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ARE DEMOCRACY AND ECONOMIC FREEDOM SUPPORTIVE OF ECONOMIC GROWTH? THE CASE OF TÜRKIYE

CZY DEMOKRACJA I WOLNOŚĆ GOSPODARCZA SPRZYJAJĄ WZROSTOWI GOSPODARCZEMU? PRZYPADEK TURCJI

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B. Data collection/
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C. Statistical analysis/
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D. Data interpretation/
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Abstract

Subject and purpose of work: Analysıng the effect of democracy and economıc freedom on economıc growth ın a developıng country ıs the subject of the study, and analysıng the effect of democracy and economıc freedom on economıc growth ın Türkiye ıs the aım of the study.

Materials and methods: Percapitagdp, Heritage, Global State of Democracy shows the locations and materials of the data obtained for the study. Todo-yamamoto was used as the method.

Results: There is no mutual effect of democracy and economic freedom on Türkiye's economic growth between the determined periods.

Conclusions: Türkiye's economic growth should be evaluated structurally rather than administratively, confidence and stability in capital markets should be re-established, and technological investments should become the precursor of economic growth to realize these structural policies.

Keywords: Economic Growth, Economic Freedom, Democracy

Streszczenie

Przedmiot i cel pracy: Przedmiotem pracy jest analiza wpływu demokracji i wolności gospodarczej na wzrost gospodarczy w krajach rozwijających się, a celem pracy jest analiza wpływu demokracji i wolności gospodarczej na wzrost gospodarczy w Turcji.

Materiały i metody: Percapitagdp, Heritage, Global State of Democracy pokazuje lokalizacje i materiały danych uzyskanych do badania. Jako metodę zastosowano Todo-yamamoto.

Wyniki: Nie ma wzajemnego wpływu demokracji i wolności gospodarczej na wzrost gospodarczy Turcji w określonych okresach.

Wnioski: Wzrost gospodarczy Turcji powinien być oceniany raczej strukturalnie niż administracyjnie, należy przywrócić zaufanie i stabilność na rynkach kapitałowych, a inwestycje technologiczne powinny stać się prekursorem wzrostu gospodarczego w celu realizacji tych polityk strukturalnych.

Słowa kluczowe: Wzrost gospodarczy, wolność gospodarcza, demokracja

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Introduction

The fact that the level of development differs across countries makes it necessary to understand the basic factors that determine economic performance. Studies on economic growth and development in the literature reveal the critical role of governance structures in this process. In particular, economic insecurity and political values are important mediating factors that shape the relationship between governance mechanisms and economic performance (Acemoglu & Robinson, 2012). In this context, Babula et al. (2022) provide important findings by analysing the effects of economic downturns on public sentiment and institutional trust.

In environments of high economic insecurity, individuals'and firms' perceptions of uncertainty about the future increase, which may negatively affect investment and consumption decisions and weaken economic growth. Babula et al. (2022) found that economic insecurity may increase xenophobia and in-group solidarity, but individuals with functional autonomy are more resistant to these effects. These findings are in line with Maslow's (1943) hierarchy of needs and suggest that meeting individuals' security needs during their formative years may serve as a buffer against subsequent economic shocks. Although global developments such as the reduction of customs duties after the Second World War, the expansion of regional integrations and the increase in international trade (Figure 1) have accelerated economic growth (Rodrik, 1999), macroeconomic instabilities such as inflation, unemployment and income inequality can reduce the effectiveness of governance mechanisms. (Rodrik, 2011).
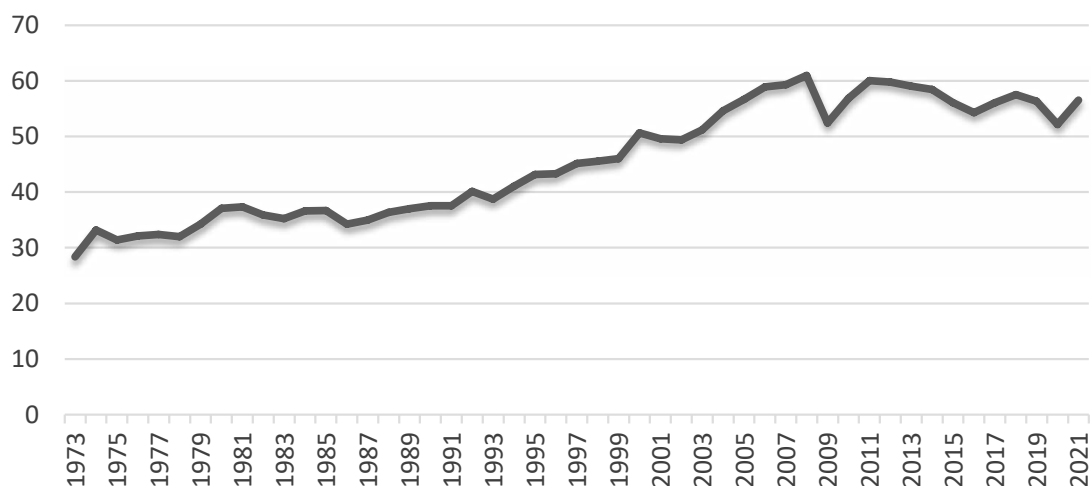

