An Empirical Study on Interest Rate towards International Markets

Assist. Prof. Dr. Yousif ALI ABED AL-ASADI

Faculty of Administration and Economics, Basra University, Basra, Iraq

An Empirical Study on Interest Rate towards International Markets

Abstract

Interest rate is one of the fiscal factor that is used to regulate the monetary policy of a country. The main objective of the study is to know about the interest rate prevailing with countries and to analyze about impact of interest rate towards international currency pairs. For this purpose the currencies of five countries were taken and they were compared with the interest rate to know about the impact. The conclusion that the interest rate changes has an impact towards the market in mid and long term basis with all the currencies taken for the study.

Keywords: Interest rate, fiscal and monetary policy.

1. INTRODUCTION

An interest rate or rate of interest is the quantity of interest due per period, as a quantity of the amount lent deposited or borrowed (called the principal sum). The entire interest on an amount lent or borrowed depends on the principal sum, the interest rate, the compounding frequency and the overall length of time over which it is lent, deposited or borrowed. It is well-defined as the proportion of an amount loaned which a lender charges as interest to the borrower, typically articulated as an annual percentage. It is the rate a bank or additional lender charges to borrow its money or the rate a bank pays its savers for keeping money in an account. Annual interest rate is the rate over a period of one year. Other interest rates smear over different periods such as a month or a day, but they are frequently annualized [4-6].

International interest plays a key role towards their economy which is been a regulating measure for the monetary policy of the economy. The market fluctuations with international cross currencies vary according to the impact with monetary policies of their country and interest rate is one of the fiscal policy used to regulate the monetary measures of the economy. The interest with the banks are fixed by the corresponding central banks to regulate the money flow of the country [7-9].

A. Objectives of the Study

To know about the interest rate prevailing with countries. 2) To analyze about impact of interest rate towards international currency pairs. 3) To predict the future volatility of currency pairs based on interest rate.

B. Scope of the Study

The study is to analyze the volatility of currency pairs based on interest rate of various economies. The interest rate varies accordingly each and every month based on the volatility. The main scope of the study is that it will be helpful for the investors and the countries to know about the impact of interest rate towards their economy which will be helpful for them in decision making process.

C. Need of the Study

Most of the people are been not aware about the impact of interest rate towards the volatility. The need is that to create an awareness about the currency fluctuation based on interest rate.

II. DETAILED LITERATURE REVIEW

Ikechukwu Kelilume (2014) [1] in his study analyzed the monetary policy and its impact with interest of Nigeria from 2007-2012. The data was collected form monthly time series data received from central banks. The conclusion is that continuous use of monetary tools to maintain the price stability with the market provides a desired yield with medium term and long term monetary policy goals.

Marvin Goodfriend (1991) [2] in his study evidenced that reframing of policy executed by interest-rate aiming may unintentionally persuade martingale-like behavior in nominal rates and inflation. He also explained why the central bankers prefers continuity of the short rate and indirect rate targeting.

Lina Fransson and Oskar Tysklind (2016) [3] in his research analyzed the transmission for monetary policy by analyzing the interest rate and he found out that there is a relationship between repo rate and interest rate and concluded that the interest rate have normally adjusted line with repo rates.

III. RESEARCH METHODOLOGY

A. Research Design

Analytical research is been used in the study as the data is analytical in nature.

B. Sample Design

Monthly fluctuations of currency pairs were taken for analyzing the data based on release date of interest rates. The currency pairs used for the study are: Euro, US Dollar, Canadian dollar, Australian Dollar and Great Britain Pound

C. Sources of Data

Secondary source, MT4 platform and investing.com. Also, the tools used for analysis is the Interest rate

