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Managing Foreign Exchange Risk in Malaysia

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MANAGING FOREIGN EXCHANGE RISK IN MALAYSIA

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ABSTRACT

This paper has three objectives. After a general introduction on the basic choice of exchange rate regime, the paper gives an overview of some important common factors that cause the exchange rate volatility as well as the key economic indicators that influence the probability of crisis and the depth of the crisis. Second, the paper examines the currency peg that has been implemented in Malaysia since September 1998 by using some of the selected key economic indicators and several relevant considerations. This is in order to study whether the currency peg is a sustainable long-term solution to manage the foreign exchange risk of Malaysia. Finally, the paper reviews the benefits and challenges of common currency and evaluate whether the implementation of common currency would effectively reduce foreign exchange risk of Malaysia and Asean Countries as well. In addition, the paper also proposes that the enrichment and innovation of derivatives markets in Malaysia will effectively create supportive environment and encourage greater usage of foreign exchange risk management instruments among the market participants. There are three major findings in this paper. Firstly, the volatility of ringgit value against currencies of its major trade partners and competitors in the post crisis period were significantly higher than the pre crisis period with the exception of Thai baht. Second, the currency peg is not a long-term solution in managing foreign exchange risk. Finally, there was a significant diversifiable risk on all individual currencies arising from the formation of synthetic common currency for the period of 1996 to 2001.

CHAPTER 1 - INTRODUCTION

Since the breakdown of the Bretton Woods agreement in 1972, the exchange rate volatility has increased markedly and has become major issue in worldwide economies. This increased volatility is a major concern not only for government policy makers but also corporations that engage in international activities, because it creates risk that may sharply alter their performance (profitability) through unanticipated exchange rate movements.

In general, foreign exchange risk is the effect that unanticipated exchange rate changes have on the value of the individual wealth, corporation's profitability as well as the international reserves of the country. As the individuals and corporations can manage their own foreign exchange exposure through various tools and techniques accordingly, there are three important steps for the government policy maker to manage the foreign exchange risk for their country. The first step is to identify the causes of exchange rate fluctuations and to measure the effect of the respective causes. The second step will be based on the nature of economy condition and the availability of resources, to formulate appropriate strategies in managing the foreign exchange market and maintaining the stability of the exchange rate as well as to avoid the currency crash (or currency crisis). Finally, the third step will be the implementation of the strategies, to monitor the process of implementation as well as to take correction action should there are any variations noted. These steps can be considered as continuous cycle and called as foreign exchange risk management process. However, it is important to point out that most of the crisis-hit countries were

lagging in developing this foreign exchange risk management mechanism prior to the financial crisis.

Over the past decade, although considerable progress has been made in our ability to understand the causes of exchange rate fluctuations, their impact on economy, the methods to manage foreign exchange risk and to assess investment opportunities generated by exchange rate fluctuations, we had witnessed several financial crises that swept through Europe countries, Latin America, East Asian countries, Russia and Argentina. Although different financial crises depend on specific constellations and evolutions, all crisis-hit countries or region were commonly experiencing a plunge in the external value of their currencies as well as exchange rate instability. In other words, the sudden currency crash will contribute in triggering a full-fledged financial crisis.

As the crisis-hit countries have taken steps towards mitigating the foreign exchange risk aimed at recovering from the crisis, various solutions have been put in place to achieve the objective. However, a number of crisis-hit countries (or economies) are still not displaying a sustainable recovery trend. For example, after the significant rebound since 1998, both Singapore and Taiwan have been technically in recession since 2Q of 2001 while Malaysia and Hong Kong have experienced negative GDP growth since 3Q of 2001. In addition, T J Kim & J W Ryou (2001) have found that although various policy options have been adopted to overcome the East Asian crisis and to prevent its possible recurrence, the affected countries are still relatively vulnerable as they are searching for an optimal exchange rate regime. Obviously, most of the crisis-hit countries are still

in the process to strengthen their existing solution or to look for better solution in mitigating the foreign exchange risk as well as to recover nicely from the crisis.

