CHAPTER I

INTRODUCTION

1.1 Background

Since almost all of countries embraced open economy as an economic system, International economic is now becoming a fundamental issue. In early 21st century, global economy is more closely linked through trade in goods and services, through flows of economy, through investment in each other's economies than even before. Therefore, external economic factor become a concern. One of the important instruments that usually used to overcome the external imbalance factors is the determination of exchange rate policy. This policy mainly done through the mechanism of monetary policy and it's link to international business and trade that at the end, lead to the purchasing power parity of a country.

The exchange rates play a central role in international trade since it is function makes people easier to compare the price of goods and services which produced in different countries. Moreover, it also considered as an indicator of global trade. By the existence of official organization trade such as ASEAN, APEC, NAFTA, EEC and others, it help to increase the role and value of exchange rates in world economy activities. The different periods or a regime become trends of the exchange rates movements and market condition. On the other hand, this fact shows how important the role of central bank as the ruler monetary authority.

The monetary policies are linkages between inflations, interest rates and exchange rates. Exchange rates are determined by interest rates and expectations about the future, which are, in turn, influenced by condition in national money markets (Krugman & Obsftfeld, 2009: 382). The idea of purchasing power parity (PPP) concept that provides more scope for exchange rate flexibility in coping with the monetary authority of the external imbalance, but also constantly required nominal exchange rate adjustment, is quite consistent with the changes in the domestic and foreign price levels. The predictions about long run movements in exchange rates behaviors are important even in short run. Because long run movement it provides the framework that actors in asset markets use to forecast future exchange rates. Not only about the time series of exchange rate movement but also variables which determine of exchange rates itself as an issue of phenomenon in PPP puzzle.

According to Taylor and Taylor (2004), Purchasing power parity (PPP) is a disarmingly simple theory that holds nominal exchange rate between two currencies should be equal to the ratio of aggregate price levels between two countries, so a unit currency of one country will have the same purchasing power in a foreign country. The idea that purchasing power parity may hold because international good arbitrage is related to the so-called Law of One price, which holds that the price of an internationally traded good should be the same anywhere in the world once that price expressed in common currency, since people could make a riskless profit by shipping the goods from location where the price is low to location where the price is high (by arbitraging). If the same goods enter each country's market basket used to construct the aggregate price level with the same weight, then the Law of One Price implies that a PPP exchange rate should hold between the countries concerned.

While compare to International Rate Parity that PPP compare to other arbitraging concepts such as Interest Rate Parity (IRP) and International Fisher Effect (IFE) to measure and predict exchange rate to be more effective. Because the general idea behind purchasing power parity is that a unit of currency should be able to buy the same basket of goods in one country at the equivalent amount of foreign currency, at the going exchange rate, can buy in a foreign country, so that there is parity in the purchasing power of the unit of currency across two economies (Taylor & Taylor, 2004). Since the IFE is based on purchasing power parity which focus on how a currency's spot rate will change over time. Note that exchange rates can be affected by differential inflation factor in accordance with difference in interest rates between countries. The IRP concept focuses on why the forward rate differs from the spot rate and on the degree of difference that should exist.

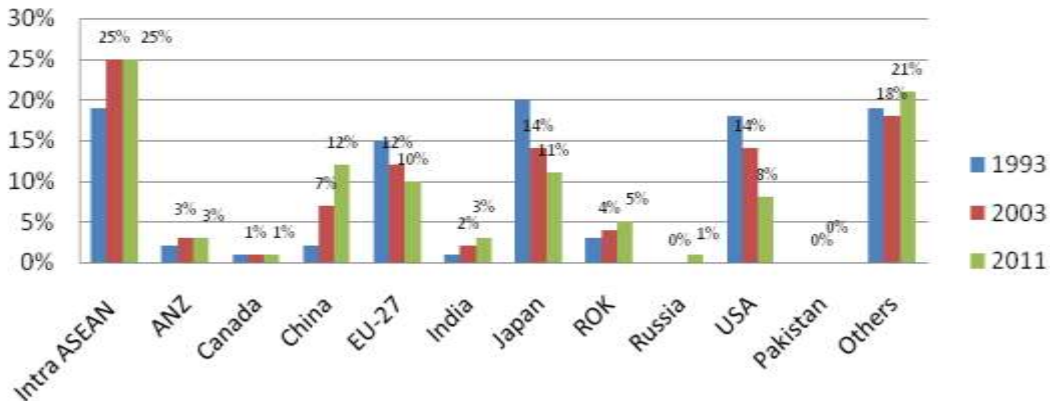
PPP theory has been tested in several countries and various statistical analysis methods, sample size period, data frequency. Studies in PPP theory of exchange rates that made the issue still continue and lively debate. Several researchers view that PPP holds long run balance and exchange rate determination as the basis for a nation's money which will be linked to the relative change in price level. While another study rejects the hypothesis of existing exchange rate and price ratio that might be only minimal or momentary while empirical work could find only the flimsiest evidence in support of purchasing power parity, and even these weak findings implied an extremely slow rate of reversion to PPP, at best, three to five years (Taylor and Taylor, 2004).

