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**INTERNATIONAL IMPLICATIONS OF THE ASIAN FINANCIAL CRISIS**

A Discussion

on

**International Financial Contagion and New Financial Architecture**

(Yüksek Lisans Tezi)

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# CONTENTS

<b>INTRODUCTION</b>	1
<b>Chapter I: UNDERSTANDING THE ASIAN CRISIS</b>	5
1.1 What Caused the Downfall in the Asian Economies?	6
Box 1.1 The Asian Way of Doing Business	8
1.1.1 “Asymmetric Information” View of the Asian Crisis	9
1.1.2 Krugman’s “Moral Hazard” Model	12
1.1.3 “Panic” Model	16
1.1.4 “ Fundamental Distortions” View	18
1.1.5 A Discussion on the Causes of the Crisis	18
1.2 Chronology of the Asian Crisis	19
1.3 The Role of the “IMF” in the Asian Financial Crisis	22
1.3.1 Response of the IMF to the Asian Crisis	22
1.3.2 Criticisms on the Response of the IMF	24
1.4 Lessons From the Asian Financial Crisis	27
<b>Chapter II: INTERNATIONAL FINANCIAL CONTAGION</b>	29
2.1 “Fundamentals-Based Contagion”	31
2.1.1 Common Shocks	31
2.1.2 Trade Linkages and Competitive Devaluations	32
2.1.3 Financial Linkages	35
Box 2.1 CURRENCY CRISES	33
2.1.4 Re-assessment of Economic Fundamentals	36
2.1.5 Channels for Real Shock Transmissions	37
2.2 Pure Contagion	39

<b>2.2.1 Individual Rational Behaviour -(Liquidity and Incentive Problems)</b>	40
<b>2.2.2 Information Asymmetries and Information Problems</b>	41
<b>2.2.3 Herd Behaviour</b>	42
<b>2.2.4 Changes in the Rules of the Game</b>	42
<b>2.3 Common Features of Economies Vulnerable to Contagion</b>	43
<b>Chapter III: THE NEW FINANCIAL ARCHITECTURE</b>	47
<b>3.1 Transparency, International Standards and Vulnerability Assessment</b>	49
<b>3.1.1 Transparency</b>	49
<b>3.1.2 Internationally Accepted Standards</b>	51
<b>3.1.3 Vulnerability Assessment</b>	52
<b>3.2 Strengthening Financial Systems</b>	53
<b>Box 3.1 Strengthening Financial Regulation In Industrial Countries</b>	55
<b>3.3 Involving the Private Sector in the Prevention and Resolution of Financial Crises</b>	58
<b>3.4 Contingent Credit Lines</b>	60
<b>3.5 Promoting Social Policies to Protect the Poor and the Most Vulnerable</b>	61
<b>3.6 Systemic Aspects</b>	62
<b>Chapter IV: “BANK RESTRUCTURING”</b>	64

**4.4.1.1 Disclosure** ..... 72

**4.4.1.2 Surveillance** ..... 72

**4.4.1.3 Auditing** ..... 73

**4.5 Core Principles for Effective Banking Supervision** ..... 74

**4.5.1 The 25 Core Principles** ..... 77

**CONCLUSION** ..... 80

**REFERENCES** ..... 85



## **ABSTRACT**

In 1997-98, the global financial world has experienced the deepest financial crisis in the new era of globalization. Devaluation of the Thai baht seems to have triggered a chain of events which have led to massive losses on the side of the European and American investors. What has made the Asian crisis different is the severity of the contagious effects that followed the eruption of the crisis. The crisis spread from Asia to Russia and then from Russia to Latin America and the United States. The most crucial lesson to be drawn from the financial crises of 1997-98 is that the international financial system needs to be reformed. In this dissertation, it is attempted to address the causes of the Asian financial crisis, explain international financial contagion, and illustrate the necessary steps that need to be taken in order to reform the international financial system so that the global economic world may be able to withstand the adverse effects of possible future crises.

## TÜRKÇE ÖZET

Uluslararası finansal piyasalar, 1997-98 yıllarında yeni küreselleşme çağındaki en büyük krize sahne oldu. Thailand bahtının devalue edilmesinin ardından gelişen olaylar Avrupa ve Amerikalı yatırımcıların büyük zararlara uğramalarına neden oldu. Asya krizini farklı kılan özellik, krizin ortaya çıkmasından sonra meydana gelen bulaşma etkisinin boyutu olmuştur. Kriz önce Asya'dan Rusya'ya, daha sonra da Rusya'dan Latin Amerika ülkeleri ve Amerika'ya bulaşmıştır. 1997-98 krizlerinden alınması gereken en önemli ders, uluslararası finansal sistemin güçlendirilmek üzere yeniden yapılandırılması gerektiğidir. Bu tez çalışmasında, öncelikle Asya krizinin sebeplerini, uluslararası finansal "bulaşma" yı ve gelecekte bu tür krizlerden korunma amacıyla finansal yapıyı güçlendirmeye yönelik atılması gereken adımları tartışmak amaçlanmıştır.

## INTRODUCTION

Following the devaluation of the Thai baht in July 2, 1997, the global financial world experienced a financial crisis with a detrimental effect beyond past imagining. Devaluation of the Thai currency was the initiating domino in the first global financial crisis of the new era of globalisation. As there was an immense capital outflow from the Asian economies, the currencies in South Korea, Malaysia and Indonesia began to lose substantial value. Investors in response, either moved their investments to safer havens or demanded higher interest rates to compensate for the higher risk. Within a few months, the recession in the Asian economies began to have an impact on commodity prices around the world. The rate of world-wide economic growth was heavily dependant on the growth of the Asian economies, which were the main consumers of raw materials. The recession in the Asian economies resulted in a drastic fall in the prices of many commodities such as gold, copper, aluminium and most importantly, crude oil. The fall in world-wide commodity prices was the mechanism that transmitted the Asian crisis to Russia, which was then in an attempt to reach a stable growth track. As there were almost no profits that would generate taxes in the economy, the Russian government was heavily dependant on crude oil and other commodity exports to fund its budget. As the Russian economic stance continued to deteriorate in 1998, the Russian government had to raise the interest rate on their rouble bonds from 20 to 50 and finally to 70 percent to attract foreign investment and prevent capital outflow. The hedge funds and other international investors poured in to take their share of the high yields with the expectation that in case the Russian government could not pay them back, the IMF and other financial institutions would be there to bail them out. The incessant decline in oil prices and

other commodities made it increasingly difficult for the Russian government to repay the outstanding debt. Due to the pressure the IMF was facing to rescue Thailand, Korea and Indonesia, any proposal to financially support the Russian economy was resisted until the Russian authorities fulfilled their promises to reform the economy. On August 17, 1998, the Russian economy had to face the destruction: Russia both devalued and unilaterally defaulted on its government bonds without giving any warning to its creditors or arranging any work agreement. The consequence was massive losses on the side of the hedge funds, banks and investment banks; and many financial institutions were threatened with bankruptcy. With an international economic system more global than ever, the crisis in Russia had a massive global impact. As the transmission mechanism of crude oil from Asia to Russia, the hedge funds were the transmission mechanism from Russia to Brazil. The hedge funds and other trading firms who faced huge losses had to raise cash and sell all the liquid assets in their portfolios. They started selling assets in financially sound countries to compensate for their losses in the crisis countries. Brazil, which had been highly praised by the global investors and the IMF for taking the "right" steps to a stable economy, suddenly was faced with a situation where all its stocks and bonds were being sold by panicky investors. Brazil, also, had to face a rise in interest rates to prevent capital outflow and was consequently led into a serious financial crisis. The declines in Brazil and other emerging markets then became the transmission mechanism that triggered a herd behaviour that favoured U.S. Treasury bonds. Such behaviour sharply drove up the value of the U.S. Treasury bonds. The sharp drop in the yield of the U.S. Treasury bonds was then the transmission mechanism which ended in more hedge funds and investment banks facing huge amounts of losses. LTCM, a large U.S. fund, had risked \$120 billion with the expectation that the value of

U.S. Treasury bonds would decline and that the values of junk bonds and emerging market bonds would increase. As international investors increasingly favoured safe havens such as U.S. Treasuries, the financial position of LTCM worsened and resulted in wealth losses on the side of the American investors.

The above chain of reactions in the global financial economy has paved the way for many debates and discussions about the causes of the Asian financial crisis, the role of the international financial institutions, and the issue on financial contagion. Although there may be contradictory views on these issues, the global financial world has reached one common conclusion: The global financial system needs to be reformed. The scope and volume of financial activities have been vastly diversified with extended globalisation, increasing deregulation, and the development of new financial instruments and computerised transactions. The working of the international banking system has been greatly altered and global finance has reached a completely different state. In line with higher degrees of deregulation and financial openness, more stress is to be placed on the issue of “pacing”, which involves improvements in the quality of the banking supervision instruments and regulatory mechanisms, and the way in which openness and deregulation are carried out.

In the first chapter of this dissertation, it will be attempted to explain the Asian financial crisis with a reference to different views on its causes and on a discussion on the role of the IMF and the international financial institutions in the crisis. What made the Asian crisis different was the level of its global impact and the issue of “financial contagion” it has introduced to the financial world. Chapter II will focus on the definition, types and transmission channels of international financial contagion and

attempt to outline the factors that make economies vulnerable to contagious effects. Chapter III will aim to explain the “New Financial Architecture” and what has to be done to prevent such crises from occurring or to limit the detrimental effects in case a crisis erupts. The last chapter stresses on “Bank Restructuring” and the steps that should be taken on the side of the financial institutions to maintain a sound global financial system.



## **Chapter I: UNDERSTANDING THE ASIAN CRISIS**

In this section, it will be attempted to give an insight to the causes of the 1997-1998 Asian crisis which seems to have led to the deepest international financial crises of the modern world. The discussion will begin with a basic explanation of the onset of the crisis and continue with a review of specific ways of approach that explain the causes of the crises. The section will end with a chronology of events that followed the onset of the crises and a discussion about the role of the International Financial Institutions in preventing and managing international crises.

For over a decade, Asia had been experiencing record rates of growth and was highly praised for its seemingly endless potential to grow and develop even further. The civilised world, -especially Japan with a sluggish economy, in a "liquidity trap" with zero rate of interest, and Europe with declining interest rates and no further growth potentials-, poured in to supply funds for the Asian economies. An immense amount of capital inflow to the region that reached \$100 billion in 1996 was especially stimulated by factors such as wide-ranging financial deregulation which made it easier for banks and domestic corporations to finance domestic investments, lax supervision which enabled high rates of foreign borrowing, pegged exchange rate system which guaranteed a stable currency and implementation of government policies which highly encouraged foreign borrowing. With the confidence provided by past economic growth, no reason seemed logical not to invest in the Asian economies. Pegged exchange rate system, where currencies were pegged to the U.S. dollar or a basket of currencies dominated by the dollar, with either limited

variation<sup>1</sup> or very predictable change<sup>2</sup> curtailed currency risks for international investors, stimulating more capital investment to the region. This gave a positive impression, and although there were certain warnings by the IMF and other international institutions about issues such as financial supervision and capital adequacy, investors - too satisfied as they were to receive their share of growth - preferred to ignore any notification about possible problems in the financial system. Pre-crisis forecasts about the economies in the Asian region depicted the fact that there was almost no solid evidence to suggest a serious problem that would lead to the devastating crisis of 1997-1998.

### **1.1 What Caused the Downfall in the Asian Economies?**

Foreign capital inflow, which was supported by the pegged exchange rate systems, was the major force which enabled the high growth rates in the Asian region. The mechanism behind the economic growth was the channelling of foreign funds to finance domestic projects with high potential growth opportunities. The outcome of this mechanism was quite impressive during the initial stages of capital account liberalisation when the marginal return on foreign capital in the Asian economies was higher than any other international investment opportunity. This induced international financial investors to increase their funding to the region.

Contrary to the initial stages of capital account liberalisation, later stages were characterised by substantial declines in the number of unquestionably profitable projects and growing deficiencies in the financial sector. The level of foreign capital inflow grew to be much higher than the level financial systems of the Asian countries

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<sup>1</sup> ..as in Thailand, Malaysia, Korea and Philippines

<sup>2</sup> ..as in Indonesia

could efficiently direct to investments which would gain a return higher than the cost of capital<sup>3</sup>. The banking systems in the Asian countries turned out to be a failure since they were not supported with the basic structure of regulation and supervision to maintain a healthy functioning of the newly-liberalised system and the unexpectedly high amount of capital inflow that followed. Since the financial systems were not equipped with the necessary tools and regulatory backgrounds, they could not succeed in controlling the growing risks as there was an immense rise in the volume and scope of financial activities.

Pegged exchange rate systems were maintained for an excessive period in the Asian economies. The logic behind the pegged exchange rate system was to guarantee a stable currency and hence attract foreign funding. This was in fact successful in the initial stages when investors rushed to supply their foreign currency to the Asian economies promising high returns with seemingly very limited risks. The fact that the pegged exchange rates were allowed to fluctuate within a pre-set narrow band in alignment with the USD created fundamental problems. Although domestic economic conditions could substantially differ from the economic stance of the United States, the alignment with the dollar did not allow the implementation of the necessary adjustments. Currency movements in parallel with the USD were therefore not in coherence with the domestic macroeconomic stance of the Asian countries. With the appreciation of the USD in 1996, the values of the Asian currencies were pulled up as well, leading to problems in the international accounts. The relative weakness of yen reduced competitiveness of the Asian countries in exports markets especially compared to Japanese products. Consequently, trade deficit began to rise

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<sup>3</sup> “For instance in Korea, 20 of the largest 30 conglomerates displayed in 1996 a rate of return on invested capital below the cost of capital. In 1997, before the crises, as many as 7 of the 30 largest conglomerates could be

and current account deficits placed downward pressure on the exchange rates. The governments, as a result, had to sell off more of their foreign reserves to maintain the peg, and increase the rates of interest to defend their domestic currency. This brought further problems since rises in the interest rates resulted in further unemployment -which was already rising due to reduced competitiveness in the international markets. For the countries with pegged exchange rate systems, inadequate attempts of the governments to maintain the peg could not remove the bearish sentiment on the side of the international investors. Further downward pressure on the currencies made devaluations an inevitable outcome. <sup>4</sup>

The incentives in the financial markets were diverted with “moral hazard”, and “the Asian way of doing business” i.e. cronyism, favouritism and nepotism also augmented the malfunctioning of the financial system.

