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THE ROLE OF ECONOMIC FREEDOMS IN ECONOMIC GROWTH

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ABSTRACT

In this study, the effect of economic freedom on economic growth was analyzed using 2021 data in 155 countries. For coefficient estimation, cross-section quantile regression, and pooled least squares regression methods are used. According to the study, economic freedom indicators are grouped into four main groups, among which market openness, rule of law, and regulatory efficiency indicators mostly affect economic growth positively. According to the findings obtained using sub-components data,, trade freedom, financial health, trade freedom, business freedom, financial freedom, property rights, government integrity, and monetary freedom affect economic growth positively but government spending affects growth negatively. The tax burden, investment freedom, judicial effectiveness, and labor freedom are statistically insignificant. According to the general analysis findings, economic freedoms affect growth positively.

Keyword: *Economic Freedom, Economic Growth, Quantile Regression.*

Jel Classification: *P10, P48, O10.*

EKONOMİK ÖZGÜRLÜKLERİN EKONOMİK BÜYÜMEDEKİ ROLÜ

ÖZET

Bu çalışmada, 2021 verileri kullanılarak 155 ülkede ekonomik özgürlüklerin ekonomik büyümeye etkisi analiz edilmiştir. Katsayı tahmini için, yatay kesit kantil regresyon ve havuzlanmış en küçük kareler regresyon yöntemleri kullanılmıştır. Çalışmaya, göre, ekonomik özgürlük göstergeleri dört ana grupta toplanmakta ve bunlardan piyasa açıklıkları, hukukun üstünlüğü ve düzenleyici etkinlik göstergeleri ekonomik büyümeyi çoğunlukla pozitif etkilemektedir. Alt endeks verileri kullanılarak elde edilen bulgulara göre, ticaret özgürlüğü, mali sağlık, ticaret özgürlüğü, iş özgürlüğü, finansal özgürlük, mülkiyet hakları, kamu bütünlüğü ve parasal özgürlük ekonomik büyümeyi pozitif etkilemekte ancak kamu harcamaları büyümeyi negatif etkilemektedir. Vergi yükü, yatırım özgürlüğü, yargı etkinliği ve

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işgücü özgürlüğü istatistiksel olarak anlamsızdır. Genel analiz bulgularına göre, ekonomik özgürlükler büyümeyi pozitif etkilemektedir.

Anahtar Kelimeler: *Ekonomik Özgürlük, Ekonomik Büyüme, Kantil Regresyon.*

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1. INTRODUCTION

In general, economic freedom is the absence of any restriction or pressure on production, distribution, or consumption (Mushtaq and Khan, 2018). Economic freedom is the right of individuals to control their labor and property. Here, the role of governments is to provide the necessary conditions for the movement of labor, and capital (Heritage, 2022a). In this context, economic freedoms are regulations that facilitate the activities of managers and entrepreneurs who have an important role in economic development (Vukotić and Baćović, 2006).

Economic freedoms affect many socio-economic indicators such as macroeconomic stability (Lipford, 2007) wage (Ashby, Bueno and Martinez, 2013) tax revenues (Keyifli, 2021) foreign direct investment (Hossain, 2016), quality of life (Esposto and Zaleski, 1999), income inequality (Carter, 2007), international trade (Depken and Sonora, 2005), entrepreneurship (Nyström, 2008), human capital investment (Feldmann, 2016), and economic growth (Peev and Mueller, 2012).

Economic freedoms affect economic growth sometimes directly and sometimes indirectly. (Heritage, 2022b). The relationship between economic freedom and prosperity is based on Adam Smith's (1776) Wealth of Nations. Economically free societies have the freedom to decide on activities such as work, production, consumption, and investment. This process, which also supports entrepreneurship, affects economic growth by strengthening economic life (Wu, 2011). On the contrary, institutional arrangements that increase transaction costs, restrict trade, and policies, which negatively affect property rights, lead to a decrease in trade gains, and reduce production, and this process can negatively affect growth (De Haan and Sturm, 2000).

