

THE IMPACT OF TURKISH LIRA AND US DOLLAR EXCHANGE RATE ON FOREIGN INVESTMENTS IN TURKEY

Ahmad Manar Sakbani

Al-Madinah International University, Turkey

Abstract: Foreign Direct Investment (FDI) has been a focus of many studies for the reason that many countries believe that FDI promotes economic growth and adds to employment. Further, ripple effects are felt as the new businesses will require suppliers and this encourages Small Medium Enterprises (SMEs) to develop. Increased per capita income will encourage more consumption in the country which will, again promote ripple effects contributing to economic growth. Hence, this study aimed to determine the relationship between Real Exchange Rate (RER) and FDI. Is there causal relationship between the two variables which may indicate economic gains as the Turkish Lira plummets and the Turkish government not intervening very much to stop the currency's fall? The study used 44 years of data on both variables coming from reputable institutions, particularly World Bank and Bruegel. A simple regression was utilized for data analysis. The results show that the RER positively affects FDI inflows and the p-value shows a very strong evidence on this even up to 99% degree confidence. Further, the R-squared shows a good explanatory power of RER which tells us that if taken together with other variables having good explanatory power, that model may be used to predict the movement of FDI. The results also show that the claims of the Turkish government have basis, as letting the Turkish Lira fall would have positive effects on FDI inflows. RER provides 22% explanatory power, there may be other ways to encourage FDI, inflows without sacrificing much the purchasing power.

Keywords: Foreign Direct Investment, Small Medium Enterprises, Real Exchange Rate and purchasing power.

I. INTRODUCTION

The world economies have been more and more intertwined as decades pass and we expect them to be more and more integrated in the near future. New technologies make these possible. Cash can be sent to another location to purchase something online and instant and this is also true to investments. Investing in a foreign country and managing the investments has never been so easy. Because of these governments align their policies to attract more investors in order to generate more jobs, bring in technology and other knowledge and make their countries more progressive. It should be noted however that not all things can be fully controlled by the government and some of these also affect how investors would think. This paper will dwell on one of these things, foreign exchange, which may also affect the investor's decision making in directing their investments toward another country.

Foreign Direct Investment refers to investments that are made by a person or a company from abroad to a company/business in the host country. These investments may be in the form of purchase of stocks in the local stock exchange to have control of a company in the host country, actual investments in new project thru offshore operations, incorporation of companies in the host county, joint ventures and others. This does not include temporary investments in the stock market to acquire a portfolio of stocks to be managed rather than have significant control thereof. According to (www.globalization101.org, 2018), there are several reasons why investors go beyond their borders and some of them are as follows:

1. The intention of the investors might be "Market Seeking" which means that they go overseas to look for new buyers of their goods and services. This can be because their market in their own country is already saturated or their product has the specific qualities/features that would fit the needs/wants of the market in another country.

2. The investors may also be simply looking for a unique resource, higher quality resource or a cheaper source of resource which is the country. This can be raw materials, labor, capital, land and other inputs to production. Example is that many still go to China because of the cheap labor. As the Chinese market also expands because of higher per capita income brought about by many companies providing jobs to the Chinese people, companies started going more to China not only because of resource but also because of the vast market, which was discussed in item 1.
3. Another reason for investing in other countries can also be because of “strategic asset seeking” motivation. Examples of these are companies going to different countries because of new technology in that country, establishing a very good distribution network in the region and others.
4. Lastly, the investors may be “efficiency seeking” such that they are trying to make the whole structure of the organization or their production more efficient. This may include taking advantage of special incentives provided by governments, foreign exchange stability, and others.

