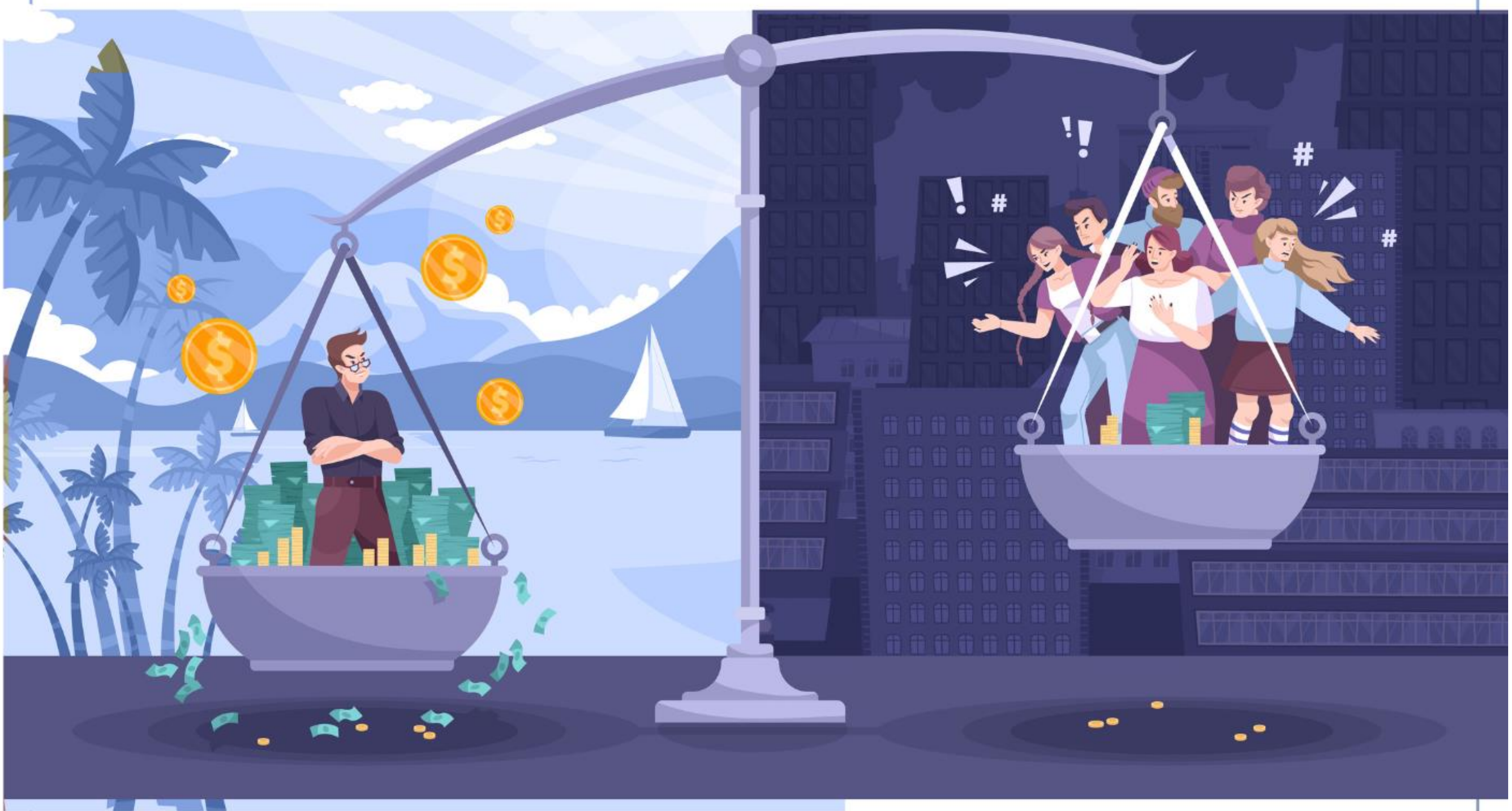
INCOME INEQUALITY IN AZERBAIJAN AND THE WORLD: CAUSES AND APPROACHES TO ITS MEASUREMENT

