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Does Globalization Reduce Youth Unemployment? Augmented ARDL Approach

Küreselleşme Genç İşsizliği Azaltmakta mıdır? Genişletilmiş ARDL Yaklaşımı

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ABSTRACT

While unemployment is a significant issue that has been extensively discussed in economic literature for decades, it is one of the key indicators that governments and firms consider. In fact, reducing unemployment in a country contributes to both increasing social welfare and economic welfare. Fluctuations in unemployment figures during the globalization process have led researchers to prioritize this issue. The objective of this study is to ascertain the impact of globalization on youth unemployment in Türkiye over the period 1988–2021, utilizing the augmented ARDL approach. The KOF Globalization Index, a frequently utilized indicator in the literature, is selected to represent globalization. However, the study is limited by the fact that the most recent data from the KOF index belongs to 2021, and the data on youth unemployment began in 1988. The limited number of studies on the relationship between globalization and youth unemployment in Türkiye constitutes the starting point of this study. The findings of the study indicate that an increase in globalization in the long run decreases youth unemployment in Türkiye. Furthermore, economic growth, inflation, and foreign direct investments also decrease youth unemployment, while an increase in urbanization increases youth unemployment. In addition, if a deviation occurs in the short run, approximately 85% of these deviations disappear in the first period and converge towards the long-run equilibrium.

Jel Codes: E24, F43, F66

Keywords: Globalization, Youth Unemployment, Augmented ARDL

ÖZ

İşsizlik konusu ekonomi yazınında yıllardır tartışılan önemli bir konu olmakla birlikte, hükümetlerin ve firmaların dikkate aldığı temel göstergelerden biridir. Nitekim bir ülkede işsizliğin azaltılması ekonomik refahın artırılmasının yanı sıra, sosyal refahın da artırılmasına katkı sağlamaktadır. Küreselleşme sürecinde işsizlik rakamlarında meydana gelen dalgalanmalar, araştırmacıları bu konu üzerine odaklanmalarını sağlamıştır. Nitekim bu çalışma Türkiye özelinde küreselleşmenin genç işsizlik üzerindeki etkisini 1988-2021 dönemi için genişletilmiş ARDL yaklaşımı yardımıyla tespit etmeye çalışmaktadır. Küreselleşmeyi temsilen literatürde sıklıkla kullanılan KOF Küreselleşme Endeksi seçilmiştir. Çalışmanın kısıtları KOF endeksine ait güncel verinin 2021 yılına ait olması ve genç işsizlik verilenin ise 1988 yılından başlamasıdır. Küreselleşme ile genç işsizlik arasındaki ilişkinin Türkiye özelinde kısıtlı sayıda incelenmiş olması, bu çalışmanın hareket noktasını oluşturmaktadır. Çalışmanın bulgularına göre Türkiye'de uzun dönemde küreselleşmedeki artış genç işsizliği azaltmaktadır. Ayrıca ekonomik büyüme, enflasyon ve doğrudan yabancı yatırımların artması yine genç işsizliği azaltırken, kentleşmenin artması ise genç işsizliği artırmaktadır. Buna ek olarak kısa dönemde ise dengeden bir sapma olması durumunda, bu sapmaların yaklaşık %85'i bir dönem içerisinde telafi edilmekte ve uzun vadede tekrar dengeye ulaşılmaktadır.

Jel Kodları: E24, F43, F66

Anahtar Kelimeler: Küreselleşme, Genç İşsizlik, Genişletilmiş ARDL

Introduction

Globalization has been a significant topic of debate among scholars and policymakers in recent years. Some argue that it can solve global economic issues, while others believe it exacerbates them. Indeed, in terms of employment, the shift of capital and production to developing countries where cheap labor is available as a result of the removal of economic and political barriers with globalization is seen as an opportunity for these countries, while it can be seen as a threat for developed countries. Such contrasting approaches have therefore made globalization a popular topic for addressing the welfare of countries and global economic challenges.

