

SELECTED MACROECONOMIC VARIABLES AND INVESTMENT INFLOW IN TURKEY

Dr. Erkin ARTANTAŞ¹

drerkinartantas@gmail.com

Ministry of Health, orcid number: <https://orcid.org/0000-0003-1628-9518>

Business Administration/TURKEY

Dr. Esra SİPAHİ²

dresrasipahi@gmail.com

Ministry of Education, Privacy Office, <https://0000-0002-6495-4378>

Business Administration/TURKEY

Abstract

This research work examines the effect of selected macroeconomic variables on investments inflow in Turkey. Macroeconomic theory of foreign direct investments posits that investment inflow largely depend on changes in the macroeconomic environment. The environment consists of government deficit, exchange rates, inflation rates, interest rates, which are some of the factors that affect the investment inflows in a country.

Also this study focuses on Foreign Direct Investment (FDI) inflows and how they are linked with the economic indicators in Turkey including the Real Effective Exchange Rate (REER), and Gross Domestic Product per capita of Purchasing Power Parity - GDP (PPP) in Turkey. The GDP (PPP) variable is used because it shows significant causality on REER, along with the exchange rate volatility of the U.S Dollar in the Turkish stock market.

In Turkey, Various macroeconomic policies and reforms have been embarked upon by government aimed at attracting FDI into the country, but these efforts have appeared to be futile going by the low and unsteady behavior of the level of foreign direct investments. This has become a source of worry to all concerned. Therefore, this work was set out to investigate the impact of macroeconomic policy variables on Foreign Direct Investment Inflow in Turkey. Data for the study were collected from the Central Bank of Turkey statistical bulletin (1994 – 2018). Variables examined were exchange rates, inflation rates, interest rates, government deficit. Findings revealed that all the explanatory variables jointly impact on foreign direct investment inflow. Government deficit, exchange rates have a significant positive effect on FDI in Turkey. Therefore, Government should evolve sound policies that would strengthen the attraction of Foreign Direct Investment Inflow in Turkey by paying more attention to the identified macroeconomic policy variables. The variables have shown to be a vital tool that could be used to encourage the inflow of FDI into the country. The research recommends that there is need for the creation of friendly and enabling environment for FDI to thrive in Turkey.

Key Words: Investment inflow, Exchange rates, Inflation Interest rates, Economy.

INTRODUCTION

There are numerous contributions in the literature related to the impact of FDI inflows on real effective exchange rate in Turkey. For the purposes of effective analysis, these contributions can be grouped under four categories namely; FDI inflows and exchange rate, financial stress, approaches regarding financial crises(including macroprudential policy and purchasing power parity), and the impact of tourism on the real Turkish GDP.

Within the literature that focuses on FDI inflows and exchange rate, Cushman (1985) analyzed the relationship between FDI inflows, rate of risk, and exchange rate regime. In order to minimize the effect of inflationary trends as estimates, Cushman used the real exchange rate instead of the nominal exchange rate. The findings from the U.S. annual data show that risk would significantly increase when there is a steady decrease in FDI inflows. This finding is also valid and significant for the Turkish case. The strong decline in FDI inflows in 2009 increased the risk factor on real exchange rate in Turkey.

This implies the profitable postponement of consumption to the future. Such greater consumption expectation is only attained if the resources committed yield benefits as per the opportunity cost of the capital. It could also mean the production of capital goods: goods which are not consumed but instead used in future production.

Ideally, investments inflow exist in two forms; namely: capital (real) and financial investment. Capital investment inflow concerns itself with tangibles which covenants and crystallize into projects or collection of assets, single assets or fixed assets such as machines, building etc. This, in other words, is also total expenditure on new plant and equipment that is mostly taken with the aim of reducing cost and producing goods to generate future benefits.

On the other hand, financial investment refers to investment in securities such as shares, bonds, financial instruments that are referred to as “IOUs”, documents of claims economic agent have on others. Investment inflow plays important role in functioning of an economy whether developed or underdeveloped. Economic growth of most economies is derived from investment inflow in such economy.