### **Box 1.1 The Asian Way of Doing Business**

The Asian economies are pictured by the Western economists as depicting the “Asian way of doing business”, as synonymous with favouritism, crony capitalism and nepotism. Janet Yellen, in her speech at the Council of Economic Advisers, has modelled the “Asian way” as having behind-the-scenes type of capital allocation. The opaqueness of the system and lack of reliable financial data based on international standards prevent the investors from distinguishing the sound borrowers from the others. Once there is a failure and insolvency, the negative sentiment in the market

considered effectively bankrupt.” (Corsetti, Pesenti, Roubini (1998))

<sup>4</sup> “Competitive devaluations” will be explained later in Chapter II.

leads to currency attacks and results in currency crisis for which even the high levels of international reserves cannot suffice. According to this view, the Asian economies were bound to fail because the non-economic bonds between the government, banks and business world and the "relationship model of capital allocation" would eventually lead to excessive investment in low-return projects. The reason that the growth of these economies were at surprising rates at the initial stages of development was that there were a high number of high return projects. Through the later stages, however, the disadvantages of the Asian way of investing showed itself as a disadvantage as expected returns depicted a diminishing returns to scale and "crony capitalism" did not work.

### 1.1.1 "Asymmetric Information" View of the Asian Crisis

Asymmetric information view, as proposed by Mishkin, mainly stresses on the fact that the main barrier for the financial systems to performing the basic task of channelling funds is *asymmetric information*. Asymmetric information is the case where two parties in a financial contract have different information sets. This asymmetry results in moral hazard and adverse selection problems. Asymmetric Information view defines a financial crisis as follows:

*"A financial crisis is a disruption to financial markets in which adverse selection and moral hazard problems become much worse, so that financial markets are unable to efficiently channel funds to those who have the most productive investment opportunities." (Mishkin, 1993, "Preventing Financial Crisis: An International Perspective, p.7)*

According to Mishkin, the main factor that causes asymmetric information problem is the deterioration in the balance sheets of the financial sector. With huge amounts of capital inflow creating lending booms in the Asian economies, the outcome was excessive risk taking resulting in large amounts of non-performing loans and capital losses. According to Mishkin, there are mainly two reasons for excessive risk taking which took place in Asia. First, managers of banking institutions did not have the expertise to appropriately manage risks that had grown rapidly after financial liberalisation. The second reason was the inadequacy of the regulatory and the supervisory systems. Even if there was no explicit government safety net for the banking system, there was clearly an implicit safety net that created the moral hazard problem. (This will be explained in greater detail in parallel to the "Moral Hazard" view which is pioneered by Krugman). Decisions of depositors and foreign lenders in Asia were based on the expectation that they would be bailed out by the governments or the international institutions in case of illiquidity. When financial liberalisation brought new opportunities to take on risk, moral hazard which was created by the government safety net -either explicit or implicit- resulted in excessive risk taking on the part of the financial agents. The outcome of the lending boom was huge loan losses and subsequent deterioration of the balance sheets of the banks. The share of non-performing loans in total loans rose to 35 percent. Mishkin asserts that the deterioration in bank balance sheets was the main factor that caused the crises because the fact that banks are obliged to restrict their lending to improve their capital ratios may lead to a full-scale banking crises with many banks forced into insolvency. A deterioration in the balance sheets of the banking sector may cause crisis also because of the increased difficulty for the central bank to defend the

domestic currency against a speculative attack. In trying to defend a currency, the central bank faces a trade-off. Raising the rate of interest may be an effective strategy to defend the currency, but the negative effect on balance sheets of the banks due to maturity mismatch and increased credit risk would further detriment the economy. This actually was the case in the Asian countries where the rises in interest rates with the aim of defending domestic currencies and overcome speculative attacks was futile because, international investors, sensing the growing fragility of the banking sector fuelled their attack and this resulted with the total collapse of the financial system.

Currency crises caused by deterioration in banks balance sheets led to full financial crises both because debt contracts have a very short duration and are often denominated in foreign currencies. With debt contracts denominated in foreign currency, the debt burden of the firm increases in the case of a currency devaluation. The decline in net worth increases moral hazard incentives for firms to take on greater risk because they have less and less to lose. The mechanism where the balance sheets deteriorated after a devaluation worked to an incredible degree in Indonesia where the value of rupiah declined by 75 percent and the rupiah value for the foreign denominated debt was augmented by four-fold. A sharp devaluation may also increase actual and expected inflation and this further exacerbates financial crises because a rise in inflation rates leads to a sharp rise in interest rates. The combination of higher interest rates with short-term debt structures weakens the balance sheets and cash flow positions even further.

Asymmetric information view, in sum, considers the Asian crises as an outcome of a systemic collapse in the balance sheets of the banks because financial markets could no longer channel funds to productive investment opportunities. This was due to the fact that problems of “adverse selection” and “moral hazard” prevented international investors from distinguishing better investment opportunities from others . (Mishkin,1999)

### **1.1.2 Krugman’s “Moral Hazard” Model**

“Moral Hazard” in the Asian countries seems to have resulted from the fact that there was either an implicit or explicit government guarantee on all financial transactions. Economic agents, almost certain that the governments would be there to bail them out in case of an insolvency, displayed the simple acts of moral hazard. This seems to be best modelled by Paul Krugman in his “Moral Hazard and Over-Investment” model where he depicts a chain where moral hazard, caused by the government guarantees on creditors leads to capital losses and price bubbles. In such a case, investment decisions are made not through conventional investment analyses that should be based on “Expected Returns” but rather on “Pangloss Returns” - a term to describe the returns that can be gained in a world where it turns out that the actual outcomes are the best of all possibilities. If an economic agent believes that he has nothing to lose and depends on the government guarantee in case of less favoured outcomes, he has no incentive to reduce his risk and takes the “Pangloss Return” into consideration at the cost of nothing. ,

In order to explain the distorted decision making of the financial intermediaries in the case of government guarantees, two alternative investments are considered. Initial payment in both projects is \$100 million. First investment yields a present value of \$107 million. The second investment yields \$120 million in the case of a "good outcome" and \$80 million in the case of a "bad outcome". The expected return on the risky investment is hence \$100 million. A rational investor would prefer the first investment with the higher expected return. Under moral hazard conditions, however, financial intermediaries base their decision making on Pangloss returns with the expectation that they can receive the excess returns in the case of a "good outcome", and will be bailed out at the cost of nothing in the case of a "bad outcome". If the first alternative is adopted, the return will be \$ 7 million. The second alternative will yield \$ 20 million in the case of "good outcome", and financial intermediaries will lose nothing in the case of "bad outcome". This distorted decision making leads the intermediaries to choose the second alternative which actually has a lower expected return. This distortion of investment decisions produces a deadweight social loss of \$7 million since the net expected return of the investment project falls to zero.

The following example tries to show how government guarantees may elevate the price levels in a financial environment. In a case where a certain asset is assumed to bring a return of 20 units with a probability of  $3/5$  and 100 units with a probability of  $2/5$ , a rational investor is at most willing to pay  $(3/5*20)+(2/5*100)=52$  units to purchase that asset. In the case of moral hazard regime, however, the intermediary totally neglects the probability of a 20 unit of return and bids at his Pangloss return of 100 units to buy that asset. The probability that a loss may be incurred and the return may actually be 20 units is totally excluded in the decision

making of the intermediary. As the price is almost as double the undistorted case, all units of land ends up being owned by the intermediaries who expect to be bailed out in case of a “bad outcome”. Supposing that the return on the asset happens to be 20 units instead of the expected Pangloss return of 100 units, it can be seen that a loss of 80 units is incurred. The loss is magnified for the intermediaries who have paid prices based on “Pangloss returns” because when the markets realise that the government will not bail them out in case of an insolvency , there will no longer be any bidders to pay prices based on Pangloss values and all intermediaries will have to sell all units of land at the price based on expected returns, which is 52.

An example of Krugman’s moral hazard model was actually experienced in Thailand. Macroeconomic condition was seriously deteriorated in the country, following an explosive amount of lending to the real estate sector, which was highly financed by borrowing from financial institutions. Troubled financial institutions were receiving official support from the government. In the first three months of 1997, the Financial Institutions Development Fund (FIDF) of Bank of Thailand had lent over \$ 8 billion to Finance One, the largest finance company in the region. ING Bank in Thailand had approved a loan to the company as part of a \$160 million syndication led by the International Finance Corporation of the World Bank. ING did not have to worry about its loan to Finance One because Bank of Thailand had made an explicit reference to a bail-out in case the company had financial troubles. Unfortunately, the fact that two thirds of the loans of the company was directed to three problem areas of property, hire purchase and stock margin lending, made it impossible to save Finance One. With the adverse effects of the macroeconomic stance with rising interest rates and slowing economy, there was an explosion in the non-performing

loans of Finance One. On May 23, 1997 the Thai government made an attempt to save Finance One through a merger with another financial institution. As this attempt failed and the company was effectively bankrupt, The Financial Institutions Development Fund intervened in the market and promised to buy new shares of Finance One. Only a month later, however, the government declared that they would no longer be committed to save troubled financial institutions. The reason to the change in the public approach was that the new Finance Minister discovered that the stock of international reserves was nowhere near the figure that was officially stated. Especially when the foreign reserves of the country was depleted in the market interventions to defend the baht, the government realised there was no rationale behind guaranteeing the value of the financial firms under weak fiscal conditions. Only few days after the government announced that it would no longer support Finance One, the crises broke.

The case of Finance One is actually an explanation of the crises all by itself. In the early 90's it enjoyed huge amounts of capital inflow as the largest financial company and had its share of the Asian miracle. Unfortunately, it also had to face the macroeconomic difficulties in the region and set a good example of the moral hazard problem. The company was explicitly backed by the government authorities, so lenders to the firm were making their decisions under "moral hazard" conditions. Their loans were guaranteed, and they did not make their investment decisions based on conventional financial tools, taking "Expected Returns" into consideration for example, but rather "Pangloss Returns" and lent to Finance One in large amounts without controlling where this company has invested and how it operates. Had there been no guarantees of the government either explicit or implicit,

the lender -ING in this case- , would have been much more cautious before lending, and probably would not lend seeing that the company had a great risk exposure in dangerous fields such as property, hire purchase and stock margin lending. Such distortions in the decision making process therefore destroys the working of the economy. Moral hazard, when there is a rapid reversal of the favourable outcomes, has substantial adverse effects as Krugman points out in his model. The same is true for the government; when things turn the other way around, the moment the government announces that it is no longer committed to backing financial institutions, when public finance is more problematic- capital outflows are augmented to the level where devaluation becomes inevitable.

### **1.1.3 “Panic” Model**

Radelet and Sachs (1998) focus on the essential role of “panic” as the main cause of the Asian financial crisis. They point out the macroeconomic and microeconomic imbalances in the Asian economies were not to an extent that would cause such a crisis with unbearable damages. They defend that the “panic” of the international investors, combined with wrong policy applications of the Asian governments and poorly designed rescue programs by the international financial institutions caused what would have otherwise been a regional slowdown to turn into a global catastrophe. Their interpretation is that vulnerability to financial panic that was a consequence of weaknesses in their economies was the main factor that caused the crises. Their approach defends that the crises could be avoided with timely and appropriate policy changes. The financial weaknesses such as widespread corruption, lack of adequate regulation and supervision did contribute to

the crises but these problems had been well-known for years when Asia was still capable of collecting funds from all over the world.

The financial crises had a substantial element of panic, or a “bad” equilibrium that did not have to happen. If the crises could have been explained by factors other than a bad accident, then there would be signals of deteriorations in the fundamentals and the crisis would at least partly be anticipated by the market participators. The vast majority of the market participants, however, did not foresee the downturn of the Asian economies. According to Radelet and Sachs, the fact that the financial markets did not signal alarm helps to understand the nature of the crises. The only signs were from Thailand and Korea where the stock markets became disturbed in 1996. There was optimism in Malaysia both in bank and equity investments side. Although equity markets began to decline in March 1997, bank inflows continued to be very strong. Analysis show that both bond and syndicated loan spreads were quite low until the beginning of the crises. The credit rating agencies, whose role has been the topic of hot debates after the crises, did not signal for such a crisis until after the crisis broke. In each country the outlook was “positive” or “stable” in June 1997. IMF also gave no warnings of such a crisis. In October 1997, 4 months after the crises broke-, the IMF estimated 6 percent growth for Korea in 1998, and 7.4 percent for Asia, only 1.5 percent lower than 1995.

The starting point for the view pioneered by Radelet and Sachs is that the more unanticipated the unfavourable outcome, the more panic it causes. By showing that the crises was not anticipated and expectations about the profitability of the region were high, they tried to emphasise the size of the panic that must have covered the market during the crises.

#### **1.1.4 “ Fundamental Distortions” View**

Corsetti, Pesenti, Roubini (1998) defend that the crisis reflected structural and policy distortions in the region. They attempt to depict that the crisis had been triggered by the fundamental imbalances although market overreaction caused the plunge of exchange rates, asset prices and economic activity to be of a higher extent than what the fundamentals required. They list the data for structural factors that cause macroeconomic imbalances such as high debt/equity ratios, current account deficits, indexes of excessive bank lending etc. and conclude that the fundamental imbalances are mainly responsible for the onset of the crises. They also point at previously mentioned policy distortions such as “moral hazard” created by the government guarantee in the area and explain in detail that with such a structure of macroeconomic imbalances and policy distortions, a crisis was likely to be triggered.

#### **1.1.5 A Discussion on the Causes of the Crisis**

The previous section has attempted to analyse the causes of the Asian crises based on views presented in highly quoted papers. Actually, all views share common points: the crises began with huge amounts capital inflow that the Asian countries were not prepared to control, there were macroeconomic imbalances in the Asian economies, pegged exchange rate system was maintained excessively, government guarantees caused moral hazard and distorted financial decisions within the economy, there was lax supervision in the markets and the weak banking sector collapsed under exchange rate pressures. Although all views list the same causes, they differ in their priorities. In summary, Mishkin’s Asymmetric Information Approach

concentrates on the deterioration in the balance sheets of banks whilst Krugman views moral hazard concept created by the government guarantee. Radelet and Sachs view panic as the key factor leading to the crises and finally, Corsetti, Pesenti and Roubini defend that the macroeconomic fundamentals and policy distortions paved the way to the crises.

It seems that an in-depth explanation of what caused the crises would clarify that a combination of all the above explanations seems more sensible: Fundamentally weak macroeconomies were not capable of dealing with the huge amounts of capital inflow that was enabled by an untimely financial liberalisation, because the financial authorities lacked the financial expertise to regulate and supervise the financial transactions. International investors, some basing their decisions on Pangloss values, withdrew their funds in great panic when governments abolished their commitments to back the financial institutions. This rapid reversal of capital movements resulted in what is referred to as the "*deepest crises of the modern world*".

## **1.2 Chronology of the Asian Crisis**

1997

**July 2-** As rumours spread that Japan would raise interest rates, investor move out of weaker currencies, the first of which is the Thai baht. After using \$33 billion in foreign exchange, Thailand runs out of reserves and finally announces a managed float of the baht. The currency is devalued by 20 percent as the government asks for IMF assistance.

**July 11-** The Philippine government is the next to feel the pressure in the currency markets as the peso is devalued- and the IMF is called in.

