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Master in Economic History

# Economic Inequality in Imperial and Modern Russia in the Context of Political Instability

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*Abstract:* Contemporary Russia is among some of the most unequal countries. After the fall of the Soviet Union, economic inequality has rapidly increased, and social discontent is rising as demonstrated by the continuous protests that culminated in opposition rallies during March 2017. Despite these events, political stability characterizes the current conditions of the Russian regime. What are the forces maintaining the stability of the government in an environment of rising economic inequality and social unrest? In order to answer this question, the current thesis studies the Imperial period that saw a regime change through the Revolution of 1917. By comparing these periods and applying the theory of inequality and political instability on both periods, this thesis hopes to shed light on the issue at hand. Since there is an abundance of research on economic inequality in modern Russia, but very scarce information on this aspect in the Tsarist era, an additional measure of inequality is constructed in the form of factory workers' labor income shares of the total national income.

Contrary to the conventional knowledge, this thesis identifies that inequality between the working class and the elites might have been at a slightly higher level in the Imperial period compared to the present as measured by labor income shares of factory workers in total national income. Despite this, economic inequality in contemporary Russia is extraordinary and inspires the question of what differs the current conditions from the conditions in the Tsarist era. This study looks at state capacity, the stabilizing effect of the middle class, and the ostensible equality of opportunity as potential explanations of this matter. Additionally, it aims at extending our understanding of the interplay between the forces of economic inequality and political instability and elucidating the factors affecting political instability in different times.

*Key words:* Economic inequality, political instability, Russia, labor income share

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*The history of inequality is shaped by the way economic, social, and political actors view what is just and what is not, as well as by the relative power of those actors and the collective choices that result. It is the product of all relevant actors combined.*

-Thomas Piketty: Capital in the 21<sup>st</sup> Century (p. 20)

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# 1 Introduction

Columnist Adrian Wooldridge (2017) draws a parallel between today's developments and the world order that sparked the Russian Revolution in 1917 in his article *Bolshiness is back* in *The Economist*. He argues that the similarities are reflected in the rise of right-wing populism demonstrated by the victory of Donald Trump and the decision of Britain to leave the EU. Moreover, he maintains that these events, together with rising inequality and global economy bringing the greatest gains to the wealthy people, contributes to the strengthening of authoritarians, such as Vladimir Putin. Therefore, he calls for the protection of the liberal order that was already once lost in the turmoil of the Russian Revolution in 1917. The extent of the liberal order in Russia on the eve of the revolution remains to be discussed, but the parallel Wooldridge draws is an interesting point of departure. The past 25 years have seen the simultaneous emergence of a global middle class, the stagnation of income and the rising discontent of this same group on the national level of the rich countries as well as manifestation of plutocracy (Milanovic, 2016). Examining both Imperial and contemporary period in Russia in the context of economic inequality and political instability can bring further insights into the current debate.

Russia is one of the countries that has undergone several transformations originating from conflicts regarding income distribution and is struggling to catch-up with the developed Western world. The financial gains attributed to the middle classes of emerging countries by Milanovic (2016) are hardly detectible in the Russian society, where 110 billionaires controlled 35 percent of the national wealth in 2013 (Lyubumov, 2017). Thus, Russia is amongst countries where within-nation inequality is extraordinary. Recent studies have shown a strong correlation between inequality and sluggish economic growth in Russia with accelerating income inequality and insufficient growth of the middle class (Akyulov, 2014). After the collapse of the Soviet Union in 1990s, Russia experienced a radical economic transition that was followed by a disappointing economic performance. Yet, the recovery from the financial crisis of 1998 led to increasing and successful growth reinforced by constructive fiscal policy, government expenditure and rising wages (Popov, 2014; Akyulov, 2014). The recent years have, nevertheless, deflected this positive course of development, and inequality in Russia has almost doubled since the disintegration of the communist regime (Remington, 2012).

Analyzing the inequality in Russia is of special interest due to the potential effects it has had and continues to have today on the distribution of political power and as a source of political unrest. Many studies have shown that inequality has a detrimental effect on economic growth (Birdsall and Londoño, 1997; Engerman and Sokoloff, 2005; Acemoglu and Robinson, 2014; Easterly, 2006). Alesina and Perotti (1993) also argue that income inequality causes socio-political instability through rising social discontent. All these developments, in turn, discourage investment that is crucial for economic growth. Ties between inequality, political unrest, sluggish economic growth and rise of populism are visible worldwide as shown in

Wooldridge's (2017) column. In Russia, despite apparent political stability, Putin's regime is struggling with economic revival and eradication of corruption and it remains to see, how far these efforts can bear the government in the future in terms of containing social discontent.

Whilst some research has been carried out on the interplay between inequality and political instability (Agnello et al., 2016; Alesina & Perotti, 1993; Correa-Cabrera, 2004), no studies, to the knowledge of the author, have incorporated and contrasted these two factors in the context of two different historical periods. The aim of this thesis is to analyze the relationship between inequality and political instability in Russia in the pre-revolutionary era (1885-1913) and contrast it to the recent developments (1995-2015) by applying the theoretical frameworks of economic inequality and political instability. And whereas there is an abundance of data and research available on the modern economic growth and inequality, the period before the Revolution of 1917 has been neglected apart from the pioneering work of Lindert & Nafziger (2014). Hence, unraveling the Imperial inequality trends would bring understanding to the era of early growth and structural change, and illuminate the socio-economic conditions of the society on the eve of major historical events that led to the adaptation of the Soviet model in the economy.

The topic is especially intriguing since recent studies have shown that income inequality in Imperial Russia did not demonstrate exceptional gaps between different layers of society (Lindert & Nafziger, 2014), although our knowledge about the living standards of the rural inhabitants is still meager, as stated by Dennison & Nafziger (2013). Juxtaposing these circumstances with the current level of inequality and political instability in Russia would bring insights into the development paths and challenges Russia could face in the future. One of the greatest challenges in reaching conclusive inferences about the well-being of the nation, especially in the historical times, is the vast size of the Russian empire and the differing conditions throughout the country. Piecing together the fragments can, nevertheless, prove out to contribute to the discussion about the controversial past of the Russian Federation and the future struggles it can expect.

## 1.1 Research Problem

Building on the research gap indicated in the previous chapter, this study is concerned with investigating inequality in the Imperial period and contemporary Russia. The previous research has provided diverse information on the living standards of the pre-revolutionary era and further investigation into income inequality of this period can bring insights into the socio-economic conditions of Russian citizens. Especially interesting is the interplay between economic inequality and political instability during the era of Imperial Russia that saw reforms, extreme regime changes and political violence. Moreover, contrasting this period with the modern times that are characterized by increasing economic inequality can prove out to be of great interest when discussing the future developments Russia is to face. Investigating the question, whether economic inequality could have been a precondition in the political instability on the dawn of 1917 Revolution leads to speculation over what forces are at play in the modern Russia, where semi-authoritarian rule is strong despite extreme inequalities. One

of the most important questions in today's Russia is, thus, what is maintaining the stability nowadays and what is the difference to the Imperial period.

## 1.2 Aim and Objectives

This study aims at examining the relationship between economic inequality and political instability with particular emphasis on economic inequality as a possible source of political unrest. This relationship is discussed without an attempt to argue for causality, which would be beyond the scope of this thesis. The analysis is operationalized by merely contrasting the existing conditions in both Imperial and modern period and by applying the theoretical framework on the case of Russia. Another objective of this paper is composing an additional measure of inequality trends in Russia for the periods of 1887-1913 and 1995-2015 by constructing the labor income share of factory workers in Russian national income using the measures of real and nominal wages and GDP estimates. The ratio of total income from labor as indicated by wages (W) and GDP (Y) is used to reflect the inequality in the society, since an increase in the labor income share would indicate diminishing inequality. This measure of inequality is adapted in order to deepen the knowledge of the existing inequalities in the Tsarist era, that still lacks conclusive research on economic inequalities. It is also a tool that helps to contrast the Imperial and contemporary periods. Hence, this research project seeks to address the following question:

1. How unequal was the Russian society when measured in terms of labor income share of factory workers in Russian national income in 1887-1913 and 1995-2015?

This trend in the labor income shares of factory workers as a measure of inequality is then analyzed in the light of other measures of economic inequality provided by other researchers for both periods. With the help of previous research on Russian inequality together with the measure of inequality provided by this paper the possible relationship between economic inequality and political instability is, then, discussed in detail. Finally, the stabilizing effect of the middle class and state capacity are examined as forces maintaining political stability in contemporary Russia.

## 1.3 Outline of the Thesis

This thesis consists of six core sections and starts by introducing the topic and the general purpose of the research. The second part presents the literature review while the third and the fourth address data collection, source material and methodological issues. The fifth section provides the findings regarding the inequality trends in the two periods of interest in Russia. Finally, the paper is concluded with some remarks regarding the future research in the field of inequality with focus on Russia.

## 2 Theory

The following literature review will cover the various aspects of economic inequality and political instability and discuss the relationship of these factors based on views brought forward by an array of scholars. This section starts by elucidating the concepts of economic inequality as well as political instability by introducing the approach taken in this paper with regards to these concepts. The rest of this section concentrates on evaluating the case of Imperial and modern Russia in relation to economic inequality and political instability.