Economic freedoms affect economic growth through direct as well as indirect transmission channels. For example, increased freedoms affect foreign direct investment (FDI) positively and this leads to economic freedoms to increase economic growth through FDI (Vukotić and Baćović, 2006; Doucouliagos and Ulubasoglu, 2006). In addition, economic freedoms indirectly contribute to economic growth by affecting human and physical capital (Doucouliagos, 2005).

One of the prominent institutions in the calculation of the freedom index is the Heritage Foundation, which was established in 1973. The institution has been calculating the level of freedom of countries within the scope of certain criteria since 1995. There are 12 sub-components of economic freedom in total, and the general economic freedom index is obtained by averaging them.

The economic freedom index generally consists of 4 main components. These are as follows. i) Government size -tax burden, government spending, and fiscal health-, ii) Market openness -trade freedom, investment freedom, and financial freedom-, iii) Rule of law -property rights, judicial effectiveness, and government integrity-, iv) Regulatory efficiency -business freedom, labor freedom, and monetary freedom (Heritage, 2022b)

The aim of this study is to investigate the effect of economic freedom on growth by using all sub-components of economic freedom. As far as we know no study discusses the effect of all sub-components of economic freedom on economic growth using cross-section analysis in a large country sample with current data. In addition, unlike other studies, since countries have different income levels, the effect of economic freedoms on growth at different income levels was examined using the quantile regression method, and the reliability of the findings was supported by a second econometric method. In this sense, it is expected that the study will contribute to the literature.

In this study, the effect of economic freedom on economic growth is investigated in 155 countries using 2021 data. First of all, economic freedoms were classified according to 4 basic groups and their effect on growth was modeled separately for each group. Therefore, all sub-components (12 sub-components) of economic freedoms were included in the analysis. The cross-section quantile regression and OLS methods were used for coefficient estimation. The rest of the paper is as follows. In the second part, the literature was presented. In the third part, data and method are given, and in the fourth part, the analysis findings are given.

2. LITERATURE REVIEW

There is a large literature discussing the relationship between economic freedom and economic growth. Although the effects of different indicators of economic freedom on growth ambiguous, the general view is that economic freedoms affect economic growth positively (see Coetzee and Kleynhans, 2017; Pattanaik and Nayak, 2014; Bashir and Xu, 2014; Carlsson and Lundström, 2002).

There are many studies in the literature suggesting that economic freedoms have a positive effect on economic growth. In this context, Malanski and Póvoa (2021) found that economic freedom positively affects growth in developing Latin American and Pacific Asian countries. Altıner and Sungur (2019) showed that economic freedoms have a positive effect on growth in 17 selected Emerging Market Economies. De Haan and Sturm (2000) found that economic freedom positively affects economic growth in 80 countries. According to Mushtaq and Khan (2018), economic freedom positively affects sustainable development in 58 countries. Dkhili and Dhiab (2018) found that economic freedom increased growth in some Gulf Cooperation Council (GCC) countries. Coetzee and Kleynhans (2017) showed that economic freedom positively affects economic welfare in South Africa. Shahabadi and Bahari (2014) argued that economic freedom positively affects growth in some selected developed and developing countries. In addition, Mahmood, Shahab, and Shahbaz (2022) in 41 Asia-Pacific countries,

Pattanaik and Nayak (2014) in India, Vu (2010) in China and Vietnam, Yıldırım (2009) in 96 countries, Erdal (2004) in Italy, Williamson and Mathers (2011) and Justesen (2008) in the large country data, Chheng (2005) in 50 countries, they found that economic freedom increased growth. In addition to these studies, Akıncı, Yüce, and Yılmaz (2014) investigated the economic freedom-growth relationship with different analyzes. According to the study, there is a long-term relationship between economic freedom and economic growth in 144 countries. In addition, according to Granger causality analysis findings, economic freedoms are the cause of economic growth. When the study findings are evaluated as a whole, economic freedoms accelerate economic growth.

