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RESEARCH ARTICLE

The Impact of Globalization with its Different Aspects on Economic Growth: The Case of Turkey

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ABSTRACT

As a multi-dimensional concept that affects many other factors, globalization has a profound impact on the economy as well. It is possible to argue that developing countries are more affected by globalization than others. In this study, the impact of globalization on the various aspects of economic growth is analyzed empirically for Turkey, a developing country. The ARDL Bounds Test was applied as an econometric methodology, using the dataset period between 1970-2018 for Turkey. This study used economic, social, political, and overall globalization indices to measure globalization. The results show that social, economic, and political globalization affect economic growth positively, whereas the overall globalization index affects it negatively in the long run. The ARDL Bounds Test results show that the utilized variables in the study are co-integrated in the long run. In fact, there is an economic relationship between the variables.

Keywords: Globalization, Economic growth, Turkey, ARDL bounds test
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1. Introduction

Globalization expresses cross-border mobility along with an increasing integration of world nations and economies. This mobility includes not only an increased flow of trade for goods and services, capital, and ideas but also individuals (Brixiova and Treigiene, 2003, p.1). As a multi-dimensional concept, globalization economically and positively contributes to improving the quality of the workforce, increasing new job opportunities, technology transfers, developing communication and energy infrastructure, and raising national income by connecting countries with global capital (Mutascu and Fleischer, 2011, p.1691-1692). In short, globalization is a salient concept for providing economic growth and improving life standards.

The liberal view argues that globalism makes it possible for even higher economic growth (Rao and Vadlamannati, 2011, p.795), but it is difficult to reach a general consensus for the relationship between globalization and growth since globalization is a process that brings risks together with opportunities. Increasing economic globalization does not provide the expected contribution to growth in countries with fewer economic opportunities. Countries need complementing policies to boost economic growth which then reflect this condition to economic growth with openness (Calderón and Fuentes, 2006, p.50).

Globalization is an impactful process for all world nations, whether in developed or developing countries, but it affects some countries more than others. One of these countries is Turkey. The geostrategic location of Turkey is one of the most important reasons that it is affected more than others. Turkey has struggled with problems because of its challenging geographical location from the past to the present. In this regard, it has been negatively affected by globalization. During the 1990s, this negative effect was felt more because of the fragile economic structure of Turkey, which has expanded and deepened the financial crisis the country has encountered since then. However, since Turkey actively participated in the globalization process it also reaped its opportunities for the last 35-40 years.

This study observed the impact of globalization on Turkey from all the aspects of globalization. For instance, after the 1980s, the Turkish economy was transformed, when it adapted to the dynamics of economic globalization and integrated with the world economy. During this period, Turkey utilized structural reforms and left import-substitution industrialization and protective foreign policies behind and embraced the liberal policies of economics and foreign trade. Turkey has made salient progress on reform issues, such as the rule of law, democratization, and human rights, within the frame of contemporary political globalization approaches. In addition to these developments, integration of Turkey into the global system and cooperation with the international community has continued as an inevitable reality in environmental/social matters, cultural values, and international security issues.

An expansive literature collection about globalization has been formed since the 1990s. The relationship between globalization and growth is one of the salient topics in this literature. When empirical studies are examined, the topic of globalization has been approached in different periods with different methods for countries and groups. Thanks to a contemporary analysis method, this study can contribute to the literature from a methodical angle. The utilized method in this study, the ARDL bounds test, has had limited use in previous studies. In addition, this study utilized more contemporary data as compared with the previous ones.

The relationship between globalization and economic growth is econometrically analyzed in this study, using the period from 1970 to 2018 in Turkey as an example. Per capita income is used as an indicator for economic growth in the econometric model. Four separate indices (social, political, economic, and overall) are used to represent globalization. Other macroeconomic indicators of per capita income, such as inflation and external debt ratio to national income are used in the model as independent variables. The ARDL Bounds Test is utilized as a method to determine the short and long-term impact of those macroeconomic variables on economic growth and to detect whether the used variables are co-integrated in the long run.

The structure of this paper is as follows. Section two gives the conceptual framework of globalization and economic growth. Section three provides a review of the relevant empirical literature. Section four outlines the data and empirical results. Finally, section five concludes.

2. Conceptual Framework

Globalization is accepted as one of the most salient reasons for the ever-changing economic settings of countries because of its multi-dimensional perspective, complexity, and constant evolution. Although both economic growth and globalization are widely analyzed, there is no consensus on the link between globalization and economic growth (Didžgalvytė-Bujauskė, Pereira, and Osteikaitė 2019, p.14). Nevertheless, globalization creates two types of impact on national economies. These can be positive and/or negative.

The positive impact of globalization on national economies induces more active working in domestic markets, an increase of investments and productivity with global competitive power, and an expansion of foreign trade volume. These positive impacts affect the growth in developing countries positively (Kilicaslan and Dumrul, 2018, p.116-117). Globalization affects not only economic growth, but also inequality positively. As such, economic discrimination and inequality decrease thanks to globalization (Maqbool-ur-Rahman, 2015, p.187). Hence, there are positive results about these qualities from Klein (2003) and Dreher (2006)'s studies that confirm this view about globalization.

When the interaction network between globalization and economic growth was examined, Husain (2000) amphasized the concepts of "international trade," "labor mobility," "financial integration," and "technical alteration." Moreover, he asserted that globalization affects growth through economic, political, cultural, and social channels. Therefore, as a multi-dimensional phenomenon, even the economic facet of globalization has different sub-divisions, such as commercial, labor, financial, and technological globalization. When the literature was analyzed there was no consensus about globalization's impact on the globe, but no country

in the world can operate efficiently without significant relationships with others (Didžgalvytė-Bujauskė et al., 2019).

The liberal view of growth and development literature emphasized that globalization induces higher growth. According to this view, globalization provides commercial and investable opportunities for employment. Thanks to these opportunities, the levels of income equality and poverty decrease. This view, known as the "Washington Consensus," is supported by supranational organizations, such as the World Bank (WB) and the International Money Fund (IMF) (Rao and Vadlamannati, 2011, p.795). These organizations suggested to their members during the 1980s and especially the 1990s the implementation of neo-liberal policies, and even imposed these policies on some of their members. This view and policy changes has accelerated the globalization process since that time.

Technological alterations, thanks to globalization, aid the integration of global financial markets, low costs of data processing, and the increase of investments and productivity. In this regard, globalization increases economic growth rates by contributing to optimal resource allocation and providing full employment (Kılıçaslan and Dumrul, 2018, p.117). However, globalization does not affect growth in all countries positively. Increasing competition and worsening conditions for domestic markets depend on this competitive environment, but a disparity caused by trade deficits, social injustice, and increased poverty trigger a reverse relationship between globalization and growth (Stiglitz, 2002; Stiglitz, 2004).