### 2.1 Economic Inequality

One of the pioneers in the field of economic inequality research is Simon Kuznets (1955). The central theme in his research is the relationship between inequality in the distribution of income and economic growth experienced by countries. According to his theory, inequality follows an inverted U curve, also called Kuznets curve, which means that with economic growth inequality first increases before it starts to decline again. Essential to his theory is industrialization and the shift away from the poor agricultural sector, characterized by low levels of inequality, to richer manufacturing sector with greater disparities in income. This implies that inequality stems from the income gap between agricultural and industrial sectors. Only once the majority of the population has moved to the industrial sector, will inequality be reduced. More recently Milanovic (2016) has criticized Kuznets' approach because it does not explain the rising inequality in the developed countries that originated in the 1980's. This is why Milanovic (2016) prefers to talk about Kuznets waves or cycles since they represent more accurately the current development of economic inequality. According to him, the first wave represents the shift from agriculture to manufacturing while the second and current wave signifies transfer from manufacturing to services. Lyubimov (2017) also denotes that the coordinated action and the bargaining power of the workers can also have contributed to the diminishing inequality during the first wave. According to Milanovic (2016), forces that have, during the first wave in the beginning of the 20<sup>th</sup> century, reduced inequality in developed countries involve wars, left-wing political pressure, social policy and strong labor unions. Despite concentrating on the global inequality and inequality among-nations, he points out that national inequalities are still amongst the most important sources of inequality from the political point of view. He also points out that "most political battles are fought over the distribution of income" (p. 86).

Both Milanovic (2016) and Posner (1997) agree that the sources of inequality in today's developed countries derive from structural change, but Milanovic (2016) also names globalization and technological change as culprits for this development. Posner (1997) argues that the shift from manufacturing to services has left the low-skilled and unskilled workers

with low wages while highly educated enjoy higher incomes. Milanovic (2016) has, additionally, noticed the stagnating trend in incomes of the lower middle class of the OECD countries. Yet, he considers the greater influence of the rich on the political process to be a major factor in further pushing the continuation of increasing economic inequality. This has also been noticed by Bartels (2008) in his research over the American society. He claims that elected officials are influenced more by the affluent layers of the society while the preferences of the bottom third of the income distribution are largely ignored. Rising inequality might, thus, lead to a situation where the interests of the poor citizens are not represented in the political decision-making and this leads to even accelerating economic inequality. In this regard, Piketty (2014) is right when ascribing today's rising levels of economic inequality to the detrimental forces of capitalism, when the private rate of return on capital exceeds the rate of growth of income and output. He, notably, distinguishes between inequalities deriving from income from labor, ownership of capital and total income. The two components of this total income inequality are inequality of income from labor and inequality of income from capital. Total inequality, hence, depends on the degree of distribution of these two components. Evaluation of the degree of economic inequality in a society is, hence, not straightforward, and this thesis concentrates mainly on one aspect of the labor component of this equation.

Finally, it would also be beneficial to consider the importance of distinguishing between poverty and income inequality in the discussion over distributional effects. It may indeed be the case that there is less poverty in a society that is more tolerant of unequal distribution of income in the society (Posner, 1997). This is to say, that with the growing size of the national economic pie, the amount of people that are better off could be greater even despite more unequal distribution of income. However, if income inequality is alleviated through redistributive measures it may harm economic growth and reduce the incomes of the poor along the way (Posner, 1997).

### 2.1.1 Measuring Inequality

One of the most widespread ways of measuring inequality in the research literature and today's public debate is the Gini coefficient. The measures range between the values of 0 and 1, with a higher value representing higher inequality (Acemoglu & Robinson, 2006; Piketty, 2014). Piketty (2014), however, points out that it can be a problematic measure since it incorporates all the aspects of the distribution, ranging from income holders at the bottom to the very top, in one index. Moreover, it tends to confuse the inequalities regarding labor and capital, and therefore, Piketty (2014) prefers to use distribution tables as a more consistent and transparent illustration of inequalities in the society. Milanovic (2016), also, criticizes the modern measurement of economic inequality and points out that inequality in the US can actually be underestimated due to refusal to participate in household surveys that collect data on individual incomes and wealth.

Milanovic (2009) has, additionally, contributed to the discussion regarding measuring inequality by introducing the concept of inequality possibility frontier. He defines it as "the maximum Gini that is achievable at a given level of mean income provided that all population but an infinitesimally small elite live at least at the subsistence level" (p.15). The measure of

maximum feasible Gini grows with the rising incomes of the community, since there's more to extract by the elites when incomes exceed the subsistence level. Consequently, the inequality extraction ratio is the ratio between the actual Gini and the maximum feasible Gini. The higher this ratio is, the more the elites are able to extract. In rich societies, the maximum feasible Gini tends to be greater due to higher incomes, but the inequality extraction ratio is at the same time smaller (Milanovic, 2009).

Finally, labor income share of factory workers, that is chosen as an additional measure of inequality for the purposes of this paper, demonstrates the extent to which working classes are able to benefit, or conversely, endure the economic growth or stagnation (Frankema, 2010). This measure can be seen as complimentary to the ratio between real wages and GDP per capita that indicates the development of wages when compared to the trends in the national income, and that has been frequently used by Williamson (1998) in his research on inequality trends in Latin America. Acemoglu and Robinson (2006) argue that the share of labor income in GDP is especially compelling measure of intergroup inequality when the conflict lies between the rich and the poor. The poorer segments of the society rely on income from labor as opposite to elites who benefit from capital income, and, hence, a higher labor share represents lower inequality in the society.

## 2.2 Political Instability

Posner (1997) defines political stability, in a narrow fashion, as the absence of civil wars, coups, frequent constitutional changes, domestic political terrorism, corruption and expropriation. In other words, stability is defined as lack of instability. Correa-Cabrera (2004), in his research, also takes a very limited approach, concentrating on regime instability and certain disturbances to the public order. This view is supported by Alesina and Perotti (1993), who consider political instability in terms of policy uncertainty or threats to property rights as well as social unrest and political violence. It would, however, be beneficial to distinguish between social unrest and political instability because social unrest, as manifested through heightened crime rates and new forms of popular movements, can function as a springboard for political unrest (Correa-Cabrera, 2004). A broader perspective has been adopted by Dutt and Mitra (2008) who argue that political instability can be seen as a movement between democratic and dictatorial regimes. It is noteworthy, that this approach takes into account the reverse effect of political instability. Thus, political instability does not only encompass violent disruptions experienced by democracies but also the positive developments experienced by autocracies towards democratic consolidation. In this view, political instability is not regarded as solely a disruption of a favorable democratic equilibrium.

Rossignoli (2016), on the other hand, has explored the relationship between democracy, state capacity and conflict onset with the help of a new dataset of institutional indicators applied through an analysis of 142 countries over the period of 1950 to 2014. He found that the probability of conflict decreases when state capacity, defined as “the effectiveness of state sovereignty over its territory and population”, increases (p. 427). According to him, the

probability of civil conflict over government diminishes when moving from full autocracy to democracies when the level of state capacity is at maximum. White and Herzog (2016), on the contrary, argue that state capacity can just as well sustain authoritarian regimes the way they consolidate democracies. State capacity is, thus, an important aspect of maintaining political stability in a society, no matter whether it is authoritarian or democratic.

## 2.3 Economic Inequality and Political Instability

A large and growing body of literature has investigated the relationship between income inequality and political instability and identified income inequality as the source of political instability (Agnello et al., 2016; Alesina & Perotti, 1993; Correa-Cabrera, 2004). Alesina and Perotti (1993) draw on an extensive sample of 70 countries to assess the role of income inequality as a catalyst for the increases in socio-political instability. This transpires through the rising social discontent and social unrest that demonstrates itself in the form of coups, revolutions and mass violence. Justino (2004), in his study of the relationship between redistribution and conflict in 14 major Indian states, also names persistent income inequality as a significant cause of conflict, since inequality and poverty amongst certain population groups appear to be the causes for riots. Angello et al. (2016) further list rising income inequality as the origin for government crises, especially in the case of OECD countries. They contend that successful and increasingly expansionary fiscal stimuli programs can indeed significantly reduce the potential government crises. Moreover, existence of coalition government, regime durability and the degree of political competitiveness are factors alleviating the risk of political instability. This body of work is complemented by the study of Correa-Cabrera (2004) on the risks for democratic rule in Latin America. According to him, income and wealth inequality together with the slow economic growth and insufficient social progress are the root causes of the dissatisfaction with economic and political orders. This, in turn, translates into social unrest with accelerating violence and the rise of the political movements on the extreme left and right. As a result, reversal towards authoritarianism and populism stemming from distributive conflicts can be regarded as major threats to the political stability of a country.

It is also well established from a variety of studies that inequality affects economic growth (Alesina & Perotti, 1993; Dutt & Mitra, 2008; Acemoglu and Robinson, 2014). Alesina and Perotti (1993) maintain that accelerated conflict discourages investment and, hence, hinders economic growth. In the same vein, Justino (2004) suggests that especially violent types of conflict bring about private and social costs. This, in turn, increases the risk of private investment and results in a loss of trust between economic agents and, consequently, deters economic development. The social, political and economic disruption caused by conflicts can also further increase the existing poverty and inequality in the society and this becomes a vicious circle that can turn out to be harmful for the development of societies (Justino, 2004). At the same time, the quest towards equity and redistributive policies, such as progressive taxation, can prove out to be damaging for economic growth by discouraging economic risk taking or by increasing tax evasion (Posner, 1997). Moreover, Dutt and Mitra (2008) argue, that in politically unstable societies, this kind of redistributive policies tend to be more

volatile. Attaining the balance between maintaining a vigorous investment environment and implementing redistributive policies can, thus, be challenging. Most importantly, however, fiscal redistribution reduces social tensions, and this can be more conducive to productive activities and capital accumulation since both of them can spur economic growth (Alesina & Perotti, 1993). As discussed above, the notions of inequality, political instability and economic growth are interconnected and cannot be treated as isolated phenomena. Inequality affects political stability through social unrest. Simultaneously, both inequality and political instability together with conflicts affect economic growth. Economic growth, on the other hand, affects inequality and political stability through various mechanisms, not least through the one discussed in the connection with Kuznets curve. Agnello et al. (2016) have also shown in their study that economic growth contributes to stable legislature.

