DİCLE ÜNİVERSİTESİ
İKTİSADİ VE İDARİ BİLİMLER FAKÜLTESİ DERGİSİ
Dicle University
Journal of Economics and Administrative Sciences
E-ISSN: 2587-0106

Cilt / Volume: 13, Sayı / Issue: 26, Sayfalar / Pages: 626-644

Araştırma Makalesi / Research Article

Received / Alınma: 20.07.2023 Accepted / Kabul: 22.07.2023

CAN THE DEVELOPMENT DIFFERENCES OF COUNTRIES BE EXPLAINED WITH A FREEDOM STRUCTURE?*

Nalan KANGAL[1]

İlhan EROĞLU[2]

Abstract

This study aims to test the relationship between the liberal structure of countries and the development of countries. GDP per capita and price stability were used as performance measures for this. For this purpose, two separate models were constructed for developed and developing countries. Model I analyses the effect of economic freedoms on GDP per capita and Model II analyses the impact of economic releases on the consumer price index. According to the analysis using panel data analysis for developed and developing country groups, the findings reveal that a libertarian structure positively affects economic growth and is a discriminator in the emergence of development differences in countries. In contrast, a libertarian design does not have a significant relationship with price stability. These findings provide evidence in support of the Monetarist view that inflation is always a monetary phenomenon. According to the results of this study, it is recommended that especially developing countries should implement prudent policies towards price stability in monetary and fiscal policy.

Keywords: Economic Freedom, Economic Growth, Price Stability, Panel Data Analysis.

JEL Code: O10, E60, A10, K10.

* This article is derived from Dr. Nalan KANGAL's doctoral thesis titled "The Effect of Economic Freedom On Macroeconomic Performance: An Empirical Investigation on Selected Country Groups" (Advisor: Prof. Dr. İlhan EROĞLU).

[1] Dr. (Corresponding Author) Tokat Gaziosmanpaşa University, Almus Vocational School, Department of Property Protection and Security, E-mail: nalan.kangal@gop.edu.tr, ORCID: 0000-0001-9160-0797.

[2] Prof. Dr., Tokat Gaziosmanpaşa University, Faculty of Economics and Administrative Sciences, Department of Economics, E-mail: ilhan.eroglu@gop.edu.tr, ORCID ID: 0000-0003-4711-1165.

Atıf/Citation

Kangal, N. & Eroğlu, İ. (2023). Ülkelerin gelişmişlik farklılıkları özgürlük yapısı ile açıklanabilir mi? *Dicle Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 13*(26), 626-644.

ÜLKELERİN GELİŞMİŞLİK FARKLILIKLARI ÖZGÜRLÜK YAPISI İLE AÇIKLANABİLİR Mİ?

Öz

Bu çalışmanın amacı, ülkelerin liberal yapısı ile ülkelerin kalkınması arasındaki ilişkiyi test etmektir. Bunun için performans ölçütü olarak kişi başına düşen GSYİH ve fiyat istikrarı kullanılmıştır. Bu amaçla gelişmiş ve gelişmekte olan ülkeler için iki ayrı model oluşturulmuştur. Model I ekonomik özgürlüklerin kişi başına düşen GSYİH üzerindeki etkisini, Model II ise ekonomik özgürlüklerin tüketici fiyat endeksi üzerindeki etkisini analiz etmektedir. Gelişmiş ve gelişmekte olan ülke grupları için panel veri analizi kullanılarak yapılan analiz sonuçlarına göre, özgürlükçü bir yapının ekonomik büyümeyi pozitif yönde etkilediği ve ülkeler arasındaki gelişmişlik farklarının ortaya çıkmasında ayırt edici bir unsur olduğu, özgürlükçü bir yapının fiyat istikrarı ile anlamlı bir ilişkisinin olmadığı bulgularına ulaşılmıştır. Bu bulgular, enflasyonun her zaman parasal bir olgu olduğu yönündeki Monetarist görüşü destekleyen kanıtlar sunmaktadır. Bu çalışmanın sonuçlarına göre, özellikle gelişmekte olan ülkelerin para ve maliye politikalarında fiyat istikrarına yönelik ihtiyatlı politikalar uygulamaları önerilmektedir.

Anahtar Kelimeler: Ekonomik Özgürlük, Ekonomik Büyüme, Fiyat İstikrarı, Panel Veri Analizi.

JEL Kodu: O10, E60, A10, K10.

1. INTRODUCTION

Economic freedoms are an essential feature of a market economy. This understanding is related to the belief that economic freedom positively affects variables such as economic growth and price stability, which are considered the ultimate objectives of economic policy and are used in the measurement of macroeconomy performance.