POLICY PAPER



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INSTITUTE FOR DEMOCRATIC INITIATIVES

INCOME INEQUALITY IN AZERBAIJAN AND THE WORLD: CAUSES AND APPROACHES TO ITS MEASUREMENT

Policy Paper

Author: Murad Muzaffarov

Expert: Rovshan Aghayev

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1. Introduction

Eliminating acute income inequality is one of the most important elements of sustainable socio-economic development. In this regard, one of the most important directions of the countries' economic policies is related to income inequality. This is especially important for developing countries. Income inequality is considered one of the most popular areas of economic research. It should not be forgotten that income inequality is one of the main factors preventing economic prosperity in the country. Various studies prove that as the inequality in income distribution in the country decreases, the rate of economic growth in the country begins to increase.

Considering all this, in this study, we have tried to investigate the factors that bring out income inequality, its consequences, methodologies related to measuring income inequality, as well as ways to solve the problem.

In the first part of the study, the theoretical aspects of income inequality are studied, and various forms of inequality are considered. It also provides information on different methodologies for measuring income inequality. In the second part of the study, the impact of the globalization process on income inequality, as well as the manifestations of inequality in different countries according to the level of socioeconomic development, as well as the approaches of different economic schools regarding income inequality are studied. The third part of the study is related to income inequality in the context of Azerbaijan. Here, according to official and alternative calculations, the current situation regarding income inequality in Azerbaijan is reported, and at the same time, the methodology used by official institutions to measure income inequality is questioned.

2. Income inequality, its scale and measurement

Income inequality is the degree to which income is unequally distributed among people or households. In the last 100 years, through various policy mechanisms, efforts have been made to lower this indicator, especially in developed countries; however, the Oxfam report[1] for 2017 shows that 82% of the world's total wealth is still concentrated in the hands of only 1% of the population.

Income inequality mainly stems from the disparity between capital and labor income. If labor income refers to wages received for hired labor, capital income can be considered more broadly. So, capital income includes income such as interest, profit, and dividends. Studies show that inequality between capital income is greater than inequality between labor income. Simply put, the higher the cost of capital, the higher the profit, and individuals with more capital can grow their income very quickly. This creates a serious inequality between capital incomes. In many cases, capital income can hold 10% of total income, at best 50% of total income, and in extreme cases up to 90%.

[1] https://www.oxfam.org/en/press-releases/richest-1-percent-bagged-82-percent-wealth-created-last-year-poorest-half-humanity

Inequality in labor income is relatively simpler. Factors affecting this issue are mainly characterized as different levels of requirements for education and professional qualifications and different mechanisms affecting the formation of wages. Furthermore, the fact that different groups of society (for example, football players, artists, etc.) receive very high salaries compared to the rest of the population is one of the serious factors affecting inequality in labor income. According to Thomas Piketty[2], income inequality is divided into four groups.

