

Erdođdu, Aylin; Karamehmet, Aydin

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## Foreign Exchange and Forex Markets Transactions: Implementation on Turkey's Economy

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## **Foreign Exchange and Forex Markets Transactions: Implementation on Turkey's Economy**

Aylin Erdoğan 1, Aydın Karamehmet 2

1Banking and Finance, Applied Sciences, Istanbul Arel University, Istanbul, Turkey

2Istanbul Medipol University, Istanbul, Turkey

[aylinerdogdu@arel.edu.tr](mailto:aylinerdogdu@arel.edu.tr)

[aydinkaramehmet@gmail.com](mailto:aydinkaramehmet@gmail.com)

### **Abstract**

*Foreign Exchange rate movement is one of the most important indicator for investors decision to invest in the Foreign Exchange and Forex markets. The development of this market and gaining stability of this progress is possible through the investment of the investors. If investors invest keeping in mind the factors affecting market, will make more healthy investment decision. It is of great importance for investors, investing these markets, determination of factors what causes volatility in Foreign Exchange and Forex market. The aim of this study is, explaining all features of the Foreign Exchange and Forex market, determining factors influence to what extend trading volumes of Foreign Exchange and Forex markets. Macro and micro factors which affect the Foreign and Forex markets are dealt with. Two applications were also made using the method of 'Multiple Linear Regression Analysis' to measure the impact of these factors.*

*The research includes applications of multiple linear regression model. In the first application, the data set consists of monthly data for Forex Transaction Volume, between 01.01.2013 - 01.04.2016 date, the second one, the data set consists of monthly data for Foreign Exchange Deposit Account, between 01.01.2006 - 01.05.2016. In the use of the data, at the end of month values are taken into account and obtained from CBRT (Central Bank Of The Republic Of The Turkey), CMB (Capital Markets Board of Turkey) and TCMA (Turkish Capital Market Association) internet sites. In the first analysis, Forex Transaction Volume is used as a dependent variable. In the other analysis; Currency Deposits Account Volume is used as a dependent variable. Independent variables used in both analyzes; USD / TR, gold ons price, inflation (CPI) and BIST Trading Volume.*

*According to the results of the research; the most important factor determining whether affecting dependent variables within the independent variables is U.S dollar. According to the Multiple Linear Regression Model, there is a positive correlation between dollar exchange rate and Forex Transaction Volume and Foreign Exchange Deposits Account Volume. This is a very meaningful and expected result.*

*Because the majority of Forex market transactions are foreign exchange buying and the most denominated currency is US dollar in Turkey, the increase in the currencies will increase the trading volume on the market. As the dollar rallies begin to rise, investors are anticipating trends in this direction and they are shifting their money towards this direction. This trend also leads to an increase in Foreign Exchange Deposit's volume.*

*As a result of the study, the investors, the fields they should invest in and the issues that they should pay attention to are discussed within the scope of the research, and both academic and sectoral information has been given.*

*The main aim of the investors is to achieve a prosperity. For this reason, the risk factor of most of the investments that will take place is the most important place. The risk may increase the return or it may lose all the money. Firstly, the market and investment vehicle must be thoroughly researched and investments should be made at the right time.*

*Keywords: Foreign Exchange Deposit, Foreign Exchange Market, Forex Market, Multiple Linear Regression Analysis*

Track: *Governance*

Word Count: 5.824

## **1. Introduction**

In this day and age, with the rapid development of tools such as technology, communication and correspondence the dependency of countries' economies to each other has increased tremendously. Therefore financial globalization has become inevitable and international financial relations have gained great importance. New regulations that have been put into practice are trying to meet the different demands and types of emerged markets.

Despite the fact that the market offers the possibility to trade in different materials, most transactions are the trade of foreign currency as well as the Forex market. In this context, banks and brokerage houses, importers, exporters, multinational corporations, international financial institutions and individual investors all participate in the Forex market. The simplest definition is called the Forex, which means the currency of one country is replaced by the currency of another country, and which in recent years has been trading on other markets has been attracting the interest of investors in Turkey. Likewise, arbitrage is the process of earning profit by using exchange rate differences in various financial centres at a certain time.

