

Distributional impact of taxes and social transfers in Russia over the downturn^{1,2}

by

Daria Popova*, Mikhail Matytsin[^] and Emily Sinnot[^]

Abstract

Low oil prices and the recession in Russia which started in 2014 are increasing pressures for fiscal consolidation, after more than a decade of prosperity. This paper assesses the distributional impact of the main tax and social spending programs in Russia in 2014 by applying a state-of-the-art incidence analysis. Overall, the Russian welfare state achieves a moderate reduction in inequality through tax-benefit policies by international standards. Most redistribution occurs through pensions. Major limits on the redistributive effect of tax-benefit policy include the large share of tax revenues that come from (regressive) indirect taxes, the neutral impact of personal income taxes and the low share of spending that goes on social assistance targeted to low-income groups. Tax-benefit policy also has an important impact on the age distribution of income, as households of working-age people (with and without children) subsidize pensioner households.

Keywords: tax-benefit policy, fiscal incidence, welfare state, income distribution, redistribution; Russian Federation

JEL classification: H22, I38, D31

*Institute for Social and Economic Research, University of Essex, and Institute for Social Policy, National Research University – Higher School of Economics. Email: dpopova@essex.ac.uk [^]The World Bank

² This is the version accepted for publication at Journal of European Social Policy on 15 December 2017.

INTRODUCTION

In the later decade Russia continued progress in terms of economic growth and lowering poverty. The per capita Gross National Income (GNI) in Russia was last recorded at 23,770 dollars per year (in 2011 PPP), comparable to that of Latvia, Poland, Hungary or Chile (IBRD/WB, 2017). Yet Russia was much less successful in reducing income inequality which skyrocketed after the market liberalization reforms in the early 1990s. Currently inequality in Russia has stabilized at the level above the world's average: the Gini coefficient for an average of seventy-eight advanced and developing countries circa 2010 was 0.38 (Lustig, 2015), while it was around 0.420 in Russia.

Most research on the redistributive impacts of public policies has been conducted on the established welfare states – the members of the European Union (EU) or high-income members of the Organisation for Economic Co-operation and Development (OECD) (for instance, see Mahler and Jesuit (2006); OECD (2008); OECD (2011); Kammer et al. (2012); Immervoll et al. (2006); Kenworthy and Pontusson (2005); Bradley et al. (2003). Welfare states of the former Soviet Union, apart from the Baltic countries, are studied rarely and for the most part separately from the European welfare states (for instance, IBRD/WB (2005); Weigand and Grosh (2008)). The Russian case, however, is highly interesting due to a unique combination of strong elements of path dependency (socialist legacies) with radical liberalization and welfare state retrenchment in the 1990s, and since mid-2000s – a revival of welfare statism (Cerami, 2009; Cook, 2010b).

Tax-benefit policy played a big role especially in the period after the economic crisis of 2008-2009 in opposite to the period before (1990s to the second half of 2000s), when households' incomes were mainly driven through labor channel. Among all measures of tax-benefit system pensions dominated. They were the main driver of income growth for most groups of population. Excluding pensions, the tax-benefit system was not very redistributive in Russia, because it relies a lot on the regressive indirect transfers and has rather small means-tested benefit component (Lustig et al., 2017).

Current macroeconomic environment with continuous recession which started in 2014 and massive terms of trade shock due to collapse of oil prices limits fiscal space. Under these conditions it would be less possible to continue previous social policy that was not very well targeted. This, combined with projected trends in inflation and shrinking private incomes, threatens to reverse Russia's substantial achievements in terms of raising incomes of the population and reducing poverty. This paper explores the main channels of income redistribution in Russia in 2014 and evaluates Russia's performance in the international context. Analysis is based on the incidence analysis under the Commitment to Equity (CEQ) framework that assesses the distributional impact of a country's taxes and transfers (Lustig and Higgins, 2013). Data comes from the 2014 Russian Longitudinal Monitoring Survey by Higher School of Economics (available at <https://www.hse.ru/en/rlms/>). First, we quantify the impact of direct and indirect taxes and cash and in-kind transfers on inequality in general and on the welfare of different

demographic and age groups and households. We also examine the extent to which taxes and social spending in Russia are progressive (i.e., whether the average transfer declines with income) and equalizing. We conclude with a discussion as regards to how the redistributive capacity of the system can be enhanced.