**July 18-**IMF approves an extension of credit to the Philippines of \$1,1 billion.

**July 24-**Asian currencies collapse. The crisis spreads throughout Southeast Asia as the Thai baht, The Malaysian ringgit, the Philippine peso and the Indonesian rupiah all come under renewed pressure.

Malaysian Prime Minister Mahathir attacks "rouge speculators" and later points to financier George Soros.

**August 13-14-** The Indonesian rupiah plunges. Indonesia abolishes its system of managing its exchange rate through the use of a band.

**August 20-** IMF announces \$17,2 billion support package for Thailand with \$3,9 billion from the IMF.

**August 28-** Asian stock markets plunge. Manila is down 9,3 percent, Jakarta 4,5 percent

**September 4-** The peso, Malaysian ringgit, and rupiah continue to fall.

**September 20-** Mahathir tells delegates to the IMF/World Bank annual conference in Hong Kong that currency trading is immoral and should be stopped.

**September 21-** George Soros says, "Dr. Mahathir is a menace to his own country."

**October 8-** Rupiah hits a low; Indonesia is forced to ask the IMF for assistance to stabilise its currency and restore the confidence of international markets.

**October 14-**Thailand announces a package to strengthen its financial sector.

**October 20-23-** The Hong Kong dollar comes under speculative attack; and Hong Kong aggressively defends its currency. The Hong Kong stock market drops losing one quarter of its value in four days over fears that they will not be able to maintain the peg.

**October 27-** Panic spreads to western markets: The Dow Industrial Average plunges 554 points- on fears that The Asian countries will hit US companies.

**October 28-** The value of the Korean won drops as investors sell Korean stocks.

**November 5-**The IMF announces a stabilisation package of about \$40 billion for Indonesia. The United States pledges a standby credit of \$3 billion.

**November 3-24-** Japanese brokerage firm (Sanyo Securities) , largest securities firm (Yamaichi Securities) and no.10 largest bank (Hokkaidu Takushoku) collapse.

**November 17-**Korean won collapses: South Korea abandons the defense of the won, which collapses to 1,000 to the dollar..

**November 21-** South Korea announces that it will seek IMF support.

**November 25-** At the APEC Summit, leaders of the 18 Asia Pacific economies endorse a framework to cope with financial crisis.

**December 4-** Korea gets IMF bailout. The IMF gives approval for the largest bail-out; \$21 billion loan as part of a package that eventually totals \$60 billion.

1998

**January 6-** Indonesia unveils new budget that does not appear to meet IMF austerity conditions. Value of rupiah drops.

**January 8-** IMF and S. Korea agree to a 90-day rollover of short-term debt.

**January 12-** Peregrine Investments Holdings, Hong Kong' s largest independent investment bank, collapses as a result of bad debts to Indonesian companies run by relatives of President Suharto. Stock markets in Hong Kong and China fall. Japan discloses that its banks carry about \$580 billion in bad or questionable loan.

**January 15-** IMF and Indonesia sign an agreement strengthening economic reforms.

**January 22-** The Indonesian currency reaches an all time low against the dollar over scepticism about the commitment of the government to reform. The central bank intervenes to pull the currency back from 17,000 to 11,800 to the dollar, but Indonesia suspends debt repayments a few days later.

**January 29-** South Korea and 13 private international banks agree to convert \$24 billion in short-term debt, due in March 1998, into longer term government-backed loans of 1-3 years.

**January 31-** South Korea orders 10 of 14 ailing merchant banks to close.

**February 14-** Indonesia's plan for a currency board to stabilise the rupiah at a fixed rate draws the ire of the IMF, which threatens to end its financial support. One month's payments are eventually held back.

**April 1-**Japan begins its "big bang" aimed at opening its financial markets to Western competition. Markets should be "free, fair and global". Yen begins sliding against dollar.

**May 11-** India's nuclear tests, and subsequent ones by Pakistan, hit South Asian markets and currencies as the US and Japan impose sanctions.

**May 21-** The Indonesian government falls after riots sweep through Jakarta and other major cities. The new president, B.J. Habibie, promises economic and political reform.

**June 17-** The US government intervenes with the Bank of Japan in foreign currency markets for the first time to support the yen, which has fallen to an eight year low against the dollar at 146 yen.

**June 26-** The Long Term Credit Bank of Japan, the 22nd largest in the world, is in merger talks with Sumitomo Trust Bank, to stave off a collapse.

**July 1-** During the last four trading days the Nikkei has soared 10 percent - based on a short-term renewal of confidence.

**July 2-** After nearly two weeks of strength against the U.S. dollar, the Nippon currency falls nearly four yen to 142.

### **1.3 The Role of the "IMF" in the Asian Financial Crisis**

In this section, it will be attempted to explain the controversial issue of the role of the IMF in the Asian crises. A discussion on the response of the IMF to the onset of the crisis is followed by a review of the criticisms on the role of the IMF in managing the Asian crisis.

#### **1.3.1 Response of the IMF to the Asian Crisis**

The primary purposes of the IMF, as listed in the IMF's Article of Agreement, are states as:

- "to facilitate... the balanced growth of international trade, and to contribute thereby to... high levels of growth and real income"

- "to promote exchange rate stability, to maintain orderly exchange arrangements among members, and to avoid competitive exchange rate depreciation"

- "to provide members with opportunities to correct maladjustments in their balance of payments, without resorting to measures destructive of national and international prosperity."

(Fischer Stanley, The Asian Crisis: A view from the IMF, [www.imf.org](http://www.imf.org), pp.6/8)

International Monetary Fund, with the central aim of restoring confidence to the economies that were affected by the crisis, responded to the crisis by arranging economic reform programs to restore confidence, providing financial support for the troubled countries and consultations with members to avoid contagion effects. The IMF package aiming to re-establish confidence included the following steps: introduction of flexible exchange rates, tightening of monetary policy and hence higher interest rates, correction of the weaknesses of the financial system, which according to IMF was the major cause of the crisis, implementation of structural reforms to remove market handicaps such as monopolies, trade barriers, and opaque corporate practices, maintenance of efficient financial intermediation and sound financial systems. To overcome the weakness of financial structure in the Asian economies, IMF also asked for the closure of unviable financial institutions, recapitalizations of undercapitalised institutions, close supervision of weak institutions and increased foreign participation in domestic financial systems. In other words, IMF asked for the cleaning-up of the banking system, closing down the troubled banks and writing-off the bad-debts.

(International Monetary Fund, Factsheet: The IMF's Response to the Asian Crisis; [www.imf.org](http://www.imf.org))

### 1.3.2 Criticisms on the Response of the IMF

The IMF prescription for the Asian countries was harshly criticised in the international arena to be a "one-size fit-all" type of prescription which miss the specific characteristics of these countries that make them quite different from the typical western type of financial structure.

In western models, financial companies carry an amount of debt that is either less than or equal to their equity capital and banks, due to regulatory restrictions, cannot lend to companies with higher levels of debt. In the Asian economies, however, corporate debt/equity ratio is generally 2:1 or more. Average debt/equity ratio of the 30 Korean chaebols at the end of 1996 was 333 percent while the comparing figure was around 100 percent for the United States. (Corsetti, Pesenti, Roubini, 1998). The explanatory reasons to this high level are as follows: First of all, savings in the Asian economies are much higher compared to western economies. Gross domestic savings/ Gross Domestic Product ratio is 30 percent or more compared to 15 percent of the western economies. High level of household savings deposited at banks have to be lent. In an economy where neither the households nor the government is a net borrower, banks are bound to lend to firms. Also, Asian firms are in an attempt to compete with their western rivals and therefore need huge amounts of resources which they can obtain by borrowing. Such a system with "mountains of debt" therefore cannot withstand high interest rates because any sign of illiquidity may be enough to break the sensitive chain of the high-debt model. Therefore, according to the critics of the IMF prescription, tighter monetary policy implying higher interest rates therefore was not the right policy recommendation for

the Asian countries who suffered mainly from cash-flow problems and illiquidity<sup>5</sup>. High-debt ratios make the system highly vulnerable to cash-flow problems and any shock may rapidly lead to illiquidity, default and finally to bankruptcy. To maintain a turnover that should avoid cash-flow shocks, there is a serious need for collaboration between banks, firms and the government. A crucial part of this is considered as the freedom of financial companies to borrow abroad and the co-ordination of foreign borrowing by the government. Wade and Veneroso, therefore, defend that "crony capitalism" as called by the western economists, is an underestimation of the system, viewing the highly sensitive bonds only as "corruption" and "favours for friends". It is in fact a negligence of the financial motives of co-operative long-term relationship which enable the intermediation of high savings into high corporate debt ratios and eventually to high growth rates. It can be concluded that the high growth rates and successful policy implementations of these economies were actually achieved by this collaboration and, to some extent government intervention.

As a result, the IMF policy to save the Asian economies was a failure and the Fund was accused of causing the crisis to deepen and cause contagion effects in the region. Wade and Veneroso, in their article "The Asian Crisis: The High-Debt Model vs. The Wall Street-Treasury-IMF Complex" even go further to suggest that the wrong policy recommendations of the IMF- such as raising interest rates only caused cash-flow problems, illiquidity and bankruptcy and the western world deliberately caused the crisis to deepen so that big Wall-Street companies could buy huge plants and factories at fire-sale prices. This article also refers to Bhagwati's "Wall Street-Treasury complex" and reminds of his remarks that the IMF as a universal lender of

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<sup>5</sup> This view is in line with Chang and Velasco (1998) who view the Asian crisis as a crisis of international illiquidity.

last resort might bring the world to how it wants to see it. The protectionists, therefore, blames the IMF and the industrialised countries for pushing the Asian countries for opening up their economies and capital account liberalisation much earlier than they were ready for it. The argument is that the western world, as presented by the IMF and the World Bank, laid out the adverse policy recommendations on purpose to place their extra savings and expand to the Asian countries with international political motives. The argument is stressed by stating that U.S. Treasury Secretary Robert Rubin comes from the Wall Street and that any economic action including international policy recommendations were presented with the aim of increasing western prosperity. There are in fact interesting examples as presented by Krugman in his article "Fire-Sale FDI":

-General Motors was reported in January to be considering buying stakes in South American manufacturers of both automobiles and parts, while Ford was reported to be planning to increase its stake in Kia Motors.

-Seoul Bank and Korea First Bank were supposedly likely to be auctioned off to foreign bidders.

-Procter&Gamble purchased a majority share of Ssanyong Paper Co., a producer of sanitary napkins, diapers and kitchen towels.

-Royal Dutch Shell was negotiating to buy Hanwha Group's Oil refining company ; the group had already sold its half of a joint venture in chemicals to the German company BASF.

The criticisms about the IMF and other international financial institutions fuelled debates about an international financial reform. Details of the plans for a new financial architecture will be given in the third chapter of this dissertation.

## **1.4 Lessons From the Asian Financial Crisis**

The Asian Financial Crisis resulted in a great slowdown in the economies of the region with growing unemployment, poverty, and a huge wealth loss as well as a hardly replaceable loss of confidence for the governments in the region. International financial world has to draw the proper policy lessons from the crises of 1997-1998 to gain the necessary expertise and background to cope with the new shape of financial world of global capitalism.

First of all, the governments of the emerging market economies need to work on disciplined macroeconomic policies involving sound public finance, a stable monetary policy and a sound approach to exchange rate management. As the Asian crises has portended, the ratio (Short term external debt / Foreign Exchange Reserves), which is also referred as the vulnerability ratio, needs close attention to be kept low and manageable.

Open capital movements can only be of benefit to a country if the country has a strong financial system which is able to effectively channel the funds to most productive investment projects. Therefore, recipient countries need to undertake the necessary reforms to restructure their banking and financial systems. To be protected from the potential dangers that may be created by the rapid reversal of capital inflows, a country needs to focus on sound macroeconomic policies and instituting international best-practice financial regulation and supervision.

An orderly liberalisation of the capital account should be encouraged so that the problematic case of immediate full liberalisation can be eliminated. Liberalisation should be properly sequenced: macroeconomic balance and well supervision of the financial system should come before capital account liberalisation so that unexpectedly high amounts of capital inflow can be well-monitored with a financial system that channels funds effectively.

A vital lesson for IMF and other institutions responsible for the healthy working of the international financial system is that an effective reform needs to be undertaken to enhance the architecture of the international monetary system. Surveillance should be intensified for monitoring international capital flows. These institutions should provide timely, accurate and comprehensive data to the public. Data related to the efficient functioning of the international system should be supplied so that issues such as the consistency of exchange regime with other policies or sustainability of capital inflows can be controlled continuously. To create an environment where lending decisions are made on a clearer basis, these institutions should enhance the way capital markets operate. Most importantly, countries should be obliged to adopt international standards in financial business so that a smooth operation of international financial markets can be maintained.<sup>6</sup>

(Mishkin, 1999)

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<sup>6</sup> “Accounting” is the most crucial area among others such as bankruptcy codes, securities trading, corporate governance.

## **Chapter II: INTERNATIONAL FINANCIAL CONTAGION**

It seems to be a widely accepted fact that the intricacy of the analysis on financial crises was augmented after the outbreak of the Asian crisis. The previous chapter attempted to illustrate that the common characteristics of the crisis economies were unsustainable macroeconomic imbalances, sudden collapses of the exchange rate systems and perverted incentives which dominated the weak financial sectors. This section will aim to illustrate the issues of financial contagion and spill-over effects. Following the onset of the Asian crisis, it was observed that the impact of the financial crises was not confined within the limits of the Asian economies. The unreasonable extent to which other economies were adversely affected characterised the Asian financial crisis as the "deepest financial crisis of the modern world". Market economies of Latin America, central and Eastern Europe, Russia and even South Africa faced enormous turmoil resulting from immense capital outflows after the Asian crisis. Even greater spill-over effects were experienced after the Russian Crisis. Russia had to default on its high amount of debt as a consequence of the great loss of confidence in the global financial markets. The turmoil then hit the capital markets of the developed countries, leading to the collapse of a large U.S. fund, Long Term Credit Management (LTCM). Brazil was the next emerging market to be affected by the global turmoil. As a requisite in the macroeconomic structure of the economy, Brazilian authorities had to roll-over the outstanding public sector debt. When the lenders in the global markets ceased their short term lending to emerging market economies, Brazil became unable to cope with the turmoil and consequently was led into a serious financial crisis. In the emerging markets, there were sharp rises in bond spreads combined with sudden downfalls in the equity prices. This market condition

created enormous degrees of wealth losses for the global investors who had been continuously increasing their share of investments in the emerging markets. It can be inferred that the most substantial effect on the emerging markets, either directly or indirectly related to the crises, was the loss of confidence on the side of the international investors in the global financial capital markets. As a result of the sudden flight to “quality” which followed the turmoil of confidence, there was a rising need for liquidity, and the consequent credit contractions ended up with an unexpected decline of growth in the entire world economy.

