

CHAPTER II

LITERATURE REVIEW

A. Empirical Review

1. Hardianto (2011)

The title of this research is “Volatilitas Kurs terhadap Pengaruh Politik dan Terorisme”. This study analyzes the influence of political and terrorism factors on exchange rate volatility in Indonesia. By using Multiple Regression, this research try to emphasize in which way the independent variable (i.e. dummy politic, dummy terrorism and inflation) have effect on dependent variable (i.e. exchange rate). This research used monthly data which is in 1998-2007 periods. The result of this study is in general, political and terrorism factors have positive relation with exchange rate volatility. It is means that political and terrorism factors tend to increase exchange rate volatility in Indonesia.

2. Kamal, et al. (2011)

The title of this research is “Modelling the exchange rate volatility, using generalized autoregressive conditionally heteroscedastic (GARCH) type models: Evidence from Pakistan”. In this study, an attempt is made to examine the performance of GARCH family models (including symmetric GARCH-M, asymmetric EGARCH and TARCH models) in forecasting the volatility behavior of Pakistani Foreign Exchange market. Daily Foreign Exchange rates data, ranging from January, 2001 to December, 2009 was put

to examine the Foreign Exchange volatility behavior in Pakistan. Theoretically, the first order autoregressive behavior of the Foreign Exchange rate was evidenced in GARCH-M and E-GARCH models while the GARCH-M model supports that previous day Foreign Exchange rate affected the current day exchange rate. The EGARCH-based evaluation of Foreign Exchange rates showed asymmetric behavior of volatility, where TAR model showed insignificance but detailed exploratory analysis of the Foreign Exchange rate behavior requires prolonged study by applying advance models.

3. Liu, Pauwels (2011)

The title of this research is “Do External Political Pressures Affect the Renminbi Exchange rate?”. This paper investigates whether external political pressures for faster renminbi (RMB) appreciation affect both daily returns and the conditional volatility of the RMB central parity rate. This research is event study methodology and use GARCH model to test the proposed hypothesis. The result of this research is US and non-US political pressure does not have significant impact on the conditional volatility of the RMB. Same exercise on the 12-month RMB non-deliverable forward rate (NDF) and the result is highly responsive to macroeconomic surprise news and there is some evidence that Sino-US bilateral meeting affect the conditional volatility of the RMN NDF.

4. Spulbar, Nitoi (2012)

The title of this research is “The Impact of Political and Economic News on the Euro/Ron Exchange rate: a GARCH Approach”. This research analyzes the impact of political news and economic news from euro area on the exchange rate between Romanian currency and euro. By using GARCH model, this research has purpose to emphasize the way in which the economic and political news affect the Euro/Ron quotation at 15 minutes interval between august 1st 2011 and august 23rd 2012. The explicative variables are political news and Euro area news and this research use Euro/Ron exchange rate percentage as dependent variable. The result of this research is political news positively affect the exchange rate and the event from euro area also have similar impact, the currency depreciation being more diminished in this case.

5. Schwindt (2014)

The title of this study is “The effect of Political Crises on the Venezuelan Bolivar”. This research use 5 models where each model regress the same independent variables that is ratio of Venezuela GDP per capita to US GDP per capita in cent (GDPPC), nominal price of barrel of oil (NOIL), Venezuela real interest less US real interest rate (IRD), Venezuela inflation rate less US inflation rate (INFD), if a coup or riot occurs (VIOL), if a major protest occurs (PROTEST), if election or referendum occurs (ELECT), if a major government announcement occurs (ANNOUN), if announcement of change in exchange rate regime (CHANGEER). But the dependent variables

change. The first four models have dependent variables which measure only the relative exchange rate with the United State while the last models contains dependent variable which measures the relative exchange rate with all major trading partners. The result of this research is political events do have a statistically and economically significant effect on the Venezuelan exchange rate.

