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# INEQUALITY AND THE IMPACT OF THE GREAT RECESSION OF 2008 IN RUSSIA

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*To Andrea*

*"All animals are equal,*
*but some animals are*
*more equal than others"*
*G. Orwell*

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# Introduction

During the past few years, the interest in distribution of income and wealth gave rise to a flourishing literature. Economist like Piketty, Saez, Atkinson and Novokmet started to study in recent time inequality from different angles combining historical fiscal and national account data for a large number of countries that generated a large volume of data intended as a research resources for further analysis.[1]

I came in contact with the theory of inequality in my studies, and I developed an interest in it that in the end guided me in the writing this work.

Among the reasons why I decided to undertake this particular field for this thesis there is not only my interest for the theory of inequality but also my passion for Russia that has accompanied me all along my bachelor's degree in Russian Studies and then International Relations.

I decided to develop this work after having noticed the lack of much literature linking inequality to the Great Recession. After having read and collecting data to start writing this work, I noticed that the trend inequality registered in Russia after the crisis was different from an overall trend of western countries. The curiosity that this peculiarity established in me, made me in the end build a thesis that focus much more on the reasons why inequality present a deviant trend in relations to the crisis than on inequality itself.

The objective of this little piece of research is then to investigate the role that economic choices might have had on the positive trend in Russian inequality after the Great Recession of 2008. The investigation I carried out comprehends data coming from a series of national and international database that I analyzed so as to have a broader vision of the inequality. I mainly focused on the period that goes from 2007 to 2012 considering the significance of data collected for this particular period of time and the economic scenario that was in place at that time.

To analyze the inequality trend, I decided to make an international comparison that gave me the possibility to give a broader interpretation of historical, economical but also social event that are part of the Russian politics in the latest years.

[1] (Novokmet, Piketty and Zucman, From Soviets to oligarchs: Inequality and property in Russia, 1905-2016 2018)

The paperwork is articulated in 3 chapters. In the first one I give a theoretical analysis of the inequality and how this can be measured concluding the chapter with the analysis of the literature that links inequality with growth.
The second chapter focuses on inequality in Russia and how this, all over the time, has developed in relations to the evolution of the national state and its related political scenario. Lastly, the third and final chapter is an analysis of the inequality during the interested period and how it developed in relation also to the international economic scenario. I conclude the chapter analyzing the possible reasons why we can spot such a trend of inequality.
Thanks to this work, it has been possible to analyze some important factors linked to the variation of inequality in Russia and how sensitive this is to political and social changes and how much inequality is interconnected not only to growth but also to the perceptions of the population. The result of my research will be explained in a detailed way in the conclusion at the end of this work of thesis.

CHAPTER ONE

# The Idea of Inequality

In this very first chapter I want to analyze the concept of inequality and its development over the years. Inequality has moved from being a mere ideological and sometimes philosophical concept of social justice to a measurement that is mathematically relevant and helped over the years economists to tackle the problem. Analyzing inequality from a numerical point of view provided the possibility to see how it eventually evolved related to different policies or different political situation that might have influenced inequality in different periods and in different countries. I will also investigate the possible relation between inequality and growth and whether or not inequality has a correlation with the evolution of a country.

## *1.1 The concept of inequality*

The inequality – the state of not being equal, especially in status, rights and opportunities[2] – is the key concept at the base of the social justice. All over the years, inequality has always been discussed among sociologist as it comprehends a concept that is related to the access to right unequally distributed. Racism, for example, is a phenomenon where resources and rights are thought not to be granted to different racial lines. In sociological terms we distinguish inequality of opportunities that is the unequal distribution of life chances across individuals and inequality of conditions that refers to unequal distribution of wealth, goods and income.[3] It is pretty evident that this latter concept intersects with economics. Indeed, in economic terms, when talking about inequality, we do commonly refer to income inequality. I find important, before deep diving into the definition of income inequality, to give a definition of income. According to the OECD, income is defined as household disposable income in a particular year. It consists of earnings, self-employment and capital income and public cash transfers; income taxes and social security contributions paid by households are

[2] Adapted from (Oxford Dictionary of English (3 ed.) 2010)
[3] (Crossman 2019)

deducted. The income of the household is attributed to each of its members, with an adjustment to reflect differences in needs for households of different sizes.[4]

After this definition we can easily define the income inequality as the significant disparity in the distribution of income between individuals, groups, populations, social classes, or countries.[5]

Inequality has been largely analyzed and studied all over the years from different points of view. The Economic Analysis and Policy Division of the United Nations in 2015 has come up to a wider understanding of economic inequality. Much of the discussion regarding how to define economic or income inequality has produced two views. One concerns the inequality of outcomes that takes into account the material dimension of well-being, while the other is much more oriented on the concept of inequality of opportunities that focuses on the circumstances out of one's control.

Inequality of outcomes occurs when individual do not possess the same level of material conditions, and takes into consideration standards of living, education or health although the lens is particularly focused on income or wealth of individuals.

Historically this kind of inequality has been thought to be cancelled or at least softened with growth, but recent studies has determined that growth has inconclusive effect on inequality overall. On the contrary, inequality has a damaging effect for economic growth. By the early 2000s, it was clear that growth and inequality are inseparable, and many progresses were made in the sense of extreme poverty although not improving in the sense of inequality. [6]

On a broader view, Amartya Sen, in the late 70s, proposed that well-being should be defined and measured in terms of things considered valuable by people.[7] This approach emphasizes the freedom to choose one type of life rather than another. The goal of this approach is not equalizing impacts because not all the people convert income into well-being and freedom in the same way.[8] According to this idea of inequality we should include into the analysis all the metrics like age, gender, family background and disability. It also depends on climatic conditions or societal conditions like health care or education. What should be equalized in this scenario in not only the living but the

[4] (OECD 2019)
[5] (Howard and Carter 2018)
[6] (United Nations - Economic Analysis & Policy Division 2015) (Sen 1999)
[7] (Alkire, et al. 2015)
[8] (Sen 1999, 70)

actual opportunities of living that will give people the freedom to pursue a life of their own choosing.[9]

### *1.2 Branko Milanovic: the idea of global inequality and the development over the past 60 years.*

Branko Milanovic is lead economist at the World Bank's Development Research Group, Poverty and Inequality Unit. When talking about the development of inequality idea, theorizes that inequality has to transcend national borders since in his idea in an era of globalization it is important to understand how intricated are the mechanisms that the global dimension put in the analysis. First of all, the movement of capital, goods and technology from one side of the globe to another creates a greater interdependence for the generation of one's income and thus the concept itself of inequality changes. Starting from this assumption, the study of inequality takes a international perspective and we start to talk about global income inequality.[10]

Milanovic, referring to inequality in "Global Income Inequality in Numbers: in History and Now" (2013) states that it has developed over the past few years according to three phases that correspond to three different concepts of inequality.

The first concept of inequality (*Inequality 1*) is focused on inequality between nations of the world and it is measured making statistic calculations across GDPs or mean incomes obtained from household surveys in all countries of the world. In calculating Inequality 1, China and Luxemburg have the same importance because the population is not part of the calculation and thus every country counts the same.

The second concept of inequality (*Inequality 2*) is similar to Inequality 1 besides the fact that the size of the countries now is taken into account. China and Luxembourg enter into the calculation with their population, calculating the country average income.

Last, the third concept (*Inequality 3*) is now considered the most important one as it considered the world as composed by individuals and not nations. According to this,

[9] (Sen 1999)
[10] (Milanovic 2013)

each person regardless of his country, enters into the calculation with their actual income.

Since inequality is based on national household surveys, it is difficult to calculate inequality 3 before the 80s with precision since surveys are not available for most of the world's countries. For example, in China the first available survey is from 1982 or the first usable survey for the Soviet Union is the one 1988.

The graph in Figure 1 shows how different concept of inequality produce different results. The graph presents the Gini coefficient on the vertical axis as the shared measure for calculating inequality.

In the graph, inequality 1 between 1960 and 1980 is basically stable and considering the concept of the inequality related, it means that in this period there is no narrowing or growing of the gap between poor or rich countries.

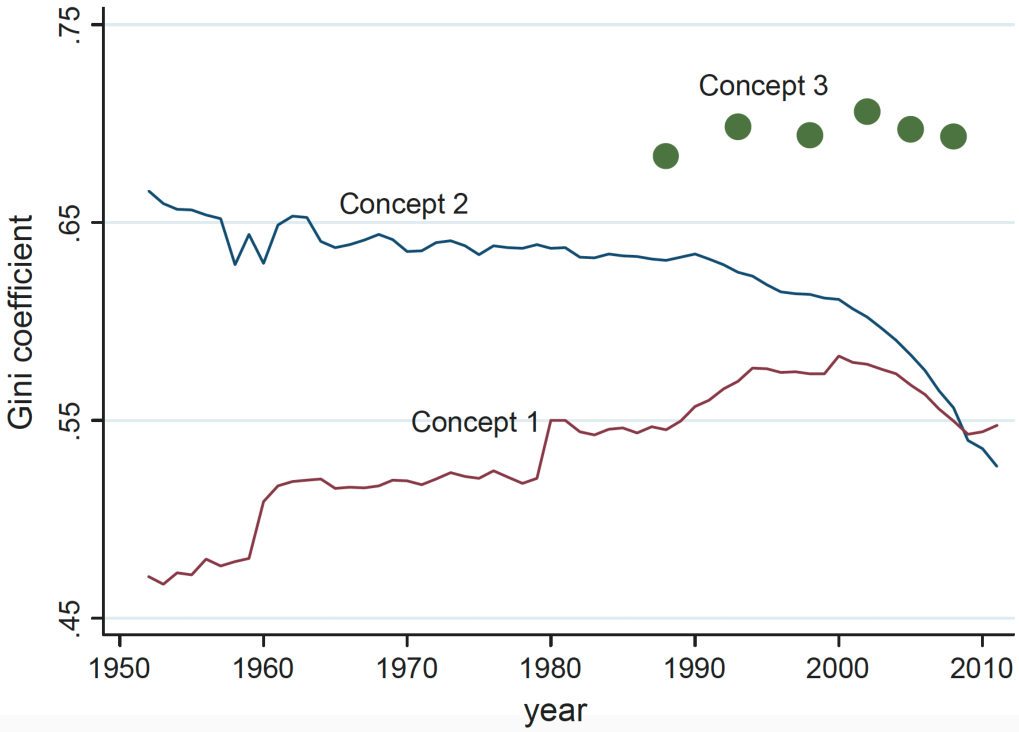


*Figure 1 - Inequality and global inequality, 1952 - 2011 Source: (Milanovic 2013)*

It is interesting how inequality 2 reports major economic changes like those after 1980 with the spread of globalization in big countries like China or India that are not actually mirrored in inequality 1 that on the contrary present an increase in inequality.

According to the World Bank[11], GDP in China starting from 1980 grew with an overall 5-9 % per year. In the calculation of inequality 1 China does not weight than any other countries but representing a huge slice of the world population, the importance it takes in the inequality 2 is even growing.
Those who wants to focus on the positive effects of globalization tend thus to prefer inequality 2 while on the contrary inequality 1 is preferred by those who tend to focus on inter-country gaps.
Inequality 3, that as mentioned earlier can be calculated only from 1980s as per availability of data, is shown in the figure to be higher than any other concept of inequality. The reason why is to be found in the definition of the inequality 3, as the calculation is made not with country average, but any single individual gets into the calculation.
Inequality 3 is calculated with five years intervals from 1988 to 2008. According to Milanovic[12] even the inequality 3 is not as precise as it should be as it is needed to adjust people's income with the price levels they face that differ between countries as people living in cheaper countries will get a boost in their incomes compared to that they make in nominal dollar terms.
Indeed, people who are considered nationally poor in the US or the EU have incomes that are many times greater than incomes of the poor people in poor countries and thus we cannot imagine making coalitions between such groups of national poors. Proletarian solidarity might be dead because of the global nature of proletarianism that makes the current world a *non-marxist* one as they do not share the same political interest.[13]

### *1.3 How to measure inequality*

When dealing about measuring inequality it is important to note that inequality is a matter of distribution other than expenditure for instance for income or land or many other variables. The most obvious way to proceed in calculating inequality starts from

[11] (The World Bank 2019)
[12] (Milanovic 2013)
[13] (Milanovic 2013)

dividing the population in fifth (quintiles) and report the level of proportion of income referred to each level. This way of measuring inequality is easy to understand although not giving a comprehensive summary measure that is then easy to be compared. [14]

According to the World Bank (2014) an inequality measure should satisfy some criteria:

- *Mean independence:* if the incomes were doubled, the measure would not change.
- *Population size independence:* if the population were to change, the measure of inequality should not change.
- *Symmetry:* if two individuals swap incomes, there should be no change in the measure of inequality.
- *Pigou-Dalton Transfer Sensitivity:* the transfer of income from rich to poor will reduce measured inequality

It is also desirable to have:

- *Decomposability*: Inequality measures may be broken down by population groups or income sources or in other dimensions.
- *Statistical testability*: one should be able to test for the significance of change in the index over times. [15]

Over the years many measures of inequality have been theorized. The most relevant are:

a. Gini coefficient
b. Generalized Entropy measures
c. Atkinson’s inequality measures
d. Decile dispersion ratio

[14] (World Bank 2014)
[15] (World Bank 2014)

*1.3.1 The Gini Coefficient*

The Gini coefficient of inequality is the most widely used measure. It is a statistical measure of distribution which was developed by the Italian statistician Corrado Gini in 1912. It is used as a gauge of economic inequality, measuring income distribution among the population.[16] It is based on the Lorentz curve that is a cumulative frequency curve that compares the distribution of specific variables (e.g. income). It gives value from 0 to 1 (or from 0 to 100) with 0 meaning perfect equality and 1 maximum inequality.

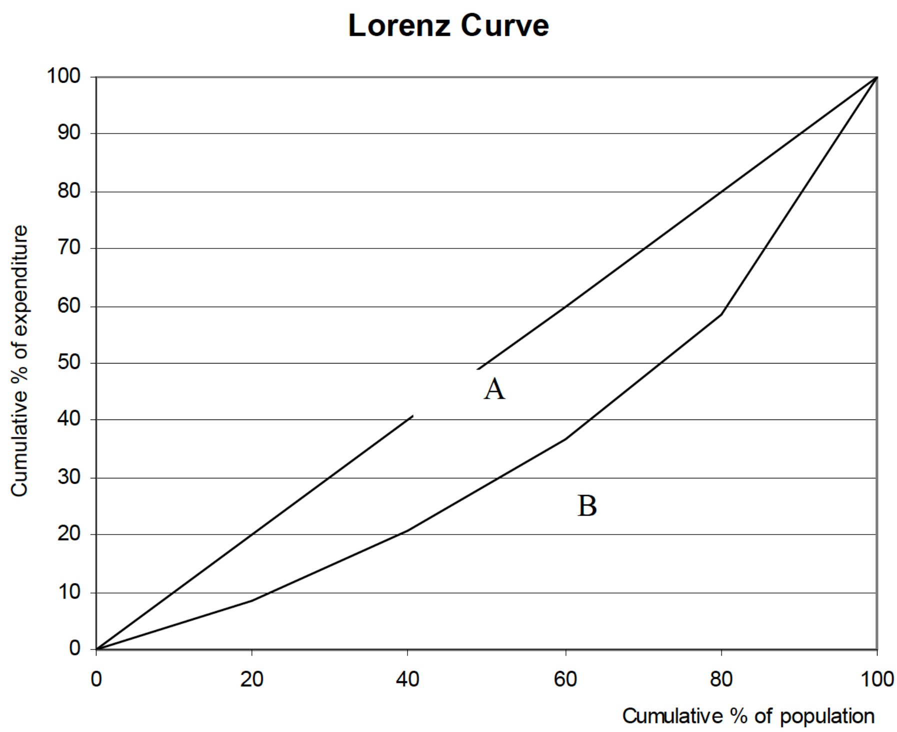


*Figure 2 - Lorenz Curve. Source: (World Bank 2014)*

The Lorenz curve shows the percentage of total income earned by cumulative percentage of the population. In a perfectly equal society, the lowest 25% of the population would earn 25% of the total income, the lowest 50% of the population

[16] (Towards Data Science 2019)

would earn 50% of the total income and the Lorenz curve would follow the path of the 45° line of equality. As inequality increases, the Lorenz curve deviates from the line of equality because the lowest quintile of the population my earn 10% of the total income.[17] (see Figure 2)

Formally, let $x_i$ be a point on the X-axis and $y_i$ a point on the Y-axis. Then

$$Gini = 1 - \sum_{i=1}^{N} (x_i - x_{i-1})(y_i + y_{i-1})$$

The Gini coefficient, graphically is also defined with the formula[18]:

$$Gini = \frac{A}{(A + B)}$$

Where A and B are areas as shown in the graph. Indeed, if A=0, the Gini coefficient is zero which means perfect equality, whereas if B=0 the Gini coefficient becomes of complete inequality.[19]

According to the World Bank (2014) the Gini coefficient, although being the most extensively used measure of inequality does not utterly satisfies all the criteria. It does not satisfy decomposability criterion since Gini is not easily decomposable across groups- The total Gini society is not equal to the sum of the Gini coefficient of its subgroups.[20] Overall, Gini Coefficient satisfies all the main criteria and this testifies the fact that is now the main measure for inequality.

I personally decided to use Gini coefficient to study and then compare inequality in this work of thesis. This is due to the fact that most widely accessible data are reported in Gini and because the coefficient is a finite number that gives you a comprehensive understanding of the total inequality of a country without further

[17] (De Maio 2007)
[18] (World Bank 2014)
[19] (World Bank 2014)
[20] (World Bank 2014)

analysis. This, gives also the possibility to easily compare the inequality of one country, that in my case is Russian Federation, to the one of other countries.

