

THE IMPACT OF FOREIGN DIRECT INVESTMENT ON TURKISH ECONOMY 2010-2016

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date of paper receipt: 17.08.2017.	date of sending to review: 19.08.2017.	date of review receipt: 25.08.2017.
Orginal article	doi: 10.1515/eoik-2017-0019	UDK: 339.192:336 .2

SUMMARY

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. Also, as an important sector of the Turkish economy, tourism revenue is elucidated according to the Organization for Economic Co-operation and Development (OECD) data from 2016.

The main objective of this study is to evaluate the impact of the FDI investment on economic condition in Turkey for the period between January 2010 and July 2016. The selected period is important because it represents the crucial time for Turkish economy following the 2008 global financial crisis along with the ongoing Civil War in neighboring Syria that had initiated in 2012, Turkish-Russian crises of 2015, and the military coup attempt in Turkey in 2016.

It is argued that despite all the negative international and regional developments, FDI and Tourism play key roles in attracting income to the country. This is presented in the level of REER and GDP for PPP. The results also support the findings of many economists, who have previously asserted that the Turkish economic interaction is growing at a globalized level, and is able to compete with the other large attractive areas for foreign investors around the world. Finally, the results demonstrate that the tourism industry was the least affected sector in Turkey.

INTRODUCTION

As put forward by Yalçın and Kirişci (2017) Turkey has a period of "economic boom" between 2002 and 2007. There had been significant growth in the infrastructural industry as a result of successful implementation of domestic reforms. The Justice and Development Party government that is ruling Turkey since 2002 has played a large role in increasing FDI and promoting investments in various sectors. Significant legislative reforms made to adopt the European business regulations and standards along with the establishment of Investment Support and Promotion Agency of Turkey (ISPAT).

In consequence, Turkey attracted FDI inflows as a result of the prevailing low-interest rate coupled with steady economic growth by leveraging on international partnerships. Many studies including

Kalyoncu (2009), Demir (2010), Arslantürk and Atan (2012), Ekinci (2013), Özen, Şahin, and Ünalmış (2013) confirmed a remarkable progress and stability in the Turkish economy with steady economic growth which has increased the country's competitiveness in the global market.

In the same vein, Kaytaz and Gül (2014) argued that the Turkish economy was one of the few countries that show quick recovery after the global financial crisis in 2008-2009. Similarly, Kemal Derviş (2013) suggests that Turkish economy shows significant increase in GDP per capital compared to individual European countries through the Eurozone crisis in 2012. Derviş findings are supported by the official statistics by the Turkish Statistical Institute (TUIK) for the GDP series in 2012. This positive trend also confirmed by the empirical data. According to the World Bank, Turkey's GDP has passed 950 billion dollars which means the boost in the Turkish economy has made the country the world's 15th largest nominal Gross Domestic Product (GDP) and 13th largest GDP by PPP country in 2013.



Table 1. Turkey's GDP 2006-2016

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). As a result, the Turkish economy witnessed one of its worst economic down-turns after the Second World War.

Secondly, the civil war in neighboring Syria harmed Turkish economy in many ways. First of all, it left a dangerous vacuum that was filled by terrorist organizations (IŞIKSAL 2017). Islamist State in Iraq and Syria (ISIS), and the Kurdistan Workers' Party's (PKK) terrorist activities escalated in Turkey. For instance, 51 people were killed in Reyhanlı-Hatay in 2013, and 34 people were killed in 2015 in Suruç-Şanlıurfa by ISIS both along the Syrian border. In 2015, the deadliest terror attack in Turkey's history again carried out by ISIS resulted with the killing of 103 civilians in the capital city Ankara. Similarly, 13 people were killed in ISIS's Sultanahmet Square attack in January 2016 in Turkey's principal city of Istanbul. On the other hand, PKK increased its terrorist activities on Turkey's South Eastern regions again on the Syrian border.