There is a large literature investigating the effect of the economic freedom index on growth with the sub-components of the freedom index. For example, Ahmed and Ahmad (2020) investigated the impact of economic and political freedom on economic growth in 34 Asian countries. According to the study, economic freedom has a positive effect on growth. In addition, civil liberties and political rights have an optimistic effect on growth. Al-Gasaymeh, Almahadin, Alshurideh, Al-Zoubid, and Alzoubi (2020) found that economic freedom positively affects growth in 13 MENA countries. In the study, the sub-components of economic freedom were also used and it was concluded that all economic freedom indicators positively affected growth. According to Dam and Şanlı (2019), the effect of monetary freedoms on growth is positive in BRIC-T countries in the long run, but the effect of economic freedoms is negative. Güney (2017) found that economic freedoms positively affect economic growth in BRICS-T countries. The sub-components of economic freedom were also included in the analysis and liberalization of international trade was determined as the strongest index on economic growth. Çetenak and Işık (2016) investigated the relationship between sub-components of economic freedom and economic growth in 32 high-income OECD countries. According to the study, all economic freedom sub-components are effective in economic growth. However, this relationship is negative for business freedom, labor freedom, trade, freedom, and investment freedom. Kacprzyk (2016) investigated the relationship between growth and economic freedom in 28 European Union countries using economic freedom sub-components. According to the study, there is a positive relationship between economic growth and four of the five indices of economic freedom. These are property rights, monetary freedom, trade freedom, and regulatory policies. Hussain and Haque (2016) used two different periods and a large country data in their study. They found a positive relationship between the growth rate and the economic freedom index. According to the study, which also included the sub-components, trade freedom, financial freedom, business freedom, labor freedom, and financial freedom positively affect economic growth. Tunçsiper and Biçen (2014) examined the effects of the economic freedom index, property rights index, labor freedom, trade freedom index, and investment freedom index on growth in 9 Emerging Market Economies. According to the study, there is a negative relationship between the property rights index and the investment freedom index and economic growth, but there is a positive relationship between the labor freedom index and the trade freedom index and economic growth. No

significant relationship was found between the general economic freedom index and economic growth. Panahi et al. (2014) found that the overall economic freedom index was positively associated with growth in 13 MENA countries. However, the findings differ for the sub-components of economic freedom. Because some sub-components affect growth negatively, some positively, and some are insignificant to growth. According to Bashir and Xu (2014), economic freedom positively affects economic growth in 117 countries. However, depending on the model used, political rights freedom affects growth positively in some models and negatively in others. According to Piątek, Szarzec, and Pilc (2013), economic freedom increases economic growth in 25 transition economies, but the growth effect of political freedom is neutral. Razmi and Refaei (2013) emphasized that the general economic freedom index positively affects growth in 17 Middle East and East Asian countries. In the study, the sub-components of the freedom index were also included in the analysis, and only the government size index and the index of access to sound money were found to be negatively related to growth. Bunda, Moise-Ţiţei, and Jaliu (2012) found that trade freedom, financial freedom, and investment freedom positively affect economic growth in 27 EU countries. The prominent index among these variables is trade freedom. According to Mahmood, Azid, Chaudhry, and Faridi (2010), there is a positive relationship between economic freedom and growth in five SAARC member countries. In addition, investment freedom, financial freedom, property rights, trade freedom, freedom from corruption, and business freedom are positively associated with economic growth, but government size is negatively associated with growth. Carlsson and Lundström (2002) suggested that economic freedom positively affects growth in 74 countries. However, according to the study, when economic freedoms are examined with their sub-components, there is no unidirectional relationship. Because the effect of some sub-components on growth is insignificant and some are negative. De Haan and Siermann (1998) suggested that the relationship between economic freedom and economic growth depends on the sub-components used for 78 countries. Accordingly, there is a strong relationship between some components of economic freedom and growth, but not for others.

Although limited, there are also studies suggesting that economic freedoms affect growth negatively or that there is no significant relationship between the two variables. For example, Santiago Fuinhas, and Marques (2020) argued that in 24 developing Latin American and Caribbean countries, economic freedom negatively affects economic growth in the long run. According to Baltacı et al. (2017), economic freedoms negatively affect economic growth in 46 developed and developing countries. Santhirasegaram (2007) found negative correlations between economic growth and political freedoms in more than 70 developing countries. According to the study, the relationship between economic freedom and economic growth is statistically insignificant.