### *1.3.2 Generalized Entropy measures*

These inequality measures satisfies all the six criteria. Among the most widely used there is the Theil indexes and the mean log deviation measure. The general result is given by:

$$GE(\alpha) = \frac{1}{\alpha(\alpha-1)}\left[\frac{1}{\mathrm{N}}\sum_{\mathrm{i}=1}^{\mathrm{N}}\left(\frac{\mathrm{y_i}}{\bar{\mathrm{y}}}\right)^{\alpha} - 1\right]$$

where $\bar{y}$ is the mean income (or expenditure per capita). The values of the GE measures vary between 0 and ∞ with zero representing an equal distribution and ∞ representing a higher level of inequality. Here the parameter α represent the weight given to distance between incomes at different levels of income distribution and this makes the GE more sensitive to changes and thus the most precise metric for inequality. [21]

### *1.3.3 Atkinson's inequality measures*

Atkinson defined a series of measures of inequality with a weighting parameter ε which measures aversion to inequality. These measures have some theoretical properties that are similar to the ones of the Gini coefficient.[22]

The Atkinson class is defined as:

$$A_{\varepsilon} = 1 - \left[\frac{1}{N}\sum_{i=1}^{N}\left(\frac{y_i}{\bar{y}}\right)^{1-\varepsilon}\right]^{1/(1-\varepsilon)}, \qquad \varepsilon \neq 1$$

[21] (World Bank 2014)
[22] (World Bank 2014)

$$A_{\varepsilon} = 1 - \frac{1}{\bar{y}} \prod_{i=1}^{N} \left( y_i^{(1/N)} \right), \qquad \varepsilon = 1$$

This measure depends on the degree of society aversion to inequality (a theoretical parameter decided by the researcher), where a higher value entails greater social utility or willingness by individuals to accept smaller incomes in exchange for a more equal distribution.[23] An important feature of the Atkinson index is that it can be decomposed into within- and between-group inequality. Moreover, unlike other indices, it can provide welfare implications of alternative policies and allows the researcher to include some normative content to the analysis.[24]

### *1.3.4 Decile dispersion ratio*

This is a simple measure that is also widely-used. It presents the ratio of the average consumption of income of the richest 10 percent of the population divided by the average income of the bottom 10 percent. However, it ignores information about incomes in the middle of the income distribution and does not even use information about the distribution of income within the top and bottom deciles.[25]

## *1.4 The relation between inequality and growth*

Economists have long been interested in the idea that a county's level of development might help determine its level of inequality. [26] One of the most famous theorists was Simon Kuznets, a Russian-American economist who thinks that inequality follows a natural trajectory as economies move further from their agricultural roots.[27]

In the Kuznets hypothesis, in pre-industrial societies inequality is very low. With the process of industrialization however we can see a widening of the gap thanks to the

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[23] (Development Strategy and Policy Analysis Unit - Development Policy and Analysis Division Department of Economic and Social Affairs 2015)
[24] (Bellù e Liberati 2006)
[25] (World Bank 2014)
[26] (Keeley, Income Inequality: The Gap between Rich and Poor 2015)
[27] (Keeley 2015)

rising of earnings of factory workers compared to farmers. But then, as argued by Kuznets, gaps start to narrow as the state begins collecting more taxes distributing them as benefits.[28] This widely accepted model predicted that inequality within society would first rise and then decline with industrialization. The reasoning was that the early stages of development would see higher returns to capital. This would raise the share of wage income in GDP and thus reduce the gap in come between workers and owners of capital.[29] The idea of Kuznet (1955) is translated into the Kuznet Curve (see Figure 3), that is a hypothetical curve that graphs inequality against income per capita. The aim of this curve is to explain the behavior and relationship of these two variables as an economy develops from a primarily rural agricultural society to an industrialized urban economy. The result is an inverted U-shaped curve that shows that in the case of the economic development, market forces first increase then decrease the overall economic inequality.[30]

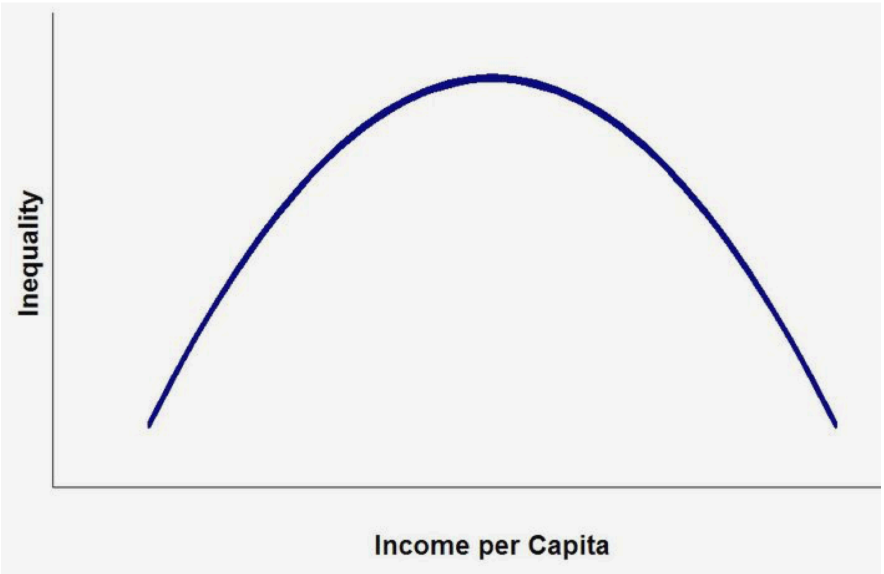


*Figure 3 - Kuznet Curve. Source (Moffat 2019)*

[28] (Kuznets 1955)
[29] (Remington 2011)
[30] (Kuznets 1955)

The Kuznets hypothesis in the end failed mainly because the data used for his studies reflect a pattern that is shared by few countries only.[31] Moreover, the hypothesis of Kuznet reflected one of the major problems that economists have to face that is: if there is a link between inequality and growth, this link doesn't seem to be direct and Kuznet failed to confute this assumption.[32]

In looking for this link, Harvard economist Richard B. Freeman is one who believe to find it just analyzing how inequality affect growth. He argues that inequality is good for growth up to a point that, if surpassed, means falling growth. According to prof. Freeman only few people have the right skills to compete for the top, the others coast because they have little or no chance to reach the top.[33] Arguments like this underline the complexity of the link between inequality and growth since this, according to many economist, is a dynamic relationship determined by the particular shape that inequality have in our society.[34]

Economist Sarah Voitchovsky[35] thinks that the relationship between inequality and growth is given by two important assumption:

1. Inequality may affect how different income groups *behave* – that means that, for example, poor people may be affected by their inability to invest in education and their lower health, or rich may use their economic power to lobby against policies that don't serve their needs for example investment in public health and education.[36]
2. Inequality may affect how different social group *interact.* This is linked to the fact that higher inequality is probably associated with reduced trust which may hurt business by imposing transaction cost. Large wealth gaps can be associated with social conflicts and for both businesses and governments that will eventually lead to difficulties to come to a political consensus.[37]

[31] (Moffat 2019)
[32] (Keeley 2015)
[33] (Freeman 2012)
[34] (Keeley 2015)
[35] (Voitchovsky 2009)
[36] (Keeley 2015)
[37] (Keeley 2015)

This framework explains how the link works and how politics and social issues have an impact on the distribution of incomes and then inequality. But the real issue, given the link, is whether or not inequality is good or bad for the growth of a national state.

### *1.4.1 Is inequality good or bad for growth?*

By analyzing the relationship and the link between inequality and growth it is not very clear if inequality represent something good or bad for growth. Unfortunately, there is not a fixed answer as economist have produced evidence for both theories.

Economist Greg Mankiw[38] argues that inequality is good for growth as it makes entrepreneurs enjoy the rewards of their risk taking. But if in an equal society a new entrepreneur starts to better off of his/her new idea, this makes him/her much richer than everyone else. The state can then make a choice: to tax the entrepreneur or encourage others to take a similar risk. Following the second option, they allow then people to accumulate wealth and make investments for the economy that will then grow. This idea was first proposed by American economist Arthur Okun[39] in the 70s stating there might be a trade-off between inequality and economic efficiency. As said by Okun (1975), lowering inequality leads to a society that uses economic resources less efficiently.

However, in the idea of Mankiw (2013) there is the lack of the Pareto criterion that if someone better off, someone would worse off. Mankiw (2013) describes what happened in the United States where in the 70s average income grew, but the growth was not uniform as the top 1% grew much faster than average. Indeed, according to him, there is no policy concerning inequality that would make everybody better off and this makes inequality inefficient. If we imagine that in a world of egalitarian utopia where we have people like Steve Jobs or J.K Rowling that come up with the idea of a new product that everyone wants to buy, the distribution of economic well-being is naturally altered as there is a natural exchange between many buyers and only one seller.[40] This of course, represents a challenge for the political body that has always wanted to contrast inequality making the society equally benefit of the wealth of the

[38] (Mankiw 2013)
[39] (Okun 1975)
[40] (Mankiw 2013)

nation. In the idea of Mankiw (2013), economist should swap their focus from inequality of incomes to inequality of opportunities as the second is more likely to led to inefficiency of the economic system and thus needs more attention. It is important for a state to pursue the goal of the inequality of opportunity in order to achieve a full equality. To be specific, he thinks that the state should be aware of not precluding anyone to follow the path they want as this is the only way possible to contribute to the growth of the economic path. In fact, if a family is unable to contribute to collect the right amount money for their children, the underinvestment in education will eventually led to both inequality and then inefficiency of the system. The problem is then to measure the degree of inequality of opportunity because to many variables are at stake for instance IQ has been widely studied lately, as both a dimension of talent but also in relation to the degree of heritability that makes smart parent to have smart children.

However, this idea has been widely criticized and evidence from OECD or IMF prove that excessive inequality is bad for growth. The OECD thinks that greater inequality might reduce growth in case great inequality becomes unacceptable for the population who might request higher taxation and more regulation. In extreme case inequality might lead to political instability and social unrest. In a case like this, poor individuals may not be able to afford worthwhile investments, and under-investment by the poor implies that aggregate output would be lower than in the case of perfect financial markets. With perfect financial markets, all individuals would invest in the same (optimal) amount of capital, equalizing the marginal returns of investment to the interest rate.[41] Moreover, inequality fosters aggregate savings, and therefore capital accumulation, because the rich have a lower propensity to consume.[42]

In particular the OECD in a recent paper (2015) estimates that in OECD countries the average increase in inequality of 3 Gini points over the past couple decades is estimates to have cut GDP by 8.5%.

According to OECD researchers, a widening wealth gap leads low-earning families to invest less in education and skills. This probably hurts growth by reducing number of

[41] (Cingano 2014)
[42] (Cingano 2014)

skilled workers available in the economy and of course this affect inequality on people's human capital.[43]

According to Keeley (2015) rising inequality may also reduce overall middle-class demand for goods and fuel debt crisis. Indeed, as stated by Keeley (2015), together with a rising of inequality, financial structure shifted from being bank-based to be market-based. Maldonado (2017) established a theoretical link between financial system and income inequality that is based on the hypothesis that top earners invest proportionally more in high-return capital market, while low-income save more in lower-return bank deposits as they are not aware of the directions of the financial market.[44] This opinion is also shared by the World Bank economist Branko Milanovic. He argues that the financial sector became, because of this, more irresponsible in throwing money at anyone.[45] Lower earners took advantage, but they couldn't afford to repay thus fueling debt crisis.[46] In fact, analyzing the income share of the top 1% in the United States, provided financial capital to be available in big quantity. Inevitably this, although being a good side effect of inequality, made the demand for investments overcome the line of the profitable and safe investment ratio. More importantly, this allowed American middle class to stagnate creating, thus, the illusion of wealth that translates into an easier access to credit.[47] Even Mankiw (2013) thinks financial sector is crucial when talking about inequality. He links the talent allocation to inequality in the sense that those who work for this sector are the same people that decide how to allocate capital and risk as well as providing liquidity. They decide in a decentralized and competitive way which industry or firm need to slow down and who will grow. The fact that the figure in charge of this tasks may well affect the equality and incomes of the top 1%, the issue of who to pick for this job is vital and that's why he thinks that in a well-functioning economy it is important to correct allocating talents as the entrepreneur with a new idea has to become rich and has to then invest in a socially productive way.

Whereas it is not possible to give a comprehensive answer to the dilemma on whether inequality is good or bad for growth, we have evidence of the existence of a strong

[43] (OECD 2015)
[44] (Maldonado 2017)
[45] (Keeley, Income Inequality: The Gap between Rich and Poor 2015)
[46] (Milanovic, The Haves and the Have-Nots 2011)
[47] (Milanovic, The Haves and the Have-Nots 2011)

link between the two as from both views it is visible that inequality is particularly relevant in both social and political dynamics. The international monetary fund in a recent study, tried to analyze the link between inequality and growth trying to discover the exact point where inequality starts to hurt growth.[48] In fact, as stated by Maldonado (2017), policy makers should be aware of potential consequences, especially for long-term projects, and should further evaluate the welfare impact of their proposals on a multi-dimensional scale beyond economic growth. The debate is not over yet.

[48] (Grigoli, Paredes and Di Bella 2016)

CHAPTER TWO

# Inequality in Russia

### *2.1 Inequality official data and the problem of discrepancy with unofficial ones*

Russia represents an interesting case in which official published data on income inequality are supposed not to be directly derived from any specific survey. Scholars agree on the fact that with the transition to market economy had the potential to rapidly increase the variation in individual incomes and consumption, and by this Russia and China were often cited as an example of how fast this increase could be.[49]

According to the state statistic center, Russian data on inequality, as elsewhere, come from a survey – Household Budget Survey (HSB) conducted by the state Statistics Agency of Russia (Rossstat). This survey was initially introduced in 1952 and revised in 1997, it collects all the expenditures data measured in the most rigorous and detailed way possible following international standards. The problem with these data, as stated by Yemtsov (2008) is that these have been never available to researchers except for the data related to 2003 and 2004 that have been published on the web in 2007 despite the fact that the World Bank wanted them to be available for everyone and indeed Yemtsov contributed to opening the access to them. Moreover, an additional issue is that data couldn’t be verified by a third and independent party.

The data collected by Yemtsov (2008) during his studies on Russian inequality (as shown in Table 1) exhibits a rapid increase in inequality in early transition years, followed by some moderate and gradual increase in the most recent period of economic growth with the Gini coefficient reaching the maximum in 2006. There are interesting data in the table like the fact that the crisis of 1998 didn’t provoke any important increase as well as the shock therapy of 1992 when in the post-soviet period government decided to a sudden release of price, trade liberalization, privatization and currency control, that seems to have produces little variation.

[49] (Yemtsov 2008)

*Table 1 - Official Data for 1989-2006: Summary of Income Distribution Statistics for Russia (Shares of quintiles in per capita money incomes, percent, and the Gini index) - (Yemtsov 2008)*

| Quintiles of per capita incomes | *1989* | *1991* | *1992* | *1993* | *1994* | *1995* | *1996* | *1997* | *1998* |
|---|---|---|---|---|---|---|---|---|---|
| First quintile | 9.8 | 9.4 | 6.0 | 5.8 | 5.3 | 5.5 | 6.2 | 6.0 | 6.1 |
| Second quintile | 14.9 | 14 | 11.6 | 11.1 | 10.2 | 10.2 | 10.7 | 10.2 | 10.4 |
| Third quintile | 18.8 | 17.9 | 17.6 | 16.7 | 15.2 | 15.0 | 15.2 | 14.8 | 14.8 |
| Fourth quintile | 23.8 | 22.8 | 26.5 | 24.8 | 23.0 | 22.4 | 21.5 | 21.6 | 21.1 |
| Fifth quintile (richest) | 32.7 | 35.9 | 38.3 | 41.6 | 46.3 | 46.9 | 46.4 | 47.4 | 47.6 |
| **Gini coefficient** | **0.227** | **0.256** | **0.289** | **0.398** | **0.409** | **0.381** | **0.375** | **0.381** | **0.398** |
| Quintiles of per capita incomes | *1999* | *2000* | *2001* | *2002* | *2003* | *2004* | *2005* | *2006* | |
| First quintile | 6.1 | 6.1 | 5.7 | 5.7 | 5.5 | 5.4 | 5.4 | 5.2 | |
| Second quintile | 10.5 | 10.6 | 10.4 | 10.4 | 10.3 | 10.1 | 10.2 | 9.9 | |
| Third quintile | 14.8 | 14.9 | 15.4 | 15.4 | 15.3 | 15.1 | 15.2 | 15.0 | |
| Fourth quintile | 20.8 | 21.2 | 22.8 | 22.7 | 22.7 | 22.7 | 22.7 | 22.6 | |
| Fifth quintile (richest) | 47.8 | 47.2 | 45.7 | 45.8 | 46.2 | 46.7 | 46.5 | 47.3 | |
| **Gini coefficient** | **0.399** | **0.394** | **0.397** | **0.397** | **0.403** | **0.409** | **0.406** | **0.416** | |

Yemtsov then used data for the period 1997-2002 reported in the Poverty Assessment (World Bank 2005) and it can be clearly seen that for the same period, like 2003 and 2004 the estimated Gini for survey-per-capita income was ranging from 0.47 to 0.44 declining, while the table above reports significantly lower values and increasing over time.[50]

Anyway, considering that official data have been available only recently, many empirical analyses conducted in the first decade of this century are based on the data collected by the RLMS (Russian Longitudinal Monitoring Survey) project by the HSE – Higher School of Economics with all the related limitations. This survey, started in 1992, is important because can offer data from 1992 onward without the filter of the governmental statistics institute.