Globalization is basically the integration of capital, investment, and labor markets or integration with global markets (WTO, 2008). Since the globalization concept is multi-dimensional, this has caused the manifestation of different indices with separate components during its measurement (Eren and Cutcu, 2018, p.48). Various index calculations were used in the literature to measure globalization. The initiatives of Lockwood and Redoano (2005) with Andersen and Herbertsson (2005) are examples of these studies. While Lockwood and Redoano (2005)'s studies were based on economic, political, and social aspects of globalization, Andersen and Herbertsson (2005)'s studies were based on commercial, financial, and other political variables.

After the Kearny Foreign Policy (KFP) Globalization Index was developed for the first time, more indices appeared at intervals. The KOF Globalization Index is the one preferred by experts since it also includes political and social aspects of globalization. The "KOF Index" is accepted as the best to measure globalization, among other indices (Eren and Cutcu, 2018, p.48). Why the KOF Index is accepted as the most comprehensive to measure globalization is explained by De Soysa and Vadlamannati (2011, p.28):

- It can find political and social aspects that one or two-dimensional indices lack.
- KOF's economic globalization index brings together various economic indicators with "trade and investment restrictions," such as secret import limits, mean tariff rates, taxes on international trade, and capital account restrictions. No other index can approach the globalization issue as comprehensively as the KOF Index.
- The KOF globalization index is methodological.

This index was conceived by Axel Dreher in 2002 at the KOF Swiss Economic Institute (Caselli, 2012, p.46), and it was updated in 2007. It has been approached and analyzed as a globalization indicator in the studies since it includes economic, social, and political aspects of globalization (Ying, Chang and Lee, 2014, p.26-27). Since globalization is a multi-dimensional concept, it is divided into sub-indicators. For instance, while commercial liberalization, capital flows, and the financialization process are labeled as sub-indicators of economic globalization, tourism, internet usage, and international migration are qualified as sub-indicators of social globalization (Destek, 2020, p.33601). The political economic literature indicated that political globalization was related to economic globalization (De Haan, Lundstrom and Sturm, 2006, p.161). Recently, changes in the political environment, shifts in geopolitical arrangements, social mobilization, and conflicts about globalization have caused studies to heed the significance of the political aspect of globalization (Smith, Plummer and Hughes, 2017, p.7).

Globalization transcends basic increases in economic interactions, which also include cultural, military, political, and social aspects (McGrew, 2011, p.277). In

2018 more variables were added to the KOF Index, and the total number of variables increased from 23 to 43. This updated KOF Index provides a more detailed analysis compared to its previous version, and the aspects of this index are explained (Ying et al., 2014):

- Economic globalization is measured with the observation of information that accompanies market alterations alongside the long-distance flow of goods, capital, and services.
- When characterizing political globalization, a government policies' spread is also reviewed.
- Social globalization includes the spread of information, images, ideas, and culture.

Table 1 shows the structure, variables, and weights for the 2021 globalization index. The weights of the index values of economic, social, and political globalization for the overall index are shown in Table 1. According to these statistics, the weight of the three sub-globalization types in the globalization index is 33.3% of the overall index's weight. In terms of the analyzed variables, social globalization has the most variable numbers as a sub-globalization type and political globalization has the least variable numbers.

Table 1: The Globalization Index-Structure, Variables and Weights (2021)

Globalization Index (de facto)	Weights	Globalization Index (de jure)	Weights
Economic Globalization (de facto)	33.3	**Economic Globalization (de jure)**	33.3
Globalization of Trade (de facto)	50.0	Globalization of Trade (de jure)	50.0
Goods Trading	37.2	Trade Regulations	26.8
Service Trade	43.0	Trade Taxes	28.1
Trading Partner Diversity	19.8	Tariffs	27.1
		Trade Agreements	18.0
Financial Globalization (de facto)	50.0	Financial Globalization (de jure)	50.0
Foreign Direct Investment	26.3	Investment Restrictions	30.2
Portfolio Investment	16.7	Capital Account Openness	39.0
International Debt	28.6	International Investment Agreements	30.8
International Reserves	1.0		
International Income Payments	27.4		

Social Globalization (de facto)	33.3	Social Globalization (de jure)	33.3
Interpersonal Globalization (de facto)	33.3	Interpersonal Globalization (de jure)	33.3
International Telephone Traffic	20.7	Phone Subscriptions	39.1
Transfers	22.1	Freedom of Visit	32.4
International Tourism	21.1	International Airports	28.6
International Students	19.0		
Migration	17.2		
Globalization of Knowledge (de facto)	33.3	Globalization of Knowledge (de jure)	33.3
Internet Bandwidth Used	40.7	Television Access	37.7
International Patents	29.6	Internet Access	43.3
High-Tech Exports	29.6	Freedom of the Press	19.0
Cultural Globalization (de facto)	33.3	Cultural Globalization (de jure)	33.3
Cultural Goods Trade	28.6	Gender Parity	22.5
Personal Service Trading	24.8	Human Capital	41.7
International Trademarks	7.9	Civil Liberties	35.8
Mc Donald's Restaurants	22.0		
IKEA Stores	16.8		
Political Globalization (de facto)	33.3	Political Globalization (de jure)	33.3
Embassies	37.2	International Organizations	36.5
UN Peacekeeping Missions	24.7	International Agreements	32.6
International NGOs	38.2	Deel Partner Diversity	30.9

Source: KOF (2022b).

According to the KOF index and its sub-indices (economic, social, and political), the rankings of twenty countries are shown in Table 2. Following this data, the Netherlands is at the top spot in overall globalization, Singapore is at the top spot in economic globalization, Luxembourg is at the top spot in social globalization, and France is at the top spot in political globalization. The index values of European countries in globalization indices are generally higher. While Turkey is not in the top twenty of overall, economic, and social globalization, it is in the thirteenth spot of political globalization.

Table 2: Rankings of the Top 20 Countries by KOF Globalization Index (2021)

	Overall Globalization		Economic Globalization		Social Globalization		Political Globalization	
Country Order	Country Name	Index Value	Country Name	Index Value	Country Name	Index Value	Country Name	Index Value
1	Netherland	90.91	Singapore	94	Luxembourg	90.97	France	97.99
2	Switzerland	90.45	Netherland	90	Monaco	90.55	Germany	97.72

3	Belgium	90.33	Belgium	89		90.16	İtalia	97.68
4	Sweden	89.44	Ireland	88	Switzerland	89.58	England	97.65
5	England	89.31	Luxembourg	88	Canada	89.35	Spain	96.85
6	Germany	88.73	Malta	87	Norway	89.34	Belgium	96.63
7	Austria	88.61	U.A.E.	87	England	88.71		96.59
8	Denmark	87.80	Switzerland	86	San Marino	88.62	Sweden	96.43
9	Finland	87.68	Estonia	86	Singapore	88.30		95.44
10	France	87.63	Denmark	85	China	88.02	Austria	95.27
11	Spain	85.87	Sweden	84	Australia	87.99	Finland	93.27
12	Ireland	85.75	China	84	Andorra	87.80	Portugal	93.25
13	Norway	85.40	Finland	84	Austria	87.53	Turkey	92.58
14	Portugal	85.22	Cyprus	84	Sweden	87.48	U.S.A.	92.51
15	Czechia	84.85	Austria	83	Germany	87.30	Russia	92.39
16	Canada	84.25	Czechia	83	Ireland	87.16	Canada	92.14
17	Hungary	83.83	Slovakia	82	U.S.A.	86.91	Denmark	92.10
18	Greece	83.65	Mauritius	82	Denmark	86.78	India	92.01
19	Singapore	83.47	Hungary	82	Island	86.66	Greece	91.76
20	Luxembourg	82.98	Bahrain	82	New. Zealand	86.41	Egypt	91.48

Source: KOF (2022a).