The spread of the Asian financial crises to Russia and Latin America in 1998, made the issues of spill-over, financial contagion and excess volatility in international capital markets highly debated issues in the global economic arena. The high severity of the crises forced international policymakers into serious thinking about the working of the international financial system. Identification and analysis of the factors responsible for financial contagion constituted the principal tasks. Furthermore, effective policies had to be developed to prevent financial crises and curtail the spill-over effects to other countries in case a crisis erupts.

### **“Contagion”**

The widely debated issue of “contagion” fails to have an established uniform description. There are numerous arguments on the causes, constituents, channels of and prevention for financial contagion but still, there seem to be no specific definition of contagion or a generally accepted prescription to avoid the adverse spill-over effects. In this section, it will be attempted to define what is meant by financial

contagion, and to explain the factors that appear to be responsible for increasing the vulnerability of the market economies to financial contagion.

Financial contagion can briefly be defined as the significant increase in cross-market linkages after a shock to an individual country or group of countries. Contagion is generally used to refer to the spread of market disturbances from one country to the other, a process observed through co-movements in the exchange rates, stock prices, sovereign spreads and capital flows. (Dornbusch, Park, Claessens, 2000) Contagion can be analysed in two categories: First category mainly stresses on spill-overs that are natural consequences of normal interdependence among market economies, i.e. contagion resulting from identifiable interdependencies among the market economies such as export-import links and financial transactions. Such type of interdependence, called as "Fundamental based contagion", depicts the case where a shock faced by one country is transmitted to other countries through real financial linkages. Channels through which fundamentals based contagion spreads can be classified as follows: Common shocks, trade links and competitive devaluations, financial linkages and re-assessment of economic fundamentals.

## **2.1 "Fundamentals-Based Contagion"**

### **2.1.1 Common Shocks**

An identifiable way through which financial contagion spreads to other countries is "*common shocks*". A global financial event such as a sharp rise in world

interest rates, a global slowdown, a decline in commodity prices in the international markets or sharp exchange rate movements constitute examples of “common shocks” since they imply simultaneous effects to numerous countries. Changes in U.S. interest rates, for example, have been observed to be in parallel to the movements in capital flows to Latin America. As mentioned earlier, the strengthening of the U.S. dollar against Japanese yen in 1995-96 has been identified as a substantial factor that caused a decline in the level of exports of the Asian countries.

### **2.1.2 Trade Linkages and Competitive Devaluations**

The second channel through which a crisis in one country spreads to other countries is “*trade linkages*”. A large currency depreciation in the original crisis country causes declines in asset prices and large capital outflows in the economies of major trade partners. A trade partner may also become the target of a speculative attack because international investors form the expectation that there will be a deterioration in the trade accounts of a major trade partner due to the decline in the volume of exports to the crisis country.

A related channel is “*competitive devaluations*”. Changes in the price levels are not only affected by direct trade linkages but also by the price competitions in third markets. Devaluation of the currency of the original crisis country reduces the export competitiveness of other countries in third markets, hence putting pressure on the currencies of the competitor economies. The pressure is especially prolonged in cases where the currencies of the competitor economies are not floating. The competition can result in currency depreciations to deeper levels than what the initial

deteriorations in the fundamentals require. In a case where international investors forecast that such a game of competitive devaluations will be followed by a currency crisis in a certain country, they will be willing to sell off the currencies of that country. Furthermore, they will curtail their lending, or cease to roll-over short term loans to borrowers in those countries. Such actions may create liquidity problems and drive the country in question to a financial crisis.

### **Box 2.1 CURRENCY CRISES**

#### **First Generation & Second Generation Models**

There are two paths for the explanation of currency crises. In the "first-generation models", the stress is mainly on the role of macroeconomic fundamentals, and a speculative attack on a fixed exchange rate is considered to stem from the inconsistent government policies such as monetisation of large fiscal deficits or excessive maintenance of the pegged exchange rate system. A government with persistent money-financed budget deficits is assumed to use a limited stock of reserves to peg its exchange rate and this unsustainable policy results in the anticipation of the international investors about the inevitable collapse of the system. Hence, a speculative attack is generated when foreign exchange reserves fall to a critically low level. The monetary authorities of the country is able to manage the market operations as long as the international investors receive the message that the foreign exchange reserves are large enough to defend the peg. In case any deterioration occurs in the international reserves of the country, i.e. due to domestic credit expansion, the international investors form the expectation that the macroeconomic balances cannot be sustained any longer. When a critically low level is reached in the foreign exchange reserves, there is an attack on the currency, and

investors rush to avoid any capital losses and get their portion of the left reserves before the peg collapses.

The currency crises of the 1990's have in fact provided contrary evidence to the first-generation models. Many of the countries suffering from the crises did not have unsustainable macroeconomic imbalances to a degree that could lead to such severe punishments. According to the "second-generation models", the devaluation decisions of the crises-hit country is not solely caused by the exhaustion of the international reserves but rather an outcome of a cost-benefit analysis of defending the peg. "Second-generation models" stress on the existence of multiple government objectives which may lead to abandoning of the peg due to the trade-off between short-run macroeconomic flexibility and longer-term credibility. Other objectives of the governments such as limiting the debt-service obligations, lowering unemployment, or protecting the banking system of the country may also play a critical role in making policy decisions. These other objectives may limit the incentives behind raising the level of interest rates which seems to be the only tool to defend a peg. Market participants, realising that the commitment of the government to the fixed-exchange rate system is constrained by other objectives, may attack the currency. If the market participants foresee that a currency may be devalued, they change their positions on the interest bearing assets of the country and this results in higher interest rates and augmented difficulty for the government to achieve other objectives such as lowering the debt burden or reducing the unemployment level. In a country where the banking system is very fragile for example, a government cannot insist on its high interest rate policy to defend the peg. A currency may be attacked even if the policies are consistent with the maintenance of a pegged exchange rate. A speculative attack can

be the outcome of a sudden and unpredictable shift in market expectations about the variability of the exchange rate. If this belief causes the rate of interest to rise to an extent that the maintenance of the exchange rate system is more costly than abandoning the system, the authorities cease their commitment to maintain the peg and the crisis becomes self-fulfilling. Expectations of the markets are hence validated by the devaluation of the government. The "second-generation models" therefore, view that a currency crisis does not necessarily have to be an outcome of macroeconomic inconsistency and that the beliefs of the markets regarding the policy constraints of the government may play the key role.

### 2.1.3 Financial Linkages

Another channel for contagion and spill-over effects is "*financial linkages*". When a country faces financial problems, international investors adjust their portfolios for risk management and liquidity reasons. When a crisis erupts in one country, international investors who have positions in that country reduce their increased risk exposure and sell off other assets with relatively higher volatile returns, and instruments that are positively correlated with those of the crisis country. In crisis situations, investors may also be compelled to sell liquid assets for other reasons such as margin calls, which require margin payments for positions whose value is reduced, or only because of the relatively greater availability of that asset in the reduced portfolio. Therefore, some countries may experience capital outflows irrespective of their macroeconomic fundamentals, but because their assets are viewed as more risky due to the positive correlation with the fundamentals of the crisis country.

#### 2.1.4 Re-assessment of Economic Fundamentals

Another factor that plays a role in the spread of crises is the shifts in the re-assessment of economic fundamentals on the side of international investors. After a crisis erupts in one country, international investors re-assess the macroeconomic fundamentals of other countries that may also face similar difficulties. Risk aversion induces market participants to be more reluctant to invest in countries with relatively weaker fundamentals or higher financial vulnerabilities since they may be subject to contagion and spill-over effects. Investors may further expect to profit from selling currencies of highly vulnerable economies since they think other speculators will sell as well. The best profit seems to be from those countries who seem to commit to fixed exchange rate regimes. The risk of a crisis caused by a sudden change in expectations is likely to be greater if a country seems more vulnerable to an attack on its currency - i.e. :country's share of short term foreign exchange obligations is large and if there is a maturity mismatch between assets and liabilities. The ratio of the level of international reserves to the stock of short tem external debt or the liabilities of the domestic banking sector or the fragility of the domestic banking system are therefore important signals to the market participants because these factors may be perceived as constraints to the ability of the governments to raise interest rates to defend the currency. (*World Economic Outlook, May 1999, International Economic Fund*)

## 2.1.5 Channels for Real Shock Transmissions

**Table 2.1 Channels for Real Shock Transmission**

Channel	Transmission Pathway	Type
1	RS( <i>i</i> ) → RS( <i>j</i> )	Real
2	RS( <i>i</i> ) → Bank( <i>k</i> ) → RS( <i>j</i> )	Common FI
3	RS( <i>i</i> ) → Bank( <i>k</i> ) → Bank( <i>l</i> )	FI Contagion
4	RS( <i>i</i> ) → Bank( <i>k</i> ) → FM( <i>j</i> )	FI&FM Interaction
5	RS( <i>i</i> ) → FM( <i>l</i> ) → Bank( <i>k</i> )	FM&FI Interaction
6	RS( <i>i</i> ) → FM( <i>l</i> ) → NBFMP( <i>l</i> ) → RS( <i>j</i> )	FM Contagion via NBFMP
7	RS( <i>i</i> ) → FM( <i>l</i> ) → Bank( <i>k</i> ) → RS( <i>j</i> )	FM Contagion via Bank

(Matt, 2000)

In the table above, 7 different transmission channels are listed to show the possible ways a real shock can be transmitted from country *i* to country *j*. Channel 1 shows the simplest way of transmission of real shocks from one country to another country. The shock is transmitted through direct real linkages such as trade in goods and services. The most relevant example is the speculative attacks on pegged exchange rate systems. When both countries *i* and *j* have pegged currencies, the case where country *i* suffers from a real shock and has to devalue its currency results in reduced competitiveness of country *j*. Country *j* then becomes more vulnerable to speculative attack and may ultimately have to devalue.

Channel 2 explains the situation where a real shock in country *i* worsens the

Channel 3 shows the transmission of a real shock in country  $i$  through a chain of interconnected lenders. If the real shock in country  $i$  results in a loss on the side of Bank (k) which has deposits with Bank (l) which has loans in country  $j$ , then the problems with Bank (k) can cause withdrawal of deposits from Bank (l). As a result, Bank (k) alters its loan portfolio in country  $j$ . The case where a real shock has been transmitted through a chain of interconnected lenders is referred to as FI Contagion.

Channels 4&5 show the transmission of a shock from country  $i$  to country  $j$  through the interaction of financial institutions with financial markets. In the fourth channel, where the direction of transmission is from Financial Institutions (FI) to Financial Markets (FM), a real shock in country  $i$  affects Bank (k) because of its investments in the country. If Bank (k) is a major market participant in country  $j$ , then the shock to Bank (k) induces reduction of credit provision or liquidity in country  $j$ , which then affects the real sector in country  $j$ . In the case where the shock can go from the real sector of country  $i$  to the financial market of country  $i$ , Bank (k) loses money in the financial markets of country  $i$ , resulting in a change in its loan portfolio in country  $j$ . Thus, the contagion is transmitted between countries through the FM&FI channel.

Channel 6 shows the shock transmission through a non-bank financial market participant (NBFMP). In the case where the financial market of country  $i$  is affected by the real shock, if a non-bank financial market participant has a position in country  $i$ , then he optimally alters his position in country  $i$  in response to the shock. The non-bank financial market participant (NBFMP) may also alter his position in the financial

markets of other countries including the market of country  $j$ . Hence, the real shock in country  $i$  gets transmitted to country  $j$  through non-bank financial market participants and the financial markets of countries  $i$  and  $j$ .

Channel 7, depicting a transmission mechanism closest to recent global experiences, shows contagion from market  $i$  to market  $j$  through the actions of a bank (k) which has positions in both markets. An example of this type of transmission of contagion may be the actions of international banks during the Asian and Russian crisis. International banks<sup>7</sup> which suffered huge amounts of loss during the crises readjusted their global investment strategies and this created a great burden for the emerging market economies which faced capital outflows as a result of the shifts in portfolio decisions. For example, compound yields for Turkish fixed income securities reached a peak level of 150 percent after the eruption of the Russian crisis. The reason was basically the changes in the portfolio decisions of international banks who had positions in both countries.

## **2.2 Pure Contagion**

“Pure Contagion” refers to financial crises which are consequences of rational or irrational shifts in investment expectations which cannot be linked to observed changes in macroeconomic or other fundamentals. Pure contagion arises when there is a co-movement that cannot be explained on the basis of fundamentals, i.e., there are no global shocks or interdependence is not present or controlled for. Pure contagion is said to be irrational when it is primarily caused by financial panic, herd behaviour, loss of confidence and increases in risk aversion. A crisis in one country

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<sup>7</sup> Example: BTCO, Deutsche Bank, Citibank

may lead investors to withdraw their funds from many markets without taking the differences in economic fundamentals into consideration. It can be stated that this way of spread of financial crises is mainly caused by the behaviour of the investors.

### **2.2.1 Individual Rational Behaviour -(Liquidity and Incentive Problems)**

Individual rational behaviour relates mainly to the liquidity constraints of the investors. The substantial amount of loss that was incurred by the international institutional investors during the Asian crisis have forced investors to sell off their financial assets in other emerging market economies in order to raise liquidity with the expectation of higher volatility in the markets. In the case of a single common creditor country with a heavy regional exposure, (such as Japan in Asia or the U.S. in Latin America), if the banking system of the common creditor country suffers from deterioration in quality of loans to a certain country, banks optimally reduce the overall risks of their loan portfolio by reducing exposures in other risky investments possibly in other emerging markets which are highly correlated. The explanation behind the tendency to sell off financial assets in several markets at the same time is the incentive structure for individual financial agents because investors usually maintain certain proportions of the financial instruments of a country or a region in their portfolios. As a result, asset markets in other emerging markets also experience financial disturbances such as large declines in prices and significant depreciations. Market participants who exhibit this kind of behaviour are generally international institutional investors such as open-end emerging market mutual funds, hedge funds, proprietary traders and trading operators. Leveraged investors, such as hedge funds and banks facing margin calls, are more sensitive to liquidity difficulties in crisis

situations and have to sell their asset holdings in other markets. Liquidity problems induce both leveraged investors and fund managers to keep those assets whose prices have already collapsed and where secondary markets have become less liquid, and sell other assets in the portfolio. Investors, then cause other asset prices to fall, and the original disturbance spreads across different financial instruments and across different markets. One of the implications of the liquidity and incentive problems might be that countries whose financial assets are widely traded in global markets and whose domestic financial markets are more liquid, are more vulnerable to financial contagion. Another implication is that since global diversification of financial portfolios involves the cross market hedging of macroeconomic risks, countries where asset returns exhibit a high degree of co-movements with a crisis affected country in tranquil periods, will be more vulnerable to contagion.

### **2.2.2 Information Asymmetries and Information Problems**

Another source of pure contagion can be explained by imperfect information and differences in investor expectations. Due to lack of in-depth analysis in a financial crisis, investors may be induced to believe that other countries might be facing similar problems as in the original crisis country. Such an investor attitude may reflect rational as well as irrational behaviour. If the true source of the crisis is weak fundamentals, investors may rationally foresee similar disturbances. The information set of the investors may include the actions of other investors which brings us to the effects of herd behaviour.