While globalization is generally defined as the policy or process of worldwide integration(Smith & Smythe, 1999, p. 83; With, 2019, p. 1054), in economic terms it is defined as the increase and expansion of the speed and size of international firms' access to national markets (Wolf Jr, 2000, pp. 2-3). The term globalization describes the tendency of the international economy to integrate not only in terms of markets, international trade, investment, finance, and technology but also in terms of harmonization of lifestyles (Bitzenis, 2012, p. 9). Therefore, globalization has social, political, and economic effects (Siddiqa et al. 2018, p. 123). Due to these effects of globalization, a major debate arises at this point. Globalization affects countries at different income levels in varying ways (Khor, 2000, p. 7; Nguyen, 2024, p. 57). However, in order to compete and benefit internationally in the globalization process, all parties adopt different strategies, especially economic ones. Additionally, political factors also affect labor markets, making economic and social outcomes more complex (Zhang, 2006, p. 2). Globalization has transformed the world economy into one based on free trade, allowing for

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the free circulation of labor and capital. This has resulted in increased complexity (Holton, 2011, p. 4). Therefore, assessing the human impact of globalization requires careful consideration of labor and employment issues (Sato & Muruyama, 2008, p. 2).

Globalization primarily affects labor through international technology transfer (Haile et al. 2013, p. 5), increased trade, and foreign direct investment (FDI). Indeed, it is clearly seen that foreign direct investments have also increased in the process of globalization (Mishra & Palit, 2020, p. 1483). Many countries, especially developing ones, have opened up their economies to attract FDI and provide opportunities for foreign companies to enter their markets. As a result, multinational corporations (MNCs) have expanded their operations in these countries (Debrah & Smith, 2003, pp. 4-5). Technology transfer through MNCs also spreads to domestic firms in host countries (Griffith et al. 2005, pp. 166-167; Hovhannisyan, 2012, p. 3), contributing to the expansion of production and the stabilization of employment (Jenkins, 2006, p. 116). As a matter of fact, increasing production and foreign trade with economic globalization increases the flexibility of labor demand in national economies (Rodrick, 1997, p. 33).

The condition of the labor force is an essential leader of a country's economic performance (Turok, 1999, p. 893; Heintz, 2009, p. 11). Furthermore, economic policies are influenced by the state of the labor market (Saint-Paul, 1998, pp. 151-152), as rigid labor policies may have an adverse effect on economic performance by increasing overall unemployment. In an economy characterized by economic instability, both experienced middle-aged and young individuals lacking experience may be excluded from the labor market. The advent of globalisation, the situation has become more complex, and the employment of inexperienced young people has become more risky. Nevertheless, it is still believed that this situation will vary according to the economic structures of the countries in question.

In the current context of globalization, changes in labor market flexibility have made young people more vulnerable to unemployment (Mills & Blossfeld, 2006, p. 8). However, one of the challenges faced by young people when seeking employment is the lack of experience (Zisi & Merko, 2017, p. 346). On the other hand, lack of experience can lead to serious problems such as youth unemployment, difficulties in forming their social identity and self-esteem, various health problems, feelings of guilt and uselessness, and economic independence (Okafor, 2011, p. 359). Increasing economic, social, and political globalization is expected to provide young people with new job opportunities, and they will be able to keep up with changing technology more quickly and thus achieve higher integration. When the situation of young people in the labor market is analyzed, according to the International Labor Organization (ILO), approximately 75.1 million young people worldwide were unemployed in 2021 when their situation in the labor market was analyzed. Approximately 8.6%, or 6.5 million, were located in low-income countries, 48%, or 36 million, in low- and middle-income countries, 33%, or 24.9 million, in high- and middle-income countries, and 10.3%, or 7.7 million, in high-income countries (ILO, 2022, p. 42). In Türkiye, the unemployment rate among young people was 22.3% in the same year (WDI). This result is considerably higher than that of the high-middle income countries with which we compete. Given Türkiye's high population growth rate, it is evident that policymakers in Türkiye must exert greater effort to address the issue of youth unemployment.

Based on research done by the World Economic Forum, high levels of youth unemployment pose one of the most significant economic and social threats. Experts caution that high youth unemployment can undermine the prospect of sustainable economic growth (Rakauskiene & Ranceva, 2014, p. 166). Indeed, with globalization still advancing at a rapid pace, the issue of youth unemployment is one that requires serious consideration. One of the most significant debates of the recent period is the assertion that the steps taken, and policies implemented towards globalization have an impact on youth unemployment, as well as general unemployment. It has been observed that the effects of globalisation on the labor market vary according to the degree of industrialization of countries and their policies towards labor mobility. In this context, the economy of Türkiye is experiencing difficulties in creating new employment opportunities. This is due to a combination of low savings and investments, which in turn is increase to an elevated risk of youth unemployment in the medium and long term as the new labor force joins the population. Therefore, this study examines the effect of globalization on youth unemployment in Türkiye from 1988 to 2021, using the KOF Globalization Index as a representative measure. The study's limitations include the fact that the KOF index data only goes up to 2021 and that data on youth unemployment is only available from 1988. The scarcity of research on the correlation between globalization and youth unemployment in Türkiye is a primary factor in this study's presentation.