As one of the most significant emerged market, Turkey, most of the investors hold their foreign currency in the foreign exchange deposits of the banks in there. Mentioned investors who are not willing to undertake risk have a large part of the foreign currency in the country. The primary reason for this is that saving money under the mattress is not safe: Even if foreign exchange deposits rates are low, saving money in these types of accounts is still attractive. However, there are also individual investors and institutions that aim raising a certain level of risk and making more profits by evaluating the foreign currency in diversified markets. Investors who want to evaluate foreign currency or the Turkish lira contribute greatly to the growth and development of the Forex market.

The essence of the Forex market is based on the exchange between the national currency of one country and the national currency of another country. By and large, due to the leverage feature in the market these exchanges has reached a trillion dollars in volume. The Forex market is largely centralized; the participants are physically distant from each other and communicate with the telephone and computer networks. There are many geographic trading centres all around the world for transactions in the Forex market, The most important of these are: London, New York, Tokyo, Frankfurt, Singapore, Geneva, Zurich, Paris and Hong Kong (Doğukanlı H., 2012). Almost all of the transactions that are done differently from other markets are made over the internet.

The aim of this study is firstly to give some specific definitions, such as exchange markets and the Forex market and their basic concepts with details. Subsequently it is focused on performing regression analysis with selected macroeconomic variables. When the studies in the literature are examined it can be seen that the analysis methods used are predominantly conducted in the direction of the questionnaire study and that there is no analysis by econometric methods. From this point of view, it can be said that this paper has distinguished itself from others.

## 2. Literature Review

A study conducted by Aslan and Korap (2007) entitled *Analysing Cbirt's Forex Interventions Using EGARCH* examined the efficiency levels of policies to prevent and stabilize crises in the Turkish economy). It is concluded that if interventions stemming from monetary authorities rather than exchange markets themselves are more effective.

The relationship between the foreign exchange rates in Turkey and external debt, real sector and balance of payments is explained with the Granger causality test in Ata and Arslan's (2009) study named "Exchange Rate and Market Dynamics Relation (An Empirical Study for Turkish Economy)". As a result of this study, the existence of causality relation between real exchange rates and external debt, real sector and balance of payments was explained.

Doğukanlı et al.(2010) investigate the exchange rate sensitivities of the main sector and sub-sector stock indices in the ISE (Istanbul Stock Exchange) in terms of Dollar and Euro currencies in the study "Investigation of Sensitivity of Foreign Exchange Rate in ISE Sector". This study showed that the sensitivity of exchange rates differ between sectors.

Alacahan's (2011) study entitled "Inflation, Exchange Rate Relation and Reflection: Turkey" explains the relationship between inflation in Turkey and the exchange rate. The study concluded that the fact that products with high added value cause an increase in production plays a significant role in decreasing our dependence on imports and the result that inflation will increase the welfare of exchange rates.

Additionally, in the study entitled "The Relationship between Dollarization Process and Exchange Rate Uncertainty in Turkey", Sever (2012) justifies the existence of a two-way relationship between dollarization and exchange rate uncertainty. The study concluded that this relationship is a one-way causality relation .

In Azgun's study (2013) entitled "Transition of Internal Rate of Exchange Rate Movements in Turkey (Import Prices, PPI and CPI)", exchange rate dynamic processes were considered within macroeconomic framework. This study based on the import prices using the structural VAR model. The effects of exchange rates on domestic prices and the effects of supply-demand shocks on domestic prices were examined. Ultimately it concludes that when the price of exchange rates is determined, supply and demand shocks are more effective than domestic prices.

Furthermore, Berke (2014) focuses on the micro structure theory of exchange rates in his study "Microstructural Approach to Foreign Exchange Rates: A Literary Review". This empirically conducted study, examines the exchange rate movements in microstructure. As a result, the micro-structuring approach is included in a trading process, in which, unlike macro models, where only public information is important, specific information inputs to the underlying variables is able to exist. The study concluded that sharing information is healthy contributes to the increase in the effect of micro-structures on foreign exchange prices.

