Abstract

International trade plays a key role in Thai economy because Thailand has an open economy. In year 1997, Thailand experienced economic recession and baht depreciated to the highest level in the history of Thailand. This depreciation still stimulated Thai exports. Therefore, this study comes out to examine how trade balance is affected by exchange rate and the other variables i.e. national income, export and import prices.

The objectives of this study are as follows. Firstly, to determine the magnitude and direction of trade balance responding to exchange rate fluctuation. Secondly, to identify the macroeconomic variables, other than exchange rate, that correlates to trade balance. Thirdly, to examine whether *J*-curve effect occurs on Thai economic situation. This study covers the period from 1968 to 1998. Both annual and monthly data were collected for the analysis. The countries incorporated in calculating real effective exchange rate (REER) includes Japan, United Kingdom, United States, Singapore, Malaysia, Netherlands and Germany. Total trade of these countries with Thailand's trade account for more than 50 percent.

The three dependent variables in the framework are the value of trade balance, export volume, and import volume. Each dependent variable is tested independently. The equations are written in Multi-linear Regression form. All variables are transformed into logarithm form. The parameters are estimated by Ordinary Least Square (OLS) and the coefficient values then explain the elasticity and direction of the variable's correlation.

As a result of hypothesis testing, there is autocorrelation problem in the model. Maximum likelihood method is used to rectify the problem and it reduces standard error of estimates in the analysis. The conclusions of the finding are given as follows:

- The previous trade balance value has a direct relationship with current trade balance value. This implies that current trade balance moves in the same direction as previous trade balance value.
- The previous export volume has a direct relationship with current export volume. This implies that current export volume moves in the same direction as previous export volume.
- The previous import volume has a direct relationship with current import volume. This implies that current import volume moves in the same direction as previous import volume.
- Export price has the indirect relationship with trade balance value and export volume. The results mean that an increase in export price would decrease trade balance and export volume. This is because Thai exports will be more expensive for foreigners.
- Import price has the direct relationship with trade balance value and import volume. This implies that an increase in import price reduces trade balance value and import volume. Since imported goods will be cheaper, Thai people will consume more imported goods.
- National income has the indirect relationship with trade balance value and export volume. Conversely, there is a direct relationship between national income and import volume. It means that an increase in national income of Thai consumers will increase import volume and decrease trade balance value.

- Manufacturing production index (MPI) has an indirect relationship with export volume. In contrast, there is a direct relationship between MPI and import volume. It highlights that a higher MPI will decrease export volume and increase import volume.
- Real effective exchange rate (REER) has the direct relationship with trade balance value and export volume. In contrast, there is an indirect relationship between REER and import volume. This indicates that depreciation in REER moves trade balance value and export volume up, and import volume down.

The magnitude of the correlation is quite small. It postulates that there is a limitation of effect of economic variables on trade balance. Changes of economic variables will slightly stimulate trade balance. Also, the values of R^2 are not 100 percent. It indicates that not only quantitative variables, but also the other qualitative variables i.e. quality of product, trade policy, transportation system will affect trade balance. To solve the economic crisis, the government should incorporate these variables into the trade policy of a country. This is possible if both the public and private sections corporate with the government. Moreover, productions in Thailand depend on imports of raw materials and intermediate goods from abroad. This also causes trade deficit. Thailand must search for local competitive resource and utilize it effectively and efficiently.

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