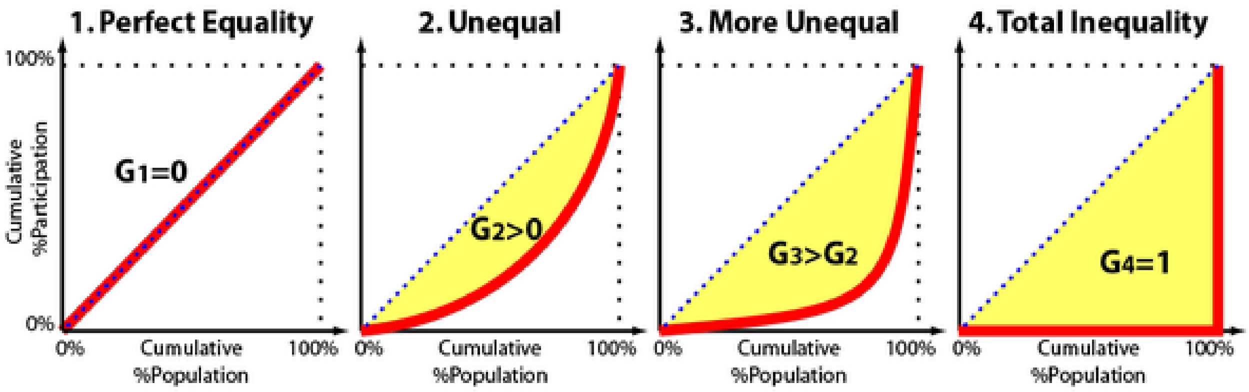
1. **Weak inequality**
    a. The richest 10% of the population owns 25% of the income
    b. The poorest 50% of the population owns 30% of the income
    c. The Gini coefficient is approximately 0.26
2. **Average inequality**
    a. The richest 10% of the population owns 35% of the income
    b. The poorest 50% of the population owns 25% of the income
    c. The Gini coefficient is approximately 0.36
3. **Strong inequality**
    a. The richest 10% of the population owns 50% of the income
    b. The poorest 50% of the population owns 20% of the income
    c. The Gini coefficient is approximately 0.49

2. **Extreme inequality**
    a. The richest 10% of the population owns 60% of the income
    b. The poorest 50% of the population owns 15% of the income
    c. The Gini coefficient is approximately 0.58

Note that the Gini coefficient is the most popular method for measuring income inequality in public literature. However, a number of alternative methods also exist, and they offer researchers different ways to develop a broader understanding of income distribution. The most popular measure of income inequality, the Gini coefficient, is derived from the Lorenz curve framework depicted in the figure below.

Figure 1. Calculation of the Gini coefficient

[2] Thomas Piketty, “Capital in the Twenty-First Century”



In these formulas, the Lorenz curve shows the percentage of total income earned by the aggregate percentage of the total population. In a perfectly equal society, the poorest 20% of the population would receive 20% of the total income, the poorest 50% of the population would receive 50% of the total income, and the Lorenz curve would follow a path along the 45° equality line. As inequality increases, the Lorenz curve deviates from the line of equality; the poorest 25% of the population can earn 10% of the total income; the poorest 50% of the population can earn 20% of the total income, etc. The Gini coefficient can be expressed as a value or percentage between 0 and 1. A coefficient of 0 reflects a perfectly equal society in which all incomes are shared equally; in this case, the Lorenz curve will follow the line of equality. The more the Lorenz curve deviates from the line of equality, the higher the resulting value of the Gini coefficient will be. A coefficient of 1 (or 100%) represents a completely unequal society where all income is earned by one individual. A major weakness of the Gini coefficient as a measure of income distribution is its inability to distinguish between different types of inequality.

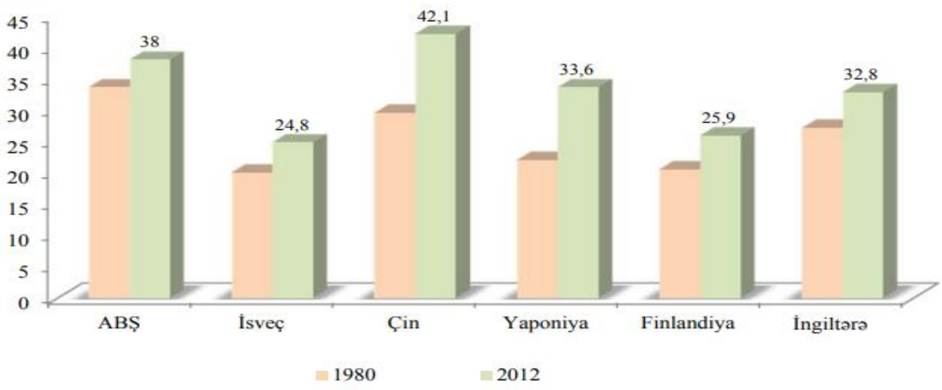
Crossing Lorenz curves can represent different patterns of the income distribution, but still result in very similar Gini coefficient values. This troubling feature of Lorenz's methodology makes a comparison of Gini coefficient values difficult and can confound tests of the income inequality hypothesis. Another indicator for measuring income inequality is the Atkinson index. Like the Gini index, the Atkinson index ranges from 0 to 1, with 0 representing perfect equality and 1 representing perfect inequality. Atkinson's index allows us to approach different inequalities in income distribution with different approaches. This advantage is its main distinguishing characteristic compared to the Gini index.