Cambazoğlu et al.(2014) analyse short-term interest rates, the real effective exchange rate, net exports, consumer price index and industrial production index cause and effect analyses in the study titled "The Effects of Exchange Rates on Macroeconomic Variables: A Study on Selected Emerging Economies". The study concludes that rising exchange economies are effective in the exchange rate channel of Turkey and Argentina.

In the study entitled "The Situation of the Forex market in Turkey and the Effects on the Turkish Financial Markets" by Altan and Güzel, (2015), it is revealed that the Forex market has important effects on the brokerage houses in Turkey. In addition, it determines that investors and intermediary institutions in Turkey have a great inefficiency in the field of information and transaction of the Forex and the related legal regulations are also insufficient. In his study entitled "Exchange Rate Slack and Economic Growth: The Case of Turkey",

Ünlü (2016) examines the effect of the consumer price index, gross fixed capital formation, foreign direct investment and exchange rate volatility on Turkey's real gross domestic product. The study found that fluctuations in real exchange rates in Turkey had negative effects on selected parameters.

### 3. Scope Of Forex

In recent years, foreign exchange transactions which are made for investment purposes different from traditional usage, have spread all over the world. It is in great demand by investors. In these transactions called FOREX, the exchange of the two countries or the exchange of commodities and precious metals like oil, gold, etc. are the subject of value purchase and sale (CMB, 2010).

The history of currency trading dates back to ancient times (Geisst, 2006). Nevertheless, foreign exchange trading has faced regulations, changes and innovations that have not been seen in its history for almost 100 years.

Between 1876 and World War I, the economic system was shaped by the gold standard. In the gold standard, the value of each country's money is defined in terms of pure gold. During the gold standard, the national currencies experienced a period of equilibrium. In the period between the first and second world wars, we were experiencing chaos in international economic and financial relations. The gold standard was destroyed and a new system could not be put in place (Seyidoglu, 2013).

After World War II, the Bretton Woods Agreement (1944) was set up to build a fixed exchange rate between currencies (Madura, 2012). Countries have indexed their national currency from a fixed rate to the US Dollar. The value of the US dollar is linked to the gold price (1 ounce = \$ 35) (Seyidoglu, 2013).

In the following periods, the US wanted to devalue the dollar due to the increased foreign trade deficits and unilaterally abolished the convertible to the gold of the Dollar in 1971 (Değertekin, 2010). So the Bretton Woods system actually ended. In 1973, the national currencies of countries began to fluctuate freely mainly on the basis of supply-demand movements. Many countries have abandoned the fixed exchange rate system and started to implement the flexible exchange rate system. There have been major changes following the abolition of many local and international barriers, rapid development in transportation and communication. After the 1980s, on a global basis, trade and foreign exchange market activity has increased significantly. In the foreign exchange movements, great improvements have been made thanks to innovations in the system, and computer-aided networks have been established for communication and transaction activities between the banks. In 1992, the REUTERS company pioneered a major structural change, such as providing information on the phone, as well as reflecting the exchange rates on the screen. (Dicks,2010).

Seen from a historical context, the meeting of Turkey's economy with foreign exchange transactions, which occurred in the 1970's can be stated that begins with the oil crisis. It can be said that it started with the applications of Foreign Exchange Deposits and Foreign Exchange Deposits with Credit Letter to get the foreign exchange troubles that occurred after the crisis. A reflection of the policies implemented in the 1980's is that at the end of 1983 commercial banks had to remove obstacles in front of foreign exchange transactions and that residents could become depositors in foreign currency. Since this period, foreign exchange deposits have become an important part of the broad definition of money supply. At the same time, the share of assets and liabilities of the banking system in foreign currency has also started to increase (Serdengeçti, 2005).

With the Smithsonian Agreement, the value of the US dollar was reduced by 8 percent compared to the currencies of foreign countries, but in the short term it was found that the devaluation rate in the US dollar was insufficient (Bickford, 2007).