### **2.2.3 Herd Behaviour**

Globalisation of financial markets has reduced the incentives for information gathering and increased herd behaviour where expectations are formed with imperfect and asymmetric information. With increasing interconnection within the international markets, the portfolio decisions are mainly based on herd behaviour. Because the share of a specific country's assets is a much smaller part of the portfolio, the marginal benefit of a special research on that country is much smaller. Furthermore, in cases where performance criteria for fund managers are based on performances of other fund managers, it becomes rational to follow the herd. An argument for increased herding over time is that increasing diversity has made "financial reputation" harder to attain. Relatively higher reputational costs make it less costly to follow the herd. The high level of the reputational costs increases the fear of suffering a loss in a reputation, and therefore an individual institutional investor may refrain from acting first even if market developments favour a new portfolio. These outcomes relate to investor behaviour which is individually rational, but nevertheless can cause financial volatility.

### **2.2.4 Changes in the Rules of the Game**

Contagion may also occur if investors change their assessment of rules under which international finance operates. The Russian default in the fall of 1998, for example, increased concerns of the investors that other countries might follow similar unilateral policies regarding the treatment of foreign private creditors or may not be

bailed out by international financial institutions in the way it was expected before. The discussion on the international financial architecture following the Asian crisis may have caused changes in the views on the rule of the game and the odds of official bailouts. Other reasons could include concerns on the supply of funds from international lenders of last resort: In the fall of 1998 for example, the IMF had one of the highest usage of its resources leading to some concern whether it would be able to deal with many more liquidity crises. A liquidity crisis in one country, therefore, triggers a run on other countries out of fear of having investments in any country being the last eligible for support.

### **2.3 Common Features of Economies Vulnerable to Contagion**

The common characteristics of the countries that are vulnerable to contagion can be examined by comparing the behaviour of certain macroeconomic variables of the crisis countries with the non-crisis countries. These findings are based on the reports of the International Monetary Fund about the major financial crisis of the 1990's, namely the ERM, Mexican, Asian and Russian crises. Differences between the crisis and non-crisis countries indicate fundamental and macroeconomic imbalances that may have caused a country to develop a crisis even without contagion effects. It can also be inferred that other variables such as trade links and financial market links that seem to be managed by sound policies in non-crisis conditions, may identify vulnerabilities when other economies suffer crises. Furthermore, the fact that international investors re-assess their risk exposure and adopt tighter criteria for better macroeconomic fundamentals during a period of global crisis adversely affect the macroeconomic variables which would have remained well-

managed during non-crisis periods. It can therefore be stated that differences in the fundamental variables between crisis and non-crisis countries indicate vulnerability to contagion even when those differences might not lead to any crisis situations when there are no contagious effects.

To understand the common characteristics of countries vulnerable to contagion, first the economic variables that determine the *external* relationships of the countries are analysed. *The appreciation of the real exchange rate* during the three years before the onset of each major crises seems to be a major point. This feature explains the loss of international price competitiveness and exchange rate misalignments. Before the crises, the ratio of short term external debt to total external debt was relatively higher in the crisis countries compared to non-crisis countries , while there was a much more remarkable difference when the ratio of short-term debt to international reserves was compared between the two groups. These findings indicate that the crisis economies did have a potential source of financial contagion and were more vulnerable to a reversal in the investor sentiment which would create an illiquid external environment .

Another set of macroeconomic variables that may render a country vulnerable to financial contagion include *a high ratio of broad money (M2) to international reserves*. The ratio of broad money to international reserves -parallel to the degree to which liquid domestic liabilities of the banking system are un-backed by foreign exchange reserves- is an indicator of the ability of the system to confront currency pressures. *High real interest rates* is another factor that was found to be common in all crisis countries. As mentioned in the previous chapter, governments had to live

with high real interest rates to defend their exchange rate systems. Although adversely affecting the banking system and liquidity concerns, high level of interest rates was an intrinsic part of many emerging market economies. *Banking crisis* was also a common factor in the emerging market economies before the onset of the crises. Problems in the banking sector could in fact be considered to constitute the main cause of the crisis, because being unable to channel savings to productive investment opportunities and in many cases corrupt with nepotism and bribery, banking crises is a main factor for the spread of contagion between the crisis countries. Another common characteristic of the countries vulnerable to contagion is *slower GDP growth*. Low output growth may be an indicator that external or domestic imbalances, such as large external current account or fiscal deficits may be increasingly harder to maintain. The weakness in economic activity combined with *higher unemployment rates* could indicate that the objectives of the government other than defending the pegged exchange rate system may be demanding more attention and therefore, monetary authorities may be less willing to continue their commitment to their exchange rate system. (Such a way of thinking could provide evidence to second-generation models which were stated earlier.) High real domestic credit growth may be an indicator of both balance of payments or exchange rate pressures , as well as an unsustainable lending boom that could lead to a weakened banking system. This variable was found to be significantly different in crisis and non-crisis countries especially for the Asian episode. Appreciation of the real exchange rate along with the growth of un-backed domestic banking sector liabilities (the ratio of broad money to international reserves) constitute a variable that was found to be significantly different between crisis and non-crisis countries.

*Trade linkages* also help to identify vulnerability of countries to contagion. They can be measured by the implied appreciation of the real exchange rate and the implied decline of export market growth because of the changes in the international environment in the months after the onset of the global crises. They can be used to assess the impact of trade linkages on the competitiveness of an economy and the potential for export growth when other economies suffer from crises.

Another concept that proved to help identify vulnerability to contagion is the *common creditors* in the financial markets. The common creditor is identified by the country that lent the most to the first country in crisis in each of the major crises. Prior to major crises, it was observed that the share of borrowing from the crisis country was of significant proportion relative to both total borrowing of the crisis country and the total lending of the creditor. On average, the common creditor held 10 percentage points higher share of the external bank liabilities of the crisis countries than of the non-crisis countries while the average crisis country held a 5 percentage point higher share of the external loan portfolio of the common creditor than the average non-crisis country. What these results indicate is a potential financial market-linked transmission mechanism for contagion; the primary creditors for crisis countries reassess their portfolios at the onset of a crisis and hence withdraw funds from other countries as these portfolios are re-balanced. When these differences from the viewpoint of the main creditor are regional, i.e. the main creditor re-balances the share of borrowers from the same region -as mostly is the case, this explains the regional cluster of financial crises.

### **Chapter III: THE NEW FINANCIAL ARCHITECTURE**

The austerity of the global financial turmoil that followed the onset of the Asian financial crisis has led the international policy makers into serious thinking about the functioning of the global financial system. The global financial crises of 1997-98 demonstrated that the international financial system lacked the necessary strength for managing the financial markets which were especially characterised by the huge volumes of capital flows that were enabled by the capital account liberalizations in the emerging markets. The severity of the effects of the 1997-98 financial crises made it first-priority tasks for the international financial authorities to improve the strength of the international financial markets, to reform and strengthen the international financial institutions, to enhance transparency and promote best practices regarding financial regulations, and to improve crisis management and prevention. In this section, it will be attempted to clarify the issues related to the strengthening of the international financial system.

In maintaining the conditions for improvement in world-wide growth and an effective allocation of global savings and investments, a well functioning international financial system is essential. It has been depicted by the recent events in the world economy that an optimal utility of global economic and financial integration necessitates the strengthening of the international financial system so that maximised benefits can be attained with minimised financial risks. It is widely accepted that international policy makers who are responsible for improving the proper functioning of the growing international financial and monetary systems should aim to enhance sound fundamentals necessary for exchange rate stability. The maintenance of a

strong co-operation to promote stability and to assure that exchange rates among major countries are in line with the macroeconomic fundamentals are the basic components of sound management of financial systems. Global financial stability can be maintained through national action as well as through enhanced international co-operation. The responsibility of maintaining a sound global financial environment should be shared by all actors in the international financial system, i.e. all countries, international financial institutions and private sector financial institutions. This responsibility mainly requires that all countries should pursue sound macroeconomic and sustainable exchange rate policies and establish strong and resilient financial systems. Accordingly, internationally-agreed standards and rules should be adopted and employed in these and other areas. Existing institutions should adapt their roles and implement effective mechanisms for devising and monitoring the application of standards, disclose the results, have the right tools to help countries to manage financial crises and take steps to enhance their effectiveness, accountability and legitimacy. Financial incentives for all participants in the global system, -national authorities as well as the private sector- should follow the right structure. Global strategy should be to identify and implement those policies which provide the public goods necessary to achieve the objective of better functioning markets. Therefore, transparency and disclosure principles should be enhanced, regulation and supervision of financial institutions and markets should be improved, and policies to protect the most vulnerable should be supported. Private creditors and investors should undertake the responsibility for the risks they take, and should be equipped with the proper tools for crisis prevention and better crisis management. In order to maintain a better governance and to be able to measure country risks on a comparable scale, internationally accepted codes and standards should be

established for policy makers. In order to reduce the risk of, and help better manage future financial crises, routes of action to reform and strengthen the international financial architecture can be categorised in three main areas: Enhancing principles for transparency international standards and vulnerability assessment; strengthening financial systems; and involving the private sector in the prevention, and resolution of financial crises. To have an in-depth understanding of the proposals for the improvement of the financial architecture, this section will follow the guideline to progress in “Strengthening the Architecture of the International Financial System” as proposed by the international financial institutions which are represented by the IMF and the World Bank.

### **3.1 Transparency, International Standards and Vulnerability Assessment**

#### **3.1.1 Transparency**

For a sound decision making of the economic agents in the financial markets, the availability of accurate and timely information is an essential part of well functioning market economies. Availability of financial information also serves to augment the incentives for policy-makers to implement sound economic policies. Improved information can further enable markets to adjust to economic developments more smoothly while reducing volatility and minimising contagion.

The basic objective, as enunciated by the International Monetary Fund, is to help foster improved decision making, financial system stability, and economic performance through enhanced transparency. In attaining this objective, the role of

the IMF is stated as “..to encourage member countries to be more transparent in the management of their financial systems, become more open about IMF policies and advice to members, while respecting legitimate needs for confidentiality and candour” (IMF, Factsheet, December 22, 1999)

The main proposal related to the transparency principle of the IMF is to provide more information on IMF surveillance of member countries. In line with this proposal, access to the archives of the IMF is liberalised and member countries are encouraged to release Public Information Notices (PIN)s. The second proposal is to supply more information on the IMF supported programs of economic reform and adjustment. In conformity, members are encouraged to release the Letters of Intent (LOI)s and related country documents including the discussions on the use of fund resources (UFR)s. Another proposal is to continue dialogue and consultation with the public on IMF activities and provide more financial information about the actions of the Fund. Correspondingly, the web-site of the IMF provides information about the financial accounts of the members with the IMF and the liquidity position of the Fund. IMF surveillance and IMF economic research activities are released to the public with the intention of enhancing the evaluations on IMF policies and practices. IMF also aims to enhance its surveillance about the private sector in order to assess how the key financial market participants, including offshore financial centres (OFC)s, non-bank financial institutions and highly leveraged institutions (HLI)s operate in the financial system. The Basel Committee on Banking Supervision (BCBS) and the International Organisations of Securities Commissions (IOSCO) report on the standards that should be followed by banks in their relations with the highly leveraged institutions. The Financial Stability Forum (FSF) was created to enhance

international co-operation and co-ordination in the area of financial market supervision and surveillance. With the aim of enhancing supervision, the Forum set up three working groups which focused on three issues: the implications of highly leveraged institutions, off-shore centers and short term capital flows.

### **3.1.2 Internationally Accepted Standards**

IMF declares its basic objective regarding internationally accepted standards as to foster the development, dissemination, and adoption of internationally accepted standards or codes of good practice for economic, financial and business activities. International Financial Institutions have the responsibility to help develop standards in the areas such as data dissemination, transparency of fiscal, monetary, and financial policies, and implementation of banking supervision principles. IMF also carries the responsibility of assisting in the dissemination of these standards and their adoption by members as well as monitoring the implementation of the standards. The first proposal related to "internationally accepted standards" principle is to strengthen the Special Data Dissemination Standard (SDDS) in order to provide a more comprehensive and timely disclosure of data on the international reserve positions of the countries. Inter Agency Task Force on Financial Statistics is responsible for the harmonisation of the statistics published by the BIS, IMF, OECD, and the World Bank on the external debt of developing and transition countries. IMF also implements "Code of Good Practices on Fiscal Transparency" and "Code of Good Practices on Transparency in Monetary and Financial Policies". The next proposal is to improve the quality of international banking supervision through setting and monitoring better standards. Member countries should be helped to achieve harmonisation with the

Core Principles of the Basel Committee for Effective Banking Supervision. The Basel Committee on Banking Supervision, with support from the IMF and the World Bank has prepared a handbook to help countries in implementing the Core Principles on Banking Supervision. The Basel Committee on Banking Supervision Task Force has also proposed a new framework on capital adequacy. Work in other standard-setting bodies on developing standards relevant for the functioning of financial systems, including accounting, auditing, bankruptcy, corporate governance, insurance regulations payment and settlement systems and securities market regulation should be completed. The Financial Stability Forum has built a set of best standards and best practices to set an example for all member countries in their actions in the international markets.

### **3.1.3 Vulnerability Assessment**

Another objective of the international financial institutions is to develop the assessment of the way capital account and financial factors augment the vulnerability of countries to financial crises. The related proposal is to move toward comprehensive reporting on the capital account, including through *high-frequency debt monitoring*. It is interesting to see that the best data on short term international capital flows that were provided by the BIS were available only twice a year, with a six month lag. This means that a foreign exchange crisis could erupt and fade before the available data could provide a warning signal. As the BIS has moved to quarterly data with a one month lag, the IMF has improved its reporting on capital account data, both technically and by strengthening high frequency contacts with the private sector. To have a better view of the capital movements, systems have been

established to monitor inter-bank lines in a number of major emerging markets. The next proposal is to reduce vulnerabilities linked to debt management. This includes improved debt management and data reporting of the members to the IMF. The IMF is strengthening its assessment of the external vulnerability of the member countries linked to debt management practices. With regard to the emerging market economies, International Financial Institutions should be encouraged to promote best practices in debt management. Best practices favour debt structures that are denominated in domestic currency, have long maturity, and avoid the transformation of long-term debt into short-term debt. Incentives for private short term borrowing should be reduced and the development of domestic bond markets to facilitate long-term domestic currency debt financing should be encouraged. Governments which are highly dependant on commodity revenue should be encouraged to hedge their exposure to commodity price volatility and arrangements that provide greater contractual risk sharing between creditors and debtors should be promoted. Rather than minimising short term borrowing costs, a debt management strategy should minimise exposure to liquidity risks including rollover risks. Hence, a debt structure that takes the above factors into consideration may enable protection from temporary market disruptions.

