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INVESTIGATION OF THE RELATIONSHIP BETWEEN ECONOMIC DEVELOPMENT AND INCOME INEQUALITIES IN TURKEY

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ABSTRACT

Development is a very broad concept that includes economic as well as political, cultural, social, health and education issues. Economic growth in developing countries can be achieved by a fair distribution of income among individuals, as in developed countries. From this point of view, policies that reduce income inequality among individuals will increase the living standards of disadvantaged groups. In addition, policies designed to reduce income inequality can help foster more inclusive economic growth. As a matter of fact, minimizing income inequality is among the priorities of countries with a social state understanding. In this study, the relationship between economic growth and income distributions was examined in line with the latest data announced in Turkey. As a result, policy recommendations for reducing poverty for Turkey, which is included in the group of developing countries, are presented.

KEY WORDS: Economic Growth, Income Inequality, Turkey

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1. INTRODUCTION

Income inequality, which shows the degree of income distribution in economies, is not only an economic problem, but also a psychological and social problem in in both developed and developing and less developed countries. (Getaye, 2021). Positive trends in income distribution allow individuals to benefit more from education, health, culture, and other activities. It also enables individuals to seize certain opportunities in their lives.

Economic growth is expressed as the increase in GDP, which is the monetary value of final goods and services produced by countries during a given period. In addition, the increase in the factors of production consisting of labor, capital, entrepreneur and natural resources is also defined as economic growth. Income distribution, on the other hand, emerges from the way this monetary value is distributed among societies. Naturally, any imbalance in this distribution is likely to exacerbate the disparities between the lower, middle, and upper classes, leading to social unrest and adversely affecting various factors such as economic growth, development, education, health, inefficiency, and changes in living standards (Todaro and Smith, 2014; Karaş, 2021).

Policies designed to reduce income inequality can help foster more inclusive economic growth. For example, investing more in education or increasing infrastructure services can reduce income inequality.

Increasing income inequality among individuals can effect economic growth negatively. When incomes are concentrated among specific groups, it can lead to a decrease in demand for goods and services. When the demand for goods and services decreases, economic growth progresses at lower levels. Additionally, the increasing income inequality among individuals can also lead to social and political unrest.

Income inequality is a complex issue and has important implications for economic growth. Up to a certain level of income inequality provides incentives for innovation and investment and this makes it a positive power for economic growth. Wealthy individuals and businesses have resources to invest in new technologies and ideas that can stimulate economic growth and create new jobs. Furthermore, individuals with high incomes can also contribute to economic growth by financing research and development that can advance science and technology, benefiting the overall economy (Gelgo, Hırko, 2023).

2. THEORY OF ECONOMIC GROWTH AND INCOME INEQUALITY

The direct impact of income inequality on economic growth has been the subject of numerous studies in the field of economics for a long time. The classical perspective claims a positive relationship between income inequality and economic growth. This claim is based on the idea put forward by Adam Smith (1776). Although Adam Smith based economic growth on the division of labor, he argued that increases in the amount of production as a result of increasing labor power and productivity would positively affect economic growth. Neoclassicals (Solow and Swan) argued that there is no meaning between these two variables. The studies of modern economists, however, have shown that income inequality has uncertain effects on economic growth (Galor, 2009-2011; Topuz, Yıldırım, 2017; Lahouij, 2017).