The contributions of this paper are four-fold. First, we examine actual outcomes in terms of inequality and poverty and assess the extent to which these outcomes can be attributed to various welfare state policies. This is in contrast with other studies on the Russian welfare state which focused on the analysis of institutional indicators (Cerami, 2009; Cook, 2010b; Cook, 2007; Cook, 2010a; Manning and Tikhonova, 2004). Second, we estimate the cumulative impact of the whole tax-benefit system (including direct and indirect taxes, cash transfers and transfers in kind such as public education and healthcare). The previous studies of the redistribution in Russia focused on the impact assessment of separate policy instruments, such as child and maternity benefits (Denisova et al., 2000; Ovcharova and Popova, 2005; Ovcharova et al., 2007; Notten and Gassmann, 2008; Popova, 2016; Popova, 2013), in-kind benefits and subsidies (Volchkova et al., 2006), direct taxes (Duncan, 2014) or indirect taxes (Decoster, 2003). Third, since this paper applies the CEQ approach, the results for Russia are comparable with those for other countries for which the framework has been applied previously. Fourth, we compare the results for 2014 with those obtained in the previous CEQ study for Russia using the 2010 data (Lustig et al., 2017).

THE RUSSIAN WELFARE STATE: INSTITUTIONAL DETAILS

In 1991 Russia inherited a tax-benefit system shaped by the ideology, institutions and social needs of the previous regime (IBRD/WB, 2007). The Soviet Union was a centrally administered economy in which government assumed responsibility for provision of full employment and social protection. Wage policies were egalitarian, in contrast to prevailing patterns in market economies, but a variety of in-kind benefits (so called “privileges”) were provided to employees, in addition to wages, through enterprises by mandate of the state (Commander and Jackman, 1997). Using Esping-Andersen’s criteria (1990), the main characteristics of ‘the state socialist model’ included: a large-scale de-commodification through price subsidization; a suppressed social stratification; and a widespread reliance on the state in all areas of welfare provision (Manning and Tikhonova, 2004). A larger part of social protection came in the form of basic, but universally accessible public services (childcare, education and healthcare). The system of social transfers prioritized the provision of social benefits to individuals with merits for their service to the country (e.g. war and labour veterans, representatives of bureaucracy) and social insurance benefits to employees (pensions, disability allowances). Social assistance to low-income families existed (e.g. benefits for lone parents and families with many children) but was not prioritized.

The neoliberal reform strategy embraced by the new Russian government that came into power in 1991, put the main emphasis on deregulation and privatization of public services, in order to cut public spending, boost efficiency in allocation of resources and increase competition in social services, while the population was thrown back onto its private resources (Burawoy, 2001). This ‘shock therapy’ was expected to displace people for a short time, but to provide the basis for future growth in the long run (Gerber, 1998). In a relatively short period of time Russia has become an example of the residual welfare model (Cook, 2007; Manning and Tikhonova, 2004; Titterton, 2006). Neoliberal reform strategies have proved very ambivalent, and even counterproductive to the goal of economic development of Russia, and particularly detrimental for human development, resulting in an unprecedented growth in poverty and inequality.

Since the mid-2000s, the Russian welfare state has been expanding, due to high commodity prices which greatly increased the budgetary capacities of the state, and also due to the ‘populist’ strategies adopted by the Russian authorities, in order to secure the political support of the population (Cerami, 2009; Cook, 2010b). Despite partial privatization of social services, childcare, education and healthcare remain to a large extent public and free at the point of use, but there are user fees for services beyond the basic coverage and informal payments are still quite widespread in healthcare. The system of social transfers is dominated by pensions and categorical benefits which are mainly targeted at people of old age. A large share of the population is covered by one

or another type of government transfers, but the amounts of the majority of cash benefits do not reach the subsistence level. The attempts to reduce the number of eligible people by introducing means-testing procedures were largely unsuccessful. In 2005, a reform aimed at monetizing the categorical in-kind benefits (former “privileges”) resulted in massive public protests. The failure of that reform set limits to further structural changes in social policies. The ‘national projects’ initiated in 2006 proposed increases in financing of social programmes without any significant restructuring (Gel’man and Starodubtsev, 2016). The government has implemented a series of increases in earnings of the public sector workers, the minimum wage, pension benefits and a revision of maternity and childcare benefits aimed at promoting the falling fertility rates (Ovcharova et al., 2007). At the same time, despite the inflow of energy revenues, the fiscal capacities of the state remain limited due to poorly regulated social insurance markets and large scale informality and tax avoidance (Gimpelson and Kapeliushnikov, 2014). Thus the contemporary Russian welfare state represents a mix of a state socialist and liberal welfare models.