1.1 OBJECTIVE AND MOTIVATION

In general, the foreign exchange risk exposure of Malaysia is considered high as it involves actively in external trade activities and its trade openness is one of the highest in the world. The sum value of both annual import and export activities was ranging from 1.55 to 2.01 times of annual GDP for the period of 1995 to 2000. This indicates that the volatility of ringgit value relative to the currency value of major trade partners (ie. US, Japan, Europe and East Asian countries) is crucial in ensuring the stability and sustainability of Malaysia's economy growth.

This paper has three objectives. The first objective is to analyze the East Asian crisis aimed at examining what factors led to the volatility of exchange rate and to identify the key economic indicators that reflect the early warning signals of currency crisis. According to foreign exchange risk management process as mentioned above, it is important to identify the causes of the exchange rate fluctuation as well as currency crash before developing a meaningful measures and formulating appropriate strategies aimed at managing foreign exchange risk, generating export competitiveness as well as to prevent currency crash from the beginning.

Based on the key economic indicators, the second objective of this paper is to examine the effects of currency peg in managing the foreign exchange risk of Malaysia. As the currency peg can generally be viewed as a fixed exchange rate

regime that aimed at removing the exchange rate volatility and uncertainty, the implementation of the said fixed exchange rate regime together with the imposition of capital controls had shown some achievement since September 1998. This combination of solutions had generated recovery for Malaysia's economy through stabilizing the ringgit at RM3.80 and eliminating the heavy speculation on the ringgit in offshore market. As of today, Malaysia has dismantled its selective capital controls while exchange control and currency peg are still effective though speculations on re-pegging arise from time to time. It is important to note that the ringgit is fixed only to the US dollar and it remains floating against other currencies. This implied that trade transaction contracted in currencies other than the US dollar are still exposed to foreign exchange risk.

According to Dato Seri Dr. Mahathir, the prime minister of Malaysia, the government would review the currency peg only when the ringgit exchange rate appreciates by a significant 20% against regional currencies. In the other hand, it implies that the currency peg is not an ultimate solution with adequate flexibility, and it is necessary to seek for a better solution or strategies in managing foreign exchange risk in long-term basis. As such, the third objective of this paper is to propose how the common currency in the region and the development of derivatives market will contribute in managing foreign exchange risk of Malaysia.

CHAPTER 2 - LITERATURE REVIEW

2.1 CAUSES OF EXCHANGE RATE VOLATILITY AND CURRENCY CRISES

In general, the exchange rates are volatile due to the underlying fundamentals are volatile. According to Alan C. Shapiro (1999), under the floating exchange rate system without government intervention, exchange rates respond to the forces of demand and supply, which in turn are dependent on relative inflation rates, interest rates, and GDP growth rates. For example, if the central bank expands the money supply at a faster rate than the growth in money demand, the purchasing power of money declines both at home (inflation) and abroad (currency depreciation). In addition, the volatility of the exchange rates is also depending on the expectations of future currency changes, which depend on the forecast of future economic and political condition.

2.1.1 THE CHOICE OF EXCHANGE RATE REGIME

Over the last decade, series of currency turmoil have revived a long-standing debate on exchange rate systems, particularly between floating and fixed exchange rate regimes. Theoretically, the preference over a specific exchange rate regime can be linked to macro-economy objective and policy, in particular to whether economists prefer full employment policies or whether they defend policies aimed at guaranteeing price stability (Vernengo, 2000).

Some of the traditional arguments on exchange regime choice indicate that the fixed exchange rate can limit the exchange risk for international transactions and

foreign investments. With the implementation of fixed exchange rate regime, the country may gain the benefits that ranging from decreasing cost of access to international financial markets with lower risk premium, decrease of domestic interest rates and having the ability to pursue an independent monetary policy that can be customized to meet its domestic requirement (ie. facilitates disinflation, impedes monetary financing of the fiscal deficit as well as neutralizes the impact of monetary shocks). However, the credibility of fixed exchange rate regime may be fragile; especially in case of crisis, adjustment may be too costly. According to Nor Azlan Ghazali (2001), under certain circumstances, the fixed exchange regime reduces monetary independence. He explains that the internal stability has to be sacrificed for external stability; and therefore the fixed exchange rate regime may not be suitable for an open economy such as Malaysia. In fact, with higher risk of overvaluation and current account deterioration in maintaining the de-facto peg, the fixed exchange rate countries are generally highly sensitive to external shocks as well as real domestic shocks. Besides that, under the protection of fixed exchange rate regime, the corporations may over rely on the country's monetary policy and overlook the importance of foreign exchange risk management.

