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The Relationship between Income Inequality and Economic Growth in Eastern European Countries

- PhD Thesis Summary -

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Brief presentation

The aim of this PhD thesis was the analysis of the relationship between income inequality and economic growth both from a theoretical point of view, by means of two different approaches, and from a practical point of view, by the statistical analysis of the relationship on a sample of countries in transition in Eastern Europe between 1990 and 2010.

In this regard, the questions to which this thesis is trying to answer are the following:

1) Is there a significant relationship between income inequality and economic growth, and if there is, what is its direction?

2) When economic policies are designed to stimulate growth, what impact do they have on income inequality?

3) Does a too high level of income inequality facilitate or reduce economic growth?

4) Have the income gaps become more significant in the Eastern European countries during the transition to a market economy and, if this is the case, what is the macro-economic context associated with it?

5) What are the policies that favour both the economic growth and a reasonable distribution of income?

The issue of income inequality is circumscribed within the broader area of development theories, and it includes, due to its implications, the fundamental issues of the economy as a science, as well as those related to growth, distribution and poverty, which are a recurrent topic with remote origins in the history of economics. The divergent views on the relationship between income inequality and economic growth begin to materialize in the 1980s once with the development of the new theories on growth and the replacement of physical capital accumulation as the main engine of growth with human capital accumulation; these differences have not been reconciled yet.

The relationship between income inequality and economic growth produce a lively debate both on theoretical and on empirical aspects, as it is essentially a debate between two major schools of economic thought. On the one hand, there is the neoliberal school, which promotes market fundamentalism and the free allocation of resources in the economy and, on the other hand, there is the Keynesian school, an advocate of government intervention to regulate the market imperfections and the full use of the available workforce. The neoliberal theory identifies a positive relationship between income inequality and economic growth as a result of the greater tendency of the rich to save as compared to the people with precarious income, thus stimulating investment and technological progress, as well as an inverted-U relationship between the improvement of the economic growth and income inequality, according to the Kuznets's curve principle. On the other hand, Keynesian approaches describe an inverted relationship between the increase in income inequality and the economic growth; the significant differences in income at a national level lead to a poor financial situation of the median voter, rental seeking activities, social unrest and economic instability. Also, the limited access to education as an effect of financial constraints leads to the inefficient segmentation of the labour market and to reduced economic productivity. In contrast, the Keynesian perspective on the impact of the economic growth on income distribution is based on the realities of the past three decades and on its empirical evidence and it suggests a significant increase in income inequality, both at a national level and at a global level.

In the midst of the economic globalization, the concerns related to inequality are relevant as long as the increase in income inequality can affect the growth and the development of a society as a whole. The need for a better understanding of the mechanisms by which growth and economic inequality are interrelated has become clearer in recent years due to the conflicting results in the world's emerging economies. On the one hand, this gave birth to the difficulties faced by some countries in transition in Central and Eastern Europe, including Romania, Bulgaria, Russia, Belarus, etc.., once with the fall of the communist regime in the early 1990 as well as to negative developments in Latin American economies once with the market liberalization in the 1980s; on the other hand, it led to the success of Eastern European countries such as Slovenia, the Czech Republic, Poland and the Slovak Republic, which were in the middle of the process of transition to a market economy and of those in the emergent economies in Southeast Asia once with the economic opening of the last century – these countries were able not only to achieve the highest economic growth rates in the world but also to maintain a reasonable distribution of income.

In the early 1990s, Francis Fukuyama foresaw a possible end of history with the fall of communism and the universalization of liberal democracy. Thus, he gave legitimacy to liberal democracy and to the free market as ultimate expressions of political representation. But it was only ten years later that Ravi Kanbur wrote that "the end of history lasted for such a short time...". This was because many of their hopes on achieving a broad consensus on the most effective policies for poverty reduction, economic growth and social equity dissipated at the onset of the economic crisis in East Asia and Argentina which coincided with the further anti-globalization demonstrations in Seattle, Prague and Washington DC.

The PhD thesis is divided into four chapters, of which the first two chapters have a theoretical nature, while the other two chapters have a practical nature. The thesis ends with a series of general conclusions and a list of annexes.

