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MBA PROJECT PAPER

Singapore and the Asian Financial Crisis

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Section 1. Introduction

The financial and economic crisis that erupted in South-East Asia in July 1997 has continued to deepen and broaden across the region. As investor sentiments towards the emerging market countries deteriorated, the crisis has spread to several other economies in Asia and the contagion effects can also be felt throughout the global financial and economic system.

Many of these emerging markets, like those of Thailand, South Korea, Indonesia, Philippines and Malaysia have experienced large exchange rate depreciation and falling equity prices which in turn have exposed and exacerbated the financial and economic crisis.

Singapore is one of the few countries in this region which has been able to hold its financial position although its economy is continuously under pressure from the contagion effects of its neighboring business partners. The stability and reliability of Singapore's financial and economic fundamentals however have protected it from the worst effects of the crisis.

Objectives of this paper

This research paper will examine Singapore's financial and economic fundamentals and policies :

- It aims to provide some insight into the impact of the Financial and economic crisis on Singapore.
- It will also look at some of the economic policies and measures that have been implemented or are being implemented to help Singapore withstand the effects of the crisis.
- It will highlight some of the positive learning experiences (economic and financial measures and results) that has helped it to face the Asian Crisis and help to provide some guide to build a stronger and more stable Asian economy in order to avert a repeat of the financial crisis currently sweeping through Asia.

This paper is divided into 6 sections.

Section 2 will provide a review of the relevant literature on the Asian financial crises.

Section 3 will give an overview of the Asian Financial Crisis.

Section 4 will examine in details the key monetary indicators and evaluate the impact of the Crisis on Singapore. We will analyze the economic fundamentals and compare it against those of its ASEAN neighbors and draw conclusions on its impact. We will also assess the reliance of the Singapore Economy on its ASEAN neighbors and its exposure to the region. Some of the key economic indicators that we will review includes :

- Economic Growth – We will examine how the economy as a whole has been impacted. Will Singapore be able to sustain the growth rate of the 'boom' years. How has the contagion effect of its neighboring economies impacted Singapore

- Exchange rate – We will see how the Singapore Dollar has fared compared to the other major currencies and those of its neighboring Asian countries. We will examine how the Singapore Dollar was able to maintain its value with the least effect of the currency depreciation.
- Inflation – We will examine the level of the inflation rate and how it has helped to maintain the currency strength and helped to sustained the country's economic growth.
- Interest rate – We will examine the level of interest rate and how it has helped to maintained liquidity and sustained economic growth and development .

Section 5 will examine what Singapore is doing to help it overcome the crisis and discuss the opportunities and threats that Singapore will face in the ASEAN region.

The final section, Section 6, concludes.

Section 2. Literature Review

The Asian Crisis seemed to represent a new kind of financial crisis, as the traditional theoretical models (those represented in the so-called first generation or second generation literature on currency crisis) fail to render an accurate picture of their causes, consequences and remedies (Krugman 1998, Esquivel and Larrain 1998, Flood and Marion 1998)

2.1 First Generation Models

According to first generation models (Krugman, 1979) crisis arise as a result of loose macroeconomic policies, for instance excessive public sector deficits, which are monetized resorting to international reserves, and which thus becomes inconsistent with the exchange rate system.

2.2 Second Generation Models

The second generation models (Obstfeld, 1994 and 1995) analyze the possibility of self-fulfilling crisis, due to herding behaviour by foreign investors expecting currency realignments or contagion effects.

Several empirical studies on currency crisis were published after the ERM episode in 1992-1993 and Mexico's financial turmoil in 1994-1995. For instance, following Frankel and Rose (1996), current account and public deficits are not good predictors. The authors suggest that several other indicators might be more relevant: large short-term capital flows, low foreign exchange reserves, high domestic credit growth, low international interest rates, and overvalued domestic currencies.