### **3.2 Strengthening Financial Systems**

As there is a continuous process of development in global economics and financial arrangements that reflect the changing nature of the world economy, the aim should be to promote more efficient international financial institutions and arrangements in which all relevant interests can be effectively represented. The basic

objective of the International Financial Institutions is to undertake further concerted action to strengthen financial systems. The role of the international financial institutions is to develop the dissemination of international principles and good practices of sound financial systems, strengthen the surveillance of vulnerabilities in the financial systems of the countries, and support structural reforms in financial sectors. The first proposal is to improve financial market supervision. The Basle Committee on Banking Supervision has made a series of proposals for strengthening bank regulation. The Financial Stability Forum and its originally three working groups have prepared status reports. A new working group was established in the Forum on the implementation of international standards related to the improvement of the financial architecture. The second proposal is to strengthen financial systems through effective collaboration between the IMF and the World Bank. The Financial Sector Liaison Committee (FSLC) is assigned to co-ordinate the works of the World Bank and the IMF on the pilot Financial Sector Assessment Program (FSAP) , which is a joint monitoring and assessment program aiming to improve the evaluations of vulnerabilities of financial systems of the member countries. The next proposal is to enhance analysis of financial sector vulnerabilities in IMF surveillance, the preparation of economic adjustment programs, and technical assistance. The IMF is producing Financial Sector Stability Assessments (FSSA) which focus on vulnerability of a country based on the report of the Financial Sector Assessment Program. The IMF is collaborating with the Basle Committee on Banking Supervision on developing a set of indicators for the soundness of the financial sector.

### **Box 3.1 Strengthening Financial Regulation In Industrial Countries**

In analysing the role of the industrial countries for strengthening the financial systems, the most important point to be addressed is improving risk assessment and risk management. The inclination of the investors to underestimate risks in non-crisis periods and overestimate them in crisis periods can be curtailed through measures that induce creditors and investors in industrial countries to act with greater discipline. These measures can be augmented supervisory oversight of the risk management practices of firms, or strengthened capital adequacy. Next point that needs to be addressed is assessing the implications for supervisors and regulators of Highly Leveraged Institutions. The positive impact of leverage is diminished when it is in excessive amount and is accompanied by excessive concentration of risk. Furthermore, the activities of the Highly Leveraged institutions have been subjects of international concern with respect to their impact on market dynamics of vulnerable economies. A third point is that offshore financial centers should be encouraged to be in compliance with the international standards. To maintain harmonisation between the market participants, it is essential that the offshore financial centers strengthen their supervisory systems and standards when the global financial system is revising the regulatory standards. The supervision of complex, internationally active financial organisations demand special requirements. The Joint Forum on Financial Conglomerates has developed principles, regulatory techniques, and other guidance for meeting the regulatory challenges that arise from the emergence of internationally active financial conglomerate. Basle Committee disclosed the techniques for the assessment of capital adequacy of conglomerates, facilitation of information

exchange among supervisors, identification of co-ordinators, facilitation of co-ordination among supervisors and examination of the fitness and propriety of managers, directors and major shareholders of conglomerates.

On risk assessment and risk management , Basle Committee has revised the Capital Accord to increase the risk sensitivity by including credit risk in lending to emerging markets and in short term lending and reflecting compliance with international standards such as the SDDS and Basle Core Principles. Private firms are also encouraged to strengthen their own risk management practices. National authorities should be responsible for ensuring that banks in their countries apply risk management practices in compliance with the recommendations of the Basle Committee on Highly Leveraged Institutions.

### **Strengthening Financial Regulation In Emerging Markets**

Recent financial crises have demonstrated that while large scale international capital flows have provided an important contribution to the development and growth of emerging economies, they have changed the nature of encountered risks in the emerging market economies since unsound macro policies and weak financial infrastructures can cause financial disruptions to result in deep and sudden financial crises. With regard to emerging market economies, there are widely accepted issues related to financial strengthening. First of all, countries should follow sound macroeconomic policies with sustainable exchange rate regimes, prudent fiscal policies and sound principles of debt management. Strengthening the financial sectors and supervisory regimes of the emerging economies should be given a high priority. As it was explained in the first chapter, some emerging economies have

attempted to achieve exchange rate stability by adopting pegged exchange rates against a single currency or a basket of currencies. Monetary authorities who adopt fixed exchange rate systems, subordinate other policy objectives to that of fixing the exchange rate. If countries choose fixed rates, recent history suggests that arrangements institutionalising fixed exchange rate policy should be sustaining a credible commitment to fixed rates. There are particular risks and vulnerabilities associated with excessive short term borrowing , particularly in foreign currencies. It can be seen that in crisis countries, there have mostly been unwise policy implementations that favoured short term capital flows. Countries should avoid excessive accumulation of short term debt and maintain an appropriate debt structure that eliminates biases which favour short-term borrowing. Capital account liberalisation should be in a careful and well-sequenced manner and should be supported by a sound and well-regulated financial sector and by a consistent macroeconomic policy framework. As countries strengthen the institutional and regulatory environment in their domestic financial systems, the use of controls on capital flows may be justified for a transitional period. Where financial sectors and supervisory regimes are weak, it may be appropriate to use safeguards to limit foreign currency exposure of the banking system. More comprehensive controls on inflows, as a means to shield the economy from market pressures should not in any case be used as a substitute for reform. In addition to these considerations, controls on capital flows can carry even greater long term costs.

### **3.3 Involving the Private Sector in the Prevention and Resolution of Financial Crises**

It is declared by the IMF that in order to limit moral hazard, strengthen market discipline, and maintain orderly adjustment processes during crisis situations, the private sector should be better involved in crisis prevention and crisis resolution. Report of G7 Finance Ministers to the Koln Economic Summit includes a framework for private sector involvement in crisis resolution. This framework aims to promote more orderly crisis resolution and therefore be of mutual benefit to debtors and creditors in finding co-operative solutions. Such a framework that facilitates co-operation between the debtors and the creditors aims to minimise the incidence and intensity of crises and also minimise the time before debtor country can expect to regain market access. The appropriate role for private creditors, and the policy approaches to motivate the private creditors to play this role vary depending on the circumstance of the particular case. There is a high variety of situations where countries might face external financing pressure. In one end, there are circumstances where emphasis might best be placed on market-based, voluntary solutions to resolve the financial difficulties of the country. On the other end, there are also circumstances where more comprehensive approaches may be appropriate to provide a more substantial future payments path. In practice, there is a wide spectrum of cases between these two ends. The best policy approach most suited to its particular circumstances is determined by locating where a country falls on this spectrum. Relevant considerations include the capacity of the country to repay and continue its access to the markets. The nature of the outstanding debt instruments play a key role in determining the feasibility of different policy approaches and

assessing which claims need to be addressed in order to resolve the financial difficulties of the country, the magnitude of possible concerns about equitable treatment among various categories of creditors, and the scope for voluntary versus more coercive solutions. The nature of the outstanding debt obligations may differ along many axes, for example the debt structure may mainly be private or public, foreign or local currency, short-term or long term, payment of principal or interest, offshore or onshore, secured or unsecured, held narrowly or held by a diffuse group of creditors. It is important to encourage countries to take strong steps at the early stages of its financial difficulties to prevent the crisis from deepening. The international community needs to have a broader range of tools available to promote appropriate private sector involvement in order to address a wide range of potential cases in an efficient manner. The tools available to the international community should be linking the provision of official support to efforts by the country to initiate discussions with its creditors to explain its policy program, to seek voluntary commitments to raise new funds from private markets, to seek specific commitments by private creditors to maintain exposure levels, and to restructure or refinance outstanding obligations. A reserve floor may also be imposed to effectively ensure that the private sector makes an adequate contribution, such as through debt restructuring, alongside official resources in the resolution of the crisis. In exceptional cases, the country may not be able to avoid the accumulation of arrears. IMF lending into arrears may be appropriate if the country is effectively working on a co-operative solution to its payment difficulties with its creditors. In order to provide time for an orderly debt structuring in line with the IMF support and programmes, countries may also impose capital or exchange rate controls as part of payments suspensions or standstills.

The first proposal for involving the private sector in the prevention and resolution of financial crises is to eliminate the regulatory bias toward short-term inter-bank cross border credit lines. The Basle Committee on Banking Supervision has proposed a new capital adequacy framework, which better adjusts capital requirements to risks. Another proposal is to encourage countries to take ex ante measures such as arranging commercial contingent credit lines\* and steps to extend maturities in a crisis and improve the dialogue between creditors and debtors and foster the setting up of creditor committees. The Institute for International Finance has proposed a framework for closer contacts between creditors and debtors. IMF should encourage countries to strengthen relations with creditors. Another proposal is to encourage countries to consider changes in terms of international sovereign bond contracts to facilitate orderly resolution of possible future crises.

### **3.4 Contingent Credit Lines**

A new instrument of crisis prevention is Contingent Credit Lines(CCL), a precautionary line of protection which is readily available to member countries with strong economic policies that is designed to prevent future balance of payments problems that might arise from international financial contagion. The design of the CCL depends on the reform efforts of the member country, creating further incentive to adopt stronger policies, be transparent, adhere to internationally accepted standards, and have a sound financial system where the private sector is constructively involved in crisis prevention and resolution.

### **3.5 Promoting Social Policies to Protect the Poor and the Most Vulnerable**

The financial crises of 1997-98 have emphasised the substantial link between economic and social issues by demonstrating that sound economies depend both on stable relationships between governments and their citizens and strong social cohesion. An efficient and reliable social system encourages people to take the risks which are a necessary part of a competitive modern market and equips the citizens for the changing nature of the markets. This approach of the system minimises the risks and maximises the benefits of global financial integration. An effective social policy eases the task of adjustment during times of crisis and helps build support for necessary reforms while ensuring that the burden of adjustment does not fall disproportionately on the poorest and most vulnerable groups in society. Implementation of an effective social policy can be constrained by a number of factors. The resources available for social programmes are generally limited, other priorities might be needing more attention and institutional capacity may not be adequate. In crisis situations, policy makers may be forced to choose between protecting immediate social welfare, and ensuring the adjustment necessary to restore confidence and promote stable growth, which is the best way for reducing poverty and supporting social welfare. It is a widely accepted fact that there are strong benefits for all countries and the international financial institutions in collaborating to develop and promote practice in social policies which most effectively support economic development. All countries have developed their own systems and practices for addressing social issues based on their culture and traditions. There is likely to be mutual benefit for countries if they share their policy experiences about what works best at different stages of development. The IMF and the World Bank

strengthen collaboration in the preparation of public expenditure reviews of individual countries which analyse the composition and efficiency of public expenditure. The IMF is assisting countries to develop macroeconomic frameworks in times of crisis, to take into consideration the degree to which the adjustment programmes provide for adequate spending in the social sector. The World Bank is working with countries, the Fund and Regional Development Banks on drawing up and monitoring implementation and follow up of social indicators. The IMF and the World Bank strongly focus on issues in the design of adjustment and sector programmes, and to improve their co-operation in this area. Effective social policy is of substantial importance provide a foundation for sustainable development, by ensuring that the benefits of globalisation are widely shared, equipping people for change and ensuring that economies are more robust. Sustainable development at a global level, enabling all countries to share the benefits economic growth, also depends on measures to reduce the unsustainable debt burdens on the poorest countries and reduce poverty.

### **3.6 Systemic Aspects**

The basic objective of the International Financial Institutions is to strengthen the international monetary system in view of the intense changes in the global economy in recent years. The role of the IMF is to contribute to the analysis of exchange rate regimes and the sequencing of capital account liberalisation, to propose ways to improve the functioning of the international financial system. The first proposal related to this objective is to assess measures related to exchange rate arrangements to improve the functioning of the international financial system.

According to Fischer, nearly a century of controversy has produced no clear answer to the question of which exchange rate or monetary regime is the best. The second proposal is to consider the role of capital controls and approaches to achieving orderly capital account liberalisation. The attitude of the IMF to controls on outflows is that capital controls should be removed gradually, as the macro economy, balance of payments, and financial systems of the country strengthen. With such a pace for globalisation all countries will resemble the advanced countries which have fully liberalised capital flows. Long-term capital inflows, particularly of foreign direct investment does not seem to be a matter of debate, but the international world has experienced the disadvantages of short term capital inflows and outflows, and therefore market-based controls to discourage short term inflows can be supported. As the case of Malaysia after the Asian crisis, it may be enticing to impose controls on capital outflows to deal with a short-term crisis, but the long term implications of such an option are likely to be adverse. Actually, policy makers in Latin American countries that had such controls in the 1980's have all rejected that approach emphasising that controls were inefficient and had cost them immensely in terms of capital market access.

## **Chapter IV: "BANK RESTRUCTURING"**

One of the foremost consequences of the global financial crisis in 1997-98 is that it has demonstrated the disastrous outcomes of weak structures of the banking systems. The Asian economies, in particular, have depicted that weak banking systems can be highly detrimental on the entire global economic system. As the previous sections have attempted to highlight, the Asian banks had excessively borrowed short-term loans in foreign currencies from international institutions. The excess amount of borrowing was especially enabled by the inadequate regulation and supervision of banking activities. The severe consequences of the reversal of capital flows have indicated that the banking systems were built on highly unsafe foundations. Along with many lessons to be learned from the Asian crisis, the foremost lesson has been the necessity of the restructuring of banking systems. The first part of the following section will attempt to summarise the sources of banking crises in emerging market economies and explain the lessons drawn from the Asian crises. In the second part, it will be attempted to explain the "restructuring of the banking system", the main task of the international policy makers in the prevention of future crises.

### **4.1 Sources of Banking System Problems**

The IMF summarises the main sources of banking problems as follows:

⇒ " weak internal governance of banks leaves the system vulnerable to macroeconomic shocks,

- ⇒ financial deregulation, competition, and innovation outstrip the capacity of banks to manage risks prudently,
- ⇒ financial deregulation takes place before adequate prudential regulation and supervision are in place,
- ⇒ weak and insolvent financial institutions are allowed to continue operations, thus weakening the entire system.
- ⇒ capital account liberalisation occurs before the soundness of the domestic financial system and macroeconomic policy is assured
- ⇒ declining business profits, together with excessive corporate indebtedness, lead to a deterioration in asset quality; and
- ⇒ overexpansionary monetary and fiscal policies spur lending booms, excessive debt accumulation, and overinvestment in real assets, which drive up equity and real estate prices to unsustainable levels.”