The relationships between economic growth and income distribution were first examined by Kuznets (1955). In his study, Kuznets examined the relationship between per capita income and how this income is distributed among the population. Additionally, it is known that income inequality in countries can be beneficial for incentives and can contribute to the process of economic growth. Several studies have been conducted using different methods to explain the relationship between income inequality and economic growth. The first study on this topic was conducted by Simon Kuznets. Kuznets' work suggests an inverted U-shaped relationship between per capita gross national product and income inequality. In the early stages of economic growth, income inequality increases within a country. The increase in income inequality leads individuals to save more, and these savings are then transformed into investments, resulting in economic growth until a certain point is reached. In the long run, when Kuznets refers to the advanced stage, labor preferences will change. In other words, as per capita income increases in less developed countries, income inequality continues to increase until it reaches a maximum point, and then it decreases as per capita income further increases. Kuznets initially examined the trajectory of income inequality during the process of economic growth in the United States, United Kingdom, and Germany. In his research, he observed a significant decrease in income inequality in America and the United Kingdom after World War I. He then investigated how the transition from the agricultural sector to the industrial sector affected income. In this case, Kuznets found that individuals transitioning from the agricultural sector to the industrial sector experienced greater income growth, but this also resulted in increased income inequality. The basis of this assumption lies in the income differences from the agriculture and industry sectors. Capital is shifting from one sector (agriculture) to another (industry). Individuals are choosing to leave their land and migrate to developed cities in order to earn higher incomes. If migration and urbanization occur simultaneously, income inequalities can decrease, and economic growth can be achieved (Brussola, 2011).

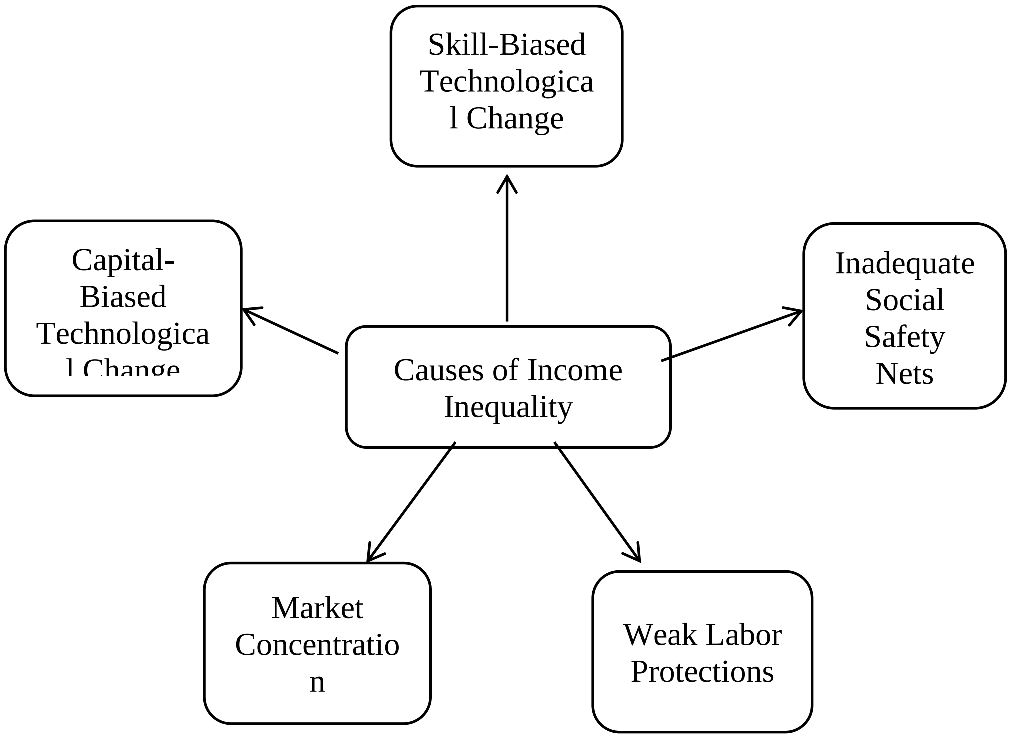
Reducing income inequality through economic growth has been a controversial issue in the field of economy for many years. The relationship between income inequality and economic development has been tried to be explained by different theorists at different times. Due to the fact that the periods are taken as short and long in the studies, the differences in development between the countries and the results obtained as a result of the different distinctions are different, there is no consensus on how these two variables affect the economic development. Income inequality is generally high in developing and underdeveloped countries. Ensuring income equality will also bring sustainable development for countries (Aghion et al., 1999). In addition to studies in which the effect of income inequality between individuals on economic growth is positive (Amar and Zghidi 2016, Bénabou 1996, Fosu 2008, Getaye 2021, Jin and Lee 2017, Madsen, Islam and Doucouliagos 2018, Vo et al. 2019), there are also studies that concluded the relationship between these two variables negatively (Girma and Shete 2018, Majeed 2016, Wan, Lu and Chen 2006, Barro 2000).