6. Mpofu, Peters (2016)

The title of this research is “The impact of Monetary Policy Announcements and political events on the Exchange Rate: The case of South Africa”. This research investigates the impact of South African monetary policy announcement on the rand using an event studies approach as well as the impact of political events on the movements of Rand. This research is done by testing the significance of cumulative absolute return (CAR) using t-statistics. Using daily exchange rate data over the period March 1, 2000 to December 31, 2014, Rand is highly responsive to both monetary policy announcements and political events. A total of eight out of twelve monetary policy announcements displayed significant cumulative abnormal returns. The Marikana massacre on August 16, 2012, the firing of 12000 striking mine workers by Anglo American Platinum on October 5, 2012 and the release of the Nelson Mandela banknotes on November 6, 2012 were three key events that had significant impact on the Rand.

Table 1 Mapping of Empirical Review

1.	Researcher	Florentinus Nugro Hardianto (2011)
	Title	“The Effect of Politic and Terrorism on Exchange rate Volatility”
	Analysis	Multiple Regression
	Variable (s)	Independent Variables: Politic, Terrorism and Inflation Dependent Variable: Exchange rate Rp/US Dollar
	Result of Research	<ol style="list-style-type: none"> 1. In A model, Variable dummy politic and variable dummy terrorism have not significant effect on Rp/US Dollar exchange rate volatility. Coefficient positive means that the politic and terrorism cause the increasing of Rp/US Dollar exchange rate volatility 2. In B model, variable dummy politic has significant effect on Rp/US Dollar exchange rate volatility. And simultaneously, all of the independent variables have significant effect on Rp/US Dollar exchange rate volatility
2.	Researcher	Yasir Kamal Hammad-Ul-Haq, Usman Ghani and Muhammad Muhsin Khan (2011)
	Title	“Modeling the exchange rate volatility, using generalized autoregressive conditionally heteroscedastic (GARCH) type models: Evidence from Pakistan”
	Analysis	GARCH Model (symmetric GARCH-M, asymmetric EGARCH and TARARCH models)

Table 1 (Continued)

	Variable (s)	Examine the best model in measuring the Pak/US Exchange rate volatility
	Result of Research	1. The TARARCH model supports the time series exchange rate, following the asymmetric behavior and depicts the presence of leverage effect in both the daily and monthly returns. The results of this research work also support the fact that EGARCH is the best model to explain the volatility behavior of exchange rate data.
3.	Researcher	Laurent Pauwels, Li-Gang Liu (2011)
	Title	“Do External Political Pressures Affect the Renminbi Exchange rate?”
	Analysis	GARCH Model
	Variable (s)	Independent variable: political pressure Dependent variable: Renminbi Exchange Rate
	Result of Research	1. Political pressure calling for faster RMB appreciation has a statistically significant effect on the daily returns and the conditional volatility of both the central parity rate of the RMB exchange rate and the 12-month RMB non-deliverable forward rate
4.	Researcher	Cristi Spulbar, Mihai Nitoi (2012)
	Title	“The Impact of Political and Economic News on the Euro/Ron Exchange rate: a Garch Approach”
	Analysis	GARCH Model
	Variable (s)	Explicative Variable : Political news and Euro area news

Table 1 (Continued)

		Dependent Variable: Euro/Ron Exchange rate percentage modification
	Result of Research	<ol style="list-style-type: none"> 1. The political news positively affects the exchange rate. 2. The events from euro area are also positively affects the exchange rate.
5.	Researcher	Daniel Schwindht (2014)
	Title	“The effect of Political Crises on the Venezuelan Bolivar”
	Analysis	Linear Regression by using 5 models
	Variable (s)	<p>Independent variables:</p> <ol style="list-style-type: none"> a. Ratio of Venezuela GDP per capita to US GDP per capita in cent (GDPPC) b. nominal price of barrel of oil (NOIL) c. Venezuela real interest less US real interest rate (IRD) d. Venezuela inflation rate less US inflation rate (INFD) e. if a coup or riot occurs (VIOL) f. if a major protest occurs (PROTEST) g. if election or referendum occurs (ELECT) h. if a major government announcement occurs (ANNOUN) i. if announcement of change in exchange rate regime (CHANGEER) <p>Dependent variable:</p> <ol style="list-style-type: none"> a. Real Exchange rate b. Real Effective exchange rate c. Nominal Exchange rate
	Result of Research	1. Elections, announcements, and to a