Furthermore, the refugee problem brought a considerable social and economic burden for Turkey. Although the actual number is still unknown, the United Nations Refugee Agency Report estimated that by the end of 2015 at least 3 million Syrian refugees are residing in Turkey. Turkish authorities have spent more than 25 billion US\$ on these refugees (UNRAF 2015).

As a third significant challenge, Turkey hit a Russian fighter jet on the Syrian border in November

2015 after an alleged airspace violation. This led to Russian administration to impose a series of economic sanctions against Turkey including certain goods and all touristic trips. In consequence, there had been 30 percent decline in a number of tourists entering Turkey in the first seven months of 2016 (FINANCIAL TIMES). It is estimated that Russia's economic sanctions cost Turkey's economy a real loss of 8.3 billion US \$ in 2016 (SÖNMEZ 2016).

Lastly, the military coup attempt on July 15, 2006 where many government buildings including the Parliament and Presidential Palace were bombed, caused the killing of 300 people and more than 2100 injuries. There is no doubt that this event also negatively affected FDI since it is perceived as major political instability within the country.

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.

All these domestic and international challenges brought the question of what would happen to the FDI investments in Turkey and whether Turkish economy able to compete with the other foreign investors around the world.

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.



Table 2. FDI Inflow to Turkey (USD billion) between 2006-2016

Source: Central Bank of the Republic of Turkey

As demonstrated from the Table 2 above, following the 2008 global financial crisis that negatively affected all the countries economy in general and developing countries economy including Turkey.

FDI inflows to Turkey declined sharply in 2009 from 19.9 billion US\$ to 8.6 billion US\$. Then, following a steady year in 2010, FDI inflows again raises to 16.2 billion US\$ in 2011. Despite global and domestic challenges mentioned above, FDI even raised to 17.6 billion US\$ in 2015 and despite the military coup attempt in 2016, FDI did not fall below 12.3 billion US\$ level in the same year.

USD million					
Sectors	2012	2013	2014	2015	2016
Industrial sectors	5,480	4,757	4,258	5,772	2,669
Mining and quarrying	188	717	382	207	217
Manufacturing	4,519	2,209	2,742	4,225	1,710
Electricity, gas, steam and air-condi-	773	1,795	1,131	1,338	740
tioning supply					
Services	5,238	5,086	4,312	6,271	4,191
Wholesale and retail trade	221	379	1,136	598	601
Transportation and storage	130	364	594	1,524	544
Accommodation and food service	16	59	24	11	235
activities					
Financial and insurance activities	2,084	3,415	1,470	3,516	1,705
Financial service activities (banks)	1,500	1,608	912	2,776	1,271
Real estate activities	174	128	252	171	277
Total	10,761	9,890	8,631	12,074	6,886

Table 3. FDI Inflow to Turkey by Sector 2012-2016

Source: Central Bank of the Republic of Turkey

Table 3 indicates the details of FDI inflow by sector. As could be seen from the table above the main reason behind the fall of FDI is industrial and manufacturing sectors that combined declined around 6 billion US\$. This is also could be linked to the 2008 Global crises that directly affected these sectors all around the world. Despite this decline, it is evident that FDI in other sectors including mining and quarrying, wholesale and retail trade, transportation and storage, accommodation and food service activities, and real state activities continue to grow where all the other sectors able to keep the stable FDI inflows.

Table 4. The Regional Base of FDI Inflows to Turkey 2012-2016

USD million					
	2012	2013	2014	2015	2016
Europe	7,927	6,424	6,369	7,980	4,391
Other European countries	30	894	723	758	260
America	491	343	334	1,630	458
North America	471	342	334	1,619	456
Asia	2,337	2,899	1,886	2,464	2,008
Near and Middle Eastern countries	1,593	2,286	1,336	1,317	1,253
Arabian Gulf countries	940	880	364	460	446
Other Near and Middle Eastern countries	653	1,406	954	850	804
Other Asian countries	744	613	550	1,147	755
Oceania and polar regions	6	3	0	0	24
Total	10,761	9,890	8,631	12,074	6,886

Source: Central Bank of the Republic of Turkey

As illustrated by Table 4, the biggest decline in FDI inflows to Turkey is from Europe. Being similar with the previous table, it could be put forward that 2008 Global Crisis resulted in falling demand from its traditional markets such as Europe.