On the other hand, despite this positive trend, Turkey encountered with various regional and international challenges from 2008 on. First of all, 2008 Global Financial Crisis is considered by many economists as the worst financial crisis since the Great Depression during the 1930s. The crisis directly affected international trade and financial flows all around the world. Although the crisis is not initiated by the developing countries, it affected them more including Turkey by mounting their deficits in trade and payment balances, along

with triggering currency devaluations, increasing inflation rates, and public budget deficits. Turkish economy was adversely affected by the crisis most visible on the sharp decline on country's export and a significant sudden stop in financial flows (Cömert and Çolak, 2014).

Investment inflow in various sectors of the economy stimulate aggregate employment output, demand income which also increase the government revenue for the provision of basic industrial and agricultural inputs towards the growth and development of any economy. This entails that investment inflow multiplier increase national income which in turn increases savings for investment, consumption and aggregate demand level. The effect will be the rising standard of living of the citizenry.

There is no doubt that FDI is one of the tools available that can contribute to the promotion of economic development efforts. Therefore, countries seek to create an environment that enables investment in order to increase inflows. Turkey, which is a developing country, has designed policies to attract qualified investment with the aim of improving the efficiency of the economy since 2006. Moreover, it is also widely acknowledged that developing countries often face shortages of capital inflows.

In this respect, fundraising is one of the principal factors required by policy makers to maintain their position in global economic markets. FDI is one of the mediums that can attract financial capital to a region. Despite all the challenges mentioned above, according to a financial stability report released by the Central Bank of Republic of Turkey (CBRT) in 2016, Turkey has shown significant macroeconomic adjustment towards steady economic growth after the events that occurred in July 2016. Deriving from this statement, this article investigates the impact of FDI inflows on the real effective exchange rate in Turkey.

This therefore means that for a developing country like Turkey to attain the goal of economic growth, amongst other economic objectives, there is need to increase the tempo of investment inflow that would lead to higher economic growth with much focus on such factors that determine investments inflow within and outside the national economy.

Some of these factors include; controlled government deficit, price stability/controlled inflation rate, stable exchange rates, and interest rate.

In addition to these problems, over the past decade, Turkey has been experiencing different macroeconomic shocks, which have had a negative effect on the country's currency (Turkish Lira). This has also created inflationary trends. Prevention these shocks are essential for Turkey in order to protect itself from further macroeconomic shocks. Consequently, Turkey has been unable to attract the expected FDI inflows. Credit rating agencies (S&P, Moody's and Fitch) have awarded Turkey a poor risk score after the failed military coup and terrorist attacks that occurred in July 2016.

And this instruments includes, public source of funds, internal and external borrowing. Considering the above tools, it is possible to say that controlling the government deficit will increase the income of the economy especially by increasing the national income and in turn will motivate the investment inflow in the country.

According to, investors aim to increase their long term purchasing power, and inflation puts this goal at risk because investment returns must first keep up with the rate of inflation in order to increase real purchasing power. Also, rising inflation erodes the value of the principal on fixed income securities.

In this connection, Erdem and Yamak (2016) conducted economic analysis to create an Optimal Uncertainty Index for Turkey at the macroeconomic level. The study's data covered the period between 2002 and 2014 based on quarterly data. The analysis was conducted using seemingly unrelated regression (SUR), ordinary least squares (OLS), and the generalized method of moments (GMM).

The results show that there was a negative relationship between the general economic situation index and the optimal macroeconomics uncertainty index. Related with this discussion, Kalyoncu (2009) studied the sensitivity of purchasing power parity, and its validity when using the unit root test to examine data from Turkey and its trading partners. He chose data from several countries, including the United States, France, Germany, Japan, and the United Kingdom. Kalyoncu's results indicate a significant correlation between the validity of PPP and trade level for each of the sample countries. In terms of the literature focusing on the effect of foreign exchange and tourism on GDP of Turkey, Arslantürk and Atan (2012) analyzed the effect of foreign exchange and tourism on the GDP of Turkey. The data was collected from 1987 to 2009. Co-integration and Granger causality models were used to test the relationship between the two variables. The results of their study showed a positive relationship between tourism income and gross domestic product growth. Therefore, tourism income as economic growth increased.