Table 1 (Continued)

		<p>lesser degree changes in exchange regime and major protests have substantial impacts on Venezuela's exchange rates.</p> <p>2. Coups and riots were associated with appreciations of exchange rates, which may be explained by the fact that all of the coup attempts lasted less than three days and failed, preventing a sense of deep uncertainty.</p>
6.	Researcher	Trust R. Mpofu, Amos C. Peters (2016)
	Title	"The impact of Monetary Policy Announcements and political events on the Exchange Rate: The case of South Africa"
	Analysis	Event study methodology by using T-statistic
	Variable (s)	<p>Independent variable: Policy announcement and political event</p> <p>Dependent variable: Rand/US Dollar, Rand/GBP, Rand/Euro</p>
	Result of Research	<p>1. The results indicate that there is not much difference between the two models given the small difference in the coefficients of the CAR for each exchange rate.</p> <p>2. The results indicate significant cumulative abnormal returns in 8 out of 12 cases following the announcement of monetary policy. As for the exchange rate movements, the results are mixed. Sometimes it is appreciate and sometimes depreciate.</p>

Table 1 (Continued)

		<p>3. The Marikana event had a significant negative/bad effect on the exchange rates given the depreciation of all the three currencies while the release of Nelson Mandela banknotes had a significant positive/good effect on all the three exchange rates given the appreciation of three mentioned currencies.</p>
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Source: Data processed by researcher, June 2017

B. Theoretical Review

1. Exchange Rate

a. Foreign Exchange Rate

“Foreign exchange rate is to measure the value a currency from the perspective of other currencies” (Madura, 2000: 86). According to Yulianti and Prasetya (1998:59) “Exchange rate is as ratio between the value currencies”. Exchange rate indicates the price of currency when exchanged with other currencies. A decline in a currency’s value is indicates the depreciation, however the increase in a currency value is often indicates as appreciation.

b. Volatility of Exchange Rate

Volatility is a statistic measurement to measure the price movement at certain period. The measurement shows decreasing and increasing prices in short period but do not shows the level of prices except the variance level form one period to another period. High volatility reflects the uncommon demand and supply. Volatility is

estimated by calculating the standard deviation of changing price within a certain time, which determines how fast the data change randomly. In general, volatility measures the fluctuation average from time series data. However, the further research develops by emphasizing the variance value of the data. So it means that volatility variance as value of fluctuation data (Sunaryo: 2007 as cited at Hermayani et al.: 2014).

Time series data, especially in financial sector data are face the high volatility. High volatility is indicated by a phase where fluctuations are relatively high and then followed by low fluctuation and then move into high fluctuation again. In other words, this data has an average and variance that are not constant (Widarjono, 2009).

c. Factors Affecting Exchange Rate Movement

Since the breakdown of the Bretton Woods System of fixed exchange rate system in 1971-1973 and the implementation of floating exchange rate system, researchers have been motivated to describe the movements of exchange rate. According to Dunis et al. (2003:2) the main factors affecting exchange rates include economic indicators, such as growth, interest rates and inflation, and political factors. Psychological factors also play a part given the large amount of speculative dealing in the market.

In addition, the movement of several large foreign exchanges in the same direction can move the market. The interaction of these

factors is complex, making foreign exchange forecast generally difficult. Exchange rate is also determined by demand supply currency.

According to Madura (2008:89), factors that cause currency supply and demand schedules to change are:

1) Relative Inflation Rates

Changes in relative inflation rates can affect international trade activity, which influences the demand for and supply of currencies and therefore influences exchange rates.

2) Relative Interest Rates

Changes in relative interest rates affect investment in foreign securities, which influences the demand for and supply of currencies and therefore influencing exchange rates.

3) Relative Income Levels

A third factor affecting exchange rates is relative income levels. Because income can affect the amount of imports demanded, it can affect exchange rates.