Figure 1. World Trade 1973-2021
Source: https://databank.worldbank.org/reports.aspx?source=2&Topic=21#.

Lipset (1959) conducted one of the pioneering studies analysing the relationship between democracy and economic growth and found that democratic systems support economic development. The impact of political values on the quality of governance directly shapes economic outcomes. Participatory democracies and strong rule of law structures favour long-term economic growth by ensuring the protection of property rights (North, 1990). In contrast, political instability and arbitrary policies in authoritarian regimes undermine investor confidence and reduce economic efficiency (Alesina & Perotti, 1996). Babula et al. (2022) point out that economic shocks can weaken these institutional structures. In particular, increased xenophobia and social polarisation during periods of economic crisis may hinder the implementation of governance reforms and negatively affect economic performance (Persson & Tabellini, 2003).

In the case of Türkiye, Babula et al. (2022), in a survey of students at Istanbul and Atatürk Universities, found that individuals with post-materialist values exhibited more tolerant attitudes towards foreigners even under conditions of economic insecurity. These findings are in line with Inglehart's (1977)

materialist-post-materialist values theory and show that economic development transforms social values and contributes to the strengthening of democratic institutions. In the case of Türkiye, the period of relative economic stability between 2002 and 2014 may have shaped the value structures of young adults and contributed to their more tolerant attitudes in the post-2016 economic crisis period.

In this framework, our study aims to analyse the impact of democratic and economic freedoms on economic growth in Türkiye. Based on the hypothesis that in environments where democratic institutions are strong and economic freedoms are widely recognised, sustainable growth can be achieved through increased investment, protection of property rights and financial stability, Toda-Yamamoto (1995) causality analysis will be conducted using the Global State of Democracy Index and Heritage Foundation Economic Freedom Index data. This analysis aims to reveal the indirect effects of economic insecurity and political values on economic performance through governance structures.

As a result, it is observed that economic insecurity and political values are critical factors shaping the relationship between governance structures and economic performance. While the study by Babula et al. (2022) makes important contributions to our understanding of the manifestations of this relationship in the Turkish context, it also shows that the long-term effects of economic shocks on institutional structures and social values need to be analysed in more depth. In this context, strengthening democratic institutions and ensuring economic stability stand out as indispensable elements for sustainable development.

The study is completed with the second section on literature studies, the third section where the analysis is made and the conclusion section where the analysis is evaluated.

Literature studies

De Haan and Siermann (1995) analyzed the impact of democracy on economic growth in 96 countries for two periods (1961-1992) and (1973-1988) using Gasiorowski (1993) data and found that democracy does not have a strong relationship with economic growth.

Ayal and Karra (1998) argue that total factor productivity and capital accumulation will be realized through economic freedom.

Rodrik (2000) found that democracy has a positive relationship with growth. In his study, he covered 1970-1989 by using the Freedom House index for 90 countries.

Leschke (2000) used the Freedom House index on 80 countries between 1990 and 1997 and found that democracy has a positive effect on economic welfare.

Yay (2002) analyzed 74 developing and underdeveloped countries from 1971 to 1990 using the Freedom House index and found no relationship between economic growth and democracy.

Başkaya and Manan (2009) analyzed the effect of democracy on Türkiye's economic growth between 1970 and 2005 using the Freedom House index and found that the effect is indeterminate.

Piatek et al. (2013) found a positive relationship between economic freedoms and economic growth in 25 transition countries between 1990 and 2008.

Akıncı et al. (2014) found that economic freedoms cause economic growth in 144 countries.

In his study, Şahin (2016) found a unidirectional relationship between economic freedom and economic growth in Türkiye from 1980 to 2015.

Santiago et al. (2018) analyzed 21 developing countries from 1996 to 2013 using the ARDL bounds test and concluded that economic freedom negatively impacts economic growth.

In their study, Dkhili and Dhiab (2018) examined the effects of economic freedom on economic growth due to the attraction of foreign investors in the Gulf Cooperation Council members from 1995-2017. They concluded that higher levels of economic freedom in the Gulf Cooperation Council support higher economic growth rates in a country.