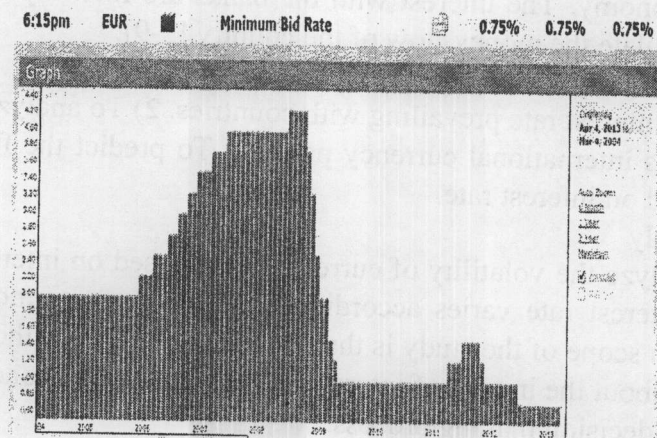## IV. VOLATAILITY BASED ON FUNDAMENTAL ANALYSIS OF INTEREST RATE

Figure 1: Euro Minimum Bid Rate

Figure 2: Five Year Chart for Euro

Interpretation on Euro

The above chart shows about the unemployment claims of five years and the impact of price of last five years. The interest rate was been high at 4.25% in the year 2013 and the price seems to be deprecated due to lag of fiscal measures and within one year the interest rate was decreased to 0.75% and the impact was also been in positive trend where there was an appreciation of price in the market [10, 11].
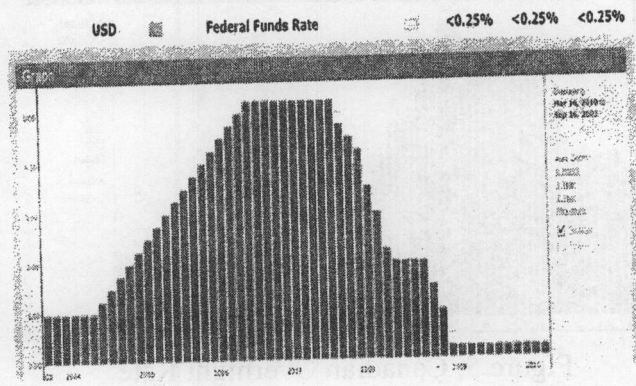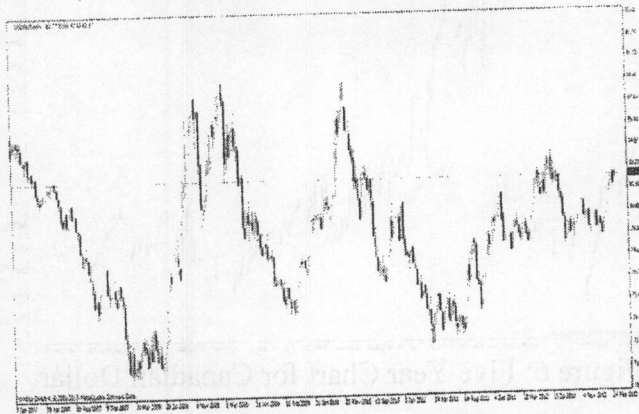
Figure 3: US FED Funds Rate

Figure 4: Five Year Chart for US Dollar

Interpretation of US Dollar

The US bank interest rate is otherwise called as Fed fund rate and it's been governed by central bank of US for maintaining the interest rate to control the inflation. The interest rate was high at 5% in the year 2012. This chart shows the individual Index price of US dollar where the increase in price of the money shows that the economy is in developing stage and if it decreases the value for money will also be decreasing. Here the value decreased because of the increase in the interest rate of the country and the central reduced it to <0.25% in recent years but the market is range bound where the tool doesn't make any impact in the economic slowdown [12].