LITERATURE REVIEW

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.

In the same vein, a study by Bilgili, Tülüce, and Doğan (2012) employed quarterly data for the time interval between 1988 and 2010. They tested the impact of FDI in Turkey, using the Markov Regime-Switching model (MSM). In this model, several variables were tested, such as GDP growth rate, confidence levels of country risk, energy prices, discount rate, trade balance, and the labor cost in Turkey. The null hypothesis of this study is linearity against the alternative hypothesis of nonlinearity. According to the MSM, there is a positive correlation between FDI growth and GDP growth rate, while the MSM correlates negatively with the discount rate, labor cost, import, export, and country risk.

Similarly, Alfaro, Chanda, Kalemli, and Sayek (2001) analyzed the link between FDI and economic growth. The study used data from 39 countries as the sample. Data was collected from the World Bank for a 17 year period. The results showed that FDI inflows contribute to economic growth. Additionally, the findings revealed that the financial market promotes the economic growth of a country by attracting more foreign direct investment.

All these studies demonstrate that FDI inflows have direct influence on economic growth. The country may stabilize steady economic growth by attracting FDI. These factors further increase the significance of FDI in Turkey as a developing country.

In order to examine the relationship between financial stress and FDI, Aykut Ekinci (2013) covered the index of financial stress for the period between 2002 and 2013. He used the sum of stress levels collected on the banking and public sectors, foreign exchange, and the stock market. Ekinci's findings demonstrate that during the high-risk period, which is considered as a risk factor by the Central Bank, Turkey reduces financial stress to levels that are significantly below normal. In support of this argument Özen, Şahin and Ünalmış (2013) argues that external financial stress is one of the causes of capital out-flows and it also causes a reduction in the ability to borrow from emerging markets.

Regarding the literature concerning the approaches regarding financial crises, Hakan Kara (2016) provided a brief account of the macroprudential policy approach adopted in Turkey between 2011 and 2015, a period when global capital flows experienced unprecedented volatility. Kara underlined that the global financial crisis led to a reassessment of macroeconomic policy formulation across the world. He identified the role of cross-border financial flows for macroeconomics and financial stability, and stated that this role has imposed complex policy trade-offs for emerging economies,

particularly after the financial crisis of 2008.

According to Hakan Kara, Turkey has taken a number of successful steps towards building an institutional framework for implementing explicit macroprudential policies since 2011. For instance, the Central Bank of the Republic of Turkey (CBRT) modified the inflation targeting framework by incorporating financial stability as a supplementary objective. In consequence, macroprudential policies have improved external balances, dampened financial amplification channels, and reduced the sensitivity of the Turkish economy to capital flows. Therefore, macroprudential policies have significantly contributed to the rebalancing process and have bolstered the resilience of the economy against external shocks.

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.

METHODOLOGY

DATA COLLECTION PROCEDURES

The data was collected from several official sources, including the Turkish Statistical Institute (Turkstat), The Central Bank of the Republic of Turkey's statistical website (CBRT), and the Organization for Economic Co-operation and Development (OECD) statistical database. Therefore, the data that was collected within this study is from first hand and reliable sources.

REER which is the dependent variable for this study, aims to understand the dynamics between international markets principle competitions, relative country's price, and international cost competitiveness. REER is used because the volatility of the REER takes into account both cost and price trends. The independent variables for this study are the total foreign direct investment inflow FDI, GDP per capita purchase power parity, and total tourism income. As the main independent variable, according to Hymer's study (1960), FDI measures the effects of multinational enterprises which are a result of imperfect markets and it is viewed as an institution of international production. All the variables that are used in this study are measured in U.S dollars.