As a result of speculative moves against the dollar, the US dollar was devalued by 10 percent on February 12, 1973. As a result of this inadequacy, foreign exchange markets had to be closed between 1-18 March 1973. With the reopening of markets on March 19th, Asian and European currencies were left free to fluctuate against the Dollar. This development was initially thought of as a temporary arrangement. However, it would be more appropriate to consider the beginning of the flexible exchange rate system which is considered as a new period

Nowadays currency, money and capital markets are seen as a natural phenomenon in international area. Despite the existence of economic policies which show divergent differences among the various countries, the diversity of production facilities and different cultural - political forms, the existence of an international financial market that responds to the needs of all countries with its own rules has made it indisputable. Countries in the world have tried different systems in international money management. No system was fully satisfactory and crisis periods were corrected with later equilibrium periods. The changes usually took place during or after the crisis period.

The Forex market has been hosting investment transactions since ancient times in the world compared to Turkey. Although legal in Turkey in 2011, in the world Forex market is based on an earlier date. When considered as a currency exchange, Forex history began with the introduction of a flexible exchange rate system, which started with the exchange of money between countries.

Market conditions that are legally recognized in world standards are implemented differently in our country than in the system developed by the Capital Markets Board (CMB) to protect investor rights. In other words, the change in this application is not done in the way it works. The only leverage is 1: 400 or even 1: 500 ratio in the world is concerned, the maximum leverage ratio in Turkey is 1: 100 ratio.

In Turkey, Foreign Exchange Reserves are the foreign assets held or controlled by the country central bank. The reserves are made of gold or a specific currency. They can also be special drawing rights and marketable securities denominated in foreign currencies like treasury bills, government bonds, corporate bonds and equities and foreign currency loans.

#### **4.Methods, Findings and Interpretations**

The research includes applications of multiple linear regression model.

##### **4.1 Multiple Linear Regression Analysis Application**

In this application, the relationship between macroeconomic factors and Forex Transaction Volume and Foreign Exchange Deposits Volume (implemented separately) is tried to be explained using the Multiple Linear Regression Model.

In the first application, the data set consists of the monthly data for the Forex Transaction Volume between 01.01.2013 and 01.04.2016 and the other data for the Foreign Exchange Deposit Account between 01.01.2006 - 01.05.2016. The data are obtained from CBRT, CMB and TSPB internet sites. The data used are taken monthly and at the end of the month, Forex Transaction Volume in the first analysis, and Foreign Exchange Deposits Account Volume monthly data in the other analysis.

Multi Linear Regression Model Analysis is prepared using SPSS Statistics 23.0 Packet Program.

In our first analysis, Forex Transaction Volume is used as a dependent variable. As the independent variables; USD / TR, ounce of gold, inflation (CPI), and BIST Transaction Volume. In the other analysis, Foreign Exchange Deposits Account Volume is used as a dependent variable. As the independent variables; USD / TR, ounce of gold, inflation (CPI) and BIST Transaction Volume are taken monthly.

The variables used in the following table analysis are briefly described and explained.

| <b>Table 1: Dependent and Independent Variables</b> |                                   |  |
|---|-----------------------------------|--|
| <b>Variable</b>                                     | <b>Definition</b>                 | <b>Explanation</b>   |
| Fx  | Forex Tading Volume               | Forex Tading Volume in Turkey  |
| Ons   | Gold Ons Price                    | Price of 1 ounce of gold in national markets refers to 31.10 grams of gold. It is used as 28,349 grams in England and USA.     |
| Foreign Exchange Deposits                           | Foreign Exchange Deposits Account | The total amount of foreign exchange deposits in Turkey.   |
| BIST Trading Volume                                 | Borsa Istanbul Trading Volume     | The market value and transaction volume are the common shares of the biggest 100 shares.                                       |
| CPI   | Consumer Price Index              | Index A measure of the average changes in the prices of a particular product or service group purchased by a typical consumer. |
| USD/TR  | US Dollar/ Turkish Lira Parity    | The value of the Turkish Lira against the US Dollar.   |

Multiple Linear Regression analysis is the study of the relation between “dependent variable and independent variable” or variables called “explanatory variable / variables” using data.