Chapter I – Conceptual highlights and methodological approaches of the relationship between income inequality and economic growth

The first chapter lays the conceptual and methodological foundations that will make the case study. This chapter aims at clarifying the concepts of inequality and economic growth and at identifying the sphere of manifestation of the economic inequality in an appropriate way to the goals of the research. The difficulties generally encountered in the study of the relationship between inequality and growth, as well as the limitations of econometric approaches are formulated in the concluding chapter. Although a lot of progress has been made during the last decades in the field of statistical data sampling, processing and analyzing at the national level thanks to the increased sophistication of computerized calculation programs, there are still many voices that question the credibility and usefulness of econometric models in the study of inequality and economic growth. However, this criticism is not meant to discourage empirical analysis related to this topic, on the contrary, it must act constructively on the research in the field, in terms of development and continuous improvement of the analytical method and econometric estimation of the dual relationship between inequality and economic growth.

Chapter II – The relationship between income inequality and the process of growth in the economic theory

In the second chapter, we try to analyse the theories on the relationship between income inequality and economic growth over time. As regards the link between economic growth and income distribution, the relationship can be firstly found in the classical works of Smith, Ricardo, Mill and Marx. The classics in economics generally focus their analysis on the economic growth of countries, explaining the process by theories based on the structure of social classes.

The transition from the classical view of the relationship inequality – growth towards the modern view is accomplished by John Maynard Keynes, who was concerned, at the beginning of the twentieth century, with the persistence of great disparities in income, which were considered by the neoclassic specialists to be self-adjusting through the mechanism of the "invisible hand" of the market.

Regarding the modern theoretical approaches of the relationship between inequality and growth, they are separated into three categories, not only chronologically, but also as a sign and direction of the identified link. Thus, the first theories are characterized by the positive connection between the increase in income inequality and the economic growth resulting from mathematical statistics, despite the fact that the economists who formulated them belonged to different schools of thought. The mechanisms of expression of these theories take into account the increase in the level of investment as a result of the increase in the savings made by the entrepreneurs, a quicker technological improvement due to the growth of desire for innovation, the stimulation of work and investment thanks to reduced tax rates or the growth of actual demand and thus of production, by stimulating consumption.

Unlike the first modern theories, the model of Kuznets and its subsequent variants that dominate the economic thinking of the 1970s consider the economic growth as the active element related to inequality, and not vice versa as it used to be; in addition, they consider the widening income disparities among individuals during different historical periods as predictable and transient effects of the improvement in economic growth. However, as a result of the reduction over time of Kuznets relationship seen in several empirical studies, a new perspective began to take shape in the modern theories of the early 1980s.

The last three decades have been dominated by the new approach of the relationship inequality – growth, which, unlike previous approaches, highlights the fact that, in the presence of flaws on the credit market, the income distribution has a significant and sustainable impact both on the human capital and on entrepreneurial activities, on the total income and on the overall economic development. Therefore, new theories find that significant income inequality is detrimental to economic growth, both in developed countries and in countries in course of development, through manifestation mechanisms such as rent-seeking, social unrest and economic instability, poor financial situation of the median voter, resulting in high tax rates or reduced investments in human capital.

Chapter III - The characteristics of the relationship between inequality and growth in the economies of Eastern Europe between 1990 and 2010

The third chapter examines the relationship between income inequality and economic growth in the specific case of Eastern Europe countries. Taking into account the fact that they started their transition to market economy during the same period of time, and that their goals are similar – the privatization of public enterprises, economic stabilization and price liberalization, the analysed sample is considered as relatively homogeneous. The region also raises a big interest due to the totally different economic situations of the countries in this region two decades after the beginning of the reforms. The purpose of this chapter is to identify a possible causal connection in both directions between income inequality and economic growth, as well as to analyse the macroeconomic context associated with the trend of income disparity widening.

After the selection of economic indicators on account of the mechanisms of interdependence between inequality and growth as identified in the theoretical part of the thesis, we carried out two panel-type econometric regressions, with the GDP growth rates per capita as the dependent variable in the first case, and the Gini coefficient associated with the distribution of the available income in the second case. The results of the econometric analysis confirm the existence of a significant relationship in both directions of causality between income inequality and economic growth.