4) Government Controls

A fourth factor affecting exchange rates is government controls. The governments of foreign countries can influence the equilibrium exchange rate in many ways, including:

- a. Imposing foreign exchange barriers
- b. Imposing foreign trade barriers
- c. Intervening (buying and selling currencies) in the foreign exchange markets, and
- d. Affecting macro variables such as inflation, interest rates, and income levels
- e. Expectations

Fifth factor affecting exchange rates is market expectations of future exchange rates. Like other financial markets, foreign exchange markets react to any news that may have a future effect.

5) Interaction of Factors

Transactions within the foreign exchange markets facilitate either trade or financial flows. Trade-related foreign exchange transactions are generally less responsive to news. Financial flow transactions are very responsive to news, however, because decisions to hold securities denominated in a particular currency are often dependent on anticipated changes in currency values. Sometimes trade-related factors and financial factors interact and simultaneously affect exchange rate movements.

Same as another price determination, exchange rate deviates from the valuation basis purchasing power of currencies under the influences of demand and supply of currency. The correlation of supply and demand depends on several factors. Usually the factors affecting exchange rate and its volatility are divided into two groups that are economic and non-economic factors. Economic factors are distinguished into long term and short term. Based on Twarowska and Kałol (2014), from some previous research conclude that there are two factors affecting exchange rate volatility and be provided in the table below.

Table 2 Factors Affecting Exchange Rate Fluctuations

Economic factors	
Short-term	<ul style="list-style-type: none"> a. rate of economic growth b. inflation rate c. interest rate in the country and abroad d. current account balance e. capital account balance f. currency speculation
Long-term	<ul style="list-style-type: none"> a. level of economic development of the country b. competitiveness of the economy c. technical and technological development d. size of the foreign debt e. budget deficit f. relative domestic and foreign prices g. capital flows
Non-economic factors	
<ul style="list-style-type: none"> a. political risk (e.g. risk of armed conflict) b. natural disasters c. policy approaches d. psychological factors 	

Source: Twarowska, Kałol, June 2014

d. Exchange Rate System

Exchange rate systems can be classified according to the degree by which exchange rates are controlled by the government. According to Madura (2008:154), there are four categories of Exchange rate systems:

a) Fixed Exchange Rate System

In fixed exchange rate system, exchange rates are either held constant or fluctuate only within very narrow boundaries. There are some beneficial for country that follow fixed exchange rate system, first, for exporters and importers could engage international trade without concern about exchange rate movements. Another benefit is that firms could engage in direct foreign investment, without concern about exchange rate movements of that currency. They would be able to convert their foreign currency earnings into their home currency without concern that the foreign currency denominating their earnings might weaken over time.

b) Freely Floating Exchange Rate System

In freely floating exchange rate system, exchange rate values are determined by market forces without intervention by government. A freely floating exchange rate is depends on demand and supply of market for that currency. One of advantage of this system is that state currency is more insulated from the inflation of other country. Another advantage is more insulated with unemployment problems in other countries.

c) Managed floating Exchange Rate System

It is similar to the fixed rate system in that governments can and sometimes do intervene to prevent their currencies from moving too far in a certain direction. This type of system is known as a managed float.

d) Pegged Exchange Rate System

Some countries use a pegged exchange rate arrangement, in which their home currency's value is pegged to a foreign currency or to some unit of account. While the home currency's value is fixed in terms of the foreign currency (or unit of account) to which it is pegged, it moves in line with that currency against other currencies.

e. Exchange Rate Determinant

The spot exchange rate refers to the current exchange rate. In foreign exchange currency, there is currency pair means the quotation of the relative value of a currency unit against the unit of another currency in the foreign exchange market. The quotation EUR/USD 1.2500 means that 1 Euro is exchanged for 1.2500 US Dollar. Quotes using a country's home currency as the price currency are known as direct quotation or price quotation and are used by most countries. Quotes using a country's home currency as the unit currency are known as indirect quotation or quantity quotation.

f. Foreign Exchange Market

Exchange rates are determined in the foreign exchange market, which is open to a wide range of different types of buyers and sellers where currency trading is continuous: 24 hours a day except weekends. According to Dunis et al. (2003:1) "the global FX market is massive with an estimated current daily trading volume of USD 1.5 trillion, the largest part concerning spot deals, and is considered deep and very liquid. By currency pairs, the EUR/USD is the most actively traded".