At the end of the day, these investors will always seek for benefits to their company should they decide to invest in a country. The next thing we can explore is why would countries make extensive efforts to attract foreign direct investments? How will they be benefited by this? (KURTISHI-KASTRATI, 2013) answered this in the article entitled “The Effects of Foreign Direct Investments for Host Country’s Economy” and listed the following:

1. Resource Transfer effects. This can be in the form of capital, technology, knowledge or other resources that are not available in the host countries. All of these may contribute to economic growth and business environment maturity. These can even lead to development of new market, practices and industries.
2. Employment effects. Foreign investments will lead to new businesses on the country and all businesses will require manpower. Even if the new company will not directly hire individuals, they will definitely buy materials, equipment or supplies which will be produced by other companies who will need to employ people to produce these items.
3. Balance of payment effects. “There are three potential balance of payments consequences of FDI. First, when an MNE establishes a foreign subsidiary, the capital account of the host country benefits from the initial capital inflow. However, this is a one-time only effect. Second, if the FDI is a substitute for imports of goods or services, it can improve the current account of the host country’s balance of payment. Much of the FDI by Japanese automobile companies in the US and UK, can be seen as substitute for imports from Japan. A third potential benefit to the host country’s balance of payment arises when the MNE uses a foreign subsidiary to export goods and services to other countries.”
4. International Trade. FDI will increase international trade of the host country through different ways. It can increase exports if the company establishing business in the host country intends to export its products. On the other hand, it can increase imports if the company intends to import raw materials and do the production in the host country.
5. Effect on Competition. Companies establishing their businesses in a foreign country will tighten the competition in the host country which may lead to more productivity and efficiency as the current industry try to cope and compete with the new entrants.

Foreign direct investment contributes a lot of benefit to the host country as discussed above, however, there also costs. (KURTISHI-KASTRATI, 2013) also had a good discussion on this as follows:

1. Adverse effects on employment. As companies go into the host country, some local companies may be out of business due to stiff competition, which may also lead to unemployment. As to the net effect on employment, it will differ among companies and industries.
2. Adverse effects on competition. A country cannot be over dependent on foreign companies as this may be very risky for the economy. Allowing FDIs especially from large multinationals may result to economic control, oligopoly or monopoly. It may also prevent growth of the local players.
3. Adverse effect on balance of payments. “There are two main areas of concern with regard to the adverse effects of FDI on a host country’s balance of payments. First, set against the initial capital inflow that comes with FDI must be the subsequent outflow of earnings from the foreign subsidiary to its parent company. Such outflows show up as a debit on the capital account. Some governments have responded to such outflows by restricting the amount of earnings that can be repatriated to a foreign subsidiary’s home country. A second concern arises when a foreign

subsidiary imports a substantial number of inputs from abroad, which results in a debit on the current account of the host country's balance of payment.”

Nominal exchange rate is what is usually published on newspapers or what we get when we type two currencies in Google. It is how much a currency can be traded to another currency. Although this is an important concept what matters more for this study is the real exchange rate which is nominal exchange rate adjusted by domestic price divided by foreign price. This way, the exchange rate becomes real which shows how much of a good can be traded to another country's good. An exchange rate movement is ultimately determined by the demand and supply of the currency in the market and the movements of the demand curve and supply curves are usually influenced by the following:



Figure A: Factors Affecting Exchange Rates (www.compareremit.com, 2018)

1. Inflation Rates – Inflation is usually inversely related to currency exchange rates. “A country with a lower inflation rate than another's will see an appreciation in the value of its currency. The prices of goods and services increase at a slower rate where the inflation is low. A country with a consistently lower inflation rate exhibits a rising currency value while a country with higher inflation typically sees depreciation in its currency and is usually accompanied by higher interest rates.” Inflation may cause
2. Interest Rates – Higher interest rates normally results to currency appreciation as it attracts investors, domestic and foreign. This usually indicates that the earnings that can be earned in the country is larger than the domestic rates. Increasing the demand for domestic currency will result to higher value of the domestic currency.
3. Country's Current Account / Balance of Payments – BOP covers trade, borrowings and similar transaction. Deficits may cause depreciation as this means that the demand for foreign currency becomes higher either to pay imports or foreign debt while surplus would result to appreciation because foreign currency (say US\$) flows in to the economy shifting the supply curve to the right which will lower the value of the foreign currency.
4. Government Debt – “Government debt is public debt or national debt owned by the central government. A country with government debt is less likely to acquire foreign capital, leading to inflation. Foreign investors will sell their bonds in the open market if the market predicts government debt within a certain country. As a result, a decrease in the value of its exchange rate will follow.”
5. Terms of Trade – The terms of trade also affect the exchange rate as higher ratio of export prices to import prices will result to higher revenues for the country which will increase the demand for the local currency thereby increasing its value.
6. Political Stability & Performance – Normally, a country which is more stable and which is performing very well attracts more foreign investors. As foreign capital goes into the monetary system of the country, it may decrease the value of the foreign currency in that country. On the other hand, the increased activity in the country may increase the demand for local currency which will in turn increase the price for the domestic currency. Should the political climate be unstable and/or there is political turmoil, investor confidence will be very low and may affect the value of the domestic currency negatively.

