

The Relation Between Political Stability and Economic Growth: The Turkish Case*

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ABSTRACT

This study investigates the long run relationship between political stability and economic growth of Turkey in between 2002 and 2016. Political stability has been referred to be one the causes of existence of strong institutions together with democracy for economic development for countries around the world. Empirical investigations have shown that strong institutions will be supported by political stability and democratic governance, and that these institutions will bring about robust economic growth. This work first focuses on how political stability index is related with the country's economic output level (GDP) and then the focus moves on to see the long run relation between political stability and several other prevalent macro-economic variables such as inflation rate, exchange rate and short term interest rates. For this purpose, a bivariate regression models were used by running ARDL method. The study found that the political stability index, when used as sole independent variable, had no long run relationship with each of the selected macro-economic variables including gross domestic product when testing by Bound test of Pesaran. Later, a multivariate regression was used to see the effect of political stability index together with selected macro-economic variables on economic growth of Turkey. Upon building our econometric modeling for long run relation, the multivariate regression results suggest that, while political stability has positive relation with economic growth in the long run, it seems to be irrelevant in the short term. In addition, inflation is found to have a negative relation with economic growth in the long run, that is, when inflation increases the economic growth slows down in Turkey. One of the finding is that lagged value of exchange rate implies that decreasing value of Turkish lira put downward pressure on the economic growth.

Keywords: Political stability, Macro-economy, Growth, ARDL, Interest rates

JEL Classification: D74, E00, O40, C30, E40

Politik İstikrar ve Ekonomik Büyüme Arasındaki İlişki: Türkiye Örneği

ÖZ

Bu çalışma 2002 ve 2016 yılları arasında Türkiye'de politik istikrarın ekonomik büyüme üzerindeki uzun dönemli ilişkisini inceleyecektir. Politik istikrar, demokratik yönetim sistemleri ile beraber düşünüldüğünde ülkelerde güçlü kurumların yerleşmesine neden olmakta ve bu durumun bu ülkelerde ekonomik kalkınmayı hızlandırdığı ampirik çalışmaların sonuçlarında ileri sürülmüştür. Bu çalışma öncelikle politik istikrar endeksinin Türkiye'nin ekonomik çıktısıyla (GSYİMH) nasıl bir ilişki içinde olduğuna odaklanacak ve daha sonra ise politik istikrar ile diğer önemli makro-ekonomik değişkenler- bu değişkenler sırasıyla enflasyon oranı (tüketici fiyat endeksi), döviz kuru ve kısa vadeli faiz oranları- arasındaki uzun dönemli ilişkisine bakacaktır. Bu amaçla, iki değişkenli regresyon modelinde ARDL yöntemi kullanılacaktır. Bu çalışmada, Pesaran'ın Sınır Testi yöntemi kullanıldığında politik istikrar endeksinin tek bir bağımsız değişken olarak kullanıldığı iki değişkenli regresyon modelinde politik istikrar ile diğer kullanılan makro-ekonomik değişkenler, ekonomik büyüme değişkeni dâhil olmak üzere, arasında uzun dönemli bir ilişki bulunamamıştır. Daha sonra çok değişkenli ekonometrik modelleme yapılarak politik istikrar endeksi diğer makro-ekonomik değişkenlerle beraber ekonomik büyüme üzerinde her hangi bir ilişkilerinin olup olmadığı incelenmiştir. Uzun dönemde böyle bir ilişkinin bulunabilmesi için çok değişken ekonometrik modelleme sonucunda politik istikrarın ekonomik büyüme ile uzun dönemde bir ilişki içinde olduğu bulunmuş, ancak bu ilişki kısa dönemde ise istatistikî olarak elde edilememiştir. Bununla beraber, enflasyon ile ekonomik büyüme arasında negatif bir ilişki bulunmuştur. Türkiye'de enflasyon yükseliş eğilimi gösterdiğinde ekonomik büyümenin bundan olumsuz etkilendiği görülmektedir. Öte yandan, gecikmeli döviz kurundaki değerlerin ekonomi üzerinde baskı oluşturduğu istatistikî olarak anlamlı görünmektedir.