3. The Empirical Literature

The origins of a globalization concept can be traced back to older times, but its actual usage began in the 1960s. Then, its use increased in the 1980s, and it became a vital concept frequently referred to by many groups in the 1990s (Aslan, 2013, p.8). In the 1990s a large amount of literature started to arise about globalization. In the beginning, there were many ideological discussions about the existence and impact of globalization so the literature was shaped in this vein. Few empirical studies were made about globalization because of the lack of data and the problem of how to measure it. Later, the empirical testing of globalization's economic and social impact was realized for the reasons mentioned (Hayaloglu, Kalayci, and Ertan, 2015, p.126). A significant increase in the number of conducted empirical studies about globalization happened in the second half of the 2000s.

The first studies about the impact of globalization (Sachs and Warner, 1995; Borensztein, De Gregorio and Lee, 1998; Kose, Prasad, Rogoff, and Wei, 2006; Fukase, 2010; Bozoklu and Yılancı, 2013) heeded the economic spect of

globalization, and they used macroeconomic variables, such as market openness, financial development, and foreign direct investments. The difficulty of measuring other aspects of globalization is another reason for this development. Sachs and Warner (1995)'s study reached the conclusion, from the 1970-1989 data of seventy-eight countries, that open economies grew approximately 2.45% more than closed economies. Borensztein et al. (1998)'s study detected that those foreign direct investments affected growth positively, but this condition depended on the labor capital of the country from which those investments were made. However, after the development of indices that included the social, political, and cultural aspects of globalization along with its economic aspect since the 2000s, a healthier analysis about the impact of globalization especially on economic growth has become easier to measure.

Dreher (2006)'s study was the first one that empirically analyzed the impact of globalization on growth by utilizing a globalization index. Dreher conceived and developed the KOF Index, and he researched the impact of globalization on economic growth with the 1970-2000 data of 123 countries. According to the results of his analysis by utilizing three indices, economic, social, and political, he reached the conclusion that globalization incentivizes economic growth, and political globalization does not have a considerable impact on economic growth in developed nations only. When later studies were examined, they were conducted by utilizing the panel data analysis on country groups. In addition, we found these studies concentrated on the impact of globalization on economic growth in one sample country. Some examples of these studies are Afzal (2007)'s Pakistan, Sato and Fukushige (2009)'s South Korea, and Nwakanma and Ibe (2014)'s Nigeria. These studies targeted developing countries, and they reached the conclusion that economic growth has a positive impact on economic growth.

Empirical studies on Turkey were emphasized in the literature during the last ten years. One of the first conducted studies was Ozel (2012)'s study that researched the impact of globalization with trade and financial deficits on economic growth with the monthly data of the 1991:1 and 2010:4 periods. According to the results of the study that utilized the Cointegration and the

Granger Causality analyses, there was a positive causal relationship between growth and trade deficits and a negative causal relationship between growth and financial deficits. Furthermore, the study detected a causal relationship between growth and financial deficits. Saritas (2017) analyzed the long-term relationship between the economic, social, and political globalization for the 1970-2013 period, and he reached the conclusion that overall globalization increased economic growth. Dogan (2017), Eren and Cutcu (2018), and Polat and Peker (2020)'s studies detected that there was a relationship between economic growth and globalization for different time periods. These studies researched the relationship between globalization and growth empirically using Turkey as the sample country. The selected studies that analyzed the relationship between globalization and growth in the literature are presented in Table 3.

Table 3: The Studies Examining the Relationship Between Globalization and Economic Growth

Study	Sample and Period	Method	Analysis Results
Villaverde ve Maza (2011)	101 Countries, 1970-2005	A Panel Data Analysis-GMM and LS Techniques	Globalization affected economic growth positively.
Rao ve Vadlamannati (2011)	21 African Countries, 1970-2005	A Panel Data Analysis-GMM and LS Techniques	Globalization's impact on economic growth is positive.
Chang, Lee and Hsieh (2011)	G7 Countries, 1970-2006	A Panel Data Analysis-Cointegration Relationship Detection	There was a long-term relationship between globalization and growth.
Meraj (2013)	Bangladesh, 1971-2005	The ARDL Bounds Test Approach	Globalization had a positive impact on economic growth.
Samimi and Jenatabadi (2014)	COMCEC Countries, 1980-2008	A Panel Data Analysis-GMM	Globalization had a considerable impact on growth.
Adesoye, Ajike and Maku (2015)	Nigeria, 1970-2013	The Cointegration and ARDL Bounds Test Approach	Market openness affected growth positively, according to the analysis results.

Kilic (2015)	74 Developing Countries, 1981-2011	LS Techniques and The Granger Causality Analysis	Economic and political globalization types affected growth positively, while social globalization affected growth negatively.
Suci, Asmara and Mulatsih (2015)	ASEAN, 2006-2012	A Panel Data Analysis	Economic and political globalization types affected growth positively, but social globalization affected growth negatively.
Manwa and Wijeweera (2016)	5 South African Continent Countries, 1980-2011	The ARDL Bounds Test Approach	Globalization had a positive impact on economic growth.
Dogan and Can (2016)	South Korea, 1970-2012	The Engel-Granger Cointegration	Three separate aspects of globalization affected growth positively.
Turedi (2016)	40 Countries, 1996-2014	The Driscoll-Kraay Standard Error Fixed Effects Model	Globalization and globalization's sub-components had a positive impact on growth.
Kaurin and Simic (2017)	Central and East European Countries, 1993-2013	A Panel Data Analysis	Globalization had a positive impact on growth. Social and political globalization variables were not statistically significant.
Maduka, Madichie, and Eze (2017)	Nigeria, 1970-2015	The ARDL Bounds Test Approach	Market openness had a positive impact on Nigeria's economic growth.
Zahonogo (2018)	42 Sub-Saharan African Countries, 1980-2012	A Panel Data Analysis	There was no linear relationship between globalization and economic growth.
Hossain, Kibria and Islam (2018)	Bangladesh, 1986-2016	The ARDL Bounds Test Approach	Market openness had a positive impact on economic growth in the long-term.
Coulibaly, Erbao and Mekongcho (2018)	BRICS Countries, 2002-2013	A Panel Data Analysis	Globalization and entrepreneurship affected growth positively.
Tekbas (2019)	BRICS-T Countries, 1990-2014	The Pedroni Kao Cointegration, The FMOLS Estimated Panel Causality	There was a one-way relationship from globalization to growth. Globalization and capital accumulation had a positive impact on national income.
Apaydin (2019)	Turkey, 1970-2016	The Johansen-Juselius Cointegration	Financial and commercial globalization had a lasting and negative impact on economic growth.
Radulović and Kostić (2020)	EU Countries, 1970-2016	A Panel Data Analysis	Economic globalization had a positive impact on growth in the long-term.