The RLMS-HSE is perhaps on the only representative microeconomic survey in Russia with a significant panel component: the same households are surveyed over long periods. This panel component significantly boosts the quality of forecasts based

[50] (Yemtsov 2008)

on RLMS-HSE data. According to the data elaborated by Commander (1999) the difference is tangible. RLMS shows high inequality already in the first round un 1992, when official inequality measure was still low. (see Figure 4)

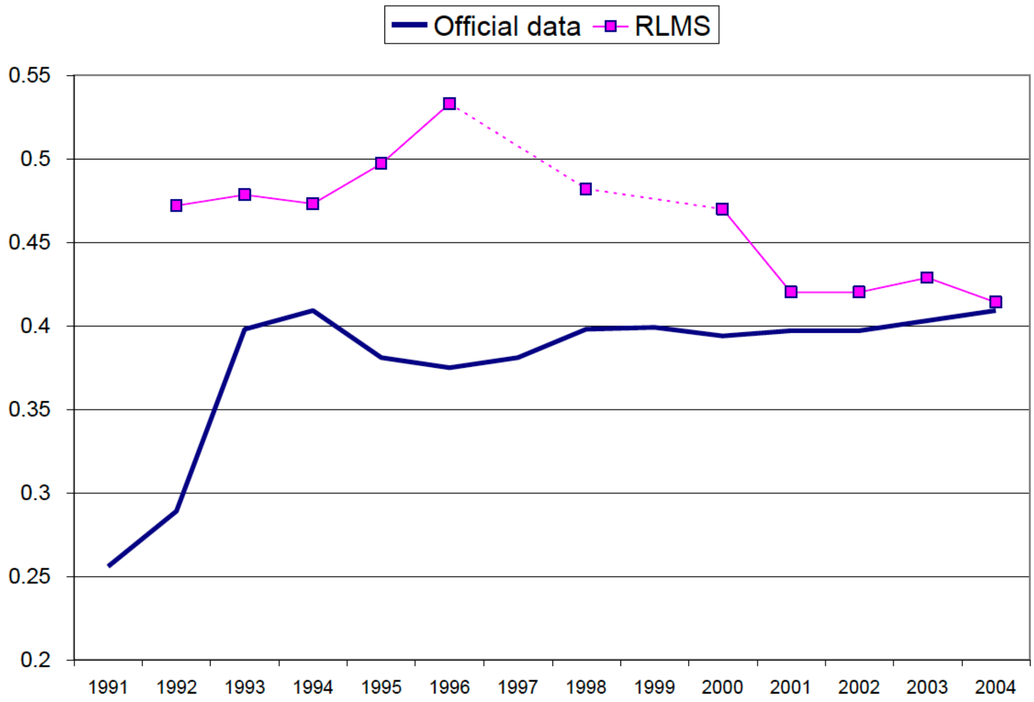


*Figure 4 - Gini index for per capita nominal money incomes in the official data and in the RLMS, 1992-2004. Source: (Commander, Tolstopiatenko e Yemtsov 1999) and (Yemtsov 2008)*

Because of the fact that after the already-known studies above-mentioned, literature in the comparative analysis of inequality in Russia has not produced many studies on this sector, I decided then to merge already known data coming from the Russian Federal State Statistics Service (Rosstat)[51] with the estimates made by the World Bank in order to have a broader vision of the inequality measures. The data coming from the World Bank are presented to be more accurate since they merge official data with data coming from World Bank country department.[52] (see Figure 5)

I decided not to use RLMS data already used by Yemtsov (2008) since they present a lot of limitations ageing and declining-inequality bias at the end of the period, as explained by Kozyreva, Kosolapov, & Popkin (2015) and by Novokmet, Piketty, & Zucman (2018),

[51] (Rosstat 2016)
[52] (The World Bank 2019)

From the graph below, we can definetely notice how the inequality trend analyzed by the World Bank oscillates 0,3% around the official Rosstat data (not considering the initial values) and despite the years from 2003 to 2008 where inequality is practically the equal to Rosstat, the World Bank data make Russia more equal than Russia itself considering the fact the WB are data that are more precise than those coming from official sources within Russia.

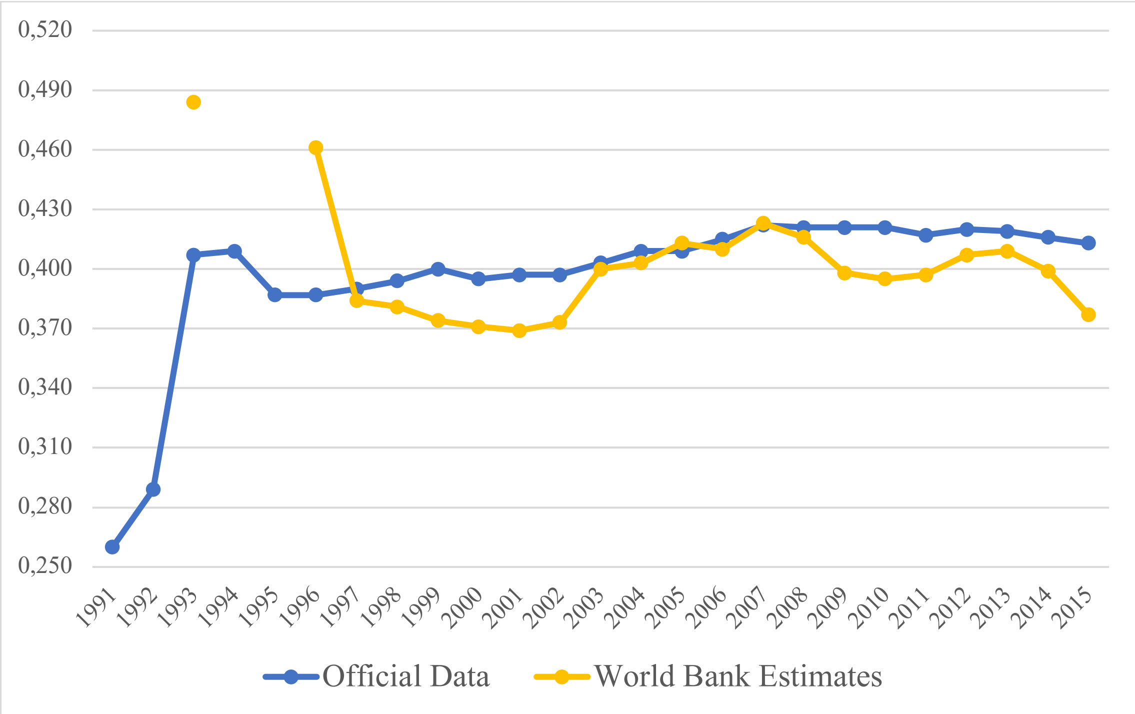


*Figure 5 -Gini coefficient by Rosstat compared to data retreived form the World Bank database. Source: (Rosstat 2016) (The World Bank 2019)*

### *2.2 The historical perspective of inequality in Russia*

Russia has lived a series of epochs that are very different one another. From the Soviets to the transition and in the end to Putin, every single period, economically speaking as its own features that reflect also on the relative values of inequality.

For instance, before USSR, Russia was a monarchy with zero-income peasantry and a strong wealth nobility that socialist decided to fight. While, under socialism, the intimate relation between income and work gave way to the equitable principle of distributing the community's output according to need.[53] In this sense, the keywords that we want to consider while analyzing inequality during the USSR are: public production and cooperation, this last is quite important historically speaking as collective farms that Stalin imposed in the countryside. Also fundamental here is the nature of Soviet centralized planning as a means of coordinating and directing operational decisions stressing also market processes in the fields of labor recruitment and distribution of consumers' goods among households.

Recently, Novokmet, Piketty and Zucman (2018) attempting at correcting and revising official data, using a survey-based measure of income inequality. A very first analysis pointed out that income inequality measured in Gini as an official measure for income inequality shared worldwide, was high under Tsarist Russia, then dropped to very low levels during the Soviet period, and finally rose back to very high levels after the fall of the Soviet Union. [54]

The long-run evolution of inequality in Russia over 1905-2015 period is measured considering the revised data of the top 10% income share that was around 45-50% in 1905, dropped around 20-25% during the Soviet period and rose again to 45-50% in the 1990s before stabilizing after the transition period. (see Figure 6)

Inequality in the figure reflect the political choices of the long period that goes from Russian Empire to Russian Federation. The U-shape is given from the fact that if in the Soviet period the principle followed by the regime was of the all-equal, this principle was then abandoned in favor of market economy and trade liberalization as the only way out from a huge deficit in the balance of payment in the last years of the soviet regime.

[53] (Bergson 1984)

[54] (Novokmet, Piketty and Zucman, From Soviets to oligarchs: Inequality and property in Russia, 1905-2016 2018)

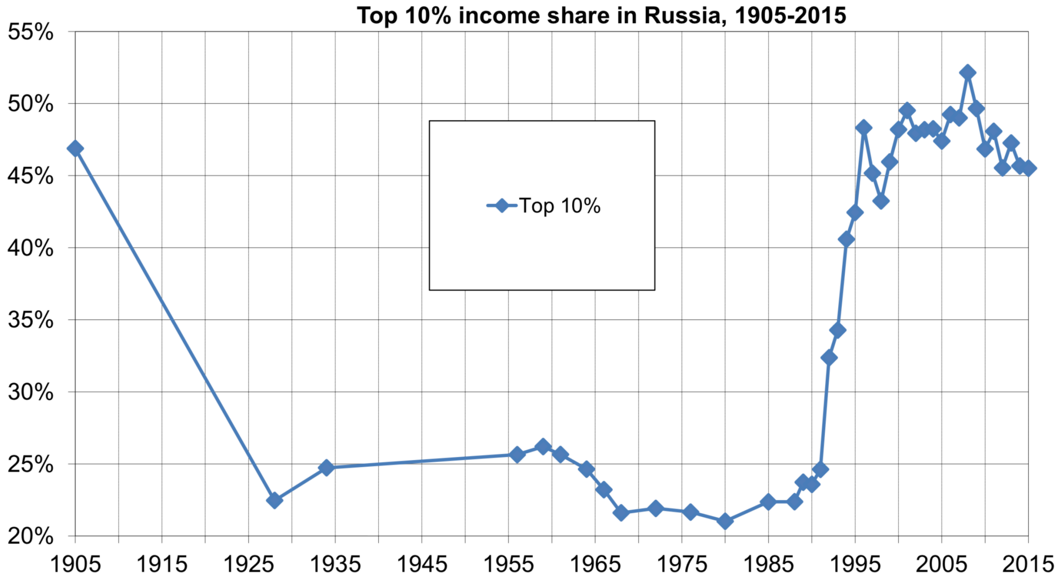


*Figure 6 - Top 10% income share in Russia 1905-2015 (Novokmet, Piketty and Zucman, From Soviets to oligarchs: Inequality and property in Russia, 1905-2016 2018)*

The ups and downs in Russian inequality seems to be the reflection of both economic shocks and political periods from Tsarist Russia until now. Inequality during the period of the tsars for instance, has received so far little attention due to little data available, whereas observers in the immediate post-emancipation decades claimed that there was a growing gap between an impoverished peasantry and the urban class of the cities valuating a dataset that compared only a small set of indicators.[55] Indeed, they tended to focus more on perception than real differences in income or wealth. The social classes: peasantry, nobility and townspeople were defined at birth and people were automatically associated within a cluster of wealth and income. [56]

The data are analyzed based on projections and estimates, and do not take into consideration inequalities in personal and basic rights but are based solely on monetary indicator. This view is a solely economic way of reading the society and it doesn't allow to give us a wider interpretation on inequality as it it based solely on empirical data. However, even if solely economic data might be considered an oversimplification, Landman and Larizza (2009) suggested a correlation between human rights, poverty and social exclusion with inequality. The model revealed a

[55] (Nafziger and Lindert 2012)
[56] (Nafziger and Lindert 2012)

definite correlation between resource inequality and human rights violations in a sense that the quantifiable data measured with Gini, also include these aspects more connected to social science and human rights that are difficult to measure,

Going back to communist period, inequality was of course reduced to very low levels and figures show that top 1% income share is around 4-5%. This means that the top 1% of the income-holder population earn only 4 to 5 times the average income of that time.[57] This relatively egalitarian situation remained consistent till the beginning of the 90s when it changed dramatically as hastily adopted economic reforms abruptly turned the planned economy into a capitalistic free market one.[58]

Despite the soviet period where the inequality due to the strong central controlling government has been lowered almost to zero, it is valuable to understand the effect of inequality during the transition to market economy initiated by the *perestroika* of president M. Gorbachev and completed with the dissolution of the USSR. The transition resulted in a significant change not only in the total size of the country but also in the division of welfare. The growth of income inequality is one of the most negative socio-economic results of the transition stage. From this period in 1991 to 2000 the Gini coefficient in Russia practically redoubled from 0.26 to 0.40 and it is comparable now to the Latin-American counties which are considered among the most unequal economies in the world.[59] The post-soviet economic situation stems from two main reasons: decentralization and breakup of the country. This is due to the fact that after the demise of the Soviet Union Russian Federation managed to rise from the ashes of the old state but in a new form, being now a federative state with much of the power and responsibility now transferred from Moscow to federal level. Together with this, we can see also a period of catastrophic effects on investments that spread all over the population causing hyper-inflation and destitute a lot of governmental enterprises more than rising of mortality rates and decline of the health care in post-Soviet Russia. Inequality after a period of turmoil due to the brusque transition, stabilizes for few years till 1998 when rose to 39% and it continued to rise till 2000.[60]

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[57] (Novokmet, Piketty and Zucman, From Soviets to oligarchs: Inequality and property in Russia, 1905-2016 2018)
[58] (Russel 2018)
[59] (Kislitsyna 2003)
[60] (Galbraith, Krytynskaya e Wang 2004)

According to official data retrieved from Rosstat (formerly known as Goskomstat)[61] we can see the trend of inequality of those years in the table and the graph measured in Gini. (see Figure 7Table 2 - Gini coefficient of Inequality in Russia, 1991 – 2000

*Table 2 - Gini coefficient of Inequality in Russia, 1991 – 2000 (Rosstat 2016)*

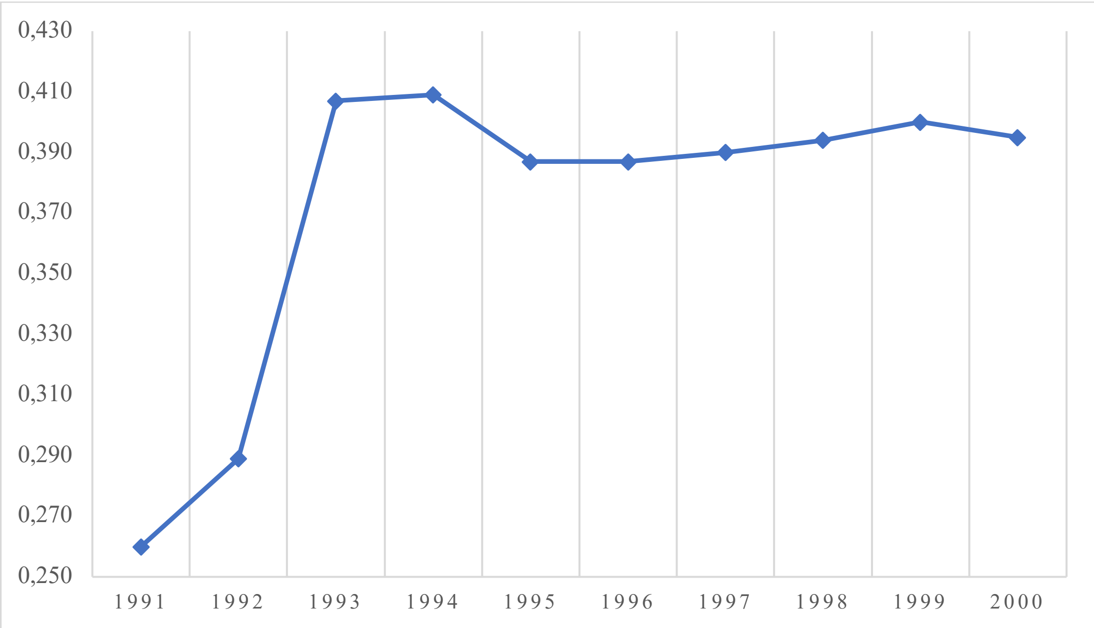


*Figure 7 - Gini coefficient of Inequality in Russia, 1991 – 2000 (Rosstat 2016)*

The political and social scenario after 2000 sees the rise in power of Vladimir Putin that man that has exploited Russians' fears of economic turbulence and their indignation at a distribution of wealth deemed unjust. Putin boosted popularity and growth from different points of view.[62] He managed to modernize the society with an effective and precise strategic plan. The rapid growth that we can see after 2000 raised tens of million out of poverty filling out the middle class.[63] By 2008, fewer than 15 percent of Russians were poor and the proportion apparently stayed low through the global financial crisis experiencing a trend of inequality quite different from that of most Western countries. [64]

[61] Государственный комитет по статистике in English, the State Committee for Statistics now known as Rosstat - http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/en/main/
[62] (Treisman 2012)
[63] (Treisman 2012)
[64] (Treisman 2012)

### *2.1.1 An international comparison of inequality*

When it comes to evaluate income inequality, usually the comparison that is always made is between Russia and Western countries. According to the study carried out by Novokmet, Piketty and Zucman (2018) Russia appears as an extreme version of the long-run U-shaped pattern observed in the West during the 20th century (see Figure 8).