JEL Kod: D74, E00, O40, C30, E40

AnahtarKelimeler: Politik istikrar, Makroekonomi, Büyüme, ARDL, Faizler

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1. Introduction

There are several factors that have effect on economic growth and economic activities of countries. For instance, many researches reveal that some of the factors are monetary policies implemented by central banks (including interest rates and money supply), capital stock, human capital and trade policies (Bordo and Schwartz, 1997; Benhabib and Spiegel, 1994; Rodriguez and Rodrik, 2000) could play crucial roles in determining economic growth, Acemoglu and Robinson (2000) recognize that it is the political stability and democratic institutions that give all the factors to function properly.

As the politics has an important role in our life, this study first begins with the definition of politics, political stability and political instability. And, then the effect of political instability index on some macro-economic variables in Turkey will be analysed.

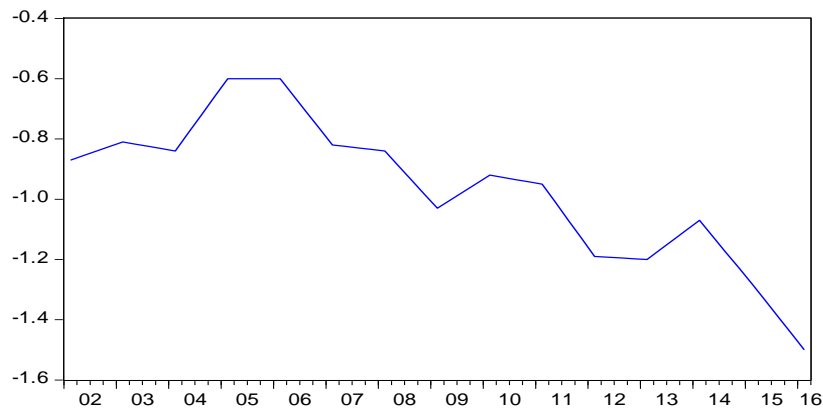
According to Kaplan (2014), politics is handled in conjunction with the "state of the art", which represents the whole of the formal political instruments that comprise the institutions, laws, public policies and key actors of the country as a whole, and the laws, institutions. Sanlısoy (2010) defines political stability as the absence of internal conflict and violence events. It is seen as a symptom of instability if the political regulators change rapidly after the events of violence and incitement. Again, according to the author, political instability refers to the force of change of the current constitutional order, political polarization, the high rate of change of coalition governments and governments.

There are three basic opinions on the definition of political instability. These are social irregularities, myopia and polarization, and weak government approaches (Pehlivan, 2009). The social order refers to the fact that social parts and whole are related to each other in order to form a system in a social structure whereas social disorder refers to the weakness of the connections and interaction between the social parts and the whole within the social system (Erol, 2001). In terms of myopia and polarization, political instability is related to the number of government changes. Though, it is not in the economic sense that the economic units cannot see forward, or in other words, the future in the level of data knowledge, the weak government approach is that the serious political problems that threaten the existence of power and life (Pehlivan, 2009).

For this reason, Acemoglu and Robinson (2000, 2003) expressed political stability, as the existence of strong institutions and the importance of democracy for economic development in many studies. According to the authors, empirical investigations have shown that strong institutions will be supported by political stability and democratic governance, and that these institutions will bring about robust economic growth.

When the situation in Turkey is examined, it is seen in Figure 1 that the political stability index increased during a certain period and then showed a decreasing tendency within the analyzed period (2002 - 2016 period).

Figure 1: Political Stability Index for Turkey. Period of 2002-2016.
PSI



Source: World Bank

As it is known that Turkey experienced a turbulent period after the double economic crisis in 2000 and 2001 and not only the economy but also the political stability were adversely affected. In the post-crisis period, both the International Monetary Fund (IMF) and the World Bank were calling for economic reform, and in the political side, the AK Party government had a positive beginning as a government by the end of 2002. As seen in the Political Stability Index, the stability development after 2002 has increased rapidly. However, from the figure we see that this upward movement seems to be reversed after 2008. We believe that some negativities in the region (For instance Syrian internal conflict), especially after 2010, are the reasons for the decline in the index.