In comparison to fixed exchange rate regime, the floating of exchange rate may enable the countries neutralize the impact of external shocks, real domestic shock as well as the effect(s) arising from inflation on export competitiveness. Proponents of the floating exchange rate regime argue that the system reduces economic volatility and facilitates free trade. This is because they believe that when the dominant shock is real, the exchange rate can adjust following a real

shock, rather than requiring price level changes and the short run disruptions that sluggish nominal price levels may induce (Stockman, 2000, pp.116). However, some arguments claim that the fluctuation of currency value have had little to do with actual inflation while most of the cases reflect that the expectations of future government policies and economic conditions seem to more relevant in affecting the currency value (Shapiro, 1999). Besides that, the floating of exchange rate generates strong volatility that in turn brings negative effect on trade and financial transactions as well as creates source of imported inflation and leads to interruption of structural adjustment. Under certain circumstances, the free floating of exchange rate in one country may trigger regional instability should the competitive devaluation become a trend and widespread throughout the region.

Generally, the recent theoretical contributions on the exchange regime choice can be grouped as two broad categories, namely fear of floating and political economy approaches (Poirson, 2001). For the fear of floating approaches, countries that either involved heavily on international trades or with the high level of un-hedged external debt will intend to peg to the foreign currency (either through direct intervention or open market operation) in which they have significant trade relationship or they have high debt exposure. After analyzing the behavior of exchange rates, reserves, the monetary aggregates, interest rates and the commodity prices across 154 exchange rate arrangements, Guillermor A. Calvo and Carmen M. Reinhart (2000) find that the countries that say they allow their exchange rate to float mostly do not; and the countries that are classified as having a free or managed float mostly resemble non-credible peg. In fact, a

number of economists claim that one of the major problems that trigger the East Asian currency crisis was the non-credible US dollar-pegged regime of the pre-crisis period. Mashiro Kawai and Shigeru Akiyama (2000) further indicated that prior to crisis, the East Asian currencies with a large weight on the US dollar in their currency baskets became overvalued on a real and eventually trigger the mounting speculative pressure that caused the currency crisis in 1997.

According to Gan Wee Beng (2000), one reason that is cited for the fear of floating by the policy makers is that any erosion of policy credibility would be quickly translated into sharp depreciation of currency and high volatile interest rates. However, after examining the daily currency volatility of seven countries (Thailand, Malaysia, Indonesia, Singapore, Philippines, Korea and Taiwan), he further pointed out that the East Asian's experience offers a good example of how to resolve the issue of credibility versus flexibility. He explained that this was because the crisis-hit countries (except Malaysia), which have begun to move from the non-credible-peg to greater exchange rate flexibility, have been accompanied by narrowing of the differential between the domestic and the US interest rates as well as the improvement of macroeconomic fundamentals.

The political economy approaches highlight that the country with weak government and politically instable has an incentive to float its exchange rate as it may unable to gain necessary support for unpopular measures that may be required to defend a peg. Moreover, when adopting a floating regime, any adjustments of exchange rate are less highly visible to the public and consequently less politically costly than devaluation under a peg. In the other

hand, a government with an ambitious unemployment objective has a high temptation to inflate, and thus has a high incentive to peg the exchange rate. In fact, this is particularly true in Malaysia as the country has a strong government with stable political environment (as compared to it's neighbor, Indonesia). During the peak of the crisis period, Malaysia had decided to undertake aggressive measures (currency peg, exchange control and capital control) in order to foster faster recovery though most of the early reaction to the controls ranged from cautious to hostile, as Malaysian government believed that a sharp change in policies was necessary to turn away from an imminent financial panic. As a result, early prognostications of impending doom were gradually replaced by more upbeat projections, as it became clear that Malaysia was recovering rather than sinking deeper crisis (Kaplan, 2000).