In some studies, it is emphasized that the findings differ according to the method, country group, or period. For example, Göcen (2021) investigated the relationship between economic freedom and economic growth in D8 countries. According to the study, economic freedom is the cause of economic

growth in 7 countries. In Indonesia, causality is from economic growth to economic freedom. In Bangladesh, a bidirectional causality relationship was found. Birol and Demirgil (2020) found a cointegration relationship between economic freedom and growth in BRICS countries. According to the study, the effect of economic freedoms on economic growth is statistically insignificant for the panel. When analyzed for each country, economic freedoms affect growth positively in China and negatively affect in Brazil and India. The effect of economic freedoms on economic growth is statistically insignificant in Russia and South Africa. Compton, Giedeman, and Hoover (2011) suggested that the relationship between economic freedom and economic growth differs according to using the model in 50 US states. Accordingly, a positive relationship was found between economic growth and economic freedom in the OLS model, but there was no significant relationship between the variables according to the System GMM model.

There are also studies that emphasize different transmission channels in the economic freedom-growth relationship. For example, Bengoa and Sanchez-Robles (2003) emphasized that economic freedom affects growth through two channels in 18 Latin American countries. One of them is the direct effect and the other is the FDI channel. Accordingly, economic freedoms increase FDI, and thus economic freedoms positively affect growth. According to Hossain (2016), who has a similar view, the components of economic freedom increase FDI, and increased FDI positively affects growth. In addition to these studies, Azman-Saini, Baharumshah, and Law (2010) focused on the role of economic freedoms in FDI in 85 countries. According to the study, only FDI does not have a direct (positive) effect on output growth. The impact of FDI depends on the level of economic freedom of countries. Doucouliagos and Ulubasoglu (2006) focused on physical capital stock in the economic freedom-growth relationship. According to the study, there is a positive relationship between economic freedom and economic growth in 82 countries. In addition, economic freedom indirectly increases growth by stimulating physical capital.

The general economic freedom index is mostly used in the literature. Studies examining all sub-indices for large country samples using different econometric methods are insufficient. When the literature is evaluated in general, it can be said that economic freedoms affect economic growth positively. Studies suggesting that economic freedoms affect growth negatively are quite limited. Findings differ when sub-components of economic freedoms are included in the analysis. In general, for the sub-components of economic freedom, trade freedom, property rights, and business freedom have a strong effect on economic growth. But, government size has a negative effect on growth generally. In addition, there are many studies based on an alternative approach claiming that economic freedoms will increase growth through FDI, and according to these studies, economic freedoms positively affect economic growth through FDI.

3. DATA AND METHOD

In this study, the effect of economic freedoms on economic growth was analyzed with 2021 data using the sub-components of economic freedom in 155 countries[1] with different income levels. Four different models were included and the cross-section quantile regression and OLS methods are used for coefficient estimation. Since countries are heterogeneous, in addition to OLS, the quantile regression method was preferred. The models created using the sub-components of economic freedom are as follows:

Model I (Government Size)

$$\text{LGROW}_i = \beta_0 + \beta_1 TAX_i + \beta_2 SPENDING_i + \beta_3 FISCAL_i + u_i \quad (1)$$

Model II (Market Openness)

$$\text{LGROW}_i = \beta_0 + \beta_1 TRADE_i + \beta_2 INVESTMENT_i + \beta_3 FINANCE_i + u_i \quad (2)$$

Model III (Rule of law)

$$\text{LGROW}_i = \beta_0 + \beta_1 PROPERTY_i + \beta_2 JUDICIAL_i + \beta_3 INTEGRITY_i + u_i \quad (3)$$

Model IV (Regulatory Efficiency)

$$\text{LGROW}_i = \beta_0 + \beta_1 BUSINESS_i + \beta_2 LABOR_i + \beta_3 MONETARY_i + u_i \quad (4)$$