The Granger causality test results showed that FDI inflows and GDP affected the Turkish economy in different way. These two variables experienced a decline over this period. However, they revealed that tourism income is a significant source of revenue for Turkey. Similarly, Dinçer (2015) used the reflections in the monetary policies and (REER) during the 2000s in order to analyze the dynamics of the macro interpretation in the Turkish economy. Dinçer reached the conclusion that the volatility in the Turkish currency was comparatively reduced in the aftermath of regulations introduced in the finance sector in recent years. Dinçer also added that the contribution and added value of the tourism sector to the national economy was an important factor influencing this trend, since tourism is one of the major sectors in Turkey that are open to international markets and it has the capability of attracting foreign currency.

The high rates of fluctuation on inflation is now causing a serious problem in the economy of Turkey and affects investment inflow, this is basically so because if inflation is not been monitored and kept stable, this as a result will affect buying and selling in an economy. Meanwhile, investor will not want to invest its capital in a country that its inflation rates is not been monitored and kept stable in other not to lose its money.

Also due to the fact that some companies in the country have not presented to the international body a favorable interest rates if they should invest their money, this has

resulted in scaring investors from investing in Turkey. Because no investor would want to invest in an economy instead of maximizing its profit will lose its cost of capital.

Therefore the main aim of this paper is to examine effect of selected macroeconomic variables on investment inflow in Turkey.

EMPIRICAL REVIEW:

This study is based on those macroeconomic variables; on the theory of economics that establishes a link between investment inflows in Turkey

Investigating the determinants of investment inflow, Lesotho (2006) employed the OLS multiple regression technique with variables such as i n t e r e s t rate..

Findings from the study revealed that i n t e r e s t rates affect investment inflow positively and significantly.

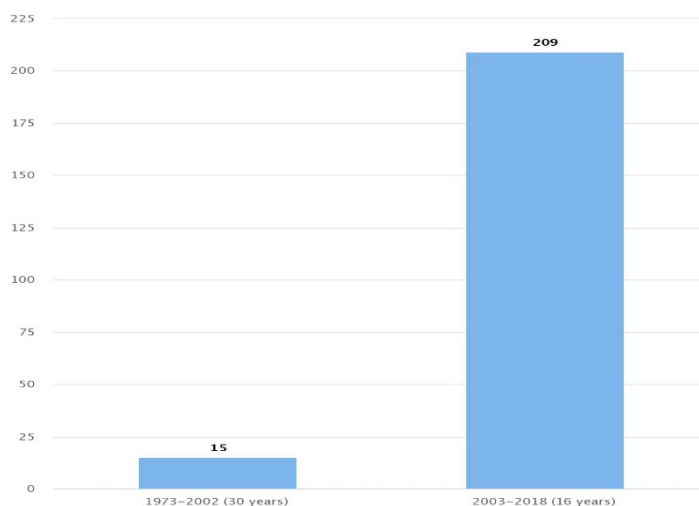
The econometric result indicated that growth of real income have been measured by increase in government deficit and exchange rate, have a positive effect on investment inflow. Rising inflation and high interest (lending) rates equally impede investment inflow in Turkey.

Also Turkey's impressive growth performance and structural reforms implemented over the past decade have landed it on the radar of many international investors. According to EY Attractiveness Survey Europe, Turkey became the 7th most popular FDI destination in Europe in 2018. The country was home to 261 projects, up 14 percent year-on- year, and enjoyed a 4 percent share in all FDI projects across Europe.

FDI Inflows to Turkey

Up until 2002, total FDI into Turkey stood only at USD 15 billion while the country has since attracted around USD 209 billion of FDI during the 2003-2018 period.

FDI Inflows to Turkey (Cumulative – USD billion)



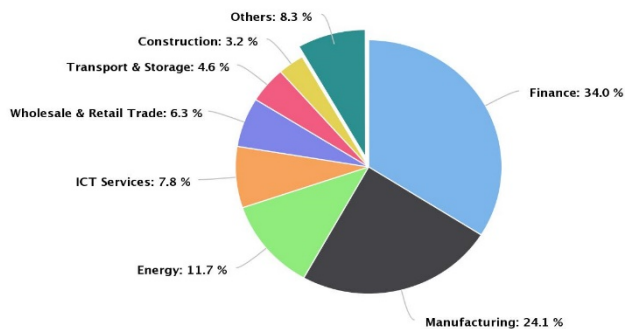
Source: Central Bank of the Republic of Turkey

The negative relationships attest to the major reasons why investors do not have confidence in Turkey investment climate and such investors are scared away.

