## Arastırma Makalesi / Research Article

# Does Financial Development Enhance Economic Growth? The Case of Turkic Countries\*

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#### **Abstract**

In this study, we investigate whether financial development enhances economic growth in Turkic countries, namely, Azerbaijan, Kazakhstan, Kyrgyzstan, and Türkiye from 1995 to 2017. The financial development index is obtained from the International Monetary Fund to proxy for the level of financial development. The index shows the level of development of financial institutions and financial markets in terms of depth, access, and efficiency. The annual percentage growth rate of GDP per capita based on constant local currency is taken as an indicator of economic growth. The main result of the analysis shows that there is a positive relationship between financial development and economic growth. The result is robust using random effect regression, adding inflation, and including Banking Z Score. However, the main impact can be seen in the financial institution instead of the financial market proxy. The results support the supply-leading hypothesis for the economies of four Turkic countries.

## **Keywords**

Financial development, economic growth, Turkic countries, financial institutions, financial markets.

Date of Arrival: 01 June 2022 - Date of Acceptance: 12 December 2022

You can refer to this article as follows:

Çetenak, Emin Hüseyin, Özkan Haykır, and Özlem Öztürk Çetenak. "Does Financial Development Enhance Economic Growth? The Case of Turkic Countries." bilig, no. 106, 2023, pp. 55-76.

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#### Introduction

The financial development and economic growth nexus are well-addressed in the economics literature. A strand of literature claims that financial development is essential for economic growth (Levine, Financial Development 688). A strong financial system is considered one of the fundamental pillars that can support long-term economic growth (Demirgüç-Kunt 19). Another strand of literature asserts that financial development is not the main driver of economic growth (Lucas 40). Thus, the finance-growth nexus remains one of the main areas that generates many discussions in the economic development literature.

Despite the intensity of academic studies regarding the impact of financial development on economic growth in developed economies, the impact of financial development on Turkic countries remains unanswered. The paper aims to fulfill this gap by investigating whether financial development affects economic growth in four Turkic countries, specifically Azerbaijan, Kazakhstan, Kyrgyzstan, and Türkiye from 1995 to 2017. The contribution of the study is twofold: (i) to discover the impact of financial development on economic growth in Turkic countries which are considered emerging markets and transition economies with high growth potential, and (ii) to investigate which components of the financial development index has an impact on economic growth.

Two main theories explain the link between financial development and economic growth. In traditional growth theory, the growth rate is a beneficial effect of exogenous technological advancement. Traditional growth theory suggests that financial development is only related to the ratio of physical capital per worker, so it does not support economic growth (Pagano 613). On the other hand, pioneered by Solow, the endogenous growth theory claims that the performance of economic growth is correlated with technology, human capital, public goods, international trade, income distribution, and financial development.

Patrick (174) proposed two mainstream views regarding the link between financial development and economic growth. The first mainstream hypothesis called the supply-led view reveals that financial development is the main driver of economic growth. Ağayev (156) determines that enhancing the financial system helps to transfer the resources from traditional sectors to the innovative sector which leads to higher economic growth for a country. On the other hand, the demand-led view, the second mainstream hypothesis, suggests that economic growth increases the demand for the financial system to be developed. Prior empirical studies determine that the relationship between financial development and economic growth depends on the structural characteristics of the countries as well as the sample period examined in studies (Öztürk et al. 54). Studies suggest that the supply-leading hypothesis is generally valid in developing or underdeveloped countries, and the demand-following hypothesis is valid in developed or industrialized countries (Jung 333-346; Calderon and Liu 321-334). Therefore, it is essential to determine the effect of financial development on economic growth in Turkic countries.