Foreign Exchange is foreign currency and international transaction tool that has official rate data in in central bank (Hady, 2007:61). "Foreign Exchange Rate market is defined as a place or a system where companies, individual or banks can conduct international financial transaction with buy or demand and sell or

supply on Foreign Exchange “(Hady, 2007:62). The foreign exchange market allows for the exchange of one currency for another (Madura, 2000:57). Another definition about Foreign Exchange Market is “place that provides physical and institutional means to conduct foreign exchange trade, foreign exchange rate determine and implement foreign exchange management (Yulianti and Prasetyo, 1998: 71).

Based on some definition above, it can be concluded that foreign exchange market is place where demand and supply of foreign currency and it will make the international trade transaction between countries are easier. According to Hady (2007: 64) foreign exchange rate market has several functions in order to help the international payments, that are:

- a) Organizing international transaction, so it will simplify the foreign exchange and fund transfer from a country to another country.
- b) Providing short-term credit facility for international payment.
- c) Providing hedging facility that means an action taken by foreign exchange trader to avoid losses from fluctuations in foreign exchange rate against international transaction activity.

2. Political Event

According to Plano as cited in Herdianto (2004) politics is human activity relating with making and implementing decisions. Political event is event that occurs in a certain palace during a particular interval of time in term of politic decision that lead on political event. Every country faces certain political event which is gives the positive and negative impact on country condition whether in economic, politic and social area. Some of political event can caused the effect which can be interpreted as risk.

Broadly, political risk refers to the complications businesses and governments may face as a result of what are commonly referred to as political decisions - or any political change that alters the expected outcome and value of a given economic action by changing the probability of achieving business objectives. There are both macro- and micro-level political risks. Macro-level political risks have similar impacts across all foreign actors in a given location. While these are included in country risk analysis, it would be incorrect to equate macro-level political risk analysis with country risk as country risk only looks at national-level risks and also includes financial and economic risks. Micro-level risks focus on sector, firm, or project specific risk.

C. The Relationship between Variables

Increasing in political risk should lead to a depreciation of the currency of the country that experiencing the political risk. This relationship is characteristic of freely floating exchange rate regimes whereby market players are free to respond to political risk by selling currency of the risky country and buying currency of more stable economies. Many previous studies prove that political events are influences the exchange rate. According to (John Maynard Keynes in lee and Glazer et, al, 1985) “that politics greatly influences exchanges rate”. New York *Times* reported

“..... The value of Dollar on any given day is like a global referendum on all of the policies of the Clinton administration combined, “said a senior Clinton advisor”.

The role of exchange rate in an open economy framework is important in the monetary transmission mechanism. Real exchange rates affect aggregate demand channel of the monetary transmission of monetary policy. It affects the relative prices between domestic and foreign goods and foreign demand for domestic goods. The direct exchange rate channel for monetary policy transmission, affects inflation through domestic price of imported goods and intermediate inputs, which are components of consumer price inflation. According to Ncube & Ndou (2011) Appropriate macroeconomic policies are keys to ensuring economic stability and growth. According to Leblang (2006):

“Some political economists emphasize how currency markets affect politics, arguing that the size and volatility of currency markets alters underlying social and political cleavages, constrains policy options, affects electoral outcomes, and contributes to the erosion of the nation-state. A second set of political economists views the causal arrow in the other direction, contending that politics shapes currency market behavior. These studies reveal considerable variation in how exchange rates respond to elections. In some instances, markets react calmly to political changes. In others, political events touch off frenetic activity. Attempts to explain this variation have not had compelling support. Each set of studies assumes that either markets or politics is exogenous. The first group takes currency markets as exogenous to political factors, discounting the possibility that politics affects exchange rate behavior. The second set assumes that political events are exogenous, ignoring the possibility that currency market activity can precipitate a cabinet dissolution or affect an electoral outcome.”