FDI Inflows to Turkey by Sector

During the past 16 years, the finance and manufacturing sectors have attracted the highest amount of FDI in Turkey, with sectors of interest becoming significantly diversified in line with Turkey's 2023 vision of having a higher position in the global value chain.

Top Sectors

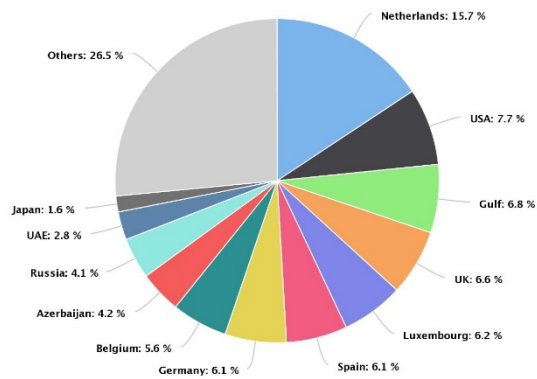


Source: Central Bank of the Republic of Turkey

FDI Inflows to Turkey by Country

The majority of FDI inflows to Turkey have originated from Europe, North America, and the Gulf countries during the past 16 years while the share of Asia has been noticeably on the rise.

Top Investors

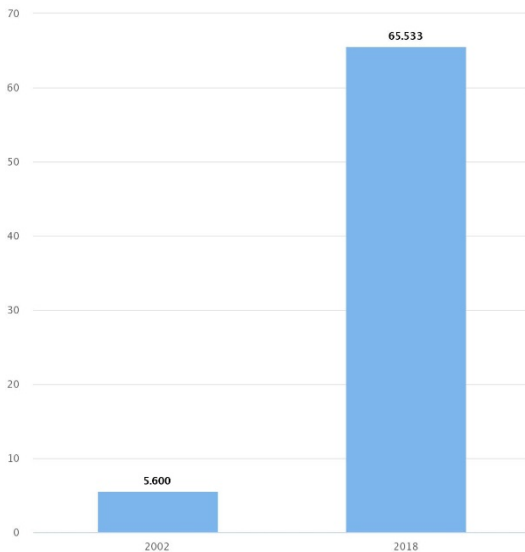


Source: Central Bank of the Republic of Turkey

Companies with International Capital

As of end-2018, the number of companies with foreign capital in Turkey hit 65,533, up from 5,600 in 2002.

Number of Companies with International Capital



Source: Ministry of Trade

Most policies in recent times have been centered on how to improve the level of investment inflow but as to what factors determine the level of investment inflow in an economy seem to be a mirage.

RESEARCH METHOD:

In this research work, the following tests shall be conducted:

Unit root test

Co-integration test

Vector Error Correction Mechanism

Granger Causality test

The model seeks to investigate the impact of selected macroeconomic variables on investment inflow in Turkey

For this study, we have the model as follows in line with shields and Patricia (2013)

Model of the Research .:

$$FDI = \beta_0 + \beta_1 GD + \beta_2 INF + \beta_3 INT + \beta_4 EXR + \mu_1 \text{ ----- (2)}$$

Where;

FDI = foreign direct investment.

β_0 = The intercept. β_1 - β_4 = parameters to be estimated from the regression equation.

GD= government deficit.

INF= inflation rates.

INT= interest rates.

EXR = exchange rates.

μ_1 = random error term.

DATA PRESENTATION

The data used in this research is presented in the table below.