Due to the high share of the shadow economy in various countries and the fact that a large part of income remains hidden, the Gini coefficient may not reflect the real scale of income inequality in the country. Although income recording is not a problem in developed countries, there is serious data insecurity in developing and underdeveloped countries, which does not allow aproper analysis of inequality. In such countries, the large number of people living in villages leads to situations such as self-sufficiency with the necessary resources, which is why income cannot be properly measured, and consumer spending is resorted to. In such conditions, especially, the amount of household spending on private education and health services, luxury housing and cars, and the distribution of deposits in banks among decile or quintile groups also act as valuable information in terms of assessing the level of real inequality.

3. Income inequality in world countries

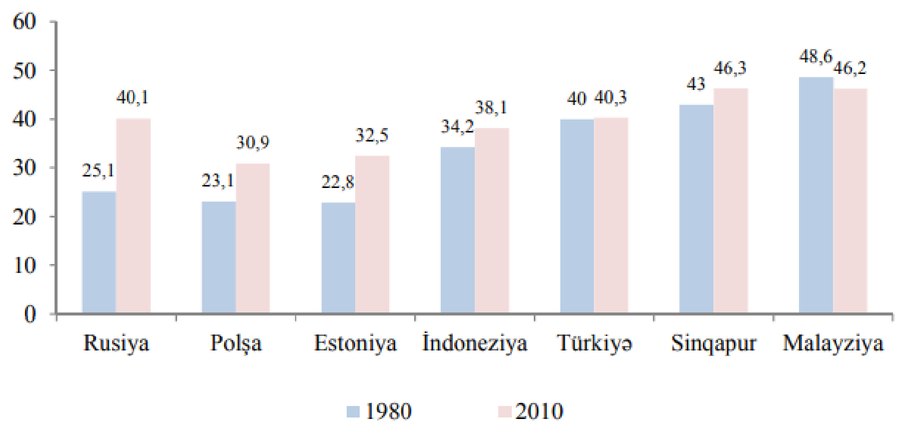
Globalization has a negative impact on income distribution both between and within countries. The global inequality index (Gini coefficient) among the world population is equal to 0.70 (the average of recent years). In 1988, this number was 0.63, and in 1993, it was 0.66. In the last 30 years, the share of the richest 20% of the population of the world in the income distribution increased from 70% to 85%, while the share of the poorest 20% of the population of the world in the income distribution decreased from 23% to 1.4% (Danışoğlu, 2007).

Qrafik 1. İnkişaf etmiş ölkələr üzrə Cini əmsalı



Until the 1990s, most economists paid little attention to growing inequality in the distribution of income. Economic theory is also not very clear on this issue. Economics textbooks assumed that inequality and the concentration of income among the rich could have a positive effect on growth, inequality was considered the price to be paid for growth. But after the 1990s, on the contrary, economists began to argue that inequality can lead to a decrease in the rate of economic growth (eg, Person and Tabelleni, 1994; Fields, 1989).