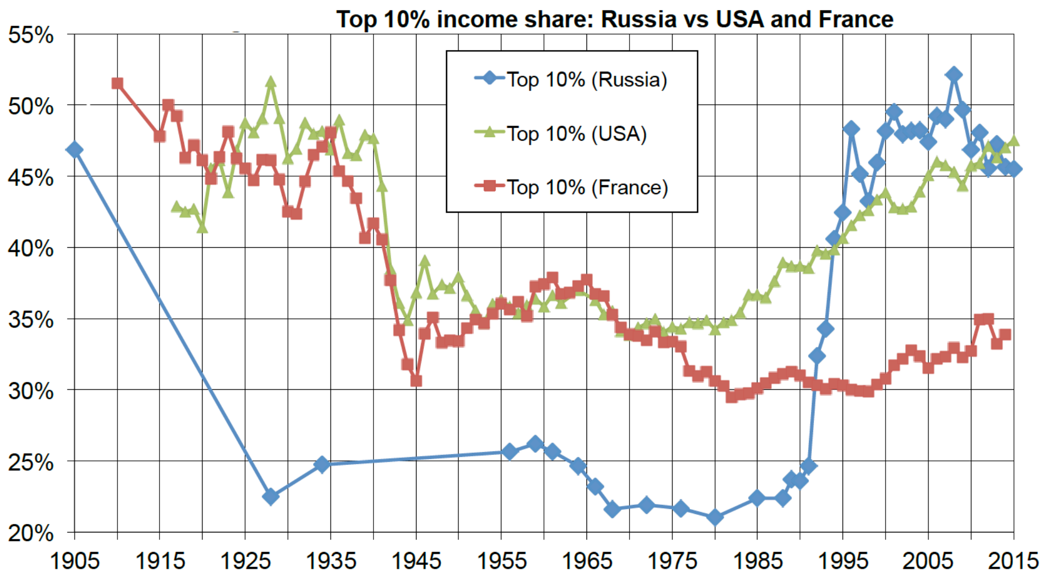


*Figure 8 - Comparative analysis 1905-2015 (Novokmet, Piketty and Zucman, From Soviets to oligarchs: Inequality and property in Russia, 1905-2016 2018)*

As we can see from the figure, at the beginning of the century, inequality in the countries considered in the analysis, stands at an almost equal level. During the 1917 – 1989 period, inequality stood at low levels, but the compression was particularly relevant in Russia due the Soviet Union whose objective was perfect equality all over the country. Article 19 of the 1977 constitution[65] of the Soviet Union says:

> The social basis of the USSR is the unbreakable alliance of the workers, peasants, and intelligentsia. The state helps enhance the social homogeneity of society, namely the elimination of class differences and of the essential distinctions between town and country and between mental and physical labor, and the all-

[65] (КОНСТИТУЦИЯ (Основной Закон) СОЮЗА СОВЕТСКИХ СОЦИАЛИСТИЧЕСКИХ РЕСПУБЛИК 1977)

> round development and drawing together of all the nations and nationalities of the USSR. [66]

A research carried out by Piketty in 2014[67] reveals that under the important variation that is possible to be seen in France and US since the 1970s-1980s, there are political events like the conservative revolution or the anti-progressive-tax and financial deregulation.

It is particularly interesting, thus, to make a comparison of inequality between Russian and countries of the former Soviet bloc – in particular Poland, Hungary and Czech Republic – that are characterized by high inequality levels in the early 20$^{th}$ century and during the interwar period and low during the communist period like Russia.[68] (see Figure 9)

The graph is particularly related with the study carried out by Nina Bandelj and Matthew Mahutga (2010) of the University of California. They noted that although during the socialist period inequality maintained low levels almost everywhere in Soviet Union and in satellites, the aftermath of the socialist period doesn't follow a fixed pattern because according to them, inequality in the 10-year period following the fall of the regime, is related with the expansion of private sector, retrenchment of redistributive state, social exclusion of minorities and penetration of foreign capital. So if countries like Hungary, Czech Republic or Hungary that managed to democratize quite early and have always regarded as western way of dealing with economy with a tendency to imitate, managed to maintain imperatively low level of inequality, this has skyrocketed in Russia the privatization strategy promoting foreign investment created in the end more inequality.[69]

In the recent period, the level of inequality in Russia has risen at a higher level than in Easter Europe with a significant gap. This is also consistent with the Forbes billionaire

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[66] (КОНСТИТУЦИЯ (Основной Закон) СОЮЗА СОВЕТСКИХ СОЦИАЛИСТИЧЕСКИХ РЕСПУБЛИК 1977)

[67] (Piketty 2014)

[68] (Novokmet, Piketty and Zucman, From Soviets to oligarchs: Inequality and property in Russia, 1905-2016 2018)

[69] (Bandelj e Mahutga 2010)

list showing unusual large number of Russians now compared to the same list in 1990s-2000s than other former-communist countries.[70]

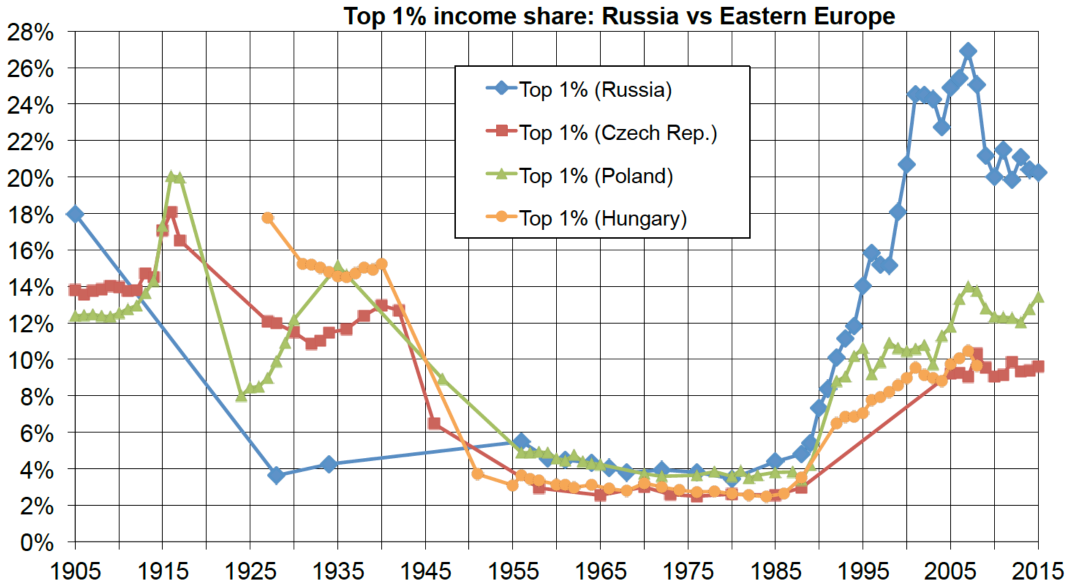


*Figure 9 - Comparison between Russian and Eastern Europe Countries source for Eastern Europe: (Novokmet 2017), for Hungary: (Mavridis e Mosberger 2017)*

I find important also a comparison of inequality with China. According to Galbraith, Krytynskaya and Wang (2004) in both countries a sharp rises in inequality coincides with macroeconomic crisis and this is true for the industrial collapse of 1991 or the financial implosion of Russia in 1998 or the growth slowdown of China in 1993-1994. In both countries seems like market and services liberalization produced economic rents for those sectors enjoying monopoly power in the domestic market (like energy or utilities in general).

### *2.3 The role of the oligarchs in Russian inequality*

According to Aristotle, oligarchy, which he defined as rule by the wealthy few, was the least stable and hence least desirable form of government. Oligarchs were sufficiently few in number to easily collude to promote their private interests against the public interest. In Russia now, the term "oligarch" is a synonym of strong

[70] (Novokmet, Piketty and Zucman, From Soviets to oligarchs: Inequality and property in Russia, 1905-2016 2018)

businessman who controls sufficient resources to influence national politics. [71] The word “oligarch” was first used by Aleksandr Privalov of Ekspert magazine, who started a regular poll of elites, publishing rankings of who were seen as the most influential political and business figures. The research carried out by Guriev & Rachinsky (2005) has been the first scientific analysis on the oligarchs and who are them. They managed to profile 627 ultimate owners or groups among a vast list of potential “oligarchs”.

A common belief is that the oligarchs owe their fortunes to the “loans-for-shares” auctions held in mid-1990s, which are widely regarded as the most scandalous episode of Russian privatization.[72] The government appointed a commerical banker to run an auction that would allocate a controlling stake of large natural resource companies in exchange of a loan to the federal government that the latter never intended to repay. In this way, the reachest of the abovementioned list, well known names like Khodorokovsky, Bodganov or Potanin attested to be at the top of the list and at the same time managed to gain such a power that would have later controlled the political arena of the newly formed government.[73]

Above history, Russia has more billionaires relative to the size of its economy than any other large country.[74] According to the data of the World Inequality Database [75] the top 1% of the population, that is the richest percentile of the population, is represented by an increasing-trend curve that shows how after the deregulation and the end of the Soviet Union, oligarchs started to obtain an even higher share of the GDP. (see Figure 10) Consistent with the data, the phenomenon of the wealth explosion is a typical 2000s feature. The wealth – and associated incomes – of the super-rich are pro-cyclical like those of the population. The robust growth in the 2000s that pushed tens of millions of Russians out of poverty also multiplied the value of businessmen’s stocks and other investments.[76] As improving conditions evened out the distribution at

[71] (Guriev e Rachinsky, The Role of Oligarchs in Russian Capitalism 2005)
[72] (Guriev e Rachinsky, The Role of Oligarchs in Russian Capitalism 2005)
[73] (Guriev e Rachinsky, The Role of Oligarchs in Russian Capitalism 2005)
[74] (Russel 2018)
[75] (World Inequality Database 2019)
[76] (Treisman 2012)

lower tail, soaring fortunes at the top probably stretched it out in a way that is not captured by available statistics.[77]

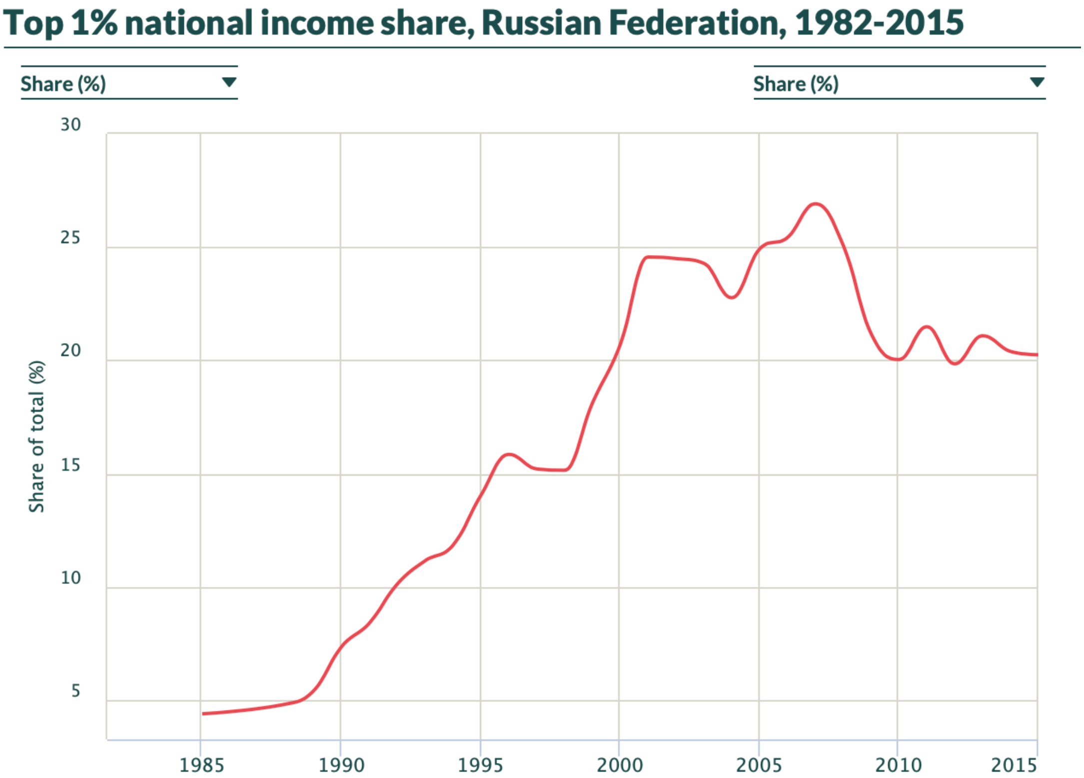

*Figure 10 - Top 1% pre-tax national income share, Russian Federation, 1985-2015 (World Inequality Database 2019)*

It is valuable to note that the high level of inequality in Russia is due to the existence of oligarchs in Russia that control an important share of Russian wealth. The concentration of ownership in modern Russia in the hands of few is probably in Russia one of the highest and is likely to increase and inequality together with it.[78]

To foster this view, the population see their power illegitimate although recognizing the growing gap between the lowest and the highest level of the population this, of course reflects on household surveys that is the primary source for inequality calculation. But neither oligarchs nor the bureaucracy seem to be interested in implementing these policies in Russia anytime soon.[79]

[77] (Treisman 2012)
[78] (Guriev e Rachinsky, The Role of Oligarchs in Russian Capitalism 2005)
[79] (Guriev e Rachinsky, The Role of Oligarchs in Russian Capitalism 2005)

## *2.4 Regional inequality in Russia and the role of politics*

The study of regional inequality has produced so far very few literatures. The first quantitative study using modern methodology appeared only in 2000s. The first attempt to use the Gini coefficient to analyze the different trend in different regions of the country is dated in 2008 (see Maleva, 2007). The regional inequality does not seem something odd to me, the territory of the Russian Federation being very huge, presents different characteristics. [80] The *new economic geography,* established at the end of the twentieth century, has applied quantitative methods to explain the causes of concentration of economic activity and workforce mobility. Comparative advantages of territories depend on the two groups of factors that according to Krugman (1993) are divided in first and second nature. Dominance of the first nature factors is a particular feature of the Soviet Union as the abundance of natural resources, oil, gas and metals.

In Russia, the situation is represented by two extremes, on one side there are regions rich in natural resources or big urban agglomerates, like the city of Moscow that does not represent a barrier to development, and on the other side underdeveloped regions such as: the Republics of North Ossetia, Chechnya or Altay. It is true that from 2000 onwards the ratio between these two distant extremes has lowered. Data report that if in 2005 the ratio between the oil-rich region of Tyumen and the extremely poor Republic of Ingushetia was 30 times, in 2010 it was only 13 times in terms of per-capita Gross Regional Product (GRP). (see  Figure 11).

This was possible to the mechanism put in place by Vladimir Putin of the resources rent and large-scale redistribution.[81] The rent management system, a system of profit from natural recourses that will be explained in next chapter, is a heritage from the Soviet era when, for ideological reasons, extra money such as oil rents in periods of high oil prices could not be spent on private capital or consumption goods by power elites. This is an important part of Putin political vision and vertical power. Rents can

[80] (Zubarevich 2015)
[81] *Ibid.*

be collected in form of taxes or they can be collected and redistributed in the form of excessive cost of inputs and services. [82]

[82] (Oxenstierna 2015)

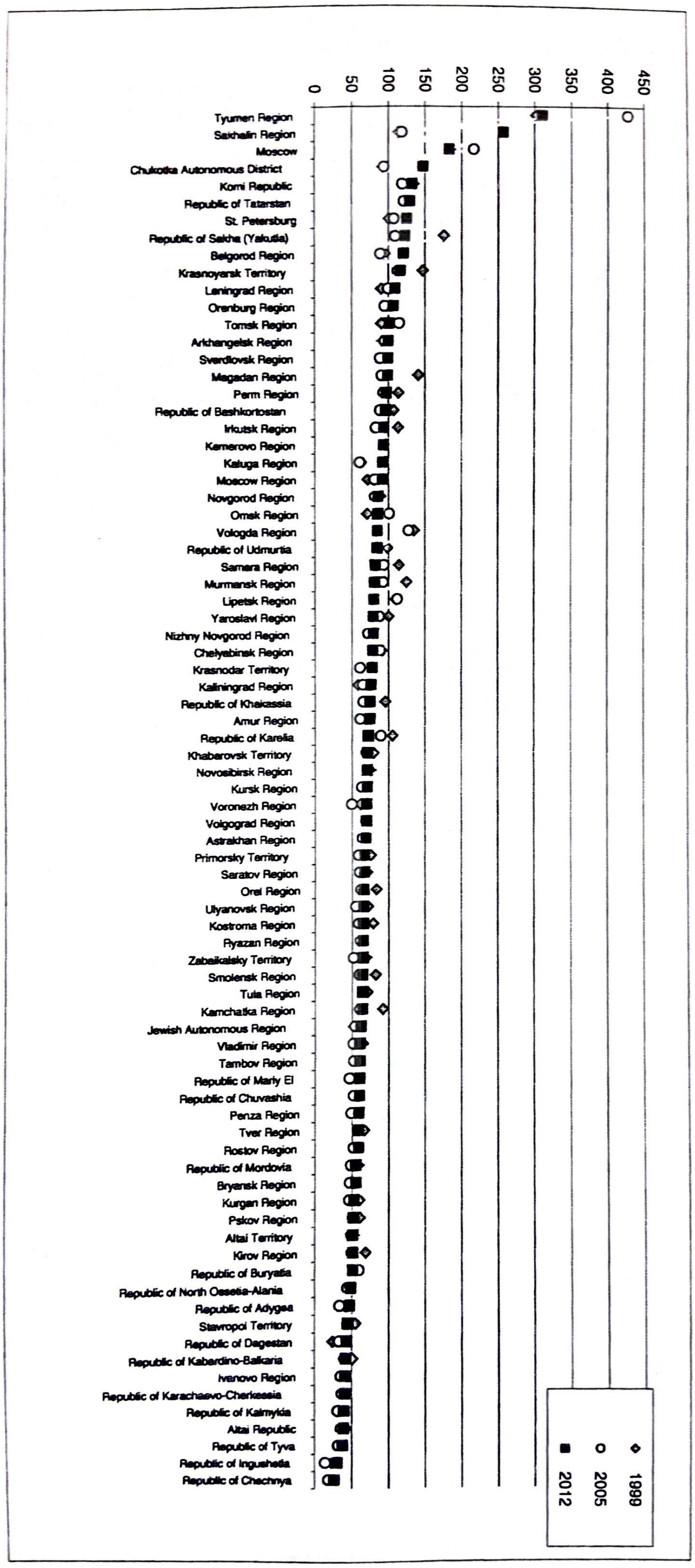


*Figure 11 - Per Capita GRP of Russian regions as per cent of the national average (adjusted for regional prices differenciation). Source: Rosstat – (Zubarevich 2015)*