Table 1: DATA OF: FDI, GD, INF, INT, EXC

YEAR	FDI	GD	INF	INT	EXC
1994	5.79	-70.27	57	-15.92	13.5
1995	2.45	1.00	72.8	-31.45	13.5
1996	3.12	32.05	29.3	-5.26	13.5
1997	2.93	-5.00	8.5	12.13	13.5
1998	1.93	-133.39	10	11.48	19.25
1999	1.69	-285.10	6.6	6.05	21.89
2000	1.64	-103.78	6.9	-1.14	85.98
2001	1.61	-221.05	18.9	12.14	106.00
2002	1.96	-301.40	12.9	3.02	113.00
2003	1.91	-202.72	14	9.94	127.00
2004	1.37	-172.60	15	-2.60	130.00
2005	2.83	-161.40	17.9	-1.59	136.00

2006	2.06	-101.40	8.2	-5.63	131.80
2007	2.19	-117.24	5.4	9.19	125.00
2008	2.43	-47.38	11.6	6.68	120.00
2009	2.93	-810.01	12.6	18.18	171.00
2010	1.66	-1,105.40	13.7	1.07	154.80
2011	2.15	-1,158.52	10.8	5.69	165.10
2012	1.54	-975.78	12.2	6.22	161.50
2013	1.08	-1,153.49	8.5	11.20	162.90
2014	0.82	-835.71	8	11.36	199.00
2015	0.63	-1,557.83	9.01	13.60	300.00
2016	1.1	-2,673.84	15.7	6.69	320.00
2017	0.93	-3,609.37	16.22	5.79	305.80
2018	0.5	-3,628.10	12.1	6.05	306.10

Source: National Bureau of Statistics (2019), CBN (2018) Statistical Bulletin

DATA ANALYSIS AND INTERPRETATION

The data presented above was analyzed using multiple regressions with the aid of E-view because of the volume of data and to ensure accuracy in computation. The attempt to study the relationship between poverty and inflation in Turkey led the researcher to subject the data collected to Unit Root test, Johansen Co-integration test, Vector Error Correction Model and Granger Causality Test. The variables considered in this research work are: Poverty rate which is the dependent variable and the independent variables Inflation. The empirical results are presented below as generated from the analysis:

Table 2 Summary of Unit Root Test Result

VARIABLES	ADF VALUE	5%CRITICAL VALUE	ORDER INTEGRATION	OF REMARKS
FDI	-10.14302	-2.998064	I (1)	Stationary
GD	-4.180454	-3.02997	I (0)	Stationary
INF	-3.173179	-2.991878	I (0)	Stationary
INT	-5.591438	-3.004861	I (0)	Stationary
EXC	-3.996066	-2.998064	I (1)	Stationary

In other to test for the presence or absence of unit root in the data used for the empirical analysis, the Augmented Dickey-Fuller (ADF) test was employed and the test result is as presented in Table 2 above, it showed that GD, INF and INT were stationary at level as their ADF values (4.180454, 3.173179 and 5.591438) were greater than 0.05 critical value (3.02997, 2.991878 and 3.004861). These indicate that three variables were stationary at level that is order, I (0). While, FDI and EXC were stationary at First level as their ADF Values (10.14302 and 3.996066) were greater than 0.05 critical value (2.998064 and 2.998064). Since the variables are integrated at level and first level I therefore, proceed to conduct co-integration test and short-run speed of adjustment from long-run disequilibrium.

Table 2 above showed the empirical results from the Johansen co-integration analysis. The Johansen's check is geared toward crucial check whether or not a long relationship exists between the series, and starting with the null hypothesis that there is no co-integrating relation tested that there is at least one co-integrating equation. Since there are five variables in the model, we then test whether the number of co-integrating equations is zero, one, two, three, four or five.

The results of the co-integration in the table 3 above indicated that the trace statistics is greater than the critical value at 5% level of significance in the two equations. This shows that there is a co-integrating relationship among the variables used to model the impact of selected macroeconomic variables on investment inflow in Turkey for the period under study. Specifically, they are $117.7144 > 69.81889$ and $54.35455 > 47.85613$. Also, the p-value is less than 0.05 (0.0000) and (0.0109). In alternative words, the null hypothesis of no co-integration among the variables is rejected. Hence, the test result suggest the existence of a long-run relationship in two co-integrating equation at 5% significance level.

The normalized co-integrating coefficients for two co-integrating equation given by the long-run relationship is:

$$\text{FDI} = -0.001076\text{GD} - 0.240732\text{INF} + 0.213348\text{INT} - 0.003069\text{EXC}$$

(0.00075) (0.05116) (0.07569) (0.00725)

Where FDI is the dependent variable, -0.001076 is the coefficient of GD, -0.240732 is the coefficient of INF, 0.213348 is the coefficient of INT and -0.003069 is the coefficient of EXC. The sign borne by the adjusted coefficient estimates of GD, INF, and EXC is negative. Which implies that the long run relationship between GD, INF, EXC and FDI is negative. While, the sign borne by the adjusted coefficient estimates of INT is positive and it implies that the long run relationship between INT and FDI is positive.

