

GELİR DAĞILIMI VE KÜRESEL REKABET ENDEKSİ İLİŞKİSİ

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Özet: Bu çalışma bir ülke için gelir dağılımının Küresel Rekabet Endeksini (GCI) etkileyeceğini öne sürmektedir. Gelir dağılımında eşitliğin iki sonucu GCI'yi etkilemektedir. İlki ölçek ekonomilerdir; gelir dağılımında eşitle birlikte tüketim ve üretim daha benzer yapıya gelir ve aynı tür ürünler daha yoğun üretilir. İkincisi pazarlık gücüdür; tüketim ve üretimin daha benzer hale gelmesi nedeniyle ithalat ve ihracat da daha benzer hale gelir. Böylece ülke dış ticarete monopsoncu ve monopolcü güç kazanabilir. Bu söylemin sınanması amacıyla 42 ülke ve 2007-2018 yıllarını kapsayan yıllık frekanslı panel veri modeli kurulmuştur. Ekonometrik analiz sonuçları çalışmayı desteklemektedir. Model gelir dağılımı ile GCI arasında doğrusal bir ilişki olduğunu göstermektedir. Bu sonuçlara göre, GCI değeri düştüğünde GINI değeri artmaktadır. Diğer bir deyişle, gelir dağılımı daha eşitsiz hale geldikçe, ülkenin küresel rekabet gücü düşer. Bu bağlamda çalışma, gelir dağılımının GNI ve gayri safiyi yurtiçi hâsılaya (GDP'ye) etkisini açıklamakta önemli bir kaynaktır.

Anahtar Kelimeler: Gelir Eşitliği, Eşitsizlik, Gelir Dağılımı, Küresel Rekabet Endeksi, Ekonomik Büyüme.

RELATIONSHIP BETWEEN INCOME DISTRIBUTION AND GLOBAL COMPETITIVENESS INDEX

Abstract: This study argues income distribution can determine Global Competitiveness Index (GCI) for a country. Two results of equality in income distribution affects GCI. One is economies of scale; because income equality consumption and production become more same structure and similar products produces more. Two is bargaining power; because consumption and production become more same import and export become more same to. Therefore, country can be gain monopolistic and monopsonistic power in foreign trade. Panel data model established for substantiates this argument covers 42 countries and annual data between 2007-2018. Econometric analysis results support the study. Model shown a positive relationship between income equality and the GCI. According to these results, GCI value decreases as GINI value increases. In other words, as the income distribution becomes unequal, the global competitiveness power of the country decreases. In this context, the study is an important source in explaining the effect of income distribution on GNI and gross domestic products (GDP).

Keywords: Income Equality, Inequality, Income Distribution, Global Competitiveness Index, Economic Growth

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Atıf: Daşdemir, E. (2021). Gelir Dağılımı ve Küresel Rekabet Endeksi İlişkisi. Bilge Uluslararası Sosyal Araştırmalar Dergisi, 5(1): 10-13

1. INTRODUCTION

Income distribution and economic growth theories can be least David Ricardo (1817). Ricardian Theory analyses the effect of increasing agricultural products on functional income distribution. It is one of the basic analyses measuring

the relationship between economic growth and income distribution. Modern economic growth and income distribution theories start with Simon Kuznets (1955). Communities those theories are causality structure between income inequality and economic growth. These theories considered income inequality as a dependent variable.

But studies in recent decades asked that question; "may income distribution can effect economic growth?". There are four different answer of this question. 1- income equality negatively effects on economic growth (Welch, 1999, p. 2), 2- income equality positively effects on economic growth(Brown & Pickett, 2017, pp. 24, 25), 3- equality doesn't affect economic growth(Banerjee & Duflo, 2003, p. 267; Günther Rehme, 2007, p. 507). And 4- some research suggests both fully income equality and inequality creates same negative effects on economy (Murphy et al., 1989, p. 553).

This study clearly suggests income equality for the purpose of increasing economic growth. Similar studies making the same suggestion in literature addressed economic growth within the framework of sustainability. The causality relationship between equality and economic growth in these studies established by linking the elements that provide educational and cultural progress.

In the Turkish literature, it is claimed that income distribution increases economic growth by affecting competitiveness. According to this study income distribution affects competitiveness of country by putting the consumption structure into a more similar structure. As the consumption of the individuals of the country becomes more similar, the results listed below occur and increase the global competitiveness of the country (Daşdemir, 2018, pp. 467, 468).

1) External economies of scale: When individuals consume the same or similar products, the variety of products in the economy will decrease and the production amount of similar products will increase. This transformation increase productivity by external economies of scale.

2) Bargaining power: Income equality provides import more specific goods and services with more quantity. Thus, reduces the variety of imports. That's gives the country monopsonist power in international trade. Similar thing valid in exports. Because of internal demand become more similar, domestic production focuses on similar products. The change in the domestic production structure also changes the export structure. Since domestic production is similar, export goods become more similar. This situation gives the country monopolistic power in foreign trade.

3) Government expenditures: It is impossible to equality in income distribution without government (Yay ve Şataf, 2018 p. 3), and equalizing income distribution also increases the efficiency of government expenditures. With income equality citizens' expectations from public services become more similar. That provides government expenditures more efficient.

4) National awareness raising and migration prevention: When domestic revenue distributed equally citizens' national awareness increases. That's prevent citizens' immigration to another country or area and prevents regional income inequality (Daşdemir, 2017, p. 753). It is known that the migration trend affects the income distribution negatively. The source of social and environmental problems, especially terrorism (Dora, 2021, pp. 143-145), can be shown as migration trends. It is also observed that these problems are deepening with open door policies (Dora,

2020a; Dora, 2020b). Inequality of income distribution is among these problems. In the literature, the reason for the reverse relationship between migration trends and income distribution is taken as migration tendency. This study argues that income distribution will cause migration tendency. Because of difficulties in practical and inefficiency immigration policies are not useful (Dora, 2020c). This study proposes income distribution as a policy tool for the immigration problem. Therefore, more equal income distribution will increase the awareness of citizenship and regional loyalty in individuals; it will reduce the migration tendency of individuals.