EMPIRICAL METHODOLOGY

A unit root test is used to examine the properties of the time series data and to determine the stationary of variables at a level or at first difference. The Zivot-Andrews test is the break point unit root test. The Augmented Dickey Fuller (ADF) unit root test by Dickey and Fuller (1981) is used in order to test the instability in the time series data as an equivalent unit root test. The Phillips and Perron (1988) test differs from the previous tests as it does not contain decimal values for the differences. In this way, it takes into account the correlation in the first differences in the time series data using the non-parameterized correction and allows an average of zero and a linear trend of the time.

As powerful time-saving models generated by statistical software, ARDL models have been used in empirical testing for decades. They have gained popularity in recent years as a method of examining relationships between variables. The model was first introduced by Pesaran, Shin and Smith (1999). The ARDL approach is used to check for co-integration between selected variables. The bounds test is used to confirm if there is any long-run relationship between the selected variables.

RESULTS

ADF Test Results on REER			
I(0) C	I(1) C&T		
REER	-2.0401	REER	-6.8426
ADF critical values at $5\% = -2.8996$	ADF critical values at 5% =		
	-3.4692		
ADF Test Results on FDI			
I(0) C	I(1) C&T		
FDI	-3.2925	FDI	-8.6424
ADF critical values at $5\% = -2.8991$	ADF critical values at 5% =		
	3.4692		
ADF Test Results on GDP PPP			
ADF Test Results on GDP PPP I(0) C	I(1) C&T		
ADF Test Results on GDP PPP I(0) C GDP PPP	I(1) C&T -3.3767	GDP PPP	-8.1044
ADF Test Results on GDP PPP I(0) C GDP PPP ADF critical values at 5% = -2.8991	I(1) C&T -3.3767 ADF critical values at 5% =	GDP PPP	-8.1044
ADF Test Results on GDP PPP I(0) C GDP PPP ADF critical values at 5% = -2.8991	I(1) C&T -3.3767 ADF critical values at 5% = 3.4692	GDP PPP	-8.1044
ADF Test Results on GDP PPPI(0) CGDP PPPADF critical values at 5% = -2.8991ADF Test Results on Tourism	I(1) C&T -3.3767 ADF critical values at 5% = 3.4692	GDP PPP	-8.1044
ADF Test Results on GDP PPPI(0) CGDP PPPADF critical values at 5% =-2.8991ADF Test Results on TourismI(0) C	I(1) C&T -3.3767 ADF critical values at 5% = 3.4692 I(1) C&T	GDP PPP	-8.1044
ADF Test Results on GDP PPPI(0) CGDP PPPADF critical values at 5% = -2.8991ADF Test Results on TourismI(0) CTourism	I(1) C&T -3.3767 ADF critical values at 5% = 3.4692 I(1) C&T -1.9701	GDP PPP Tourism	-8.1044

Table 5 Augmented Dickey Fuller Test

Null Hypothesis H0: variable is not stationary, or has a unit root. Alternative Hypothesis H1: variable is stationary. The results of the ADF unit root test at level and intercept show that, when the P-value < 0.05, the null hypothesis H0 is rejected and the alternative hypothesis H1.is accepted. Therefore, it can be concluded that variables with the probability of P < 0.05 are stationary. Another method of checking for stationarity with ADF is to compare the critical value to the T-statistics.

According to Table 5, the null hypothesis for REER, GDP-PPP, and FDI inflows is rejected. This means that these three variables are stationary. On the other hand, the null hypothesis for tourism is not rejected, which implies that the tourism variable is not stationary.

	I(0)	I(1)		
Variables				
	С	C&T	С	C&T
REER	0.3116	0.5421	0.0000*	0.0000*
FDI	0.0000*	0.0876	0.0001*	0.0000*
GDP PPP	0.0113*	0.0612	0.0000*	0.0000*
Tourism	0.0052*	0.0303*	0.0000*	0.0000*

Table 6 Results of Phillip Perron Test

Note: All the values are p values.