The multiple linear regression model can be written as

With Multiple Linear Regression Models:

$$y = b_1 + b_2 X_2 + b_3 X_3 + \dots + b_k X_k + \varepsilon$$

y : Dependent variable

X<sub>i</sub>: Independent variable

b<sub>i</sub> : Predicted parameters

ε : Error term

In multiple linear regression models, the following assumptions are made:

- 1- Normal distribution,
- 2- Linearity,
- 3- The average of error terms is zero.
- 4- Constant variance,
- 5- No autocorrelation,
- 6- No multiple connections between arguments.

#### 4.2.1 Application: 1

The results of the multiple linear regression model applications are as follows:

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------------------|----------|-------------------|----------------------------|---------------|
| 1     | ,712 <sup>a</sup> | ,507     | ,451              | 3101,184                   | 1,101         |

a. Predictors: (Constant), CONSUMER PRICE INDEX, BORSA ISTANBUL TRANSACTION VOLUME, GOLD ONS PRICE, USD/TR PARITY

b. Dependent Variable: FOREX TRANSACTION VOLUME

R Square 0,507 indicates that 50.7% of the dependent variable is accounted for by the independent variables. The remaining 49.3% is explained by the variables not included in the model. The Durbin-Watson coefficient is used in the autocorrelation test. The Durbin-Watson coefficient is 1,101. It shows that there is a positive correlation in this model.

| Model        | Sum of Squares | df | Mean Square  | F     | Sig.              |
|--------------|----------------|----|--------------|-------|-------------------|
| 1 Regression | 346827871,918  | 4  | 86706967,979 | 9,016 | ,000 <sup>b</sup> |
| Residual     | 336606901,457  | 35 | 9617340,042  |       |                   |
| Total        | 683434773,375  | 39 |              |       |                   |

a. Dependent Variable: FOREX TRANSACTION VOLUME

b. Predictors: (Constant), CONSUMER PRICE INDEX, BORSA ISTANBUL TRANSACTION VOLUME, GOLD ONS PRICE, USD/TR PARITY

The Variance Analysis Table tests the meaning of the model. F=9,016 and Sig=0,000 indicates that; the model is meaningful.

| Model        | Unstandardized Coefficients |            | Standardized Coefficients Beta | t      | Sig. |
|--------------|-----------------------------|------------|--------------------------------|--------|------|
|              | B                           | Std. Error |                                |        |      |
| 1 (Constant) | 22618,052                   | 20818,442  |                                | 1,086  | ,285 |
| ONS          | -11,917                     | 6,019      | -,388                          | -1,980 | ,056 |
| USD/TRY      | 7520,158                    | 4895,979   | ,722                           | 1,536  | ,134 |
| BIST         | -3,42E-5                    | ,000       | -,121                          | -,773  | ,445 |
| CPI          | -71,948                     | 112,722    | -,320                          | -,638  | ,527 |

#### 4.2.2 Interpretation of Findings (Model Parameters)

We can write the model obtained by the Multiple Linear Regression Model method as follows:

$$Y = 22618,052 - 11,917 \text{ ONS} + 7520,158 \text{ USD/TRY} - 3,425\text{E-}5 \text{ BIST} - 71,948 \text{ CPI} + \varepsilon$$



By re-expressing the forecasting model with standardized coefficients:

$$\text{Forex Trading Volume} = -0,388 \text{ Ons} + 0,722 \text{ USD/TRY} - 0,121 \text{ BIST} - 0,320 \text{ CPI}$$

Table 4 shows the coefficients and significance ratios of the independent variables. None of the independent variables are statistically significant for explaining Forex Trading Volume. This is because the number of observations has not been reached. Forex Market has commenced to be audited by the CMB starting from 2011 and the database of Forex market has begun to be collected in a common place since 2013. It is predicted that more accurate analysis and results will be obtained with the attainment of sufficient number of observations in the coming years. The closest independent variable to this meaningfulness in this analysis is the price of Gold Ons with  $p = 0,056$ .