Literature Review

The general argument for globalization is based on the Heckscher-Ohlin model. This model states that industrialized countries have comparative advantages in the production of capital-intensive goods, while non-industrialized countries have comparative advantages in the production of labor-intensive goods (Musti, 2018, p. 44; Awad, 2019, p. 254). In this case, increased globalization through trade liberalization will transfer the production of labor-intensive goods to developing countries (Subasat, 2003, p. 150), and employment and output will increase in these countries. Employment growth will be realized through the expansion of the service sector as well as the manufacturing sector (Majumber, 2020, p. 2). Nevertheless, there is no unanimity on this matter, as seen by the disparate results of research looking at how trade liberalization or globalization affect unemployment. Hasan et al. (2012) posit that this discrepancy is attributable to methodological, sampling, and variable differences in the chosen methodologies. Indeed, Kabeer & Mahmud (2004) report that the realization of economic liberalization in the industry in Bangladesh has resulted in an additional employment increase of approximately 1.5 million people, predominantly women, in the garment industries. Conversely, Rama (2003) posits that economic liberalization, or globalization, may result in job creation in certain sectors and job losses in others. Furthermore, the author suggests that job losses will be more pronounced in the initial stages. On the contrary, Hoekman & Winters (2005) posit that trade stimulates technological advancement, and that globalization may enhance the market value of labor in developing countries. Conversely, Elijah (2007) asserts that it is challenging to discern and assess the impact of globalization, yet in his study, he observed that unemployment increased in Nigeria during the period of increased globalization.

It has been shown that the majority of research on the relationship between globalisation and the labor market focuses on how it affects unemployment and overall employment. However, in the related literature, there are many studies that examine the effect of trade openness (TO) and FDI on total employment-unemployment representing globalization until the 2010s. One of the most significant studies on this subject is that of Braunstein & Epstein (2004), which utilized data from 1986 to 1999 and encompassed 29 Chinese cities. Their findings indicated that FDI exerts a minimal impact on employment, whereas investments and foreign trade demonstrate a more pronounced positive effect. Furthermore, the study revealed that liberalization and exports within the context of globalization have a favorable influence on wages and employment. Chang (2007) examines

the connection between unemployment, FDI, and TO. The author finds that shocks to the degree of TO have positive effects on FDI inflows, while shocks to FDI inflows have a negative effect on the unemployment rate in Taiwan between 1981 and 2003. Dutt et al. (2009) argue that TO will reduce aggregate unemployment by increasing aggregate labor productivity, leading to more job opportunities. Similarly, Felbermayr et al. (2011) argue that aggregate unemployment decreases with trade liberalization, and boosts productivity by redistributing workers to businesses that are comparatively more productive. Vacaflores (2011) conducted an analysis of the impacts of FDI on labor in 12 South American countries between 1980 and 2006. Based on the favorable impact FDI has on the labor force composition of males, he came to the conclusion that FDI boosts employment. Cheema & Atta (2014) state that unemployment decreased as trade openness increased in Pakistan in 1973-2010.

Jude & Silaghi (2016) examined a study to ascertain the effect of FDI on employment in twenty CCE countries at 1995-2012. Findings from GMM show that FDI leads to creative destruction in labor markets. Additionally, due to competitive pressure, FDI has been demonstrated to result in a reduction in employment in the short term, but an increase in the long term. Gozgor (2017) examines whether the measures taken towards globalization in selected countries have an impact on structural unemployment. The findings indicate that while an increase in TO reduces structural unemployment by .6 points, there is no relationship between the KOF index and unemployment. In contrast, Sönmez & Özerkek (2018) did not identify a significant effect of TO on youth unemployment in their dynamic panel data analysis of 26 sub-regions in Türkiye using data from 2004 to 2013. In their study, Kpognon et al. (2020) show that, between 2002 and 2017, youth employment in Sub-Saharan African nations was positively and significantly impacted by trade openness and labor regulation rigidity. Sinha et al. (2022) examined 70 developing countries over the period 2001-2019 and concluded that digitalization, FDI and trade openness increased employment. Abdul-Mumuni et al (2023) conducted for the period 1991-2020 in SSA countries, the asymmetric relationship between TO and unemployment was examined. The findings of the study indicate that the positive impact of TO on unemployment in the long term is greater than its negative effect. Conversely, no significant effect was observed in the short run. Alfalih (2024) concluded that the increase in TO resulted in a decrease in unemployment in Saudi Arabia between 1991 and 2019. However, no significant long-term relationship could be detected between FDI and unemployment.