After the 1990s, the number of studies on the relationship between economic freedom and economic growth has increased rapidly among growth theories. The development of indices that led to a better measurement of economic freedoms after the 1990s was effective in this increase (Doucouliagos and Ulubaşoğlu, 2004: 3). The main question of this study is: does a libertarian structure explain the economic performance of countries? The research aimed to examine the relationship between liberal structure and per capita gross domestic product in determining the level of development of countries, on the one hand, and to investigate whether liberal structure or monetary phenomena are a distinguishing feature in explaining price stability in developed and developing countries, on the other hand.

There have been many studies in the literature that try to explain the economic differentiation between countries with the understanding of economic freedom (Herrera-Echeverri et al., 2013; Torstensson, 1994; Knack and Keefer, 1995; Barro, 2013; Dawson, 1998; Nelson and Singh 1998; Heckelman, 2000; Crampton, 2002; Bengoa and Sanchez-Robles, 2003; Mahmood et al., 2010; Yalman et al., 2011; Tunçsiper and Biçen, 2014). How much of a

share do economic freedoms have in the economic structure of countries with similar developmental characteristics? The hypothesis of this study is to find answers to these questions. The hypstudy's hypothesissitively affects economic growth and price stability in developed countries. The study's findings reveal that the liberal economy structure is discriminatory in the emergence of the development differences of countries, and it does not have a significant relationship with price stability.

2. LITERATURE REVIEW

In this section of the study, some of the studies on the relationship between economic freedom and macroeconomic performance are presented.

Barro (1991) used Gastil's economic division of countries into socialist, mixed and free-enterprise economies. The study, which used data from 98 countries in the 1960-1985 period, concluded that socialist systems had a marginally significant, adverse effect and mixed methods had no effect on growth compared to free enterprise systems.

Torstensson (1994) analyzed the impact of economic freedom on growth performance using data from 1976-1985 covering 68 countries. In the study, property rights are analyzed in two ways: the degree of state ownership of property and whether individuals are secure against arbitrary confiscation of their property. It is concluded that the degree of state ownership does not affect growth rates, whereas arbitrary confiscation of property hurts growth.

Knack and Keefer (1995) analyzed the relationship between the institutional structure represented by economic, civil and political, freedom levels and growth and investments by using the data of 97 countries for the period 1973-1986. They concluded that while political and civil liberties do not affect economic performance sufficiently, institutions that protect property rights are s essential for investment and economic growth.

Barro (1996) analyzed the relationship between growth and democracy, which are subjective indices of political freedom, for 100 countries between 1960 and 1990. Variables such as the protection of the rule of law, free markets, low government expenditures and high human capital positively affect economic growth. In addition, in countries where political freedom is low, providing a democratic environment contributes positively to economic growth. Improvements in the standard of living measured by the level GDP, health status and education will also lead to increased tical freedoms. These variables also help to predict whether countries will become more or less democratic over time.

Gwartney et al. (1996) published their Economic Freedom of the World study, which can help economists in many countries. In the study, data from 115 countries were used and analyzed comprehensively in areas such as monetary policy, fiscal legislation, taxation, etc.. The same study also mentioned the relationship between economic freedom and unemployment rates It was concluded that there would be more unemployment in cases where economic freedom is low. Moreover, a positive correlation was emphasized between the decline in economic production and income and growth figures.

Dawson (1998) detected the relationship between political, civil and economic freedom measures as well as the impact of institutional structure on real national income per labor force and investments by using Fraser Index of Economic Freedom data of 92 OECD and developing countries in the 1975-1990 period in his study, In the study, it is stated that economic freedom and civil liberties affect growth through their effect on human capital investment. This finding is essential for growth models in which human capital accumulation is essential to necessary process. It shows that economic freedom has a significantly positive effect on growth within the framework of a large group of countries.

Grubel (1998) analyzed 115 countries in the 1997 rankin Fraser Index of Economic Freedom ranking result published by the Fraser Institute. According to this; contrary to generally accepted studies, he found that there is relationship between economic freedom and GDP per capita, economic growth, employment, human development, life expectancy, literacy and poverty reduction.

Nelson and Singh (1998) analyzed the relationship between economic growth and political freedom using data for 67 developing countries. They used price stability, government size, discriminatory taxation and trade restrictions as measures of economic freedom. They concluded that while the lack of democracy and political freedom seriously harms the economic performance of countries, economic freedom has a significantly positive effect on economic growth.

Gwartney et al. (1999) analyzed the impact of economic and political freedoms on economic growth in 82 countries covering different periods. The study results showed that changes in the level of economic freedom and political freedom have a positive and significant effect on economic growth, but e. Still, economics is a store of combustible political freedom affecting economic growth. In addition, while changes in the level of economic freedom affect economic growth, economic growth does not affect economic freedom.

De Haan and Sturm (2000) comprehensively compared and evaluated the economic freedom index indicators prepared by the Heritage Foundation and the Fraser Institute. It is concluded that these measures show similar rankings for countries, albeit with slightly different scopes. The study also analyzed the relationship between economic growth and economic freedom by including 80 countries in the Fraser Institute Economic Freedom ranking between 1975 and 1990. It was concluded that improving the score will accelerate economic growth for countries with low levels of economic freedom. In contrast, stable economic growth is not affected by the level of economic freedom.