Public investments over the federal and regional budgets represent one-fifth of all investments in Russia and are divided roughly equally between the federal and regional budgets. Investments from the federal budget in the past 20 years have flown mainly to the poorest regions that received 20% of all the federal budget and that eventually gave them enough resources to prepare them for the Winter Games in Sochi 2014. Indeed, the Gini Coefficient shows a trend of a stable decline of regional inequality (as shown in the Figure 12) due to recent successful years of economic growth and the increased redistribution of oil revenues resulted in the rapid growth of public sector's employee wages. [83]

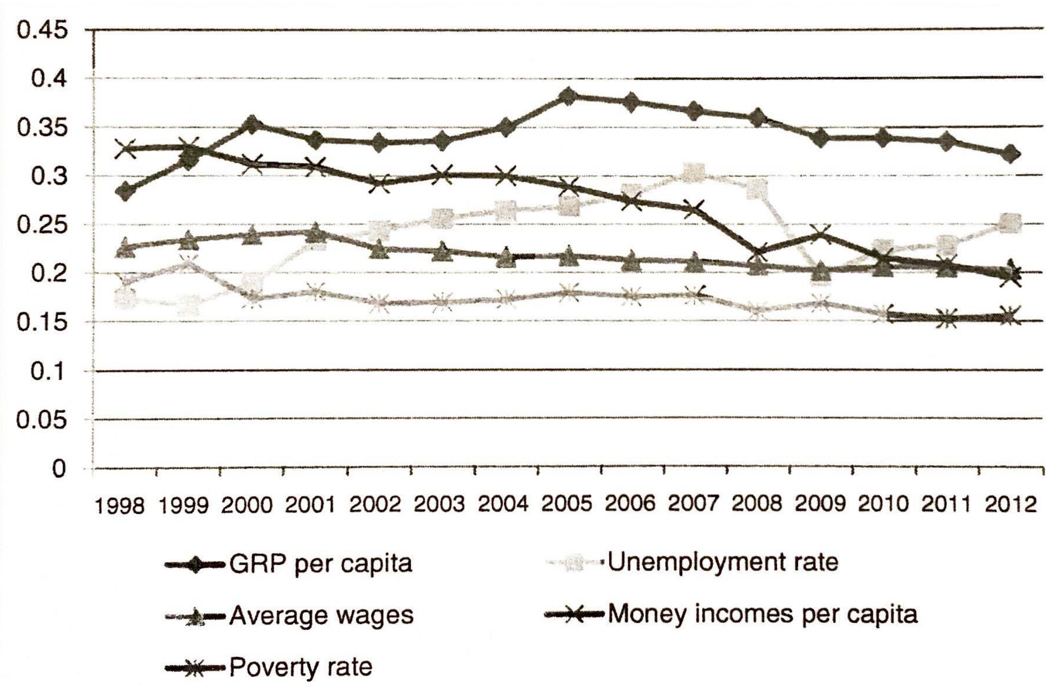


*Figure 12 - Inequality of Russia's regions: Gini Coefficient for socio-economic indicators (Zubarevich 2015) Source: (Rosstat)*

The growth of regional disparities in employment continued until the crisis of 2008. One of the main causes was low investments and the lack of new jobs which reinforced the regional differences in unemployment rates. It is also true that according to data underdeveloped regions with higher unemployment rates are more stable in any phase of economic cycle. [84]

[83] (Zubarevich 2015)
[84] (Zubarevich 2015)

CHAPTER THREE

# The 2008 Great Depression and the impact on inequality and on unequal distribution of wealth

## *3.1 The crisis and the impact on Russian economy*

Economists John McCombie and Marta Spreafico[85], respectively of the university of Cambridge and Università Cattolica del Sacro Cuore in Milan, started to study income inequality and its relations to the Great Recession a few years ago and recognized inequality as one of the root causes of the fall of 2008. According to them, there is causal link between the Great Recession and income inequality, as spending and savings habits are socially determined and the way we spend money is influenced by how others, especially wealthy people, spend and save. This assumption is derived from a theory of the Cornell economist Robert Frank[86] who analyzed a cascade pattern of the income range. The theory of the Expenditure Cascade has been observed and then theorized in the United States between 1900s and 2000 when income inequality rose dramatically. The interesting thing of this theory are the positional externalities that influence how consumers spend and save. Positional externalities are visible all the times that a good for few is upgraded to a good for everybody. According to Frank this happens because people focus more on have-nots than haves and so the consumption (but also the savings) of the wealthy triggers classes right below them to spend and save as they do. The ladder is then repeated till the end where poor attempt to keep up with higher classes but with lower income at their disposal.[87] All parents, for example, want to send their children to the best possible schools. But a good school is a relative concept. It's one that's better than most other schools in your area. In every country, the better schools are those that serve students whose families live in more expensive neighborhoods. So, if a family is to achieve its goal, it must outbid similar families for a house in a neighborhood served by such a school even because failing

[85] (McCombie e Spreafico 2015)
[86] (Frank, The Darwin Economy: Liberty, Competition, and the Common Good 2011)
[87] (Levine, Frank and Dijk 2010)

to do so, means sending children to the worst school possible. Most families will do everything possible to avoid having to send their children to a school like that.[88] According to this theory, one would expect consumers to save more and spend less when income stagnates.

Between 1999-2008, Russia was one of the fastest growing economies in the world and in 2009 it was then one of the mostly affected by the global economic crisis. Guriev and Tsyvinski (2010) show that GDP in Russia fell by 8 percent, more than any other economy in the Group of Twenty (G20) – the group of the world's largest economies.

Before the crisis, in June 2008 the 12th St. Petersburg International Economic Forum gathered the who's who of Russian business and government elite and leaders while Russia was living its gold momentum for its economy. From 1999 to 2008 the economy grew by 7 percent per year and the stock market increased twentyfold.[89]

The Russian growth was impressive by any measure and as we can see from the figures, it was performing better than any other large transition country such as Kazakhstan, Poland and Ukraine. (see Figure 13)

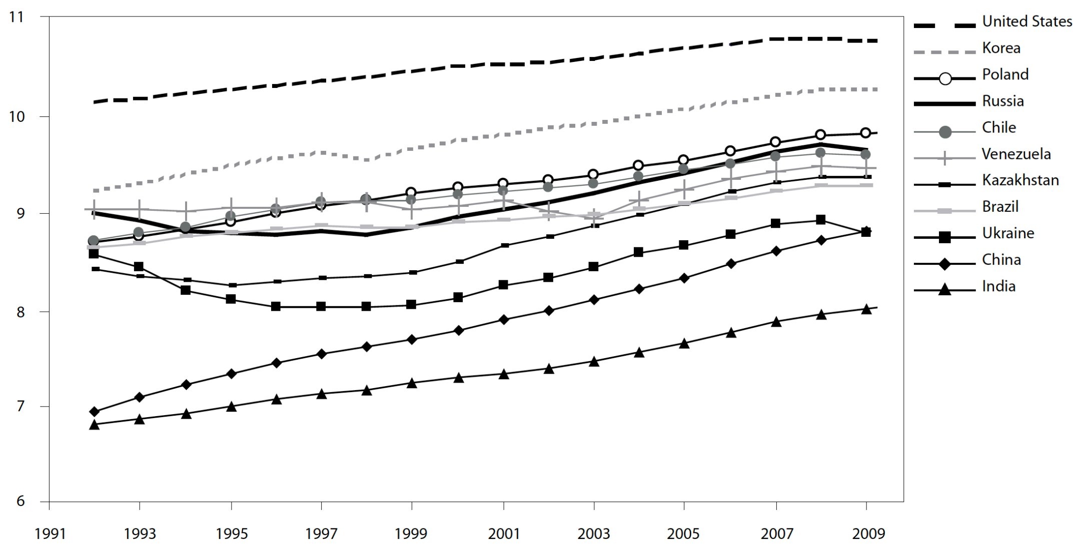


*Figure 13 - GDP per capita in selected countries, 1992-2009 Source: (IMF 2009) - (Guriev e Tsyvinski 2010)*

88 (Frank 2011)
89 (Guriev e Tsyvinski, Challenges Facing the Russian economy after the Crisis 2010)

Average Russians benefitted from the growth that indeed trickle down both the middle class and the poor. Real incomes in this period increased by a factor of 2.5, mobile phone penetration grew from virtually zero to more than 100 percent as well as Russian car market. We can see improvement also in the unemployment rate from 12.9 percent to 6.3 percent in 2008.[90]

It is true that before the crisis, Russian economy was riding a new wave that was initiated by Vladimir Putin soon after the ruble crisis of 1998 that profoundly hit the whole country both domestically and internationally. During the boom, great importance has to be given to oil and gas that are considered among the main drivers of the rapid growth that accompanied those year between 1998 and 2008. Indeed, the sharp collapse of oil price in the summer of 2008 made it hard to ignore how dependent economy has been on the high oil prices.[91] Analyzing the boom from other points of view it is visible how the rise in oil prices led to an eight-year long boom in consumer spending as the symbol of economic success and economic diversification.

Guriev and Tsyvinsky (2010) report that poverty rate went down from 29 percent in 1999 to 13 percent in 2008. This is at the base of the fact that Russians' experience of inequality in the last two decades has been quite unlike the most Western country. Most people, as stated by Treisman (2012), do not stay poor because after the drop into poverty under the shock of a macroeconomic crisis such as The Great Recession, they quickly recover in the subsequent years.[92]

This is due to, perhaps, to the fact that the crisis was not accompanied by devaluation and inflation like the crisis of 1998, but probably due to an energetic government policy of rising pensions and sharp wages cut.[93]

Official Rosstat [94] data on Gini Coefficient show an increase from 0.40 in 2000 to 0.42 in 2008 and in this period that Guriev and Tsyvinsky (2010) define "Putinomics", it is safe to say that inequality has not changed. The economy before the crisis was fundamentally strong, especially because of the skyrocketing oil prices that are the main drivers of the Russia's economic success in the latest years. That's why the price of oil fell dramatically when on the 6th of October 2008 the Russian stock market lost

[90] (Guriev e Tsyvinski 2010)
[91] (Gaddy and Ickes, Russia after the Global Financial Crisis 2010)
[92] (Treisman 2012)
[93] (Treisman 2012)
[94] (Rosstat 2016)

more than 18 percent in a single day due to bank failures.[95] The government of Russia responded to the crisis in a resolute and effective way. They could rely on reserves in order to stop the panic and fortunately they did reasonably well. The unemployment rate was soon under control and the government managed to stick to most of its financial commitments. They prevented the banking system to collapse due to massive liquidity injection and provided high-interest loans rather than engaging in a massive equity buyout.[96] In the end, Russian Federation exited the crisis definitely better than other countries and with an outcome that tangibly differs from wester countries.

### *3.2 Analysis of the inequality trend in Russian Federation and a comparison with selected G20 countries*

As stated above, the government effort soon after the Great Recession, managed in a sense to minimize the damage on Russian economy. This is also reflected on the analysis of inequality. I took into account The World Bank database, DataBank, on World Development Indicators available for study purpose.[97] DataBank is an analysis and visualization tool that contains collections of time series data on a variety of topics. World Development Indicators (WDI), the part of DataBank I took into consideration, is the primary World Bank collection of development indicators, compiled from officially recognized international sources. It presents the most current and accurate global development data available, and includes national, regional and global estimates.

In my comparison, I decided that to analyze the trend and compare it with Western countries, it is relevant to get into consideration data for the G20 countries[98]. Today, the G20 accounts for 90% of the Gross World Product (GWP), 80% of the world trade and two-third of the world population.[99] The countries that are part of the G20 are: Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Republic of Korea, Republic of South Africa, Russian Federation,

[95] (Guriev e Tsyvinski 2010)
[96] (Guriev e Tsyvinski 2010)
[97] (The World Bank Group 2019)
[98] Group of Twenty – is an international forum for the governments and central bank governors from 19 countries plus the European Union
[99] (Cooper 2011)

Saudi Arabia, Turkey, United Kingdom, United States of America and the European Union.[100]

The database of the World Bank, unfortunately, does not present complete data for all the G20 countries and due to this, I decided to exclude some countries from the analysis in order to have the most complete image of the situation of inequality trends in the aftermath of the crisis. This choice is given by the fact that both inequality database and Databank are not complete and for many of the years interested in my piece of research data were missing. The fact that data regarding inequality are connected to household survey sometimes gets these data difficult to be collected both for international organization (like the WID or World Bank) and national statistics institute. The country eventually included in the analyses above Russia are: Argentina, whose political situation is in some ways similar to the one of Russia being democratized recently and during the years of the Great Recession was registering a positive trend after a strong economic crisis in November 2001[101]; France, Germany, United Kingdom, Italy, Indonesia, Brazil and Turkey.

In analyzing inequality, I considered the Gini Index. Gini index, as already explained in chapter 1, measures the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution. A Lorenz curve plots the cumulative percentages of total income received against the cumulative number of recipients, starting with the poorest individual or household. The Gini index measures the area between the Lorenz curve and a hypothetical line of absolute equality, expressed as a percentage of the maximum area under the line. Thus, a Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality.[102]

As mentioned above, the data related to Russia that are available on the World Bank platform are Rosstat data that have been revised and implemented with data coming from local offices of the World Bank.

The overall representation of data is given on Figure 14 where a broad view of all the trend of the selected countries is shown.

[100] (G20 2019)
[101] (Schincariol 2016)
[102] (The World Bank Group 2019)

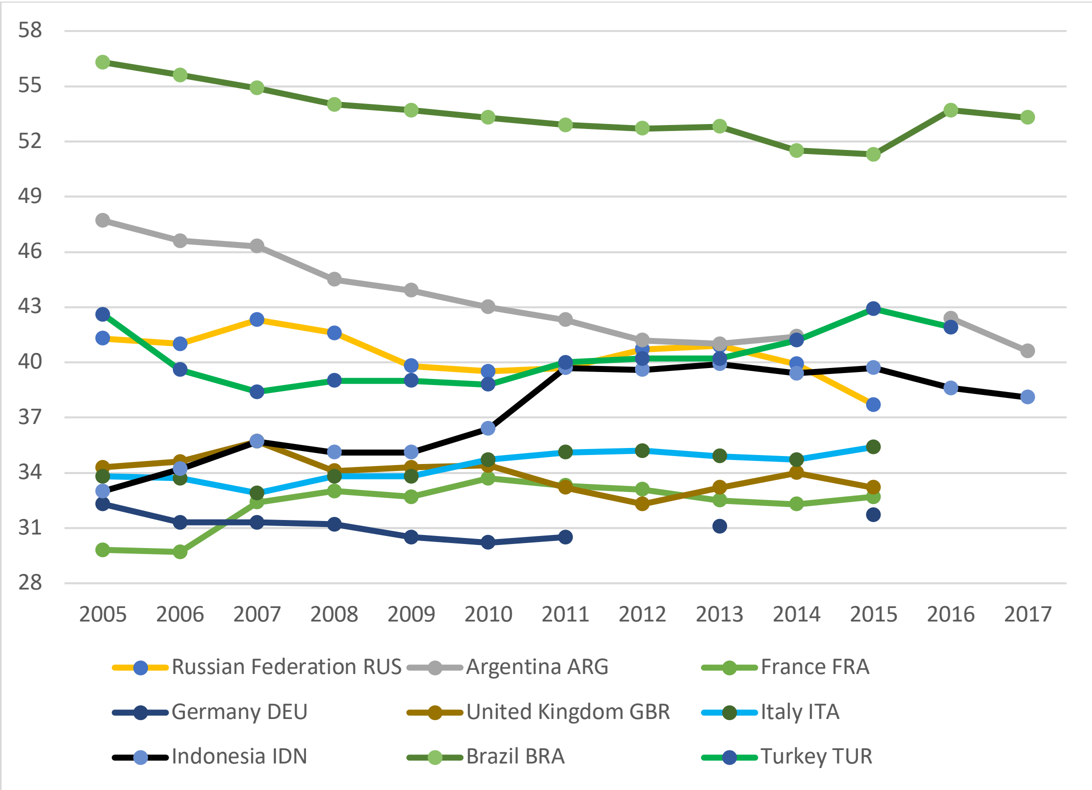


*Figure 14 - Income inequality in selected countries by Gini Index from 2005 to 2017 Source: (The World Bank 2019)*

The figure represents a visual comparison between the countries that I included in my analysis. Brazil seems to be the most unequal country. Interesting is the fact that Argentina, Russian Federation, Turkey and Indonesia, starting from different points register in the period 2012-2013 a level of inequality that is almost the same. Argentina and Russia register a decrease in the Gini index while in Indonesia we can see an overall increasing trend.

For a deeper analysis of the years related to my purpose, I decided to analyze these selected countries for a period between 2007 and 2012 in order to understand the situation strictly before the crisis and the recovering situation after. As explained above, the fact that data are difficult to be collected for a high number of western countries, I decided to choose this particular period until 2012 because it would have given to my analysis the most inclusive and complete outcome possible. Moreover in Russia in 2014 we register a ruble crisis and, despite having all data available until 2016, deciding to use data until 2012 gave me the possibility not to detect the elements

that would have caused the crisis in the upcoming years and that would have impacted the economy of the nation.
Data from DataBank[103] showed in Table 3 present, in the most detailed way, all the variation that the Gini Index registered year by year with the due corrections made by the world bank in order to contain he possible government intermission in official data.