According to Sachs, Tornell and Velasco (1996), the relevant leading indicators of currency crisis in developing economies are: (1) lending booms, fueled by capital inflows, and associated with financial liberalization and weak regulatory systems; (2) overvalued exchange rates; and (3) low ratios of international reserves to narrow money (M2).

Calvo and Mendoza, 1996 suggests that the Mexican Peso Crisis of 1994 is an example of a new kind of BOP crisis. They argued that contrary to first generation models, the PESO crisis did not have its roots in fiscal deficits nor imbalance in capital flows. The problem is a consequence of herding behaviour that leads to self fulfilling attacks and imbalances in the stock of liquid financial assets versus gross reserves.

2.3 Third Generation Models

The Asian crisis calls for an eventual 'third-generation' model of currency crisis in which modest (but not withstanding real) deterioration in fundamentals, in a context of external stability, coexist with herding behavior in international capital markets and regional contagion (Chang and Velasco, 1998).

According to a first analysis put forward by Krugman (1997), the Asian crisis were mainly related to a burst of a financial bubble in a context of low and declining returns to investment. "Market failures" in international capital flows contributed to large inflows in East Asia, while "crony capitalism" in the region increased

domestic investment in speculation-related real estate, in unsound financial activities, and in poor quality infrastructures. The short-term breaking or bursting of the ensuing bubble appeared thus in a framework of low and declining capital returns.

A second explanation by Krugman (1998) stressed banking problems as the main element explaining the crisis. According to his view, deficient regulation of banking activities, some lack of transparency, and various implicit governmental guarantees (which created "moral hazard"), led banks and other financial institutions in Southeast Asia to a situation of over indebtedness and of excessively high levels of non-performing loans. As a result, over investment in fixed capital and land created a financial bubble. When the bubble burst, banks using assets as collateral for their loans entered a period of crisis, aggravated further by the collapse in their stock market values.

The IMF's analysis of the Asian crisis had blamed overheating, fixed exchange rates, financial weakness (due to excessive regulation and too little competition), some lack of information and transparency, and loss of confidence (as a result of uncertainties on economic policy).

According to this view (IMF, 1998), fast growth in domestic credit in the East Asian developing countries created overheated economies. In turn, this resulted in asset inflation, current account deficits, and large capital inflows. The latter, mainly a consequence of low interest rates in Japan, made inevitable some significant

macroeconomic imbalances, such as currency appreciation and high interest rates. The rise in real effective exchange rates was also a result of fixed nominal exchange rates with the US dollar and of the 20% depreciation of the Japanese yen respective to the US dollar between April 1996 and April 1997. As a consequence, there was an adverse swing in competitiveness, which slowed export growth and raised merchandise imports, and therefore contributed to worsening current accounts.

Moreover, financial systems in developing East Asia were unsound, due to the traditional practice of excessive regulation, governmental interference, directed credit, and lending to related parties. Little competition existed in the banking sector, due to barriers to entry. Banks had accumulated large amounts of risky assets and they held inadequate capital and reserves ratios.

Some lack of information and transparency was pervasive also in their financial systems, to the extent that the allegedly powerful regulators and prudential supervisors received incomplete or unreliable data. In fact, standards for public disclosure fell short of what was necessary, so economic agents were unable to assess adequately the actual situation of financial institutions. Finally, a lack of confidence erupted just before the financial turmoil, mainly as a result of political uncertainties on the authorities' commitment to implement the necessary reforms and adjustments. This exacerbated the currency depreciations and the decline in stock market indexes and asset prices.