Heckelman (2000) analyzed the relationship between economic freedom and growth using the data of 96 countries for the period 1991-1997. He used the Heritage Index of Economic Freedom data in his analysis. No causal relationship was found between tax and trade policies and economic growth. It is concluded that countries focus on maintaining low inflation to see short-term growth immediately, and that the trend towards greater freedom in capital movements and foreign investment, wage and price controls and property rights supports economic growth rates. The study also emphasized that economic growth does not affecic affect.

Banaian and Luksetich (2001) analyzed the relationship between central bank independence, economic freedom and inflation in 54 developed and developing countries for the pfrom89. The effects of central bank independence, measures of politic political and economic freedom measures, and other economic factors on inflation rates were tested. The Heritage Foundation Index of Economic Freedom was used for economic freedom data, and the Freedom House Index was used for civil and political freedom data. While the inflation rate is included in the analysis as the dependent variable, budget deficit, trade volume, growth rates, economic freedom, civil and political freedom data are also included. It is concluded that MB independence leads to low inflation rates in all countries and the critical relationship between economic and political freedom and MB independence is emphasized.

Carlsson and Lundström (2002) analyzed the long-term effects of economic freedom on growth for 74 countries for the 1975-1995 period. In the study using the Fraser Index of Economic Freedom data, it was observed that the effects of the economic freedom measure on economic growth were positive, negative or insignificant. For this reason, the selection of economic freedom criteria constitutes a significant problem. It is concluded that economic freedom indicators such as legal structure, private property rights, freedom to use alternative money and freedom to participate in capital markets are positively related to economic

growth. In the study, while the size of the public sector is negatively associated with economic growth, criteria such as monetary policy and price stability have no significant relationship with economic growth. As a result of the negative and insignificant relationships, it is emphasized that it is difficult to state that there is a direct and positive relationship between economic freedom and economic growth.

Doucouliagos and Ulubaşoğlu (2006) estimated the relationship between economic freedom and economic grh by using data from 82 countries between 1970-1999. In the study, four different models with different variables were used and a positive and significant relationship between economic freedom and economic growth was obtained in all of them No significant relationship was found between political freedom and growth in two of the four models th.

Gwartney et al. (2006) analyzed the effect of institutional quality on per capita income and growth rates by using from 94 countries between 1980-2000. Fraser Index of Economic Freedom data was included in the study as institutional quality. It is concluded that high institutional quality leads to economic growth and per capita income increase in countries. However, high growth rates are not supposed to increase each country's institutions' quality.

Williamson and Matters (2011) analyzed the relationship between economic freedom, culture and economic growth. Using the data of 141 countries between 1970-2004 with panel data analysis, it was concluded that there is a positive relationship between the cultural structures and economic freedom levels of countries and economic growth. In his study, he analyzed the relationship between economic freedom, culture and economic growth using data from 141 countries between 1970-2004. The analysis conducted with panel data analyses concluded that there is a positive relationship between the cultural structures and economic freedom levels of countries and economic growth. The study also pointed out that economic freedoms have a greater significance on economic growth compared tothanser (2016) analyzed the effect of the economic freedom index on gross domestic product per capita by using the data of 27 developed, 25 developing and ten underdeveloped countries for the years 1995-2013 by panel data analysis method. Although economic freedoms alone are not sufficient for economic development, it is found that they have a positive effect

and this effect is positive for both developed and developing countries. In terms of underdeveloped countries, no relationship was found between the variables in the long run.

Koçak (2016) investigated the relationship between democracy, economic freedom and economic growth using panel data method (panel unit root, panel cointegration, panel

causality) using the 1995-2013 data of 39 high, high-middle, low-middle and low-income countries. In addition to a long-run equilibrium relationship between institutions and economic growth, it was found that the qualities of institutions have a positive effect on economic growth. The analysis supports a bidirectional causality relationship between institutions and economic growth.

Çoban (2020) analyzed the relationship between economic freedoms and economic growth and human development using the data of the Visegrad Four (Czechia, Hungary, Slovakia and Poland) countries for the period 1995-2014. In the study, the Human Development Index, the Heritage Index of Economic Freedom and the monetary freedom index and the property rights index, which are subcomponents of the index, were used. The ratio of public health expenditures to GDP, the ratio of public education expenditures to GDP and the inflation rate were included in the analysis as control variables. As a result, it was found that the economic freedoms of the Visegrad countries positively affect the level of human development. Considering the studies conducted, it has been found that various variables that are determinants of economic freedom positively support economic growth in a significant part of the studies in the literature. On the other hand, as can be understood from the literature section, there is a small number of studies that determine the relationship between economic freedom and inflation (price instability).