Several researchers have, additionally, pointed out that a strong middle class or a vast majority of the population, whose earnings are relatively high, contribute to the stability of the society (Alesina & Perotti, 1993; Posner, 1997; White, McAllister & Munro, 2017; Roe & Siegel, 2011). Posner (1997) casts a reasonable doubt on the idea of income inequality being one of the main sources of political instability and goes on to contest that a high average income, despite of being unequally distributed and despite the presence of a permanent underclass, can assure political stability. According to Posner (1997), the political consequences of inequality might rather be established through emotional or ethical responses to the degree of inequality than through the distribution of income. Envy and empathy are easier to experience when the inequalities between different layers of the society are smaller and less inequality may, as a matter of fact, be more destabilizing. Greater degree of equality makes it harder for individuals to bear the evident and more visible inequalities since it is easier to relate to the lifestyle of the group that is better off when the differences are not too drastic. Still, in democratic societies the sense of economic inequality is alleviated by the extensive rights granted for people, such as the right to vote or speak freely. Maximizing the equality of opportunity might be a remedy for redistribution pressures of the state while at the same time it could help exacerbate envy by making the success of individuals an outcome of innocent circumstances or hard work (Posner, 1997). This line of argumentation is, however, not utterly flawless, since it would indicate that failure can mainly be attributed to individuals' own deficiencies.

Acemoglu and Robinson (2006), on the other hand, contest that middle class can function as a driver of a revolutionary movement towards democratization. They see middle class as a buffer between the elites and the masses. Moreover, since middle class is economically and through education closer to the elites, it can make it more attractive for the elites to include them in the political process first, rather than concede a comprehensive democracy to everybody. After this initial phase, according to Acemoglu and Robinson (2006), the dispersion of this privilege can continue throughout the society.

### 2.3.1 Inequality and Democratization

An important aspect relating to above-mentioned arguments of Acemoglu and Robinson (2006) is the relationship between inequality and democratization. Muller (1988) has found an inverse causal relationship between political democracy and income inequality running in

both directions in his study of 55 sample counties. Democratic institutions that have been maintained for an extensive period of time can, according to him, cause gradual reduction of income inequality, while high levels of inequality in society can undermine the stability of the democracy. The hypothesis of the median voter also discussed by Posner (1997) fortifies the idea that democracies are more equal. This is a natural consequence of the increased incentive of the median voter to support progressive taxation in a society where income inequality is greater. More recently, Houle (2009) has contributed to the discussion regarding inequality and democratization. In his paper, he brings up theories presented by other scholars, arguing that authoritarian countries with high inequality levels are less likely to democratize due to the elites being wary of the costs of the redistribution.

Acemoglu and Robinson (2006) belong to the researchers siding with the aforementioned view. They define democracy as political equality, highlighting the interests of the majority. In their model, political conflict between groups of citizens and elites is resolved by the prevalence of political power by one of these groups. According to them, at the lower levels of inequality, countries tend not to democratize because the gains from demanding redistribution would be smaller. At intermediate levels of inequality, the costs of redistribution are relatively lower than the costs of repression and, hence, democratization is plausible. Similarly, at the higher levels of inequality when costs of repression are lower than the costs of redistribution it becomes more appealing for the elites to keep the power and not engage in redistributive policies. When faced with the threat of revolution elites also tend to give away their power instead of making concessions, because changing policies is more credible than mere concessions that can be taken back the next day. Houle (2009), however, doesn't find support to these hypotheses and criticizes them for neglecting the democratization process that is driven from above and the problems of collective action faced by the masses. He also contests that in a society with high levels of inequality the cost of repression is not necessarily less than the cost of redistribution, since all revolts are costly to suppress. Instead he finds that inequality does not harm, but weakly stimulates democratization.

Correa-Cabrera (2004), on the other hand, contends that low economic growth, growing inequality, social polarization and political disorder could, as a matter of fact, be just a natural path of development towards democratic consolidation. The case of Brazil shows that discontent does not necessarily lead to political disorder despite Brazil being amongst some of the most unequal societies. Instead, Correa-Cabrera (2004) introduces some conditions under which social unrest translates into political instability and brings Venezuela as an example of such development. These conditions include: material resources, political opportunities, cultural values, ethnic identities, diversity among the poor, technology, interest group structure and social structure. However, mechanisms driving the process are still left to discover.

### 2.3.2 Section Summary

As can be seen from the literature review, the debate over the relationship between income inequality and political instability is not unambiguous, and no conclusive deductions can be drawn. Many researchers have found income inequality to be the source of political instability

but there are also opposing views. Even more polarized is the discussion regarding inequality and democratization. Democracies are traditionally considered to be more equal and even contributing to the reduction of income inequality. At the same time, democratization for the societies with high levels of inequality can prove out to be difficult. Moreover, as presented in the section 2.1, the biggest threats to credible modern democracies, where the level of inequality currently seems to be rising, are structural change and technology as well as the power of the rich to affect political decision-making and redistributive policies.

In short, as Correa-Cabrera (2004) points out, the relationship between economic inequality, social unrest and political stability is challenging to test and measure. Posner (1997) also notes that stability, in addition to other aspects, represents a summary of certain factors, such as homogeneity of language, ethnic origins, religion, national history, foreign threats, education and economic influences. Besides, the issue of causality when determining the relationship between two concepts is always important to take into consideration, and is in the case of income inequality and political instability even harder to prove (Posner, 1997). Which indeed comes first, equality or stability? All of the researchers above could, nevertheless, agree that democracies characterized by low levels of inequality are nearly immune to democratic breakdowns and backsliding from democracy to dictatorship.

## 2.4 Inequality and Political Instability in Russia

February revolution of 1917 and the abdication of Tsar Nicholas II on the 2<sup>nd</sup> of March 1917 marked the end of the Romanov dynasty that had reigned over Russia for more than 300 years. This was preceded by massive demonstrations on the streets of St. Petersburg (or Petrograd as it was called at the time) with final blow coming from the mutiny of the Petrograd garrison refusing to suppress the demonstrations (Lohr, 2006). Labor unrest among the industrial workers had alerted government officials already in the mid-1840's but only in the 1870's did the symptoms of this unrest began to spread into the political sphere. At the core of the revolutionist movement was the collaboration between workers and radical intelligentsia. The response to the strikes by the officials manifested itself in harsh police measures that regarded strike action as criminal conspiracy against the state and resulted in arrests, imprisonments and exiles. Only half-hearted attempts were made at devising factory legislation repressing the rights of the urban workers, who lived in constantly deteriorating conditions due to massive influx of peasants into the cities (Zelnik, 2006). Urban population was, however, not the only one being exploited. Peasants were obliged to give up around half of the product of their labor, and before the end of the 17<sup>th</sup> century, unrest and mass violence were persistent forms of resistance (Moon, 2006). Factors leading to February Revolution as well as to Bolsheviks later seizing the power in October 1917 and overthrowing the Provisional Government are various. The growing discontent of the masses was induced by accelerating inflation with lagging wages, deficit in consumer products, fruitless war efforts on the front of the World War I, poor financial state of the empire, insufficient infrastructure and, finally by severe bread shortages in the capital Petrograd (Service, 2005; Lohr, 2006). Moreover, it is worth mentioning that the resentment of the Emperor did reach the ranks of the members of the upper and middle classes (Service, 2005).

The era of Soviet socialism that followed was disrupted by Gorbachev's reforms, *glasnost* and *Perestroika* in the end of the 1980's. This led to the abolishment of USSR in 1991 and ongoing economic and political reforms led by Boris Yeltsin. This meant introducing capitalism and free market economy to the Russian Federation, which started with price liberalization and continued with efforts to balance the budget, eliminate state subsidies and heavily privatize the entire economy (Service, 2005). This predominantly led to an even greater chaos with oligarchs seizing ownership of the most valuable energy companies (Gatrell, 2006) while reducing millions of households to poverty (Service, 2005). Market economy that was lacking the underlying institutions proved out to be a disaster, and asset stripping instead of modernization of the structures of the society was characteristic for this time (Stiglitz, 2002; Remington 2012). The soaring inflation wiped out savings while the artificially low prices of natural resources invited some to exploit this government policy. Fortunes were made by selling these natural resources abroad (Stiglitz, 2002). Vladimir Putin was determined to restore the order when replacing Yeltsin in 2000. And after ruling over Russia for more or less 17 years, it does not seem like he is ready to give up the power. This despite the anti-government demonstrations in 2011 and 2012 and more recent opposition rallies in numerous cities nationwide in March 2017 (BBC, 2017).

Stiglitz (2002), in a felicitous manner, connects these two periods together when referring to the transformations taking place in the society. He contends that the leaders of the 1917 Revolution recognized the magnitude of the changes, and argues that the transition from socialism to market economy seven decades later can be juxtaposed with the turmoil of 1917. The change did not only concern economics but also pierced through social and political structures of the society. The next sections will discuss the Imperial and contemporary periods separately and the last section will provide an explicit formulation of the questions arising in connection to inequality and political instability in both periods.