3. INCOME INEQUALITY AND ECONOMIC GROWTH IN TURKEY

Income distribution is one of the key indicators of a country's development. Ensuring a fair distribution of income can lead to a better quality of life for individuals within a society. Otherwise, income inequality can cease to be just an economic issue and become a social, political, and psychological problem. Furthermore, achieving income justice among individuals can contribute to social harmony. Reducing income inequality is a priority for countries with a social welfare state concept. Income inequality should not be perceived solely as an economic problem. It can lead to a decrease in savings, which in turn reduces investments. This can result in a slowdown of the market and further decrease in individuals' income levels, leading to an increase in poverty (Ravallion, 2011).

In Turkey, regional inequalities, especially between the Eastern and Western regions, have been a major focus of policymakers. The Five-Year Development Plans prepared since 1960 also address the issue of income inequality. Measures taken by policymakers to reduce income inequality in Turkey include improvements in the labor market, education conditions, healthcare, social security networks, as well as adjustments in social transfers and tax policies (https://www.sbb.gov.tr/wpcontent/uploads/2022/07/On_Birinci_Kalkinma_Plan i-2019-2023.pdf). In recent times, to explain the increasing income inequality, factors such as regional economic conditions, changes in the labor market, demographic changes among individuals, regional shifts in labor markets, and changes in institutions and organizations have been examined (Breau, 2015).

Figure 1: Causes of Income Inequality



Source: (Rahaman, 2023)

Figure 1 presents the causes of income inequality. Income inequality can vary over time and have both positive and negative effects on economic growth. Among the reasons for income inequality, market concentration, weak labor protections, inadequate social security networks, capital-biased technological change, and skill-biased technological change are highlighted.

Market Concentration: During periods of rapid economic growth, certain firms may capture a larger share of the market compared to other firms. In such cases, wealth distribution tends to favor the firms with higher market share during times of growth.

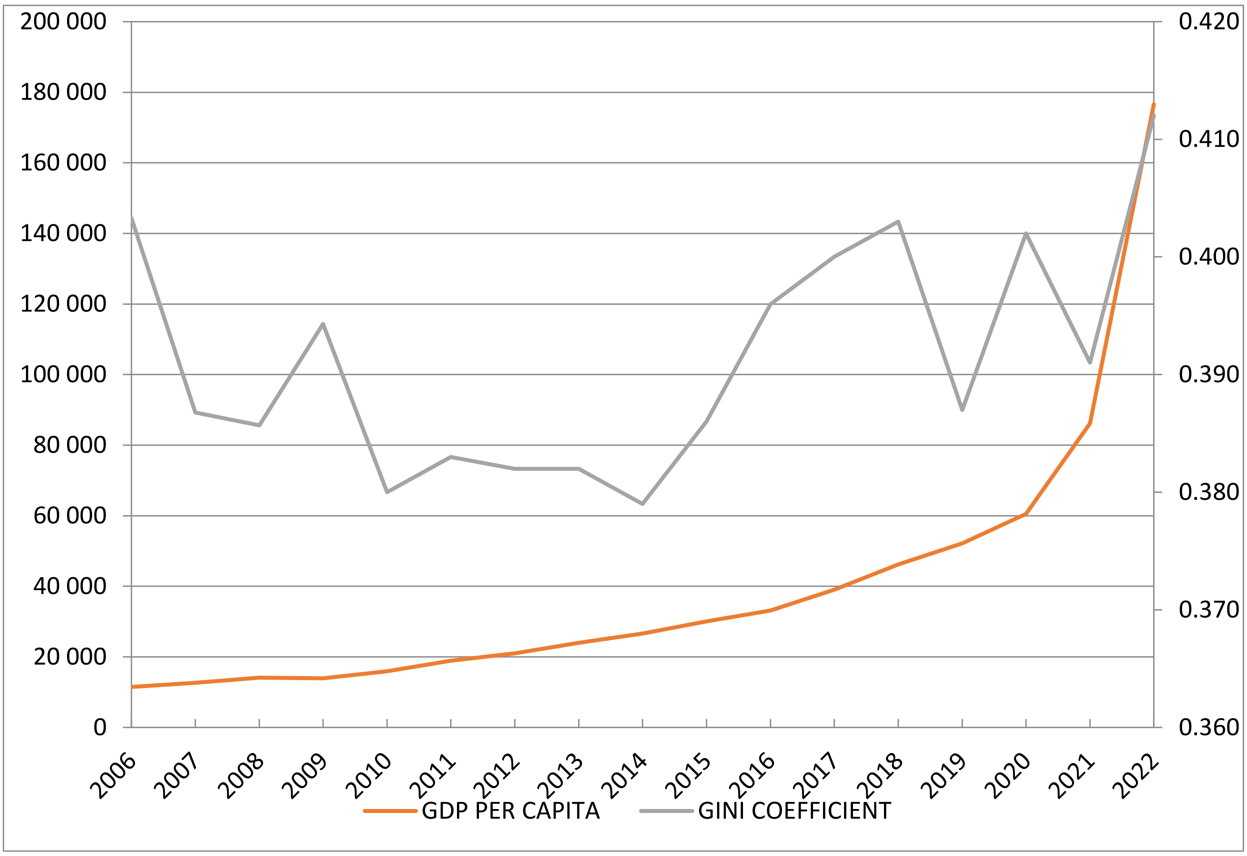
Weak Labor Protections: In periods of increased economic growth, there may be instances where labor unions are unable to adequately protect workers' rights. This can lead to a decrease in workers' wages, resulting in an increase in income inequality among individuals.