3. HYPOTHESIS AND DATASET

This study has been limited to the years 2005-2020 as the Developed Countries (Germany, Australia, Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Hong Kong (SAR), Ireland, Israel, Italy, Iceland, Japan, Canada, Cyprus, Greece, South Korea, Latvia, Lithuania, Luxembourg, Malta, Netherlands, New Zealand, Norway, Portugal, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, UK and USA) and Developing Countries group (United Arab Emirates, Brazil, China, Indonesia, Philippines, South Africa, India, Colombia, Hungary, Malaysia, Mexico, Poland, Russia, Saudi Arabia, Chile, Thailand and Turkey) according to the classification made by the IMF.

Table 1. Short Descriptors of Variables

Abbreviation of Variable	**Variable**	**Source**	
LnPCGDP	Real Gross Domestic Product per Capita (2010 US dollar fixed prices)	WDI	**Expected Result**

Ln CPI	Consumer Price Index -CPI (2010=100)	WDI	lnPCGDP	lnCPI
LnER	Real Effective Exchange Rate (2010=100)	BIS	+	+
DCI	The ratio of Domestic Capital Investments to GDP (%)	WDI	+	
FDI	The ratio of Foreign Direct Investments to GDP (%)	WDI	+	+/-
PX	The ratio of Public Expenditures to GDP (%)	WDI	-	+
LnEFI	Economic Freedom Index	Heritage	+	-
LnMFI	Monetary Freedom Index	Heritage		-
LnPRI	Property Rights Index	Heritage	+	-
LnCFI	Civil Freedom Index	Freedom House	-	+
LnPORI	Political Rights Index	Freedom House	-	+

Source: Created by the Author

In this context, the hypothesis was tested with two different models and panel data analysis was used to test the hypotheses.

Hypothesis: Economic freedoms affect macroeconomic performance positively.

In order to determine the effects of economic freedoms on PCGDP and CPI as a measure of macroeconomic performance, the following 2 different models have been estimated for the country groups specified in the study.

4. FINDINGS

Model 1:

$$LnPCGDP_{it} = \beta_0 + \beta_1 LnER_{it} + \beta_2 DCI_{it} + \beta_3 FDI_{it} + \beta_4 PX_{it} + \beta_5 LnEFI_{it} + \beta_6 LnPRI_{it} + \beta_7 LnCFI_{it} + \beta_8 LnPORI_{it} + \varepsilon_{it}$$

After the descriptive statistics of the variables are expressed, the existence of the classical model is investigated within the scope of Model I and Model II. The classical model assumes that both constant and slope parameters are constant across units and time, in other words, all observations are homogeneous. According to the classical model, there are no unit and/or time effects (Tatoğlu, 2020: 40).

The F test is used to investigate the validity of the classical model. As a result of this test, it can be stated that the classical model is effective if both fixed and slope parameters are found to be constant with respect to units and time. Table 2 shows the findings of the F test (unit effect and time effect) conducted to investigate the validity of the classical model.

Table 2. F Test (Unit Effect and Time Effect)

		Unit Effect		Time Effect	
Country Group	**Variable**	**Model I**	**Model II**	**Model I**	**Model II**
Developed Countries	Chi-Square Statistic	397.49	2.05	0.40	111.09
	Probability Value	0.000	0.000	0.978	0.000
Developing Countries	Chi-Square Statistic	270.05	10.32	0.61	56.7
	Probability Value	0.000	0.000	0.868	0.000

The findings for the two country groups within the scope of the study and for Model I and Model II are presented. When the results are analyzed, it is found that there are unit effects for the two country groups in Model I. According to the unit effect, the classical model is not appropriate for the two country groups in Model I. In Model II, due to the presence of unit effects for Developed Countries and Developing Countries, it is understood that the classical model is not appropriate for this country group.

On the other hand, with respect to the presence of time effects, the findings in Table 2 for Model I indicate that time effects are insignificant and the classical model is efficient, whereas, in Model II, time effects are present for both country groups and the classical model is not efficient.

The next step after the F test is to determine whether the fixed effects model or the random effects model is efficient. The Hausman test tests the null hypothesis that the random effects estimator is valid.

Table 3. Hausman Test

Country Group	**Hausman Testi**	**Model I**	**Model II**
Developed Countries	Chi-Square Statistic	42.801	66.120
	Probability Value	0.000	0.000
Developing countries	Chi-Square Statistic	9.199	641.96
	Probability Value	0.326	0.000

Table 3 shows the Hausman test results for Model I and Model II. In Model I, it is observed that the fixed effects model is valid for Developed Countries. According to the results, the H_0 hypothesis, which states that the difference between the parameters is not systematic, cannot

be rejected. The findings for Developing Countries show that the random effects model is adequate. When the results obtained for Model II are analyzed, it is understood that the H_0 hypothesis cannot be rejected in the findings obtained for the two country groups and accordingly, the fixed effects model is adequate.