Although the effect of financial development on economic growth is wellrecognized in development economics studies, it is important to determine which aspect of financial development, institution, or market side, leads to economic growth. On the one hand, banks are essential players in mobilizing savings, allocating money, monitoring corporate managers' investment choices, and offering risk management tools in countries with a bank-based financial system that infers the institution aspect of the financial development. On the other hand, stock markets and banks share the spotlight for channeling individual savings to businesses, exercising corporate governance, and facilitating risk management in market-based financial systems. The current study concentrates on this aspect and uses the financial development index proposed by the International Monetary Fund (IMF). The index is formed based on two main components, financial institutions, and financial markets which allow us to understand which aspect of financial development contributes to economic growth. This is particularly important since financial development is relatively new in these countries and regulations for international financial integration are observed intensively in these countries in the sample period of the study.

The paper proceeds as follows: Section 2 discusses the prior studies, Section 3 explains the data and econometric methodology, Section 4 presents the empirical results, and Section 5 concludes the paper.



#### Literature Review

Schumpeter (1911) carried out the first study to question the relationship between financial development and economic growth. According to Schumpeter, financial intermediaries play an important role in increasing efficiency in the financial system by reducing transaction costs, enabling risk-sharing, and reducing adverse selection and moral risk problems caused by asymmetric information to accelerate economic growth. Most of the empirical studies support Schumpeter's view and show that a raise in financial development increases economic growth (King and Levine 717-737; Levine and Zervos 537-558; Beck et al. 423-442; Levine et al. Financial intermediation 31-77; Christopoulos and Tsionas 55-74; Hsueh et al. 294-301). However, several studies argue that the effect of financial development on economic growth depends on certain conditions such as income level (Arestis and Demetriades 790; Shan and Morris 153; Shan et al. 443).

In this study, we compile the existing literature into four groups. The first group of studies supports the supply-led view of Patrick (174-189) which suggests that financial development enhances economic growth. The second group of studies argues that economic growth is essential for financial development which is called the demand-led view of Patrick (174-189). The third group of studies empirically shows that there is a bi-directional relationship between financial development and economic growth. The last group of studies claims that there is an insignificant relationship between financial development and economic growth (Lucas 41).

Notwithstanding the mixed results of the link between financial development and economic growth, the topic is still the center of economic and finance literature. An immense literature has supported the supply-led hypothesis proposed by Patrick (174-189). Using the panel analysis method, Müslümov and Aras (90) find that financial development amplifies the economic growth of OECD countries over the 1982-2000 period. Examining 74 countries, Levine at all. (Financial intermediation 31) show that financial development increases economic growth by adopting the Generalized Method of Moments (GMM) panel estimation technique for 1960-1995. Beck and Levine (423) also implement GMM panel estimation for the period between 1976 and 1998 for 40 countries and conclude

that financial development has a positive effect on economic growth. Shahbaz (24) examines the relationship between financial development, economic growth, and income inequality in Pakistan and finds that there is a positive relationship between financial development and economic growth. Moreover, Nkoro and Uko (87) determine that development in the financial sector has a positive effect on economic growth in Nigeria using Error Correction Model (ECM) with an annual series covering the period 1980-2009.

Given that the supply-led hypothesis is mostly supported by empirical studies, the demand-led hypothesis is also found in prior studies. Adopting the Panel Vector Error Correction Model (VECM) over the period 2002-2016 for the fragile five countries, Helhel (761) supports that economic growth increases financial development. Ozturk et al. (66) determine that causality runs from economic growth to financial development using the Holtz-Eakin, Newey, and Rosen panel causality test for nine developing economies for the period of 1992-2009.

Numerous studies suggest that there is a bi-directional relationship between financial development and economic growth. The results of Andres et al. (941) indicate the bi-directional relationship employing panel data analysis for OECD countries over the period 1961-1993. Pehlivan Jenkins and Katırcıoğlu (1699) investigate the direction of causality between financial development, international trade, and real income growth in Cyprus using the Granger causality test and determine the bi-directional causality relationship between real income and financial development. Kyophilavong et al. (303) use the boundary test approach in the cointegration analysis (ARDL) for Laos and conclude that while financial development leads to economic growth, economic growth also feeds financial development.