7. Recession- Recession affects the country in many ways such as decreasing the demand for the local currency as domestic economic activity declines. Further, the plight of investors to the other country will decrease the foreign currency supply in the country which may increase the price for the foreign currency.
8. Speculation – Speculation is the attitude of investors of acting based on expectations. For example, if an investor believes that the price of foreign currency will increase and they buy and hold the foreign currency, the supply of the foreign currency will decrease in circulation which will increase the value of the currency.

Many studies in the past covered the relationship between the real exchange rate and foreign direct investments. Some of the studies resulted to long term co-integration of the two variables such as the studies of:

- (CAMBAZOĞLU & GÜNEŞ, 2016) which obtained results from a long-term static analysis of estimated ARDL model that revealed that there is a cointegration relationship between the exchange rate level and FDI inflows in Turkey.
- (Jaratin, Mori, DullahMulok, & Rozilee, 2014) where the results showed that there are long-run cointegration relationships between FDI and exchange rate in the case of Malaysia, the Philippines, and Singapore
- (Gumus, 2015) The results signify that bi-directional relationship exists between the foreign direct investment and the rates of real exchange and interest.

On the other hand, some studies found that there are single direct relationships (may it be negative or positive) such as:

- Froot and Stein (1991) found out that the depreciation the currency in the host country supports inward FDI flows and they argued that this is because of decrease investment cost and increase in the wealth of investors. Their study focused on the United States and they did sectoral study. In their study, they also found out that the strongest negative relationship is with the manufacturing sector. (PAYASLIOGLU & POLAT, 2013)
- Cushman (1985, 1988) on the other hand says that the depreciation of the currency brings in more foreign direct investments because it lowers wages as well as production cost in the host country. (PAYASLIOGLU & POLAT, 2013)
- Campa (1993) found out the same relationship such that appreciation of the currency in the host country brings in more foreign direct investments because multinational firms seek profits in local market and if they are optimistic about the future profitability, they will increase their investment in that market. This is very different from previous arguments as it proposes a positive relationship. (PAYASLIOGLU & POLAT, 2013)
- Kiyato and Urata (2002), Xing (2005), Renani and Mirfatah (2012), Takagi and Shi (2011), Cushman (1985) et all also concluded that depreciation of host country' currency increases the volume of FDI inflows while empirical works by Dhakal, Nag, Pradhan and Upadhyaya (2010) and MacDermott (2008) argued that weak currency discourages the volume of FDI inflows into the host country. (PAYASLIOGLU & POLAT, 2013)

Finally, some found no relationship between the two such as the studies of Dorantes and Pozo (2010); Goldberg and Kolstad (1995), Vita and Abbott (2011). Chaudhary, Shah and Bagram (2012) also used data from Asian regions and found no relationship between the two. Gorg and Wakelin (2001) used USA data of both inward and outward FDI but found no relationship between them and foreign exchange volatility. (PAYASLIOGLU & POLAT, 2013)

Just like other developing countries, Turkey seeks to obtain Foreign Direct Investments to hasten the development of the country as it hopes to create jobs for its people, transfer newer and more advanced technology from abroad and increase the economic activity in the country. In order to do this, various initiatives have been implemented by the government including management of macro fundamentals of the country.