THE DISTRIBUTION OF INCOME AND THE STRUCTURE OF SOCIAL SPENDING AND TAX REVENUES

Russia is one of the post-socialist countries that underwent the hardest economic recession in the 1990s alongside an abrupt increase in income and earnings inequality

(Supplementary Appendix, Figure A1). It was expected that the transition from a planned economy to a market economy would lead to a growth in income inequality because of the collapse of ideological barriers that constrained wage and income disparities (Milanovic, 1999). A long period of economic downturn, which in its final stage overlapped with the Asian financial crisis, ended in the default in 1998. After that a period of quick recovery and economic upturn followed, caused mainly by growth in the global commodity prices. In terms of overall growth, between 1999 and 2014, increases in Gross Domestic Product (GDP) averaged 4.65% a year. During this period the positive trend was only interrupted by the 2008-09 crisis (when GDP declined by around 7.8%), after which growth quickly resumed and continued until 2014. The current recession started in the fourth quarter of 2014 and deepened in 2015, driven by the sharp fall in the terms of trade (as oil prices dropped) and economic sanctions. The welfare state support for incomes was more limited than in the aftermath of the 2008/09 global financial crisis, due to the tight budget situation as oil revenues fell. A further contraction in real GDP (by 1.9%) in 2016 and low real growth of 1.1% in 2017 is projected (IBRD/WB, 2016).

Income inequality in Russia, on the other hand, has not declined after a period of sharp growth in the early 1990s and only stabilized towards the second decade of the 21 century at the level above the world's average (Gini index of 0.42): the Gini coefficient for an average of seventy-eight advanced and developing countries circa 2010 was 0.38

(Lustig, 2015). A conjunctural economic growth which was not supported by an equal growth in labor productivity, inhibited the government attempts to reduce inequality by means of income redistribution, in spite of a substantial reduction in wage inequality (Calvo et al., 2015). It is worth noting that Gini index for disposable income has finally declined during the current recession (0.412 in 2015), most likely because incomes of the better-off people were hit harder by the depreciation of the national currency. At the same time, poverty measured by the national poverty line has increased from 10.8% of the population in 2013 to 13.3% in 2015 and is likely to grow further (IBRD/WB, 2016), after of more than a decade of constant poverty reduction (Rosstat, 2017).

The structure of social spending in Russia in 2014 is shown in Supplementary Appendix, Table A1. Russia spends less on human capital than OECD high-income economies; education and especially health spending (at 4.3 and 3.9% of GDP, respectively) are lower than the average for OECD countries, while social protection is closer to the OECD average (OECD, 2015; OECD, 2016). Much of the redistribution on the social spending side takes place through pensions. Public pensions accounted for 41% of total social spending or 8.6% of GDP in 2014. Other direct transfers accounted for 4.5% of GDP and only a small fraction of them are means-tested (0.4% of GDP).

Government revenues in Russia depend heavily on indirect taxes (Supplementary Appendix, Table A2). Compared to OECD countries, Russia's share of indirect taxes is high and proceeds from personal income tax (PIT) and corporate income tax (CIT) are

lower. The flat personal income tax of 13% is low, though its introduction, combined with tight restrictions on deductions and exclusions, simplified administration and has been associated with higher compliance (Ivanova et al., 2005). Going forward, there are several directions that a rebalancing of revenues in favor of non-oil sources may take, including continued improvements in compliance, an examination of the small business tax regime and a look at options for increasing revenues from the PIT and CIT.

Low oil prices and an economy in recession means that Russia is facing consolidation pressures after more than a decade of a relative prosperity. According to our calculations from the Ministry of Finance and Federal State Statistics Service (FSSS) data, real government spending fell in 2015 by 1.7% and a deeper fiscal consolidation is expected to continue in 2016. This follows a period of rapid expenditure growth fuelled by high oil revenues: the weight of general government expenditures as a share of GDP rose from 31.6% in 2005 to 38.7% in 2014 (Supplementary Appendix, Figure A2). The growth in government spending went disproportionately to fund increases in social transfers—pensions and other social protection benefits rose by 3.6% of GDP—economic affairs (including subsidies to promote general economic and commercial policies and programs) and public order and defence. Health and education spending rises were more muted and share of spending on human capital declined. Revenues as a share of GDP have not expanded to the same degree as expenditures: while in real terms revenues expanded, the weight of general government revenues as a share of GDP fell

from 39.7% in 2005 to 37.5% in 2014. Oil revenues contribute a sizable share of overall resources, equalling 11.4% of GDP in 2014. Given the volatility of oil revenues and the sharp drop in prices, the challenge will be to strengthen non-oil revenue collection. Indirect taxes dominate and over time there has been a rise in social insurance contributions and a shrinking revenue contribution from CIT.

METHODOLOGY, DATA AND ASSUMPTIONS

The role of the state in redistributing market income is one of the key policy concerns in contemporary market economies. This paper evaluates the effect of the tax-benefit policy in Russia on poverty and inequality using the CEQ framework. This methodology allocates taxes and benefits (both cash and in-kind) to individuals in the household survey so that one can compare incomes before taxes and transfers with incomes after taxes and transfers (see Lustig and Higgins (2013) for more details).