Subsequent studies on globalization have focused on the use of the KOF Globalization Index, constructed by Dreher (2006), to represent globalization. In the study by Dreher et al. (2008), this index was renewed, and a distinction was made between different proportions of globalization (Gygli et al., 2019, p. 544). The index is currently being updated and presents data for the period 1970-2021 for 203 countries, with numerous classifications. As a matter of fact, Malik et al. (2011), one of the important studies using the KOF Globalization Index to represent globalization, found that economic globalization, foreign direct investments, and remittances provided job opportunities in Pakistan, whereas TO and globalization had a negative impact on total employment. Awad & Youssof (2016) investigated how Malaysian unemployment was impacted by economic globalization. Using data for the period 1980-2014, the ARDL *f-test* findings suggest that an increase in globalization reduces unemployment in the long term. Daly et al. (2017) used data from 1980 to 2013 to examine how globalization affected Pakistan's unemployment rate. The ARDL findings indicate that while social and political globalization increases unemployment in the long term, economic globalization has the opposite effect. Musti (2018) examined the impact of globalization on employment in Nigeria in 1970-2013. The ARDL findings suggest that an increase in all three dimensions of globalization significantly increases employment. Conversely, Gozgor et al. (2019) employed the unbalanced panel method to test 92 economies in 2000-2016. The findings indicated that an increase in economic globalisation was associated with a reduction in public employment.

Awad (2019) used data from 50 African countries from 1994 to 2013 to examine how economic globalization affects youth unemployment. According to the study, economic globalization reduces youth unemployment, while labor market regulations and urbanization increase youth unemployment. Das & Ray (2020) examined the relationship between globalization and employment in South Asian countries over the period 1991-2016. No long-term relationship was found in most countries. It was found that the change in globalization index caused a change in employment only for Bhutan, while the change in employment caused a change in globalization for Maldives and Nepal. Mike (2020) examined the relationship between globalization and unemployment using GMM analysis for 23 developing countries over the period 1990-2016. According to the findings, while economic globalization and trade openness decrease unemployment, the relationship between FDI and unemployment is statistically insignificant. On the other hand, Prasetyo & Amar (2022) examines how globalization affects unemployment in ASEAN countries between 1996 and 2021 using GMM. The results show that economic globalization and trade openness increase unemployment. Dinga et al. (2023) peruses the impact of globalisation on employment and labor productivity in 33 African countries in 1990–2019. The results indicate that the explanatory variables have a positive effect on labor productivity and employment. Amoa-Gyarteng & Dhliwayo (2024) examined the relationship between globalisation, entrepreneurship development, and unemployment in Southern African countries during the period 2001–2021, using hierarchical regression analysis. Based on the results, as globalization increases, unemployment falls sharply, and globalization also promotes entrepreneurship. In literature, it is shown that opinions on how globalization affects employment and unemployment are not entirely in agreement. In addition, studies on youth unemployment seem to be rather limited.

Methodology and Findings

Methodology

This study aims to ascertain how globalization has affected young unemployment in Türkiye using time series analysis. For this purpose, due to time constraints, variables were created using annual data for the period 1988 - 2021. The KOF index used to represent globalization was obtained from the KOF Swedish Economic Institute and all other data were acquired from the World Bank dataset and their logarithms were taken.

The model established in this study, which examines the impact of globalization on youth unemployment, is based on Nickell et al. (2005) and Musti (2018);

$$LYOU_t = \alpha_1 + \alpha_2 LKOF_t + \alpha_3 LGDP_t + \alpha_4 LINF_t + \alpha_5 LURB_t + \alpha_6 LFDI_t + u_t \quad (1)$$

Where *LYOU* is the youth unemployment rate, *LKOF* is the overall index of globalization, *LGDP* is GDP per capita, *LINF* is inflation, *LURB* is urban population, *LFDI* is foreign direct investment and *u* is the error term.