Celik and Unsur (2020)	88 Countries, 2000-2016	A Panel Causality Test	There was a significant relationship between growth and globalization, as well as globalization's sub-components.
Saygin (2021)	E7 Countries, 1990-2018	A Panel Data Analysis	Overall, political, and economic globalization had a positive impact on growth. Moreover, social globalization did not have a significant impact on growth.
Kofoglu (2022)	Turkey, 1970-2018	The Engle-Granger Cointegration, Toda-Yamamoto Causality	Cointegration was determined between globalization and economic growth. There was a two-way causality between overall globalization and economic growth.

As seen in the table, conducted empirical studies reached the conclusion that globalization has a positive impact on growth. However, there were also studies that could not find a significant relationship between two variables or, instead, found a negative relationship between growth and globalization's sub-components. Therefore, the obtained results show divergences depending in which utilized variable were used as an indicator of globalization, the sample country or country groups where the analysis was made, or the data belonging to specific periods.

4. The Empirical Analysis

General information about data sets and the ARDL Bounds Test that was applied after the stationary analysis is given in this section under the topic of empirical analysis. Then, the ARDL model results are interpreted with a theoretical basis.

4.1. Data

Information about the explanation of variables in the study and how they were obtained is given in Table 4. The table shows that the yearly data of Turkey's 1970-2018 period for empirical analysis were used. The dependent variable, per capita income, independent variables, inflation rates and external debt ratio to

national income, were taken from the World Bank. The data of globalization indices were taken from the KOF Swiss Economic Institute.

Table 4: Variables' Definition

Variables	Explanation	Source
$PGDP_t$	Per Capita Income	World Bank
KOF_t	Overall Globalization Index	KOF Swiss Economic Institute
$EKOF_t$	Economic Globalization Index	KOF Swiss Economic Institute
$SKOF_t$	Social Globalization Index	KOF Swiss Economic Institute
$PKOF_t$	Political Globalization Index	KOF Swiss Economic Institute
INF_t	Inflation Rate	World Bank
$TEXDBTG_t$	External Debt National Income Ratio	World Bank

Source: World Bank (2021), KOF (2021)

4.2. Stationary Analysis

Since alterations in the variables depended on a random process in empirical analysis toward a time series, a stationary analysis became a basic condition for these analyses (Maddala and Lahiri, 2009, p.482). Although there are two types of methods, graphical and statistical, to test whether the data was stationary, the unit root tests were more frequently used than statistical methods (Johnston and Dinardo, 1997, p.215).

According to the hypothesis of δ=0 from the stationary test estimations, if the δ calculation value is higher than the McKinnon probability value, the H_1 hypothesis is accepted, and no unit roots are found. In this situation, the data is accepted as stationary. However, if the H_0 hypothesis is accepted, there are indeed unit roots in the data. In this situation, the data is confirmed as not stationary (Gujarati, 2003, p.815).

In this study, three traditional unit root tests for stationary analyses were used: the Dickey-Fuller (1979) unit root test, and fractional unit root tests, the Perron (1989), and the Zivot-Andrews (1992). While the Perron (1989) unit root test is an exogenous fractional root test, and its fraction time is known, the Zivot-Andrews (1992) test is an endogenous unit root test, and its fraction time is unknown (Zivot and Andrews, 1992, p.40). The unit root test results following the variables' stationary analyses are given in Table 5.

Table 5: Unit Root Tests Results

Variables	Unit Root Tests	Perron (1989)	ADF (1979)	Z&A (1992)
PGDP	Model	Model C	Constant and Trend	Model C
	Test	-4,862	-2,04	-3,71
	Probability	0,10	0,56	-
	Break Date	2000	-	1999
D(PGDP)	Model	Model A	Constant	Model A
	Test	-7,32	-6,67	-6,93**
	Probability	0,00**	0,00**	-
	Break Date	2009	-	2003
KOF	Model	Model C	Constant and Trend	Model C
	Test	-2,82	-1,62	-2,85
	Probability	0,98	0,76	0,19
	Break Date	2006	-	2007
TKOF	Model	Model A	None	Model A
	Test	-2,33	-1,70	-3,27
	Probability	0,94	0,08*	-
	Break Date	2014	-	1991
D(KOF)	Model	Model A		Model A
	Test	-7,82**		-7,69**
	Probability	0,01**		-
	Break Date	1994		1983
EKOF	Model	Model C	Constant and Trend	Model C
	Test	-6,05	-1,59	-4,22
	Probability	0,01*	0,78	-
	Break Date	1993	-	1994
D(EKOF)	Model		None	Model A
	Test		-7,45**	-9,15**
	Probability		0,00**	-
	Break Date		-	1996
SKOF	Model	Model C	Constant and Trend	Model C
	Test	-3,33	-2,36	-3,01
	Probability	0,88	0,38	-
	Break Date	2004	-	2005
TSKOF	Model	Model A	Constant	Model A
	Test	-5,73	-4,69	-4,97*
	Probability	0,01*	0,00*	-
	Break Date	2006	-	2007
PKOF	Model	Model C	Constant and Trend	Model C
	Test	-5,03	-1,38	-4,40
	Probability	0,07*	0,85	-
	Break Date	2007	-	1991

			None	Model A
D(PKOF)	Model		None	Model A
	Test		-2,12**	-9,74**
	Probability		0,03**	-
	Break Date			1983
INF	Model	Model A	None	Model A
	Test	-3,29	-1,06	-3,90
	Probability	0,50	0,25	-
	Break Date	2001		2002
D(INF)	Model	Model A	None	Model A
	Test	-7,84**	-7,57**	-8,03**
	Probability	0,00**	0,00**	-
	Break Date	1988		1995
EXDBTG	Model	Model C	Constant and Trend	Model C
	Test	-3,32	-2,27	-3,43
	Probability	0,88	0,43	-
	Break Date	1984		2003
TEXDBTG	Model	Model B	Constant	Model A
	Test	-4,59	-3,10	-4,82*
	Probability	0,05*	0,03*	-
	Break Date	2002		2003

Note: Critical values according to Perron (1989) (Breakpoint) unit root test; in Model A, %1: -4,949, %5: -4.443 and %10: -4.193; in Model B and %1: -5.067, %5: -4.524 and %10: -4.261. in Model C: %1: -5.71, %5: -5.17 and %10: -4.893. Critical values according to ADF (1979) unit root test; in constant: %1: -3.57, %5: -2.92 and %10: -2.59. In constant + trend model %1: -3,994, %5: -3.427, %10: -3.137. In no constant + no trend model %1: -2,573, %5: -1,942 and %10: -1,615. Critical values according to Z&A (1992) Model A: %1: -5.34, %5: -4,93 and %10: -4.58. Model C: %1:-5.57, %5:-5.08 and %10:-4.82. * stationary data at the level. **data made stationary by differencing. Optimal lag lengths were determined according to Akaike and Schwarz information criteria.