Interpretation of Canadian Dollar

The Canadian interest rate is otherwise called as overnight rate where it's been governed by central bank of Canada. The interest rate was high at 4.25 in between mid of 2007 to 2012. The value of the market also get depreciated at the same time and after 2012 the interest rate was reduced to 0.25 in the year 2014 and the value for money got appreciated at the same time which shows that there is an obedience level for the market using interest rate as a fundamental analysis under consideration [13].
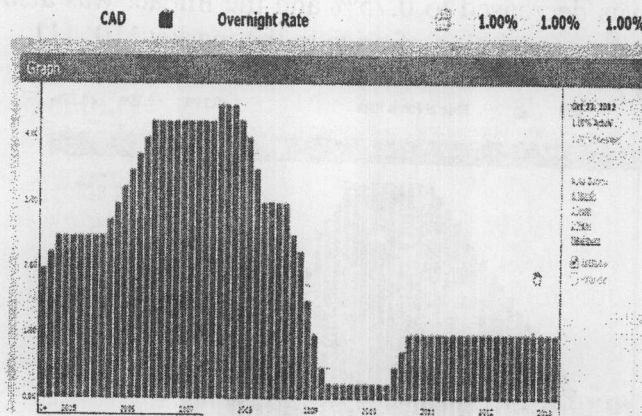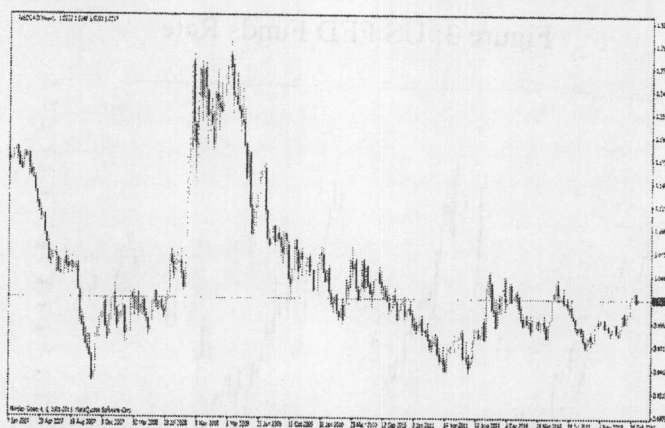

Figure 5: Canadian Overnight Rate

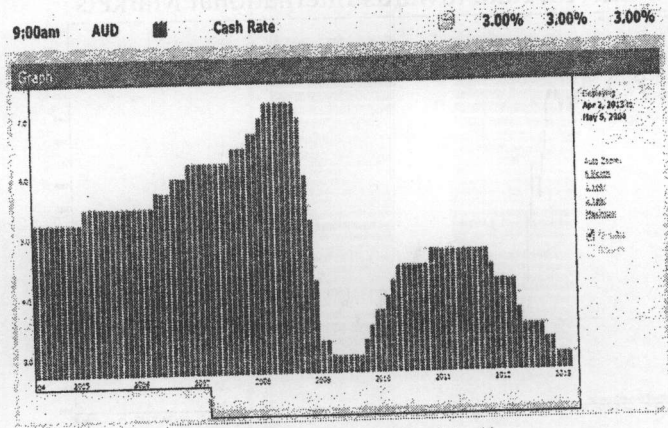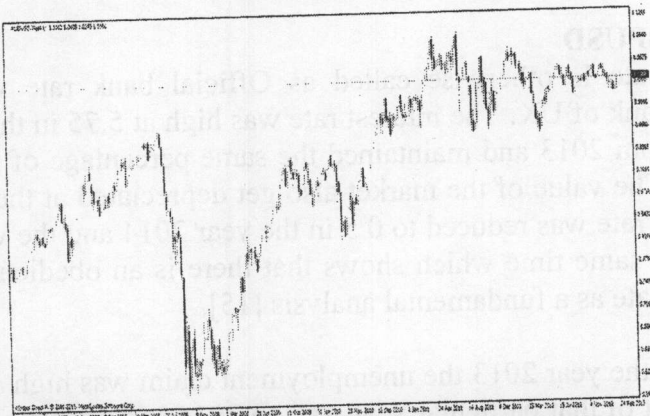Figure 6: Five Year Chart for Canadian Dollar