Inadequate Social Security Networks: During times of rapid economic growth, disadvantaged groups may struggle to access social security networks due to factors such as job loss, illness, or other adverse circumstances. This can contribute to a further increase in income inequality between the poor and the wealthy.

Capital-Biased Technological Change: With the advancement of technology, capital owners can achieve higher returns. This can contribute to an increase in income inequality.

Skill-Biased Technological Change: As technology continues to advance, there is a shift in demand from unskilled labor to skilled labor. This leads to higher wages for skilled workers than unskilled workers, increasing income inequality among individuals.

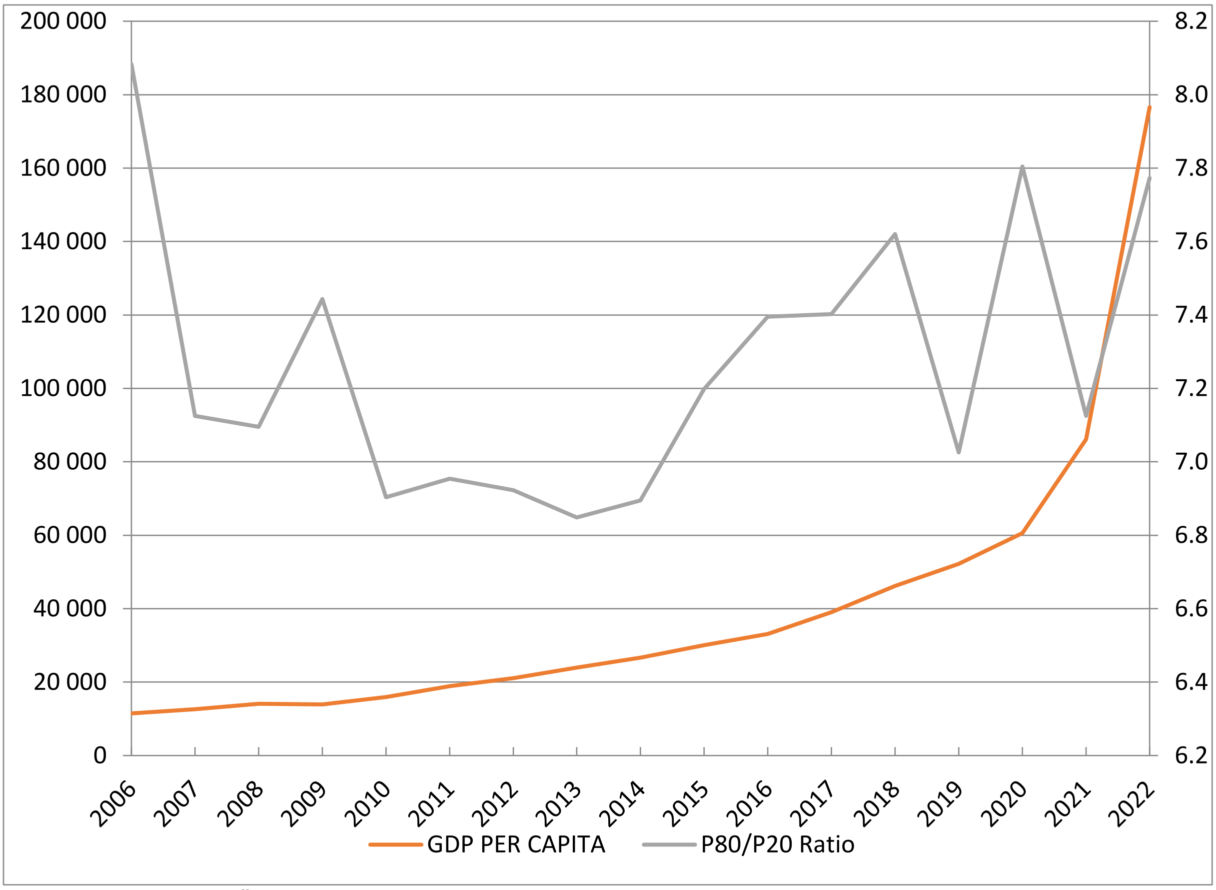
Figure 1: Income Inequality and GDP per Capita in Turkey