According to many studies in literature, the relationship between financial development and economic growth may differ between countries or periods. According to Lucas (6), financial issues do not have to come to the fore in many popular debates. Using 95 countries around the world, Ram (164) points out that a weak relationship between financial development and economic growth exists. In addition, Ram (164) claims that country basis results do not support the results of country groups. Analyzing 19 OECD countries and China over the period 1985-1998, Shan and Morris (153) find an insignificant relationship



between financial development and economic growth using Toda and Yamamoto (1995) causality test procedure. Öztürk (85) investigate the causality relationship between financial development and economic growth in Türkiye using data from the 1975-2005 period. The results of the cointegration analysis show that there is no long-term relationship between financial development and economic growth, while the causality relationship runs from economic growth to financial development in a short period. Gries et al. (1849) test the causality relationship between financial deepening, trade openness, and economic development for 16 sub-Saharan African countries using the Hsiao-Granger method and find no relationship between financial deepening and economic growth. Using the data between 1998-2009 for Türkiye, Güneş (73) finds that there is no causal relationship between financial development and economic growth. Using the data for 52 middle-income countries over the period 1980-2008, Samargandi et al. (66) find an insignificant relationship between financial development and economic growth.

Even though vast literature on the nexus between financial development and economic growth, only a few studies focus on Turkic countries. Türkoğlu (84), using the Granger causality test for the period 1960-2013, reveals that there is a bi-directional causality between financial development and economic growth in the Turkish economy. Kumar et al. (95) examine the financial development economic growth nexus for Kyrgyzstan and Macedonia using Granger causality analysis and find that the effect of financial development on economic growth in Kyrgyzstan is negative. In a panel of six Turkic countries, Tufaner (126) uses the panel causality test and reveals that there is no relationship between financial development and economic growth over the period 1998-2017.

# Data and Methodology

This paper aims to highlight the effect of financial development on economic growth in four Turkic countries. The purpose of the study is twofold: (i) to investigate whether financial development enhances economic growth, and (ii) to determine whether the financial institution or financial market aspect of financial development affects economic growth. To reach the aim of the study, first, we examine cross-sectional dependency and the stationary of the variables. Based on the results of the dependency and stationary tests, we implement panel estimation models.



The sample includes available data in four Turkic countries; namely, Azerbaijan, Kazakhstan, Kyrgyzstan, and Türkiye from 1995 to 2017. We use three sources of a database. Gross domestic product per capita growth, gross fixed capital formation (% of GDP), trade openness (% of GDP), employment, and inflation are retrieved from the "World Development Indicator" database published by World Bank. Employment variable is constructed based on total labor force of a country divided by the population of the country in each year. Bank Z Score is obtained from the "Global Financial Development" database published by the World Bank. The financial development indicator and its components are from the "Financial Development Index Database" constructed by the International Monetary Fund. Detailed descriptions and the list of the variables are shown in Table 1.

**Table 1**List of Variables

Variables	Description
GGDP per-capita	The annual percentage growth rate of GDP per capita is based on constant local currency.
Capital Formation	Gross fixed capital formation (% of GDP) is a proxy for the quantity of capital in a country.
Openness	Trade openness (% of GDP) is the sum of exports plus imports.
Employment	The total labor force of a country is divided by the population of the country.
Inflation	Inflation rate for macroeconomic stability.
Z Score	Bank Z Score captures the probability of default of a country's banking system.
Financial Development	The financial development index shows the level of development of financial institutions and financial markets in terms of depth, access, and efficiency.
FD institution	As a component of the financial development index, it captures the depth, access, and efficiency of the financial institution of a country mainly the banking sector.
FD market	As a component of the financial development index, it captures the depth, access is captured and efficiency of the financial markets of a country mainly stock markets.



The basic aggregated production function is as follows;

$$Y_t = f(L_t, K_t) \tag{1}$$

where  $Y_t$  stands for output (which is GDP in our case),  $L_t$  refers to the quantity of labor force and  $K_t$  is the quantity of capital formation in each country. Therefore, the output is a function of the labor force and capital formation in a country. The larger the labor force and capital formation the greater the output.