Null Hypothesis: variable has a unit root

Alternative Hypothesis: variable is stationary, and does not have a unit root

* reject the null hypothesis at 5% level of significance

The results of the Phillips Perron test in (Table 6) at level demonstrates that FDI, GDP PPP, and Tourism are significant at the intercept, while REER is not significant at intercept. Therefore, null hypothesis for FDI, GDP PPP, and Tourism is rejected, which implies that these variables are stationary. On the other hand, the null hypothesis for REER is not rejected, which implies that REER is not stationary at level.

All variables are stationary at first difference, which means these are integrated at order one.

Ho = Variable has Unit root with structural break point		
VARIABLE	ZIV.A TEST	ZIV.A TEST
	I(0)	I(1)
REER	-3.1713	-7.3495*
FDI	-3.6161*	-8.3179*
GDP PPP	-4.5780*	-8.9961*
Tourism	-2.8234	-2.5098*

 Table 7 Zivot-Andrews Break Point Test

Note: All the values are t-statistics.

* reject the null at 5% level of significance.

The Zivot-Andrews Break Point Test results in (Table 7) indicate that REER and Tourism are stationary at the first difference I(1), but are not stationary at the level I(0), while FDI and GDP PPP are stationary in both tests: I(0) and I(1).

The next approach is the ARDL model that includes lags of both the dependent variable and explanatory variables as regressors. The two dynamic models that are both short run and long run, are used to check for co-integration between all the variables.

Table 8 ARDL Long-Run BoundsTest (H0 – No long-run relationshi	ps exist)
Test Statistics	Value	K
F-statistics	3.352517	3
Critical Value Bounds		
Significant	I(0) Bound	I(1) Bound
10%	2.37*	3.20*
5%	2.79*	3.67

*Note: the null hypothesis is rejected, and there is a long-run relationship between variables.

The results show that the F-statistics value is greater than the critical value at $\dot{\alpha}$ =0.10 in both I(0) Bound & I(1) Bound. Therefore, the null hypothesis is rejected, which implies that there is a longrun relationship between variables.

Table 9 ARDL Test Short Run Co-Integration (H0 – No Co-Integration)

Variable	Coefficient	t-statistic	Prob*
FDI	-0.0008	-0.1566	0.8760
GDP PPP	0.0004	2.6018	0.0113*
Tourism	-0.0006	-2.3170	0.0234*
С	-0.1065	-3.8080	0.0003*

Note: All the values are p values.

Null Hypothesis: No Co-Integration

Alternative Hypothesis: There is co-integration between variables

* reject the null at 5% level of significance

Table 9 shows the results of the ARDL approach for the short-run co-integration, which indicates that variables have significant results given that the P-value is lower than $\dot{\alpha}$ =0.05 for both the dependent variable REER and the explanatory variables, which are FDI, GDP PPP, and Tourism. Therefore, FDI does not show a significant relationship with REER in the short run, while the null hypothesis H0is rejected the alternative hypothesis H1 is accepted, which indicates that there is co-integration between FDI and REER in the short run.

Variable	Coefficient	t-statistic	Prob*
FDI	-0.0037	-2.3036	0.0242*
GDP PPP	-0.0028	-2.0508	0.0440*
Tourism	0.0028	1.0982	0.2758
С	138.292	5.0639	0.0000*

Table 10 ARDL Test Long-Run Co-Integration (H0 – No Co-Integration)

Note: All the values are p values.

Null Hypothesis: No Co-Integration

Alternative Hypothesis: There is co-integration between variables

* reject the null at 5% level of significance

Table 10 shows the results of the ARDL approach for long-run co-integration. The findings indicate that there is co-integration between the dependent variable REER and the first two explanatory variables FDI and GDP PPP. Since the P-value is lower than $\dot{\alpha}$ =0.05, the null hypothesis H0.can be rejected for Tourism. On the other hand, the P-value is greater than $\dot{\alpha}$ =0.05, which implies that REER and Tourism have no co-integration in the long run; therefore, the null hypothesis H0 is not rejected.