5) Reduces conflict of interest between classes: More equal society means more integrated individuals and classes based on the social division of labour. This reduces conflict of interest between classes in the country, and they are focus on regional conflicts of interest, making healthier decisions in the international economy. In other words, the factors of production in the country will be in harmony of interest in order to benefit from international conflicts of interest (Daşdemir, 2019, pp. 12, 13).

Income equality can positively affect regional sustainable competitiveness (Rizzi et al., 2015, p. 316). But in this study, income equality affects the directly global competitiveness within the dynamics listed above.

2. MATERIAL AND METHOD

Theoretical argument in study tested with panel data analysis. Scale of the analysis is 42 countries and 2007-2018. Information about variables using in model gives below.

Variable Name	Definition	Source
GCI	Global Competitiveness Index	World Economic Forum
GINI	GINI index	World Bank
GDS	Gross domestic savings (% of GDP)	World Bank

In the predicted model, the existence of unit and time effects were tested. And it is understood that the unit effect is valid. Depending on the relationship between unit effects and explanatory variables, one of the fixed or random effects methods should be chosen. For this purpose, Hausman (1978) test was carried out. Robust Hausman test results, which should be used in case of deviations from the assumption, were used to decide. According to the Robust Hausman test results, the null hypothesis could not be rejected. Therefore, both fixed and random effects models are valid, but random effects models are effective. These tests and their results are shown in the table. All estimations and tests were carried out using the STATA 16 Package program.

Test	P Value	Result
Unit Effect	F Test	0.000
	LM Test	0.000
	LR Test	0.000
Null Hypothesis Reject: Unit Effect Exist		
Time Effect	F Test	0.922
	LM Test	1.000
	LR Test	1.000
Null Hypothesis Can't Reject: Time Effect Doesn't Exist		
Hausman Test	0.001	Null Hypothesis Reject: Random Effect Doesn't Valid
Robust Hausman Test	0.103	Null Hypothesis Can't Reject: Random Effect Does Valid

The model where the unit effects are valid is as follows.

$$LGCI_{it} = \beta_0 + \beta_1 LGINI_{it} + \beta_2 GDS_{it} + M_i + \mu_{it}$$

The "L" sign in front of the variables indicates that the logarithms of the variables are taken. Logarithmic values of GCI and GINI variables were used in all analyses. "t" time, "i" unit, "M_i" unit effects, "μ_{it}" error terms, "β₀" constant, and symbols given before the variables represents the coefficient of that variable.

Based on the theory, the expected LGINI value is negative. And the coefficient of the GDS variable used as the control variable is expected to be positive.

Since the effective method is random effects, deviations from the assumption in the model are tested accordingly. Results are given in the table below.

Regression Method	LGINI	GDS	Constant	R-Squared	
Pooled OLS	-0.241*	0.005*	2.229*	0.470*	
Robust Pooled OLS	-0.241*	0.005*	2.229*	0.470*	
Between Regression	-0.244*	0.005*	2.232*	0.504*	
Fixed Effect	Least Squares Shadowing sensitivity	-0.103*	0.002*	1.704*	0.947*
	Robust Least Squares Shadowing sensitivity	-0.103*	0.002*	1.704*	0.947*
	Within Regression	-0.103*	0.002*	1.704*	0.052*
Random Effect	Robust Within Regression	-0.103	0.002***	1.704*	0.052***
	Within Regression	-0.137*	0.002*	1.928*	0.466*
	Robust Within Regression	-0.137**	0.002*	1.928*	0.466*
Driscoll-Kraay Standard Errors	Generalized Least Squares	-0.241*	0.005*	2.229*	---*
	Maximum Likelihood Estimator	-0.133*	0.002*	1.913*	---*
	Population-Averaged	-0.133*	0.002*	1.913*	---*
Driscoll-Kraay Standard Errors	Robust Population-Averaged	-0.133**	0.002*	1.913*	---*
	Pooled OLS	-0.241*	0.005*	2.229*	0.470*
	Fixed Effect	-0.103**	0.002*	1.816*	0.052*
Random Effect	-0.137**	0.002*	1.928*	0.466*	

*: %1, **: %5 and ***: %10 tolerance level

3. RESULTS

The outputs of estimating the model with various methods are given in the table below. LGCI is the dependent variable in all models.

In all estimation methods, there is an inverse relationship between GINI and GCI and a positive relationship between DGS and GCI. However, the model that should be interpreted due to deviations from the assumption is the Driscoll-Kraay Standard Errors model in the random effects method. According to this, 1% increase in GINI causes a decrease of about 0.14% in GCI. In other words,

competitiveness decreases as income distribution becomes unequal. The R-square found about 47%. Coefficients are meaningful in 5% tolerance level for GINI and 1% for constant, GDS and R-square.

4. DISCUSSION AND CONCLUSIONS

This study revealed income distribution is an important determinant of global competitiveness. Global competitiveness of countries increases as income equality among citizens' increases. Ensuring justice in income distribution will put individuals in more similar consumption patterns. The results obtained in this case are grouped under five titles. These titles which explained in study are: 1- External scale economies, 2- Bargaining power, 3- Government expenditures, 4- National awareness and preventing migration, 5- Conflict of interest between classes. Therefore, countries wishing to increase their global competitiveness and economic income should focus on policies that equalize the income distribution.

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