In Table 5, variables in the study were analyzed with three different unit root tests. According to these tests, the series were stationary in the levels of I(0) or (1). The cointegration relation on the structure was also evaluated with The ARDL Bounds Test method.

4.3. The ARDL Bounds Test Approach

Since all variables in the study were not stationary at the same levels, cointegration tests, such as the Johansen and Engle-Granger tests, could not be applied. Even though the series were not co-integrated at the same levels, whether they were co-integrated could be tested with the ARDL method (Guris, Caglayan and Cakir Zeytinoglu, 2016). Model (2) and others in the Basic ARDL Model;

$$Y_t = \partial_0 + \partial_1 X_t + \partial_2 Z_t + e_t \tag{1}$$

$$\Delta y_t = \partial_0 + \sum_{i=1}^{p} \beta_i \Delta y_{t-i} + \sum_{i=0}^{p} \delta_i \Delta x_{t-i} + \sum_{i=0}^{p} \lambda_i \Delta z_{t-i} + a_1 y_{t-1} + a_2 x_{t-1} + a_3 z_{t-1} + u_t \tag{2}$$

$$\Delta y_t = \partial_0 + \sum_{i=1}^{p} \beta_i \Delta y_{t-i} + \sum_{i=0}^{p} \delta_i \Delta x_{t-i} + \sum_{i=0}^{p} \lambda_i \Delta z_{t-i} + u_t \tag{3}$$

While Ə, β, α, and λ symbols represent variables' coefficients in the above equation, e and u demonstrate error terms. Pesaran, Shin and Smith (2001) presented the ARDL bounds test method, so the best model among other models should be decided first in an analysis (Pesaran et al., 2001, p.289,326). When deciding on this model, it was significant to choose a model that included minimum information criteria with minimum coefficients by equating $(p + 1)^k$ and taking information criteria, such as Akaike and Schwarz, into consideration. While the proper delay count is p, the variable number is k in this process. When the F test or the bounds test is applied to the best model, if the absence hypothesis is rejected, there is a long-term co-integrated relationship between the series in the model. Therefore, we concluded that there was a long-term co-integrated relationship between the x, y, and z variables. In conclusion, there was no problem with equating stationary variables at different levels and regression models (Shresta, 2006, p.1-9). The basic ARDL (2, 3, 3, 2, 3, 0, 3) model's coefficient estimations are given in Table 6.

Table 6: The ARDL Model Estimation Results

Variables	Coefficients	Standard Error	t-Statistical	Probability
PGDP(–1)	0.963710	0.144784	6.656185	0.0000
PGDP(–2)	-0.224656	0.141714	-1.585270	0.1260
SKOF	0.015815	0.007169	2.206001	0.0372
SKOF(–1)	0.010506	0.009585	1.096148	0.2839
SKOF(–2)	0.012423	0.008538	1.454961	0.1586
SKOF(–3)	0.006153	0.004198	1.465658	0.1557
EKOF	0.007558	0.006237	1.211688	0.2374
EKOF(–1)	0.017614	0.007100	2.480655	0.0205
EKOF(–2)	0.016040	0.006523	2.458865	0.0215
EKOF(–3)	0.008644	0.003436	2.515619	0.0190
KOF	-0.035190	0.017839	-1.972686	0.0602
KOF(–1)	-0.041074	0.020937	-1.961736	0.0615

KOF(-2)	-0.039706	0.016695	-2.378260	0.0257
PKOF	0.005514	0.006735	0.818656	0.4210
PKOF(-1)	0.017228	0.007233	2.381768	0.0255
PKOF(-2)	0.019327	0.005703	3.389136	0.0024
PKOF(-3)	-0.011396	0.002774	-4.107869	0.0004
INF	-0.000380	0.000289	-1.313124	0.2016
TEXDBTG	-0.001800	0.001201	-1.498899	0.1469
TEXDBTG(-1)	0.001604	0.001457	1.101294	0.2817
TEXDBTG(-2)	-0.002826	0.001471	-1.920986	0.0667
TEXDBTG(-3)	0.001201	0.001171	1.025541	0.3153
C	2.155239	0.697200	3.091279	0.0050

In Table 6, the parameters of the PKOF, EKOF, and KOF variables from the coefficients of the ARDL delayed estimation model were statistically significant, and especially the delayed values of the economic globalization coefficient had a positive impact on growth. The F-bounds test results are given in Table 7.

Table 7: The F-Bounds Test Results

Test Statistic	Test Value	k
F-Test Statistic	3.722865	6
Critical Values		
Significance	**Lower Bounds (I0)**	**Upper Bounds (I1)**
10%	2.12	3.23
5%	2.45	3.61
2.5%	2.75	3.99
1%	3.15	4.43

In Table 7, according to the statistics from the bounds test, there was a long-term co-integrated relationship in the 5% and 10% significance levels between the variables, and there was a statistically significant long-term relationship between the series. According to these results, the globalization indices, inflation, and external debt variables had a long-term co-integrated relationship with economic growth. This condition demonstrated that economic stability, together with global capital flows, played a considerable and vital role in the economic growth of national economies in the long term. The short and long-term coefficient results and error recovery coefficients, along with the ARDL model's structure of cointegration relations, are given in Table 8.

Table 8: The ARDL Model Cointegration Form, The Short and Long-Term Coefficients

The Dependent Variable:	PGDP Selected Model: ARDL(2, 3, 3, 2, 3, 0, 3)			
Sample: 1970 2019	Included observations: 47			
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
D(PGDP(-1))	0.224656	0.141714	1.585270	0.1260
D(SKOF)	0.015815	0.007169	2.206001	0.0372
D(SKOF(-1))	-0.012423	0.008538	-1.454961	0.1586
D(SKOF(-2))	-0.006153	0.004198	-1.465658	0.1557
D(EKOF)	0.007558	0.006237	1.211688	0.2374
D(EKOF(-1))	-0.016040	0.006523	-2.458865	0.0215
D(EKOF(-2))	-0.008644	0.003436	-2.515619	0.0190
D(KOF)	-0.035190	0.017839	-1.972686	0.0602
D(KOF(-1))	0.039706	0.016695	2.378260	0.0257
D(PKOF)	0.005514	0.006735	0.818656	0.4210
D(PKOF(-1))	-0.019327	0.005703	-3.389136	0.0024
D(PKOF(-2))	0.011396	0.002774	4.107869	0.0004
D(INF)	-0.000380	0.000289	-1.313124	0.2016
D(TEXDBTG)	-0.001800	0.001201	-1.498899	0.1469
D(TEXDBTG(-1))	0.002826	0.001471	1.920986	0.0667
D(TEXDBTG(-2))	-0.001201	0.001171	-1.025541	0.3153
ECT	-0.260946	0.093178	-2.800497	0.0099
The Short-Term Coefficients				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	2.155239	0.697200	3.091279	0.0050
SKOF(-1)	0.044896	0.016251	2.762624	0.0108
EKOF(-1)	0.049856	0.016323	3.054245	0.0055
KOF(-1)	-0.115969	0.043174	-2.686067	0.0129
PKOF(-1)	0.030674	0.013089	2.343540	0.0277
INF	-0.000380	0.000289	-1.313124	0.2016
TEXDBTG(-1)	-0.001822	0.001342	-1.357921	0.1871
PGDP(-1)	-0.260946	0.093178	-2.800497	0.0099
The Long-Term Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
SKOF	0.172052	0.048888	3.519284	0.0018
EKOF	0.191058	0.059699	3.200339	0.0038
KOF	-0.444419	0.145909	-3.045854	0.0056
PKOF	0.117548	0.041550	2.829092	0.0093
INF	-0.001455	0.001434	-1.015169	0.3202
TEXDBTG	-0.006981	0.005654	-1.234812	0.2289
C	8.259342	0.403698	20.459191	0.0000