#### 2.4.1 Imperial Russia

The academic literature on living standards in Imperial Russia has revealed the emergence of several contrasting themes. The conventional view sees Russia as backward economy, suffering from an agrarian crisis after the abolition of serfdom in 1861. Only in recent years have studies directly addressed Russia's income inequality before the 1917 Revolution and provided estimates of income inequality in the late Tsarist period. Amongst the most prominent studies is one conducted by Lindert and Nafziger (2014) providing both Gini coefficients and income shares at the provincial level as well as for the aggregate level of the fifty provinces of European Russia in the year 1904. Moreover, these researchers note the accelerating pace of Russia's industrial development, urbanization and economic growth after 1861. Similarly, Dennison and Nafziger (2013) found support for the rising living standards in Imperial Russia on the eve of revolution. Their study of Iur'ev and Rostov districts in the Central Industrial Region of Russia during the period of 1861-1910 reveals a rise in wages from 1885 to mid-1890's that was followed by stagnation. Additionally, they find no evidence of declining consumption or rising cost of living in the region. Moon (2006), similarly, describes the adequate living standards and denies the claim of the majority of peasants living in grinding poverty, although there, naturally, were geographical and time-dependent

differences. However, despite an expanding formal rural education system, the political and administrative institutions in Russia continued to deepen the social and economic inequalities between peasants and other social classes through the commune, and the collective character of peasant property rights. The nobility and a small commercial elite continued to hold the power within zemstvo, the ministries of central government and the national Duma parliament even after 1906 (Dennison & Nafziger, 2013). This political inequality, suppression of political rights, continuous inequality of landownership, regressivity of the imperial fiscal system and complete autocracy are also observed by Lindert and Nafziger (2014).

In contrast to political inequality, income inequality, however, shows a completely opposite trend. Income inequality in 1904 in Tsarist Russia doesn't prove out to be exceptional and the estimate of the top income 1 percent income share of the total income is 13,5 percent while the Gini coefficient for the European part of Russia is approximately 0,36. This is a relatively low estimate when compared with the corresponding figure for the Victorian England, which in 1867 is estimated at 0,49. The two capital provinces of St. Petersburg and Moscow have a slightly higher Gini coefficients of 0,5, but at the same time, the mean income levels in these regions were higher (Lindert & Nafziger, 2014). This positive outlook is shared by Mironov and A'Hearn (2008) who analyzed the mean heights of Russians in the Imperial period as an aggregate measure of living conditions. They found that the heights fell in the late 18<sup>th</sup> century but rose rapidly in the middle decades of the 19<sup>th</sup> century and continued to grow steadily after this. Mironov and A'Hearn (2008) attribute this to the economic development and the productivity growth of agriculture in Russia.

Gerschenkron (1962), likewise, holds the view, that by 1914 Tsarist Russia had taken long strides on the path of achieving industrial development and the building of railroads was the indispensable factor in sustaining the level of exports of industrializing country. Stolypin land reforms in 1906 brought about the much needed freedom that peasants required to sever the connection with rural commune *obshchina* and establish themselves outside agriculture. The period after 1905 also saw an increase in real wages. Gregory (1972), nevertheless, reports that the decline in the agricultural labor force in the period of 1880-1913 was limited and although the increase in the manufacturing labor share was considerable, it happened at the expense of agriculture and services. Between 1880-1910 the overall productivity grew indeed at the annual rate of 0,9 percent but was affected by the still predominant deadweight sector of agriculture (Gregory, 1972). All in all, despite the low income inequality, the nascent structural change and productivity growth as well as positive economic development, year 1917 brought along the first Communist Revolution that inevitably changed the political, social and economic structure of Russia.

## 2.4.2 Modern Russia

Remington (2012) argues, that since the end of the Soviet era, income inequality in Russia has more than doubled. However, the development has not been straightforward and instead follows a wave-like pattern increasing sharply in the early years of transition, then declining in the end of 90's and early 2000's after which a steady rise can be detected throughout the first decades of the 21<sup>st</sup> century. Only the financial crisis of 2008-2009 has temporarily halted the steady rise in inequality. The same tendency has been noted by White, McAllister and

Munro (2017), who mark the Gini coefficient rising from 0,28 in 1990 to 0,42 in 2010 and the living standards remaining below the levels recorded at the end of the communist regime. Lyubumov (2017) also reports that 1 percent of the richest people in Russia owned 71 percent of the capital in 2013. According to him, inequality in Russia is also more likely to increase due to low anticipated economic growth with stagnating labor income and rising returns on capital. Part of the problem in the Russian modern society is the lack or insufficient amount of accumulated wealth by the vast majority of Russian population. This results in citizens being dependent on the income paid by employers. And this dependency, in turn, diminishes the bargaining power against the employers.

Both Lyubumov (2017) and Remington (2012) note the inequality between regions that characterizes the inequality trends in the vast land area of the Russian Federation. Those regions possessing usable endowments of natural resources and human capital and who functioned as trade and banking centers already during the communist era, benefitted disproportionately from the opening of the market economy. Price and market liberalization brought along rapid short-term differentiation in incomes by region, social stratum and economic branch. Surprisingly, the most democratic regional regimes witnessed more drastic increases in inequality while average incomes rose and poverty declined at the same time. The opposite was true in less democratic regions that generally remained poorer but more equal (Remington, 2012). This development can be connected to the previously mentioned ideas of Posner (1997) that, to some extent, proves his logic true. The entire region can indeed benefit from declining poverty and rising incomes but experience harsher income disparities simultaneously. The problems driving the rising inequality in Russia can be traced down to non-redistributive fiscal policy of the government, weak organization of labor and vast and diverse territory of the Russian Federation (Remington, 2012).

Interestingly enough, the Soviet history played a determining role in terms of inequality. Remington (2012) discloses that the planned economy guaranteed full employment and relatively equal wages, while social benefits were also tied to employment. However, between 1980 and 1990 the mechanisms of paying wages and providing social services were decentralized and transformed into off-the-books practices and informal arrangements, increasing income inequality. This meant that wages differed between the successful and less successful enterprises, and citizens had to pay informally for nominally free public services. The position of citizens heavily influenced the benefits they reaped. Elements of this enterprise-based welfare system transferred well into the 21<sup>st</sup> century and only under Putin's regime was the system of employment, wages and social welfare centralized (Remington, 2012). One of the most difficult challenges of building a competitive market economy, was indeed the lack of the safety net that the government couldn't provide since the social benefits were traditionally provided by the employers (Stiglitz, 2002). Another adversity experienced by the Putin regime involved the eradication of tax evasion, which faced mistrust and commitment issues. Only with the rationalization of the tax system in order to encourage productive investment could the necessary results of economic liberalization and stabilization be reached (Remington, 2012).

Despite the considerable economic progress, brought along with reforms, White, McAllister and Munro (2017) still remark, that the political system in today's Russia is more authoritarian than it was during the Soviet rule. And as Stiglitz (2002) puts it "...economic

life under capitalism has been even worse than the old Communist leaders had said it would be” (p.133). Inequality continues to be a crucial issue and while poverty has decreased, the living standards of the poorest decile remain a matter of serious concern. At the same time, political power in Russia is also closely associated with economic advantage and leading officials dominate the boards of the largest companies in Russia (White, McAllister & Munro, 2017). And despite the recent anti-corruption demonstrations driven by the opposition, Putin continues to enjoy the trust of the population with his approval rating reaching as high as 86,1 percent (RBTH, 2017).

### 2.4.3 Explicit Formulation of the Problem

As described above, there is evidence of a relationship between inequality and political instability and, according to some researchers, income inequality might even be one source of political unrest. Thus, it would be reasonable to claim that greater economic inequality would increase the possibility of political violence. Consequently, it could be assumed that since the 1917 Revolution took place, it must have been as a result of greater income and wealth disparities combined with other factors. However, as shown by researchers, living standards were improving and inequality in Russia was not at an exceptional level. Despite these circumstances Tsar Nicholas II was overthrown from power. Nowadays, on the contrary, economic inequality in Russia is an apparent problem and levels of inequality are constantly on the rise. The political playing field, however, is relatively stable and no strong contesters to the current political rule and elite have entered the arena. What makes the situation today different from the pre-revolutionary circumstances in 1917? And can economic inequality be regarded as a substantial factor in political and economic changes that have shaped the Russian society throughout times?

### 3 Data

The source of the historical GDP data for the time period of Imperial Russia originates from P.R. Gregory's (1982) estimation of Russian real national income in his book *Russian National Income 1885-1913* (pp. 56-59). Data is derived by deflating current price series on end uses of output with relevant price indices. The statistical data in his study is drawn from official tsarist statistical publications. This material is, according to him, of varying reliability, also since construction of annual observations of continuous series requires interpolation for missing observations. Gregory's (1982) book comprises the net national product (NNP) series for Russian Empire over 1885-1913 in 1913 prices as well as in current year prices.

The wage data over the years 1885-1913 is collected from S.G. Strumilin's (1960) work *Очерки Экономической Истории России* or *Studies on the Economic History of Russia* (p. 121). In his book, he provides annual average wage data for factory workers in rubles between 1885-1914. Both nominal and real wages are provided, and Strumilin (1960) also provides wages in 1913 prices, which makes the processing of the data for this particular period easier. Both wage and NNP data have used the Podtiagin price index as a starting point. The number of industrial factory workers during 1887-1913 is also registered by Strumilin in the same publication and is based on the report by V. E. Varzara and L. B. Kafengauza (p. 546).

For the modern period, ROSSTAT or *Russian Federal State Statistics Service* provides nominal GDP data for the years 1995-2015 as well as GDP in 2008 prices for 1995-2011 and in 2011 prices for the period 2011-2015. The database also offers accrued average monthly nominal wages of employees of organizations by economic activity in rubles for the time period of 2000-2015, however excluding years 2001-2004 for which data is not available. Similarly, the yearly average number of workers in manufacturing industry can be found in ROSSTAT.