Table 3 VECM Least Squares Result

Variables	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.076509	0.153043	-0.499915	0.6239
D(FDI(-1))	-0.099082	0.191460	-0.517506	0.6119
D(GD(-1))	0.000197	0.000346	0.569789	0.5767
D(INF(-1))	-0.001553	0.013435	-0.115589	0.9094
D(INT(-1))	-0.022135	0.015196	-1.456671	0.1646

D(EXC(-1))	0.001518	0.004709	0.322389	0.7513
ECM(-1)	-0.019951	0.031691	-0.629552	0.5379

R-Squared= 0.35

F-Statistic = 1.43

Durbin-Watson = 2.58

Source: Researcher's (Artantaş, Sipahi, 2020) own computation (see appendix)

In view of the presence of a co-integrating vector among the variables as evidenced by the co- integration tests, VECM is conducted to check the speed of adjustment from short-run dynamics to their long-run static disposition:

$$\Delta FDI_{t-1} = -0.0199ECT_{t-1} - 0.0991FDI_{t-1} - 0.0002GD_{t-1} - 0.0016INF_{t-1} - 0.0221INT_{t-1} + 0.0015EXC_{t-1} - 0.0765$$

From the VECM result, ECM (-1) was consistent by assuming a negative value. It suggests that the ECM could correct any deviation from the long run equilibrium relationship between POV and the explanatory variables. The coefficient indicates a speedy adjustment of 1.99% per annum. This implies that following short-run disequilibrium, 1.99% of the adjustment to the long-run takes place within one year. The above result shows that the R^2 is 0.35, which shows that the model explains about 35% of the total variations in FDI are explained by the independent variables (GD, INF, INT and EXC) during the period of the study while the remaining 65% is explained by variable not included in the model.

Decision rule

If probability of t-statistics < 0.05, reject null hypothesis

If probability of t-statistics > 0.05, accept null hypothesis

In this case, the probability of t-statistic is 0.1646 which is greater than 0.05, this implies that interest rate has no significance effect on the level of investment inflow in Turkey. Therefore, the research accepts the null hypothesis and rejects the alternative hypothesis and concludes that interest rate has no significance effects on the level of investment inflow in Turkey.

The result of the Granger Causality Test is also presented in table 4 below:

Table 4: Pairwise Granger Causality Test

Null Hypothesis:	F-Statistic	Prob.
GD does not Granger Cause FDI	2.71008	0.0936
FDI does not Granger Cause GD	1.14745	0.3396
INF does not Granger Cause FDI	0.18575	0.8321
FDI does not Granger Cause INF	0.26197	0.7724

INT does not Granger Cause FDI	2.08073	0.1538
FDI does not Granger Cause INT	0.15915	0.8541
EXC does not Granger Cause FDI	0.38824	0.6838
FDI does not Granger Cause EXC	4.66525	0.0233

INF does not Granger Cause GD	0.35491	0.7060
GD does not Granger Cause INF	0.30548	0.7405
INT does not Granger Cause GD	0.57775	0.5712
GD does not Granger Cause INT	1.70505	0.2098
EXC does not Granger Cause GD	5.66235	0.0124
GD does not Granger Cause EXC	3.07707	0.0709
INT does not Granger Cause INF	0.11247	0.8942
INF does not Granger Cause INT	2.32514	0.1264
EXC does not Granger Cause INF	3.22655	0.0635
INF does not Granger Cause EXC	0.78211	0.4724
EXC does not Granger Cause INT	0.04284	0.9582
INT does not Granger Cause EXC	1.56370	0.2365

The results revealed that GD does not granger causes FDI; the null hypothesis is accepted at 5%

significance level, indicated by the high probability value 0.0934. The results also revealed that FDI does not granger causes GD, the null hypothesis is accepted at 5% percent indicated by the probability value 0.3396 and this is confirmed by the F-statistics value 1.1474. This result therefore indicates no causation flowing from GD to FDI.