GDP per capita, PPP (Constant 2017 international $) logarithm was used to represent growth as the dependent variable. GDP per capita is obtained from the world bank database. Freedom indicators are from the Heritage Foundation. The sub-components of economic freedom, which are included as independent variables in the study, are as follows:

i)Model I: TAX (Tax burden), SPENDING (Government spending), and FISCAL (Fiscal health)

ii) Model II: TRADE (Trade freedom), INVESTMENT (Investment freedom), and FINANCIAL (Financial freedom)

[1] Albania, Algeria, Angola, Argentina, Armenia, Australia, Austria, Azerbaijan, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Belize, Benin, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Brunei Darussalam, Bulgaria, Burkina Faso, Burundi, Cabo Verde, Cameroon, Canada, Central African Republic, Chad, Chile, China, Colombia, Comoros, Costa Rica, Côte d'Ivoire, Croatia, Czech Republic Democratic Republic of Congo, Denmark, Djibouti, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, Equatorial Guinea, Estonia, Eswatini, Ethiopia, Fiji, Finland, France, Gabon, Georgia, Germany, Ghana, Greece, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kosovo, Kyrgyz Republic, Latvia, Lebanon, Lesotho, Liberia, Lithuania, Luxembourg, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Mauritania, Mauritius, Mexico, Micronesia, Moldova, Mongolia, Montenegro, Mozambique, Namibia, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, North Macedonia, Norway, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Qatar, Republic of Congo, Romania, Rwanda, Saint Lucia, Saint Vincent and the Grenadines Samoa, São Tomé and Príncipe, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Slovak Republic, Slovenia Solomon Islands, South Africa, South Korea, Spain, Sri Lanka, Suriname, Sweden, Switzerland, Tajikistan, Thailand, The Bahamas, The Gambia, Timor-Leste, Togo, Trinidad and Tobago, Tunisia, Turkey, Uganda, United Kingdom, United States, Uruguay, Uzbekistan, Vanuatu, Vietnam, Zambia, Zimbabwe

iii) Model III: PROPERTY (Property rights), JUDICIAL (Judicial effectiveness), and INTEGRITY (Government integrity),

iv) Model IV: BUSINESS (Business freedom), LABOR (Labor freedom), and MONETARY (Monetary freedom)

In addition to coefficient estimation OLS, the quantile regression method developed by Koenker and Bassett (1978) was used. The country group in the sample is highly heterogeneous. Therefore, the quantile regression method was preferred besides OLS. Because Quantitative Regression provides more robust prediction results in the presence of outliers. The residential model is as in equation (5):

$$y_i = \beta + u_i \tag{5}$$

Here, y_i is independent and identically distributed random variables with the symmetric distribution function F and the median β. In the residential model, the sample quantile θ can be defined as the solution of the minimization problem shown in equation (6).

$$\min_{\beta}\left[\sum_{i:y_i\geq\beta}\theta|y_i-\beta|+\beta\sum_{i:y_i<\beta}(1-\theta)|y_i-\beta|\right] \tag{6}$$

The generalized form of the simple residential model for the linear regression model is as in equation (7):

$$y_i = x_i'\beta_0 + u_{\theta i}\,, \qquad Kant_0(y_i/x_i) = x_i'\beta_0 \tag{7}$$

In this case, the θ^{th} quantile regression is as in equation (8):

$$\min_{\beta}\left[\sum_{\{i:\, y_i\geq x_i'\beta\}}\theta|y_i-x_i'\beta|+\sum_{\{i:\, y_i<x_i'\beta\}}(1-\theta)|y_i-x_i'\beta|\right] \tag{8}$$

In here, $0<\theta<1$, y_i is the dependent variable and x_i is the vector of explanatory variables in the dimension Kx1 (Koenker and Bassett 1978; Buchinsky, 1998; Saçıldı and Koşan, 2015).

4. EMPIRICAL RESULTS

In this study, the effect of economic freedoms on growth was analyzed using cross-section quantile regression and OLS models. Economic freedom indicators are divided into 4 groups according to the Heritage Foundation and 4 different models are used for coefficient estimation. Analysis findings are as in Table 1.