In the recent past however, Turkey experienced a very unstable Lira as its value sank. The Turkish Lira sank to its lowest rate in 10 years to 0.2124 USD : 1.0000 TRY on May 25, 2018. The depreciation of Lira is despite Turkey experiencing very high growth rate of 7.4% (Ferreira, 2018).

In many readings the author has read, some attribute the depreciation of Lira to growth itself as the growth is fueled by imports and foreign borrowings. Chart showing imports of Turkey for the last 10 years is shown below.

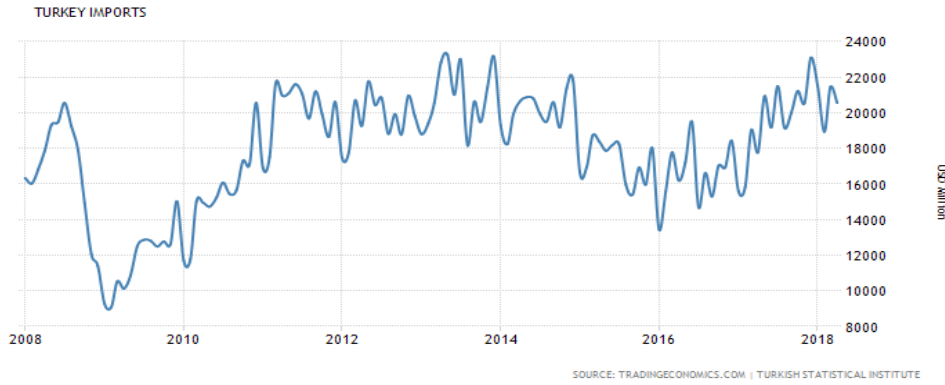


Figure B: Imports (Turkey) for the last 10 years (tradingeconomics.com, 2018)

This is possible as too much imports will require a lot of USD which increases the demand for USD. To illustrate (shown on the next page), say demand for USD is represented by Q_1 and the Price of USD in Turkish Lira is denoted as P_1 at equilibrium E_1 . If the demand curve D_1 shifts to D_2 brought about by increasing requirements for USD in the Turkish Market, then there will be a new price from P_1 (in E_1) to P_2 (in E_2). We will see in the illustration on the next page that the USD price will increase, thus will affect the value of Turkish Lira negatively unless the Turkey government will release USD in the market through its reserves or contract the money supply of Turkish Lira through other means or Foreign Direct Investments coming in to the country which may off-set or reverse the situation. Notice that the supply curve is vertical since there is a certain degree of government control in terms of USD circulation in the market.

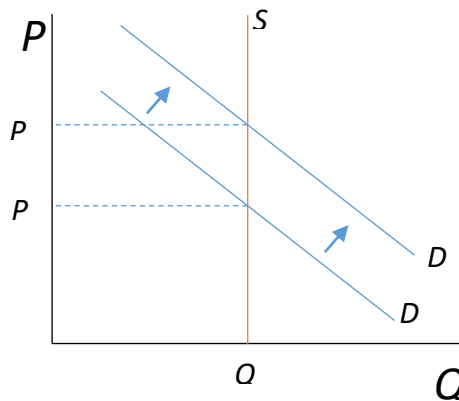


Figure C: Illustrative Demand-Supply Curve for US Dollar

Other reasons may also be contributory to the continuous depreciation of Turkish Lira such as speculation, meaning, people or investors buying more USD in anticipation of its price increasing or the political tension between Russia and Syria. This further increases the demand for USD which will increase the price for USD in terms of Turkish Lira.