#### 4.2.3 Hypotesis for Forex Transaction Volume

H<sub>0</sub> = Change in Gold Ons Price Forex Trading does not affect the volume

H<sub>1</sub> = Change in Gold Ons Price Forex Trading affects the volume

It was seen that the Gold Ons Price do not significantly affect Forex Trading Volume after the analysis. In this case, H<sub>0</sub> is accepted, H<sub>1</sub> is rejected.

One unit increase in the gold ons price is decreased at Forex Trading Volume at 11,917.

H<sub>0</sub> = Change in USD / TR Predominantly Forex Trading Does Not Affect the Volume

H<sub>2</sub> = Change in USD / TR Predominantly Forex Trading Affects the Volume

It has been determined that the USD / TR does not affect Forex Trading Volume significantly According to the analysis results, the H<sub>2</sub> hypothesis is rejected.

One unit increase in the USD / TR parity is boosting Forex Trading Volume at 7520,158.

H<sub>0</sub> = Change in BIST Trading Volume Forex Trading does not affect the volume

H<sub>3</sub> = Change in BIST Trading Volume Forex Trading affects the volume

After the evaluation it is seen that BIST Transaction Volume do not significantly affect Forex Trading Volume In this case, H<sub>3</sub> is rejected.

One unit increase in the BIST Trading Volume reduces Forex Trading Volume to 3,425E-5.

H<sub>0</sub> = Change in Inflation Forex Trading does not affect the volume

H<sub>4</sub> = Change in Inflation Modification Forex Trading affect the volume

The analysis determines, inflation do not significantly affect Forex Trading Volume. In this case, H<sub>4</sub> is rejected.

One unit increase in Inflation (CPI) has reduced Forex Trading Volume to 71,948.

In the first analysis, Exchange Deposits Account Volume is used instead of Forex Transaction Volume which is defined as a dependent variable. The primary reason for this is that Forex Transaction Volume data is inadequate. As of 31.08.2011, Forex market data with the reason of entering CMB supervision has become a healthy and reliable data which has been collected in one place since the beginning of 2013. Another reason for the use of FX Deposit Account is that most of the transactions on the Forex market are based on foreign exchange buying and selling. The results of this analysis will shed light on future work with healthy and reliable Forex market data.

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------------------|----------|-------------------|----------------------------|---------------|
| 1     | ,991 <sup>a</sup> | ,983     | ,983              | 17,413771                  | ,274          |

a. Predictors: (Constant); CPI, GOLD, BIST TRANSACTION VOLUME, USD/TR PARITY

b. Dependent Variable: FOREIGN EXCHANGE DEPOSIT

R Square 0.983 indicates that 98.3% of the dependent variable is explained by independent variables. The remaining 1.7% is explained by the variables not included in the model. The Durbin-Watson coefficient is 0,274. It is understood that there is a positive correlation in this model.

The Durbin-Watson coefficient is used in the autocorrelation test. This value between 0-4 means positive if it is close to 0 and negative if it is close to 4. Values close to 2 indicate no autocorrelation. It is desirable that the value is between 1.5 and 2.5. In this application, there is a very close relationship between the independent variables and dependent variable.

| Model        | Sum of Squares | df  | Mean Square | F        | Sig .             |
|--------------|----------------|-----|-------------|----------|-------------------|
| 1 Regression | 2112841,760    | 4   | 528210,440  | 1741,892 | ,000 <sup>b</sup> |
| Residual     | 36388,729      | 120 | 303,239     |          |                   |
| Total        | 2149230,489    | 124 |             |          |                   |

a. Dependent Variable: FOREIGN EXCHANGE DEPOSIT

b. Predictors: (Constant); CPI, GOLD, BIST TRANSACTION VOLUME, USD/TR PARITY

The Variance Analysis Table allows testing of the model to see if it is meaningful. Sig = 0,000 is smaller than 5% and the 1741,892 F value on the table indicates that the model is meaningful at all levels. (Sig = ,000).