In the analysis of empirical studies, stationarity tests are mainly used. In the stationarity of series, when a time series' mean and variance remain constant across time and its common variance between two periods is solely determined by their separation from one another, rather than the period during which it is computed, it is said to be stationary (Gujarati, 1999, p. 713). In this study, the levels of stationarity of the series are examined using the widely used ADF

(1981), PP (1988) and Kwiatkowski et al. (1992) - (KPSS) unit root tests. The ADF test equation is as follows.

$$V_t = \sigma_0 + \sigma_1 V_{t-1} + \sum_{i=1}^{m} \alpha_i \Delta_{t-1} + Y_t + u_t \quad (2)$$

Table 1. *Variables and Sources*

Variable	Definition	Source
LYOU	Unemployment, youth total (% of total labor force, 15-24)	World Bank
LKOF	KOF index (overall)	KOF Institute
LGDP	GDP per capita (constant 2015 US$)	World Bank
LINF	Inflation, consumer prices (annual %)	World Bank
LURB	Urban population	World Bank
LFDI	Foreign direct investment (% of GDP)	World Bank

The symbol Δ denotes the difference of the variable, V_t denotes the related variable, m denotes the lags of the explanatory variable added to the equation, σ and α denote the parameters, Y_t denotes the observed variable and u_t denotes the error term. In the PP test, a new assumption is made regarding the distributions between the error terms accepted in the ADF test. The autocorrelation and variance in the error term are corrected by the PP unit root test. The constant and constant-trend equations for the PP test are as follows:

$$\Delta Y_t = \beta + \delta y_{t-1} + u_t \quad (3)$$

$$\Delta Y_t = \beta + \delta y_{t-1} + \gamma trend + u_t \quad (4)$$

The null hypothesis (H_0) is rejected if the PP test statistic is higher than the crucial threshold. Similarly, in the KPSS test, which is another linear unit root test, if the value calculated using the Lagrange Multiplier (LM) test is greater than the critical value, the H_0 hypothesis is rejected, and the series is accepted to be stationarity. The LM statistic is calculated as follows (Kwiatkowski et al. 1992, pp. 162-163):

$$LM = \sum_{i=1}^{T} B_t^2 / \delta_\alpha^2 \quad (5)$$

The augmented ARDL (AARDL) test will be used in this study to ascertain the long- and short-run cointegration connection between the variables after the unit root tests. The ARDL bounds test, created by Pesaran et al. (2001), serves as the foundation for the augmented ARDL test.

The AARDL approach developed by McNown et al. (2018) and Sam et al. (2019), proposes an additional "*F*" bounds test ($F_{EX\text{-}BOUNDS}$) to the $F_{OV\text{-}BOUNDS}$ and t_{BOUNDS} tests. The null and alternative hypotheses of the $F_{EX\text{-}BOUNDS}$ test are "H_0: $\alpha 7$ ... $\alpha 9$ = 0" and "H_A: $\alpha 7$ ... $\alpha 9 \neq 0$". In testing the hypotheses, the $F_{EX\text{-}BOUNDS}$ statistical values will be compared with the lower and upper bound critical values calculated by Sam et al. (2019). The null hypothesis will be rejected in the event that the $F_{EX\text{-}BOUNDS}$ values are greater than the upper bound critical values, demonstrating the existence of a cointegration connection. Following the cointegration analysis and estimation of the long-term coefficients, the short-term coefficients are estimated using the unrestricted error correction model (UECM) (Pata & Caglar, 2021, p. 6; Balkı, 2023, p. 36). The mathematical form of the UECM equation, adapted to this study, is presented in equation (6).

$$\Delta LYOU_t = \omega_0 + \omega_1 DUM_t + \sum_{i=1}^{p} \omega_{2i} \Delta LYOU_{t-i} + \sum_{i=0}^{p} \omega_{3i} \Delta LKOF_{t-i} + \sum_{i=0}^{p} \omega_{4i} \Delta LGDP_{t-i} + \sum_{i=0}^{p} \omega_{5i} \Delta LINF_{t-i} + \sum_{i=0}^{p} \omega_{6i} \Delta LURB_{t-i} + \sum_{i=0}^{p} \omega_{7i} \Delta LFDI_{t-i} + \gamma ECT_{t-1} + u_t \quad (6)$$

where "Δ" is the difference operator, "ω_0" is the constant term, "ω_1, ω_2, ω_3, ω_4, ω_5, ω_6, ω_7" are the short-run coefficients, "*p, s, c, b, j, k*" are the lag lengths, "*DUM*" stands for possible structural breaks (dummy variables), "α_1" stands for the coefficient of the dummy variable, "*ECT*" stands for the error correction term, "γ" stands for the coefficient of the error correction term and "*u*" stands for the error term.