According to Corsetti, Pesenti and Roubini (1998), the "usual suspects" indicating a potential currency crisis (slowing growth, high budget deficits, high inflation, and substantial current account deficits over several years) were not observed in East Asia in 1990-1996. However, unsound fundamentals were, in their view, at the heart of the turmoil. Following their analysis, Southeast Asia and Korea were suffering, especially since 1995, from a combination of several imprudent macroeconomic policies: (i) a fixed exchange peg to the US dollar, which led to substantial real currency appreciation; (ii) an investment boom, which created a savings-investment gap, leading to large and growing current account deficits; (iii) an excessive lending to risky and low-profitability projects, due to political pressures ("crony capitalism"), to the "moral hazard" that domestic financial institutions were facing, and to the mix of exchange pegs and relatively low internal• interest rates; (iv) very weak and fragile financial systems, as a result of the existence of implicit or explicit governmental guarantees to lenders and of the lack of prudential regulation and supervision, in a context of domestic and external financial liberalization; and (v) the accumulation of foreign debt in the form of short-term, foreign-currency denominated and unhedged liabilities.

In this context, the rational behavior of international financial markets led to speculative attacks on the East Asian currencies, which created a vicious circle of competitive devaluation, and to a sharp reversal in 1997 of the capital flows in the region, to which international investors lent excessively until 1996.

Radelet and Sachs (1998) and Sachs (1998) list three main causes of the crisis: (i) the intrinsic instability of international financial markets, subjected to bouts of panic and clearly over reactive (ii) several external macroeconomic shocks in East Asia, including the surge of new competitors (China and Mexico) and the depreciation of the yen *vis-à-vis* the US dollar (iii) weaknesses in the East Asian financial systems, which had their roots in attempts at financial deregulation and opening.

As a result, "when capital flows waned in late 1996 and early 1997, a financial panic erupted following a series of missteps by the Asian governments, market participants, the IMF, and the international community.

Radelet and Sachs validate the hypothesis that "the crisis was triggered by dramatic swings in creditor expectations about the behavior of other creditors, thereby creating a self-fulfilling, though possibly individually rational, financial panic" .

Wade and Veneroso (1998) and Wade (1998) point to two main factors explaining the crisis: (i) the removal in the early 1990s of the traditional institutional structure of government-banks-firms collaboration and of restrictions in the capital account; and (ii) an overreaction of international financial markets, which led to a panicky pullout from economies with no underlying real vulnerabilities.

The pre-existing financial structure of the East Asian economies was centered on relatively high levels of inter mediation from savers to banks and relatively high levels of corporate debt to equity. This conferred developmental advantages but also made for financial fragility. Once restrictions on capital flows were removed and the triangular collaboration came to be steered, financial fragility was more exposed: "Asian governments undertook radical financial liberalization, encouraged by the IMF, the OECD, and by Western governments, banks and firms. They removed or loosened controls on companies' foreign borrowings, abandoned coordination of borrowing and investment, and failed to strengthen bank supervision. By doing so they violated one of the stability conditions of the Asian high debt model, helping to set up the crisis.

Section 3. Overview of the Asian Financial and Economic Crisis

3.1 Global Economic Backdrop

In the first half of 1997, the global economic outlook was relatively favourable. In particular, economic growth for the industrial economies was expected to be slightly stronger, 2.5% in 1997 compared with 2.3% in 1996 *(1)*. The US was into its sixth consecutive year of economic expansion as consumer spending and investment growth were spurred by low interest rates. In Europe, growth was supported by the export-led recovery in Germany and buoyant domestic demand conditions in the UK. The main uncertainty was the strength of the recovery of the Japanese economy, given the weakness of the financial system and the fiscal consolidation programme.

In Asia, while weak exports and tighter demand policies in some countries suggested slower economic growth, an expected upturn in the global electronics market, a main determinant of regional export performance, brightened the region's prospects for 1997 somewhat. However, such prospects were soon dissipated with the outbreak of the regional currency crisis in July 1997. Growth for the ASEAN-3 countries (Thailand, Malaysia and Philippines) suffered the largest decline to 4.3% for 1997 from 7.0% in 1996. In the NIEs (Korea, Taiwan and Hong Kong), GDP growth declined to 6.1% in 1997 from 6.4% in the previous year *(2)*.

Source: (1). World Economic Outlook Oct 96

(2). Singapore Economic Development Corporation.