Qrafik 2. İnkişaf etməkdə olan ölkələr üzrə Cini əmsalı



On the other hand, along with the process of globalization, the change in the capitalist mode of production since the 1970s has also been a factor determining the inequality of income distribution. The transformation in the production process further increased income inequality. To explain how this happened, it is useful to examine the changes in production style in detail. The change in the capitalist mode of production led to the transition from mass production to "surplus production". Because until the 1970s, the widespread mass production style was the group production style. Economists also call this production method "Taylorist" and "Fordist" production methods. The feature of the band-type production mode was that almost all of the final product was produced under the same roof (plant). Therefore, since production required both skilled and unskilled labor, two groups of labor worked under one roof. Another feature of the band-type mass production method was that it allowed unprofessional, unskilled workers to receive on-the-job training in a short period of time. In developed countries, productivity growth in agriculture and industry from World War II to the 1970s boosted production. Along with the increase in productivity, as a result of price competition, the prices of both agricultural and industrial products fell. Falling prices have also increased the real incomes of people working in these sectors. The increase in real incomes increased the demand for goods and services. Over time, with technological developments in manufacturing, the declining demand for labor in the agricultural and industrial sectors was absorbed by the increasing demand in the service sector. From World War II to the 1970s, government interventions helped maintain a balance between production and consumption. In capitalist economies, monetary and fiscal policies were applied, along with progressive taxes and social security payments where necessary, to balance supply and demand. In short, employment did not fall much and income distribution did not change much in the developed capitalist countries until the 1970s.

Robots have already started to do the work that was done by unskilled workers in production. With this process, two completely separate labor markets began to emerge, one composed of highly skilled workers and the other composed of unskilled workers. Entering the highly skilled labor market requires personal skills and a high level of education. None of these are required to enter the unskilled labor market. However, as the demand for unskilled workers decreases, wages remain low and gradually decrease. In order not to reduce their profits, firms have to accelerate new technology development processes. As a result, people in society are increasingly divided into two groups. The first group has high income and job security, while the second group has very low income and almost no job security (Tisell and Svizzero, 2004).

Neoliberal economists argue that with globalization, income distribution among all people in the world has become more equal in the past 20 years than in the past. Moreover, these economists argue that the world's extremely poor population is shrinking. They state that the reason for this is the increase of integration between economies and the specialization of countries and regions due to their comparative advantages, which allows more efficient use of the world's resources. International trade will reduce poverty and lead to a stable income distribution around the world. They argue that specialization and trade will provide diminishing returns to capital accumulation in a country (according to the neoliberal view, as capital accumulation increases, so will diminishing returns) and that world income distribution will be shaped by freedom and specialization. Because of the terms of trade effect, all countries will grow at the same rate at different levels of income generated by different technologies. Furthermore, they argued that international trade would accelerate growth and thus liberalization would reduce poverty in general (Acemoğlu and Ventura, 2001).

Similar results are seen in Milanovic's studies. In a comprehensive study using household data from 95 countries for 1988 and from 113 countries for 1993 and 1998, Milanovic obtained the following interesting results: The impact of globalization on income distribution varies by country's income level. While globalization increases inequality in income distribution in low-income countries, it reduces inequality in income distribution in high-income countries. According to Milanovic's findings, the difference between the two country groups is around $8,000. However, Milanovic states in his literature review that there is still no conclusion that globalization has led to an improvement in income distribution at the global level (Milanovic, 2005).

On the other hand, according to many empirical studies, since the beginning of the 1980s, inequality in the distribution of income has been increasing in developed countries. For example, in the United States in the early 1980s, the share of the wealthiest 5% of the population was 14.5%, but by the 1990s, this number exceeded 25%. In developed countries, globalization and new technologies have had the most negative impact on low-skilled labor (Brinkman and Brinkman, 2001).

Globalization is the main reason for increasing inequality in labor markets in the countries that are members of the Organization for Economic Cooperation and Development (OECD). The Samuelson-Stolper principle and "protectionist-innovation" explain labor force segregation (skilled and unskilled) in high-income countries. Protectionist innovations have had a negative impact on the employment of unskilled workers in developed countries. In connection with the process of globalization, the tendency of industries that use unskilled labor force to move to other countries has increased. With globalization, some parts of production move to labor-intensive countries. Furthermore, globalization has led to an increase in the bargaining power of capital in high-income countries relative to low-skilled labor (Wood, 1998). According to Rodrik's study, globalization puts pressure on the wages of unskilled workers in developed countries, increases economic insecurity, calls into question accepted social arrangements, and weakens social safety nets (Rodrik, 1997).