To analyze the effect of financial development on financial growth, we employ an augmented production function in a panel data framework and estimate the following regression model:

$$GGDP_{ii} = \beta_0 + \beta_1 L_{ii} + \beta_2 K_{ii} + \beta_3 FD_{ii} + \gamma X_{ii} + \varepsilon_{ii}$$
 (2)

where the dependent variable  $GGDP_{ii}$  is the annual percentage growth rate of GDP per capita,  $L_{ii}$  is the total labor force of a country divided by the population of the country,  $K_{ii}$  defines as gross fixed capital formation (% of GDP) is a proxy for the quantity of capital in a country, and  $FD_{ii}$  is the financial development index and  $X_{ii}$  consists of the control variables (, trade openness, and crisis dummy). Since the countries that we have used in our analysis are emerging countries they are affected by the 2008 financial crisis. As we know the financial crisis begins mid-2007, we construct a dummy variable that is equal to one if the year is 2008 or above and zero otherwise.

Table 2 presents the summary statistics of the variables in the sample. The mean and the median of the variable are very close which suggests that the normality assumption of the Ordinary Least Square Estimation (OLS) is met. The average growth rate of the four countries between 1995 and 2017 is 4.39% and in the same period, the average financial development index is 25%. Trade openness is around 80%, which suggests that there is a large dependency between these four countries in terms of trade. The average inflation is 20.98% which is very high compared to the world average inflation rate during the same period which is 3.68%.

**Table 2**Summary Statistics

Variable	Obs	Mean	Median	Std. Dev.	Min	Max
GGDP	92	4.3956	4.3300	6.3559	-12.8099	32.9970
Employment	92	0.4423	0.4452	0.0654	0.3234	0.5346
Capital Formation	92	24.8615	23.9286	7.2510	12.3901	57.7102
Financial Development	92	0.2535	0.2164	0.1316	0.0740	0.5190
Trade Openness	92	80.3812	78.6818	26.6315	37.4016	146.1061
Inflation	92	20.9875	8.0734	48.5563	-8.5251	411.7596
Z Score	86	9.6071	7.9764	6.1888	0.4227	27.0351

#### **Empirical Results**

Prior to our main regression methodology, we first examine the cross-sectional dependence of the countries. We adopt the Pesaran cross-sectional dependency analysis and get a coefficient of 0.611 with a p-value of 0.5413. The result indicates that there is no cross-sectional dependency in our regression. As a second analysis, we have investigated the stationary of our variables and have implemented the Levin, Lin, and Chu (LLC) panel unit root test. According to the test result, we reject the null hypothesis for our variables. In other words, all of our variables are stationary at their levels, I (0). Therefore, we decide to use a Pooled OLS regression model throughout the paper.



**Table 3**Main Result-Pooled OLS Regression

Dependent Variable: GGDP			
	Coefficient	p-value	
Employment	0.1815**	0.032	
Capital Formation	0.0026**	0.013	
Financial Development	0.1015**	0.039	
Trade Openness	0.0004**	0.039	
Crisis	-0.0462***	0.000	
Constant	-0.1449**	0.017	
R-squared	0.2152		
F-statistic	3.64*** (0.004)		
Number of Observation	92		

Notes: The standard errors were estimated with White's correction approach for heteroscedasticity. \*, \*\*, and \*\*\* show significance levels at 10, 5, and 1 percent, respectively.

Table 3 presents the results of our main regression. The coefficient of financial development is positive as suggested by earlier papers. It suggests that a one-unit increase in the financial development index leads to a 0.10 percent increase in GDP growth. This supports the supply-led hypothesis that financial development improves economic growth. If we turn our attention to our control variables, the coefficients of capital formation, trade openness and employment are positive and statistically significant either a five or one percent level of significance suggesting that more capital formation brings higher economic growth and similarly more employment helps the economic growth of a country. The striking results can be seen in the crisis dummy variable, it is significant at a one percent level and has a negative coefficient. It is shown that the global economic crisis is detrimental to the economic growth of the countries.