The industrial economies, on the other hand, were less affected by the Asian crisis, with 1997 GDP growth increasing to 2.9% from 2.5% in 1996. This reflected above-potential growth in the US and the UK, where domestic demand conditions remained robust. Other EU countries saw economic recovery gather strength throughout 1997 as consumer confidence remained strong and exports buoyant.

3.2 The Asian Currency Crisis - Early Warning Signals

In retrospect, the fairly sanguine external outlook in early-1997 had somewhat masked the impending Asian financial crisis, signs of which had in fact emerged as early as the second half of 1996. Speculative attacks on the Baht arose from concerns over Thailand's widening current account deficit, the rise in external debt and over-exposure of the financial sector to a flagging property market. In Korea, indications of trouble also surfaced in the first half of 1997 when a number of chaebols defaulted on their debts.

3.3 The Currency Crisis in Southeast Asia

For more than a year, the Bank of Thailand put up a strong defence of the Baht. The Central Bank of Thailand defended the Thai Baht by buying the Thai Baht using its Foreign Exchange Reserves. It also raised interest rates to make it more attractive to hold the Thai Baht. However these measures were not enough to defend the Thai Baht and the Baht was eventually floated on 2 July 1997, when it depreciated immediately by 15%. Contagion effects spread rapidly to the other ASEAN currency markets.

On 11 July 97, the Peso depreciated by 12%, following the widening of the trading range for peso-dollar rates. Bank Indonesia floated the Rupiah on 14 August 97. The Malaysian Ringgit and Singapore dollar also weakened against the US Dollar.

Central banks in the region raised interest rates and defended its currencies but failed to restore stability to the currency markets. Acknowledging the fundamental collapse of confidence, various ASEAN countries entered into IMF programmes to help their economies tide through the crisis.

3.4 Spillover to Northeast Asia

In October 1997, the contagion spread to Northeast Asia. The Hong Kong Dollar peg remained intact, reflecting the firm response of the Hong Kong Monetary Authority, particularly its willingness to allow domestic interest rates to rise. However, both the New Taiwan Dollar and the Korean Won succumbed to selling pressure. The New Taiwan Dollar was allowed to depreciate against the US Dollar while the fluctuation band for the Won was widened. Korea sought IMF recourse on 21 November 97 but could not erase concerns over a possible debt moratorium which led the Won and Korean stock market into a free-fall. The financial markets only stabilised following concerted efforts by the IMF and the major industrial countries to encourage banks to rollover and restructure their short-term debt to Korea.

3.5 Deterioration in the ASEAN region.

Even as the Won regained strength in January 1998, the situation in the ASEAN region worsened. Capital flight from the region reflected loss of confidence in the region especially over corporate and financial failures and political uncertainties. In mid-January 1998, the Ringgit, Baht and Peso fell to their historical lows against the US Dollar.

Investor confidence was also shaken by rising apprehensions about Indonesia: the extent of its external debt problem, its compliance with IMF reforms and a controversial proposal for a currency board system in February 1998. This was, however, shelved indefinitely in March 1998 and Indonesia has since embarked on a new IMF programme.

3.6 Developments in 1998

The regional financial markets saw some respite over February-April 1998 as countries embarked on economic and financial restructuring programmes. Exchange rates appreciated by some 20% to 80% from their historic lows in mid-January 98 while stock markets stabilized somewhat. However, during May-June 1998, political developments in Indonesia and a weakness of the Japanese Yen renewed pressures on the regional financial markets.

Stock markets in the region hit new historic lows while the exchange rates depreciated. The current prognosis is for either negative or low GDP growth in 1998 for most of the countries in the region while inflation will be significantly higher.

3.7 What went Wrong?

There were many reasons put forward by various parties for the Crisis. We will highlight below some of these 'common' reasons that has been cited by IMF, World Bank and others for the financial and economic crisis as reviewed in the Literature Review Section.