For example, Rogoff (1996), Frenkel (1978,1981) at Taylor &Taylor in 2004, Kim & Ogaki (2003), Sarno & Valente (2006), Alba & Papel (2007) at Halid, Janor, Nor in 2009 found that PPP holds for short term proposition and mostly found in European countries that fall into the range three to five years. While another study found some support for long run PPP by Cheng (1999) at Halid, Janor, Nor in 2009, Granger and Terasvirta (1993), Taylor (2001), Taylor, Peel and Sarno (2001) at Taylor and Taylor in 2004. However, whether or not such relationship holds in the long run, it has also not been without controversy in the literature. Added that the PPP theory holds better for countries with relatively high rates of inflation and underdeveloped capital markets (Cheng, 1999 at Halid, Janor, Nor in 2009).

For this empirical study the bivariate and multivariate framework determine to test of PPP. On the other hand, bivariate framework overlooked the links between goods and asset markets in the determination of exchange rates and it could be one of the reasons why the evidence does not support for PPP (Johansen & Juselius, 1992). On this issue, several studies have examined the behavior of exchange rates by looking at the relationship among prices, exchange rates and interest rates, such as Johansen and Juselius (1992), Juselius (1995), Cheng (1999), and Carporale, Kalyvitis and Pitties (2001) at Janor, Halid, Nor in 2009. Most studies have focused on data from developed economies. Although there is still a debate in the international macroeconomic theory, but a lot of open macroeconomics models that assume the concept is applicable to long-term equilibrium. Therefore this study will try to test it empirically.

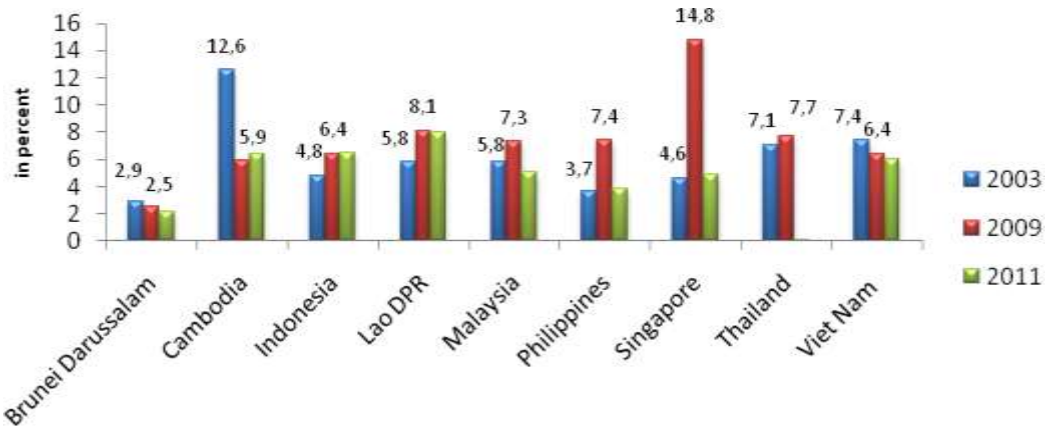
This study tested whether the PPP holds in the balance of short-term or long-term time series in Indonesia. Therefore some structural changes to the exchange rate used by the ASEAN countries made comparison since these countries have embraced the open economy and their variants where there are also countries – developed and developing countries in it. The growth of trade and GDP in ASEAN in 2003, 2009 and 2011 is shown in the table :

Figure 1.1 ASEAN Trade with selected trade partner countries/region, in percent share to total ASEAN



Source of data: ASEAN Trade Database (downloaded on August, 28 2013)

Figure 1.2 Annual rate growth of GDP at constant price in ASEAN member states



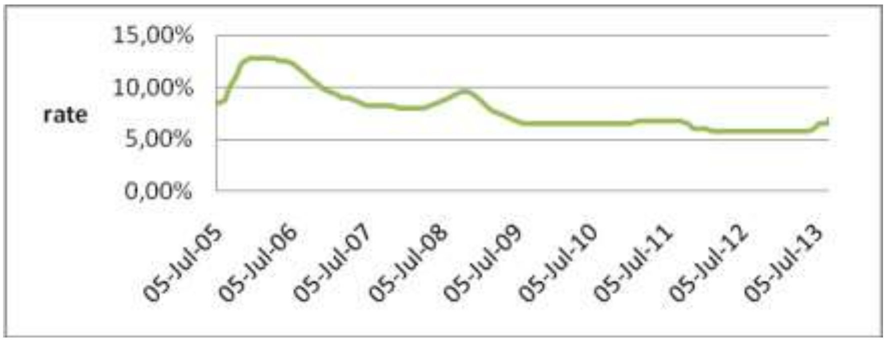
Note: ASEAN6 = Brunei Darussalam, Indonesia, Malaysia, Philippines, Singapore, Thailand; CLMV = Cambodia, Lao PDR, Myanmar, Viet Nam

Source of data: ASEAN Secretariat Database (downloaded on August, 28 2013)

Table 1.1 Shows those ASEAN is having a higher trade. Year by year it is increase until in 2011 with 25% compare to other countries that only have about 18% growth. ASEANcountries is releveant since these countries have opened their economies through external trade and capital flow which may influence and be influence by exchange rate behavior.