We are using the following income concepts. Our starting point is *market income*, i.e. household income before any tax-benefit interventions have taken place. It comprises income from all forms of employment, capital income (rent and dividends) and private transfers. By subtracting direct taxes and social insurance contributions and adding direct cash transfers (pensions and other social benefits) we arrive at *disposable income*. Typically, analysis stops here (for instance, see Mahler and Jesuit (2006); OECD

(2008); OECD (2011); Kammer et al. (2012); Immervoll et al. (2006); Kenworthy and Pontusson (2005); Bradley et al. (2003)). In our case we compute two more income concepts. By subtracting indirect taxes (VAT and excises) and adding subsidies we arrive at *post-fiscal or consumable income* which reflects the actual amount of market goods and services consumed by households. Our *final income* includes the cash equivalent of the cost of public health and education services consumed by households.

This work draws on the CEQ analysis for Russia based on Russian Longitudinal Monitoring Survey (RLMS-HSE) data for 2010 (Lustig et al., 2017). The analysis in this paper uses the RLMS-HSE data for 2014, namely, a cross-sectional sample of 12,908 individuals and 4,872 households. Data adjustments included: imputation of user-missing data on earnings, income or expenditure, or other important variables; and the grossing weights (i.e. the weights provided with the original data were scaled up to the overall population). CEQ analysis relies as much as possible on information about social transfers and taxes reported in the survey. If the survey does not include questions on certain items, the values were either simulated or imputed. The social transfers and taxes included on our analysis are listed in Tables 1 and 2. In total it covers about 90% of social spending and 50% of tax revenues in Russia.

Assessments of government redistribution in countries with comprehensive public pension systems inevitably confront the problem of measuring the pre-government income, or the counterfactual to the income households actually receive and consume

(Mahler and Jesuit, 2010). The second-order effect of state guarantees in such countries is that pensioners make little other provision for retirement. If this is not accounted for the extent of government redistribution can be exaggerated compared to countries with sizable private pensions systems. Given the overwhelming weight of the pension system in Russia, both as a source of revenue (pension contributions represent 14% of total government revenues) and as a component of social spending (spending on contributory pensions is 38.5% of total social spending), this paper analyzes the redistributive and poverty reducing effect of the tax-benefit system under two extreme assumptions: contributory pensions are treated as direct transfer, contributions to the pension system are subtracted from gross income (*baseline scenario*); and contributory pensions are treated as a part of market income, contributions to the pension system are treated as lifetime earnings and not subtracted from gross income (*sensitivity scenario*). In reality the distinction between contributory and non-contributory pensions in Russia is quite arbitrary because a large share of the budget of the Pension Fund (39% in 2014) is covered by transfers from the Federal Budget (Rosstat, 2017). These two scenarios can be considered as an upper and a lower bound of a true estimate of the distributional impact of the tax-benefit system.

The analysis used here is point-in-time and does not incorporate behavioural or general equilibrium effects. The analysis is based on economic rather than statutory tax incidence. For example, it is assumed that personal income taxes and contributions by

employees and employers are borne by labour in the formal sector. Individuals who are not contributing to social security are assumed to pay neither direct taxes nor contributions. Consumption taxes are fully shifted forward to consumers. The welfare indicator used is income per capita in accordance with the national statistical practice. Finally, it is worth noticing that CEQ framework is aimed at incidence analysis using amounts reported in the survey, therefore the annual amounts of tax revenues and social spending do not necessarily coincide with those found in other sources, in particular National Accounts.

RESULTS

The Redistributive Impact of Taxes and Social Transfers in 2014

The estimates of the redistributive impact of Russia's tax-benefit system under the baseline and sensitivity scenarios for contributory pensions are shown in Table 1. The comparison of the two scenarios shows that the total reduction of inequality through taxes and social transfers in Russia is mainly due to contributory pensions. Under the baseline scenario, inequality of market incomes as measured by the Gini coefficient is 0.485 and this falls to 0.30 after the impact on incomes of taxes, transfers and in-kind services in education and health are taken into account—a decrease of 0.18 Gini points or 38.1%. Most of the inequality reduction comes through direct taxes and transfers,

mainly pensions, which altogether reduce the Gini by 0.15 points or 31.2%. Indirect taxes are regressive and unequalizing, i.e. they contribute to an increase in inequality by 0.003 Gini points as compared to disposable income Gini. In-kind transfers, i.e. education and health services, are—as usually is the case—progressive and in Russia reduce the Gini by another 0.007 points as compared to consumable income. If contributory pensions are not classed as a transfer, then the redistributive impact of Russia's tax-benefit system almost disappears.

