

## Chapter3

### **Theoretical Framework and Research Methodology**

This chapter will be stated about theoretical framework and theoretical treatment of non-life insurance which suggested by IMF. Followed by a discussion about sources of data and research methodology.

#### **3.1 Theoretical Framework**

Studying the effect of the insurance business on the Balance of Payments we will basically use the concept of the fifth edition of the Balance of Payments Manual (BPM5) which suggested by IMF for the treatment of insurance in the balance of payments. As defined in the BPM5, the balance of payments (BOP) is a statistical statement that systematically summarizes, for a specific time period, the economic transactions of an economy with the rest of the world. Transactions, for the most part between residents and nonresidents, consist of those involving goods, services and income; those involving financial claims on, and liabilities to, the rest of the world; and those (such as gifts) classified as transfers, which involve offsetting entries to balance-in an accounting sense-one-sided transactions.

The BOP standard components are grouped under two major headings: the current account and the capital and financial account. The current account is further subdivided into three broad categories : goods and services (which is subdivided into the two items), income and current transfers. The capital and financial account includes, in the capital account, capital transfers and transactions in an economy's non-produced, nonfinancial assets (such as patents and copyrights) and, in the financial account, transactions in an economy's external financial assets and liabilities. Insurance services is fallen in categories of the current account. So we will concentrate on the current account and analyze the effect of the insurance business on the BOP.

In order to successful in study the effect of the insurance business on the BOP, we primarily must understand the concept of the BPM5 for the treatment of insurance in the balance of payments table which will described in the following details.

There are two types of insurance : life and non-life. In this study, we will focus on non-life insurance only. Non-life insurance covers all other risks, such as accident and natural disasters. Claims are payable under non-life insurance policies only when a specified event occurs.

The calculation of the value of non-life insurance services as follow.



- **Theoretical Treatment of Non-life Insurance<sup>1</sup>**

*This treatment was quoted from IMF working paper.*

In their most simple form, nonlife insurance premiums are received by insurance enterprises from policyholders: these premiums are, in turn, used to pay claims and the operating costs of the insurance enterprise, and to provide an operating profit to the owners of the insurance enterprise. <sup>1/</sup> In the national accounts, the value of an enterprise's output is equal to its operating expenses plus operating profit. <sup>2/</sup> Therefore, using this simple measure, the output (insurance services) of insurance enterprises can be determined by subtracting claims from premiums.

Having established a simple measure for determining the value of services provided by insurance enterprise that is based on the relationship between premiums and claims, it is important to note that payments of premiums and claims do not themselves represent service transactions. Considering claims first, it is clear that when a policyholder receives money from an insurance enterprise the policyholder is not providing any service to the insurance enterprise. Rather, in the case of nonlife insurance, the policyholder is receiving an economic benefit (in the form of money) without giving up anything in return. Such transactions should be treated as current transfers in the balance of payments (and in the national accounts).

Turning to the treatment of premiums, it can be seen from the simple measure that the payments of premiums comprises two elements. The first element covers amounts that are subsequently used to pay claims. Because the payment of claims represents a transfer in the balance of payments, this first element of premiums should also be considered as a transfer. The second element of premiums covers the insurance service itself. Thus, international transactions in premiums need to be decomposed into these two elements in order for premiums to be correctly recorded in the balance of payments. In the absence of a direct measure of insurance services, proxy measures are needed in order to effect this composition.

For the exporter of insurance services, if it can be assumed that the relationship between premiums received and claims paid to nonresident policyholders is similar to the relationship between all premiums received and all claims paid, then the value of exports of insurance services can be calculated as the difference between premiums received from nonresidents and claims paid to nonresidents. This is in fact the recommendation of the BPM. The insurance service charge thus calculated should be deducted from

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<sup>1</sup> International Monetary Fund, "Recording insurance transactions in the balance of payments," IMF working paper, July 1995.

premiums received, with the remainder-net premiums-recorded as current transfer credits. Claims are recorded as current transfer debits. 1/ This treatment for exports of insurance services pertains to all types of nonlife insurance, including freight insurance, other direct nonlife insurance, and reinsurance.

For the importer of insurance services, it is far less likely that relationship between premiums paid to and claims received from nonresident insurers is similar to the relationship between all premiums received and all claims paid by these insurers. Therefore, premiums less claims is an inadequate proxy for the measurement of imports of insurance services. 2/ Other proxies are needed to estimate the insurance service charge.

For freight insurance, the BPM advocates that the ratio of freight insurance service exports to premiums for freight insurance received from nonresidents should be multiplied by premiums paid to nonresident insurers in order to calculate imports of freight insurance services. It is recommended that this ratio be calculated over a medium- to long-term period.