Figure 1 Turkish Lira and US Dollar Exchange Rate (www.xe.com, 2018)

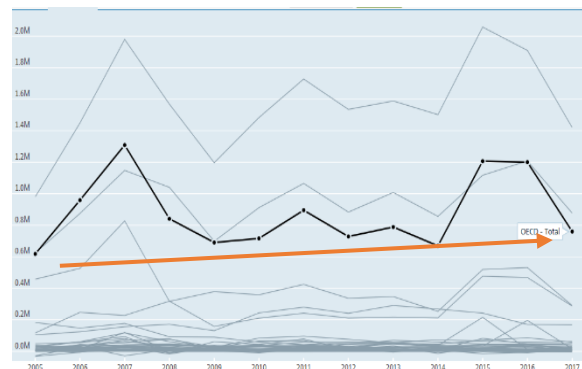


Figure 2 Foreign Direct Investment (data.oecd.org, 2018)

Taking another look at Figure 1 and Figure 2, as replicated above, we may find indication that there is a small possibility of correlation between the foreign exchange rate and foreign direct investment, but the questions are “is there really a correlation”. “how strong is the correlation?” and “to what degree does the change in foreign exchange rate affect the foreign direct investment?”.

II. PROBLEM STATEMENT

Real Exchange Rate and Foreign Direct Investments has been a topic of interest in many studies. As discussed in the previous sections, there have been different and some conflicting findings on how RER and FDI move as referenced to each other. The recent experience of Turkey with its currency “Lira” plummeting raised an interest in the author on this topic as well. The author would like to find out if the sinking of Lira would really produce economic gains thru the entry of FDI in Turkey. As discussed in the previous chapters, the entry of FDI is expected to produce gains thru additional employment, economic activity, positive effect on Balance of Payments, technology transfers and other benefits given proper management and monitoring. The goal of this paper is to find out the relationship between RER and the FDI.

III. RESEARCH MODEL FACTORS

The research made use of only two variables, Foreign Direct Investments Inflows and Real Exchange Rate.

Foreign Direct Investments (Dependent Variable):

“Foreign direct investment is a category of cross-border investment associated with a resident in one economy having control or a significant degree of influence on the management of an enterprise that is resident in another economy. As well as the equity that gives rise to control or influence, direct investment also includes investment associated with that relationship, including investment in indirectly influenced or controlled enterprises, investment in fellow enterprises (enterprises controlled by the same direct investor), debt (except selected debt), and reverse investment. Implementation of the Balance of Payments Manual 6th Edition (BPM6) methodology has brought changes to the definition of direct investment by making it consistent with the OECD Benchmark Definition of Foreign Direct Investment, notably the recasting in terms of control and influence, treatment of chains of investment and fellow enterprises, and presentation on a gross asset and liability basis as well as according to the directional principle.” (worldbank.org, 2018) In this study, the author focused and used FDI, net inflow which pertains to the value of inward direct investment made by non-resident investors in the reporting economy, in this case, Turkey.

The rationale in focusing on the FDI net inflow is because the intent of the author is to find out if indeed, the low exchange rate will bring in more economic opportunities in the future thru FDI. Economic opportunities are expected from foreign investments brought into the country in order to establish businesses here. The expectation here is that this will have a positive effect to employment and per capita income in the future.

Real Exchange Rate (Independent Variable):

In the previous chapters, we defined the real exchange rate as nominal exchange rate adjusted by domestic price divided by foreign price. This is the same explanation given by (bruegel.org, 2018) where our data was sourced. They further explained that the real effective exchange rate (REER) measures the development of the real value of a country’s currency against the basket of the trading partners of the country. Further discussions on the RER can be found in the first chapter of this paper.

IV. METHODOLOGY AND STATISTICAL ANALYSIS

Regression analysis was used to determine the correlation and the explanatory power of the variable. The direction of the influence was also determined. Either RER affects FDI positively or negatively or if FDI affects RER positively or negatively or they have 2 way effects, meaning, they affect each other. Secondary data coming from (worldbank.org, 2018) and (bruegel.org, 2018) were utilized regarding Foreign Direct Investments Inflows and Real Exchange Rates.

V. ANALYSIS AND RESULTS

Table 1 presents the descriptive statistical analysis of the foreign direct investment, net flows (BoP, current US \$ 000'000) and Real Exchange Rate.