While the economists are debating on which extreme regimes is the most suitable and preferred to adopt in various kind of economy condition, there are significant number of countries chose instead one of the numerous intermediate regimes. John Williamson (2000) finds that there are necessary to design intermediate regimes aimed at gathering the benefits of both fixed and floating regimes while eliminating the drawbacks from the said extreme regimes. He suggests that an appropriate intermediate regime should provide enough stability to capture most of the growth benefits that stability at a competitive rate offers, while incorporating enough flexibility to avoid hard crashes and the squandering of credibility that they entail. He also suggests some viable intermediate regimes such as reference rates, soft bands as well as monitoring band (Williamson, 2000). In addition, although there are arguments that which exchange rate

mechanism is relatively more vulnerable to the currency attack, Matias Vernengo and Louis-Philippe Rochon (2000) are both of the opinion that the exchange rate regimes are of secondary importance, since it is possible to pursue either full-employment or price stability policies irrespective of the exchange regime in place. As such, it is more important to look into the basic models that explaining the currency crisis and to identify the common factors as well as influential determinants that trigger the crisis in order to help the countries to take appropriate and necessary actions to completely recover from the crisis as well as to install preventive measures aimed at reducing the vulnerability to currency crash in the future.

2.1.2 EXPLAINATION MODELS AND COMMON FACTORS

Traditionally, there are two generations of models in explaining the causes of currency crises. The first generation of models suggest that the crises are viewed as the unavoidable outcome of unsustainable policies or fundamental imbalances. In the other hand, the second generation of models explain that the interaction between market expectations and actual policy outcomes can generate self fulfilling crises. As this two generations of models are far from mutually exclusive, these models are actually complement each other.

According to Paolo Pesenti and Cedric Tille (2000), the fundamental imbalances stressed by first generation models make a country vulnerable to shifts in investor sentiment; once the crises does occur, the second generation models explain its self-reinforcing features. In addition, they also have indicated that two additional factors help in explaining the severity of the currency are the

inadequate supervision of the banking and financial sectors as well as the rapid transmission of the crisis through structural links spillover effects among the crisis-hit countries.

In fact, the "Tom Yam" currency crash in Thailand provides a comprehensive explanation on the models as discussed above. When the Thai baht was under critical attacked in February 1997, the Bank of Thailand had decided to defend the non-credible peg by deep intervention through issuing US$23 billion forward foreign exchange contracts. At that time, the foreign exchange reserves of Thailand was only around US$25 billion, as the result, the perception of the investors became extremely pessimistic. The economy condition became worsen as the financial institutions, whose loan portfolios had been deteriorating in quality due to the bursting of real estate and economic bubbles, came under pressure, and the government continued to pump a large volume of liquidity to support them. This led to huge capital outflows and a further decline in foreign exchange reserves. After facing heavy selling pressure and massive intervention in the forward market, Thailand was forced to announce capital controls in middle of May 1997. On July 2, 1997, the government yielded to market forces and abandoned the non-credible peg. Finally, the falls in exchange rate and stock market value spread quickly from Thailand to all the neighboring countries including Malaysia, Singapore, Indonesia, as well as Philippines, Korea, Hong Kong and Taiwan.

Masahiro Kawai and Shigeru Akiyama (2000) find that developments in Thailand caused the investors to look more critically at vulnerabilities they had

previously ignored elsewhere, especially about the problems of the financial system and the magnitude of short-term external debt that amplified their concerns. They also find that market doubt were compounded by the lack of transparency in the financial and corporate sectors, and hence, about the magnitude of non-performing loans in the banking sector. Once investors lost confidence that foreign reserves would cover short-term external debt, both domestic and foreign investors scrambled to get out. The lack of a mechanism for orderly workouts of private external debt undoubtedly contributed to the full-scale financial panic that swept through the neighboring countries in which called contagion effect.