A specific feature of the transition countries is the positive relationship between the growth rate of GDP per capita and the Gini index of available income, as well as the lack of a relevant connection between the percentage of the population aged 15 to 18 involved in a form of high school education of the total population within this age range and the growth rate of GDP per capita. However, regression models fail to explain the variations of the dependent variables to an extent of 67% and 76%, respectively; therefore we are 95% certain that there are highly significant statistical relationships between the independent variables and the dependent variables.

Chapter IV – Macro-economic and political orientations meant to optimize the relationship between income inequality and economic growth

In the last chapter, based on the results obtained at the end of the statistical and econometric analyses, we prescribed feasible solutions and policies available to governments to help achieve sustainable economic growth without neglecting income distribution.

Having identified a negative relationship between income inequality and economic growth in the context of Eastern Europe countries, the policies aiming at achieving higher growth rates are not compatible with a high degree of income inequality. Thus, the policies related to education improvement and vocational training, as well as those ensuring equal opportunities for access to education can help reduce income inequality in the long term together with the policies destined to increase and improve the structure of job market and to reduce the proportions of the informal economy and corruption. In addition, the policies that fight against inflation, as well as the existence of a large and diverse system of social transfers have the potential to reduce exacerbated income disparities and the incidence and worsening of poverty.

The mechanism associated to corruption distorts the relationship between inequality and growth by encouraging rent-seeking activities and the creation of an unstable economic environment, leading to a decrease in investments at the national level and especially to a decrease in investments from abroad, as well as an arbitrary distribution of wealth and of national resources. This mechanism can be optimized through policies aimed at increasing the transparency of public services and the efficient functioning of their internal and external control. But in addition to this, the share of the informal economy in the GDP indicates the marginal impact of corruption on income inequality, and if it exceeds 25% of the GDP, it is unlikely that anti-corruption actions alone could succeed in optimizing the relationship inequality – growth. Thus, streamlining the checks and the filing system in the fiscal and employment environments, as well as applying strict penalties and sanctions whenever necessary can solve some of the problems caused by the "undeclared" work; at the same time, encouraging electronic payments in the public and private sectors can be a solution in the fight against activities of under-reporting sales. However, in the case of the category of population that is forced into the informal economy by financial needs, the only solution seems to be the general income growth through overall economic growth.

Conclusions

Throughout this thesis, it was found that inequality is a very simple and also a very complex issue, at the same time. It is simple and attractive enough to easily mobilize people of different societies across the world, regardless of the historical period, and, at the same time, it is complex enough to be the central problem of the thinking of some of the greatest philosophers, politicians, sociologists and economists in their attempt to understand its meanings and implications.

Following the econometric analysis undertaken in this thesis, the theoretical hypothesis of the existence of a two-way interdependence is verified. From a statistical point of view, there is a statistically significant relationship between income inequality and economic growth, which manifests itself in both directions of causality. In the case of Eastern European countries, there is an inverse relationship from income inequality towards economic growth, and a positive relationship in the opposite direction. The negative sign of the first relationship confirms the new theories of inequality and economic growth, according to which income disparities tend to slow down the economic growth both in the long term and in the short term. In this sense, the main mechanism of the interdependence is the reduced investment due to various factors such as the high degree of uncertainty in the economy and the existence of social tensions, high administrative costs for income redistribution, high taxes or ineffective segmentation of the labour market caused by a low level of investment in the human capital.

In the opposite direction, the econometric results of this thesis suggest that the impact of economic growth on income inequality is less strong and has a positive sign with respect to the influence of income inequality on growth. Thus, during the last two decades, the reality in Eastern European countries shows that, when the economic policies meant to stimulate economic growth are not accompanied by specific government measures meant to alleviate the negative effects they can have on society, the economic growth rather tends to reduce the relative income of the median voter. Also, one can notice that, although extreme poverty has recorded significant improvement in almost all the countries of Eastern Europe during the last two decades, the disparities in the national income continue to increase and the population included in the second and third quintiles is the worst affected.

Based on the findings stated above, it does not seem surprising at all that the Eastern European countries with the highest economic growth both in terms of absolute value of the GDP and per capita have maintained optimal ranges of the Gini coefficient values with respect to the available income distribution throughout the entire transition period. This is seen not only in the countries of the Visegrád Group, but also in the countries of the former Soviet Union, in the case of Belarus. Therefore, one of the hotspots of the transition to a market economy in Eastern Europe was the alignment of the measures for redistributing the income to those designed to promote economic growth.