Table 1: Descriptive Statistical Analysis

	<i>Foreign direct investment, net inflows (BoP, current US\$ 000'000)</i>	<i>Real Exchange Rate</i>
Mean	4,733.68	80.96
Standard Error	1,032.58	2.64
Median	807.50	79.87
Mode	#N/A	#N/A
Standard Deviation	6,849.38	17.49
Sample Variance	46,914,016.69	305.77
Kurtosis	0.22	(1.25)
Skewness	1.29	0.07
Range	22,037.00	58.16
Minimum	10.00	52.69
Maximum	22,047.00	110.84
Sum	208,282.00	3,562.26
Count	44.00	44.00
Largest(1)	22,047.00	110.84
Smallest(1)	10.00	52.69
Confidence Level(95.0%)	2,082.40	5.32

The data obtained for FDI ranges from 10 million to 22 billion US\$ while the RER ranges from TRY 52.69 to TRY 100.84 per USD 1. Average FDI USD 4.7 billion per year and the RER average TRY 80.96 per USD in the years under review. The data was limited to 44 years because of availability from the sources. Also, as discussed, the Kurtosis and Skewness of the data set is within the range suggested by (Ghasemi & Zahediasl, 2012), i.e. +1.96 to -1.96, meaning the sample is expected to be normally distributed and can cast away doubts that the significant errors brought about by non-normality will surface.

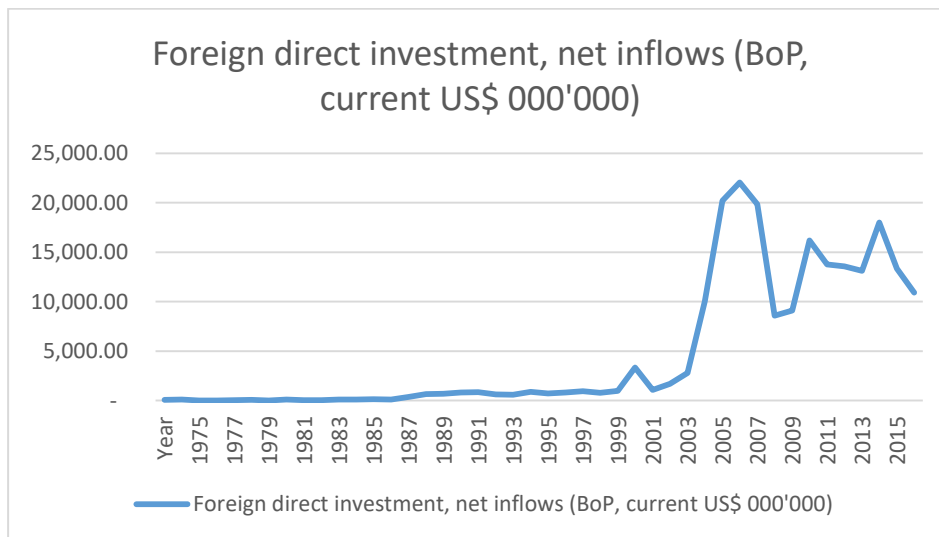


Figure 1: Foreign Direct Investment

The foreign direct investment in Turkey has been relatively slow in terms of growth until 2003 where it started to steeply climb. Certain changes happened during this time such as increased political stability, the improvement of laws regulations and the creation of Coordination Council for the Improvement of Investment Environment. These three fundamental changes made the investment climate in Turkey and provided avenues for foreign investors to reduce their risks in the country. "In this setting, new FDI regulation came into force in 2003 removing the requirement of a

permission to create new companies with foreign capital and easing the investment process. In addition to that, reforms included a new capital markets law, enhanced corporate governance measures and accelerated privatization. In October 2005 negotiations with the EU regarding Turkey’s accession officially started. This process helped to accelerate economic and institutional reforms, which reinforced stability and business expectations until the outbreak of the world financial crisis in 2008 (see Uckun and Doerr, 2010). In 2008, as the economy started to head into recession, which was perceived in advance by the markets, the country suffered a net portfolio outflow. However, unlike the crises of 1998-99 and 2001, portfolio flight was moderate (0.7% of GDP, compared to more than 2% of GDP in the previous crises), and this time it was compensated by large FDI inflows. Economic growth bounced back well in 2010 and 2011, and large portfolio inflows have returned to Turkey.” (Martín, Francés, & Borda, 2014). After 2014, we will notice that FDI is rapidly decreasing again. Will it take Turkey to a lower band especially with the lengthening of the conflict in Syria? This is still unresolved as of the moment. In the first chapters of this paper, the author discussed that the government of Turkey said that the reason for not controlling the depreciation of the currency is to encourage FDI which will, hopefully, improve the economy.