Table II Granger Causality Tests (Short rui)	1)			
Dependent Variable	REER	FDI	GDP PPP	Tourism
REER		0.0651	0.0195*	0.1627
FDI	0.0560*		0.0279*	0.0016*
GDP PPP	0.0004*	0.3971		0.0002*
Tourism	0.9185	0.5901	0.0581*	

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Note: * reject the null at 5% level of significance.

H0 = No causality

 Table 12 Granger Causality Tests (Long-run)

Excluded	Chi-sq	df	Prob.
D(LGDPPPP) D(LFDI) D(LTURISM)	2.413017 6.628624 2.413697	2 2 2	0.2992 0.0364 0.2991
All	11.20604	6	0.0822

Dependent variable: D(LREER)

The Granger Causality tests are used in order to analyze the effects of a shock on all the selected variables. The impulse reaction function is used to determine the long-run causality on these variables. The results in (Table 12) indicate that there is a long-run relationship between FDI and REER.

CONCLUSION

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. Additionally, Turkey is affected most from the ongoing Civil War in neighboring Syria that had initiated in 2012. This war not only resulted with the flow of more than three million Syrian refugees to country, but also escalated the terrorist groups' activities within the country. The instability and terror caused by ISIS in both Syria and Iraq, and the domestic terrorist activities of ISIS and the Kurdish terrorist organization PKK have burdened the Turkish economy with certain economic challenges. Furthermore, Turkish-Russian crises of 2015, and military coup attempt in Turkey in 2016 adversely affected Turkish economy as they also negatively influenced the FDI.

Despite all these negative international and regional developments, FDI and Tourism play key roles in attracting income to the country. This is presented in the level of REER and GDP for PPP. The results also support the findings of many economists, who have previously asserted that the Turkish economic interaction is growing at a globalized level, and is able to compete with the other large

attractive areas for foreign investors around the world. Stating in different words, it could be put forward that Turkey has passed the test in terms of FDI and proved that the country's economy is not that fragile despite all the aforementioned challenges.

The World Investment Report 2017 indicates that despite the global decrease in investments in 2016, Turkey was the most active country in promoting FDI by signing seven treaties with countries around the world in the same year (WORLD INVESTMENT REPORT 2017). In this respect, it is worth mentioning that Turkey able to keep economic stability despite the Global Financial Crisis and its impact on falling demand from the country's biggest economic partner Europe.

More importantly, considering the facts that the civil war in Syria is almost over and Syrian refugees in Turkey initiated to return their home countries, the ISIS threat is virtually over following the successful Turkish military operation in Syria, the termination of the PKK terrorist activities in Turkey by Turkish security forces, and the normalization of Turkish-Russian relations reveal that the FDI inflows to Turkey and its positive contribution to economy will further increase as also demonstrated by the 2017 figures. Turkey attracted \$4.8 billion FDI between January and May 2017, which refers to an increase of 11.2 percent compared to the same period in 2016 (DAILY SABAH).

The results also demonstrate that the tourism industry was the least affected sector in Turkey. The fluctuation in tourism income did not show any crisis or break points. Furthermore, economic growth from the purchase power parity side did not exhibit a clear decrease has maintained its stability, which is opposite to the inflation rate that has shown a continuous increase over the past several years.

On the other hand, it should be emphasized that foreign direct investment results demonstrate some reaction against the situation in the country. This was particularly visible in the decline of the country risk rate by some rating agencies, which had the greatest effect on the FDI level and on the real effective exchange rate value in Turkey. Therefore, some factors that have led to the decline of foreign investment are externally based and beyond the government's control.