| Model | Unstandardized Coefficients<br>B Std.Error | Standardized Coefficients<br>Beta | t | Sig. |
|-------|--|-----------------------------------|---|------|
|       |  |                                   |   |      |

|              |           |        |       |         |             |
|--------------|-----------|--------|-------|---------|-------------|
| 1 (Constant) | -277,474  | 8,339  |       | -33,273 | ,000        |
| ONS          | -,065     | ,008   | -,168 | -8,496  | ,000        |
| USD/TRY      | -2,136E-7 | ,000   | -,037 | -1,536  | <b>,127</b> |
| BIST         | 130,794   | 10,955 | ,482  | 11,940  | ,000        |
| CPI          | 1,883     | ,160   | ,636  | 11,788  | ,000        |

a. Dependent Variable: FOREIGN EXCHANGE DEPOSIT

b. Predictors: (Constant); CPI, GOLD, BIST TRANSACTION VOLUME, USD/TR PARITY

Interpretation of Findings (Model Parameters):

We can write the model obtained by the Multiple Linear Regression Model method as follows:

$$Y: -277,474 - 0,65 \text{ ONS} - 2,136E-7 \text{ USD/TRY} + 130,794 \text{ BIST} + 1,883 \text{ CPI} + \varepsilon$$

By re-expressing the forecasting model with standardized coefficients:

$$\text{Foreign Currency Deposits Transaction Volume} = -0,168 \text{ Ons} - 0,37 \text{ USD/TRY Parity} + 0,482 \text{ BIST} + 0,636 \text{ CPI}$$

The coefficients of the independent variables and the significance ratios in the Parameter Estimation Table in the Multiple Linear Regression Model are shown. From the independent variables, except for the BIST Transaction Volume, the foreign exchange deposit account is understood to be statistically significant from the Parameter Estimate statement in the Multiple Linear Regression Model of the volume ( $p = 0,127$  for BIST and  $p = 0$  for other independent variables).

#### 4.2.4 Hypotesis for Foreign Exchane Deposits Volume

H<sub>0</sub> = Change in Gold Ons Price Foreign Exchange Deposits do not affect the Volume

H<sub>1</sub> = Change in Gold Ons Price Foreign Exchange affects the volume

Results of the analysis, it is seen that the value of the gold ons price significantly affects the FX Deposits Volume. In this case, H<sub>0</sub> is rejected, H<sub>1</sub> is accepted.

One unit increase in the price of gold ons reduces the Currency Deposits Account at a level of 0,065.

H<sub>0</sub> = Change in USD / TR Quantity FX Deposits do not affect the volume

H<sub>2</sub> = Change in USD / TR Quantity FX Deposits affects the volume

The USD / TR Parity has been determined to have a significant effect on the exchange rate after the analysis. In this case, the H<sub>2</sub> hypothesis is accepted

One unit increase in the USD / TR parity has pushed up the FX Deposits Account Volume to 130,794.

H<sub>0</sub> = Change in Trading Volume of BIST FX Deposits do not affect the volume

H<sub>3</sub> = Change in Trading Volume of BIST FX Deposits affects the volume

It is seen that the BIST transaction volume do not significantly affect the FX deposit volume. In this sutiation, H<sub>3</sub> is rejected.

One unit increase in the BIST Trading Volume reduces the Foreign Exchange Deposits Account Volume to 2,136E-7.

H<sub>0</sub> = Change in Inflation FX Deposits do not affect the volume

H<sub>4</sub> = Change in Inflation FX Deposits do not affect the volume

The results shows us: it is seen that Inflation Deposits Inflation affects the volume significantly. In this case, H<sub>4</sub> is accepted

One unit increase in inflation (CPI) is marked up the Foreign Exchange Deposits Account Volume to 1,883.