Table 1. Analysis Results

Variables	20th Quantile	40th Quantile	60th Quantile	80th Quantile	OLS Regression
Model I (Goverment Size)					
TAX	-36.33107	-112.5958	-313.0073*	37.09878	-191.0338
SPENDİNG	-260.9977**	-503.015***	-425.0039***	-722.6128***	-374.2368***

FISCAL	57.24465	89.96072**	164.1937***	176.2808*	154.3073***
CONS.	23839.4*	50314.07***	61291.46***	63452.48***	50050.67***
Model II (Market Openness)					
TRADE	436.0458***	588.6645***	550.1345***	852.8434***	737.0285***
INVESTMENT	49.59569	150.9898	63.28178	97.05903	143.0793
FİNANCİAL	166.6299**	352.9866***	444.8829***	447.1762**	404.1359***
CONS.	-34246.72***	-53982.99***	-44412.89***	-59631.21***	-61263.45***
Model III (Rule of law)					
PROPERTY	215.2222*	183.3807**	187.5057*	175.4527	285.5121**
JUDICIAL	-94.2187	-175.4488***	-169.7912*	-69.3411	-108.7511
INTEGRITY	548.9864***	723.2917***	719.5413***	774.8178***	709.4362***
CONS.	-19889.01***	-18309.58***	-15306.81***	-17012.16***	-23073.08***
Model IV (Regulatory Efficiency)					
BUSİNESS	406.5165***	575.3108***	842.2891***	959.3973***	899.6833***
LABOR	27.97186	-28.14209	-11.16829	135.5268	-14.2812
MONETARY	220.7411*	396.453***	484.2358**	113.6806	324.9742**
CONS.	-37166.69***	-52587.61***	-71082.99***	-46615.33**	-61640.8***

***<0.01, **<0.05, *<0.1.

According to Model I findings using public size indicators, tax freedom negatively affects growth only in the 60th quantile but is statistically insignificant in the other quantiles. Government spending negatively affects economic growth in all quantiles. Fiscal health has a positive effect on growth in the 40th and 60th and 80th quantiles, but it is statistically insignificant in the 20th quantile. In general, the effect of government size on economic growth is negative for the first sub-component, insignificant for the second sub-component, and positive for the third sub-component.

According to Model II findings using market openness indicators, trade freedom, and financial freedom positively affect economic growth in all quantiles. Investment freedom is statistically insignificant in all quantiles. In general, market openness indicators mostly affect economic growth positively.

According to Model III findings using rule of law indicators, property rights positively affect economic growth in 20th, 40th and 60th quantiles. Judicial effectiveness negatively affects economic growth in the 40th and 60th quantiles. Government integrity positively affects economic growth in all quantiles. This effect is stronger at higher income levels. In general, rule of law indicators mostly affect economic growth positively.

According to Model IV findings using regulatory efficiency indicators, business freedom positively affects growth in all quantiles. This effect increases as the income level rise. Labor freedom is statistically insignificant to economic growth in all quantiles. Monetary freedom has a statistically significant and positive effect on economic growth in all quantiles except the 80th quantile. This effect

becomes stronger as the income level increases. In general, regulatory efficiency indicators mostly affect economic growth positively.

According to the OLS regression analysis, for Model I, government spending negatively affects growth, but fiscal health affects growth positively. Tax freedom is statistically insignificant. For Model II, trade freedom and financial freedom positively affect economic growth. On the other hand, investment freedom is statistically insignificant. For Model III, property rights and government integrity positively affect economic growth however judicial effectiveness is statistically insignificant to growth. For Model IV, business freedom and monetary freedom positively affect economic growth. On the other hand, labor freedom is statistically insignificant to economic growth. In general, market openness, rule of law, and regulatory efficiency indicators mostly affect economic growth positively.

According to the general analysis findings, market openness, rule of law and regulatory efficiency indicators mostly affect economic growth positively. When the economic freedom sub-components are evaluated as a whole, it is seen that economic freedom has a positive effect on growth.