Source: TÜİK

In Chart 1, per capita GDP and gini coefficient values for the years 2006-2022 in Turkey are given. The Gini coefficient is a value that shows income inequality within social groups and takes a value between 0 and 1. If this value approaches 1, it indicates that income inequality among individuals increases, and if it approaches 0, income inequality decreases. Accordingly, GDP per capita, which was 11484 TL in 2006, increased to 176589 TL in 2022. With the effect of the economic crisis in 2009, there was a decrease in GDP per capita. If we look at the Gini coefficient values, the value which was 0.403 in 2006 increased to 0.412. This shows that income inequality has increased, albeit slightly. Afterwards, with the changes that occurred in Turkey, increases and decreases are seen in the Gini coefficient from time to time. With the first case that started in China in 2019 and emerged in Turkey in 2020, an increase in income inequality is observed due to the damage to many sectors, the closure of workplaces, curfews and other measures taken. In addition, the increase in inflation rates with Covid in the same period both affected economic growth negatively and caused the income distribution differences between the segments to increase.

Chart 2: Income Inequality and GDP per Capita in Turkey



Source: TÜİK

In Graph 2, GDP per capita and P80/P20 values for the years 2006-2022 in Turkey are given. The P80/P20 value is the ratio of the income of the 20% with the highest income to the income of the 20% with the lowest income. As this ratio gets smaller, it means that income inequality decreases. An increase in this ratio means that income inequality also increases. The P80/P20 value, which was 8.1 in 2006, decreased to 7.8 by 2022. A decrease in the ratio means that the income inequality between the poor and the rich decreases.

Table 1: Annual Average Equivalent Household Disposable Individual Income (TL)

	Total 2022
TR Türkiye **Average (TL)**	48 642
TR10 (İstanbul)	69 904
TR51 (Ankara)	59 798