$$ECT = PGDP - (0{,}17 * SKOF + 0{,}19 * EKOF - 0{,}44 * KOF + 0{,}11 * PKOF - 0{,}001 INF - 0{,}007 *$$
$$TEXDBTG + 8{,}25 \tag{4}$$

In Table 8, the short and long-term coefficients of all the globalization indices were statistically significant. Also, the short and long-term coefficients of inflation and external debt variables were statistically insignificant. Moreover, it presented the error recovery coefficient (ECT) was negative and statistically significant. The fact that this coefficient was -0.26(1/0.26) demonstrated that the short-term impact of changes to the independent variables in the model created a deviation effect on the dependent variable that could be eliminated after 3.84 years. This estimation demonstrates the generated imbalances in economic growth by the globalization indices, inflation, and external debt variables that could balance these issues in the long-term. This result demonstrated that globalization, economic stability, and external debt were effective in the economic growth of national economies.

Diagnostic tests (identification errors, autocorrelation, heteroscedasticity, and normality) toward the ARDL bounds test model and the R^2 and F test results are given in Table 9.

Table 9: The ARDL Model Diagnostic Tests

R^2	Ramsey Reset	LM (1)	White	F	Jarque Bera
0,78	Probability	Probability	Probability	Probability	Probability
	0,42	0,18	0,10	0,00	0,71

According to Table 9, the ARDL model's diagnostic tests were significant. Finding the R^2 value as 0.78 in the analysis demonstrated that the alterations of independent variables' power to explain dependent variables' alterations in the model were medium-level high. Likewise, the F test of the model being significant showed that the coefficients of variables in the study and the model were significant. The basic hypothesis of the Ramsey RESET test indicates that there are no identification errors in the model. When the probability values (0.42) of test statistics are examined, we see that this basic hypothesis cannot be rejected. Therefore, we can deduce and understand that there are no specification (identification) errors in this model (Ramsey, 1969, p.350-371). In addition to this test, the LM test, a widely used autocorrelation test, was used. The LM (1) test statistics being as 17% and higher than 5% indicates that the model has no first-

degree autocorrelation problems. While the autocorrelation problem shows whether error terms in the model have a relationship, the model had no such relationship (Breusch and Godfrey, 1978).

Furthermore, the White Test, a heteroscedasticity test in the literature, was also included in the study. Heteroscedasticity is a diagnostic problem that emerges because of the breakdown of the constant variance hypothesis in models, but the White Test statistics of 10% and higher than 5% in the model indicates that there is no diagnostic problem of heteroscedasticity (White, 1980, p.817-838). The Jarque-Bera test was applied to analyze normality. Normality states the compliance of data in the studies to the normal distribution. The test value of 71% and higher than 5% shows that the diagnostic condition of the data's normal distribution is met (Jarque and Bera, 1980, p.255-259).

The economic impact of globalization, especially its impact on national income, is presented with the obtained results of the study. In addition, it also presented that inflation and external debt, representing economic stability, had no impact on economic growth. The impact of globalization on a country's economic growth and its national economy emerged as a salient factor for policymakers that cannot be disregarded. It was especially confirmed for Turkey, the sample country of the study, that global capital and monetary movements had importance in increasing economic growth and economic stability.

5. Conclusion

Globalization has significantly affected all countries for 20-30 years. This study analyzed the impact of globalization with its various aspects on Turkey's economic growth empirically. The dataset covered the period from 1970-2018, and the ARDL bounds test was used as an econometric methodology. While the per capita income's increase was selected as an indicator of the economic growth, economic, social, political, and overall globalization indices, the inflation and external debt ratio to national income were utilized as the determinants of the per capita income's increase in the study's model.

According to the empirical analysis results of the study, we detected that all the variables in the study were co-integrated in the long term by utilizing the ARDL bounds test method and its results. All the variables that were utilized, and being at the I(0) and I(1) stationary levels in all stationary tests aided this conclusion. This conclusion parallels with the other studies in the literature. Moreover, it was estimated that the deviations in national income that globalization index values, inflation, and external debt ratio to national income variables' alterations created in the short-term could reach a balance after 3.84 years in the long-term. We reached the conclusion that the short and long-term coefficients of all the variables of globalization indices in the study had significance. In this regard, the results of this study overlapped with the results of other studies, such as Turedi (2016), Dogan and Can (2016), and Saritas (2017)'s studies. However, we also concluded that the coefficients of inflation and external debt variables were not statistically significant in terms of the ARDL bound test's short and long-term coefficients.

When globalization's impact on the positive contributions to economic dynamism, market opportunities, and active competitive environment are contemplated, especially from an economic angle, how it affects economic growth positively is the expected result. Thus, it has become even more essential for policymakers to utilize economic policies to increase and sustain growth. Rising national economies' integration with the world economy will strengthen the positive impact of globalization on their economy. Solidifying the economic, financial, and institutional structure of a country will contribute positively to the integration process as well. Finally, politically developing relations with other world nations and socio-culturally acting like a member of an international community will pave the way for Turkey to improve its economic and commercial relations as well.

References

Adesoye, A.A., Ajike, E.O. and Maku, O.E. (2015). Economic globalization and economic growth in the developing economies: A case of Nigerian economy. *International Journal of Economics, Commerce and Management*, 3(7), 340-355.

Afzal, M. (2007). The impact of globalization on economic growth of Pakistan: An error-correction modelling. *The Pakistan Development Review*, 46(4), 723–734.

Andersen, T. and Herbertsson, T. (2005). Quantifying globalization. *Applied Economics*, 37(10), 1089-1098.

Apaydin, Ş. (2019). Türkiye'de İktisadi Küreselleşmenin Büyüme Üzerindeki Yapısal ve Tarihsel Etkileri. *Bitlis Eren Üniversitesi Iktisadi ve Idari Bilimler Fakültesi Akademik Izduşum Dergisi*, 4(1), 1–27.

Aslan, N. (2013). Ekonomik kuresellesme: Tarihi, boyutları ve sonuclari. O. Kucukahmetoglu, H. Cestepe ve S. Tuyluoglu (Ed.), *Ekonomik Entegrasyon Kuresel ve Bolgesel Yaklasim kitabi icinde* (s.7-28). Istanbul: Ekin Kitabevi.