Table 1 about here

Table 2 shows the estimates of progressivity and the distributional impact of each element of the tax-benefit system in Russia separately. Progressivity refers to the degree to which tax burdens and benefit entitlements rise or fall with household income. The summary measure of progressivity is the Kakwani index (Kakwani, 1977). The distributive impact of a tax or a transfer is measured as the marginal reduction in inequality due to the tax or the transfer, i.e. the absolute change in Gini index due to a removal of the transfer or the tax from household income (Reynolds and Smolensky, 1977). Therefore, a positive value indicates that a tax or a transfer contributes to a decline in inequality.

Contributory pensions are highly progressive (with Kakwani index of 0.8) and play the prevailing role in inequality reduction due to the tax-benefit system in Russia (Table 2). Given the flat rate personal income tax (PIT) and regressive personal property taxes, direct taxes in Russia are mildly progressive in that higher deciles pay a higher share of their incomes in taxes. Social insurance contributions (SIC) are also somewhat progressive, despite the regressive tax schedule, as contributions are paid only by formal sector workers who tend to earn more than informal sector workers who do not pay, on average social security contributions. Both direct taxes and SIC contribute to a minor decline in inequality (by 0.02 Gini points). Indirect taxes—VAT and excise—are slightly regressive, as in many other countries, hence contribute to an increase in inequality (by 0.004 Gini points). The impact of the tax system as a whole on inequality in Russia is negligible (a 0.017 Gini points reduction).

Direct transfers are the most redistributive element of the Russian welfare state (with overall Kakwani index of 0.8), but this effect is driven by pensions, while the degree of progressivity varies considerably for other direct transfers. The most progressive direct transfers are (quasi-insurance) unemployment benefits, means-tested housing subsidies, unified cash payments and other categorical cash and in-kind benefits. The latter two are the remnants of the Soviet social protection system. They consist of free services or discounts on payment for services provided to vulnerable categories of the population, such as people with disabilities, war veterans, or dependents of war victims. In 2005 a

part of these benefits was monetized and is now provided in a form of a unified monthly cash payment. The least progressive programs are elements of family support—noticeably the maternity allowance and allowance for children younger than 1.5 years. These programs are mostly contributory and intended to help people to have families and so cannot solely be judged on their redistributive impact.

Importantly, state social assistance and child allowances up to 16(18) years – the two means-tested programs – do not appear to be well targeted (their Kakwani indices are lower than those for categorical social assistance programmes). That said, non-contributory pensions appear to be the only highly redistributive element of direct transfers besides contributory pensions, accounting for inequality reduction of 0.005 Gini points. The redistributive impact of any other social transfer does not exceed 0.001 Gini points. Thus the estimates of progressivity and redistributive impact for direct transfers demonstrate that Russia could have achieved more redistribution by focusing spending increases on programs that provide a greater benefit to the poor.

Table 2 about here

The distribution by decile shows that there is almost linear progressivity in the Russian tax-benefit system (Figure 1). The bottom six deciles are net beneficiaries from the system if in-kind health and education services are included, and the bottom four deciles

are net beneficiaries if only cash transfers and taxes are considered. The top four deciles are net payers to the system. The flat tax system limits the redistribution through the tax-benefit system: the richer seventh to tenth deciles pay a similar share of income (around 30%) in PIT and social security contributions. Government transfers (mostly pensions) dominate incomes for the lower income deciles.

Figure 1 about here

Tax-benefit policy also has important distributional implications for groups defined by characteristics other than income (Figure 2). Pensioners are the biggest beneficiaries from the budget. Meanwhile households of working-age people with and without children subsidize pensioner households and are net payees into the tax-benefit system. Prior to retirement age, the population makes net payments into the government budget, including children under 18 years of age based on calculations of contributions at the household basis.

Figure 2 about here

Changes in Tax-Benefit System in Russia over 2010-2014

The overall redistributive effect of the tax-benefit system increased from 2010 to 2014 (Figure 3). While the Gini index for market incomes was nearly equal in 2014 and 2010, the tax-benefit system became more redistributive. The reduction in the Gini index from market to final income increased from 0.168 to 0.185 points.

The main changes to design of the tax-benefit system in Russia over 2010-14 are summarized in Supplementary Appendix, Figure A3. They included: (i) an increase in the generosity of pension benefits; (ii) an increase in the base rate for social insurance contributions (SIC) from 26% in 2010 to 30% in 2012; and (iii) an increase in the thresholds for means-testing (often in real terms). The change in the redistributive impact of the tax-benefit system also reflects changes in household consumption and labor market adjustment strategies due to the macroeconomic situation. Most tax revenues and spending on transfers increased in real terms (estimated as nominal growth adjusted by CPI) over 2010-2014. Both revenues from social insurance contributions and indirect taxes increased more rapidly than GDP, with social insurance contributions increasing the most due to changed rates. Spending on education and health also rose faster than GDP, while growth in direct transfers was slower. Spending on pensions increased in real terms due to generous indexation and increases in the number of pensioners, though it stayed constant as share of GDP.