The reversal of capital flows was the immediate reason for the eruption of the crisis first in Thailand followed by Indonesia and Korea--the three countries among the high-growth performers that have adopted an economic program supported by the IMF. Following a protracted period of strong economic growth, the east and southeast Asian countries had attracted massive inflows of foreign capital during the early 1990s, including of short-term nature. In Thailand, for example, the short-term inflows alone accounted for as much as 5 percent of GDP on average during 1994-96. They were promoted by the desire of international investors to diversify their portfolio following the financial crisis in Mexico in 1995 and others who wanted to reaped the benefits of a 'booming' Asian economy. When these capital inflows ended up as loans by bank to investors for investment in properties and equities and prices on these assets became inflated. In Indonesia, private enterprises were the main debtors of short-term external debt. In Korea, where the scope for enterprises to borrow directly from abroad was limited, banks and their foreign subsidiaries were the main debtors. Once doubts arose about the solvency of the borrowers, investors began to withdraw short-term financing. Exchange rates plummeted and so did stock and property prices to an extent that has shocked most observers. The problems intensified as the crisis became regional and global in nature.

One of the reasons for the turnaround of short-term flows was the pegging of the exchange rates to the U.S. dollar and the resulting decline in competitiveness after the strengthening of the dollar in mid-1995. Export growth weakened in Indonesia and Thailand, and the current account deficits rose. Only belatedly, once exchange rate pressures had already mounted, did the authorities abandon the peg and let the exchange rate float.

Periods of overheating had preceded the crisis in some countries as a result of the capital inflows and a reluctance on behalf of the authorities to dampen the effects through sterilization of the inflows, tightening of fiscal policy, and raising of interest rates.

In the case of Korea, foreign borrowing-channeled through the banks-had financed excessive investment of the conglomerates, the so-called Chaebol. In addition, a large terms of trade decline during 1996-97 hurt the profitability of the conglomerates and resulted in a string of bankruptcies in 1997 to the detriment of the financial sector.

The authorities had in some instances come to the rescue of insolvent financial institutions and prevented them from being liquidated.

Banking sector problems have also intensified in Japan, the world's 2nd largest economy, where the fragile economic recovery had been undermined by the contagion effects of many of Japan's Asian trading partners.

Other structural problems included:

Trade restrictions, such as the maintenance of trade monopolies, quantitative restrictions on trade, and other trade barriers;

Capital controls, including restrictions on foreigners' access to the equity and corporate bond markets; restrictions on foreign borrowing by corporations (thus, foreign banks could not evaluate the underlying commercial risk associated with their lending).

Close links between the government, banks, and the corporations. This was a problem in all three countries as economic decisions and financial relations lacked transparency and accountability, and inappropriate investment decisions undermined the health of the financial sector.

Section 4. Analysis of the Financial and Economic Fundamentals of Singapore

In this section we will examine in depth the financial and economic fundamentals of Singapore and analyse the impact of the Crisis on Singapore's economy using as a comparison data for the period between 1990 to 1998. A total of 6 East Asian countries will be used for the comparisons namely Singapore, Malaysia, Thailand, Indonesia, Philippines, South Korea and Hong Kong.

4.1 Singapore's Economy

The Singapore economy is small by international standards with Gross Domestic Product of US$143 billion in 1997. But, it is a relatively rich economy with per-capita GNP of US$39,310 *(3)*.

It is highly open to international trade and investment with trade to GDP ratio of 273% and foreign investment commitments in the manufacturing sector amounting to USD4.1 billions *(4)*.

4.2 Singapore's monetary policy

Singapore's monetary policy is centered on the exchange rate *(5)*. MAS manages the Singapore dollar against a basket of currencies of Singapore's main trading partners and competitors. The basket is composed of the currencies of those countries which are the main sources of imported CPI inflation and competition in export markets.

Source : (3) Statistical Department of Singapore

(4) Monetary Authority of Singapore Annual Report 1998

(5) Monetary Authority of Singapore Annual Report 1998