The political factors that led to changes in the political stability index between 2002 and 2015 are summarized below.

Important political events in Turkey:

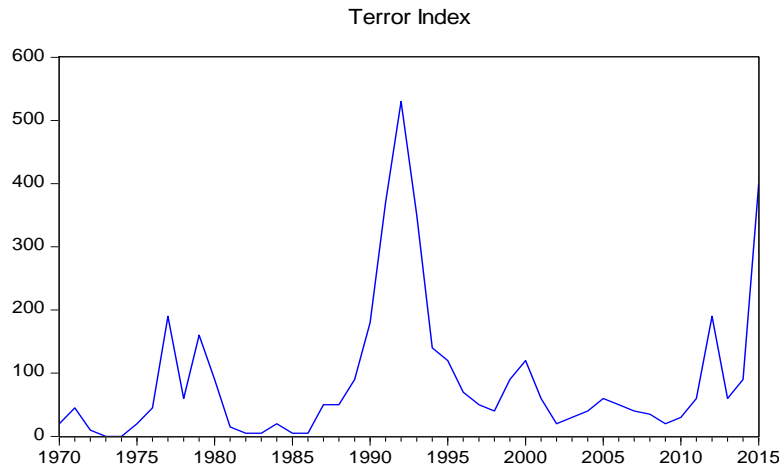
The events contributing to political stability are considered as follows:

In 2002, the AK Party alone came to power and the coalition period was over and a strong government was established. The greatest advantage of a single-party government in this period is to be quick in implementation of reforms for the development of the economy and social life. In this period, a strong economy transition program started to be implemented with the help of the IMF and the World Bank. Further, not only economic structural reforms were made, but financial and banking system also went through important reforms.

Another political development was Turkey's full-fledged candidacy process for European Union began in 2005. Going to full integration with the European Union will raise the standards of social life as well as the level of economic prosperity. For example, with the start of the nomination period, the country will have good risk profile, because the risk will fall and the position will be easier to attract investment.

Between 2002 and 2010, terrorist incidents have shown a tendency to decrease in Turkey, and for this reason, the country had a relatively peaceful atmosphere in the country's south, playing an important role in ensuring political stability.

Figure 2. Global Terrorism Index for Turkey.



Source: Global Terrorism Database.

The events contributing to political instability are considered as follows especially after 2008:

The impact of the financial crisis of 2008 on the economy was felt as advanced countries around the world had gone through major macro-economic problems. Of course, similar to stock markets around the world, Turkish equity markets also took a hit and a year later the economy contracted by about 5% in 2009.

After 2010, terrorist incidents are seen to be increasing to destabilize the politic environment.

Political operations which target one state owned bank and some ministers in 2013 also created problems in Turkish politics. After shock waves the Lira lost value and Central Bank's policy rate was doubled in a night.

Both, the shoot down of a Russian plane in November 2015 and the effect of the conflict in Syria negatively affected the economy in general and tourism industry in particular.

Another major event that took place was happened in 2016, which period is not covered in the study due to missing data. However we should note that as it has shaken political order in Turkey, the failed coup attempt should be mentioned here. In 15th July of 2016, a coup attempt intended to topple the civil authority. Yet, it failed to succeed as the authorities took measures to block the attack. In the aftermath of the failed coup attempt capital markets frightened and exchange rates were started to go up and stock markets down. The failed coup caused political instability as the state of emergency was announced just after the event.

2. Literature review

As Acemoglu (2000, 2003) related a dynamic relation between democracy and economic growth and development of countries, similar conclusions were also drawn by Feng (1997). The author finds that democracy has an indirect effect on economic growth through its effect of government changes when analyzing 98 countries from 1960 to 1980. Further evidence suggests that when growth is negative, this forces ruling parties to lose in election and positive growth increases the chance of ruling parties to stay in power.