ASEAN secretariat database in table 1.2 shows that Indonesia has a significant GDP. This movement is increasing year by year and more stable than in other ASEAN countries. This will have a probability to get a long term expectation.

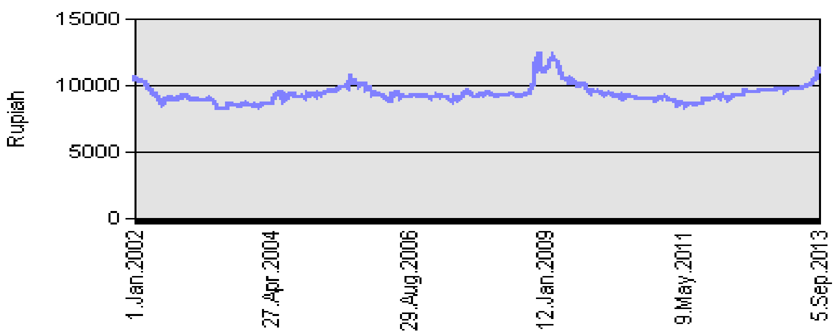
Figure 1.3 Interest rate of Indonesia , July 2005 – August 2013



Source of data: Bank of Indonesia, data processed author (downloaded on September, 2 2013)

Tables 1.3 explain about the interest rate of Indonesia during period 2005 until 2012. By knowing the rate behavior of Indonesia, it is can be expected how the Indonesia's monetary system to role the rate time by time. Indonesia's rates started to decrease from the beginning of 2007. As we know during that period there happened a crisis.

Figure 1.4 Exchange Rates on Transaction (currencies USD) from January 2002-September 2013



Source of data: Bank of Indonesia (downloaded on September, 5 2013)

Table 1.4 shows a graphic of the exchange rate behavior in Indonesia against dollar. This is the fact that Indonesia's hold a volatile condition in exchange rate. Then the determination of exchange rate is a fundamental issue which will be influenced by the global monetary system. As a theory of exchange rate determination, PPP assert that the exchange rate between two countries or more are determined by the relative price of two countries.

Based on the phenomenon and background above, the author is encouraged to conduct research with the title, “Purchasing Power Parity in Indonesia periods 2005-2012 using Cointegration approach.”

1.2 Problem statements

Based on the background that author had described above, the research problems are formulated as follows:

1. To determine whether the validity of PPP concept in bivariate (exchange rate & CPI) and multivariate framework (using those three variables; exchange rates, interest rates, CPI) towards all comparator countries per period is applicable or not?

2. Using 6-ASEAN countries as comparators, whether PPP in Indonesia hold on the long term or not?

1.3 Research Objective

The objectives of this study based on the problem formulation raised are:

1. To find out the existence between exchange rate, price ratio and interest rate which will examine the validity of PPP as basis of exchange rates determination habit in a country's exchange rate against the currencies of other countries to balance long-term exchange rates especially during periods of high inflation.
2. To determine the appropriate policy response based on the analysis of implication exchange rates setting whether it holds PPP or not.

1.4 Benefit of the study

The benefit of this research can be expected for:

1. As further consideration for monetary policy making in respect the Government and Bank Indonesia, in order to further solidify the performance, to run and decide monetary policy in Indonesia.
2. The academician can give a contribution and consideration of economic policies is taken and further research material.

1.5 Research methods

In order to achieve the objective above, in this study we used two methods that can be described as follows:

1. Review of the literature on the PPP determination.

This study discusses the findings of previous studies, both theoretically and empirically. In testing for PPP in Indonesia the data uses observations of exchange rates, consumer price indices (CPI) and interest rates. These data are collected from period January 2005 until December 2012.

2. Co integration approach

Co integration is technique currently Johansen's method (1988, 1991). An advantage of this above symmetry and proportionality conditions can be tested with a degree of precision. This research method is done with an explanatory concept which is based on the basic theory or some analysis and calculations.

1.6 Systematic of writing

Systematic for writing this thesis is as follows:

- **Chapter 1 Introduction**

This chapter to describe the important of study that provides background on issues, problems statement, research objectives, the benefits of research, research methods, and systematic research that will be used in the study.

- **Chapter II Literature Review**

This chapter to describe theoretical issue of this study that provides the definition of purchasing power parity, consumer price indices, exchange rates, interest rate , theories which related to the study and previous study also the hypothesis.

- **Chapter III Research Methodology**

In this chapter will be discusses about methodology used in this study. Provide about the type of research, design study, and variable used. Then will described the definition of operational variable, the population and the study sample, research steps, method of analysis and analysis of hypothesis test.

- **Chapter IV Analysis Result and Discussion**

In this chapter present the result of research that has been processed data then analyzed how the relationship and proportion between variables that are used. After that, compare with the comparator use another countries variable. In the end, all the results in research poured into the discussion result.

- **Chapter V Conclusions and Suggestions**

Contains the conclusions and suggestions of the analytical results obtained from the study and also the comparison result with the previous study.