Borensztein, E., De Gregorio, J. and Lee, J.W. (1998). How does foreign direct investment affect economic growth?. *Journal of International Economics*, 45, 115-135.

Bozoklu, S. and Yilanci, V. (2013). Finansal gelisme ve iktisadi buyume arasindaki nedensellik iliskisi: Gelismekte olan ekonomiler icin analiz. *Dokuz Eylül Universitesi I.I.B.F Dergisi*, 28(2), 161-187.

Breusch, T.S. and Godfrey, L.G. (1978) Misspecification Tests and Their Uses in Econometrics. *Journal of Statistical Planning and Inference*, 49, 241-260.

Brixiova, Z. and Treigiene, D. (2003). Globalization and growth in recent research. Date of Access: 09.10.2021, https://www.researchgate.net/publication/264868906_globalization_and_growth_in_recent_research, E.T

Calderón, C. and Fuentes, J.R. (2006). Complementarities between institutions and openness in economic development: Evidence for a panel of countries. *Cuadernos De Economía*, 43, 49–80.

Caselli, M. (2012). Trying to measure globalization experiences. *Critical Issues and Perspectives, Springer Brief in Political Science*, Italy.

Chang, C.P., Lee, C.C. and Hsieh, M.C. (2011). Globalization, real output and multiple structural breaks. *Global Economic Review*, 40(4), 421-444.

Coulibaly, S.K., Erbao, C. and Mekongcho, T.M. (2018). Economic globalization, entrepreneurship and development. *Technological Forecasting and Social Change*, 127, 271-280.

Celik, M.Y. and Unsur, Z. (2020). Kuresellesme ve Buyume iliskisinin Dumitrescu-Hurlin panel nedensellik testi ile belirlenmesi. *Izmir Iktisat Dergisi*, 35(1), 201-210.

De Haan, J., Lundstrom, S. and Sturm, J.-E. (2006). Market-oriented institutions and policies and economic growth: A critical survey. *Journal of Economic Surveys*, 20(2), 157-191.

De Soysa, A. and Vadlamannati, K.C. (2011). Does Being Bound Together Suffocate or Liberate? The Effects of Economic, Social, and Political Globalization on Human Rights 1982-2005. Kyklos, 64(1), 20-53

Destek, M. A. (2020). Investigation on the Role of Economic, Social, and Political Globalization on Environment: Evidence from CEECs. *Environmental Science and Pollution Research*, 27(27), 33601–33614.

Dickey, D. A and W. A. Fuller (1979). Distributions of the Estimators for Autoregressive Time Series with a Unit Root. *Journal of American Statistical Association*, 74(366), 427-481.

Didžgalvytė-Bujauskė, M., Pereira, E. T. and Osteikaitė, A. (2019). The Effect of Globalisation for Economic Growth of Developing Countries. *Applied Economics: Systematic Research*, 13(1), 13-28.

Dogan, B. and Can, M. (2016). Kuresellesmenin Buyumeye Etkisi: Güney Kore Orneklerinde Esbutunlesme Analizi. C*ankiri Karatekin Universitesi I.I.B.F. Dergisi*, 6(2),197-220.

Dogan, B. (2017). Ekonomik Kuresellesme ve Buyume Iliskisi: Türkiye Ornegi Toda-Yamamoto Nedensellik Analizi. *Finans Politik ve Ekonomik Yorumlar*, 54(628), 19-27.

Dreher, A. (2006). Does Globalization Affect Growth? Evidence from a New Index of Globalization. *Applied Economics*, 38(10), 1091-1110.

Eren, M. V. and Cutcu, İ. (2018). Kuresellesmenin Ekonomik Buyumeye Etkisi: Türkiye Uzerine Ekonometrik Bir Analiz. *Siyaset Ekonomi ve Yonetim Arastirmalari Dergisi*, 6(1), 47-61.

Fukase, E. (2010). Revisiting Linkages Between Openness, Education and Economic Growth: System GMM Approach. *Journal of Economic Integration*, 25(1), 193-222.

Gujarati, D. N. (2003). *Basic Econometrics*, (4.ed). New York: The Mcgraw-Hill/Irwin Companies.

Guris, S., Caglayan, E., Cakir Zeytinoglu, F., Sacakli Sacildi, I. and Sagdic, C. (2016). Surdurulebilir Turizm: Turizm, Ekonomik Buyume ve Karbondioksit Emisyonu Arasindaki Baglanti, *Econworld International Conference on Economics*, Barcelona.

Hayaloglu, P., Kalayci, C. and Artan, S. (2015). Kuresellesme Farkli Gelir Grubundaki Ulkelerde Ekonomik Buyumeyi Nasil Etkilemektedir?. *Eskisehir Osmangazi Universitesi İİBF Dergisi*, 10(1), 119-152.

Hossain, M. S., Kibria, M. G. and Islam, M. S. (2018). Does Globalization Affect the Economic growth of Bangladesh? - An Econometric Analysis. *Asian Economic and Financial Review*, 8(12), 1384-1393.

Husain, I. (2000). Making Globalization Work for the Poor Case Study of Pakistan. EMP-CIDA Globalisation Project, *Lahore University of Management Sciences*, 1-28.

Jarque, M. C. and Bera, A. K. (1980). Efficient Tests for Normality, Homoscedasticity and Serial Independence of Regression Residuals. *Economics Letters*, 6(3), 255–259.

Johnston, J. and Dinardo, J. (1997). *Econometric Methods*, (4.ed). New York: The Mc Graw Hill Companies.

Kaurin, V. and Simic, B. (2017). Globalisation and Growth: Empirical Evidence from CEE Countries. Economic and Social Development 24th International Scientific Conference on Economic and Social Development-Managerial Issues in Modern Business, in M. Przygoda, M. Cingula and L. Yongqiang (Ed.), *Book of Proceedings*, 274-282.

Kilic, C. (2015). Effects of Globalization on Economic Growth: Panel Data Analysis for Developing Countries. *Petroleum-Gas University of Ploiesti Bulletin, Technical Series*, 67(1), 1-11.

Kilicarslan, Z. and Dumrul, Y. (2018). The Impact of Globalization on Economic Growth: Empirical Evidence from the Turkey. *International Journal of Economics and Financial Issues*, 8(5), 115-123.

Klein, M. W. (2003). Capital Account Openness and the Varieties of Growth Experience. *NBER Working Paper*, No. 9500.

KOF (2021). KOF Globalisation Index. Date of Access: 12.11.2021, https://kof.ethz.ch/en/forecasts-and-indicators/indicators/kof-globalisation-index.html

KOF (2022a). Ranking_2021. Date of Access: 24.07.2022, https://kof.ethz.ch/en/forecasts-and-indicators/indicators/kof-globalisation-index.html.

KOF (2022b). Structure_2021, Date of Access: 24.07.2022, https://kof.ethz.ch/en/forecasts-and-indicators/indicators/kof-globalisation-index.html.