In an IMF working paper, Aisen and Veiga (2011) found in their investigation of a sample of 169 countries, higher degree of political instability is linked to a lower level of GDP per capita when using GMM estimator in panel data. The study also point out that political instability also lowers the productivity of the economies.

In their thorough investigation, Alesina et. al. (1992) looked for 113 countries whether political instability countries' economic growths are jointly determined. They found that in times of political instabilities the growth rates were lower than the usual times. They further argue that this relationship is even stronger when government changes over time.

Tang and Abosedra (2014) have used panel data analysis for 24 countries in the Middle East and North Africa. The authors examined and evaluated tourism, energy consumption and political stability in the context of neoclassical development.

Pehlivan (2009), in his empirical study used data for 19 countries for the period of 18 years. He found a positive relation between political stability and economic growth. When they specifically looked at the situation in Turkey, the author found a negative correlation political stability and economic growth.

While these researches focused on a group of countries regarding the relation between political stability and economic growth, several other studies have been focused on this relationship for single countries. For instance, Tabassam et al. (2016) used the political stability variables such as terrorism, elections, and attacks in his work on the relationship between political stability and economic development in Pakistan. When the GARCH model is used with independent variables under the condition of equality of variances, the results are that the regime has a negative influence on the fluctuation on the Gross Domestic Product.

Tuncsiper and Bicen (2014) investigated the effects of economic liberties on economic growth in nine market economies, including Turkey, in between 2000 and 2012. In the study, the general economic freedom index, property rights index, working freedom index, trade freedom index and investment freedom index were used. There is a positive relationship between the trade liberation index and economic growth, which has a negative relationship between the property rights index and the freedom to invest index and economic growth.

Cangir (2012) constructed a political stability index for Turkey by using the archive of Milliyet newspaper in order to emphasize the importance of political stability in terms of economic performance and success. Indicators reflecting the dimension of violence of political instability and the political

instability index were found to be having negative effect on growth, but positive on inflation and the current account deficit.

Karagoz and Ergun (2010) evaluated the factors affecting economic stability in Turkey from an econometric point of view. They found that GDP, interest rate, money supply, inflation rate are related positively to economic stability. In addition to this analysis, Doğan (2006) examined the contribution of democracy to economic development in Turkey. For this purpose, the positive contribution of democracy to economic development has come to be more evident than its restrictive or negative contributions. Democracy has contributed more to economic development than autocracies, in terms of managing social conflicts, maintaining political stability, and being more successful in preventing social catastrophes. On the exchange rate side, for instance, Bouraoui and Hammami (2017) looked the effect of Arab spring events which caused instability through the region. The relationship between political instability and foreign exchange rate was examined for five Arab countries that experienced this event. Their analysis with VAR and ARDL conclude that political instability strongly and negatively related with exchange rate through economic growth which found to be a fundamental mechanism.

3. Data and Methodology

The data is collected from Central Bank of Turkey for all series with the exception of political stability index (PSI) which was taken from the World Bank data. The data frequency consists of quarterly. It should also be noted that interpolation technique is used for political stability index to convert annual data to quarterly data as this series is reported annually. Quarterly data is preferred for two reasons. The first is that by using quarterly data we can expand the number of observations to get more robust predictions from our model estimations. The second is some of the macro-economic variables could be sensitive to change from other parameters in short time. Hence, when using annual data we may not be able to capture the sensitivity of reaction of series.

The investigation to find relation between political stability with several macro-economic variables, we will follow two stage. In the first stage, to find out relationship between political stability index with four other macro-economic variables, a bivariate ARDL method will be used in which the political stability index is going to sole independent variable which will be compared to each macro-economic variables. In the second stage political stability index, inflation, exchange rate and short term interest rates are considered to be independent variables to see their effect on GDP of Turkey. The reason ARDL method is chosen is that some of the variables in question seems to be either level stationary or difference stationary. For instance, in our case PSI index has the mixture of both.

Before going further to test long run relation between the variables, we will apply several unit root tests to identify the order of integration of our variables, i.e. stationarity of series. The below table shows that almost all the series are integrated of order one, that is they are stationary when first different.