As a result, the evolution of the three groups of countries has been obvious in Eastern Europe since the mid-1990s. The first group consists of countries regarded as reformers, such as the Czech Republic, the Slovak Republic, Poland and Hungary, which were able to record significant macroeconomic performance and were soon recognized as functional market economies. The income distribution in these countries remained broadly egalitarian and the volume of social contributions reached the highest levels in the region. The second group, consisting of Romania and Bulgaria, is the group of countries that had irresolute economic development regarding the reforms, as well as modest macroeconomic performance until the early 2000s. For them, the income distribution experienced a significant increase of the differences between the upper and the lower layers of the population, without exceeding the optimum Gini coefficient, but also without following the inverted U trend specific to Kuznets curve. The third group includes the countries of the former Soviet Union, where the reforms were made arbitrarily and the economic distribution was severely compromised without recording significant results in terms of economic growth.

The comparative analysis of the three groups of countries showed that, in order to achieve results, the transition must have coherent internal policies that should be analysed beforehand without neglecting the social aspect, because, even if markets are the backbone of any successful economy, it is governments' duty to create a climate that should facilitate the prosperity of the business environment and to provide enough job opportunities, the development of a strong banking system and financial markets that investors can trust as well as long-lasting physical and institutional infrastructures. Otherwise, underdeveloped markets are generally characterized by monopolies and oligopolies, which, the closer they are to the key sectors of the economy, the riskier they will be for the economic growth.

In the future, the policies adopted to optimize the relationship between income inequality and economic growth should consider both the general macro-economic aspects and the social aspects of a country. Consequently, the control of inflation by reducing costs or taxes to stimulate production and to reduce prices, or by increasing interest rates, by reducing public spending or by freezing wages in order to alleviate the excess demand targets both ends of the relationship inequality – growth at the same time. Similarly, solving the problems of productivity delay per employee between agriculture and the other sectors of the economy – a problem that has been found in many Eastern European countries – is a mechanism of interdependence between inequality and growth which can be improved by policies aimed at increasing agricultural productivity.

Thus, the increase in income inequality by over 10 units on a 0 to 100 scale of the Gini index for several years, as was the case in most European countries, was felt by the population much more intensely than it really was, according to Easterlin's principle stating that the differences in the relative income are more important than the absolute ones in the societies where the basic needs are generally satisfied. The main risk of these feelings of relative economic deprivation and social injustice in the region of Eastern Europe refers to the reluctance shown shortly after the beginning of the reforms towards the transition to a market economy and its association with the increase in income disparity, which is a threat not only for capitalism but also for democracy in general. This transition to a market economy, which is perceived as being performed incorrectly and unable to convince or attract the population to the capitalist thought, may also explain the nostalgia of a significant proportion of the population for the former communist regime in countries such as Romania, Bulgaria, Moldova and the Russian Federation. However, this nostalgia is not actually related to communism, it rather appears as a result of the increase in income inequality in the countries of Eastern Europe once with the beginning of the transition, in other words of the perception according to which the new economic and political system has fostered some interest groups at the expense of the vast majority of the population. This perception is particularly true if we take into account that democratic forms of government are not compatible with exaggerated levels of income inequality, and that the defence of democracy and the opposition to the inequality are in fact inextricably linked.

We must not overlook the fact that the differential compensation of individuals is important to a certain extent, when individuals satisfy the utmost forms of their material vanity by the easy access to luxury goods; yet, after that, the desire of individual reputation and recognition becomes more important, and therefore individuals fall within the condition called by Kant “associated sociability”, which makes people prefer standing out among other people to meeting their personal aspirations. Similarly, but following an economic reasoning, Pigou found in the early twentieth century that the rich get more satisfaction from their relative income than from their absolute income, and that this satisfaction will not be reduced if all the income of all the rich is reduced at same time, thus justifying the redistributive taxation; Easterlin explained the apparent anomaly of happiness for the first time in the mid-1970s, saying that the absolute levels of income are important to a certain extent, after which the relative differences are increasingly important. Therefore, the increased income inequality is not an inevitable phenomenon, and the decision factors are responsible for the construction of a viable strategy for inclusive economic growth and for equitable income distribution.