In econometric analyses, the fact that the error term is not constant variance across observations is explained by the problem of changing variance. The existence of this problem is tested for heteroskedasticity (changing variance problem). According to the efficiency of the fixed effects and random effects model, the tests for heteroskedasticity may vary. While the presence of heteroskedasticity can be tested with the Modified Wald Test when the fixed effects model is effective, it is tested with the Breusch-Pagan Lagrange Multiplier Test and Levene, Brown and Forsythe Test when the random effects model is valid.

Table 4. Variance Test

Country Group	**Model I**		**Variance Test**
Developed Countries	Chi-Square Statistic	2513.5	Modified Wald Test
	Probability Value	0.000	
Developing Countries	W0= 11.85 df(16,255) W50= 5.99 df(16,255) W10= 10.42 df(16,255) $F_{0,05}$=1,57		Levene, Brown and Forsythe Test
Country Group	**Model II**		**Variance Test**
Developed Countries	Chi-Square Statistic	388.45	Modified Wald Test
	Probability Value	0.000	
Developing Countries	Chi-Square Statistic	6450.81	Modified Wald Test
	Probability Value	0.000	

Table 4 shows the variance results for the two country groups within the scope of Model I and Model II. In Model I, according to the validity of the fixed effects random effects model of the country groups; the Modified Wald test was preferred in the Developed Countries, while Levene, Brown and Forsythe test was used in the Developing Countries. When the findings are analyzed, within the scope of Model I, the H_0 hypothesis stating that the variances are homoskedastic across units for the two country groups is rejected and the H_1 hypothesis stating that the variance varies across units is accepted. When the results obtained for Model

II are analyzed, since the fixed effects model is valid for the two country groups, the modified Wald test is applied as a test for changing variance and the problem of changing variance is detected.

Table 5. Autocorrelation Test

Country Group	**Model I**		**Autocorrelation Test**
Developed Countries	DW Test İstatistik Değeri	0.3326	Bhargava, Franzini and Narendranathan's Durbin Watson (DW) Test and Baltagi-Wu Local Best Invariant (LBI) Test
	LBI Test İstatistik Değeri	0.6111	
Developing Countries	DW Test İstatistik Değeri	0.2383	Bhargava, Franzini and Narendranathan's Durbin Watson (DW) Test and Baltagi-Wu Local Best Invariant (LBI) Test
	LBI Test İstatistik Değeri	0.5155	
Country Group	**Model II**		**Autocorrelation Test**
Developed Countries	DW Test İstatistik Değeri	0.1651	Bhargava, Franzini and Narendranathan's Durbin Watson (DW) Test and Baltagi-Wu Local Best Invariant (LBI) Test
	LBI Test İstatistik Değeri	0.4211	
Developing Countries	DW Test İstatistik Değeri	0.3643	Bhargava, Franzini and Narendranathan's Durbin Watson (DW) Test and Baltagi-Wu Local Best Invariant (LBI) Test
	LBI Test İstatistik Değeri	0.6320	

The autocorrelation problem, which refers to the correlation of error terms with each other, is one of the processes that should be tested before model estimation. Because the estimations made without taking into account whether there is autocorrelation or not will give erroneous and unrealistic results (Güriş, 2015: 73). In the autocorrelation test, Bhargava, Franzini and Narendranathan's Durbin Watson Test and Baltagi-Wu's Local Best Invariant Test, which are used when both fixed effects and random effects models are valid, can be used.

Table 5 presents the findings obtained after the autocorrelation tests for the two country groups under Model I and Model II. The Durbin Watson (DW) and Baltagi-Wu Local Best Invariant (LBI) test statistic values of Bhargava, Franzini and Narendranathan for both Model I and Model II show that all test statistic values are below 2 and autocorrelation is significant.

The independence of error terms across units is one of the general assumptions in panel data models. Accordingly, the assumption of uncorrelation between units should be tested (Tatoğlu, 2020: 237). Pesaran CD test and Breusch-Pagan LM test can be applied to test the existence of inter-unit correlation. Pesaran CD test is applied when N is large and T is small. Accordingly, Pesaran CD test is used in this study (Table 6)

Table 6. Inter-unit Correlation Test

Country Group	**Model I**		**Inter-unit Correlation Test**
Developed Countries	Statistic Value	40.894	Pesaran CD Test
	Probability Value	0.000	
Developing Countries	Tesadüfi Etkiler Modeli Etkin		-
Country Group	**Model II**		**Inter-unit Correlation Test**
Developed Countries	Statistic Value	0.113	Pesaran CD Test
	Probability Value	0.909	
Developing Countries	Statistic Value	-1.356	Pesaran CD Test
	Probability Value	0.175	

When the findings regarding the correlation tests between units for Model I and Model II in Table 6 are examined, Pesaran CD Test is used and the H_0 hypothesis indicating no correlation between units for Developed Countries in Model I is rejected and it is understood that there is a correlation between units. However, since random effects are effective in Developing Countries and the units come from random draws, it is not considered to find correlation between units (Tatoğlu, 2020: 249). In addition, in Model II, it was found that there was a correlation between units for the Developed Countries and Developing Countries.