*Table 3 - Gini coefficient of selected countries between 2007 and 2012 Source: World Development Indicators*

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|---|
| Russian Federation | 42.3 | 41.6 | 39.8 | 39.5 | 39.7 | 40.7 |
| Germany | 31.3 | 31.2 | 30.5 | 30.2 | 30.5 | .. |
| Indonesia | 35.7 | 35.1 | 35.1 | 36.4 | 39.7 | 39.6 |
| Argentina | 46.3 | 44.5 | 43.9 | 43.0 | 42.3 | 41.2 |
| United Kingdom | 35.7 | 34.1 | 34.3 | 34.4 | 33.2 | 32.3 |
| Brazil | 54.9 | 54.0 | 53.7 | .. | 52.9 | 52.7 |
| France | 32.4 | 33.0 | 32.7 | 33.7 | 33.3 | 33.1 |
| Italy | 32.9 | 33.8 | 33.8 | 34.7 | 35.1 | 35.2 |
| Turkey | 38.4 | 39.0 | 39.0 | 38.8 | 40.0 | 40.2 |

Analyzing the situation of Russia alone, it is important to note how inequality has a positive trend in the sense that between 2007 and 2012 we have a substantial lowering of the inequality of -6,62% second only to Argentina that registers with no surprise a lowering of inequality of -7,13%. Other nations' results are presented in Table 4.

*Table 4 - Variation in inequality between 2007 and 2012 in selected countries according to DataBank Gini Index Data. Authors' calculation*

| **Country Name** | **Variation** |
|---|---|
| **Russian Federation** | **-6,62%** |
| Argentina | -7,13% |
| France | 4,01% |
| Germany | -3,51% |
| United Kingdom | -3,64% |
| Italy | 5,47% |
| Indonesia | 1,96% |
| Brazil | -2,91% |
| Turkey | 1,04% |

[103] (The World Bank Group 2019)

The table clearly present the improving of inequality in Russia, besides Argentina, compared to other western countries in my analysis. Germany and the United Kingdom's variation is a little lower (while still improving) but definitely better than France or Italy where inequality worsened with an increasing respectively of 4,01% and 5,47%. It is appropriate to note that Germany or United Kingdom do present an initial situation that is better than Russia or Argentina, but the situation is not such better to justify the situation in which the decline in inequality is less than Russia. Even because the initial situation of Italy or France is practically the same, but here we can see that inequality in the end worsened. Inequality do not follow a definite pattern as it is extremely sensitive to changes in political economy or social policies and thus it is not possible to define how inequality reacts to these because of the multiplicity of factors to be taken in to consideration.

Deep dive into Russian data I want to analyze where the biggest inequality change has occurred between 2007 and 2012. For this purpose, I used the dataset deriving from the World Inequality Database, that aims at providing open and convenient access to the most extensive available database on the historical evolution of the world distribution of income and wealth, both within countries and between countries.[104]
The data retrieved represent a division of the income inequality distribution among four principal clusters: Top 1%, Top 10%, Middle 40% and Bottom 50% that represent the poorest cluster of the country. The value calculated is the pre-tax national income share. This is the sum of all pre-tax personal income flows accruing to the owners of the production factors, labor and capital, before taking into account the operation of the tax/transfer system, but after taking into account the operation of pension system. The central difference between personal factor income and pre-tax income is the treatment of pensions, which are counted on a contribution basis by factor income and on a distribution basis by pre-tax income. The population is comprised of individuals over age 20. The base unit is the individual (rather than the household) but resources

[104] (World Inequality Database 2019)

are split equally within couples.[105] Table 5 and Figure 15 represent data and visual trend per cluster.

*Table 5 - Pre-tax national income share for cluster of population between 2005 and 2014. Source: World Inequality Database (WID.world)*

| | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|
| **Top 1%** | 24,9% | 25,4% | 26,9% | 25,1% | 21,2% |
| **Top 10%** | 47,4% | 49,2% | 49,0% | 52,1% | 49,7% |
| **Middle 40%** | 38,2% | 36,8% | 37,3% | 34,4% | 35,8% |
| **Bottom 50%** | 14,4% | 14,0% | 13,7% | 13,5% | 14,5% |
| | **2010** | **2011** | **2012** | **2013** | **2014** |
| **Top 1%** | 20,0% | 21,5% | 19,8% | 21,1% | 20,4% |
| **Top 10%** | 46,8% | 48,1% | 45,5% | 47,3% | 45,7% |
| **Middle 40%** | 37,3% | 36,0% | 37,8% | 36,6% | 37,5% |
| **Bottom 50%** | 15,9% | 16,0% | 16,6% | 16,1% | 16,8% |

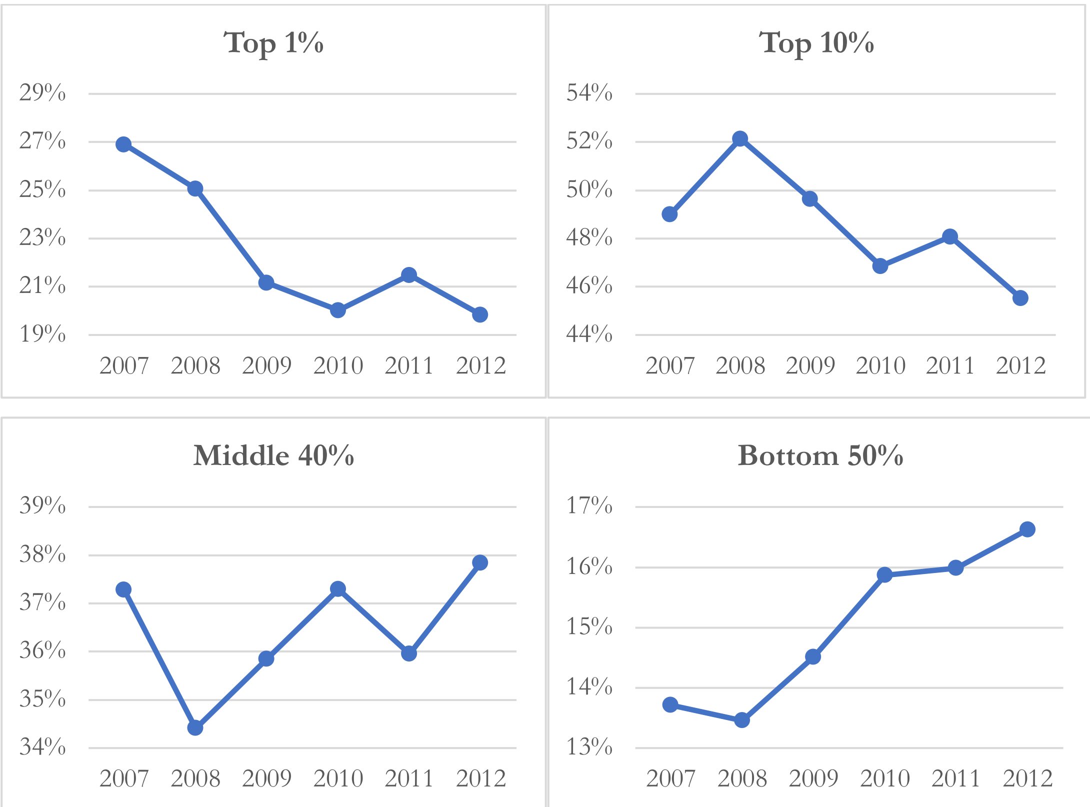


*Figure 15 - Representation of the trend of Income distribution in Russian Federation divided per cluster during 2007 and 2012. Source: World Inequality Database and author's elaboration*

[105] (World Inequality Database 2019)

These data show that inequality lowered during the period of the Great Recession compared to other countries. The presence in Russia of the oligarchs mostly in the top 1% of the population, make it easier to understand the causes of this overall positive trend. Basically, the richest get a little poorer and their wealth is then redistributed among the lowest cluster, that overall is the one that registers a positive rise in pre-tax income share during those years. This is particularly true since the government had put in place some rescue actions that in a sense managed to protect Russia from a sharp drop but didn't manage to protect Russia from a new crisis that would have hit the country a few years later.

In my international analysis I also mentioned that in some western European countries the Gini index registered some improvement in two countries in particular. Indeed, the situation in Germany and United Kingdom is particularly unique in Europe where the European Commission initiated a policy of fiscal decompression to drive the countries out of the crisis as soon as possible. The Recovery Plan is based on two mutually reinforcing main elements. Firstly, short-term measures to boost demand, save jobs and help restore confidence. Secondly, "smart investment" to yield higher growth and sustainable prosperity in the longer-term. The Plan calls for a timely, targeted and temporary fiscal stimulus of around €200 billion or 1.5% of EU GDP, within both national budgets (around €170 billion, 1.2% of GDP) and EU and European Investment Bank budgets (around €30 billion, 0.3% of GDP).[106]
Germany, on the other hand, according to economists Wendy Carlin and Andrea Boltho, seems to be in better shape than many others in relation to the financial crisis. Germany has no over-indebted households and no house price bubble. Private and government consumption have been flat for years. Growth has been led by net exports thanks to successful company restructuring, and the non-financial corporate sector is in good shape. During the years 2006-07 we can see nearly 3% growth despite a sharp increase in VAT. This revival was clearly not due to government reforms because limited reforms were put in place just before the recession happens. Germany confirms to have overcome the crisis incredibly good, by establishing more balanced growth via

[106] (European Commission 2008)

real wage increases to encourage long-suppressed private consumption and a significant fiscal policy stimulus.[107]

The United Kingdom started to intervene on the wake of the recession following a path similar to the one above described for Germany. Government started a campaign of loans in order to guarantee up to 20 billion of loans to small and medium enterprises that has been described by the at-that-time Prime Minister Gordon Brown "a real help".[108] Moreover, the government intervened with a strong fiscal policy that ended up with the Pre-Budget Report in late November 2008, establishing an emergency budget including a temporary reduction in value added tax from 17.5 per cent to 15 per cent.[109]

Despite not having a complete dataset for the United States, I think is anyway important an ultimate comparison between Russia and the US. Due to the limited availability of data, the comparison can be only made on the variation between 2007 and 2010. The situation in Russia is better than the one described before with an improvement in inequality of -7,08%. The situation in the United States registers an improvement but way far from the trend registered in Russia, with a reduction of about -1,73%. (see Table 6 ). It is important to say that among western countries United States registers the highest value of inequality. However, the trend of inequality in the United States remains quite high and despite an initial slight improvement, the trend registered for the following years is of an overall worsening.[110]

*Table 6 - Data of Gini Index in Russia and The United States of America. Source: The World Bank Group*

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|---|
| United States | 41.1 | .. | .. | 40.4 | .. | .. |
| Russian Federation | 42.3 | 41.6 | 39.8 | 39.5 | 39.7 | 40.7 |

[107] (Carlin and Boltho 2008)
[108] (BBC 2009)
[109] (Sawyer 2012)
[110] (Borgman 2018)

According to a note released by the Deutsche Bank [111] on "Income and Wealth Inequality" in the United States, the top 10% owned roughly 75% of household wealth in 2013 and as of 2015 the data was around 50%. Americans in the middle and lower class have yet to see a substantial gain in real income since the even-higher cost of living or health care have changed savings but also gains in wages.[112]

### *3.3 Why inequality in Russia was supposed to rise*

According to Treisman (2012), there are many factors that should be considered while analyzing Russian inequality that was supposed to rise instead of registering the largest improvement among developed countries in Europe.
These factors are:

1. Geography

Being Russia an enormous country, economic diversity is one of the issues that political leaders have always had to cope with. Some regions, for example, are conveniently located next to navigable seas or on the edges of Europe, where even trade is easy to arrange, despite territories that are deep inside the Eurasian heartland or next to remote part of China. [113]

2. Trade

Being Russia so wide and big, natural resources are concentrated in few areas and if the country pursues its comparative advantage in extracting raw materials, some regions will inevitably be far more profitable than others and this rising a regional inequality that I explained in the previous chapter. [114]

3. Legacy of Soviet Union

[111] (Hooper, et al. 2018)
[112] (Borgman 2018)
[113] (Treisman 2012)
[114] (Treisman 2012)

Despite being an almost democratic state, legacy of Soviet Union in Russia is highly tangible with an economic policy initiated by Stalin, the so-called "war communism" with five-years industrial planning and a lack of logic in developing the country.[115] Indeed, as stated by Treisman, industrial centers were built in remote parts of the country to make them less vulnerable to European invasion with associated costs of management.[116]

## 4. Political Economy

Every country reacts to recession in a different way. If in the USA or Latvia, economy decide to act introducing temporary layoffs (despite in a lower number compared to precedent crisis) and thus halving a sharp decline in unemployment, but little has changed for wages,[117] in Russia one of the main interventions of the government was a wage decompression. Indeed except for two important high peaks in 2009 and 2010, unemployment rate in Russia has been quite lower than the one in the United States by an average of 2-3 percentual points.[118] At the giant AvtoVAZ automobile plant in Samara, employees were given a choice either to coming to work at full pay or staying at home at two-thirds of their wage.[119]

Moreover, it should be considered that the minimum wage in Russia has always been extremely low (around 10% of the average wage) compared to about 40% in Central and Eastern Europe and that part of the salary is given in bonuses that are not regulated by any law but managers can decide to increase or reduce at their discretion.[120]

Moreover, fiscal policy in Russia favors the rich, there is no wealth tax and income is taxed at a flat rate of just 13%.[121]

[115] (Gessen 2014)
[116] (Treisman 2012)
[117] (Feldstein 1976)
[118] (Trading Economics 2019)
[119] (Medetsky 2009)
[120] (Treisman 2012)
[121] (Russel 2018)

5. Political Ramification

The unequal concentration of wealth and incomes allows many rich people to corrupt political processes manipulating elections. Elites usually do not tolerate democracy as the more skewed the distribution the greater the temptation for democratic government to redistribute wealth from rich to poor. Treisman notes that under Putin, who gradually reduced accountability, restricted the national media and undermined the integrity of elections and indeed inequality fell to its lowest level since the Soviet collapse because the wealth the elite was holding (and still holds) is still at stake of the state and could be expropriated.[122] Moreover, the European Parliamentary Research Service points out the widespread corruption that according to the Transparency International's Corruption Perception Index ranking, Russia is the 113th country out of 176 listed.[123]

All these factors make us predict that economic inequality in Russia is likely to remain quite high. The political consequences will of course depend on other factors like the perception and if the state becomes effective at securing opportunities and avoiding turbulences.[124] It is also true to note that Vladimir Putin and his associates concluded that the priority of their government is to use oil to pay off the country foreign debt and build reserves for the future.[125] Besides, it is significant to underline that Putin has put in place a series of measures such as the management of oil and gas rents and other important actions to control the effect of the recession, that will be discussed in the following section.

### *3.4 Why inequality improved after the crisis*

In February 2008, President Putin in his address to the State Council declared level of income inequality in Russia absolutely unacceptable and called for measures that would have brought to an expansion of the middle class that in his view should reach

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122 (Treisman 2012)
123 (Russel 2018)
124 (Treisman 2012)
125 (Gaddy and Ickes, Russia after the Global Financial Crisis 2010)

60% or even 70% by 2020.[126] The state goal is then not the one of curbing inequality itself, but by working on the poor rising them to middle class, inequality should decline. All these measures are implemented together with an overall redistribution of wealth from the top 1% to the bottom 50% that, as shown above, managed to grow.
Economist Federico Cingano, in his analysis for the OECD[127] writes “When income inequality rises, economic growth falls” and the IMF seems to come to similar conclusion: “If the income share of the top 20 percent (the rich) increases, then GDP growth actually declines over the medium term.”[128]
The case of my analysis is that inequality in Russia lost 6 percentual point in Gini over the period of the Great Recession and the top 1% income registered a loss of 30% over the pre-tax national income share that brought eventually the country to be more equal and to register a general positive trend in GDP growth.
The link between inequality and growth, although being not direct, is very functional and in the case of Russia brought the nation registering a more positive trend during the crisis than other western economies.
The policies that managed in the end to lower inequality might not have been thought to this purpose, but probably for the growth of the country and registered also a positive side effect in inequality. To do this, they acted in a “fortunate” period, because the Recession, that damaged economies all over the place, hit also the so-called Russian oligarchs that had and still have a decisive role in Russian economy

### *3.4.1 The role of modern oligarchs in Russian inequality improvement*

When it comes to talk about Great Recession in Russia, the discourse of course comprehends the oligarchs, that, according to Foulconbridge, could be defined in the aftermath of the crisis as cashless oligarchs.[129] The plunging stocks severely threatened the financial fortunes of Russian oligarchs who had borrowed heavily from western banks to expanding their businesses, offering their company stock as collateral.[130]

[126] Quoted from Vladimir Putin’s address to an expanded session of the State Council in February 2008. https://president.kremlin.ru/text/appears/2008/02/159528.shtml
[127] (Cingano 2014)
[128] (International Monetary Fund 2015)
[129] (Foulconbridge 2008)
[130] (Desai 2010)

Indeed, what comes soon out from the crisis is the impossibility to refinance their loans. Russian stock markets have collapsed more than 60 percent since May and who guaranteed them against shares in their companies needs to raise cash and banks now require additional security against their loans.[131] What happens in these years is exactly the contrary of what happened few years before when the country faced a huge financial crisis. If in 1998 the oligarchs took control over the companies as the state failed to pay back its loans, now they are told that they would receive state funding if only they can made substantial capital injection in Russian economy as the only available ticket before forsaking any present or future help from the state.[132] They accepted and by strange circumstances, the Russian state (via the state-owned Vneshekonombank) was regaining stocks which it had given away to the oligarchs who had provided cash support to the Russian budget in 1996 and 1997.[133]
Of course, this led these powerful men to a huge loss of liquidity and a subsequent increase in the role of Kremlin in the control of the crisis as in control of the country's finances.[134] As the Kremlin steps in, can devote funds now to the economic growth of the country in the short and long term before reengaging in financial activities with oligarchs and this, together with an important damage in their income share, made inequality better off.