Deriving from these points, in conclusion, various recommendations can be made that would increase the attraction of foreign investment and raise awareness of the importance of this type of economic activity in the country.

First of all, the role of the institutions in attracting foreign direct investment should not be underestimated and could be given greater importance. Related to this point, it is important to note that the employees of these institutions should be highly qualified in order to achieve the required results. This also requires education of the labor force and an increase in the level of efficiency in all production sectors.

Secondly, it is equally important to employ partnership agreements and economic integration to attract foreign direct investment with other countries and organizations. In this respect, it should be noted that the current Turkish government, the Justice and Development Party, is assigning more importance to areas and regions that have historically been rejected, particularly the neighboring countries and the Middle East (IŞIKSAL 2015).

Finally, Turkey should give prominence to research into alternative ways to transfer technology and modern management techniques, which can represent an incentive for foreign direct investment in the future.

As the last word, two significant remarks could be made as a supportive to future prospects of FDI inflows to Turkey. First of all, Turkey has diversified industrial manufacturing and structure despite having no oil resources. Nearly half of FDI inflows to Turkey in recent years are from the manufacturing sector which is a positive sign for the future. Secondly, Turkey's young and growing population, its dynamic economy, comparatively low labor costs, and strategic location with access to regional markets in Europe, the Middle East, Africa and Central Asia make it an ideal country for future FDI inflows.

Conflict of interests

Authors declare no conflict of interest.

REFERENCES

- 1. ALFARO, L., A. CHANDA, Ö. S. KALEMLI, and S. SAYEK. FDI and Economic Growth: The Role of Financial Markets. Harvard Business School. Working Paper 01-083, 2001.
- 2. 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.
- 3. BİLGİLİ, F., N. S. H. TÜLÜCE, and İ. DOĞAN. "The determinants of FDI in Turkey: A Markov regime-switching approach". Economic Modeling, 29 (4), 2012: 1161-1169.
- 4. CENTRAL BANK OF REPUBLIC OF TURKEY (CBRT). Available at: Statistics.http://www. tcmb.gov.tr/wps/wcm/connect/TCMB+EN/TCMB+EN/Main+Menu/STATISTICS, September 15, 2017.
- 5. 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.
- 6. CUSHMAN, D. O. "Real Exchange Rate Risk, Expectations, and the Level of Direct Investment". *The MIT Press* 67 (2), 1985: 297-308.
- 7. DAILY SABAH. Available at: https://www.dailysabah.com/economy/2017/07/25/foreigninvestment-in-turkey-up-112-pct-in-first-5-months-of-2017, July 25, 2017.
- 8. DEMİR, F. "Exchange Rate Volatility and Employment Growth in Developing Countries: Evidence from Turkey. Munich Personal RePEc World Development 38 (8). 2010: 20101127-1140.
- 9. DERVİŞ, K. Turkey and Europe. A New Perspective. In Aydın-Düzgit, S., A. Duncker, D. Huber, E. F. Keyman, and N. Tocci, (eds.) Global Turkey in Europe Political, Economic, and Foreign Policy Dimensions of Turkey's Evolving Relationship with the EU. Roma: Edizioni Nuova Cultura, 2013: 201321-30.
- 10. DICKEY, D. A., and W. A. FULLER. "Likelihood ratio statistics for autoregressive time series with a unit root". Econometrica: Journal of the Econometric Society, 49 (4) 1981: 1057-1072.
- 11. 11. DİNÇER, M. Z., F. I. DİNÇER, and M. USTAOGLU. "Reel Effective Exchange Rate Volatilities Impact on Tourism Sector in Turkey: An Empirical Analysis of 2003-2014". Procedia Economics and Finance 23, 2015: 1000-1008.
- 12. EKİNCİ, A. "Financial Stress Index for Turkey". Doğuş Üniversitesi Dergisi 14 (2), 2013: 213-229.
- 13. ERDEM, F. H., and R. YAMAK. "Measuring the Optimal Macroeconomic Uncertainty Index for Turkey". Economic Annals 61 (210), 2016: 7-22.
- 14. FINANCIAL TIMES. Available at: https://www.ft.com/content/5e9fa63e-48d8-11e6-8d68-72e9211e86ab, September 1, 2017.
- 15. IŞIKSAL, H. "Turkish Foreign Policy During the AKP Era". In Işıksal, H., and Örmeci, O. (eds.) Turkish Foreign Policy in the New Millennium. Oxford: Peter Lang, 2015: 15-28.
- 16. IŞIKSAL, H. "Turkish Foreign Policy, the Arab Spring and the Syrian Crisis: One Step Forward, Two Steps Back" In Işıksal, H., and Göksel, O. (eds.) Turkey's Relations with the Middle East: Political Encounters after the Arab Spring. New York: Springer, 2017.
- 17. HYMER, S. On multinational corporations and foreign direct investment. The Theory of Transnational Corporations. London: Routledge, 1960.
- 18. IMF REPORT FOR SELECTED COUNTRIES AND SUBJECTS. *IMF World Economic Outlook Database. August 2017.*
- 19. KALYONCU, H. "New evidence of the validity of purchasing power parity from Turkey". Applied *Economic Letters 16 (1), 2009: 63-67.*
- 20. KARA, H. "Turkey's Experience with Macroprudential Policy. Macroprudential Policy: Effectiveness and Implementation Challenges." CBRT-IMF-BIS Joint Conference October 26-27, İstanbul. 35-43. Accessed on March 30, 2017, Available at: http://www.tcmb.gov.tr/wps/wcm/connect/444c28b5-eeea-4b88-b8e3291642f89cfa/RemarksO28_10_2015.pdf?MOD=AJPERES&CACHEID=ROOTWORKSPACE444c28b5-eeea-4b88-b8e3-291642f89cfa