Findings

In studies involving econometric analysis, the PP and KPSS unit root tests are frequently employed to determine the stationarity of the series. Consequently, this study also utilizes these tests to determine stationarity.

Table 2. *Unit Root Tests Results*

Variables		PP		KPSS	
		I(0)	I(1)	I(0)	I(1)
LYOU	c	-1.480	-6.201*	1.914	**.061**
	c & t	-2.670	-6.030*	.159	**.047**
LKOF	c	-2.561	-5.074*	1.624	**.391**
	c & t	-1.197	-5.827*	.287	**.043**
LGDP	c	1.769	-6.254*	1.741	**.154**
	c & t	-2.411	-7.633*	.287	**.034**
LINF	c	-1.190	-4.843*	.586	**.199**
	c & t	-.824	-4.868*	**.124**	**.142**
LURB	c	-5.498*	-4.348*	1.915	**.405**
	c & t	-6.033*	-8.906*	.154	**.130**
LFDI	c	-7.740*	-5.652*	.604	**.362**
	c & t	-12.604*	-6.338*	.171	**.137**

Note: * sign has defined the significance level of 1%. In addition, *c* stands for constant, and *c&t* stands for constant and trend.

In Table 2, according to the PP test, the * sign indicates that the variable is stationary at 1% significance level, while in the KPSS test, the stationarity of the variable is indicated in bold. Here, it is seen that the explained variable *LYOU* is stationary at 1st difference according to both PP and KPSS tests. Other variables are stationarity at level or first difference according to both tests. Therefore, this situation allows for a bounds test by applying the ARDL method. Once a long-term relationship is identified in the bounds test, it is possible to estimate the long and short-term coefficients. This is illustrated by various models in Figure 1 below.

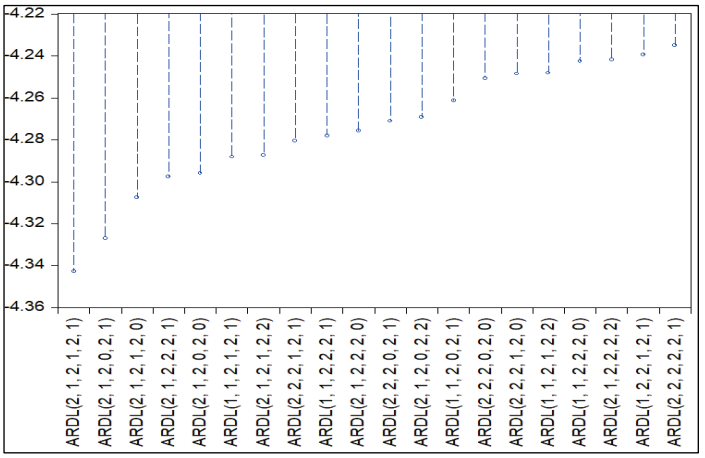

Figure 1. *Akaike Information Criteria (AIC)*

Figure 1 indicates that the optimal model, as determined by the AIC, is the (2,1,2,1,2,1) model. Thus, Table 3 presents the F_{ov}, t_{bo} and F_{ex} test statistic results for the augmented ARDL cointegration test with unrestricted constants and no trend, critical values and diagnostic test

results indicating the robustness of the model. According to the diagnostic tests, the results of the tests for variance, autocorrelation, normality and model specification indicate that the model is statistically reliable. In addition, according to the CUSUM tests, the parameter estimation of the series meets the stability condition.

Table 3. *Augmented ARDL Cointegration Test Results*

Model $LYOU_t$= $LKOF_t$, $LGDP_t$, $LINF_t$, $LURB_t$, $LFDI_t$	***F Stat. Values***	***Critical values and reference ranges***		
ARDL Model	F_{ov}: 8.359*	*Narayan (2005)*		
(2,1,2,1,2,1)		*%10*	*%5*	*%1*
		3.797	*4.499*	*6.211*
	t_{bo}: -5.737*	*Peseran et al (2001)*		
		%10	*%5*	*%1*
		-4.04	*-4.38*	*-4.99*
	F_{ex}: 9.694*	Sam et al (2019)		
		%10	*%5*	*%1*
		3.60	*4.34*	*6.12*

Diagnostic Tests	***F Statistic***	***P value***
Jarque-Bera	*1.303*	*.521*
B-G Serial Correlation	*1.048*	*.375*
Heteroskedasticity Test	*.890*	*.582*
Ramsey RESET Test	*.754*	*.398*
CUSUM	*Stable*	
CUSUMQ	*Stable*	

Note: * sign has defined the significance level of 1%.