The results revealed that INF does not granger causes FDI; the null hypothesis is accepted at 5% significance level, indicated by the high probability value 0.8324. The results also revealed that FDI does not granger causes INF, the null hypothesis is accepted at 5% percent indicated by the probability value 0.7724 and this is confirmed by the F-statistics value 0.26197. This result

therefore indicates no causation flowing from INF to FDI.

The results revealed that INT does not granger causes FDI; the null hypothesis is accepted at 5%

significance level, indicated by the high probability value 0.1538. The results also revealed that FDI does not granger causes INT, the null hypothesis is accepted at 5% percent indicated by the probability value 0.8541 and this is confirmed by the F-statistics value 0.15915. This result therefore indicates no causation flowing from INT to FDI.

The results revealed that EXC does not granger causes FDI; the null hypothesis is accepted at 5% significance level, indicated by the high probability value 0.6838. The results also revealed that FDI granger causes EXC, the Alternate hypothesis is accepted at 5% percent indicated by the probability value 0.0233 and this is confirmed by the F-statistics value 4.66525. This result therefore indicates one-way causation flowing from FDI to EXC.

The results revealed that INF does not granger causes GD; the null hypothesis is accepted at 5% significance level, indicated by the high probability value 0.7060. The results also revealed that GD does not granger causes INF, the null hypothesis is accepted at 5% percent indicated by the probability value 0.7405 and this is confirmed by the F-statistics value 0.3051. This result therefore indicates no causation flowing from INF to GD.

The results revealed that INT does not granger causes GD; the null hypothesis is accepted at 5% significance level, indicated by the high probability value 0.5712.

The results also revealed that GD does not granger causes INT, the null hypothesis is accepted at 5% percent indicated by the probability value 0.2098 and this is confirmed by the F-statistics value 1.70505. This result therefore indicates no causation flowing from INT to GD.

The results revealed that EXC does not granger causes GD; the null hypothesis is accepted at 5% significance level, indicated by the high probability value 0.0124. The results also revealed that GD does not granger causes EXC, the null hypothesis is accepted at 5% percent indicated by the probability value 0.0709 and this is confirmed by the F-statistics value 5.66235. This result therefore indicates one-way causation flowing from EXC to GD.

The results revealed that INT does not granger causes INF; the null hypothesis is accepted at 5% significance level, indicated by the high probability value 0.8942. The results also revealed that INF does not granger causes INT, the null hypothesis is accepted at 5% percent indicated by the probability value 0.1264 and this is confirmed by the F-statistics value 2.32514. This result therefore indicates no causation flowing from INT to INF.

The results revealed that EXC does not granger causes INF; the null hypothesis is accepted at 5% significance level, indicated by the high probability value 0.0635. The results also revealed that INF does not granger causes EXC, the null hypothesis is accepted at 5% percent indicated by the probability value 0.4724 and this is confirmed by the F-statistics value 0.781. This result therefore indicates no causation flowing from EXC to INF.

The results revealed that EXC does not granger causes INT; the null hypothesis is accepted at 5% significance level, indicated by the high probability value 0.9582. The results also revealed that EXC does not granger causes INT, the null hypothesis is accepted at 5% percent indicated by the probability value 0.2365 and this is confirmed by the F-statistics value 1.5637. This result therefore indicates no causation flowing from EXC to INT.

DISCUSSION OF FINDINGS

$$FDI = - 0.076509 + 0.000197GD - 0.007553INF - 0.022135INT + 0.001518EXC$$

The equation above shows the estimated regression equation used to analyze the impact of selected macroeconomic variables (GD, INF, INT, EXC) on Investment inflow(FDI) in Nigeria as stated earlier.

The equation shows that government deficit and exchange rate is seen having a positive impact on foreign direct investment in Turkey with a coefficient of 0.000197 and 0.001518. This implies that a unit change in GD and EXC will increase FDI by 0.000197 and 0.001518 in Turkey. While, Inflation and Interest rate is seen having a negative impact of FDI, this implies that if interest rate or inflation rate decrease by 0.007553 or 0.022135, FDI will decrease by such margin.