## 5. Conclusion

In this study Forex and foreign exchange transactions are explained with all their features and basic concepts. Two analyses are performed: One of them is the Forex market transaction volume, another is currency deposit account volume. Both are considered as dependent variables. The factors affecting dependent variables are examined by macro approach and the correlation between the factors and affecting dependent variables are clarified by Multiple Linear Regression Model. Gold ons price, inflation (CPI), monthly USD / TR and BIST Transaction volume data are taken as independent variables.

In the first analysis, the data set covered the period of 2013: 1 - 2016: 4 and in the second analysis covered the period of 2006: 1 - 2016: 5.

The most important factor affecting dependent variables within the independent variables is the dollar parity. As mentioned in the above tables, according to the multiple linear regression model, it can be seen that there is a positive relationship between the dollar exchange rate and the Forex transaction volume, as well as the foreign exchange deposit account volume.

Clearly, this is an expected result as the majority of the Forex market transactions are based on foreign exchange transactions as well as buying and selling of mostly dollars in Turkey (Erdogdu,2016). Hence, an increase in the exchange rate goes up the transaction volume in the market. Investors are beginning to foresee the rising trend of the dollar and this trend is creating a trend anticipation and they are shifting their money towards this direction. This acceleration also leads to the increase of foreign exchange deposit accounts.

Gold, which is another of the independent variables, is an alternative investment instrument to beat the stock or the Forex market, especially in Turkey; since the risk is quite low and it is one of the most valuable mines. In fact, gold can be bought and sold in the Forex market, but the limited information that investors in Turkey have about this market causes gold to be placed in an alternative position to the Forex market. An increase in gold price makes a decrease in Foreign Exchange Deposits volume and it is meaningful at reasonable level: If investors hope that uptrend in gold price keeps going in this case they are willing to have their savings in the same position. Otherwise they change their portfolios in to exchange currency

There is a positive relationship between Inflation (CPI: Consumer Price Index) and foreign exchange deposits volume. The cause of this positive relationship is not tied to one single factor, which can be likened to the domino effect. Initially, if the Central Bank chooses to lower interest rates, some part of the current foreign capital moves from one country to

another, the demand for foreign exchange rises, the value of the country declines, the goods become cheaper, exports increase and unemployment tends to decrease. These economic intertwinings have given an idea that currency deposit accounts increase in parallel with inflation.

There is a negative relationship between inflation (CPI: Consumer Price Index) and the Forex market trading volume. The reason for this is that people are sceptical about investing in the goods they want to buy that have increased in price. The suspicion of holding the money in hand causes the Forex market trading volume to decrease.

There is a negative relationship between BIST (Borsa Istanbul) transaction volume and the dependent variables used in this study, the Forex market transaction volume and foreign exchange deposit account volume. This is an expected situation as investors prefer one of these investment instruments when they want to evaluate the money. It can be said that they are in competition with each other. For example; the valuation of an investors' stock on the stock market leads to the loss of the potential investors of the Forex market while increasing the BIST transaction volume. In fact, in some cases, it is possible to say that due to losses in invested markets' investors change their minds to keep their portfolios in different markets.

The main aim of the investors is to achieve prosperity. For this reason, undertaking risk is the major factor for investors. Broadly speaking, when the risk increase, its related income increase too and vice versa; leading to the loss of the entire investment. Before investing, the market and investment vehicle must be thoroughly researched and investments should be made at the right time.

Even though the Forex market is not new to Turkey, it is a market that investors are sceptical and dealing with lack of information on. Investment companies ought to give information about what the Forex market is while they try to attract investors to their companies. Despite this, transaction volume is increasing day by day, attracting curious investors. The most important thing to know is that as in every market, success in the Forex market will not be achieved by chance. It is obvious that coincidental success cannot be expected. An investor who wants to achieve long-term stability and success should choose the in dept analysis and work with the suitable alternatives.

This study discusses what people should invest in and what they should pay attention to when making an investment by providing academic and sectoral information within the scope of the thesis topic. It is expected that this study provides literature and application oriented sources for future studies as well as sector oriented ideas.

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