5. CONCLUSION

Economic growth cannot be based solely on economic factors. Economic growth is often strongly influenced by socio-cultural indicators as well as economic factors. One of these indicators is economic freedom. Because providing free environments to institutions and individuals that directly affect the living standards of households is important for socio-economic welfare. The economic freedom index is published annually by the Heritage Foundation and consists of 12 sub-components. When the literature on the effects of these indicators on economic growth is examined, it is seen that economic freedom generally affects economic growth positively.

In the study, economic freedom indicators were examined under four main groups, and their effects on growth were analyzed with 4 models using 2021 for 155 countries. for coefficient estimates, cross-section quantile regression and OLS methods were used. The study investigates all sub-components of economic freedom in a large country sample, and this study, which includes current data in this framework, is expected to contribute to the literature. In addition, the study differs from other studies because the income levels of the countries are mixed and it reveals the effects of freedoms on growth at different growth levels.

Model I includes indicators of government size. Market openness indicators are included in Model II. Model III includes rule of law indicators. Regulatory efficiency indicators were used in Model IV. According to Model I findings, tax freedom negatively affects economic growth only in the 60^{th} quantile, and it is statistically insignificant in all other quantiles. Government spending negatively affects growth in all quantiles. Fiscal health is statistically insignificant only in the 20^{th} quantile, and it increases the growth in the $40^{th,}$, 60^{th}, and $80t^{h}$ quantiles. According to Model II findings, trade freedom

and financial freedom positively affect economic growth in all quantiles. Investment freedom is statistically insignificant in all quantiles. According to Model III findings, property rights in 20th, 40th, and 60th quantiles, and government integrity in all quantiles positively affect economic growth. On the other hand, judicial effectiveness negatively affects the economic growth in the 40th and 60th cantilevers. According to Model IV findings, monetary freedom in all quantiles except 80th and business freedom in all quantiles positively affects growth. In contrast, labor freedom was statistically insignificant to economic growth in all quantiles.

In addition to quantile regression, the economic freedom-growth relationship was also analyzed using the OLS method. The analysis findings support the general findings of quantile regression. Accordingly, for model I, government spending affects growth negatively, but fiscal health affects growth positively. Tax freedom is statistically insignificant. For Model II, trade freedom and financial freedom positively affect economic growth. On the other hand, investment freedom is statistically insignificant. For Model III, property rights and government integrity positively affect economic growth. And judicial effectiveness is statistically insignificant on growth. For Model IV, business freedom and monetary freedom positively affect economic growth. On the other hand, labor freedom is statistically insignificant.

When the analysis findings are evaluated in general, the effect of trade freedom, financial freedom, fiscal health, property rights, government integrity, business freedom, and monetary freedom on growth is positive. On the other hand, the effect of government spending on growth is negative. In addition, the effect of the tax burden, investment freedom, labor freedom, and judicial effectiveness on growth is statistically insignificant. Findings support studies for trade freedom (Güney (2017; Hussain and Haque, 2016), property rights (Kacprzyk, 2016; Mahmood et al. 2010), monetary freedom (Kacprzyk, 2016), financial freedom (Hussain and Haque, 2016; Bunda et al. 2012), and business freedom (Hussain and Haque, 2016; Mahmood et al. 2010).

Considering the positive effect of economic freedoms on growth, policies for sub-components that strongly affect growth are important. In this context, prominent policy recommendations are as follows: i) The independence of the judiciary, ii) The size of the government does not restrict economic life, iii) The independence of economic decisions from the political administration, iv) The establishment of economic confidence, v) Structural reforms against corruption, vi) minimization of bureaucratic obstacles, vii) The constitutionality of property rights viii) Central Bank independence, ix) Ensuring financial stability

The main limitation of the study is the limited number of countries. While investigating the effect of economic freedoms on growth, up-to-date data were used and therefore the number of countries was limited to 155. By ignoring the actuality of the data, the relationship between economic freedom and growth can be investigated with more country data.

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