Table7 shows the findings obtained with the appropriate resistant estimator for Model I. Since the problems of varying variance, autocorrelation and inter-unit correlation were encountered in the analysis for the Developed Countries, the model was estimated with the appropriate Driscoll-Kraay resistance estimator. For the Developing Countries, the model was estimated with the appropriate Arellano, Froot and Rogers resistance estimators, since varying variance and autocorrelation were encountered.

Table 7. Model I Resistive Estimator Results

Dependent Variable (LnPCGDP**)**	**Developed Countries**		**Developing Countries**	
Independent variables	**Coefficient**	**t**	**Coefficient**	**z**
LnER	0.0272	0.66	0.2318	0.97
DCI	0.0033	1.57	0.0016	0.17
FDI	**-0.0006**	**-4.50***	0.0001	0.07
PX	**0.0173**	**-3.14***	0.0123	0.81
LnEFI	**1.0170**	**9.63***	**0.9132**	**1.91*****
LnPRI	**0.2565**	**8.28***	0.1244	1.33
LnCFI	**0.0625**	**3.43***	**0.1867**	**2.23****
LnPORI	**0.0715**	**2.97***	**0.1155**	**2.42****
C	**5,1057**	**9.02***	3.0823	1.31
Resistive Estimator Method	**Driscoll and Kraay (1998)**		**Arellano (1987), Froot (1989), Rogers (1993)**	
R2 -	32.45		36.79	
N	35		17	
obs	560		272	

Note: *: Significance at 1% significance level, **: Significance at 5% significance level, ***: Significance at 10% significance level)

In Model I, the findings of Developed and Developing Countries between lnER and DCI and lnPCGDP were found to be statistically insignificant.

A negative relationship was found between the variables for the Developed Country groups between FDI and LnPCGDP, and at the same time, it is observed that these findings are significant at the 1% significance level.

There is a significant and negative relationship between PX and lnPCGDP at a 1% significance level in Developed Countries. The increase in the public share, which means the restriction of freedom, decreases the per capita income.

In the two country groups between lnEFI and lnPCGDP; it is seen that the relationship is positive and significant at the 1% significance level in the developed country group and 10% in the developing countries. These results confirm Hypothesis 1, which we have constructed as economic freedom has an effect on PCGDP. The fact that the coefficient is higher in developed countries (1.0170) than in developing countries (0.9132) indicates that economic freedom is an essential variable in revealing the development gap.

While there was a statistically significant 1% positive relationship between lnPRI and lnPCGDP in developed countries, no significant relationship was found in developing countries. Developed countries results support the H hypothesis.

Although the sign of the relationship between ln CFI and LnPCGDP for the two country groups is positive and significant (1% for Developed Countries, 5% for Developing Countries), the relationship needs to be interpreted in the opposite direction. As the civil liberties index value increases (civil freedom decrease) for each country group, PCGDP also increases. This is not an expected result either.

A positive relationship between lnPORI and lnPCGDP at the level of 1% significance in developed countries and 5% in developing countries. It is thought that a development towards an increase in political freedom in developed and developing countries (decrease in the index value) will adversely affect the macroeconomic performance related to growth. This is not an expected result either.

Model 2:

$$LnCPI_{it} = \beta 0 + \beta 1\ LnER_{it} + \beta 2\ Ln\ MFI_{it} + \beta 3\ FDI_{it} + \beta 4\ PX_{it} + \beta 5\ LnEFI_{it} + \beta 6\ LnPRI_{it} + \beta 7\ LnCFI_{it} + \beta 8\ LnPORI_{it} + \varepsilon_{it}$$

Since varying variance and autocorrelation findings for Model II for Developed and Developing Countries were found in Table 8, the appropriate Arellano, Froot and Rogers resistance estimators were used. In addition, considering that no inter-unit correlation was found for the Developed Countries group, Arellano, Froot and Rogers were included in the resistance estimator (Tatoğlu, 2020: 249).

Table 8. Model II Resistive Forecast Results

Dependent Variable (lnCPI)	**Developed Countries**		**Developing Countries**	
Independent variables	**Coefficient**	**t value**	**Coefficient**	**t value**
LnER	**0.1102**	**2.08****	**-0.4298**	**-2.24****

FDI	0.0001	-0.06	-0.0001	-0.45
PX	0.0032	1.40	-0.0081	-0.59
lnEFI	-0.1072	-1.46	-0.2010	-0.52
lnPRİ	-0.1314	-0.98	-0.1831	-1.74
lnMFI	0.0107	0.21	-0.0088	-0.10
lnCFI	0.0290	1.38	0.0016	0.01
lnPORI	-0.0152	-1.54	-0.0953	-1.56
C	**5,0576**	**5.35***	**8.5229**	**7.06***
Resistive Estimator Method	Arellano (1987), Froot (1989), Rogers (1993)			
R2 –	81.17		83.46	
N	35		17	
obs	560		272	

Note: *: Significance at 1% significance level, **: Significance at 5% significance level, ***: Significance at 10% significance level).