Table 1: Unit Root Test Results

	Test	Constant		Constant and Trend	
		level	First Difference	level	First Difference
<i>Y</i>		<i>Statistics</i>	<i>Statistics</i>	<i>Statistics</i>	<i>Statistics</i>
LnGDP	ADF	-0.895	-6.784***	-1.986	-6.721***
	P-P	-0.886	-6.786***	-2.196	-6.725***
	DF-GLS	2.084	-5.082***	-1.760	-6.099***
	KPSS	0.894***	0.105	0.100	0.091
PSI	ADF	-0.356	-2.684*	-2.825	-2.974
	P-P	0.517	-2.892*	-1.905	-3.206*
	DF-GLS	-0.470	-2.514**	-2.350	-3.037*
	KPSS	0.786***	0.310	0.148**	0.055
LnEXC	ADF	0.566	-6.743***	-0.935	-7.020***

	P-P	0.523	-6.748***	-0.994	-7.465***
	DF-GLS	0.886	-6.619***	-1.099	-6.864***
	KPSS	0.786***	0.290	0.250***	0.066
LnINF	ADF	-2.239	-5.089***	-1.588	-5.423***
	P-P	-2.752*	-5.060***	-1.098	-5.264***
	DF-GLS	-0.392	-4.719***	-1.373	-5.514***
	KPSS	0.784***	0.408*	0.181**	0.052

To start with long run relation between the variables Peseran and Peseran (2009) Bound Test will be adopted. In this concept, four regression models are build with political index being the independent variable, while economic growth, inflation, exchange rate and short term interest rates are considered to be dependent variables for each regression model.

The model for long run relation between GDP and PSI is:

$$\Delta \text{LnGDP}_t = a_{10} + \sum_{i=1}^n b_{1i} \Delta \text{LnGDP}_{t-i} + \sum_{i=1}^n c_{1i} \Delta \text{PSI}_{t-i} + \gamma_{11} \text{LnGDP}_{t-i} + \gamma_{12} \text{PSI}_{t-i} + \varepsilon_{1t} \quad (1)$$

The model for long run relation between inflation and PSI is:

$$\Delta \text{LnINF}_t = a_{20} + \sum_{i=1}^n b_{2i} \Delta \text{LnINF}_{t-i} + \sum_{i=1}^n c_{2i} \Delta \text{PSI}_{t-i} + \gamma_{21} \text{LnINF}_{t-i} + \gamma_{22} \text{PSI}_{t-i} + \varepsilon_{2t} \quad (2)$$

The model for long run relation between exchange rate and PSI is:

$$\Delta \text{LnEXC}_t = a_{30} + \sum_{i=1}^n b_{3i} \Delta \text{LnEXC}_{t-i} + \sum_{i=1}^n c_{3i} \Delta \text{PSI}_{t-i} + \gamma_{31} \text{LnEXC}_{t-i} + \gamma_{32} \text{PSI}_{t-i} + \varepsilon_{3t} \quad (3)$$

The model for long run relation between interest rate and PSI is:

$$\Delta \text{LnINT}_t = a_{40} + \sum_{i=1}^n b_{4i} \Delta \text{LnINT}_{t-i} + \sum_{i=1}^n c_{4i} \Delta \text{PSI}_{t-i} + \gamma_{41} \text{LnINT}_{t-i} + \gamma_{42} \text{PSI}_{t-i} + \varepsilon_{4t} \quad (4)$$

In above equation, LnGDP represent GDP, LnINF indicate consumer price index, LnEXC shows exchange rate for US Dollar and Turkish Lira, LnINT represents short term interest rates. While b indicates short run coefficients, γ shows long run coefficient for each macroeconomic variables for ARDL model. For bound testing procedure, we determined lag length for the variables by constructing VAR method for each model. Accordingly lag selection for bound testing will be set. Akaike information criterion (AIC), Schwarz information criterion (SIC) and Hannan-Quinn information criterion (H&Q) produced the following lag length for the models:

Model 1: All suggest 2 lags

Model 2: H-Q and AIC suggest 5 lags, and SIC suggest 2 lags

Model 3: All suggest 2 lags

Model 4: All suggest 2 lags

Table 2: Bound test results

Bound Testing	F-statistics		Autocorrelation	
	Constant (Level)	Linear Trend	F-stat	P-value
Cointegration hypotheses				
F(LnGDP, PSI)	0.06217	2.0576	0.735632	0.4843
F(LnINF, PSI)	2.219595	2.547578	2.132489	0.1329
F(LnEXC, PSI)	2.513036	1.386964	0.334537	0.7173
F(LnINT, PSI)	2.870508	1.491417	0.018669	0.9815

F-statistics values were compared to critical values from Peseran and Peseran (2009).

Bound test outcomes suggest that there is no long run relation between political stability index with our four macro-economic variables as the results are statistically insignificant. Hence, we see no direct effect of political stability effect on macro-economic variables. Further there seems no autocorrelation within the models

However, in the second stage we will try to investigate the relation between these macro-economic variables, including PSI index with Turkish economic growth in one long run model of ARDL.

The long run model for relation between GDP and PSI, LnINF, LnEXC, LnINT is:

$$\Delta \text{LnGDP}_t = a_{10} + \sum_{i=1}^n b_{1i} \Delta \text{LnGDP}_{t-i} + \sum_{i=1}^n c_{1i} \Delta \text{PSI}_{t-i} + \sum_{i=1}^n d_{1i} \Delta \text{LnINF}_{t-i} + \sum_{i=1}^n e_{1i} \Delta \text{LnEXC}_{t-i} + \sum_{i=1}^n f_{1i} \Delta \text{LnINT}_{t-i} + \gamma_{11} \text{LnGDP}_{t-1} + \gamma_{12} \text{PSI}_{t-1} + \gamma_{13} \text{LnINF}_{t-1} + \gamma_{14} \text{LnEXC}_{t-1} + \gamma_{15} \text{LnINT}_{t-1} + \varepsilon_{1t} \tag{5}$$

The bound test result suggests that political stability index together with other macro-economic variables is cointegrated in the long term when trend added (See Table 3). The bound test cannot reject null hypothesis of no cointegration in level.

Table 3: Bound test results

Bound Testing	F-statistics		Autocorrelation	
	Constant (Level)	Linear Trend	F-stat	P-value
Cointegration hypotheses				
F(LnGDP; PSI, LnINF, LnEXC, LnINT)	3.010149	11.6166	1.171086	0.3253

F-statistics values were compared to critical values from Peseran and Peseran (2009).

The next step is to estimate long run relation between our variables by using ARDL. Our ARDL model will look like this:

$$\Delta \text{LnGDP}_t = a_1 + \sum_{i=1}^x \alpha_{i1} \Delta \text{LnGDP}_{t-i} + \sum_{i=0}^y \beta_{i1} \Delta \text{PSI}_{t-i} + \sum_{i=0}^z \mu_{i1} \Delta \text{LnINF}_{t-i} + \sum_{i=0}^t \gamma_{i1} \Delta \text{LnEXC}_{t-i} + \sum_{i=0}^p f_{i1} \Delta \text{LnINT}_{t-i} + \theta_{i1} T + \varepsilon_{1t} \tag{6}$$

In equation (6), T indicate time trend. Given GDP to be dependent variable for ARDL method, we allow ARDL to choose automatically lag selection according to AIC information criterion. When the regression run, the model selection was turn out to be ARDL (4,3,3,4,1).

Table 4: Long run relation coefficients estimation results

Long Run Coefficients		
Variable	Coefficient	Probability
PSI	0.37148	0.0343
LINF	-10.7503	0.0236
LNEXC	-0.09837	0.6730
LNINT	-0.08051	0.4798
C	67.7061	0.0024
@TREND	0.23127	0.0139

When examining long run coefficients of our model, we see that an increase in political stability also comes with increase in gross domestic product of Turkey and this prediction is also statistically significant. The results are also in line with what the literature suggest. In the long run, the relation between inflation and GDP seems to be in opposite side that is increase in inflation rate decreases economic growth. On the other hand, there seems to be no relation between exchange rate and short term interest rates with economic growth in the long term.