### *3.4.2 Great Recession, labor and wages in Russian Federation.*

The effect of the crisis over Russian economy profoundly changed employment, wages and welfare. Russia was hit particularly hard by the worldwide drop in demand for oil and other commodity resources and manufacturing industries started to reduce their labor force.[135] Indeed manufacturing and metallurgy were affected most and automobile output fell in 2009 by more than 60% and due to this industry sharply reduced their labor forces.[136]

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[131] (Foulconbridge 2008)
[132] (Stratford 2019)
[133] (Desai 2010)
[134] (Stratford 2019)
[135] (Remington 2011)
[136] (Remington 2011)

Employers, consistent with Soviet and post-Soviet pattern, used alternatives to layoff as much as possible such as short hours or forced leave, since they fear that they could not have been able to replace skilled workers once the crisis has passed.[137]
At the giant AvtoVAZ automobile plant in Samara, employees were given a choice between coming to work at full pay or staying at home and collecting two-third of their wage before moving to a twenty-hours workweek effectively cutting wages by half.[138]
Despite the fact that half of the population was reducing expenditures on food and almost a quarter were cutting back on medications[139], since 2001 government decide to act on the labor legislation in order not to repeat the same effect that crisis had on labor and wages in 1999 when unemployment rate rose to 14% before it began to decrease.[140]
The 2001 Labor Code provided that the minimum wage throughout Russia must be no lower than the rate calculated as the minimum amount of income required for the subsistence of a working adult.[141] The problem was that the government did not provide any enforcement mechanism and at the beginning the norm was generally ignored. Trade union continued to press to raise the minimum wage and a final agreement was eventually reached by regional laws and tripartite agreement that also contributed to a general economic recovery. Thanks to this, the real income, wage and pension income of the median region more than doubled.
The graph in Figure 16 displays the values for the median region showing the rise in real wages, pensions and total income. From the evidence of the graph we can see that although cash incomes from wages and pensions did rise significantly, much of the reported gains in cash incomes was due to higher flow of cash through reported channels [142] starting from 2001 with the implementation of new labor measures.

[137] (Remington 2011)
[138] (Popova 2009)
[139] (Naumov 2009)
[140] (Sergeev 2009)
[141] (Remington 2011)
[142] (Remington 2011)

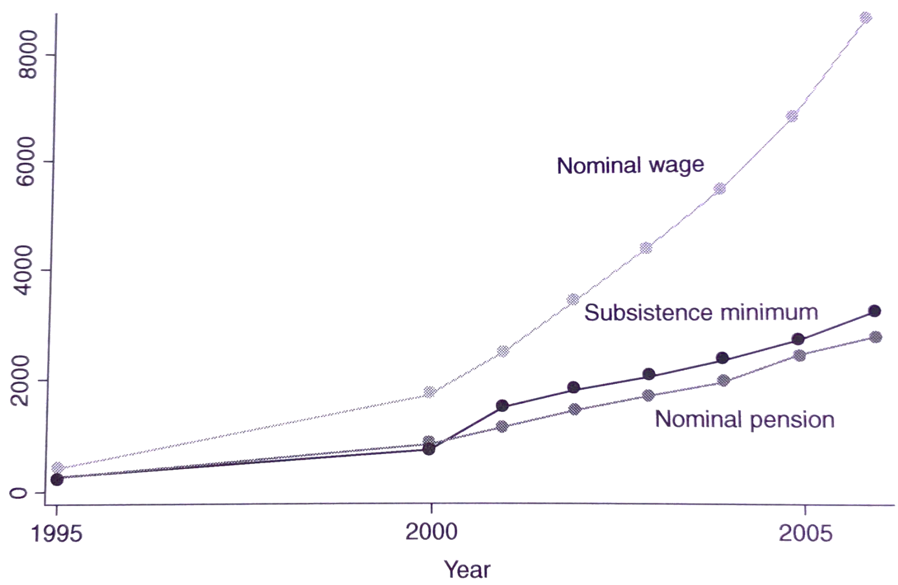


*Figure 16 - Median regiolan nominal wage, pension and subsostence minimum, 1995-2006 (rubles per month). Source: Remington 2011*

Putin priority was to increase rather than to cut spending on social programs and in 2009 actually infused 388 billion rubles (around 10 billion dollars) into state pension, medical insurance and social insurance funds. The overall response of the government to the crisis was to maintain demand by increasing social spending and to prevent as much as possible the movement of capital back to informal or untaxed channels. Overall, as seen early in this chapter the crisis ceased inequality to grow as high-end incomes slipped more than incomes at the bottom[143] and this might be also due to a prompt government intervention and a long-term planning initiated by Putin in 2001. The Soviet economy harassed income and social welfare and only a full liberalization of the market for products and service would have enabled real demand and govern distribution of goods, services and eventually income.[144] The government soon after the collapse of the Soviet Union had to face not only unprecedent levels of income inequality, but a substantial changing in the population mindset. The collapse of

[143] Polit.ru, March 6, 2009
[144] (Remington 2011)

liquidity prompted to a nonmonetary form of exchange among enterprises and an even higher informality in the labor market.[145]

The importance of enterprises in labor market and subsequent improvement of inequality in not just in providing employment and wages, but also essential public services that determined the success of the market transition facilitated by their relationship with the government. This business-government relationship led to economic recovery thanks also to the coercive power that Putin exercised over some key entrepreneurs (the oligarchs).[146] Unfortunately this business-government relations that helped extensively the recovery of the economy had not the same effect on the regional level that reacted on a different basis determining the different trajectories that different regions of the country covered. [147]

### *3.4.3 Putin Rent Management System*

Russia is a country whose economy is dominated by the rents from its natural resources mainly oil and gas. Resources rents are defined as the difference between the market value of resources produced and the actual cost of producing them. This policy provided the context for all Russian political economy in both Soviet and post-Soviet era. According to Gaddy and Ickes (2015) the rent is the only source of significant growth for Russia and doesn't amaze the fact that Russian Federation devote many resources to its implementation. Rent is namely the revenue received from the sale of a resources minus the cost of producing it. Rent is thus the value to the economy of the resources that is utilized.[148]

Giving the definition of rent is important because in political economy, but also to my purpose, this is tightly interconnected with the distribution of the rent among various recipient that is a crucial prerogative of the state.[149]

Every resource-abundant economy has some kind of system to control the flow of rents. During the Soviet period, for example, direct dissipation of rent was limited. Rents could not be transformed into consumption on anywhere near the scale on which

[145] (Remington 2011)
[146] (Sakwa 2009)
[147] (Remington 2011)
[148] (Gaddy and Ickes, Putin's rent management system and future of addition in Russia 2015)
[149] (Gaddy and Ickes, Putin's rent management system and future of addition in Russia 2015)

they were produced, nor could the rents easily be shifted to private accounts abroad. In the end, rents were channeled to the production of things that enhanced the leadership's stature and authority, as well as the legitimacy of the Soviet state. This created the phenomenon of addiction which transformed the Soviet Union. The function of the system is to channel rents to preferred uses and to prevent their dissipation or diversion. If the management system is weak, then rents will be appropriated by various stakeholders near the source of production. If it is centralized and strong, rents will flow upwards to the leadership. Here, addiction meant investment in enterprises that created goods and was manifested by production in heavy industry in giant enterprises that are the symbol of the Soviet accomplishment of Stalin. [150] When the USSR collapsed and the rent management together with it, the post-Soviet government struggled to implement reforms without recognizing the crucial role of the Rent Management System (RMS) until Vladimir Putin that, just before resource rents exploded in the wake of rising global oil prices, replaced it with a variant.[151]

What is new with Putin is the combination of classic rent management with private ownership as most of the companies in Russian natural resources sector have been privatized in the 90s with the only exception of Yukos that after the arrest of Mikhail Khodorkovsky was re-nationalized in 2003 and challenged the whole system.[152]

As noted by Gaddy and Ickes (2015), what changes substantially in the new system is the methodology because now rather than collecting oil and gas rents exclusively as taxes and then redistributing some of them to addicted enterprises, there is a direct passage with the transfer of production, building a functioning rent distribution chain either using physical form as market price inputs or money. In this new scenario natural resources becomes the currency between the oligarchs and the government.[153] The role of the government here is essential because it acts as a gigantic enterprise and ensure stability of the system plus redistribution of rents to the regions, cities and plants in a way that rent-generating industries have strong incentives to maximize profits and thereby create more rents. [154]

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[150] (Gaddy and Ickes, Putin's rent management system and future of addition in Russia 2015)
[151] (Gaddy and Ickes, Putin's rent management system and future of addition in Russia 2015)
[152] Ibid.
[153] (Gaddy and Ickes, Putin's rent management system and future of addition in Russia 2015)
[154] (Gaddy and Ickes, Putin's rent management system and future of addition in Russia 2015)

Gaddy and Ickes (2015) point out that the addiction to rent in Russia is related to the number and size of the enterprises that are dependent on rent infusions for their survival. Rents hide besides the quantitative demands a strong political power that lies behind those claims. To understand how rent flow, economist do not rely only on financial indicators, but also physical economy follows oil price. In fact, Putin's attention to plant like Uralvagonzavod manufacturing tanks and railcars is exemplary as the output of such plants track the ups and downs of the resource rent flow into Russia because as noted by Gaddy and Ickes (2010) more and more of these cars are produced each year as oil prices are on the rise.[155] As a result, between 2002 and 2008, 63000 new jobs were added in plants producing railroad rolling stock registering, according to Rosstat, an increase of 43%.[156]

But addition require stagnation and indeed works only if factors of production are kept immobile. This led to one of the major negative effect of the Rent Addiction that is the labor force immobility, but at the same time this allowed governors or directors to maintain the production at high level in their factory with an absent cost of mobility. If a normal non-addicted country people are more mobile during the boom, this didn't happen in Russia as despite GDP growth, mobility declined.[157] This is explained By Gaddy and Ickes (2010) from the fact that in a period of boom, more rent is available, and this allow factories to expand production capacities that translates into more workers to hire from the low-skilled ones. These workers have less incentive to migrate since now job is available.

Availability of jobs makes low-skilled labor force better off of the rent management system although being a hostage of the system itself. This, accompanied by a GDP growth in the years that goes from 2000 to 2008 of seven times, can explain how come workforce and the bottom 50% of the population managed to gain from the boom and continued to gain in the years of the crisis.[158] In fact, according to Gaddy and Ickes (2010) production derived from the rent reflects also in household income and in the first years of Putin presidency, this led to an eight-year log boom in consumer spending as a natural response to the rising incomes. Russia indeed, although suffering heavily

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[155] (Gaddy and Ickes, Putin's rent management system and future of addition in Russia 2015)
[156] (Rosstat 2016)
[157] (Gaddy and Ickes, Russia after the Global Financial Crisis 2010)
[158] (Gaddy and Ickes, Russia after the Global Financial Crisis 2010)

from the crisis, managed in the end to grow than other BRIC countries. Even with the large contraction of GDP that resulted from the global recession, Russia is still significantly richer in 2010 than it would have been had it grown at a rate as fast as the next-fastest BRIC since 1999 and demonstrate how the allocation of capital in Russia has worked efficiently despite the low diversification of the economy that is considered a key success for western economies.[159]

The problem of addiction to natural resources in Russia is a real problem that only the Putin system has managed to cope with by producing sufficient rent to keep economy functioning but as Gaddy and Ickes point out, besides the growth that the system brought to the nation, a leader would be able to implement instrument that would cause the demise of the addiction but this is very unlike to happen in the upcoming future.[160]

[159] (Gaddy and Ickes, Russia after the Global Financial Crisis 2010)
[160] (Gaddy and Ickes, Putin's rent management system and future of addition in Russia 2015)

# Conclusions

With this work I attempted to answer to the question: is there a relation between the economic initiatives implemented in the first decade of the XXI century and the improvement of inequality triggered by the Great Recession in Russia? For this purpose, I concluded an analysis regarding two different factors: from one side I analyzed how the distribution of income changed comparing the situation before and after the crisis, and then I analyzed politico-economic policies that led in the end inequality to improve. To do this, I compared data coming from national and international database, for instance the World Bank or the World Inequality Database that offer a broader vision of the data regarding inequality. In particular, Databank, the World Bank database available online for research purpose, combine data from national household survey coming from national statistical research centers that are revised and implemented with data coming from the World Bank territorial branches. The countries I took into consideration are the G20 countries whose data do not present significant gaps between 2007 and 2012. Moreover, I decided to make comparison using a well-know and widely-used measure for inequality that is the Gini Coefficient. The analysis carried out, pointed out that inequality improved in the aftermath of the crisis loosing circa 6% in Gini as compared to other countries that register lower values or even a worsening of inequality like Italy of France.  This is due to the fact that the distribution of income in Russia managed to move from the top 1% to the bottom 50%. In particular the top 1% lost 30% of their income that was redistributed in the poorest quintiles of the population. The rise from the bottom, is explained from a correlation between growth and inequality. Especially, this important rise in the growth of the GDP in Russian Federation is the natural response of the presidency of Vladimir Putin that managed to exploit natural resources dealing not only with redistribution of national income, but also to act in the field of labor laws and wages. Severe inequality persisted in Russia, but the share in the economy of the bottom half of the society rose from 10% in 1996 to a still modest 17% in 2012. This trend was helped by a gradual decline in unemployment and wage gaps between high and low earners.[161]

An additional explanation to such result is given by Robert Frank and the expenditure cascade pattern. According to Frank, when economy experience an uneven distribution of incomes, this stimulates savings behavior.[162] In the idea of Robert Frank (2010), that I already explained in Chapter 3, if low incomes emulates expenditures behaviors of the high-income class, the same is done with savings as to keep consumption in lower classes in line with that of higher ranked households. This pattern, if analyzed in the context of Russia can explain that when oligarchs had to face some difficulties due to the crisis, their run to saving stimulated also savings in the lower class that together with an overall higher wages and a redistribution of households had a positive outcome not only in inequality but also in the growth of the country.

In my opinion, this piece of research has a margin for improvement as I decide to consider factors merely economic excluding social and geopolitical factors that might have had a voice in the behavior of inequality. However, an important develop for my work would be measuring how much different policies listed and described earlier this thesis, contributed in improving inequality.

[161] (Russel 2018)
[162] (Levine, Frank and Dijk 2010)

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DEPARTMENT OF POLITICAL SCIENCE
CHAIR OF INTERNATIONAL ECONOMICS

# INEQUALITY AND THE IMPACT OF THE GREAT RECESSION OF 2008 IN RUSSIA

## - SUMMARY -

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# Summary

During the past few years, the interest in distribution of income and wealth gave rise to a flourishing literature. Economist like Piketty, Saez, Atkinson and Novokmet started to study inequality from different angles combining historical fiscal and national account data for a large number of countries that generated a large volume of data intended as a research resources for further analysis.[1]

I came in contact with the theory of inequality in my studies and I then decided to undertake this work joining my interest in inequality together with my passion for Russia.

The objective of my thesis is to investigate the role that economic choices might have had on the positive trend in Russian inequality after the Great Recession of 2008. The Investigation puts together data coming from national and international database with a particular focus on the period that goes from 2007 to 2012. Referring to this particular period I decided to make an international comparison analyzing historical, economical but also social events that are part of the Russian politics in the last years and had, and still have, an influence on the distribution of incomes and then inequality.

In my findings, I noticed that inequality present an improving trend in the aftermath of the crisis. Putting together this result with the inequality trend of other western countries, namely G20 countries, I noticed that inequality improved after the crisis only in a small group of country and the improvement registered in Russia in second only to Argentina. The fact that inequality improved after the crisis was something economists didn't expect as Russia presented all the historical and socio-political features that led to think that inequality was bound to increase. For instance, the legacy of the Soviet Union in the distribution of the industrial apparatus, the fact that ¼ of the income is owned by the so-called oligarchs that managed to control also the natural resources industry after the ruble crisis of 1998, are all factors that contributed to the steep rise of inequality after the fall of the USSR. In the end, I analyzed some political actions that might have drawn inequality down that are connected to the role of the oligarchs and the fact that they lost a consistent part of their wealth, the new labor code


[1] (Novokmet, Piketty and Zucman, From Soviets to oligarchs: Inequality and property in Russia, 1905-2016 2018)

preserving the already poor salaries of low-skilled labor, and the new Rent Management System of natural resources, where the state is now a leading actor and can decide how to channel the rent, even with the goal of helping inequality to stabilize.

## 1. *The Idea of inequality*

The inequality – the state of not being equal, especially in status, rights and opportunities[2] – is the key concept at the base of the social justice. All over the years, inequality has always been discussed among sociologist as it comprehends a concept that is related to the access to right unequally distributed. For my purpose, the specific definition refers to the one of the income inequalities that is the significant disparity in the distribution of income between individuals, groups, populations, social classes, or countries.[3]

Branko Milanovic, lead economist at the World bank's Development Research Group, Poverty and Inequality Unit, theorizes that inequality to be properly analyzed needs to transcend national borders since with globalization it is important to understand how intricated are the mechanism that the global dimension put in the analysis.[4]

Milanovic, inequality follows three important phases:

a. Inequality 1: is focused on inequality between nations of the world and it is measured making statistic calculations across GDPs or mean incomes obtained from household surveys in all countries of the world.
b. Inequality 2: similar to Inequality 1 besides the fact that the size of the countries now is taken into account.
c. Inequality 3: the most important one as it considered the world as composed by individuals and not nations. This cannot be calculated before the 80s as individual household data are not available.[5]

[2] Adapted from (Oxford Dictionary of English (3 ed.) 2010)
[3] (Howard and Carter 2018)
[4] (Milanovic, Global Income Inequality in Numbers: in History and Now 2013)
[5] (Milanovic, Global Income Inequality in Numbers: in History and Now 2013)

But besides the concept, inequality needs to be measured According to the World Bank (2014) an inequality measure should satisfy some criteria:

- *Mean independence:* if the incomes were doubled, the measure would not change.
- *Population size independence:* if the population were to change, the measure of inequality should not change.
- *Symmetry:* if two individuals swap incomes, there should be no change in the measure of inequality.
- *Pigou-Dalton Transfer Sensitivity:* the transfer of income from rich to poor will reduce measured inequality[6]

Over the years, many measures of inequality have been theorized, but the most relevant is the Gini Coefficient. This is the most widely used measure, created by Corrado Gini in 1912, it is based on the Lorentz Curve that compares the distribution of specific variables.[7] The Gini gives a value from 0 to 1 (or 0 to 100) with 0 meaning perfect equality and 1 maximum inequality.[8]
I decided to use Gini coefficient for my analysis due to the fact that most of the widely accessible data are reported in Gini.