TR31 (İzmir)	59 272
TR21 (Tekirdağ, Edirne, Kırklareli)	55 740
TR41 (Bursa, Eskişehir, Bilecik)	54 433
TR61 (Antalya, Isparta, Burdur)	52 782
TR32 (Aydın, Denizli, Muğla)	50 014
TR42 (Kocaeli, Sakarya, Düzce, Bolu, Yalova)	47 575
TR22 (Balıkesir, Çanakkale)	46 162
TR90 (Trabzon, Ordu, Giresun, Rize, Artvin, Gümüşhane)	45 680
TR52 (Konya, Karaman)	45 672
TR81 (Zonguldak, Karabük, Bartın)	44 054
TR71 (Kırıkkale, Aksaray, Niğde, Nevşehir, Kırşehir)	43 745
TR83 (Samsun, Tokat, Çorum, Amasya)	43 008
TR82 (Kastamonu, Çankırı, Sinop)	42 833
TR33 (Manisa, Afyon, Kütahya, Uşak)	42 430
TR62 (Adana, Mersin)	41 141
TR72 (Kayseri, Sivas, Yozgat)	40 767
TRA1 (Erzurum, Erzincan, Bayburt)	35 302
TRB1 (Malatya, Elazığ, Bingöl, Tunceli)	33 193
TR63 (Hatay, Kahramanmaraş, Osmaniye)	32 700
TRC1 (Gaziantep, Adıyaman, Kilis)	31 186
TRA2 (Ağrı, Kars, Iğdır, Ardahan)	27 659
TRC3 (Mardin, Batman, Şırnak, Siirt)	25 038
TRC2 (Şanlıurfa, Diyarbakır)	24 462
TRB2 (Van, Muş, Bitlis, Hakkâri)	23 063

Source: TÜİK

In Table 1, annual average equivalent household disposable income is given. In 2022, the annual average household disposable income in Turkey was 48,642 TL. Accordingly, TR10 (Istanbul), TR51 (Ankara), TR31 (Izmir), TR21 (Tekirdag, Edirne, Kirklareli), TR41 (Bursa, Eskisehir, Bilecik), TR61 (Antalya, Isparta, Burdur), TR32 (Aydın, Denizli, Muğla) regions earn income above the Turkey average. Based on this situation, the lowest annual average equivalent household income in 2022 was realized in TRB2 (Van, Muş, Bitlis, Hakkari) region with 23 thousand 063 TL.

Table 2: Gini Coefficient by Equivalent Household Disposable Individual Income

	Gini coefficient
	2022
TR81 (Zonguldak, Karabük, Bartın)	0.295
TR42 (Kocaeli, Sakarya, Düzce, Bolu, Yalova)	0.309
TRB1 (Malatya, Elazığ, Bingöl, Tunceli)	0.314
TRC2 (Şanlıurfa, Diyarbakır)	0.340
TRC1 (Gaziantep, Adıyaman, Kilis)	0.341
TR82 (Kastamonu, Çankırı, Sinop)	0.346
TR90 (Trabzon, Ordu, Giresun, Rize, Artvin, Gümüşhane)	0.351
TR22 (Balıkesir, Çanakkale)	0.354
TR33 (Manisa, Afyon, Kütahya, Uşak)	0.354
TR41 (Bursa, Eskişehir, Bilecik)	0.355
TR21 (Tekirdağ, Edirne, Kırklareli)	0.358
TR32 (Aydın, Denizli, Muğla)	0.360
TR61 (Antalya, Isparta, Burdur)	0.362
TRB2 (Van, Muş, Bitlis, Hakkâri)	0.363
TR63 (Hatay, Kahramanmaraş, Osmaniye)	0.373
TR83 (Samsun, Tokat, Çorum, Amasya)	0.375
TRA1 (Erzurum, Erzincan, Bayburt)	0.377
TR71 (Kırıkkale, Aksaray, Niğde, Nevşehir, Kırşehir)	0.383
TR31 (İzmir)	0.385
TR72 (Kayseri, Sivas, Yozgat)	0.387
TRC3 (Mardin, Batman, Şırnak, Siirt)	0.396
TR62 (Adana, Mersin)	0.399
TRA2 (Ağrı, Kars, Iğdır, Ardahan)	0.399
TR51 (Ankara)	0.402
TR52 (Konya, Karaman)	0.413
TR Türkiye	**0.415**
TR10 (İstanbul)	0.444

Source: TÜİK

In Table 2, the gini coefficients are given according to the equivalent household disposable income. Accordingly, the gini coefficient in Turkey in 2022 was 0.415. If this value is close to 1, it indicates that income inequality has increased, and if it is close to 0, it indicates that income inequality has decreased. According to the latest researches, the region with the highest income inequality is TR10 (Istanbul) Region with 0.444. In addition, the regions with the least income inequality are TR81 (Zonguldak, Karabük, Bartın) and TR42 (Kocaeli, Sakarya, Düzce, Bolu, Yalova).