According to emerging markets committee of the International Organisation of Securities Commissions of USA (1998), the various factors that cause the currency crisis are basically related to macroeconomic issues, structural issues and financial markets. Under the macroeconomic issues, the committee highlight that the capital flow surges since early 1990s, which were channeled to the developing countries (ie. East Asian countries that inclusive of Malaysia) had indeed provided a lot of opportunities to smooth their consumption and investment patterns and also brought along with them the benefits of "knowledge spill-over" and improvements of resources allocation. However, the weak initial conditions (ie. poor corporate governance, financial deregulation without adequate supervision, lax fiscal policies etc) among the East Asian countries allowed the credit boom to be sustained and led to the overheating expansion of monetary aggregate, which in turn increased the inflationary pressure as well as the mis-channelling of capital inflows towards non-productive and speculative

sectors such as real estate and equity markets. As a result, the combination of credit boom, mis-allocated funds, lax monetary policy and an asset price bubble increased the vulnerability of the macro-economy significantly. The virtuous cycle will continue until some "trigger event" or exogenous shock such as currency crash that initiated the adverse market expectation and eventually caused huge reversals in capital flows.

In addition, most of the empirical studies agreed that moral hazard problems also increased the vulnerability to currency crises. In the crisis-hit countries, the implicit government guarantees and lender of last resort function of central bank had provided an incentive for banks to give easy credits which in turn allowed the corporations to assume higher risks in making investment decision. As there was substantial growth of inefficient investment (evidenced by bad credits in large volume during the crisis), the widespread of corruption and nepotism made the condition even worsen. Similarly, the expectation on IMF to provide last resort of financial assistance to the member countries also caused the foreign creditors to accept greater tolerance in financing high gearing countries.

According to Gerhard Aschinger (2001), as various factors have played a major role in different stages of currency crises, there are several important measures to prevent currency crises at different stages. Firstly, the capital controls which were introduced in Malaysia and Russia could be helpful to protect a country from huge capital outflows in the case of a currency crisis but they should be removed as soon as possible in order not to produce adverse effects on the country's competitiveness. Second, the local markets should not be liberalized

too quickly without flanking good measures (such as a good supervising system of banks, requirements for capital ratios, risk management and bookkeeping devices) while imposing necessary controls on the level of foreign indebtedness as well as the domestic credit expansion. Third, if no peg were to exist, currency crises would be moderate, but different forms of pegs (ie. crawling pegs, currency boards or dollarisation) may reduce the likelihood of currency attacks. Finally, corruption and nepotism should be fought and better transparency about the links and decision-making of industries and government could enhance investors' confidence in a particular country. Similarly, the crisis contagion could be reduced if better information about the differences and similarities between countries were made available.

In ensuring the better condition for economy growth to be sustained, the policy makers normally devise policies and initiate actions aimed at stabilizing the variability of exchange rate. Guillermo A. Calvo and Carmen M. Reinhart (2000) have found that the intervention through foreign exchange market is not an exclusive way to smooth the fluctuations in the exchange rates. In fact, some key variables are highly correlated to the variability of exchange rate. They indicate that when the countries retain voluntary access to international capital markets, lack of credibility will lead to fear of floating as well as high volatility of interest rate, reserves and monetary aggregate. They highlight that, consistent with the hypothesis of lack of credibility, the correlation between the exchange rate and interest rates is positive in most instances while the correlation between reserves and the exchange rate is negative.

2.2 KEY ECONOMIC INDICATORS

As there are various major factors that affecting the volatility of exchange rate, the most important concern for the purpose of managing the exchange risk is to identify highly correlated variables aimed at predicting how likely the currency crash would happen as well as stand as early warning signals to allow some rooms for preventive actions to be taken.

Through the analysis of 31 emerging markets throughout the period of year 1985 to 1998, Kent Osband and Caroline Van Rijckeghem (2000) find that a country that can easily service its external debts out of export proceeds or reserves can also protect its currency. As such, the difficulties in servicing external debts will derive greater pressure to the home currency value. The useful indicators may include reserves against short-term external debt, debt service against exports, as well as official debt against total external debt. Besides the debt related fundamentals, they also indicate that the current account surpluses, fiscal surpluses, real GDP growth and foreign direct investment (FDI) can effectively mitigating the risks of currency attack. For example, their finding shown that current account balance against GDP, degree of diversification of export portfolio as well as FDI against GDP are crucial in measuring the safety from currency crash.

However, considerable evidences shown that during the currency crises the behavior of market participants generally differs from those that happen during normal circumstances, as a result, Peter J G Vlaar (2000) introduces a method to separate the variables that influence the probability of crisis from those that have