D. Event Study

Event Studies is the academic field devoted to creating knowledge and theory about planned events. The core phenomenon is the experience of planned events, and meanings attached to them. “Event Studies draws mainly from the

social sciences, management, the arts, humanities and a number of closely related professional fields” (Getz, 2007:2).

According to Bodie et al (2011: 353) “event study describes a technique of empirical financial research that allows an observer to assess the impact of particular event on company stock prices”. Another definition about event study is stressed by Jogiyanto (2003: 392), “event study learned about market reaction towards an event and the information was published as the announcement”. Although event study has a wide range, the several previous researches observe the impact of economic event on stock movement (eg. Merger, stock split, dividend announcement etc).

E. Conceptual Model and Hypotheses Model

a. Conceptual Model

Conceptual Model is a model that used to describe how the theory has the logical relationship and connect the identified problems. Conceptual model is also explains each variables in the research. This model will be used to develop the hypotheses model.



Figure 2 Conceptual Model
Source: Theoretical review, June 2017

b. Hypotheses Model

Hypotheses also can be interpreted as a temporary statement about what we observe in order to understand it (Nasution, 2007: 39). Hypotheses can be developed from previous research or the extent theory and also can come from logical thinking. This research created hypotheses by using previous research and theory as references. Some of previous researches concluded that there are some significant effects of political event on exchange rate volatility. So the researcher tries to explore the effect of political event on exchange rate by using some of instrument of measurement.

Based on background and theoretical review mentioned in this research, the researcher constructs four hypotheses related with the problem. These hypotheses will be measured by using approach. These approaches are Event study method and ARCH-GARCH method. There are four hypotheses, those are:

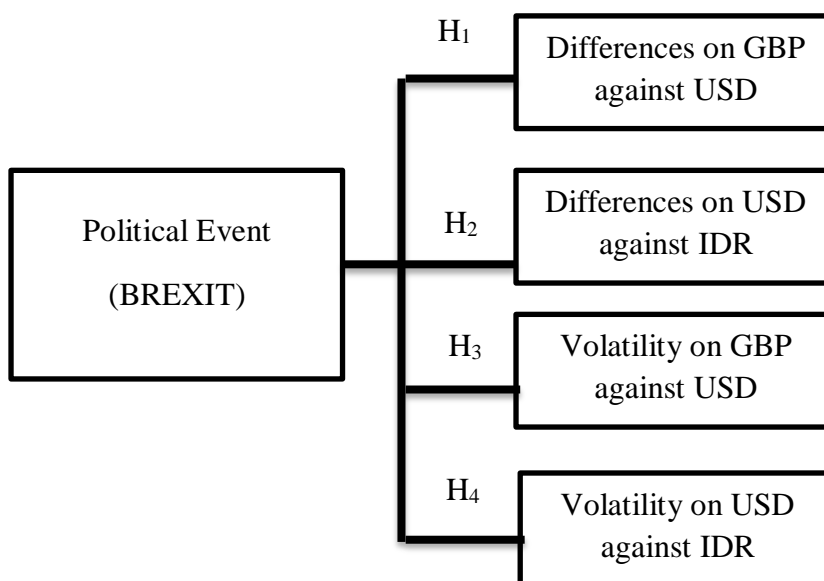


Figure 3 Hypotheses Model

Source: Data Processed by Researcher, October 2017

Hypotheses I

- H₀ : There is no difference on Poundsterling (GBP) against US Dollar exchange rate before and after British Exit
- H₁ : There is difference on Poundsterling (GBP) against US Dollar exchange rate before and after British Exit

Hypotheses II

- H₀ : There is no difference on US Dollar against Rupiah exchange rate before and after British Exit
- H₂ : There is difference on US Dollar against Rupiah exchange rate before and after British Exit

Hypotheses III

- H₀ : There is no volatility on Poundsterling (GBP) against US Dollar exchange rate around British Exit event
- H₃ : There is volatility on Poundsterling (GBP) against US Dollar exchange rate around British Exit event

Hypotheses IV

- H₀ : There is no volatility on US Dollar against Rupiah exchange rate around British Exit event
- H₄ : There is volatility on US Dollar against Rupiah exchange rate around British Exit event