Table 3: P80/P20 Ratio by Equivalent Household Disposable Individual Income

	P80/P20 Ratio
	2022
TRB1 (Malatya, Elazığ, Bingöl, Tunceli)	4.5
TR81 (Zonguldak, Karabük, Bartın)	4.5
TR42 (Kocaeli, Sakarya, Düzce, Bolu, Yalova)	4.9
TRC1 (Gaziantep, Adıyaman, Kilis)	5.0
TRC2 (Şanlıurfa, Diyarbakır)	5.3
TR41 (Bursa, Eskişehir, Bilecik)	5.5
TR32 (Aydın, Denizli, Muğla)	5.7
TR90 (Trabzon, Ordu, Giresun, Rize, Artvin, Gümüşhane)	5.9
TR33 (Manisa, Afyon, Kütahya, Uşak)	5.9
TRB2 (Van, Muş, Bitlis, Hakkari)	5.9
TR61 (Antalya, Isparta, Burdur)	5.9
TR82 (Kastamonu, Çankırı, Sinop)	6.0
TR21 (Tekirdağ, Edirne, Kırklareli)	6.0
TRA1 (Erzurum, Erzincan, Bayburt)	6.1
TR22 (Balıkesir, Çanakkale)	6.1
TR63 (Hatay, Kahramanmaraş, Osmaniye)	6.4
TR71 (Kırıkkale, Aksaray, Niğde, Nevşehir, Kırşehir)	6.5
TR83 (Samsun, Tokat, Çorum, Amasya)	6.6
TR31 (İzmir)	6.8
TRC3 (Mardin, Batman, Şırnak, Siirt)	6.9
TR51 (Ankara)	7.0
TR72 (Kayseri, Sivas, Yozgat)	7.2
TR62 (Adana, Mersin)	7.2

TR52 (Konya, Karaman)	7.4
TRA2 (Ağrı, Kars, Iğdır, Ardahan)	7.9
TR Türkiye	**7.9**
TR10 (İstanbul)	8.1

Source: TÜİK

In Table 3, P80/P20 ratios are given according to the equivalent household disposable income. As of 2022, this rate is 7.9 in Turkey. Accordingly, the regions with the highest income inequality are TR10 (Istanbul) with 8.1, TRA2 (Ağrı, Kars, Iğdır, Ardahan) with 7.9. The regions with the lowest value and the lowest income inequality are TRB1 (Malatya, Elazığ, Bingöl, Tunceli) with 4.5, TR81 (Zonguldak, Karabük, Bartın) with 4.5 and TR42 (Kocaeli, Sakarya, Düzce, Bolu, Yalova) with 4.9.) regions.

4. CONCLUSION

Equitable distribution of income among individuals increases the welfare of individuals, but also contributes positively to economic growth as they spend more with their increased income. For this purpose, income inequality and the elimination of this inequality are among the main goals of policy makers. In this study, per capita income and gini coefficients for the period 2006-2022 in Turkey are presented and P80/P20 ratios and per capita income are compared. In addition, region-based disposable personal incomes and gini coefficients for 2022 are also included.

In developing and underdeveloped countries, there are reasons that make the rich richer and the poor poorer. For a developing country like Turkey, in order to overcome these problems, policy makers need to implement practices that will promote fair income distribution. In addition, in order for everyone to benefit from economic growth, it is necessary to establish systems where everyone can easily benefit from education and health services. Policies should be implemented to strengthen labor protections as well as to improve social safety nets. In addition, policy makers need to provide financial support to those with low capital and equal opportunity in their access to financial instruments. With the development of education and health services, the existing income inequality can be reduced to a minimum. Therefore, investments in these sectors should also be supported.

DISCLOSURE OF CONFLICT

The authors declare that they have no conflicts of interest.

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