We also adopt the random and fixed effect regression estimations to show that the results are very similar to pooled OLS regression. The Hausman test result has a 9.24 Chi-squared with a 0.0997 p-value which suggests that we should use the random effect. Thus, we decide to report only random



effect regression. Table 4 presents the random effect regression results. The coefficients do not change, and the p-values are very close to our main analysis in Table 3.

**Table 4**Main Result-Random Effect

Dependent Variable: GGDP			
	Coefficient	p-value	
Employment	0.1815**	0.045	
Capital Formation	0.0026***	0.000	
Financial Development	0.1015***	0.008	
Trade Openness	0.0004*	0.097	
Crisis	-0.0462***	0.000	
Constant	-0.1449***	0.000	
R-squared	0.2152		
Number of Observation	92		

Notes: The standard errors were estimated with White's correction approach for heteroscedasticity. \*, \*\*, and \*\*\* show significance levels at 10, 5, and 1 percent, respectively.

## Robustness Analysis

In the main analysis section, we include the main control variables that economic theory and prior literature suggest; however, some other covariates may also have an impact. Even though prior studies suggest that inflation is harmful to economic growth, the relationship is still ambiguous (Barro 85). Thus, it is important to control inflation while examining the nexus between financial development and economic growth. As a robustness analysis, we include inflation as an additional control variable for our main analysis. Table 5 presents the results of the regression with controlling inflation. Even though the level of significance of the financial development index is lower than before the magnitude is close to the main result. The financial development index is still positive and significant at the 10 percent level. The coefficient of capital formation and employment is positive and significant. The 2008 financial crisis dummy still harms economic growth.



The inflation is also negative, and significant at a one percent level. It also increases the power of our model specification.

**Table 5**Controlling Inflation

Dependent Variable: GGDP				
	Coefficient	p-value		
Employment	0.1225*	0.097		
Capital Formation	0.0020**	0.035		
Financial Development	0.0717*	0.077		
Trade Openness	0.0003	0.101		
Crisis	-0.0530***	0.000		
Inflation	-0.0004***	0.000		
Constant	-0.0774	0.128		
R-squared	0.3316			
F-statistic	10.48*** (0.000)			
Number of Observation	92			

Notes: The standard errors were estimated with White's correction approach for heteroscedasticity. \*, \*\*, and \*\*\* show significance levels at 10, 5, and 1 percent, respectively.

The second robustness analysis is to control the operation of the banking system. To do that we use the Bank Z Score which captures the probability of default of a country's banking system. Thus, we expect a negative relationship between Bank Z Score and economic growth. Table 6 shows the results of the regression with Bank Z Score and earlier control variables. As we can see that the number of observations in this analysis is less than the prior ones. Six missing variables mainly come from the beginning of our sample period. The effect of financial development on economic growth is positive and significant. Also, the 2008 financial crisis is negative and significant. Bank Z Score is also negative and significant at the 10 percent significance level.



**Table 6**Banking Sector Default

Dependent Variable: GGDP			
	Coefficient	p-value	
Employment	-0.0833	0.574	
Capital Formation	0.0006	0.586	
Financial Development	0.0704*	0.091	
Trade Openness	0.0010**	0.021	
Crisis	-0.0529***	0.000	
Inflation	-0.0006**	0.012	
Z Score	-0.0029*	0.079	
Constant	0.0335	0.686	
R-squared	0.3065		
F-statistic	3.97***		
	(0.009)		
Number of Observation	86		

Notes: The standard errors were estimated with White's correction approach for heteroscedasticity. \*, \*\*, and \*\*\* show significance levels at 10, 5, and 1 percent, respectively.

To achieve the second aim of the paper, we separate the two components of the financial development index. The financial development index is constructed using financial institutions and financial markets data together. However, as we know, only one country has developed a financial market of four countries in our sample. Therefore, it is worth analyzing to understand which component of the financial development index has more influence on economic growth. The financial institution index captures the depth, access, and efficiency in the financial institution of a country, mainly the banking sector. On the other hand, the financial market index captures the depth, access is captured and efficiency of the financial markets of a country, mainly stock markets.