According to Table 3, the *Fov* test statistic value, which represents the F test for all variables included in the model, the *Fex* test statistic value, which represents the F test for lagged explanatory variables only, and the *tbo* test statistic value, which represents the t test for lagged explained variable, reject the null hypotheses at the 1% level. Accordingly, all three test statistics are significant in the augmented ARDL model. This proves the cointegration relationship between *LYOU* and other variables.

Table 4. *Augmented ARDL Model Estimation Results*

Depented Variable: LYOU			
Long-run			
Variable	**Coefficient**	**Std. Error**	**Prob.**
LKOF	-2.470	.402	*p*<.001*
LGDP	-.429	.131	.005*
LINF	-.114	.012	*p*<.001*
LURB	2.439	.264	*p*<.001*
LFDI	-.225	.019	*p*<.001*
C	-1.954	1.221	*p*<.001*
Short-run			
$\Delta LYOU_{t-1}$	-.212	.095	.040**
$\Delta LKOF$	-.211	.465	.655
$\Delta LGDP$	1.429	.197	*p*<.001*
$\Delta LGDP_{t-1}$	-.834	.223	.002*
$\Delta LINF$	-.155	.028	*p*<.001*
$\Delta LURB$	-7.066	3.965	.093***
$\Delta LURB_{t-1}$	-19.655	4.026	*p*<.001*
$\Delta LFDI$	-.169	.020	*p*<.001*
ECT(-1)	**-.845**	**.101**	***p*<.001***

Note: *, **, *** denote statistical significance levels of 1%, 5% and 10%, respectively.

Once the existence of a cointegration relationship betwen the variables has been identified and the model has been established in a satisfactory manner, it is possible to proceed with augmented ARDL model to the determination of the long- and short-run coeffcients. The resulting coefficients are presented in Table 4.

According to Table 4, all variables are statistically significant. In the long run, increases in globalization *(LKOF)*, economic growth *(LGDP)*, inflation *(LINF)* and foreign direct investment *(LFDI)* decrease youth unemployment *(LYOU)*, while increases in urbanization *(LURB)* increase it. Furthermore, in the short term, there is no statistically significant relationship between globalization (LKOF) and youth unemployment (LYOU). Moreover, the value of *ECT(-1)*, which represents the coefficent of the error correction model, is negative but also significant. Accordingly, if there is a short-term deviation in the model, approximately 85% of these deviations are eliminated in the first period and the long-term equilibrium is approached.

Conclusion and Recommendation

The state of the labor force in a country is a crucial indicator of the country's economic performance. As a result, it is carefully monitored by those who manage economic policy. An increase in unemployment, which is defined as the underemployment of labor, causes the output level of an economy to remain below its potential, resulting in a loss of production for the entire society. With the intensification of globalization for nearly half a century, fluctuations in unemployment figures have prompted researchers to examine this relationship. The unemployed are subject to various classifications. Among these classifications, young people are more affected by employment vulnerability in the context of changing labor market flexibility in the globalization process. This has been the starting point for this study.

The aim of this study is to evaluate the impact of globalization on youth unemployment in Türkiye. Within this framework, the research investigates how globalization has affected youth unemployment in Turkey between 1988 and 2021. The limited number of studies on the effect of globalisation on youth unemployment increases the importance of this study. The findings of the study indicate that globalisation, economic growth, inflation, and foreign direct investments will decrease youth unemployment in Türkiye in the long run. A noteworthy outcome is that the impact of globalisation on reducing youth unemployment is considerably greater than GDP per capita. The inclusion of social and political effects in addition to the economic dimension of the KOF index renders this variable almost a development indicator. In this regard, particularly in developing countries, the increase in the KOF index is slower than the increase in economic growth. As a matter of fact, while the KOF index increased by approximately 40% between 1988 and 2021 in Türkiye, GDP per capita increased by approximately 170%. Another point of contention is that economic growth in Türkiye has not resulted in job creation. Furthermore, the study revealed that an increase in urbanization is correlated with an increase in youth unemployment. This finding aligns with the conclusions of Awad (2019) and Hjazeen et al. (2021) in the academic literature.

