



## CHAPTER 1 INTRODUCTION

*"Forecasting Devaluations of Thai Baht"* Why this topic was chosen among the other interesting topics? This can be easily expressed by answering how important the exchange rate is.

More often than not hearing that we live in an interdependent global where all economies are open. People trade and merchandise with each other. They expertly produce and export the goods and services in which they enjoy comparative advantages while they import the raw materials, equipment and goods which they can not contribute competitiveness to international markets.

To visualize a perfect picture of the openness of a country, however, considering just international trade in goods and services is not sufficient as it is only one aspect of the openness. The economy's international trade in financial assets and its financial openness should be explicitly considered. As broad openness of economy is, therefore, daily life to perceive some domestic residents engage the international transactions.

Unlike trading with a country, there is one special characteristic that distinguishes the international transactions from purely domestic transactions, it is exchange rate. People, operate the international transactions, require the acquisition of foreign currency for facilitating their transactions. Because most countries have their own national, sovereign currencies which locally dominate the price of food, materials as well as domestic securities. Then the exchange of currencies is necessary.

Presently, some countries have operated their economy under floating exchange rate regime whereas many economies have still adopted system with considering the rigidity of exchange rate. Operating the economics under these variety of fixed and flexible exchange rate disposition, the government attempts to accommodate

the consistency between fiscal, monetary and exchange rate policies in order to achieve full equilibrium - the equilibrium conditions on three parts which are the balance of the goods market, the balance of the assets market and the balance of payments simultaneously. For instance, under a fixed exchange rate regime, the viability of a fixed exchange rate demands for long-run consistency between such those policies as well as stabilizing rate under the floating regime.

A greater extent of integration to international market causes the exchange rate to play more, increasing, important role. Apart from facilitating international transactions, degree of exchange rate stability is also essential since it impacts decision-making in international trade as the exchange rate sensitively reflects the macroeconomy. Moreover, the change of exchange rate is also a major source of uncertainty in international business. Since in a world of international trade and investment, the fluctuations of currency values can determine companies' profits. Most governments, thus, can not avoid to intervene the foreign exchange market, stabilizing exchange rate.

Nevertheless, there are some countries fail in sustaining the certainty of exchange rate under some constraints. Then, it induces the collapse of the overall economy ultimately. Likewise, the experiences of Mexican recurrent devaluations which obviously state that the viability of the fixed exchange rate was obtain as a secondary goal of the government and also used to maintain conditions on achievement of other primary goals which were the government fiscal policy and its deficits. The greater amount of government budget deficit apparently causes huge persistent trade deficit. The Mexican central bank had to sell international reserves continuously because the payments deficit had been kept alive by the sterilization operation. Dwindling reserves, the central bank would have to choose between stopping sterilizing and abating foreign exchange intervention in supporting the fixed exchange. Mexican government chose to give up the fixed exchange which led to this January crisis finally.

This crisis triggers public interest as well as questions that come to mind that whether Thailand will face the same currency problem as

Mexico, Thai Baht is overvalue and it is necessary to devalue Thai currency or not.

### **Statement of Problems**

Due to the accumulation of political and economic problems, in December 19, 1994, Mexican Government, by President Ernesto Zedillo, announced Peso devaluation from 3.4712 to 4.0016 Peso : US\$1 and let it floated for a few days in order to find the real value. However, it was worse as the Peso depreciated by totally 41% to 5.65.

Mexican Peso Crisis had occurred since December 20, 1994 by dramatical rising in sale volume of Peso and other securities in terms of Peso. Huge amount of capital flew out from Mexico continually. Moreover this occurrence has had impacts on financial markets worldwide even in the European financial market because there were the transformation from the weak currencies such as Italian Lire, Spanish Peseta, Portugal Escude and French Franc to strong currency, Deutsche Mark. This change has also happened in Asia.

Furthermore, many researchers identified that countries in Asia, particularly Thailand, might confront with currency problem as of Mexico since economic structure in both countries are similar. In early January, 1995 Dr. Jim Walker from Credit Lyonnais Securities, Hong Kong, also suggested investors to keep watching Thai economic leading indicators : inflation rate, trade deficit, the nature of short-term capital flows and currency overvaluation.

These publications strongly affected emerging markets in Asia, especially Thailand, although this event has not existed in this region yet. As investors were aware of currency instability, they, therefore, altered port of investment to riskless port and converted Baht to other stronger currencies in order to prevent themselves from loss. Set index dropped down 41.35 points and Baht depreciated from 25.04 to 25.01 Baht:US\$ during January 12-13 1995 as results of the criticism of Thai economy by foreign researchers.

Hence, since early 1995, there has been an increase in serious concern about Thai Baht, even though Bank of Thailand attempts to revive the confidence on Thai Baht. This thesis, therefore, tries to study about possibility of Thai Baht devaluation by modifying a model, established by Herminio Blanco and Peter M. Garber. The ability of this time-series model is to estimate one-period ahead probability of devaluation and expected value of the new exchange rate. So, this slightly modified version will assist to predict the timing and magnitude of Baht devaluation and to stimulate the model in order to see what happen if there is a change in some economic variables.

### **Objectives**

Purpose of this thesis, thus, is to generate an empirical model which is accurate and appropriate to predict the timing and magnitude of devaluations of Thai Baht.

### **Scope**

The thesis will concentrate only on the devaluation of Thai Baht by using secondary data. This quarterly data will be used between 1977 and 1995.

### **Research Methodology**

The studies under this topic can be divided into three steps. First step is to study about Mexican crisis - review the crisis background; economic structure of Mexico, the events during the crisis, the causes of the crisis, the dispositions of Mexican government and the impacts of the crisis, specially in Thailand. Second step is to study the whole picture of Thai economy in order to understand the similarities and differences between these two countries. Third step is to study about literatures, relating to BoP crisis, speculative attack and collapse of exchange rate regime to see evolution.

The model establishment is the further step. This model is slightly modified from the original Garber & Blanco model, according to the common features of Thai economy.

Then the required data which are money supply, real GDP, Thai domestic credit, Thai GDP deflator, US GDP deflator, Thai interbank rates, US Fed Fund rates, official exchange rates (Baht:US\$1) and Thai international reserves were collected from Bank of Thailand. Forward premium was from Siam Commercial Bank. Model testing and results interpretation are the last two steps.

This paper was organized by five chapters. The remainder of this paper is organized as follows. Chapter 2 are about, first, the previous studies that relate to BoP crisis, speculative attacks and collapse of exchange rate, and ,second, it attempts to explain concepts that apply in the establishment of the model. Chapter 3 sets out the overview of Thai economic structure and also points out the similarities and the differences compare to the economic structure of Mexico. Chapter 4 examines the modified model's framework and the results of the case study; Thai Baht. Finally, Chapter 5 concludes the results, problems and weak points of the analysis.