According to the results of an empirical study conducted by Dreher and Gaston, income inequality has increased in OECD countries with globalization. However, according to the results of the same study, globalization does not significantly affect income inequality in countries other than OECD countries (Dreher and Gaston, 2006).

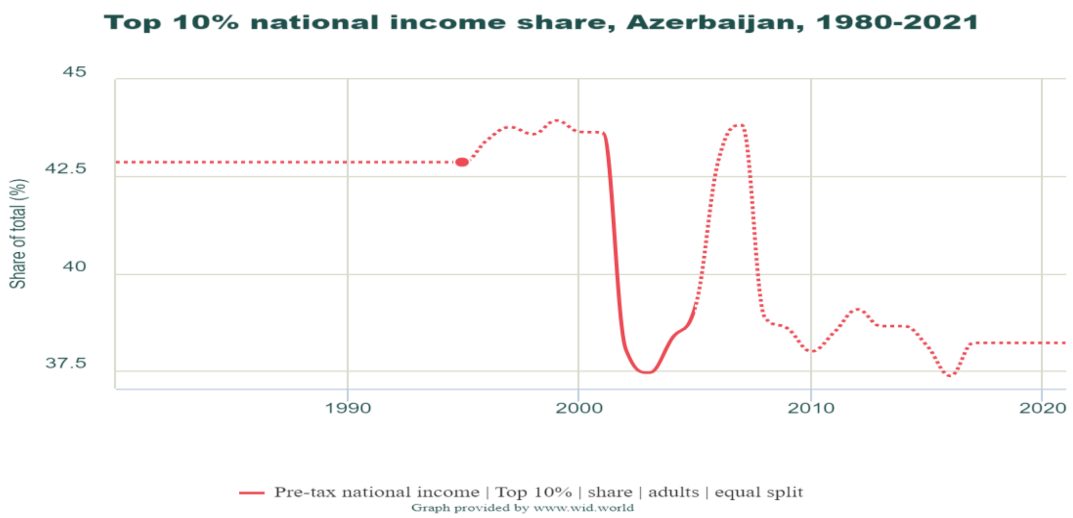
Another feature of the globalization process is that countries compete to lower taxes to attract foreign investors. In this situation, the labor force, which is not very mobile, is adversely affected. In addition, the government's declining tax revenues mean that it does not allocate enough funds to education, health, and other social expenditures. As a result, these processes have a negative impact on the welfare and future of society (Kaplinsky, 2005).

The tax policy implemented in Turkey has increased the inequality in income distribution. Although direct taxes were higher as a percentage of total tax receipts than indirect taxes until 1985, the reverse has been the case in subsequent years. The specific weight of direct taxes in total tax revenues decreased to 33% in 2003, while it was 63% in 1980. The share of indirect taxes in total tax revenues increased from 37% to 67% in those years, respectively. The share of indirect taxes in total taxes increased to 73% in 2005 (Bakırezer and Demirer, 2006). On the other hand, while the share of wealth taxes in GDP is close to 3% in OECD countries, this rate is only 0.5% in Turkey (Yüce, 2001). Furthermore, the ratio of financial assets to GDP increased from 46.4% in 1994 to 112.1% in 2002. The compound interest rate paid by the Treasury on Government Domestic Debt Securities (GDDS) is 17.6% in real terms. During this period, the average growth rate of GDP was only 3%. These growing financial assets are almost never taxed in Turkey (Yükseler, 2004).

Finally, if we look at the global inequality database, regions such as Latin America, South Africa, India, and the Arabian Peninsula are highly unequal in terms of the share of national income received by the richest 10% of the population.