Table 7 reports the results of two components of the financial development index separately. Panel A of Table 7 shows only the financial institution index and Panel B of Table 7 shows the financial market index. As we anticipate the financial institution index is positive and significant at a one percent level. On the contrary, the financial market index is positive but insignificant.



This is because the financial markets of Azerbaijan, Kazakhstan, and Kyrgyzstan are not well-developed. The financial crisis dummy is negative and significant as inflation. Trade openness is also positive and significant.

**Table 7**Comparison between Components of the Financial Development Index

Dependent Variable: GGDP					
	Panel A:		Panel B:		
	Financial Insti	tution Index	Financial Market Index		
	Coefficient	p-value	Coefficient	p-value	
Employment	0.0113	0.874	0.0919	0.203	
Capital Formation	0.0005	0.553	0.0021**	0.030	
FD Institution	0.3572***	0.002			
FD Markets			0.0065	0.831	
Trade Openness	0.0010**	0.012	0.0002	0.327	
Crisis	-0.0908***	0.000	-0.0487***	0.000	
Inflation	-0.0004**	0.000	-0.0004***	0.000	
Constant	-0.0995*	0.057	-0.0364	0.457	
R-squared	0.4099		0.3216		
F-statistic	12.17*** (0.000)		11.49*** (0.000)		
Obs.	92		92		

Notes: The standard errors were estimated with White's correction approach for heteroscedasticity. \*, \*\*, and \*\*\* show significance levels at 10, 5, and 1 percent, respectively.

Overall, the main analysis and the robustness analyses show that financial development enhances economic growth in four Turkic countries. One unit increase in the financial development index helps economic growth increase to around 0.07 to 0.10 percent. The result is robust when we control inflation and the probability of default of countries' banking systems. In addition, the positive effect mainly comes from the financial institution components of the financial development index rather than financial market components.



#### Conclusion

Financial development and economic growth nexus have been the center of macroeconomics and finance literature for a long time. The financial system, with its instruments, intermediaries, regulations, and markets, has an important place in the economic system and creates various effects on economic growth by transferring resources from those with surplus funds to those with a fund deficit. As a dominant view in the economics literature, the existence of the financial sector leads to the reduction of the asymmetric information problem and the transfer of funds in the economy to more efficient and effective areas. According to this view, the existence of the financial sector reduces market friction caused by asymmetric information and allows the markets to operate more effectively. Well-functioning, efficient financial markets based on a well-developed legal basis can have the power to influence economic growth (Levine, "The Corporate Governance" 35; La Porta et al. 1115).

This paper contributes to the topic by examining the Turkic countries, namely, Azerbaijan, Kazakhstan, Kyrgyzstan, and Türkiye from 1995 to 2017. The main result of the analysis shows that financial development enhances economic growth in Turkic countries. The result is robust using random effect regression, adding inflation, and Banking Z Score. More importantly, the findings of the paper show that the main channel of transmission from financial development to economic growth comes from the financial institution side rather than the financial market side.

Countries other than Türkiye included in the sample gained their independence in 1991 with the disintegration of the USSR. For this reason, both the real and financial sectors remain rather weak in these economies, which were governed by the rules of the Socialist system and depended on the Russian economy for many years. These countries, which could not get out of the Ruble area even after declaring their independence, were affected by the economic problems in Russia while experiencing the pain of transition to the market system. In the intervening 30 years, market economy conditions have not been fully achieved in these countries. In addition, a banking system-based financial system has emerged in these countries. Capital markets are still underdeveloped. Existing banking systems are open to development in terms of institution and instrument



diversity. Overall, the findings suggest further development of the financial system is vital for increasing the economic growth of Turkic countries. Therefore, governments should continue to enhance the financial system, especially financial institutions to have higher economic growth.

One of the main limitations of the study is the sample period. Since the countries gain their independence in 1991, the data starts afterward. Thus, this limits the sample period for the study. Secondly, the data availability is limited for Turkmenistan and Uzbekistan; hence, the sample does not cover all the Turkic countries. As a future study, one may adopt different econometrics techniques and try to include other countries by obtaining data from different sources.

#### **Contribution Rate Statement**

The authors' contribution rates in this study are equal.