Pensions are being the largest contributor to the overall decrease in inequality in both 2010 and 2014, as measured by changes in the Gini coefficient for final income before and after pensions. Pensions also explained the rise in the redistributive impact of the tax-benefit system from 2010 to 2014. In contrast, the marginal contribution of other social transfers to inequality reduction in Russia has decreased. Direct taxes and social insurance contributions have a small positive impact on inequality reduction, and over 2010-2014 the impact of SIC has increased, although the effect was much smaller than that of pensions. Indirect taxes have almost no redistributive effect, while the effect of in-kind transfers (health and education) was at a similar level in the two years.

Figure 3 about here

Russian Tax-Benefit System in International Context

Russia achieves a moderate reduction in inequality through taxes and benefits, compared to the majority of European Union (EU) countries (Figure 4). This assessment assumes that pensions are transfers rather than deferred income. The structure of taxes and benefits can differ, but where there is a large reduction in inequality due to tax-benefit policy, there generally is a broad mix of redistributive benefits and taxes.

Apart from pensions, none of the components of the system of direct transfers and taxes appears to have a large impact on inequality in Russia.

Figure 4 about here

Figure 5 shows a comparison of the redistributive impact of taxes and transfers in Russia with two countries that are similar to Russia in terms of the size of the territory and the overall inequality level, Brasil and the United States. Both appear to be laggards in terms of the size of redistribution in comparison to the EU member states (Gough, 2013; Garfinkel et al., 2010). Depending on the treatment of contributory pensions, the welfare state of Russia can look more redistributive than that of the United States or less redistributive as that of Brasil. In the former case, contributory pensions are included in direct transfers, in the latter case they are treated as part of market income.

Figure 5 about here

CONCLUSIONS

There have been few attempts to measure the redistributive capacities of the former Soviet Union countries, including Russia, and to determine where they stand in relation to the established welfare states in Europe and beyond. This paper attempts to fill this gap in the literature by assessing the redistributive effort of the contemporary Russian welfare state. The distributional impact of the main tax and social spending programs in Russia is measured using a state-of-the-art methodological approach that enables us to take into account the role of indirect taxes, education and healthcare spending and the second-order effects of the public pension system.

Overall, institutional reforms of the welfare system initiated in Russia after the beginning of market transition proved heavily constrained and path dependent. The contemporary Russian welfare state represents a mix of a state socialist and liberal/residual welfare models and achieves a moderate reduction in inequality through tax-benefit policy. The Gini coefficient shows a more equal income distribution and lower poverty when calculated on incomes after payment of taxes and receipt of government benefits and in-kind services than before. This assumes that contributory pensions are considered government transfers (rather than deferred income) and social insurance contributions are considered taxes. Direct taxes and transfers in Russia have a significantly smaller impact on income inequality compared to the majority of European

Union economies, yet achieve a larger reduction in inequality than that of the United States and Brasil.

As far as the impact of the main elements of the tax-benefit system is concerned, the tax system overall is regressive, with a large share of tax revenues coming from regressive indirect taxes and social insurance contributions, while direct taxes are almost neutral, mostly because of the flat rate of personal income tax. Indirect taxes are disequalizing, i.e. contribute to an increase in inequality. In-kind transfers, i.e. education and health services, are—as usually is the case—progressive and equalizing. Most redistribution due to tax-benefit policy occurs through pensions. Social assistance programs play a limited role in Russia and are not well targeted.

There is considerable potential to improve the effectiveness and efficiency of the redistributive system, which is especially important in conditions of the downfall that severely limits budget capacities. Increasing the now very limited use of means testing for eligibility for social protection programs could save money, while channeling more assistance to the poor. Broadening the tax base and increasing tax compliance, while shifting from the excessive reliance on regressive indirect taxes (e.g. the VAT) to more progressive direct taxes (e.g. personal and corporate income taxes) could improve progressivity while raising revenues. A gradual increase in the retirement age and the reduction of pensions for working pensioners or workers who are eligible for early retirement could equitably distribute the burden of limits on pension spending.