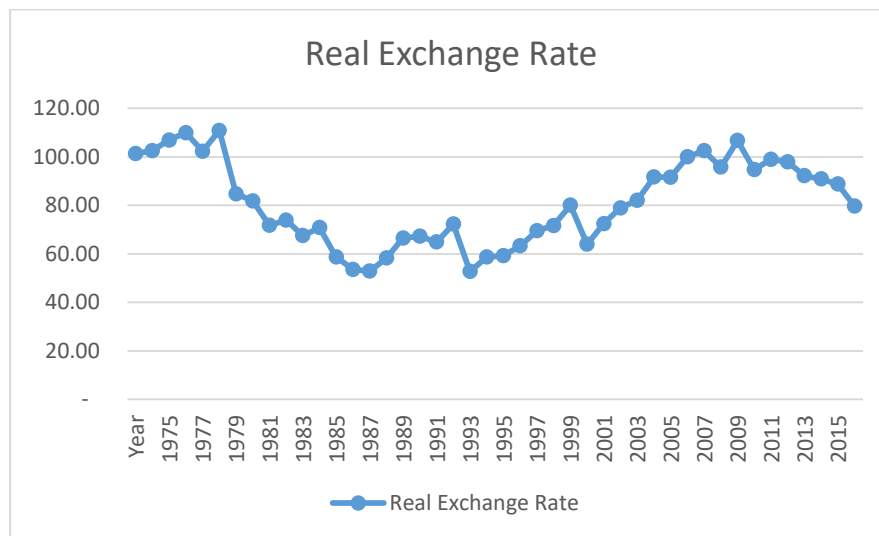


Figure 2: Real Exchange Rate

The value of Lira on the other hand is less volatile than FDI. Its value declined starting 1977 and started declining to the previous band starting 2001. Possibly, the decline in 2001 is due to managing the value of money for the investors such that they may be attracted to invest more in the country.

Research Model Evaluation:

The following sections will explain the research model $FDI, \text{ inflows} = a + bRER$. The assertion in this paper is that RER causes movement in FDI, inflows such that when the RER appreciates, FDI will be lower and if RER depreciates, FDI, inflows will be higher. Positive correlation between the two variable is predicted at the onset of this paper, as it was the rationale given by the government to explain the inaction being done to control the depreciation of Turkish Lira.

Hypotheses Testing – Correlation:

Table 2: Correlation Analysis

	<i>Foreign direct investment, net inflows (BoP, current US\$ 000'000)</i>	<i>Real Exchange Rate</i>
Foreign direct investment, net inflows (BoP, current US\$ 000'000)		1
Real Exchange Rate	0.471201204	1

The correlation testing shows that there is correlation between FDI, inflows and RER. This means that FDI, inflows and RER move together. If the FDI, inflows or RER goes up, the other goes up to. Since higher RER means a lower value, this means that depreciation of currency may also mean higher FDI or vice versa. We have seen this behavior in several years such as from 2001 onwards wherein RER had an upward trend and so is FDI, inflows.