For the period 1995-1999, data regarding wages and numbers of workers needs to be retrieved from the predecessor of ROSSTAT, GOSKOMSTAT or *the State Committee for Statistics*. These documents can be found on the website collecting historical archival data *Исторические Материалы* or *Historical Materials* at ISTMAT (2017) where scanned copies of original documents are gathered. The wage data is, again, provided as accrued average monthly nominal wages of employees of organizations by economic activity in rubles. The wages and the yearly average number of industry workers can, thus, be determined for the period 1995-1999 using the sources of GOSKOMSTAT. The financial crisis and devaluation of ruble in 1998 are taken into consideration when presenting and processing the data.

### 3.1 Issues with Measuring GDP and the Index Problem

GDP is the most frequently used measure of economic activity and well-being (Stiglitz, Sen & Fitoussi, 2009). It can be measured in current prices as does nominal GDP or in constant prices as indicated by real GDP. Nominal GDP takes into account the dollar (or any currency) value of all the goods and services produced in a specific period of time (usually a year). Moreover, real GDP takes into consideration the changing price levels, since the downside of nominal GDP is that it depends on the overall price level and quantity of goods produced. Despite the point of view of being a particularly convenient tool for international comparison there are several problems of measuring GDP, especially when it comes to measuring the welfare of nations (Barro, 2010). Stiglitz, Sen and Fitoussi (2009) point out that measuring the changes in prices and quantities can prove out to be challenging in practice. Products and their quality usually change and this change can be very rapid. Moreover, some products can disappear altogether. Aggregate real GDP does not either consider the differences and polarization of the distribution of income. A uniform measure of GDP per capita does not tell about income inequalities within countries and cannot represent the welfare of every individual. GDP also ignores nonmarket goods, value of leisure time and environmental damage (Barro, 2010).

Thus, index number problem appears when converting nominal GDP into real GDP and when choosing a base year used to determine the prices of the goods (Barro, 2010). Crafts (2003) points out that the problem appears since the price index numbers are weighted averages of prices, and weights, in turn, depend on the relative importance of the component items in production. These weights can vary over time and influence the outcome. Weights taken, for example, from the beginning of the period engender different results compared with weights from the end of the period (Ljungberg, 2016). Crafts (2003), however, also notes that with accelerating product innovation the index number problem is of greater concern in modern times than when examining the past. These implications of measuring GDP are important to keep in mind when assessing the data in this research paper. However, as noted before, these issues should not be of great concern when examining the historical national accounts data of Russia.

## 4 Methods

Previous studies of inequality in Russia have concentrated on such measures as Gini coefficients or anthropometric data in order to describe trends in the living standards. This study seeks to tackle the issue of measuring inequality by calculating factory workers' labor income share in the aggregate national income in Russia during both Imperial period 1887-1913 and contemporary period 1995-2015. Due to data availability, the wages of manufacturing or factory workers were chosen as the point of departure for the study of inequality during both periods. GDP represents the aggregate income of the Russian economy, while the wage of a worker the personal gain of individuals. The share of total income of factory workers of the national income is, hence, a measure of inequality. In case that there is a growing trend in the share of factory workers' labor income, the inequality can be said to diminish because the gains of individuals are growing in the proportion to the income as a whole as represented by national income. The formula used to calculate the labor income share of factory workers (LISF) at time  $t$  is following:

$$\text{LISF}_t = \frac{WL}{Y}$$

Where  $W$ = nominal average wages of factory workers,  $L$ = total number of factory workers and  $Y$ = GDP or NNP

For the period of Imperial Russia, nominal annual average wages multiplied by the number of factory workers and divided by nominal net national product (NNP) are used for calculating the labor income share of factory workers for the entire period 1887-1913 (excluding 1898 and 1899). Although there is nominal wage data for years 1885 and 1886, data for the number of workers in manufacturing industry is not available for these years and, hence, the two first years were left out. For the period 1897-1913 (excluding 1898 and 1899) wage data is in 1913 prices, which coincides with the base year for NNP used by Gregory (1987). Therefore, a robustness measure of labor income share of factory workers was calculated for the Imperial period using the same formula but with real wages and real NNP to complement the index calculated using nominal data. As for the contemporary period, nominal GDP data, number of manufacturing workers and nominal average wage data are, in a similar manner, used in constructing the labor income share of factory workers for the period 1995-2015 (excluding 2001-2004 for which data is not available).

## 4.1 Limitations of the Study

The limitations of this research are quite parallel to the ones described by Lindert and Nafziger (2014). The main limitation is, hence, the data constraint, since no representative income and wealth surveys were conducted in the times of Imperial Russia. More recent research on the Tsarist Russia has concentrated on living standards and less attention has been allocated to wages and salaries. Moreover, the data collected on income has focused on only small geographic areas as well as on only small parts of total income. These limitations resulted in concentrating only on few decades of the Tsarist era. However, also due to the lack of coherent data in contemporary Russia the period chosen for examination was limited to 1995-2015.

Furthermore, a major limitation regarding the calculations of factory workers' labor income shares in two distinctive periods involves differences in geography of the Russian territory. Russian Federation has since the Imperial times lost the territories of Belarus, Ukraine and Moldova while also gaining parts in Siberia, something that Lindert and Nafziger (2014) also note when discussing the limitations of their study and comparisons of their results to modern Russia. The number of factory workers in Strumilin's (1960) data is calculated excluding Finland that became independent during the uproar of 1917 Revolution. This makes the comparison somewhat easier but territorial differences are still a considerable issue not addressed due to the scope of this thesis. Aspects affecting factory workers' labor income share during the Imperial period can also be dependent on the very agrarian nature of the country with only incrementally growing share of population moving into manufacturing. According to Gregory's (1972) estimation, agricultural sector still constituted 72 percent of labor force in 1913. This shows in the numbers of factory workers and, hence, their income share in the national income. The same applies to modern Russia that is more industrialized and where bigger population is working in manufacturing sector.

Another concern relates to the wage payments during the crisis years of 1990's, 2008 and 2009. This period saw an increase in informal practices such as "in the envelope" payments together with holding back of wages (Remington, 2012). Despite the official numbers provided by state statistic services, the practice can have been very different and it might be difficult to estimate the real level of inequality or financial struggles experienced by the workers during this time.

Lastly, the move from the GOSKOMSTAT database to ROSSTAT denotes certain differences in the classification of certain parts of the labor income data. While the economic activity in GOSKOMSTAT was recorded as simply *промышленность* or manufacturing, this field of activity in ROSSTAT is renamed as *обрабатывающие производства* or manufacturing industries. This does not necessarily signify major changes in the gathering of the wage and worker data but it can be beneficial to keep this linguistic distinction in mind when analyzing the data.

## 5 Empirical Analysis and Discussion

In the empirical analysis section, the compiled GDP, wage and worker data for the Imperial and modern Russia are presented together with the measures of inequality represented by the labor income share of factory workers of total national income. The discussion part provides further insights into the analysis of the data and ties the findings to the theory provided in the second section of this paper.

### 5.1 Imperial Russia

*Table 5.1 Nominal NNP (in millions of credit rubles), NNP per capita (rubles), NNP (in millions of rubles, 1913 prices), Source: Gregory (1982)*

<b>Year</b>	<b>Net National Product (nominal)</b>	<b>Net National Product (per capita)</b>	<b>Net National Product (in 1913 prices)</b>
1885	6286	72,5	8067
1886	5920	69,7	7810
1887	7217	81,5	9258
1888	7576	78,4	9057
1889	6803	72,9	8743
1890	6800	72,6	8795
1891	6574	66,5	7654
1892	7523	72,8	8510
1893	7973	82,5	10126
1894	8433	93,8	12077
1895	7725	86,8	11463
1896	8531	95,6	12597
1897	9172	94	11880
1898	10308	96,5	12247

<b>Year</b>	<b>Net National Product (nominal)</b>	<b>Net National Product (per capita)</b>	<b>Net National Product (in 1913 prices)</b>
1899	11163	102,4	13290
1900	10962	100,2	13520
1901	11390	102,7	13940
1902	12678	111,6	15342
1903	11952	103,9	14528
1904	13255	114,9	16254
1905	12503	101,7	14554
1906	12684	97,2	14013
1907	13470	93,4	13415
1908	15062	101	15165
1909	16130	105,9	16492
1910	17204	113	18188
1911	16957	104,4	17091
1912	19603	112,8	18815
1913	20266	118,5	20266

Table 5.1 illustrates the development of the net national product of Russia in aggregate and per capita terms during the period of 1885-1913. It shows that despite the clear upward trend there have been fluctuations along the way with the values plummeting especially around years 1891, 1905 and 1911. These slumps coincide, firstly with the famine years of 1891 and 1892 in Russia, during which more than 500 000 people died from famine and cholera. At this time, government had to spend 162,5 million rubles to help the starving population. Secondly, the world economic crisis in 1900-1903, the Russo-Japanese war in 1904-1905, poor harvest years and the revolution of 1905 affected the general economic health and industrial production of Russia (Ananich, 2006). Generally, all three measures follow the same trend and vast increases in net national income per capita cannot be detected.