When looking at short run relation between the variables, there is no significant relation between political stability index and GDP. Relation between inflation and GDP appears to be in positive direction only when inflation is considered two lags. This results is in line with literature that a rising economic activities will also cause the price of goods and services to rise. The linkage between exchange rate and economic growth is negative which would imply that at the time economic downturn in Turkey, exchange rates go up. However, on the other hand, within the investigation period it seems no relation between short term interest rate and growth in Turkey. According to the theory, the increase in political stability in a country will affect the economic developments in the economy positively, so that the country risk premium will decrease, hence the interest rates levels will be expected to decrease accordingly.

However, the developed economies such as the US, EU, Japan and the UK, especially after the financial crisis of 2008, have not provided the desired results in economic activities, even if interest rates have been reduced to zero or near-zero. In such a period, the relation of interest rates to economic activities has weakened considerably (Stiglitz, 2016).

The Error Correction Model result suggests that there is short run and long run equilibrium. This indicates that the variables in the system reinforce to equilibrium. And, the speed of adjustment seems to be at the rate of 29.7%.

Error Correction Model (ECM) for the selected ARDL model outcomes are reported in Table 5.

Table 5: ECM for ARDL results

Cointegrating Form		
Variable	Coefficient	Probability
D(LGDP(-1))	-0.56284	0.0001
D(LGDP(-2))	-0.79421	0.0000
D(LGDP(-3))	-0.69305	0.0000
D(PSI)	0.03731	0.8334
D(PSI(-1))	0.12844	0.6718
D(PSI(-2))	-0.22110	0.2026
D(LINF)	-0.29760	0.5608
D(LINF(-1))	-0.42686	0.4595
D(LINF(-2))	1.73680	0.0005
D(LNEXC)	-0.16046	0.0184

D(LNEXC(-1))	-0.12105	0.1542
D(LNEXC(-2))	0.08876	0.2890
D(LNEXC(-3))	-0.16284	0.0144
D(LINT)	0.05338	0.1492
D(@TREND)	0.06884	0.0001
CointEq(-1)	-0.29767	0.0357

In above results, D indicate first difference operator.

Further, the above run models were also subject to stability test. In both cases, autocorrelation in residuals of the regressions could not be found.

4. Conclusion

This study examined the relationship between political stability and economic growth together with some other important macroeconomic variables which generally are thought to be selected indicators for central banks for evaluating economic issues. As stated before, political stability is an important factor that influences the creation of existence of strong institutions together with democracy for economic development. Empirical investigations have shown that strong institutions will be supported by political stability and democratic governance, and that these institutions will bring about robust economic growth. In our study, the ARDL estimation model is employed to see the long run relation between political stability and economic growth in Turkey. In methodological section, the relationship was examined in two stages. The first stage dealt with a bivariate econometric modeling to examine whether each macro-economic variable has relation with political stability index when this index were determined to be the sole independent variable in the model. In the second stage, PSI index together with other macro-economic variables were modelled into one equation to see the relation between them.

The findings of first stage appear that there is no long run relation between political stability and macro-economic variables including gross domestic product of Turkey when applying Bound Testing. On the other hand, the outcome of second stage of methodology reveals that gross domestic national income is positively affected by political stability in the long run. The results are statistically significant and positive. The findings are in line with the literature on this issue, for instance, as layed out by Bouraoui and Hammami. However, no relation between the short term interest rates and economic growth was found during the investigated period. We reached similar conclusion with literature on Turkey. This may be due to the reason that the developed economies such as the US, EU, Japan and the UK, especially after the financial crisis of 2008, have not provided the desired results in economic activities, even if interest rates have been reduced to zero or near-zero. In such a period, the relation of interest rates to economic activities has weakened considerably (Stiglitz, 2016). This case also seems to be true for Turkey.

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