Table 3: Hypotheses Tests - Regression Model

Regression Statistics	
Multiple R	0.471201204
R Square	0.222030575
Adjusted R Square	0.203507493
Standard Error	6112.827721
Observations	44

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	447902882	447902882	11.98669747	0.001244755
Residual	42	1569399836	37366662.75		
Total	43	2017302718			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-10209.0641	4413.278815	-2.31326061	0.02567575	-19115.4213	-1302.70683	-19115.4213	-1302.70683
Real Exchange Rate	184.5686433	53.30993435	3.462181029	0.001244755	76.98484024	292.1524464	76.98484024	292.1524464

As presented in table 3 above, the p-value having a value of lower than .05 and even lower than .01. This shows a very strong evidence against our null hypothesis in the 95% and 99% confidence levels. This means that the RER affects the FDI. On the other hand, looking at the sign of the coefficient being positive means that the RER affect the FDI positively. As RER goes up (depreciates), then the FDI increases. This will lead to accept H1 which is “There is positive relationship between RER and FDI”. Finally, looking at the r squared, it can be seen a 0.22 value. This means that the explanatory power of RER in the changes of FDI is at this level. Some may think that this is a very low level and may think that the study does not prove anything but to the contrary, for something as complicated as FDI and with a lot of factors including investor preferences, other macroeconomic fundamentals, culture and others that may affect it, this is already a good value. It shows us that the effect of RER to FDI is quite significant and with other variables put in place; this model may be used to predict the FDI in the future.

VI. CONTRIBUTION TO THE BODY OF KNOWLEDGE

Theoretical Contribution:

As there are a lot of studies already conducted concerning the relationship between RER and FDI, this will be an addition to them. This study reinforces those studies which found out positive relationship between the two variables such as the researches of Cushman (1985, 1988), Kiyato and Urata (2002), Xing (2005), Renani and Mirfatah (2012), Takagi and Shi (2011), and Cushman (1985) et all. A valuable contribution of this study is that it uses the total population of data rather than just selecting a small sample. This provides additional confidence to the readers and at the same time may smoothen the effects of year-specific events. Further, the data gathered is the most updated to date. This updates most of the studies created in this field.

Practical Contribution:

Over the last decades, international trade and FDI became an important factor of economic growth both for developing and developed countries as it provide not only direct effect to economic activity but also ripple effects which exponentiates these economic activities and provides employment to the people. Turkey is no different in this aspect with other countries. Turkey, with its vast resources (including labor) and untapped capabilities would like to attract FDI inflows to the country. This can be seen thru its efforts of changing the laws and regulations favoring the entry of foreign investors. Given this, the study will provide credibility to the claim of the government that letting the Turkish Lira fall may indeed support economic growth thru increased FDI which may, hopefully, in the future, reverse the negative effects it created in terms of the purchasing capability of the people. Combined with other studies, this can also be used as a predicting tool in order to optimize the RER value that would balance the effects of lower purchasing power with the envisioned positive effects of FDI.

Academic Contributions:

This study expands the previous studies by taking a look at data covering 44 years of data which hope to normalize and minimize the effects of short term policies implemented by the government and other short-run activities affecting the data set. This also hopes to minimize the effect of special circumstances in specific years. This paper can also be used as basis for future studies especially in making a more complex and complete model to predict the FDI movements. As the

author compiled and summarized previous studies and made his own discourse as to the possible explanations of why RER may affect FDI positively, new researchers may take this study as the take-off point of their study. There is much to research on especially by using other methodologies and other factors that may affect FDI.

Limitations and Recommendations for Future Research:

This paper has been done in a limited time and much can still be accomplished in this topic. I believe that the limitations of this paper mainly come from the following sources. Please note that during the discussions of the limitations, the recommendations for future research will also be discussed.

1. Limited time. The limited time limits the scope. Aside from RER, there are other potential reasons for the movement of FDI such as the laws and regulations (which may be used as dummy variables), other macro-economic fundamentals such as GDP, interest rate and others, or it might be other social factors such as culture, skill availability and others. Other researchers may expand the study in these areas in order to create a better and more predictive model. Expanding the data to monthly and quarterly can also be used in order to have more data-points to further smoothen the model.
2. The experience and expertise of the author. Although the author has understanding of the topic and the methodologies used, expert econometricians may take a look at using other methodologies which will not only predict one-way positive relationship but will also predict two-way relationship and causalities. Further, refinements on this model can also be done, if necessary.

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