In Model II, there is a negative relationship between lnER and LnCPI at the 5% significance level for Developing Countries, and a positive relationship at the 5% significance level for Developed Countries. These results reveal that, contrary to expectations, the pass-through from real effective exchange rate to CPI for developing countries is not positive.

No significant relationship was found between the FDI, PX, lnEFI, lnPRI, lnMFI, lnCEL and lnPORI variables and lnCPI. In particular, the absence of a significant relationship between lnMFI, it is thought that monetary phenomena are the basis of inflation, as claimed by the monetarist economic view, and it is understood that appropriate monetary and fiscal policies should be applied instead of liberal economic policies in the fight against inflation.

5. CONCLUSION

The impact of libertarian economies on price stability and economic growth, which are two important objectives of macroeconomics, has been one of the important issues that researchers have been focusing on in recent years. This study aims to reveal the impact of liberalisation on macroeconomic performance as economic growth and price stability. For this purpose, two separate models are constructed in the study. In Model I, it is aimed to investigate the effect of economic freedom on LnPCGDP for two different country groups (Developed Countries Group and Developing Countries Group), while in Model II, it is aimed to investigate the effect of economic freedom on lnCPI in two different country groups consisting of the same countries. Within the scope of the study, specification tests were first conducted and then Model I and Model II were estimated with appropriate robust estimators.

When the relationship between the economic freedom index and LnPCGDP is analyzed, it is found that as the level of economic freedom increases in developed countries, LnPCGDP also

increases. A positive relationship was found between LnPRI, LnCEI and LnPORI, which are other independent variables related to freedom, and LnPCGDP dependent variable. On the other hand, there is a negative relationship between the independent variables FDI and PX and the dependent variable LnPCGDP.

When the results obtained for Model I for Developing Countries are analyzed, it is observed that economic freedoms increase lnPCGDP for this country group. Institutional quality indicators and other independent variables lnCEI and lnPORI also positively affect the dependent variable lnPCGDP.

When the results of the developed countries within the scope of Model II are examined, when the relationship between lnER, one of the independent variables related to freedom, and lnCPI is analyzed, it is found that there is a positive relationship. Within the scope of Model II, no significant relationship was found between other independent variables and lnCPI.

When the Model II robust estimator results for Developing Countries are analyzed, a negative relationship between the independent lnER variable related to freedom and the dependent lnCPI variable is detected in this country group. Within the scope of Model II, no significant relationship was found between other independent variables and the dependent variable lnCPI as in developed countries.

The results obtained from the estimation of the models are also consistent with the findings in the literature for the two country groups (Friedman, 2018; Gwartney and Lawson 2004; Dawson 2003; Nelson and Singh 1998; Doucouliagos and Ulubaşoğlu 2006; Brkic, Gradojevic and Ingjattijević 2020) . The fact that this effect is higher in developed countries than in developing countries supports the accuracy of the hypothesis and indicates that the difference in development can be expressed in terms of economic freedoms.

On the other hand, in the two country groups, these results do not include the findings that the economic freedoms accepted for the Hypothesis will affect price stability positively. These findings are also consistent with the results of similar studies in the literature (Heckelman 2000; Banaian and Luksetich 2001; Carlsson and Lundström 2002; Rabushka, 1991). As a result, the liberal structure partially affects macroeconomic performance positively.

This table that emerged as a result of the research reveals that in economies that have achieved price stability by overcoming macroeconomic problems such as inflation, economic freedoms will make significant contributions to growth as a measure of macroeconomic performance, but in economies that have not yet achieved price stability, economic freedoms

will not have the desired and expected effect in establishing price stability as a measure of macroeconomic performance. It should be kept in mind that achieving the inflation target as two macroeconomic performance measures should be prioritized over achieving the growth target. It is considered that the research contributes to the literature in this respect.

In this context, according to the results of the study, as a policy recommendation, policymakers should aim to achieve the price stability target before the growth target in the construction of a libertarian economy, and in doing so, they should use monetary policy and fiscal policy instruments effectively. In this way, after achieving the price stability target, they should aim to increase PCGDP by expanding economic freedoms.

The answer to the question of whether countries should prioritize growth or price stability for macroeconomic objectives is that price stability should be seen as the more important objective. According to the results of this study, it is recommended that especially developing countries should implement prudent policies towards price stability in monetary and fiscal policy.

REFERANCES

Banaian, K. & Luksetich, W. (2001). Central bank independence, economic freedom, and inflation rates. *Economic Inquiry. 39*(1), 149-161 (30.05.2022) https://doi.org/10.1111/j.1465-7295.2001.tb00057.x.