For other types of direct insurance, the BPM recommends that the ratio of insurance service charges to premiums received (from both residents and nonresidents) by domestic insurers should be multiplied by premiums paid to nonresident insurers in order to calculate imports of insurance services. Again, this ratio should be based on a medium- to long-term period.

The BPM's recommendations for estimating imports of direct insurance services presume that there is a domestic insurance industry engaged in the insurance activities of the same type that is being imported. Clearly, this will not always be the case. In the absence of a domestic insurance industry, the compiler will need to resort to other methods for estimating imports of direct insurance services.

If the majority of services are provided by insurers in one or a few countries, the compiler could contact his or her counterparts in these countries to establish an appropriate ratio of insurance service charge to premiums. 2/ Alternatively, the compiler could determine an appropriate services to premiums ratio by taking the long-term (at least five years) average of the ratio of claims received from nonresident insurers to premiums paid to nonresident insurers, then deducting this ratio from one.

For imports of reinsurance services, the BPM suggests that the service charge can be measured as the difference between premiums paid to and claims received from nonresident reinsurers.

## 3.2 Sources of Data and Methodology

### 3.2.1 Source : Foreign Exchange Records<sup>2</sup>

The need for detailed foreign exchange transaction records was mainly caused by the imposition of foreign exchange control created under the Exchange Control Act. In order to ensure that their clients fill the requested report, the reporting form was designed by the Foreign Exchange Control Department (now renamed the Foreign Department), and commercial banks.

Nonetheless, the Bank of Thailand then revised the exchange record form to include foreign currency account transaction because after the authorities permitted residents to deposit foreign exchange into or withdraw from foreign currency account at the domestic commercial banks following the second round of exchange liberalization in 1991.

As for the receipt side, form F.T.3 is used for reporting the sale or deposit of foreign exchange earned from services or received from investment, the same report forms are used for services and investment transactions.

On the payment side, F.T.4 is used for reporting the purchase or withdraw of foreign exchange for the service and financial account payments. The details on partner countries, currencies used for settlements, the purposes of exchanging currency or deposit to and withdraw of foreign currency from the commercial banks, as well as other necessary data can be obtained from the F.T. Forms.

In the purpose of minimizing inconvenience to the public, the authorities have also waived the reporting in exchange records for goods account transactions of amount less than US\$ 20,000 and for services and transfer account transactions of less than US\$ 5,000. Beside allowing the residents to hold foreign currency accounts at the commercial banks.

Furthermore, to ensure that significant information is not omitted, the Bank of Thailand asked for the cooperation of commercial banks in filling summarized report form containing the necessary information of such transactions in addition to the regular exchange record, since a large number

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<sup>2</sup> Nual-anong Augsurat, "Thailand's foreign exchange system : trade in services and international investment data compiled from the system," Paper presented at the APEC trade and investment data review working group technical experts workshop, Canberra, Australia, April 1995.

of the services and transfers account transactions have value less than US\$5,000.

The exchange record continues to be very valuable source of data for the compilation of international services and investment data as well as other balance of payments statistics; and thus even with the subsequent exchange control liberalization, the Bank of Thailand continues to require commercial banks to provide record of foreign exchange transactions.

- **Agency Responsible for Compilation**

By Law, as a central bank, Bank of Thailand is the authority responsible for compilation and to be more specific. The Balance of Payments Section under the Economic Research Department of the Bank of Thailand is in charge of compiling and publishing balance of payments statistic, in which data on trade in services and international investment flows are included.

- **Methodology of Foreign Exchange Records**

Statistics on services and international investment flows as well as balance of payments are compiled monthly. Apart from the trade data which are derived from the Customs Department (in order to be consistent with the prescriptions appeared in the IMF Balance of Payments Manual, especially concepts of changes of ownership) most of data on non-trade accounts (services, income, transfers, and international investment) are derived from the exchange record submitted by commercial banks.

After having clients filled in the exchange record forms, commercial banks have to submit exchange records to the Foreign Department, Bank of Thailand, on a daily basis. The Foreign Department is responsible for data input into the computerized database, codification, and data processing. This process is carried out in accordance with the data classification consistent with the specification of the Economic Research Department so as to ensure consistency with the BOP Manual of the IMF in term of definition and coverage. This has been done with the cooperation of Information Planning and Operations Department which set the computer programs. The Economic Research Department then retrieves the data -- combined with data on transaction valued less than US\$ 5,000 (which is received directly from commercial banks) -- carrying out some adjustments, using non-exchange record data for certain items such as income from tourism, some part of other transportation, private sector's trade credits, and public sector's foreign borrowings. After the adjustments, the Economic Research Department then undertakes the analysis.