(“Banking System Soundness”, IMF Factsheet, 5/9/99)

## **4.2 Policy Implications about the Roots of Banking Crises in Emerging Markets**

### **4.2.1 Macroeconomic Volatility**

First issue to be considered within the context of the emerging market economies is the implications of the high volatility of the macroeconomic environment for the structure of bank supervision and regulation. Taking the capital asset ratios of the banks into consideration, it can be stated that the value of capital may be viewed as a buffer stock that helps to abate the adverse effects of shocks to asset quality and prevents insolvency. In order to keep the probability of bankruptcy to acceptable

levels, the buffer stock of required capital increases proportionally with the size and the frequency of the shocks. As there is unquestionably higher volatility in the emerging markets relative to the financial markets of the industrial countries, questions have been raised regarding the adaptability of the BIS standards for capital adequacy in the emerging market economies and whether there may be need for a higher capitalisation in the banking sectors of the emerging economies. For an ideal solution, either another set of principles should be established regarding the emerging market economies or the BIS principles should be amended to cover the different needs of the emerging market economies.

Another important buffer stock which banks hold to reduce the adverse effects of shocks is bank liquidity. Holding a stock of liquid assets enables the banking system to withstand a an abrupt drop in deposit demand or international credit without a sudden and costly contraction of lending. Holding liquid assets, however, is costly for banks, because there is a loss of interest revenue which would alternatively be gained from loans and other nonliquid investments. Bankers, therefore, should establish a balance between the costs and benefits of holding liquid assets. There is also a cost on the side of the society and public welfare since the long-term investments that are sacrificed to hold high levels of liquidity are the investments which alternatively would have the potential to provide growth and economic development. Therefore, the government authorities should establish a desirable combination that can balance the trade off between the dangers of illiquidity and the benefits of effective financial intermediation. The main concern is that banks may not have the incentive to hold the sufficient level of liquid assets and may choose socially sub-optimal levels of liquidity if left to their own decision. As stated in previous

chapters, there is a presumption in many countries that the central bank will act as lender of last resort in case of insolvency. This either implicit or explicit guarantee weakens the incentives of the banks to hold adequate liquidity. Banks should also have easy access to liquidity when it is needed. Therefore liquidity requirements should be maintained high enough in non-crisis situations so that they can be lowered in the event of an aggregate liquidity shock. Higher liquidity also helps prevent the adverse consequences of an excessively rapid contraction of bank credit.

Another factor that may substantially reduce macroeconomic risks for the system is the internationalisation of domestic banking systems. In a case where domestically owned banks are enabled to diversify internationally, the vulnerability of the banking system to large economy-specific shocks is limited. Furthermore, since foreign banks are less concentrated in local investments, an adverse shock to the domestic economy will have a smaller impact on their capital base. The fact that foreign banks may also have better access to foreign liquidity also reduces risks for insolvency and defaults. Foreign banks, therefore, are expected to provide a stabilising influence in the domestic banking system.

#### **4.2.2 Financial Fragility and Macroeconomic Policy**

The fragility of domestic banking systems has substantial implications for the conduct of macroeconomic policy. Considering the case of the adjustment to an adverse external shock under fixed exchange rate rates, for example, the fragility of the banking system plays a crucial role. As the balance of payments deficits resulting from the shock leads to a decline in the domestic money supply and an increase in

domestic interest rates, the higher interest rates causes difficulty on the side of the domestic borrowers to service their debts to the banking system. The resulting contraction in bank credit that goes along with the decline in the money supply will put further pressure on borrowers, and, therefore, banks. The adverse external shock may also cause a direct decline in the quality of bank assets.

### **4.2.3 Lending Booms**

In attempting to maintain macroeconomic soundness, an issue that has to be taken into serious consideration is the speed with which banks expand their portfolios. Central banks should monitor the rate of credit growth, and be able to take action when volume of credit seems to be growing too rapidly. For preventing such booms, prudential regulation based only on enforcement of capital adequacy standards may be ineffective. Further monitoring may be needed because during a boom, loan problems may be concealed, while bank income appears high, and bank capital appears to be growing at a rate sufficient to support the rapidly growing loan portfolio. Actually, extensive risks are incurred by banks when they lend to net borrowers, whose ability to repay depends highly on the availability of credits from other banks. As supervision may not be able to sufficiently limit the expansion of the bank assets, an active monetary policy may be required. If the credit boom is driven by a surge in deposit demand, for example, it may be appropriate to adjust bank reserve or liquidity requirements so that banks expand their portfolios gradually rather than abruptly. Such a policy would involve temporarily high liquidity requirements that would gradually be lowered.

### 4.3 Lessons on Bank Restructuring from the Asian Crisis

The IMF has listed ten basic lessons to be drawn from the Asian Crises:

- First, governments should be able to take timely and decisive action in dealing with the banking problems. Such actions may include closing or taking over insolvent institutions. The policy makers should also be aware of the fact that bank restructuring is a complicated, long-term process that should combine the difficult task of balancing institution based reforms with reforms in the macro-economy.

- Second, the IMF has concluded that allowing blanket guarantees on deposits and credits during crises can be an obligatory step whose beneficial effects overcome the adverse effects. The Asian experience has shown that such guarantees help for the stabilisation of the system by reducing the amount of money a central bank ultimately provides to insolvent banks.

- Third, there must be a full-commitment and demonstration of ownership of the restructuring program by the national authorities and the legal, institutional and human resource constraints of the country should be taken into account . In the Asian case, this issue gained importance as there was a strong need for reform in the judicial and legislative frameworks.

- Fourth, governments must announce all steps and actions to the public and avoid favouritism so that there can be enhanced credibility and transparency.

- Fifth, the restructuring of the banking system is costly for the governments and for the public but this cost has to be incurred so that the bad debts and the insolvencies in the system can be compensated.

- Sixth, the severe market conditions and an economic downturn is an inevitable and necessary part of restructuring because the authorities will have to deal with the bad debts in all cases.

- Seventh, the restructuring of the banking crisis is naturally linked to the corporate sector crisis in the economy. A lag in the process of corporate restructuring therefore may curb the banking reforms. Similarly, the resolution of corporate insolvencies necessitates the functioning of the core banking system.

- Eighth, financial institutions should be prepared in the sense that they should build up a capital cushion so that the system will be safer during crisis situations. Therefore, encouraging banks to focus on stronger capital-adequacy ratios, collateral margins and general loan-loss provisioning should constitute the primary objective of government authorities.

- Ninth, to further support the banking systems and reduce the threat of future systemic crises, governments should aim to adopt international practices which aim at standardising banking governance across markets. Independent oversight of banks should also be developed to enhance the strength of the banking system.

- Finally, the changing role of the international financial institutions requires a shift from conventional focus on macroeconomic policies to problems in the financial and banking sector, and advice and assistance provided by the international financial institutions should be adapted accordingly.

(IMF Factsheet)

## **4.4 Restructuring of the Banking System**

*“For our part, we must understand that we can win the battle at the macroeconomic level but still lose it at the microeconomic level, unless we have efficient regulatory mechanisms that enable us to limit crises, or better yet to prevent them from happening.” Enrique V. Iglesias, President Inter-American Development Bank (Hausman, Rojas-Suarez, 1996)*

In the context of economic development and global finance, the health of the banking sector has gained an increasingly prominent role. The financial system is the heart of the market economy since efficient flow of goods and services can only be maintained if there is a strong confidence in the functioning of the payments process and the intermediation of the banking system.

### **4.4.1 Tools of Banking Supervision**

Banking Supervision involves verifying that regulations are followed and that the banking system is healthy. Supervision provides proper information disclosure and early remedial action. In case bankers fail to fulfil their responsibility of supervision of both compliance and quality, it is the function of the supervisor to identify and correct insolvency problems, and, if necessary, to set the legal grounds for action. The main elements of banking supervision can be listed as disclosure, surveillance, and auditing.

#### **4.4.1.1 Disclosure**

To maintain market discipline, proper disclosure by banks is essential because it is vital that the necessary data be provided for remedial action and government control. Proper information should therefore be disclosed to the public as well as to the supervisory authority. Supervisory function is either carried out by the central bank or a special superintendency which is independent from the central bank. In either case, supervision should be high enough in the government structure to ensure proper co-ordination with monetary policy. Supervisors should be independent and the supervisory institution should have the necessary authority and legal mechanisms to deal with insolvent banks.

#### **4.4.1.2 Surveillance**

Off-site surveillance by the government is based on analysis of information received from banks. To be able to reach healthy conclusions based on data provided by different banks, reporting requirements should be uniform and data should allow for an overall computerised analysis of the growth of each bank, of the banking system as a whole, and of peer groups of financial institutions. Such analyses would enable the establishment of warning systems. Off-site surveillance may provide the rating of banks according to indicators in key areas such as capital assets, management, earnings and liquidity. These findings then may also call for necessary action for banks which seem to have taken excessive risks they may not be able to manage. Early detection of quality problems allows for gradual and less expensive remedies, and also for establishing grounds for legal action when

necessary. Inspection should pay particular attention to the *loan portfolio* so that bad management practices, capital erosion, and decreasing profitability can be discovered. To discover the techniques used by bankers to conceal insolvency, supervisors should classify loans as doubtful or bad if the repayment capacity of the borrower seems to be weak even if the loan is not in arrears. In case the borrower seems to meet the following conditions, there is a strong ground to consider that the borrower may not be able to repay:

- ⇒ The financial statements of the borrower show negative net worth and/or negative cash flow.
- ⇒ The loan has a history of consecutive rollovers, and the volume of each new loan is equal to or above the principal plus interest of the previous loan
- ⇒ The principal or interest of previous loans is not paid in cash, but through refinancing facilities extended by the same creditor bank.

In any of these cases, the loan should be classified as doubtful or bad, provisions should be imposed on the bank up to the amount of the expected default, interest recognition should be discontinued, and, most important, the bank should not be allowed to extend new facilities to new borrowers.

#### **4.4.1.3 Auditing**

External Auditing is an extremely useful tool of bank supervision. Initially acting as a control instrument for use by shareholders and the market, auditing function has come to be gradually leading to close co-ordination between auditors and supervisors. All financial institutions should be legally obliged to go through

annual external audits. Supervisors and legislation should also demand that the auditors to co-ordinate their work with the supervisors and make it mandatory for them to promptly inform the supervisors whenever they identify serious problems in a bank or when proper information is not supplied to them by the management of the bank. To prevent or remedy banking crises, stringent entry rules and inspection should be set by the supervisors and the legislation. Furthermore, supervisors should be committed to rules on capital adequacy, loan classification, provisioning, and income recognition based on the repayment capacity of the borrower. Limits to loan concentration and connected lending is another tool that the supervisors should use as a part of their banking supervision. Supervisory authority should be equipped with strong enforcement powers, including exit and the triggering of bank restructuring mechanisms.

#### **4.5 Core Principles for Effective Banking Supervision**

As the global financial crises of the 1997-98 have demonstrated the immense need for enhancing the soundness of financial systems, the international policy makers planned to adopt the 'Core Principles for Effective Banking Supervision' developed by the Basel Committee. As a part of the Financial Sector Assessment Programs (FSAPs) which necessitated an in-depth understanding of the structure for banking supervision and regulation, the International Monetary Fund and the World Bank have carried out Core Principle Assessment (CPAs) programs. Twenty-six CPAs have been completed since February 1998.<sup>8</sup>; Most CPAs were associated

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<sup>8</sup> Eighteen of the twenty-six CPAs were carried out by the teams of the IMF, five by teams of World Bank, and four by joint teams.

with technical assistance programs in developing countries<sup>9</sup> for their use in FSAP.<sup>10</sup> The Interim Committee stated at the 1999 Annual Meetings that it "welcomes the assessments of the implementation of the Basel Core Principles that have been made in the course of IMF surveillance and technical assistance, and urges that these be embedded into regular surveillance activities."

The Basel Committee on Banking Supervision (BCBS) collaborated with a team of G-10 and non-G-10 countries to define a set of basic elements for an effective system of banking supervision. The final document, Core Principles (CPs), was first issued by the BCBS in September 1997. The CP document has two main parts. The first part covers the preconditions for effective banking supervision (general preconditions). Even though preconditions cannot be controlled by the supervisory authorities, they influence the ability of the supervisor to implement the CPs effectively because effectiveness of the supervision is shaped by the strengths and weaknesses in these areas. The five broad areas which are covered by the preconditions are as follows:

- (1) sound and sustainable macroeconomic policies;
- (2) a well-developed public infrastructure;
- (3) effective market discipline;
- (4) procedures for the efficient resolution of problem banks; and
- (5) mechanisms for providing an appropriate level of systemic protection (or public safety net)."

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<sup>9</sup> The sample includes only one industrial country (Canada).

<sup>10</sup> One CPA (Turkey) was in the context of program design, and five countries (Canada, Colombia, India, Lebanon, and South Africa) were part of FSAP missions.

The second part of the document outlines the 25 core principles which lay out the minimum requirements for effective banking supervision. The two main incentives behind establishing Basel Core Principles Assessments (CPAs) have been to evaluate the sufficiency of the legislative and regulatory framework, and to assess the ability of supervision and monitoring of the important risks which are inherent in the banking systems. The assessment process of core principles was established as a major constituent of the basic plan of achieving a strengthened international financial system. The CPAs aim to supply the essential tools for financial system surveillance through Financial System Stability Assessments (FSSAs) as well as contributing to the improvement of the technical assistance in banking supervision by setting priorities and structural benchmarks in Fund-supported programs; and supporting improved transparency.

Basle Committee on Banking Supervision recognised that "...in many cases [they] may need to be supplemented by other measures designed to address particular conditions and risks in the financial system of individual countries. The core principles cover seven broad areas:

- (i) preconditions for effective banking supervision (which differ from the general preconditions, and cover issues such as independence, responsibilities, legal framework, and information sharing);
- (ii) licensing and structure;
- (iii) prudential regulations and requirements;
- (iv) methods of ongoing supervision;
- (v) information requirements;
- (vi) the formal powers of supervisors; and

(vii) cross-border banking.

The IMF and the World Bank have bolstered the development of international banking standards and best practices and been strongly supportive of the establishment and the adoption of the core principles. The BCBS has acknowledged that the need for international banking guidelines was a stimulus for the establishment of the Core Principles.

The CP document also suggested that "...the IMF, the World Bank and other interested organisations use the Principles in assisting individual countries to strengthen their supervisory arrangements in connection with work aimed at promoting overall macroeconomic and financial stability. The IMF has strongly supported the development by the Basel Committee of its Core Principles for Effective Banking Supervision, a set of twenty-five principles that can be applied to the banking systems in both developing and transition economies.

#### **4.5.1 The 25 Core Principles**

*Preconditions for effective banking supervision*

CP 1 deals with the legal framework for supervision; the powers, skills, resources and independence of the supervisory agency; the legal protection for supervisors; and rules for access to bank information, information sharing between supervisors and protection of secrecy.

### *Licensing and structure*

CP 2 deals with permissible activities of banks.

CP 3 deals with licensing criteria and the licensing process.

CP 4 requires supervisors to review, and have the power to reject, all significant transfers of ownership in banks.

CP 5 requires supervisors to review major acquisitions and investments by banks.

### *Prudential regulations and requirements*

CP 6 deals with minimum capital adequacy requirements. For internationally active banks, these must not be less stringent than those in the Basel Capital Accord.

CP 7 deals with the granting and managing of loans and the making of investments.

