framework (November 1997).

(6) Larger funds:

IMF must be equipped with larger funds to support larger packages. A reversal of capital flow could be massive compared to imports or current account deficits. In order to stabilize credibly a country in a crisis, the amount of the IMF assistance has to be large. One institutional difficulty was an implicit limit in the Stand By Agreement. Mexico received 500% of quota from IMF, and the Thai program was 500% quota. These numbers were far too little for them. That was why, the United States lent to Mexico and Japan lent to Thailand.

Finally, we can conclude that IMF should advise countries with a fixed exchange rate system when to exit from this arrangement, if the fundamentals change adversely. The timing becomes tricky when large capital inflows are masking or aggravating the problems in fundamentals. Second, countries should float their currencies with ample reserves. Exhausting the reserves like Mexico and Thailand would make it more difficult to regain confidence after devaluation (float). Third, in order to measure the timing of a crisis, a set of early warning signals may be developed, but their reliability at this moment is not great. Forth, the strength of the financial system (banks and nonbanks) is crucial in fending off attacks on the currency and in rebuilding the confidence after devaluation. Bank supervision has to be strengthened when capital controls on inflows are to be liberalized. Fifth, burden sharing by investors in emerging market financial instruments (bond and bank deposits in particular) may have been considered when risky investments are to be bailed out by a IMF program, directly or indirectly. Sixth, regional surveillance is even more important, as contagion has become a severe problem. The Manila framework, introduced in November 1997, is expected to help create peer pressure in the Asia-Pacific region. Seventh, IMF funds have to be increased to meet the needs for larger funds. The access limit should be carefully reconsidered in case of emerging market countries.

Authors' contributions

The first author contributed the most for the publication of this paper.

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