Kılcı and Akıncı (2020), in their study of Türkiye from 1995 to 2018, found that economic freedoms positively affect economic growth in the long run.

Analysis

Method Used

This study examines the relationship between Türkiye's economic growth democracy and economic freedom. The frequently used Global State of Democracy index, which represents the level of democracy of countries, and the Heritage Foundation index, which reveals the level of economic freedom, are used. Türkiye's economic growth variable, Gross Domestic Product per capita, is used as an independent variable. The causality relationship between the variables is analyzed with the T-Y causality test. The T-Y causality test is preferred due to its advantages, such as being more accessible than estimating the VAR model in Granger causality tests and reaching results independently of the co-integrated relationship in the series through the VAR model. In addition, the T-Y causality test does not require the series to be stationary at the same level. The VAR model is realized by using the level values of the series at different levels to allow causality analysis between each other and at which level they are stationary. In short, the stationarity levels of the variables can be the same or different. The T-Y causality test does not consider whether there is any cointegration relationship between the variables. The point to be considered in the T-Y test is that the maximum degree of integration of the variables (dmax) should be, at most, the model's appropriate lag number (k). Otherwise, this test cannot be applied. There are two antecedents for the T-Y test;

1. Determining the appropriate lag length (k) with the help of the VAR model,
2. Determination of the highest degree of integration (dmax).

From this point of view, it is understood that the Toda and Yamamoto equation will be solved as a result of (k+dmax).

The null hypothesis of the test;

H_0 : NO Causality Relationship

H_1 : Causality Relationship is VAR.

Data and Findings

The data set used in the study is as follows;

Table1. Sources from which the variables were obtained

Variables	Source
percapitagdp	World Bank
Heritage	Heritage Foundation Index of Economic Freedom
Global	Global State of Democracy

Source: Autors computation.

The Dickey-Fuller (ADF) test was used to determine the variables' stationarity levels. The results of the ADF unit root tests for the variables' levels and differences are as follows.

Table 2. ADF Unit Root Test for Level and Differences of Variables

Extended Dickey-Fuller (ADF) Unit Root Test		
Variables	**Lag Length**	**t-statistic**
Heritage	2	-5.412472
Global	2	-5.202842
percapitagdp	2	0.834880
Δ percapitagdp	2	-3.342944

Source: Autors computation.

At 5% significance level, the null hypothesis (H) is rejected for heritage and global variables, while H is not rejected for percapitagdp variable. Lag lengths are determined using the Schwarz Information Criterion. Δ indicates that the series is taken one difference.

The results of Table 2 show that heritage and global variables are stationary at I(0), while Percapitagdp is stationary at the first difference. Since the non-stationarity of the variables at the same level (t-y) is not important for the causality test, the models adapted to the purpose of the study are as follows.

$$percapitagdp = \alpha_1 + \sum_{i=1}^{k+dmax} \beta_{1it-1}\text{Herigate} + \sum_{i=1}^{k+dmax} \theta_{1it-i1t} \text{ per capitagdp} + \varepsilon \qquad (1)$$

$$_t\text{Herigate} = \alpha_2 + \sum_{i=1}^{k+dmax} \beta_{2it-1} \text{ per capitagdp} + \sum_{i=1}^{k+dmax} \theta_{2it-i1}\text{Herigate} + \varepsilon \, t \qquad (2)$$

$$percapitagdp = \alpha_1 + \sum_{i=1}^{k+dmax} \beta_{1it-1}\text{Global} + \sum_{i=1}^{k+dmax} \theta_{1it-i1t} \text{ per capitagdp} + \varepsilon \qquad (3)$$

$$_t\text{Global} = \alpha_2 + \sum_{i=1}^{k+dmax} \beta_{2it-1} \text{ per capitagdp} + \sum_{i=1}^{k+dmax} \theta_{2it-i1}\text{Global} + \varepsilon \, t \qquad (4)$$

Then, the lag length (k) for the variables is set to 1. (Table3)

Table 3. Lag coefficient between variables

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-315.9346	NA	1.43e+10	31.89346	32.04282	31.92262
1	-287.6263	45.29340*	2.10e+09*	29.96263*	30.56007*	30.07925*

Source: Autors computation.

$_{max}$In order to apply the (t-y) causality test, the degree of integration of the variables (d) should not exceed (k). For this reason, the unit root of each variable should be examined. As a result of unit roots,

per capitagdp$_{max}$=I(1), Global=I(0), Heritage =I(0) (Annex 1) Therefore, we can express d =1.

$_{max}$k+d =1+1=2, which implies that a (T-Y) equation with 2 lags needs to be solved.