The CEQ framework used in this paper is a powerful tool for evaluating the impact of tax-benefit policies, but it is essential to consider a broader framework when designing government policy to increase redistribution. Income distribution should not be the only consideration, and analysis needs to bring together equity considerations with the need for the tax system to support economic efficiency, while ensuring adequate revenues. The impact of tax and spending policies need to be evaluated jointly, and the impact of institutional policies beyond the budget should be considered. For example, measures to reduce the alarmingly high growth in informality could improve the sustainability of pensions and reduce the vulnerability of low-income workers. Trade-offs between equity and efficiency need to be considered, and the long-term impact of policies taken into account. The analysis on policy options should consider the administrative costs of tax measure and likely impacts on compliance. More subnational analysis is important to understand the incidence of tax-benefit policy choices, particularly as there are large differences in incomes or fiscal situations among regions.

CEQ analysis is based on household surveys, in which the rich are likely underrepresented (this is important in Russia, where two thirds of wealth is owned by just one percent of the population). One approach to improving the coverage of top income earners is to combine household survey with individual-level tax administration data. This also allows a broadening of the scope of the analysis to cover in a more detailed way capital and corporate income taxation. Finally, it is critical to take into

account the quality of spending on in-kind services such as health and education to evaluate the impact of government policy.

Acknowledgements

The authors are grateful to Nora Lustig, the director of CEQ Institute for her guidance and advice regarding the application of the CEQ methodology for Russia; to Elena Gorina for her assistance with the estimates of social spending in Russia, to Luis Felipe Lopez-Calva, Lilia Ovcharova, Carolina Sanchez and two anonymous referees for providing helpful comments and suggestions on the previous versions of this paper. The views expressed are those of the authors. Any remaining errors are the authors' responsibility.

Funding acknowledgements

This work was supported by the World Bank project "Equity Impact of Fiscal Consolidation" and by the Basic Research Programme of the National Research University - Higher School of Economics.

REFERENCES

- Bradley D, Huber E, Moller S, et al. (2003) Distribution and redistribution in postindustrial democracies. *World Politics* 55: 193-228.
- Burawoy M. (2001) Transition without transformation: Russia's involutory road to capitalism *East European Politics and Societies* 15: 269-290.
- Calvo P, Lopez-Calva LF and Posadas J. (2015) A decade of declining earnings inequality in the Russian Federation. *Policy Research Working Paper 7392*. Washington DC: World Bank.
- Cerami A. (2009) Welfare state developments in the Russian Federation: oil-led social policy and the 'Russian miracle'. *Social Policy and Administration* 43: 105-120.
- Commander S and Jackman R. (1997) Firms and government in the provision of benefits in Russia In: Rein M, Friedman BL and Worgotter A (eds) *Enterprise and social benefits after communism*. Cambridge: Cambridge University Press.
- Cook LJ. (2007) *Post-communist welfare states: reform politics in Russia and Eastern Europe*, Ithaca, NY, and London: Cornell University Press.
- Cook LJ. (2010a) Emerging welfare states: Eastern Europe and Russia. In: Obinger H, Pierson C, Castles FG, et al. (eds) *Oxford handbook of comparative welfare states*. Oxford: Oxford University Press, 671-688.
- Cook LJ. (2010b) Russia's welfare regime: the shift toward statism. In: Jappinen M, Kulmala M and Saarinen A (eds) *Gazing at Welfare, gender, and agency in post-socialist countries* Cambridge: Cambridge Scholars Publishing.
- Decoster A. (2003) How progressive are indirect taxes in Russia? *Economics of transition* 13: 705 - 729.
- Denisova I, Kolenikov S and Yudaeva K. (2000) Child benefit and child poverty. *CEFIR Working Paper No. WP/00/03*.
- Duncan D. (2014) Behavioral responses and the distributional effects of the Russian 'flat' tax. *Journal of Policy Modeling* 36: 226-240.
- Esping-Andersen G. (1990) *The three worlds of welfare capitalism*, Cambridge: Polity Press.
- EUROMOD. (2017) Webstatistics for EUROMOD version no. G4.0. Colchester: ISER, University of Essex.
- Garfinkel I, Rainwater L and Smeeding T. (2010) *Wealth and welfare states: Is America a laggard or leader?*, Oxford: Oxford University Press.
- Gel'man V and Starodubtsev A. (2016) Opportunities and constraints of authoritarian modernisation: Russian policy reforms in the 2000s. *Europe-Asia Studies* 68: 97-117.
- Gerber TP. (1998) More shock than therapy: market transition, employment, and income in Russia, 1991-1995. *American Journal of Sociology* 104: 1-50.