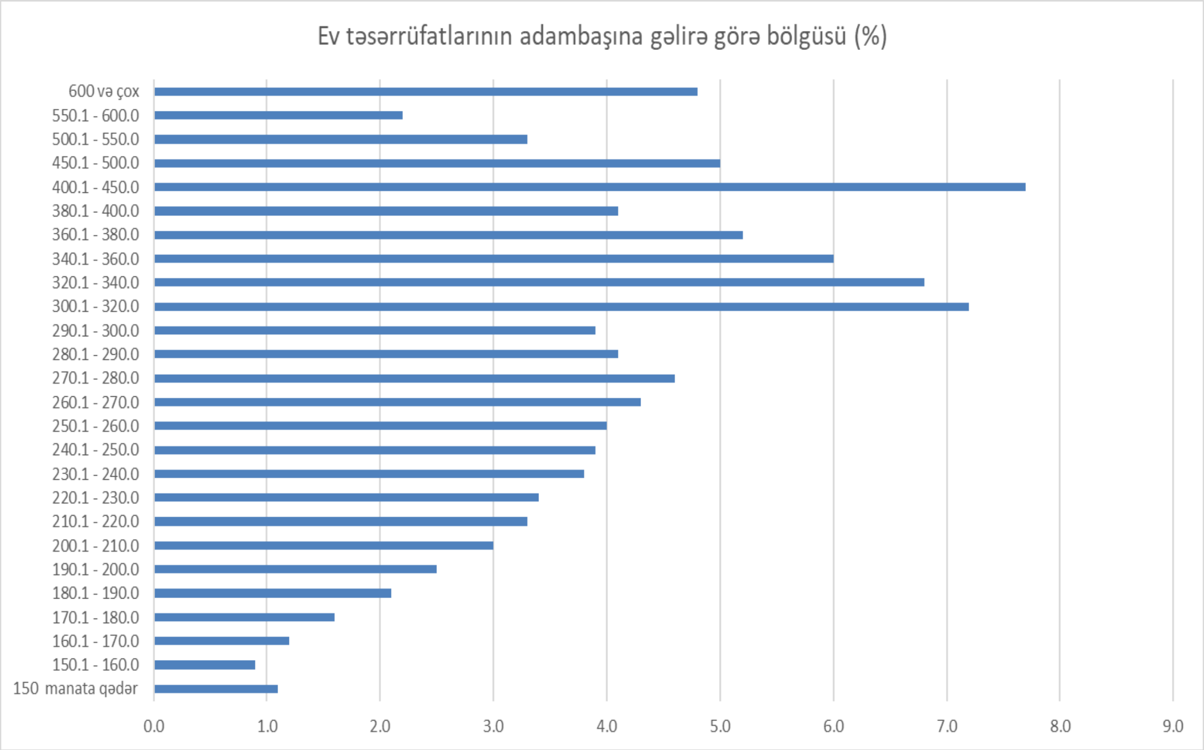
4. Income inequality in Azerbaijan

Calculations based on official figures show that Azerbaijan is one of the countries with the lowest levels of income inequality. However, if we look at the reliability of the data, we see that Azerbaijan is far behind in this regard. WID (World Inequality Database) evaluates our country with only 1 star out of 5 due to information reliability. This means that the figures obtained from local and global sources do not correctly characterize income inequality in our country.