When we perform the (T-Y) causality test, the 3 models realized between the variables are as follows (See detailed models in Annex-2)

1. Model

logpercapitagdp = c(1)*logpercapitagdp(-1) + c(2) *logpercapitagdp(-2) + c(3)*logglobal(-1) + c(4) *logglobal(-2) + c(5)*lohherıtage(-1) + c(6) *lohherıtage(-2) + c(7)

2. Model

logglobal = c(8)*logpercapitagdp(-1) + c(9) *logpercapitagdp(-2) + c(10)*logglobal(-1) + c(11) *logglobal(-2) + c(12)*lohherıtage(-1) + c(13) *lohherıtage(-2) + c(14)

3. Model

lohherıtage = c(15)*logpercapitagdp(-1) + c(16) *logpercapitagdp(-2) + c(17)*logglobal(-1) + c(18) *logglobal(-2) + c(19)*lohherıtage(-1) + c(20) *lohherıtage(-2) + c(21)

In Model 1, the values of the coefficients C(3) and C(4) to test the existence of a relationship between percapitagdp and the Global State of Democracy, which is the democracy index, and the values of the coefficients C(8) and C(9) in Model 2 to test the existence of a relationship from Percapitagdp to the Democracy Index (global state of democracy) in the same way are shown in Table 4;

**Table 4.** T-Y Causality analysis results (Percapitagdp-Global)

	Lag Length	Wald Statistic
Global ✖ Percapitagdp	2	0.5588
Global ✖ Percapitagdp	2	0.2948
Percapitagdp ✖ Global	2	0.8790
Percapitagdp ✖ Global	2	0.4067

Source: Autors computation.

This analysis shows no correlation between economic growth and the democracy index in Türkiye between 2002 and 2022.

The values of C(5) and C(6) coefficients for the causality test analysis from economic freedom (herigate) to Percapitagdp, which we use to represent economic growth, and the values of C(15) and C(16) coefficients for the determination of the causality relationship from Percapitagdp to economic freedom (herigate) are shown in Table 5.

Table 5. T-Y Causality analysis results (Percapitagdp-Herigate)

	Lag Length	Wald Statistic
Herigate ✖ Percapitagdp	2	0.2106
Herigate ✖ Percapitagdp	2	0.8454
Percapitagdp ✖ Herigate	2	0.3543
Percapitagdp ✖ Herigate	2	0.9458

Source: Autors computation.

As a result of this analysis, no relationship was found between Türkiye's economic growth between 2002 and 2022 and the economic freedom index.

Conclusion

Its performance in economic growth measures the most critical indicators of a country's development. However, it is also a fact that the economy is an invention of humanity, a branch of science that develops as people develop and search for different reasons for its growth. When we look at economic growth theories, many models and studies cover their periods. Since Adam Smith, who is considered to be the beginning of modern economics, economic growth has been examined in various fractions such as capital, labour, financial and foreign exchange markets, geographical conditions, access to raw materials, logistics, procurement, foreign direct investments, technology until the 1960s and valuable studies have been put forward in this direction. However, after the Second World War, it was realized that these variables, which were shown among the causes of economic growth, could not fully explain the solution to the differences between countries and led to a different perspective on the issue of whether the state should intervene in the economy, which has always been a subject of debate in economics. The state is used as a hidden actor in the newly formed view. Lipset (1959) stated in his study that economic growth will be realized through the form of government and the freedoms it provides rather than direct intervention in the economy. The understanding that if there is a democracy, there is economic growth (Compatibility Approach) has been supplemented by studies in the following years, which argue that economic growth will be prevented in a democratic administration (Conflict Approach) and that there is no relationship

between the two (Skeptical Approach). In democratic countries, the fact that institutions are auditable and there are legal norms that protect property rights provides a secure investment environment. In this way, investments can be attracted to meet the need for foreign exchange, the volume of financial markets expands, employment rates increase, the labour force becomes qualified and technological infrastructure is realized. In addition, in countries where rights and equality are ensured administratively, the free expression of ideas is significant for developing human capital.

For this reason, our study analyses Türkiye's economic growth problem in terms of administrative and economic freedoms. The relationship between the Global State of Democracy, which is widely used in the literature, and the Heritage Foundation Index of Economic Freedom, which is an index of economic freedoms, and Percapitagdp, one of Türkiye's economic growth indicators, is analyzed by T-Y causality test covering the period between 2002 and 2022. It is found that there is no (bidirectional) relationship between democracy and economic freedom indices and Türkiye's economic growth. Therefore, Türkiye's economic growth should be evaluated structurally rather than administratively, confidence and stability in capital markets should be re-established, and technological investments should become the precursor of economic growth to realize these structural policies.

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