Youth unemployment is seen as a crucial economic and social problem that requires countries to develop policies to address this problem. While orthodox monetary and fiscal policies can stimulate economic growth, international capital mobility policies can enhance employment by expanding production and providing financing. Enhancing human and physical investment to reduce youth unemployment can help mitigate fluctuations in labor demand in Türkiye. This should be considered by policymakers and national and international investors. Furthermore, it would be beneficial for researchers engaged in further studies on this topic to concentrate on

the regional effects.

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Genişletilmiş Özet

Küreselleşme yaklaşık yarım asırdır akademisyenler ve politika yapıcılar arasında önemli bir tartışma konusu olmuştur. Bazıları küreselleşmenin küresel ekonomik sorunları çözebileceğini savunurken, diğerleri bu sorunları daha da kötüleştirdiğine inanmaktadır. Bu zıt yaklaşımlar, küreselleşmeyi ülkelerin refahı ve küresel ekonomik zorlukların ele alınmasında popüler bir konu haline getirmektedir.

Küreselleşme sürecinde işsizlik rakamlarındaki meydana gelen dalgalanmalar araştırmacıları bu ilişkiyi incelemeye sevk etmiştir. İşsizler, çeşitli sınıflandırmalara tabidirler. Bu sınıflandırma arasında yer alan gençler, küreselleşme sürecinde değişen iş gücü piyasası esnekliği bağlamında istihdam kırılganlığından daha fazla etkilenmektedirler. Bu durum, bu çalışmanın ortaya çıkmasında hareket noktası olmuştur.

Bu çalışmanın amacı küreselleşmenin genç işsizlik üzerindeki etkisini tespit etmektir. Bu kapsamda çalışma Türkiye özelinde küreselleşmenin genç işsizliği üzerindeki etkisini 1988-2021 dönemi için araştırmaktadır. Küreselleşmenin genç işsizlik üzerindeki etkisinin kısıtlı sayıda çalışılmış olmasının, bu çalışmanın önemini artırdığı düşünülmektedir. Çalışmanın bulguları, küreselleşme, ekonomik büyüme, enflasyon ve doğrudan yabancı yatırımların uzun vadede Türkiye'de genç işsizliği azaltacağına işaret etmektedir. Dikkat çekici bir sonuç, küreselleşmenin genç işsizliğini azaltmadaki etkisinin kişi başına düşen GSYH'den önemli ölçüde daha fazla olmasıdır. KOF endeksinin ekonomik boyutunun yanı sıra sosyal ve siyasi etkileri de içermesi, bu değişkeni adeta bir kalkınma göstergesi haline getirmektedir. Bu bağlamda, özellikle gelişmekte olan ülkelerde KOF endeksindeki artış ekonomik büyümedeki artıştan daha yavaş gerçekleşmektedir. Nitekim Türkiye'de 1988-2021 yılları arasında KOF endeksi yaklaşık %40 artarken, kişi başına düşen GSYH yaklaşık %170 artmıştır. Bir diğer tartışma konusu da Türkiye'deki ekonomik büyümenin istihdam yaratma ile sonuçlanmamış olmasıdır. Bununla birlikte çalışmadaki bir diğer sonuç, kentleşmedeki artışın genç işsizliği artırdığı yönündedir. Bu sonuç literatürde Awad (2019) ve Hjazeen vd., (2021) ile uyumludur. Ayrıca kurulan modelde kısa dönemde bir sapma meydana gelmesi halinde, söz konusu sapmaların yaklaşık %85'i ilk dönem itibariyle ortadan kalkmakta ve uzun dönem dengesine doğru yaklaşmaktadır.

Genç işsizlik konusu, ülkelerin bu soruna yönelik politikalar geliştirmesini gerektiren önemli bir ekonomik ve sosyal sorunlardan biri olarak görülmektedir. Ekonomilerde uygulanan Ortodoks para ve maliye politikaları ekonomik büyümeyi artırabilirken, uluslararası sermaye hareketliliği politikaları üretimi genişleterek ve finansman sağlayarak istihdamı artırabilir. Türkiye'de genç işsizliğini azaltmak amacıyla beşerî ve fiziki yatırımların genişletilmesi, iş gücü talebindeki dalgalanmaların giderilmesinde yardımcı olabilir. Bu durum gerek politika yapıcılar gerekse ulusal ve uluslararası yatırımcılar tarafından dikkate alınmalıdır. Ayrıca bu konu üzerindeki çalışmalarını genişletecek araştırmacıların bölgesel etkiler üzerinde durmalarının yararlı olacağı düşünülmektedir.