### **3.2.2 Source : Department of Insurance**

Since the Government takes an important role in controlling the insurance business, insurance companies have to report to not only the foreign exchange records but also the Department of Insurance Records. Actually, Department of Insurance Records have more detailed about services than Foreign Exchange Records.

The Department of Insurance Records can be divided into 2 categories:

#### *1. Life Insurance Records*

1.1 ) Life Insurance data are classified by lines of business. Such as, Life Insurance premiums which classified into Ordinary , Industrial and Group.

1.2 ) Life Insurance premiums which classified into companies consist of local insurance companies and foreign branch companies. At present, there were altogether 12 insurance companies writing Life Insurance business . Of this number , 11 were registered in Thailand and one was operating as a branch of foreign company which is American International Assurance co. (AIA).

1.3 ) Direct Insurance and Reinsurance datas. For Life Reinsurance data, it has not been divided into local or abroad.

#### *2. Non-Life Insurance Records*

Non-Life Insurance datas which records by Department of Insurance are divided as follows:

2.1) Non-Life Insurance data are classified by lines of business which are Fire, Hull, Cargo, Automobile and Miscellaneous.

2.2) Non-Life Insurance premiums are divided into Direct premiums, Premiums from Reinsurance Assumed, Premiums for Reinsurance Ceded and Retrocession premiums which can be divided into local and abroad.

2.3) Losses Incurred and Commission and brokerage have the same categories as premiums.

### 3.3 Research Methodology

This study will use the descriptive statistic approach to analyze the effect of the insurance business on the Balance of Payments.

In recording insurance transactions in the Balance of Payments in practice is not different from the theoretical treatment that we mentioned above. The data for recording insurance services in the Balance of Payments are Premiums, Losses Incurred and Commissions which are collected from the Annual Insurance report of Thailand of Department of Insurance. And each part consists of five categories which are Fire, Automobile, Miscellaneous, Hull and Cargo. Focusing on imports and exports reinsurance and retrocession with foreign companies only. By recording the numbers of revenue and expenditure of reinsurance and retrocession in the table of the Balance of Payments which divided in many parts as mentioned.

In practically, for the Inward Reinsurance, the insurance services which equal to the premiums received minus any claims paid are recorded as part of Services in the Reinsurance Inflow. Commissions are recorded as part of Services in the Reinsurance Outflow. Claims are recorded as transfer in the Reinsurance Outflow. Net premiums which equal to the premiums received minus the insurance services are recorded as transfer in the Reinsurance Inflow.

For the Outward Reinsurance, the insurance services which equal to the premiums paid minus any claims received are recorded as part of Services in the Reinsurance Outflow. Commissions are recorded as part of Services in the Reinsurance Inflow. Claims are recorded as transfer in the Reinsurance Inflow. Net premiums which equal to the premiums paid minus the insurance services are recorded as transfer in the Reinsurance Outflow.

In case of claims exceed premiums for Inward and Outward Reinsurance. Use of the difference between premiums and claims would result in a "negative" insurance services, which is a concept that makes no economic sense. Therefore, it is recommended to use the "normal" service charge per unit of premium, which is calculated by using the long-term relationship between premiums and claims, to determine the service charge for the period under consideration. This recalculated insurance service charge would then be used in the calculation of items for insurance services and related transfer.

In this study, we calculated the service ratio by using the long-term relationship between claims and premiums. During the past ten years, claims have averaged 57 per cent of premiums--a fact that implies a service ratio of 43.

In the part of Life and Non-Life Insurance Income, The data are from the percentage of Foreign Shareholders multiply by Profit in each companies and combining together. So, Income is the data of the dividend to foreign shareholders which they will bring this profit back to their own countries. So, it is Outflow which record as Income.

### Conclusion

IMF Balance of Payments Manual that we mentioned above adapts to a changing world. These change are, in particular, the result of the liberalization of financial markets, the growth in innovative financial instruments, new approaches to the restructuring of external debt, and the growth in the volume of international trade in services. These developments provided the impetus for compiling the fifth edition of the IMF's Balance of Payments Manual, which was issued in September 1993. The goal is to enhance the potential of the balance of payments as a tool for economic analysis. The key to the measurement of balance of payments transactions relating to insurance is obtaining information on premiums and claims. These information can be obtained from Foreign Exchange Records of Bank of Thailand or from the Department of Insurance Records. In this study, we will use the Department of Insurance Records for treatment of insurance services in the balance of payments.