Kofoglu, I. H. (2022). The Effect of Globalization on Economic Growth: Turkey Case. *Trends in Business and Economics,* 36(3), 277-288.

Kose, M. A., Prasad, E., Rogoff, K. and Wei, S. J. (2006). Financial Globalization: A Reappraisal. *IMF Working Paper, WP/06/189*.

Lockwood, B. and Redoano, M. (2005). CSGR Globalization Index: An Introductory Guide, Centre for Study of Globalization and Regionalization, *Working Paper 155/04*.

Maddala, G. S. and Lahiri, K. (2009). *Introduction to Econometrics*, (4.ed). West Sussex: John Willey and Sons Ltd Published.

Maduka, A. C., Madichie, C. V. and Eze, E. A. (2017). Globalization and Economic Growth: Evidence from Nigeria. *International Journal of Social Science and Economic Research*, 2(8), 4177-4191.

Manwa, F. and Wijeweera, A. (2016). Trade Liberalisation and Economic Growth Link: the Case of Southern African Custom Union Countries. *Economic Analysis and Policy*, 51, 12-21.

Maqbool-Ur-Rahman, M. (2015). Impacts of Globalization on Economic Growth-Evidence from Selected South Asian Countries. *Journal of Management Sciences*, 2(1), 185-204.

McGrew, A. (2011). The Logics of Economic Globalization. In J. Ravenhill (Ed.), *Global Political Economy*, (3.ed). Oxford University Press, 275-311.

Meraj, M. (2013). Impact of Globalization and Trade Openness on Economic Growth in Bangladesh. *Ritsumeikan Journal of Asia Pacific Studies*, 32, 40-50.

Mutascu, M. and Fleischer, A. M. (2011). Economic Growth and Globalization in Romania. *World Applied Sciences Journal*, 12(10), 1691-1697.

Nwakanma, P. C. and Ibe, R. C. (2014). Globalization and Economic Growth: An Econometric Dimension Drawing Evidence from Nigeria. *International Review of Management and Business Research*, 3(2), 771-778.

Ozel, H. A. (2012) Kuresellesme Surecinde Ticari ve Finansal Acikligin Ekonomik Buyume Uzerine Etkisi: Türkiye Ornegi. *Yönetim Bilimleri Dergisi*, 10(19), 21-43.

Perron, P. (1989) The Great Crash, the Oil Price Shock and the Unit Root Hypothesis. *Econometrica,* 57, 1361-1401.

Peseran, M.H., Shin, Y. and Smith, R.J. (2001). Bounds Testing Approaches to the Analysis of Level Relationship. *Journal of Applied Economics*, 16, 289-326.

Polat, C. and Peker, K.O. (2020). Kuresellesme ve Ekonomik Buyume Iliskisi: Türkiye Orneginde bir Değerlendirme. *Insan ve Toplum Bilimleri Arastirmalari Dergisi*, 9(5), 3988-4015.

Radulović, M. and Kostić, M. (2020). Globalization and Economic Growth of Eurozone Economies. In Proceedings of Rijeka Faculty of Economics: *Journal of Economics and Business*, 38(1), 183-214.

Ramsey, J.B. (1969). Tests for Specification Errors in Classical Linear Least Squares Regression Analysis. *Journal of the Royal Statistical Society Series B*, 31(2), 350–371.

Rao, B.B. and Vadlamannati, K.C. (2011). Globalization and Growth in the Low Income African Countries with the Extreme Bounds Analysis. *Economic Modelling*, 28(3), 795-805.

Sachs, J.D. and Warner, A.M. (1995). Economic Reform and the Process of Global Integration. *Brookings Papers on Economic Activity*, 26(1), 1-118.

Samimi, P. and Jenatabadi, H. S. (2014). Globalization and Economic Growth: Empirical Evidence on the Role of Complementarities. *Globalization and Economic Growth*, 9(4),1-7.

Saritas, T. (2017). *Türkiye'de Ekonomik, Sosyal ve Politik Kureselleşme Süreci ile Ekonomik Buyume Arasindaki Iliskinin Analizi*, (Doktora Tezi). *Bilecik Şeyh Edebali Üniversitesi SBE*, Bilecik.

Sato, S. and Fukushige, M. (2009). Globalization and Economic Inequality in the Short and Long Run: The Case of South Korea 1975–1995. *Journal of Asian Economics*, 20, 62-68.

Saygin, S. U. (2021). Kuresellesmenin Ekonomik Büyüme Üzerindeki Etkisi: E7 Ülkeleri için Bir Uygulama. *İnsan ve Toplum Bilimleri Arastirmalari Dergisi*, 10(2), 1327-1347.

Shrestha, M.B. (2006). ARDL Modelling Approach to Cointegration Test. *The Central Bank of Nepal*, *University of Wollongong*, New South Wales, 1- 9.

Smith, J., Plummer, S. and Hughes, M. (2017). Transnational Social Movements and Changing Organizational Fields in the Late Twentieth and Early Twenty-First Centuries. *Global Networks,* 17(1), 3-22.

Stiglitz, J.E. (2002). *Globalization and its Discontents*, London: Penguin Books.

Stiglitz, J.E. (2004). Globalization and Growth in Emerging Markets. *Journal of Policy Modelling*, 26(4), 465–84.

Suci, S. C., Asmara, A. and Mulatsih, S. (2015). The Impact of Globalization on Economic Growth in ASEAN. *International Journal of Administrative Science & Organization*, 22(2), 79-87.

Tekbas, M. (2019). BRICS-T Ulkelerinde Ekonomik Buyume ve Kuresellesme Iliskisi. *Finans Ekonomi ve Sosyal Arastirmalar Dergisi*, 4(3), 397-412.

Turedi, S. (2016). Kuresellesmenin Ekonomik Büyüme Üzerindeki Etkisi: Gelismekte Olan Ulkeler Icin Panel Veri Analizi. *Uluslararası Osmaneli Sosyal Bilimler Kongresi*, Bilecik, 12-14 Ekim 2016.

Villaverde, J. and Maza, A. (2011). Globalisation, Growth and Convergence. *The World Economy*, 34(6), 952-971.

White, H. (1980). A Heteroskedasticity-Consistent Covariance Matrix Estimator and A Direct Test for Heteroskedasticity. *Econometrica*, 48(4), 817-838.

World Bank (2021). World Development Indicators. Date of Access: 07.11.2021, https://databank.worldbank.org/source/world-development-indicators.

Ying, Y.H., Chang, K. and Lee, C. H. (2014). The Impact of Globalization on Economic Growth. *Romanian Journal of Economic Forecasting*, 17(2), 25-34.

Zahonogo, P. (2018). Globalization and Economic Growth in Developing Countries: Evidence From Sub-Saharan Africa. *The International Trade Journal*, 32(2), 189-208.

Zivot, E. and Andrews, K. (1992). Further Evidence on the Great Crash, the Oil Price Shock, and the Unit Root Hypothesis. *Journal of Business and Economic Statistics*, 20(1), 25-44.