*Table 5.2 Nominal wages and real wages (in rubles, 1885-1896 in 1885 prices, 1897-1913 in 1913 prices) and number of workers, Source: Strumilin (1960)*

<b>Year</b>	<b>Nominal Wages</b>	<b>Real Wages</b>	<b>Number of Factory Workers (in thousands)</b>
1885	184,3	244,4	-
1886	184	251,7	-
1887	185,2	249,9	1210
1888	193,1	256,1	1269
1889	179,6	246,7	1294
1890	175,8	249,7	1302
1891	179,7	209,9	1313
1892	178,8	227,3	1359
1893	187,2	237,6	1463
1894	179,6	270,5	1455
1895	175,4	281,5	1468
1896	175,7	282,5	1658
1897	187	259	1885
1900	187,3	246,5	2015
1901	196	251,7	2122
1902	196,5	248,8	2085
1903	203,5	261,6	2105
1904	207,7	259,4	2104
1905	199	235,2	2119
1906	222,7	244,8	2167
1907	233,1	227	2240
1908	236,2	228,6	2317
1909	228,5	231,8	2302
1910	232	245,7	2422
1911	241,5	255,3	2577

<b>Year</b>	<b>Nominal Wages</b>	<b>Real Wages</b>	<b>Number of Factory Workers (in thousands)</b>
1912	246,5	242,8	2689
1913	257,2	257,2	3029

Table 5.2 presents an overview of the nominal and real wage trends for the same period 1885-1913. Here, while an upward trend is detectable in the nominal wages, real wages remain relatively stable. Fluctuations are also characteristic for the development of wages for this period with nominal and real wages reaching a low around 1889-1891. Other low points for the real wages were years 1907 and 1912. This period, however, sees a steadily growing number of manufacturing workers, indicating the early stages of structural change when population moved from agricultural sector to industry.

*Table 5.3 Labor income share of factory workers 1887-1913*

<b>Year</b>	<b>Labor income share</b>	<b>Year</b>	<b>Labor income share</b>
1887	0,031	1902	0,032
1888	0,032	1903	0,036
1889	0,034	1904	0,033
1890	0,034	1905	0,034
1891	0,036	1906	0,038
1892	0,032	1907	0,039
1893	0,034	1908	0,036
1894	0,031	1909	0,033
1895	0,033	1910	0,033
1896	0,034	1911	0,037
1897	0,038	1912	0,034
1900	0,034	1913	0,038
1901	0,037		

Table 5.4 Labor income share of factory workers 1897-1913 using constant values

Year	Labor income share	Year	Labor income share
1897	0,041	1907	0,038
1900	0,037	1908	0,035
1901	0,038	1909	0,032
1902	0,034	1910	0,033
1903	0,038	1911	0,038
1904	0,034	1912	0,035
1905	0,034	1913	0,038
1906	0,038		

As can be seen from Tables 5.3 and 5.4 the labor income shares of factory workers derived from the data presented above have remained relatively stable over the entire period of 1887-1913. The index over the entire period 1887-1913 based on nominal values follows the trend of the robustness measure index over the period of 1897-1913 based on real values. The values over the comparison period of 1897-1913 are, however, slightly higher than the ones based on nominal values.



Figure 5.1 Labor Income Share of Factory Workers 1887-1913

Labor income shares of factory workers are visualized in Figure 5.1, and inequality represented by these measures does not seem to have increased nor decreased substantially during the period of 1887-1913. This is to say, that the relative position of the masses with regards to the elites did not significantly improve during this time. The lowest points for these measures appear to be during the years 1887, 1894 and later in 1902.

## 5.2 Modern Russia

*Table 5.5 Nominal GDP (1995-1997 in trillions, 1998-2016 in billions rubles), Source: ROSSTAT*

<b>Year</b>	<b>Nominal GDP</b>	<b>Year</b>	<b>Nominal GDP</b>
1995	1428,5	2006	26917,2
1996	2007,8	2007	33247,5
1997	2342,5	2008	41276,8
1998	2629,6	2009	38807,2
1999	4823,2	2010	46308,5
2000	7305,6	2011	55967,2
2001	8943,6	2012	66926,9
2002	10830,5	2013	71016,7
2003	13208,2	2014	79199,7
2004	17027,2	2015	83232,6
2005	21609,8		

Table 5.5 provides the development of the nominal GDP throughout 1995-2015. The general trend is upward, despite a drop that can be seen in the year 2009, which coincides with the global financial crisis. However, no significant effect can yet be detected as a consequence of the sanctions imposed by the Western world on Russia after the annexation of Crimea. Also when comparing the nominal GDP data to GDP data in 2008 prices also provided by ROSSTAT, only slight drops in GDP during the crisis years of the 1990's and during the financial crisis can be observed.

Table 5.6 The number of workers and nominal monthly wages, 1995-1997, Source: GOSKOMSTAT (ISTMAT, 2017)

<b>Year</b>	<b>Manufacturing workers (in thousands)</b>	<b>Nominal wages (monthly average in thousands rubles)</b>
1995	17182	528,8
1996	16366	868,8
1997	14893	1056,8

Table 5.7 The number of workers and nominal monthly wages, 1998-2015, Source: ROSSTAT & GOSKOMSTAT (ISTMAT, 2017)

<b>Year</b>	<b>Manufacturing workers (in thousands)</b>	<b>Nominal wages (monthly average in rubles)</b>	<b>Year</b>	<b>Manufacturing workers (in thousands)</b>	<b>Nominal wages (monthly average in rubles)</b>
1998	14132	1208	2009	10401	16583,1
1999	14297	1838,1	2010	10292	19078
2000	12297	2365,2	2011	10281	21780,8
2005	11506	8420,9	2012	10170	24511,7
2006	11359	10198,5	2013	10065	27044,5
2007	11368	12878,7	2014	9925	29511
2008	11191	16049,9	2015	10343	31910

Table 5.6 and 5.7 show the number of manufacturing workers together with the monthly average nominal wages during 1995-2015. This period notes a steadily rising trend in nominal wages. However, it is known that during the crisis years of 1990's the real earnings of the population declined (Remington, 2012). What stands out in the tables is the significant downward trend in the numbers of manufacturing workers during this period. This can be an indication of another structural change taking place from manufacturing to services, but also a sign of deindustrialization.

Table 5.8 Labor income share of factory workers

Year	Labor income share	Year	Labor income share
1995	0,076	2008	0,052
1996	0,085	2009	0,053
1997	0,081	2010	0,051
1998	0,078	2011	0,048
1999	0,065	2012	0,045
2000	0,048	2013	0,046
2005	0,054	2014	0,044
2006	0,052	2015	0,048
2007	0,053		

As can be seen from Table 5.8 the labor income shares over the years 1995-2015 show a diminishing trend. Closer inspection of the table indicates that the period from 1996 to 2000 saw most drastic drops in labor income share of factory workers. After 2005 the measures have more or less stabilized but the lowest point can be identified during 2014.

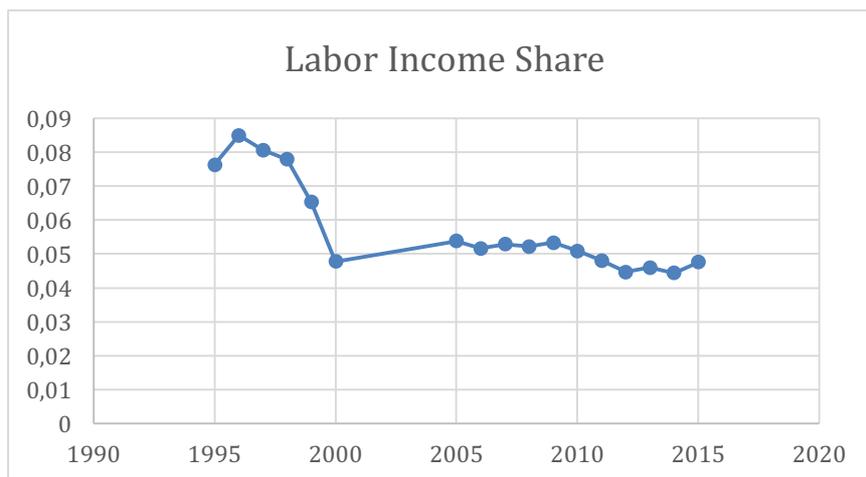


Figure 5.2 Labor Income Share of Factory Workers 1995-2015

Labor income shares are visualized in Figure 5.2, and inequality does seem to have increased in the end of the 1990's with the drastically diminishing share of factory worker's income. This drop generally coincides with the findings of previous research that shows rising levels of inequality during 1990's. Year 2000 marks Putin's ascend to power but also a shift from GOSKOMSTAT database to ROSSTAT database. After this year, inequality seems to have stabilized and only slight drops in factory worker's income share are noticeable.

## 5.3 Discussion

This thesis set out with the aim of assessing economic inequality in both Imperial period and contemporary period with the help of previous research on the issue, but also through constructing an additional measure of inequality in the form of labor income shares of factory workers for both periods. Additionally, one of the objectives was to evaluate the relationship between inequality and political unrest in these periods and examine the implications of this interplay for the future development of Russia. The discussion below provides insights into the results and assesses these against the theoretical background provided in previous chapters. It also looks at the rise of the middle class and state capacity as possible sources of political stability in modern Russia.

### 5.3.1 Inequality and Labor Income Shares in Imperial Russia

The table 5.9 below aptly visualizes the discussion concerning inequality and political instability over the Imperial period in Russia. It shows how strikes are relatively few in the year 1895 and are mainly due to economic reasons. However, they start escalating quickly reaching a peak in a revolutionary year of 1905 with a remarkable number of 13 995 strikes and 2 863 000 workers participating in the demonstrations. During this year 64,4 percent of all strikes were due to political reasons and levels this high would never be reached again according to Strumilin's (1960) statistics. These figures can be contrasted to the year 1917 of the socialist Revolution, when the number of strikes reached 1906 and number of workers on strike was 870 000. Remarkable also during this year, is the proportion of the demonstrations due to political reasons that reached 78,5 percent. What is apparent from this table, is the magnitude of labor unrest during the period of 1895-1917. With 39 455 strikes and 10 846 000 demonstrators altogether the instability of Russia is evident. Moreover, with 59,4 percent share of all the unrest being of political origin, the regime change does not seem as inexplicable anymore.

Table 5.9 Strike activity in Russia 1895-1917, Source: Strumilin (1960).