Barro, R. J. (1991). Economic growth in a cross section of countries. *Quarterly Journal of Economics*, 106(2): 407-443. https://doi.org/10.2307/2937943

Barro, R., J. (1996). Democracy and growth. *Journal of economic growth*, *1*(1*)*, 1-27.

Barro, R. J. (2013). Democracy, law and order, and economic growth. In AT Miller, K., R. Holmes, and E., J. Feulner (Eds.), 2013 Index of Economic Freedom Chapter 3 (pp.41-58). The heritage foundation and Dow Jones and Company, Inc.

Bengoa, M. & Sanchez-Robles, B. (2003). Foreign direct ınvestment, economic freedom and growth: new evidence from Latin America. *European Journal of Political Economy, 19*(3), 529-545.

Brkic, I. Gradojevic, N. & Ingjattijević, S. (2020). The ımpact of economic freedom on economic growth? New European dynamic panel evidence. *Journal of Risk Financial Management, 13* (2), 1-13.

Carlsson, F. & Lundström, S. (2002). Economic freedom and growth: decomposing the effects. *Public Choice, 112* (3-4), 335-344.

Crampton, E., (2002). You get what you vote for: electoral determinants of economic freedom, *Journal of Private Enterprise*, *18*(0211003), 1-20.

Dawson, J., W. (2003). Causality in the freedom–growth relationship. *European Journal of*

Political Economy, 19 (3), 479-495.

De Haan, J. & Sturm, J. E. (2000). On the relationship between economic freedom and economic growth. *European Journal of Political Economy, 16* (2), 215-241.

Doucouliagos, C. & Ulubasoğlu, M., (2004). *Economic freedom and economic growth: selection, specification and genuine effects*. In European Public Choice Society Meetings.

Eser, Z. E. (2016). Economic freedoms and development [Unpublished PhD Thesis]. Karadeniz Technical University Institute of Social Sciences.

Friedman, M. (2018). *Capitalism and freedom* (5th ed.). (D. Erberk and N. Himmetoğlu, Trans.). Eksi Books.

Grubel, H. G. (1998). Economic freedom and human welfare: Some empirical findings. *Cato Journal, 18*(2), 287-304.

Güriş, S. (2015). *Stata ile panel veri modelleri*. Der Yayınları.

Gwartney, J. D, Holcombe, R., G. & Lawson R., A. (2004). Economic freedom, ınstitutional quality, and cross-country differences in income and Growth. *Cato Journal*, *24*(3), 205-233.

Gwartney, J. D. Holcombe, R. G. & Lawson, R. A. (2006). Institutions and the Impact of investment on growth. *Kyklos*, 59(2), 255-273.

Gwartney, J., D., Lawson, R., A. & Helcombe, R. G. (1999). Economic freedom and the environment for economic growth. *Journal of Institutional and Theoretical Economics*, 155(4), 643- 663.

Gwartney, J. D. Lawson, R. A. & Block, W. (1996). Economic freedom in the world: 1975-1995. Fraser Institute

Heckelman J. C. (2000). Economic freedom and economic growth: a short-run causal investigation. *Journal of Applied Economics*, *3*(1), 71-91.

Herrera-Echeverri, H., Haar, J. and Benavides Estévez-Bretón, J. (2013). Foreign direct ınvestment, ınstitutional quality, economic freedom and entrepreneurship in emerging markets. *Journal of Business Research, 67*(9), 1921-1932.

Knack S. and Keefer, P. (1995). Institutions and economic performance: cross-country tests using alternative ınstitutional measures. *Economics and Politics*, 7(3), 207-227.

Koçak, E. (2016). Democracy, economic freedoms and growth: theory and empirical application [Unpublished Doctoral Dissertation]. Erciyes University Institute of Social Sciences.

Mahmood, K. Taseef A. Imran S. & Faridi, M. Z. (2010). Impact of economic freedom on economic growth: the case of some selected search member countries. *International Research Journal of Finance and Economics, 52*, 7-16.

Nelson, M. A. & Singh, R. D. (1998). Democracy, economic freedom, fiscal policy and

growth ın lDCS: a fresh look. *Economic Development and Cultural Change*, *46*(4), 677-696.

Tatoğlu, Yerdelen, F. (2020). *Panel data econometrics* (5th Edition). Beta Publishing.

Torstensson, J. (1994). Property rights and economic growth: an empirical Study. *Cyclos, 47* (2), 231-247.

Tunçsiper, B. & Biçen, Ö. F. (2014). Examination of the relationship between economic freedoms and economic growth by panel regression method. *Eskişehir Osmangazi University Journal of Feas, 9*(2), 25-45.

Williamson, C. R. & Mathers, R. L. (2011). Economic freedom, culture and growth. *Public Choice*, *148*(3-4), 313-335.

Yalman, İ., N. Sandalcılar, A. R. & Demirkoparan, F. (2011). Freedoms and economic development: Latin America and Turkey. *Ataturk University Journal of FEAS.* 10. Special Issue of Econometrics and Statistics Symposium, 431-444.