### 2. *The relation between inequality and growth*

Economists have long been interested in the idea that a country's level of development might help determine its level of inequality. Among the most famous theory there is the one of Simon Kuznet who thinks that inequality follows a natural trajectory.[9] In his theory the process of industrialization brought a widening of the gap thanks to the rising of earnings of factory workers compared to farmers. As argued by Kuznets, gaps start to narrow as the state begins collecting taxes distributing them as benefits.[10] In

[6] (World Bank 2014)
[7] (Towards Data Science 2019)
[8] (World Bank 2014)
[9] (Keeley 2015)
[10] (Kuznets 1955)

the end, Kuznet didn’t managed to demonstrate the existence of a direct link between inequality and growth.

Economist Sarah Voitchovsky[11] thinks that the relationship between inequality and growth is given by two important assumption. The first one says that inequality may affect how different income groups behave for example poor people may be affected by their inability to invest. The second assumption states that inequality may affect how different social groups interact, and this is linked to the fact that higher inequality is probably associated with reduced trust that may hurt business by imposing transaction cost.

Explaining the link between inequality and growth does not define whether or not inequality is good or bad for growth. Economist Greg Mankiw[12] argues that inequality is good for growth as it makes entrepreneurs enjoy the rewards of their risk taking. But if in an equal society a new entrepreneur starts to better off of his/her new idea, this makes him/her much richer than everyone else. However, this idea has been widely criticized and evidence from OECD or IMF prove that excessive inequality is bad for growth. In particular the OECD in a recent paper (2015) estimates that in OECD countries the average increase in inequality of 3 Gini points over the past couple decades is estimates to have cut GDP by 8.5%.[13]

It is not possible to give a comprehensive answer to the dilemma on whether inequality is good or bad for growth, we have evidence of the existence of a strong link between the two as from both views it is visible that inequality is particularly relevant in both social and political dynamics that eventually lead to some significant economic events.

## 3. *Inequality in Russia*

Russia represents an interesting case in which official published data on income inequality are supposed not to be directly derived from any specific survey. [14]

According to the state statistic center, Russian data on inequality, as elsewhere, come from a survey – Household Budget Survey (HSB) conducted by the state Statistics

[11] (Voitchovsky 2009)
[12] (Mankiw 2013)
[13] (OECD 2015)
[14] (Yemtsov 2008)

Agency of Russia (Rossstat). The problem with these data, as stated by Yemtsov (2008) is that these have been never available to researchers except for the data related to 2003 and 2004 that have been published on the web in 2007 despite the fact that the World Bank wanted them to be available for everyone and indeed Yemtsov contributed to opening the access to them. Moreover, an additional issue is that data couldn't be verified by a third and independent party.
The data collected by Yemtsov (2008) during his studies on Russian inequality exhibits a rapid increase in inequality in early transition years, followed by some moderate and gradual increase in the most recent period of economic growth with the Gini coefficient reaching the maximum in 2006. Yemtsov then used data for the period 1997-2002 reported in the Poverty Assessment (World Bank 2005) and it can be clearly seen that for the same period, like 2003 and 2004 the estimated Gini for survey-per-capita income was ranging from 0.47 to 0.44 declining, while the table above reports significantly lower values and increasing over time.[15]
Anyway, considering that official data have been available only recently, many empirical analyses conducted in the first decade of this century are based on the data collected by the RLMS (Russian Longitudinal Monitoring Survey) project by the HSE – Higher School of Economics with all the related limitations. The RLMS-HSE is perhaps on the only representative microeconomic survey in Russia with a significant panel component: the same households are surveyed over long periods.
However, I decided not to use RLMS data already used by Yemtsov (2008) since they present a lot of limitations ageing and declining-inequality bias at the end of the period, as explained by Kozyreva, Kosolapov, & Popkin (2015) and by Novokmet, Piketty, & Zucman (2018) while I decided to use data from the World Bank. These data coming are presented to be more accurate since they merge official data with data coming from World Bank country department.[16]
Analyzing these data, I noticed that World Bank data make Russia more equal than Russia itself.

[15] (Yemtsov 2008)
[16] (The World Bank 2019)

Historically the situation of inequality in Russia has lived different periods. For instance, before USSR, Russia was a monarchy with zero-income peasantry. With the Soviet Union the situation is contrarily different, because the intimate relation between income and work gave way to the equitable principle of distributing the community's output according to need.[17]

Indeed inequality between a period that goes from 1905 to 2015, as analyzed by Novokmet, Piketty and Zucamn (2018) present a characteristic U-shape as if during the soviet period the principle was of the all-equal, this principle is abandoned in favor of market economy and trade liberalization as the only way to escape the huge balance of payment deficit.

The political and social scenario after 2000 sees the rise in power of Vladimir Putin that man that has exploited Russians' fears of economic turbulence and their indignation at a distribution of wealth deemed unjust. Putin boosted popularity and growth from different points of view.[18] He managed to modernize the society with an effective and precise strategic plan. The rapid growth that we can see after 2000 raised tens of million out of poverty filling out the middle class.[19]

But the situation in Russia represents a U-shaped that is an extreme version of what happened in western countries. Novokmet, Piketty and Zucman (2018) observed the trend of inequality in western countries. As at the very beginning inequality stood at low levels in all the countries of the analysis (that are Russia, USA and France) but the compression during the Soviet period, is particularly relevant in Russia due to the Soviet Union constitutional objective of perfect equality.

It is particularly interesting, thus, to make a comparison of inequality between Russian and countries of the former Soviet bloc – in particular Poland, Hungary and Czech Republic – that are characterized by high inequality levels in the early 20$^{th}$ century and during the interwar period and low during the communist period like Russia.[20] Bladelj and Mahutga (2010) noted that although during the socialist period inequality maintained low levels almost everywhere in Soviet Union and in satellites, the aftermath of the socialist period doesn't follow a fixed pattern because according to

[17] (Bergson 1984)
[18] (Treisman 2012)
[19] (Treisman 2012)
[20] (Novokmet, Piketty and Zucman, From Soviets to oligarchs: Inequality and property in Russia, 1905-2016 2018)

them, inequality in the 10-year period following the fall of the regime, is related with the expansion of private sector, retrenchment of redistributive state, social exclusion of minorities and penetration of foreign capital. So if countries like Hungary, Czech Republic or Hungary that managed to democratize quite early and have always regarded as western way of dealing with economy with a tendency to imitate, managed to maintain imperatively low level of inequality, this has skyrocketed in Russia the privatization strategy promoting foreign investment created in the end more inequality.[21]

The situation in Russia is particularly relevant also considering the role of the oligarchs. In Russia now, the term "oligarch" is a synonym of strong businessman who controls sufficient resources to influence national politics. [22] Russia has more billionaires relative to the size of its economy than any other large country.[23] According to the data of the World Inequality Database [24] the top 1% of the population, that is the richest percentile of the population, is represented by an increasing-trend curve that shows how after the deregulation and the end of the Soviet Union, oligarchs started to obtain an even higher share of the GDP. As improving conditions evened out the distribution at lower tail, soaring fortunes at the top probably stretched it out in a way that is not captured by available statistics.[25]

The population see their power illegitimate although recognizing the growing gap between the lowest and highest level of the population that reflects on household surveys that is the primary source of inequality calculation. [26]

Particularly interesting for the situation of inequality in Russia is the regional inequality. This has been studied only recently as the first attempt to measure it is of the 2008. The territory of the Russian Federation is very huge and present different characteristics. [27] In Russia, the situation is represented by two extremes, on one side there are regions rich in natural resources or big urban agglomerates, like the city of

[21] (Bandelj e Mahutga 2010)
[22] (Guriev e Rachinsky, The Role of Oligarchs in Russian Capitalism 2005)
[23] (Russel 2018)
[24] (World Inequality Database 2019)
[25] (Treisman 2012)
[26] (Guriev e Rachinsky, The Role of Oligarchs in Russian Capitalism 2005)
[27] (Zubarevich 2015)

Moscow that does not represent a barrier to development, and on the other side underdeveloped regions such as: the Republics of North Ossetia, Chechnya or Altay. It is true that from 2000 onwards the ratio between these two distant extremes has lowered. Data report that if in 2005 the ratio between the oil-rich region of Tyumen and the extremely poor Republic of Ingushetia was 30 times, in 2010 it was only 13 times in terms of per-capita Gross Regional Product (GRP).[28]

Indeed, the Gini Coefficient shows a trend of a stable decline of regional inequality (as shown in the **Errore. L'origine riferimento non è stata trovata.**) due to recent successful years of economic growth and the increased redistribution of oil revenues resulted in the rapid growth of public sector's employee wages. [29]

The growth of regional disparities in employment continued until the crisis of 2008. One of the main causes was low investments and the lack of new jobs which reinforced the regional differences in unemployment rates. It is also true that according to data underdeveloped regions with higher unemployment rates are more stable in any phase of economic cycle. [30]

### *4. The Great Depression and the unequal distribution of wealth*

Between 1999-2008, Russia was one of the fastest growing economies in the world and in 2009 it was then one of the mostly affected by the global economic crisis. Guriev and Tsyvinski (2010) show that GDP in Russia fell by 8 percent, more than any other economy in the Group of Twenty (G20) – the group of the world's largest economies.[31] It is true that before the crisis, Russian economy was riding a new wave that was initiated by Vladimir Putin soon after the ruble crisis of 1998 that profoundly hit the whole country both domestically and internationally.[32]

Guriev and Tsyvinsky (2010) report that poverty rate went down from 29 percent in 1999 to 13 percent in 2008. This is at the base of the fact that Russians' experience of inequality in the last two decades has been quite unlike the most Western country.

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[28] (Zubarevich 2015)
[29] (Zubarevich 2015)
[30] (Zubarevich 2015)
[31] (Guriev e Tsyvinski 2010)
[32] (Gaddy and Ickes, Russia after the Global Financial Crisis 2010)

Most people, as stated by Treisman (2012), do not stay poor because after the drop into poverty under the shock of a macroeconomic crisis such as The Great Recession, they quickly recover in the subsequent years.[33]
Official Rosstat [34] data on Gini Coefficient show an increase from 0.40 in 2000 to 0.42 in 2008 and in this period that Guriev and Tsyvinsky (2010) define "Putinomics", it is safe to say that inequality has not changed.

I decided to analyze then the trend of inequality and compare it with major wester economies. I thus decided to pick data for the G20 countries that represent today 90% of the Gross World Product.[35] The database of the World Bank, unfortunately, does not present complete data for all the G20 countries and for this reason I decided to exclude some of the countries from the comparison. The country eventually included in the analyses above Russia are: Argentina, France, Germany, United Kingdom, Italy, Indonesia, Brazil and Turkey. In analyzing inequality, I considered the Gini Index.
Data related to Russia that are available on the World Bank platform are Rosstat data that have been revised and implemented with data coming from local offices of the World Bank. For a deeper analysis of the years related to my purpose, I decided to analyze these selected countries for a period between 2007 and 2012 in order to understand the situation strictly before the crisis and the recovering situation after. As explained above, the fact that data are difficult to be collected for a high number of western countries, I decided to choose this particular period until 2012 because it would have given to my analysis the most inclusive and complete outcome possible. Moreover in Russia in 2014 we register a ruble crisis and, despite having all data available until 2016, deciding to use data until 2012 gave me the possibility not to detect the elements that would have caused the crisis in the upcoming years and that would have impacted the economy of the nation.
After analyzing inequality variation among the abovementioned countries, I came up with these final results:

[33] (Treisman 2012)
[34] (Rosstat 2016)
[35] (Cooper 2011)

*Table 1 - Variation in inequality between 2007 and 2012 in selected countries according to DataBank Gini Index Data. Authors' calculation*

| Country Name | Variation |
|---|---|
| **Russian Federation** | **-6,62%** |
| Argentina | -7,13% |
| France | 4,01% |
| Germany | -3,51% |
| United Kingdom | -3,64% |
| Italy | 5,47% |
| Indonesia | 1,96% |
| Brazil | -2,91% |
| Turkey | 1,04% |

The table clearly present the improving of inequality in Russia, besides Argentina, compared to other western countries in my analysis. Germany and the United Kingdom's variation is a little lower (while still improving) but definitely better than France or Italy where inequality worsened with an increasing respectively of 4,01% and 5,47%. It is appropriate to note that Germany or United Kingdom do present an initial situation that is better than Russia or Argentina, but the situation is not such better to justify the situation in which the decline in inequality is less than Russia. Even because the initial situation of Italy or France is practically the same, but here we can see that inequality in the end worsened.

Analyzing the situation in Russia alone, inequality improved due to an overall redistribution of incomes, and indeed the Top 1% of the population lost 25% of their incomes, but Bottom 50% managed to get on the same period 22% on the pre-tax national income share. Basically, the richest get a little poorer and their wealth is then redistributed among the lowest cluster, that overall is the one that registers a positive rise in pre-tax income share during those years.

However, inequality was expected in this period to rise in Russia and this is particularly due to Geographical, Historical and Political reasons. To summarize, regional inequality is an issue in Russia and political leaders have always found, without any particular results, a way to cope with it. This is the connected to the fact that during the Soviet Union the industrial planning managed to build factories in remote parts of the country in order to make them less vulnerable from abroad, and this lack of logic made some regions better off more than others.[36] Moreover, Treisman (2012) notes that the strong political link between government and wealth, is connected also to the worsening of inequality as elite holds wealth in the interest of the state.

### 5. *Why inequality improved after the crisis*

In February 2008, President Putin in his address to the State Council declared level of income inequality in Russia absolutely unacceptable and called for measures. [37]
I identified 3 actions happening before and during the Crisis that led in the end Russia to register an improvement in inequality:

1. Role of Modern Oligarchs

Oligarchs were hit particularly hard from the crisis as they were holding shares of major national companies. When the stock market collapsed, they had to raise cash to give security to the banks that they would pay back their loans. The huge loss in liquidity and a subsequent increase in the role of Kremlin in the country's finance led to a redistribution of incomes as the objectives of the elite regarding income shares differed from the ones of the country. [38]

2. Labor and Wages

During the crisis manufacturing and metallurgy were affected most and automobile output fell in 2009 by more than 60% and due to this industry sharply reduced their labor forces.[39] But, since 2001 government decide to act on the labor legislation in order not to repeat the same effect that crisis had on labor and wages in 1999 when unemployment rate rose to 14% before it began to decrease.[40] The 2001 Labor Code

[36] (Treisman 2012)
[37] Quoted from Vladimir Putin's address to an expanded session of the State Council in February 2008. https://president.kremlin.ru/text/appears/2008/02/159528.shtml
[38] (Stratford 2019)
[39] (Remington 2011)
[40] (Sergeev 2009)

provided that the minimum wage throughout Russia must be no lower than the rate calculated as the minimum amount of income required for the subsistence of a working adult.[41] The importance of enterprises in labor market and subsequent improvement of inequality is not just in providing employment and wages, but also essential public services that determined the success of the market transition facilitated by their relationship with the government.

3. Putin Rent Management System

The rent management system is a system of distribution of rents among the companies dealing with natural resources to control the flow of the rent, namely the difference between the market value of resources and the cost of production. The system, in place since the Soviet Union, works channeling rents to preferred uses and to prevent their dissipation or diversion.[42]

Putin introduced a combination of the classic rent system adding private ownership as most companies in Russian natural resources market have been privatized in the 90s. The new system includes a direct passage with the transfer of production, building a functioning rent distribution chain either using physical form as market price inputs or money. In this new scenario natural resources becomes the currency between the oligarchs and the government.

The role of the government here is essential because it acts as a gigantic enterprise and ensure stability of the system plus redistribution of rents to the regions, cities and plants in a way that rent-generating industries have strong incentives to maximize profits and thereby create more rents.

This created jobs availability for the low-skilled labor force and an overall growth of the GDP that can explain how come workforce and the bottom 50% of population managed to gain from the boom. [43] In fact, according to Gaddy and Ickes (2010) production derived from the rent reflects also in household income.

[41] (Remington 2011)
[42] (Gaddy and Ickes, Putin's rent management system and future of addition in Russia 2015)
[43] (Gaddy and Ickes, Russia after the Global Financial Crisis 2010)

## *6. Conclusions*

With this work I attempted to answer to the question: is there a relation between the economic initiatives implemented in the first decade of the XXI century and the improvement of inequality triggered by the Great Recession in Russia?
The analysis carried out, pointed out that inequality improved in the aftermath of the crisis loosing circa 6% in Gini as compared to other countries that register lower values or even a worsening of inequality like Italy of France.  This is due to the fact that the distribution of income in Russia managed to move from the top 1% to the bottom 50%. In particular the top 1% lost 30% of their income that was redistributed in the poorest quintiles of the population. The rise from the bottom, is explained from a correlation between growth and inequality. Especially, this important rise in the growth of the GDP in Russian Federation is the natural response of the presidency of Vladimir Putin that managed to exploit natural resources dealing not only with redistribution of national income, but also to act in the field of labor laws and wages. Severe inequality persisted in Russia, but the share in the economy of the bottom half of the society rose from 10% in 1996 to a still modest 17% in 2012. This trend was helped by a gradual decline in unemployment and wage gaps between high and low earners.[44]
An additional explanation to such result is given by Robert Frank and the expenditure cascade pattern. According to Frank, when economy experience an uneven distribution of incomes, this stimulates savings behavior.[45] In the idea of Robert Frank (2010), that If low incomes emulates expenditures behaviors of the high-income class, the same is done with savings as to keep consumption in lower classes in line with that of higher ranked households. This pattern, if analyzed in the context of Russia can explain that when oligarchs had to face some difficulties due to the crisis, their run to saving stimulated also savings in the lower class that together with an overall higher wages and a redistribution of households had a positive outcome not only in inequality but also in the growth of the country.

[44] (Russel 2018)
[45] (Levine, Frank and Dijk 2010)

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