The results indicate that the coefficient of government deficit, inflation, interest rate and exchange rate is found to be insignificant. Precisely, their coefficient is found to be statistically insignificant at 58, 91, 16 and 75 percent level respectively as indicated by its probability value of 0.5767, 0.9094, 0.1646 and 0.7513.

The F-statistics of 1.43, which is a measure of the joint significance of the explanatory variables, is found to be statistically insignificant at 26 percent level as indicated by

the corresponding probability value of 0.262258. The analysis also shows that the R^2 which measures the explanatory power of the model is estimated to be 0.349699.

This means that about 34.97% systematic variation in FDI is explained by the explanatory variables while 65.03% is attributed to other variables not included in the model. Hence, the overall model has a weak statistical significant in analyzing the impact of selected macroeconomic variables on Investment inflow in Turkey.

The implication of this is that an increase in government deficit and exchange rate will lead to higher foreign direct investment in Turkey.

The Durbin-Watson statistics of 2.578326 suggest evidence of negative serial autocorrelation. The unit root test revealed that the three variables (GD, INF and INT) of the model indicate that three variables were stationary at level, that is order, I (0) which is indicated by ADF results (4.180454, 3.173179 and 5.591438) which were greater than 0.05 critical value (3.02997, 2.991878 and 3.004861). While, FDI and EXC were stationary at First level as their ADF Values (10.14302 and 3.996066) were greater than 0.05 critical value (2.998064 and 2.998064).

The results of causality revealed that there exist no causation flowing between the variables adopted, Albeit, One-way causation flowing from Foreign direct investment to Exchange rate as the same one-way causation flows from exchange rate to government deficit.

CONCLUSION AND RECOMMENDATIONS

This study has shown that the increasing government deficit and exchange rate positively impacted FDI that the country has witnessed. This research has also revealed that government deficit and exchange rates have significant effect on foreign investment inflow. Thus, there is need to maintain government deficit and exchange rate. Hence with all things being checked, it will help to maintain a stable and enabling environment which gives room for economic growth which in turn attracts foreign inflow of capital in the country.

This study is focused on the link between FDI and the economic condition in Turkey for the period between January 2010 and July 2016. This period is one of the most important in country's history because the Turkish economy encountered with serious global, regional, and domestic challenges during this period. The 2008 global financial crisis affected all the countries economy in general and developing countries economy including Turkey.

Conclusively, the ease and cost of doing business, availability of infrastructural facilities amongst other incentives as regards the attraction of investment flows in Turkey need to be given adequate and due attention. This research recommends the government to reduce the level of budget deficit owing/borrowing to improper management and improve on financial discipline through accountability and transparency in resources allocation. There is the need for the creation of friendly and enabling environment for FDI to thrive in Turkey. By creating enabling and stable environment that room for a stable interest and inflation rate which in turn attracts foreign inflow of investment.

REFERENCES

Arslantürk, Y., and S. Atan. "Dynamic Relation between Economic Growth, Foreign Exchange and Tourism Incomes. An Econometric Perspective on Turkey." 1 (1), 2012: 30-37.

- Cushman, D. O. "Real Exchange Rate Risk, Expectations, and the Level of Direct Investment". The MIT Press 67 (2), 1985: 297-308
- Cömert, H., and S. Çolak, "The Impacts of the Global Crisis on the Turkish Economy and Policy Responses." Economic Research Center Working Papers in Economics, December 2014, Available at: <http://www.erc.metu.edu.tr/menu/series14/1417.pdf>, September 22, 2017.
- Dinçer, M. Z., F. I. Dinçer, and M. Ustaoglu. "Real Effective Exchange Rate Volatilities Impact on Tourism Sector in Turkey: An Empirical Analysis of 2003-2014". Procedia Economics and Finance 23, 2015: 1000-1008
- Erdem, F. H., and R. Yamak. "Measuring the Optimal Macroeconomic Uncertainty Index for Turkey". Economic Annals 61 (210), 2016: 7-22.
- Kalyoncu, H. "New evidence of the validity of purchasing power parity from Turkey". Applied Economic Letters 16 (1), 2009: 63-67.
- Serven, P., & Solinano. (2000). Growth in Development Strategies. *International Review of Business Research Papers*.
<https://www.invest.gov.tr/en/WhyTurkey/Pages/fdi-in-turkey.aspx>