Year	Amount of strikes			Number of workers on strike		
	All	Economic	Political	All (in thousands)	Economic (%)	Political (%)
1895	68	68	-	31	100	-
1896	118	113	5	30	99,2	0,8
1897	145	143	2	60	99,1	0,9
1898	215	209	6	43	96,4	3,6
1899	189	178	11	57	94,6	5,4
1900	125	115	10	29	85,8	14,2
1901	164	159	5	32	98,4	1,6
1902	123	112	11	37	86,3	13,7
1903	550	424	126	87	78,1	21,9
1904	68	66	2	25	98	2
1905	13995	4190	9805	2863	35,6	64,4
1906	6114	2545	3569	1108	41,3	58,7
1907	3573	973	2600	740	27	73
1908	892	428	464	176	47,4	52,6
1909	340	290	50	64	87	13
1910	222	214	8	47	91,9	8,1
1911	466	442	24	105	92	8
1912	2032	732	1300	726	24,2	75,8
1913	2404	1370	1034	887	43,4	56,6
1914	3534	969	2565	1337	20,8	79,2
1915	928	715	213	540	71,1	28,9
1916	1284	1041	243	952	67,4	32,6
1917	1906	589	1317	870	21,5	78,5
Altogether	39455	16085	23370	10846	40,6	59,4

The current thesis found a stagnant labor income share of factory workers for the period of 1887-1913, indicating that no significant diminishing trend in economic inequality was apparent in the Imperial period. This result can be regarded as somewhat surprising when contrasted to previous studies, which have suggested that there was a strong improvement in living standards. According to Lindert and Nafziger (2014), income inequality in year 1904 was strikingly low throughout the European part of Imperial Russia. Also Milanovic (2013) puts Russia in 1904 quite far from the inequality possibility frontier, indicating that elites were not extracting the maximum amount of surplus and, thus, inequality was not pushed to the maximum. This can be regarded as unusual when looking at Table 5.9 and year 1905 that saw massive demonstrations despite a slump in 1904. Surely, Lindert and Nafziger (2014) point out that income inequality was much greater in the capital region, but the auspicious picture indicated by the Gini coefficient of 0,36 for the entire European part of Russia seems underestimated when looking at the extraordinary numbers of demonstrating workers.

The essence of economic inequality is hard to capture, especially in historical context, since it consists of different components, such as ownership of capital and income inequality. Piketty (2014) emphasizes wealth inheritance as an important historical factor concerning Europe, whereas the structure of inequality in the US is quite different. Due to demographic factors and the significant population growth in the New World, a lesser influence of inherited wealth is detectable there. He also reminds the readers that the first communist and socialist movements were created in the environment where capital prospered and labor incomes stagnated in 1840's. Piketty (2014) describes urban inequality at this time as especially shocking and visible; attributes that have traditionally characterized rural misery. These circumstances can be applied to the Russian case where income inequality due to massive poor agrarian population was not perhaps the driver of economic inequality in the Imperial period, whereas wealth inequality could have had more of an influence nationwide. Concentration of capital in the first decade of 20<sup>th</sup> century in Europe was much more extreme when compared with the estimates today (Piketty, 2014), and this may very well have been the case also in Imperial Russia. Lindert and Nafziger (2014) in their study, likewise, imply that the level of inequality deriving from land ownership was very high in Tsarist Russia. However, to verify this argument additional research into concentration of wealth and ownership of capital in Imperial Russia is required.

The struggle of the working class was, nevertheless, evident as can be detected from the strike statistics provided above. Strumilin (1960), in his convincing evaluation over the origins of the socialist Revolution of 1917, argues that the concentration of workers in big enterprises in Russia was greater when compared to European equivalents. According to him, while there were 12 factories with over 119 000 workers in Germany in 1907, only in St. Petersburg the amount before the revolution reached 14 factories with over 132 000 workers. Thus, when the capitalism eventually reached Imperial Russia, it concentrated vast masses of workers in giant factories, simultaneously creating circumstances favorable for the uprising of the proletariat. Economic inequality and the suffering of the urban workers can, therefore, be said to be the origin for the political unrest in the pre-revolutionary era. And as Strumilin (1960) claims, it can be seen as a matter of quality over quantity, with active minority leading the majority. This is to say, that the 1917 Revolution was led by factory workers suffering from deteriorating living conditions caused by previously discussed poor economic state of Imperial Russia and influx of peasants into the cities.

### 5.3.2 Inequality and Labor Income Shares in Modern Russia

When moving to the contemporary period, one of the most interesting findings is that the labor income share of factory workers in the period of 1995-2005 appears to be slightly higher than during the Imperial period. This would indicate that the position of the workers in relation to the elites has somewhat improved. This has also ensued despite the huge deterioration that occurred in the labor income share of factory workers during the 1990's. These developments have happened in parallel to the evidence presented by Milanovic (2013), who points out that the actual Gini together with inequality extraction ratio have increased substantially in Russia from 1990's to 2009. The inequality extraction ratio during this period rose from 21 percent to 41 percent, and this development was especially drastic because GDP per capita fell or stagnated during this time (Milanovic, 2013). Figure 5.3 (adapted from the World Bank Data 2017) shows the World Bank's estimates of the Gini index in Russia and although inequality has decreased since the early 1990's, the trend after the financial crisis of 2008-2009 is again slightly upwards. It also demonstrates how the drastic increase in inequality is, at least to some extent, the result of very low inequality estimates during the Soviet time with Gini coefficient of 23,8 in 1988.

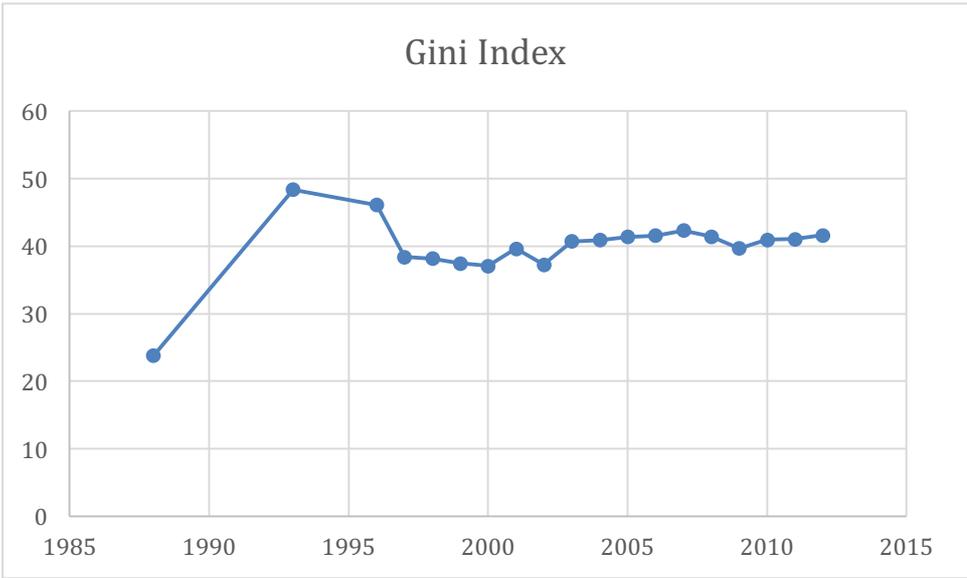


Figure 5.3 Gini Index Russia 1988-2012, Source: World Bank

Important explanation with regards to factors pushing towards greater equality, as mentioned by Piketty (2014), involves the progress of technological rationality. This means that as production technologies advance, the skills required from the workers also become more advanced, and this increases the labor's share of income in relation to capital's share. It can be argued that this advantage from new demanded skills can, partially, have resulted in a greater labor income share of factory workers in Russia in the past decades. At the same time, the diverging forces at play, described by Piketty (2014), drive the incomes of top earners up by an ever increasing margin coupled with accumulation and concentration of wealth. Wealth

accumulated from lifetime's labor will never match the gains from inherited wealth. This is also true in the case of Russia where wealth was accumulated by oligarchs during the wild years of privatization during the 1990's. Piketty (2014) argues that this phenomenon could be further reinforced in the future with continuation of economic stagnation and growing returns on capital. The polarization of the society in the upcoming decades might, thus, increase due to the potential thriving of capital. This is very different to the current day perspective where inequalities based on individual merit and effort are more acceptable. The appreciation of labor over inheritance has been especially apparent after the World Wars wiped out a considerable part of wealth in Europe (Piketty, 2014). This change in values can also be detected in the Russian society and will be discussed in the next section.

Piketty (2014) also gives a startling example of the degree of inequality at which a revolutionary movement or at least powerful political tensions would occur. According to him, if the top decile owns 90 percent of each year's output and the top centile took 50 percent of this, especially if such a degree of concentration concerns the ownership of capital, only very effective repressive measures would attain the stability in the country. In the Russian case the society is indeed approaching these numbers with 1 percent of the richest people owning 71 percent of capital (Lyubimov, 2017). Or, as recorded by Remington (2012), the richest quintile receiving 47,9 percent of total income in 2007. However, no apparent revolutionary movements are rocking the Russian society today.

Before proceeding to examine the factors that can be seen as the stabilizing forces in modern Russia as contrary to the Imperial period, it is necessary to acknowledge the complexity of the questions addressed in the previous sections. It can be questioned how conducive it is comparing economic inequalities in two different historical periods especially in the context of political instability. The mechanisms, that transpire the sense of inequality and injustice in an individual into action, are complex and subject to the influence of various factors. Numbers, indices, and distribution tables can without doubt provide an estimate of the economic gaps between individuals but they cannot capture the motives behind actions or quality of life of the people. Living standards have also drastically improved since the early 20<sup>th</sup> century, and even at lower income levels people are able to enjoy amenities not even imaginable in the past. Often, a powerful and persistent force is required for political change to happen. Most importantly, social unrest has to be backed up by formidable ideologies as was proven by the October Revolution in Russia. Examining the conditions of the past and historical events can, however, give a sense of the forces driving the development. And this alone can be very rewarding.