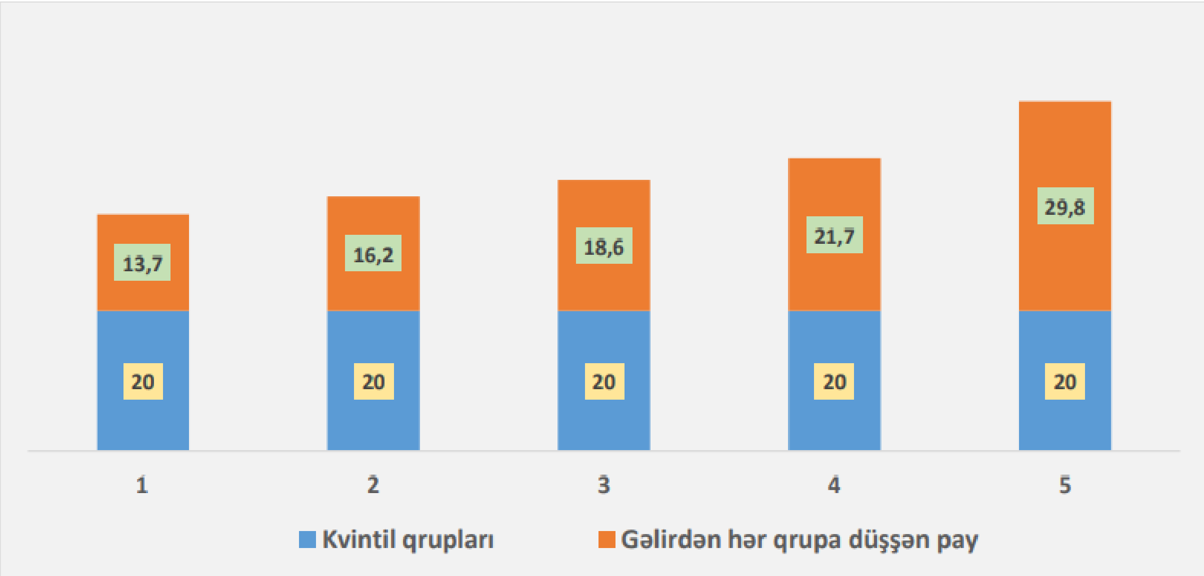
When we look at the distribution of households according to the per capita income, referring to the State Statistical Committee, we see that the inequality between incomes is very small, even close to perfect.

Table 1. Distribution of households by per capita income



Let's look at income distribution by quintile groups, another indicator to measure inequality. With this method, the population is divided into 5 equal parts, and the amount of income per part is compared.

Figure 2. Income distribution by quintile groups



Although the data recorded by the State Statistical Committee show that inequality in Azerbaijan is at minimum levels, international studies do not say the same. According to the studies of international organizations, there is a 4-fold difference between the education expenses of the rich and the poor in Azerbaijan, and up to an 8-fold difference between the healthcare expenses. Moreover, if we perform a simple filtering operation on classified websites serving domestically, we can see differences of up to 10-15 times between cars and other valuables for sale. In the comparison of apartments, there are at least 5-6 times price differences between Baku and the surrounding regions for both rented and sold apartments.

5. Conclusion and recommendations

We can list several political, social, and traditional reasons for income inequality. For example, the caste system in India, which dates back to 3,000 years ago, divides people into classes and does not allow a person born in one class to move to another class. We can point to rapid population growth as a social cause. Studies show that the poor are growing faster and that children born are doomed to suffer the same fate throughout their lives. As for political reasons, we can list reasons such as the lack of a unified electoral system in the country, the important role of bribery in the bureaucracy, etc.

The economic consequences of inequality are characterized by a weakening of growth and an increase in poverty. Studies show that when third-world countries enter the growth phase, if they fail to ensure equality, the growth is very short-lived. As income inequality will naturally create opportunity inequality, this issue can cause serious social problems in the country. The fact that access to education and healthcare is becoming more difficult for the lower class and the rich are getting richer day by day while the income of the poor is decreasing leads to an increase in cases of corruption, disruption of the hierarchy in the country, and internal turmoil. If we look at all the countries that are currently experiencing internal security problems, we will see that there are high levels of inequality in those countries. Additionally, inequality in areas such as education and healthcare leads to lower quality of these services for the middle class and thus the middle class also gets poorer by the day.

The OECD report on income inequality recommends the implementation of four basic items to fight inequality:

1. women's participation in economic life

2. increasing employment and quality jobs

3. increasing the level of talent and education

4. tax and transfer systems for effective redistribution

The following steps also have the potential to reduce inequality:

1. Discounts on mortgage interest and down payments

2. The introduction of additional taxes on high-value luxury goods

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Contact information:

Phone: +99450 435 95 42

Web: www.idi-aze.org

Email: info@idi-aze.org

Facebook: www.facebook.com/DTI.IDI