Figure 7: Australian Dollar

Figure 8: Five Year Data for Australian Dollar

Interpretation of Australian Dollar

The Canadian interest rate is otherwise called as overnight rate where it's been governed by central bank of Canada. The interest rate was high at 4.25 in between mid of 2007 to 2012. The value of the market also get depreciated at the same time and after 2012 the interest rate was reduced to 0.25 in the year 2014 and the value for money got appreciated at the same time which shows that there is an obedience level for the market using interest rate as a fundamental analysis [14].
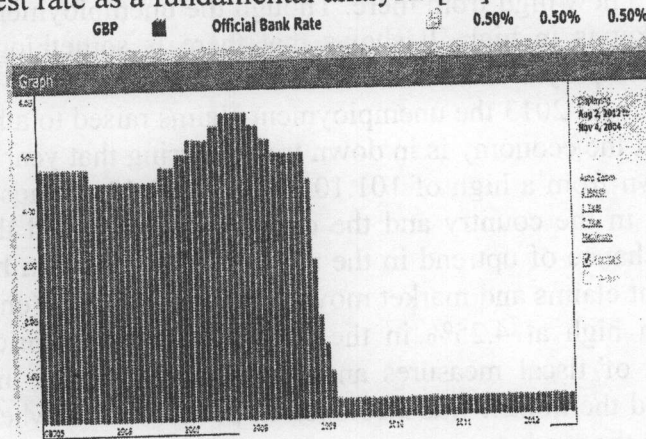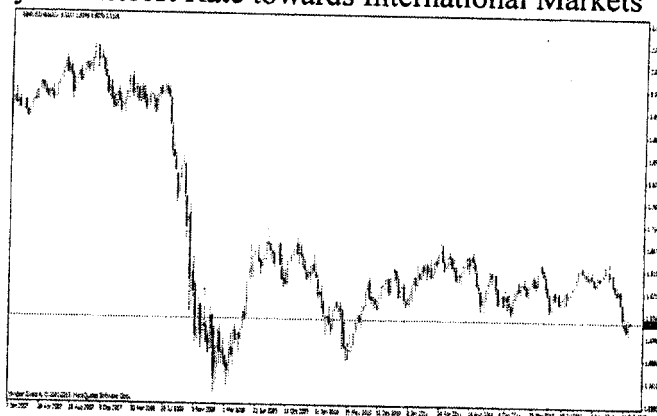

Figure 9: GBPUSD Interest Rate

Figure 10: Five Years Data for GBPUSD

Interpretation of GBPUSD

The Pound interest rate is otherwise called as Official bank rate where it's been governed by central bank of UK. The interest rate was high at 5.75 in the year 2012 and was reduced to 0.5 from 2013 and maintained the same percentage of interest till now without any change. The value of the market also get depreciated at the same time and after 2012 the interest rate was reduced to 0.5 in the year 2014 and the value for money got appreciated at the same time which shows that there is an obedience level for the market using interest rate as a fundamental analysis [15].

V. THE FINDINGS

In US economy From the year 2013 the unemployment claim was high at 600 thousand peoples and the impact of that particular year was on 2014 and after the recovery in the year 2011 the unemployment claims slowly reduced to 400 thousand people and the market came after that in the year 2011.The US interest rate was reduced from 5% to .25% P.A from 2007 to 2013 so the market came down after reducing the interest rate. It shows that there was a perfect correlation between the market and interest rate.

In Canadian economy during that year the volatility was very low and the price movement was in a consolidation stage after the recovery in employment the market came down and now there is a chance of appraisal in the market.

In Australian economy during that year the market came down slightly to a low of 0.9300and it raised to a new high from there. Though the unemployment claim was not reduced still the market is in high. It shows that there is something fundamentally effecting more than unemployment claims in Australian market.

In Japanese Yen In the year 2013 the unemployment claims raised to a high of 4.2 from 5.6% which shows that the economy is in down trend. During that year the market rose slightly and came down from a high of 101.10 to a low 74.40, because of increase in unemployment claims in the country and the company has reduced the claims to an extent and there is a chance of uptrend in the market. And there is a huge correlation between unemployment claims and market movements in Japanese Yen. With Euro the interest rate was been high at 4.25% in the year 2013 and the price seems to be deprecated due to lag of fiscal measures and within one year the interest rate was decreased to 0.75% and the impact was also been in positive trend where there was an appreciation of price in the market.

With US dollar the interest rate was high at 5% in the year 2012. The value decreased due to increase in the interest rate of the country and the central reduced it to <0.25% in

recent years but the market is range bound where the tool doesn't make any impact in the economic slowdown.

In Canadian dollar the interest rate was high at 4.25 in between mid of 2007 to 2012. The value of the market also get depreciated at the same time and after 2012 the interest rate was reduced to 0.25 in the year 2014 and the value for money got appreciated at the same time which shows that there is an obedience level for the market using interest rate as a fundamental analysis.