### 5.3.3 Middle Class and Democratization

Previous research findings into Russian middle class have been inconsistent and contradictory (Gontmakher & Ross, 2015; Gorshkov, 2014; Samson & Krasil'nikova, 2014; Akyulov, 2014). The researchers agree that the term middle class is complex and defining the concept of the middle class is not straightforward. However, the greatest struggle originates from the attempts to trace the size, structure and moral, ethical, and political qualities of Russian middle class. Gontmakher and Ross (2015) estimate it to comprise between 15 and 40 percent of the population, Gorshkov (2014) talks about 40-42 percent, while Samson and

Krasil'nikova (2014) give a range between 15 to 70 percent of the population. All of the researchers, however, agree that the Russian middle class in terms of size and incomes is behind the Western averages. Common criteria for defining members of the middle class include: income, education and occupation as well as self-identification (Gontmakher & Ross, 2015; Gorshkov, 2014). However, the special characteristic of Russia is that public sector workers in the fields of education, health and services tend to have lower than average salaries (Gontmakher & Ross, 2015).

Common for most results concerning society's different worldviews is the support for democratic values found especially amongst the representatives of the middle class. Nonetheless, the distinguishing trait of the Russian middle class is the rising demand for stability and dismissal of revolutionary action as a means of restructuring Russia (Gontmakher & Ross, 2015; Gorshkov, 2014). At the same time, as pointed out by Gorshkov (2014), Russian middle class is concerned about the polarization of the society and growing inequality. But this same middle class is also more accepting of the disparities in income based on merits because they are seen as legitimate and justified. Meanwhile, there is a consensus amongst the Russian middle class, that also runs throughout the society, concerning the conviction, that norms and values of the Western culture are not applicable to the Russian society (Gorshkov, 2014). Capitalist values and admiration of success based on merit are, thus, visible in the society, but the population still struggles with accepting Western identities. The success of the United Russia party associated with Putin can be seen as only natural, since it portrays itself as the party of the middle class, while it also supports traditional values. Besides, 50 percent of the members of the middle class are employed by the state sector, and this enforces the bond between the middle class and the United Russia (Gontmakher & Ross, 2015).

Drawing on the theory of democratization and middle class presented previously by Acemoglu and Robinson (2006) it can be stated that Russian middle class, as it is at present, is not the driver of the revolutionary movement, but can instead be seen as a stabilizing force. After an extensive period of turmoil since the fall of the Soviet Union, the Putin regime is capable of providing the much needed stability that the middle class strives for. The distance between the middle class and the ruling elites in Russia is also considerable, and the interests of these two classes are, perhaps, not as intertwined as in the West. This is why, inviting the middle class into the political arena and making concessions with their interests in mind, would not make sense for these elites. Moreover, as indicated by the theoretical framework by Acemoglu and Robinson (2006), with economic inequality being palpable and reaching extraordinary levels in Russia, the cost of redistribution may indeed be much higher than the cost of repression. This is why the governing elites are able to stay in power without having to provide any concessions.

Simultaneously, there is, at least theoretically, equality of opportunity in Russia, and the regime is not absolutely autocratic. The ruling elites in Russia have also demonstrated their skills in managing the policy agenda. Raising of wages and pensions and establishing social welfare programs throughout Putin's time in power (Remington, 2012) has reassured the public. And as Muller (1988) argues, establishing democracy in a society with extreme economic inequalities would only result in democratic institutions being replaced by authoritarian rule. As opposed to the past revolutionary movement of the factory workers,

who often had to physically suffer from the consequences of repression, today, the middle class in Russia is living relatively comfortably with at least limited opportunities to improve their standards of living through hard work. This does not incentivize the masses to pour into the streets. The dual role of the middle class as a stabilizer or driver of change in Russia is, however, evident. As Gontmakher and Ross (2015) contend, the protestors in 2011-2012 demonstrations belonged to the rising middle class, and it is left to see whether, with the development and growth of the middle class in Russia, there could be a political change. The most important question is, whether the younger generation, that is more favorable to the influences of rules and laws as found in the Western countries (Gontmakher & Ross, 2015), will be willing to rise up to this challenge for purely ideological reasons of equality and liberty.

#### 5.3.4 State Capacity

White and Herzog (2016) have, in their study comparing state capacity in Russia and Turkey, established that the popularity of Putin's regime derives from the nationalist rhetoric as well as state building and governance that are based on statist, centrist and monist political culture. They argue, that during Putin's time in power the development and reinforcement of state capacity has been especially strong. The strength and stability of the regime rests on the concepts of electoral authoritarianism and neopatrimonialism. Smyth (2014) has, additionally, identified personalism as a strong influencer of regime durability and political stability in electoral authoritarian regimes. In her view, personalism concentrated around Putin and no reckoned opponents in Russia can indeed function as a force unifying elites and broadening popular support. White and Herzog (2016) have also examined state capacity in Russia through extractive, coercive and administrative capacities indicating states ability to collect taxes, exercise control independently from other institutions, and capacity to protect property rights and eradicate corruption. The capability to collect taxes has significantly improved during Putin's time in office, but the extraction of rents and the distribution of these rents in order to diminish income inequalities is heavily dependent on gas and oil sectors. In this sense, the extractive capacity is not very sustainable. In terms of coercive capacities Russia has, in recent times, allocated significant resources to support military. Yet another form of this power is the ability to repress and prevent demonstrations and hamper the work of civil society activists and political opposition activists. The administrative capacity, especially in terms of protection of property rights, has also somewhat improved, but despite the efforts of both Putin and Medvedev regimes, corruption is still a widespread problem (White and Herzog, 2016). These various aspects of state capacity in modern Russia are in constant fluctuation and need perpetual attention from the ruling elite.

All in all, the power of the state to maintain the stability of the country is strong, despite the different state capacity factors needing constant reinforcement. This, in turn, guarantees the political stability of Russia despite the economic downturns and rising inequalities. The modern state capacity cannot either be compared to the Tsarist regimes' that was severely impeded by the participation and failure in the World War I. Today's emphasis on the fight against corruption and extension of redistributive policies together with social welfare programs conveyed by the regime rhetoric further consolidate the powerholders' position. As

long as the well-being of the citizens is not jeopardized through international crises, Russia will, most probably, continue on the current path.

## 6 Conclusion

The purpose of the current thesis was, firstly, to examine and apply the theoretical frameworks of the relationship between economic inequality and political instability on the historical context in Russia. Particular subject of interest lay in the extent of economic inequality and the interplay of this with political unrest during two periods – Imperial and contemporary. The second objective was to construct an additional measure of economic inequality to complement the research on Russian inequality provided by other researchers. This measure was the factory workers' labor income shares of the total national income, and contrary to the conventional research results, this thesis identifies, that inequality in terms of the position of the working class in relation to the elites, might have been slightly inferior in Imperial Russia when compared to modern Russia. Finally, the differences in terms of political stability and forces consolidating or weakening this stability in both Imperial Russia and current circumstances were addressed.

This study has gathered in one place an overview of the research on Russian economic inequality. It shows that, according to previous research, income inequality in the past, during the Imperial period 1885-1913, was on relatively low levels. Previous research also demonstrates that living standards in Russia at that time were improving and that economic development in the end of the 19<sup>th</sup> century was positive. Despite this, as a response to the poor conditions of factory workers together with other factors, the Revolution of 1917 occurred and changed the economic, political and social sphere of the society. Economic inequality in today's Russia, on the contrary, is very palpable. This, however, has not affected the political stability of the country, and the role of state capacity and the quest for stability expressed by Russian middle class together with equality of opportunity, can be seen as the catalysts of this stability. Aforementioned labor income shares of factory workers compiled as part of this study indicated stagnating shares in the Tsarist period and can be seen as reinforcing the idea that economic inequality could have had a strong influence on political instability during this time. Contemporary period 1995-2015 also saw a deteriorating relative position of manufacturing wage earners, denoted by the falling labor income shares of factory workers during 1990's. This trend, however, stabilized when moving to the 21<sup>st</sup> century, and it is left to see whether improvements in this measure of inequality can be expected in the future given that growth continues to stagnate in Russia.

This research extends our understanding of inequality in the Imperial period of Russia, which would benefit from further investigation in order to establish the real levels of economic inequality before the revolution. Current study also contributes to the existing knowledge over the relationship between income inequality and political instability through applying this theory on the conditions in the Russian society during two periods. Contrasting Imperial and contemporary periods provides additional evidence of what appear to be the factors through which stability can be maintained in a semi-authoritarian state. Moreover, it offers valuable insights into understanding Russia and the complexity of its current economic and political

situation. Further research should, nevertheless, concentrate on investigating both rural and urban inequalities in the Tsarist Russia in order to elucidate the state of the nation of the eve of revolution. Furthermore, expanding the analysis of economic inequality into the Soviet system and prolonging the labor income share index to cover the entire Soviet period could be of great interest in order to understand the sources of inequality today. This could involve constructing both aggregate labor income share and capital share of national income instead of just concentrating on a certain population, which is only a very crude measure of inequality.

In conclusion, despite today's political stability which is, perhaps at least partially, achieved through repressive measures, Russia does show signs of social discontent indicated by the recent opposition rallies in March 2017. It is still left to see, whether this social unrest transpires into political instability. No signs of this are detectable as of yet, but the presidential elections of 2018 may well constitute the pivotal factor.

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