CP 8 sets out requirements for evaluating asset quality, and the adequacy of loan loss provisions and reserves.

CP 9 sets out rules for identifying and limiting concentrations of exposures to single borrowers, or to groups of related borrowers.

CP 10 sets out rules for lending to connected or related parties.

CP 11 requires banks to have policies for identifying and managing country and transfer risks.

CP 12 requires banks to have systems to measure, monitor and control market risks.

CP 13 requires banks to have systems to measure, monitor and control all other material risks.

CP 14 requires banks to have adequate internal control systems.

CP 15 sets out rules for the prevention of fraud and money laundering.

### *Methods of ongoing supervision*

CP 16 defines the overall framework for onsite and offsite supervision.

CP 17 requires supervisors to have regular contacts with bank management and staff, and to fully understand banks' operations.

CP 18 sets out the requirements for offsite supervision.

CP 19 requires supervisors to conduct on-site examinations, or to use external auditors for validation of supervisory information.

CP 20 requires the conduct of consolidated supervision.

#### *Information requirements*

CP 21 requires banks to maintain adequate records reflecting the true condition of the bank, and to publish audited financial statements.

#### *Remedial measures and exit*

CP 22 requires the supervisor to have, and promptly apply, adequate remedial measures for banks when they do not meet prudential requirements, or are otherwise threatened.

#### *Cross-border banking*

CP 23 requires supervisors to apply global consolidated supervision over internationally active banks.

CP 24 requires supervisors to establish contact and information exchange with other supervisors involved in international operations, such as host country authorities.

CP 25 requires that local operations of foreign banks are conducted to standards similar to required of local banks, and that the supervisor has the power to share information with the home country supervisory authority.

(IMF, 2000)

## CONCLUSION

The Asian “miracle” of high growth rates seems to have mainly resulted from a simple mechanism of borrowing funds from foreign investors to fund domestic high-return projects in the Asian economies. In the initial stages of capital account liberalisation when any project in the Asian countries was substantially profitable, both domestic and foreign investors were satisfied to receive their shares of profits from seemingly endless investment opportunities. Asian authorities encouraged all types of foreign investment to their economies and pegged their currencies to the U.S. dollar -or a basket of currencies dominated by the dollar- to create the best of investment environments with stable currencies and no risks. The problems became apparent when it was exposed that there was no appropriate infrastructure of financial regulation and supervision to support such an economic growth based on growing financial transactions. There was no efficiency in the financial system to be able to channel the foreign funding to the “right” domestic projects. The macroeconomic stance was inappropriate for the currencies to move in line with the U.S. dollar and the over-appreciation of the domestic currencies resulted in reduced competitiveness -especially against the Japanese yen which was continuously falling against the U.S. dollar. Financial incentives were diverted with the assumption that there was a government safety net which would bail out all investors in case of insolvency, and the financial world was mainly described as the “Asian way”, characterised by nepotism, corruption and opaque financial systems. When the number of high-return projects declined, profits began to diminish and the Asian companies, who had excessively borrowed from foreign investors, were no longer able to find investment opportunities with returns that would exceed the cost of

borrowing. As companies became unable to repay their debt, there was a crisis of liquidity and because highly leveraged institutions were very fragile in terms of liquidity, bankruptcies followed each other and the weak economies could no longer defend the currency pegs. After the crisis broke in Thailand, the financial crisis had devastating effects in the global economy.

In the first chapter, it has been attempted to explain the common features of the Asian economies and to demonstrate the factors that were responsible for the eruption of the crises. In explaining the causes of the crisis, four main views regarding the causes of the crises have been illustrated. In the Asymmetric information view, as proposed by Mishkin, the main stress is on the fact that the main barrier for the financial systems to performing the basic task of channelling funds is asymmetric information. According to Mishkin, the main factor that causes asymmetric information problem is the deterioration in the balance sheets of the financial sector. With huge amounts of capital inflow creating lending booms in the Asian economies, the outcome was excessive risk taking and eventually large amounts of non-performing loans and capital losses. In the "Moral Hazard" model of Paul Krugman, the crises have resulted from the fact that there was either an implicit or explicit government guarantee on all financial transactions. Economic agents, almost certain that the governments would be there to bail them out in case of an insolvency, displayed the simple acts of moral hazard, taking excessive risks with the basic idea that they had nothing to lose. Radelet and Sachs focus on the essential role of "panic" as the main cause of the Asian financial crisis. They defend that the macroeconomic and microeconomic imbalances in the Asian economies were not to an extent that would cause such a crisis with unbearable damages. According to

Radelet and Sachs, the “panic” of the international investors, combined with wrong policy applications of the Asian governments and poorly designed rescue programs by the international financial institutions caused what would have otherwise been a regional slowdown to turn into a global catastrophe. “Fundamental Distortions” view as presented by Corsetti, Pesenti, Roubini defends that the Asian crisis reflected structural and policy distortions in the region. They depict that the crisis had been triggered by the fundamental imbalances although market overreaction caused the plunge of exchange rates, asset prices and economic activity to be of a higher extent than what the fundamentals required. According to Corsetti, Pesenti and Roubini, structural factors such as high debt/equity ratios, current account deficits, excessive bank lending are the key determinants of the onset of the crisis. Taking the above views into consideration, it can be stated that an in-depth explanation of what caused the crises would include a combination of all the above explanations. Fundamentally weak macroeconomies could not deal with the huge amounts of capital inflow that was enabled by an untimely financial liberalisation because the financial authorities lacked the financial expertise to regulate and supervise the financial transactions.

What made the Asian Crisis different from previous crises was the level of global contagion that followed the eruption of the crisis. In the second chapter of this dissertation, it has been attempted to explain the issue of “contagion” and analyse it in two main categories. First category stresses on “Fundamentals-based contagion” where a shock faced by one country is transmitted to other countries through real financial linkages. Channels through which fundamentals-based contagion spreads can be classified as follows: Common shocks, trade links and competitive devaluations, financial linkages and re-assessment of economic fundamentals. The

second category, "Pure Contagion", refers to financial crises which are consequences of rational or irrational shifts in investment expectations which cannot be linked to observed changes in macroeconomic or other fundamentals. Pure contagion arises when there is a co-movement that cannot be explained on the basis of fundamentals, i.e., there are no global shocks or interdependence is not present or controlled for. Pure contagion is said to be irrational when it is primarily caused by financial panic, herd behaviour, loss of confidence and increases in risk aversion. A crisis in one country may lead investors to withdraw their funds from many markets without taking the differences in economic fundamentals into consideration. It can be stated that this way of spread of financial crises is mainly caused by the behaviour of the investors. In order to understand "contagion", it is essential to demonstrate the factors that make a country more vulnerable to contagion. A comparison of crisis and non-crisis countries has depicted that the crisis countries all had relatively higher appreciation of the real exchange rates, higher ratio of broad money (M2) to international reserves, higher real interest rates, less sound banking systems, slower GDP growth and higher unemployment rates.

The most important fact related with the eruption of the Asian crisis and the financial contagion that followed was that the weak financial structure of the global financial system was exposed. In the last two chapters, it has been attempted to explain the new financial architecture and the banking systems that are necessary to prevent such crises from occurring and to limit the adverse effects in case a crisis erupts. International investors had vastly invested in the Asian economies with no concern about how and where their investments were directed. Had the Asian economies adopted internationally accepted standards regarding transparency,

accounting and codes of good practice, investors would have been better informed about the indicators of the Asian economies. The most important task of the international financial institutions and the governing bodies should therefore be to mobilise to strengthen the architecture of the new international financial system. The international monetary authorities should act to build a stronger and more stable international financial system and hence render the international financial world less vulnerable to financial crises with devastating effects. To strengthen the financial systems, the international financial institutions should enhance transparency and provide timely and reliable data and information about economics and financial policies and practices. To ensure the proper functioning of the economies and hence the international financial system, countries should adhere to internationally accepted codes and standards. Banks and other financial institutions should improve their risk assessment and management functions. The official sector needs to improve the supervision and regulation of the financial sector to meet the needs of the modern global economy. And finally, private sector should be better involved in crisis prevention and strengthening market discipline by fostering risk assessment.

## REFERENCES

Boorman, Jack (1999) "The World Financial System Must Act to Prevent Crises", commentary, [www.imf.org](http://www.imf.org)

Chang, Roberto and Majnoni, Giovanni (1999) "International Contagion: Implications for Policy", *World Bank Conference Papers*, [www.worldbank.org](http://www.worldbank.org)

Cheng, Chow Wei (1998) "Behind the Asian Economic Crisis" , *LINKS*, pp,30-47

Corsetti, Giancarlo, Pesenti, Paolo and Roubini, Nouriel (1998) "What Caused the Asian Currency and Financial Crisis?" , *NBER Publications*, Working Paper 6834

Dornbusch, Rudi (1998) "Capital Controls: An Idea whose Time is Gone" *MIT Publications*

Dornbusch, R.Y.C. Park, and S. Claessens, (2000) "2000"Contagion: How it spreads and how it can be stopped " mimeograph

Fischer, Stanley (1998) "Economic Crises and the Financial Sector", *IMF Publications*, [www.imf.org](http://www.imf.org)

Fischer, Stanley (1998) "Reforming the International Monetary System", *IMF Publications*, [www.imf.org](http://www.imf.org)

Fischer, Stanley (1998) "The Asian Crisis and Implications for other Economies", *IMF Publications*, [www.imf.org](http://www.imf.org)

Fischer, Stanley (1998) "The Asian Crisis: A View from the IMF", *IMF Publications*, [www.imf.org](http://www.imf.org)

Glick ,Reuven and Rose Andrew K. "Contagion and Trade: Why are Currency Crises Regional?" *NBER Publications*, Working Paper 6806

Hausmann, Ricardo and Suarez, Liliana (1996) *Banking Crises in Latin America* Inter-American Development Bank

IMF Factsheet,(1999), "Banking System Soundness", *IMF Publications*, [www.imf.org](http://www.imf.org)

IMF Factsheet,(2000), "Progress in Strengthening the Architecture of the International Financial System", *IMF Publications*, [www.imf.org](http://www.imf.org)

IMF, (1998), "Financial Crises: Characteristics and Indicators of Vulnerability", *World Economic Outlook*, [www.imf.org](http://www.imf.org)

IMF, (1999), "A Guide to Progress in Strengthening the Architecture of the International Financial System", *IMF Publications*, [www.imf.org](http://www.imf.org)

IMF, (1999), "International Financial Contagion", *World Economic Outlook*, [www.imf.org](http://www.imf.org)

IMF, (2000), "Experience with Basel Core Principle Assessments", [www. Imf.org](http://www.imf.org)

Ingves, Stefan(1999) "Lessons of Bank Structuring from the Asian Crisis", *IMF Publications*, [www.imf.org](http://www.imf.org)

Krugman, Paul (1998) "An Open Letter to Prime Minister Mahathir", [//web.mit.edu/krugman](http://web.mit.edu/krugman)

Krugman, Paul (1998) "Fire-Sale FDI", [//web.mit.edu/krugman](http://web.mit.edu/krugman)

Krugman, Paul (1998) "Further Notes on Japan's Liquidity Trap",[//web.mit.edu/krugman](http://web.mit.edu/krugman)

Krugman, Paul (1998) "Heresy Time",[//web.mit.edu/krugman](http://web.mit.edu/krugman)

Krugman, Paul (1998) "Japan: Even Worse Than You Think", [//web.mit.edu/krugman](http://web.mit.edu/krugman)

Krugman, Paul (1998) "Japan: Still Trapped", [//web.mit.edu/krugman](http://web.mit.edu/krugman)

Krugman, Paul (1998) "Japan's Bank Bailout: Some Simple Arithmetic",[//web.mit.edu/krugman](http://web.mit.edu/krugman)

Krugman, Paul (1998) "Japan's Trap", [//web.mit.edu/krugman](http://web.mit.edu/krugman)

Krugman, Paul (1998) "The Confidence Game",[//web.mit.edu/krugman](http://web.mit.edu/krugman)

Krugman, Paul (1998) "The Eternal Triangle", [//web.mit.edu/krugman](http://web.mit.edu/krugman)

Krugman, Paul (1998) "The Eternal Triangle",[//web.mit.edu/krugman](http://web.mit.edu/krugman)

Krugman, Paul (1998) "What Happened to Asia",[//web.mit.edu/krugman](http://web.mit.edu/krugman)

Krugman, Paul (1998) "Whatever Happened to the Asian Miracle", [//web.mit.edu/krugman](http://web.mit.edu/krugman)

Krugman, Paul (1998) "Will Asia Bounce Back", [//web.mit.edu/krugman](http://web.mit.edu/krugman)

Krugman, Paul (1999) "Analytical Afterthoughts on the Asian Crisis",[//web.mit.edu/krugman](http://web.mit.edu/krugman)

Mishkin, Frederick (1996) "Understanding Financial Crises: A Developing Country Perspective", *NBER Publications*, Working Paper 5600

Mishkin, Frederick (1999) "Lessons from the Asian Crisis" ,*NBER Publications*, Working Paper 7102

Nanto, Dick K (1998) "The 1997-1998 Asian Financial Crisis", *The CRS Report*

Oracle, Asian Contagion: "It Ain't Over Till the Fat Lady Sings", [//www.gold-eagle.com/asian](http://www.gold-eagle.com/asian)

Perry, Guillermo and Lederman, Daniel (1999) "Financial Vulnerability, Spillover Effects, and Contagion: Lessons from the Asian Crises for Latin America" World Bank

Latin American and Caribbean Studies

Pritsker, Matt (2000) "The Channels for Financial Contagion" (Federal Reserve Board)

Report of G7 Finance Ministers to the Koln Economic Summit, Cologne, 18-20 June, 1999, [www.ustreas.gov/press/releases/pr3210b,htm](http://www.ustreas.gov/press/releases/pr3210b.htm)

Reuters, "Chronology of the Asian Financial Crisis"

Rogoff, Kenneth (1999) "International Financial Institutions for Reducing Global Financial Stability" *NBER Publications*, Working Paper 7265

Sachs, Jeffrey and Radelet, Steven, (1998) "The Onset of the East Asian Financial Crisis", *NBER Publications*, Working Paper 6680

Schwartz, Anna J. (1998) "International Financial Crisis: Myths and Realities", *The Cato Journal*, vol.17 No.3

Stiglitz, Joseph (1998) "The Role of International Financial Institutions in the Current Global Economy", *World Bank Publications*, [www.worldbank.org](http://www.worldbank.org)

Wade, Robert-Veneroso, Frank (1998) The Asian Crisis: "The High Debt Model vs. The Wall-Street-Treasury-IMF Complex"; *The Russel Sage Foundation Publications*

White, William (2000) "What Have We Learned From Recent Financial Crises and Policy Responses ?", *BIS Working Papers*, No:84

Yeager, Leland (1998) "How To Avoid International Financial Crises", vol.17 No.3