With Australian dollar the interest rate was high at 4.25 in between mid of 2007 to 2012. The value of the market also get depreciated at the same time and after 2012 the interest rate was reduced to 0.25 in the year 2014 and the value for money got appreciated at the same time which shows that there is an obedience level for the market using interest rate as a fundamental analysis.

With pound the interest rate was high at 5.75 in the year 2012 and was reduced to 0.5 from 2013 and maintained the same percentage of interest till now without any change.

VI. SUGGESTIONS

In interest rate analysis of the economies some pairs obey to the interest rates involved in the market and some pairs doesn't obey to the interest rates. So it is preferred that to follow the analysis made in their study to buy and sell to make profit in the market.

VII. CONCLUSION

The market fluctuations with international cross currencies vary according to the impact with monetary policies of their country and interest rate is one of the fiscal policy used to regulate the monetary measures of the economy. The interest with the banks are fixed by the corresponding central banks to regulate the money flow of the country. The study is to analyze about the interest rates of various countries and their impact on currency pairs. The conclusion that the interest rate changes has an impact towards the market in mid and long term basis with all the currencies taken for the study.

References

[1] Ikechukwu Kelilume (2014) "Effects of the monetary policy rate on interest rates in Nigeria" The International Journal of Business and Finance Research, volume 8, number 1, page no 45-55.

[2] Marvin goodfriend (1991) "Interest rates and the conduct of monetary policy" Carnegie-Rochester Conference Series on Public Policy 34 (1991) 7-30.

[3] Lina Fransson and Oskar Tysklind (2016) "The effects of monetary policy on interest rates" sveriges riksbank economic review Page no 38-60.

[4] Technical Analysis: The Complete Resource by Kirkpatrick and Dahlquist Achelis, Steven B., Technical Analysis from A to Z, second edition, Probus Publishing Company, 2000, ISBN-13: 978-0071363488.

[5] DeGennaro, Ramon P. and Shrieves, Ronald E., Public Information Releases, Private Information Arrival, and Volatility in the Foreign Exchange Market (December 1997). Journal of Empirical Finance Volume 4, Issue 4, December 1997, Pages 295–315.

[6] Masih, A. M. M. & Masih, R. (1997). A comparative analysis of the propagation of stock market fluctuations in alternative models of dynamic causal linkages. Applied Financial Economics, 7 (1), 59-74.

[7] Agarwal, R N (2000): 'Financial Integration and Capital Markets in Developing Countries: A Study of Growth, Volatility and Efficiency in the Indian Capital Market', mimeo, Institute of Economic Growth, Delhi.

[8] Bae, K, Cha, B, & Cheung, Y (1999): 'The Transmission of Pricing Information of Dually Listed Stocks', Journal of Business Finance and Accounting, 26 (5) and (6), June/July, 709-23.

[9] Becker, K, Finnerty, J., & Gupta, M. (1990): 'The Intertemporal Relation between the US and Japanese Stock Markets', Journal of Finance, 45, 1297-1306.

[10] Bennett, P., & Keller, J. (1988): 'The International Transmission of Stock Price Disruption in October 1987', Federal Reserve Bank of New York Quarterly Review, Summer, 17-33.

[11] Froot, K., & Dabora, E. (1999): 'How are Stock Prices Affected by the Location of Trade?', Journal of Financial Economics, 53, 189- 216.

[12] Hansda, S. K., & Ray, P. (2002): 'BSE and Nasdaq: Globalisation, Information Technology and Stock Prices', Economic and Political Weekly, 37 (5), February 2, 459-468.

[13] Howe, J S., & Madura, J. (1990): 'The Impact of International Listings on Risk: The Implications for Capital Market Integration', Journal of Banking and Finance, 14, 1133- 42.

[14] Yakob, N. A., Beal, D., & Delpachitra, S. (2005) Seasonality in the Asia Pacific stock markets. Journal of Asset Management, 6 (4), 298-318.

[15] Poshakwale, S. (2002). The Random Walk Hypothesis in the Emerging Indian Stock Market. Journal of Business Finance & Accounting, 29 (9&10), 1275-1299.