#### **Conflict of Interest Statement**

There is no conflict of interest with any institution or person within the scope of this study. There is no conflict of interest between the authors.

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# Finansal Gelişme Ekonomik Büyümeyi Artırır mı? Türk Cumhuriyetleri Örneği\*

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Öz

Bu çalışmada, 1995-2017 yılları arasında Türk Cumhuriyetleri olarak anılan Azerbaycan, Kazakistan, Kırgızistan ve Türkiye örnekleminde finansal gelişme ve ekonomik büyüme arasındaki ilişki analiz edilmiştir. Analizde finansal gelişmişlik düzeyi göstergesi olarak IMF'den elde edilen finansal gelişmişlik endeksi kullanılmıştır. Endeks, finansal kurumların ve finansal piyasaların derinlik, erişim ve verimlilik açısından gelişmişlik düzeyini göstermektedir. Sabit yerel para birimine göre kişi başına düşen GSYİH'nin yıllık yüzde büyüme oranı, ekonomik büyümenin göstergesi olarak alınmıştır. Analizin sonucuna göre, anılan ülkelerde finansal gelişme ile ekonomik büyüme arasında pozitif bir ilişki mevcuttur. Sonuçlar analize enflasyonu ve Bankacılık Z Skorunu dâhil ederek Rassal Modeli ile doğrulanmıştır. Ancak asıl etki, finansal piyasa endeksi yerine finansal kurumlar endeksinde görülmektedir. Sonuçlar aynı zamanda ekonomik büyüme ile finansal gelişme arasında Granger nedensellik olmadığını da göstermektedir. Sonuçlar, anılan ülke ekonomileri için Arz Öncüllü Hipotezi desteklemektedir.

#### Anahtar Kelimeler

Finansal gelişme, ekonomik büyüme, Türk Cumhuriyetleri, finansal kurumlar, finansal piyasalar.

Bu makaleyi şu şekilde kaynak gösterebilirsiniz

Çetenak, Emin Hüseyin, Özkan Haykır, ve Özlem Öztürk Çetenak. "Does Financial Development Enhance Economic Growth? The Case of Turkic Countries." *bilig*, no. 106, 2023, ss. 55-76.

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Geliş Tarihi: 01 Haziran 2022 – Kabul Tarihi: 12 Aralık 2022

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# Способствует ли финансовое развитие экономическому росту? Случай тюркских стран\*

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#### Аннотация

В данном исследовании мы анализируем взаимосвязь между финансовым развитием и экономическим ростом в тюркских странах, а именно в Азербайджане, Казахстане, Кыргызстане и Турции с 1995 по 2017 год. В качестве уровня финансового развития в исследовании использовался индекс финансового развития, полученный от МВФ. Индекс показывает уровень развития финансовых институтов и финансовых рынков с точки зрения глубины, доступности и эффективности. В качестве показателя экономического роста принимается годовой процентный темп роста ВВП на душу населения в постоянной местной валюте. Основной результат анализа показывает, что существует положительная связь между финансовым развитием и экономическим ростом. Результат является надежным с использованием регрессии со случайным эффектом, добавлением инфляции и включением банковского Z Score.

Поступило в редакцию: 01 июня 2022 г. – Принято в номер: 12 декабря 2022 г. Ссылка на статью:

Çetenak, Emin Hüseyin, Özkan Haykır, and Özlem Öztürk Çetenak. "Does Financial Development Enhance Economic Growth? The Case of Turkic Countries." *bilig*, no. 106, 2023, pp. 55-76.

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#### **bilig** Жаз 2023 / Выпуск 106

Однако основное влияние можно увидеть в финансовых организациях, а не в прокси финансового рынка. Результат также указывает на отсутствие причинно-следственной связи по Грейнджеру между экономическим ростом и финансовым развитием. Результаты подтверждают гипотезу об опережающем предложении для экономики четырех тюркских стран.

#### Ключевые слова

Финансовое развитие, экономический рост, тюркские страны, Финансовые институты, финансовые рынки.