- 21. KAYTAZ, M., and C. GÜL. "Consumer response to economic crisis and lessons for market: The Turkish experience". Journal of Business Research, 67 (1): 2012: 2701-2706.
- 22. OECD DATA. https://data.oecd.org/ March 2016.
- 23. ÖZEN, E., C. ŞAHIN, and İ. ÜNALMIŞ. "External Financial Stress and External Financing Vulnerability in Turkey: Some Policy Implications for Financial Stability". Central Bank of the Republic of Turkey,13 (Special Issue-March) 2013: 65-74.
- 24. PESARAN, M. H., Y. SHIN, and R. P. SMITH. "Pooled mean group estimation of dynamic heterogeneous panels". Journal of the American Statistical Association, 94 (446), 1999: 621-634.
- 25. PHILLIPS, P. C., and P. PERRON. Testing for a unit root in time series regression. Biometrika, 75 (2), 1988: 335-346.
- 26. SÖNMEZ, M. "Cost of Russian crisis continues to rise". Hurriyet Daily News, March 7, 2016. Available at: http://www.hurriyetdailynews.com/cost-of-russian-crisis-continues-to-rise. aspx?pageID=238&nID=96107&NewsCatID=344, September 21, 2017.
- 27. TURKISH STATISTICAL INSTITUTE. Available at: http://www.officialstatistics.gov.tr/?q=en/ content/turkish-statistical-institute-turkstat, August 2016.
- 28. UNCTAD (UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT) WORLD INVESTMENT REPORT 2017. Geneva: United Nations Publications. Available at: http://unctad.org/en/PublicationsLibrary/wir2017_en.pdf. Accessed September 17, 2017.
- 29. UNITED NATIONS REFUGEE AGENCY REPORT 2015. Available at: http://www.unhcr.org/ figures-at-a-glance.html. Accessed March 23, 2017.
- 30. YALCIN, E., and K. KİRİŞCİ. "GED Briefing: Turkey at crossroad. Economic Perspectives on a Country in Turbulence". Washington DC. 2017.