- Gimpelson V and Kapeliushnikov R. (2014) Between light and shadow: Informality in the Russian labour market. *IZA Discussion Paper No. 8279*. Bonn: Institute for the Study of Labor
- Gough I. (2013) Social policy regimes in the developing world. In: Kennett P (ed) *A Handbook of comparative social policy*. Cheltenham UK: Edward Elgar Publishing Ltd, 205-224.
- Higgins S, Lustig N, Ruble W, et al. (2016) Comparing the incidence of taxes and social spending in Brazil and the United States. *Review of Income and Wealth* 62: 22-46.
- IBRD/WB. (2005) *Growth, poverty, and inequality: Eastern Europe and the former Soviet Union*, Washington DC: The International Bank for Reconstruction and Development / The World Bank.
- IBRD/WB. (2007) Improving Social Assistance and Employment Assistance Programs to Combat Poverty. Proposal for a Social Protection Strategy: National Report. . *Advisory and Methodological Assistance to Enhancing Measurement, Monitoring and Analysis of Poverty in Russia*. Moscow: The Institute for Urban Economics, The Independent Institute for Social Policy, The Urban Institute, The World Bank.
- IBRD/WB. (2016) Russia Economic Report 35: The long journey to recovery. Moscow: World Bank.
- IBRD/WB. (2017) World Development Indicators. Washington DC: World Bank.
- Immervoll H, Levy H, Lietz C, et al. (2006) Household Incomes and Redistribution in the European Union: Quantifying the Equalizing Properties of Taxes and Benefits. In: Papadimitriou DB (ed) *The Distributional Effects of Government Spending and Taxation*. London: Palgrave Macmillan UK, 135-165.
- Ivanova A, Keen M and Klemm A. (2005) The Russian flat tax reform. *Economic Policy* 20: 397-444.
- Kakwani NC. (1977) Measurement of tax progressivity: An international comparison. *The Economic Journal* 87: 71-80.
- Kammer A, Niehues J and Peichl A. (2012) Welfare regimes and welfare state outcomes in Europe. *Journal of European Social Policy* 22: 455-471.
- Kenworthy L and Pontusson J. (2005) Rising inequality and the politics of redistribution in affluent countries. *Perspectives on Politics* 3: 449-471.
- Lustig N. (2015) Inequality and fiscal redistribution In middle income countries: Brazil, Chile, Colombia, Indonesia, Mexico, Peru and South Africa. *CEQ Working Paper No. 31*.
- Lustig N and Higgins S. (2013) Commitment to Equity Assessment (CEQ): Estimating the incidence of social spending, subsidies and taxes. Handbook. *CEQ Working Paper No. 1, July 2011, revised January 2013* New Orleans.

- Lustig N, Lopez-Calva LF, Matytsin M, et al. (2017) Who benefits from fiscal redistribution in Russia? *The distributional impact of fiscal policy: Evidence from developing countries* Washington DC: IBRD/World Bank.
- Mahler VA and Jesuit DK. (2006) Fiscal redistribution in the developed countries: new insights from the Luxembourg Income Study. *Socio-Economic Review* 4: 483-511.
- Mahler VA and Jesuit DK. (2010) Comparing government redistribution across countries: The problem of second-order effects. *Social Science Quarterly* 91: 1390-1404.
- Manning NP and Tikhonova NE. (2004) Poverty and social exclusion in the new Russia. Aldershot: Ashgate.
- Milanovic B. (1999) Explaining the increase in inequality during transition. *Economics of transition* 7: 299-341.
- Notten G and Gassmann F. (2008) Size matters: targeting efficiency and poverty reduction effects of means-tested and universal child benefits in Russia. *Journal of European Social Policy* 18: 260-274.
- OECD. (2008) *Growing unequal? Income distribution and poverty in OECD countries*: OECD Publishing.
- OECD. (2011) *Divided we stand: Why inequality keeps rising*: OECD Publishing.
- OECD. (2015) Education at a Glance 2015. *OECD Indicators*. OECD: Paris.
- OECD. (2016) OECD Social Expenditure database. Paris: OECD.
- Ovcharova L and Popova D. (2005) Child Poverty in Russia. Alarming Trends and Policy Options. Moscow: UNICEF.
- Ovcharova L, Popova D and Pishniak A. (2007) New measures supporting families with children: encouragement of the birthrate or improvement of the living standards? An analysis of the maternity and child support measures introduced in 2007 in the Russian Federation. Moscow: UNICEF.
- Popova D. (2013) Impact assessment of alternative reforms of Child Allowances using RUSMOD – the static tax-benefit microsimulation model for Russia. *International Journal of Microsimulation* 6: 122-156.
- Popova D. (2016) Distributional impacts of cash allowances for children: a microsimulation analysis for Russia and Europe. *Journal of European Social Policy* 26: 1-20.
- Reynolds M and Smolensky E. (1977) *Public expenditures, taxes, and the distribution of Income: The United States, 1950, 1961, 1970*, New York: Academic Press.
- Rosstat. (2017) Russia in figures. Moscow: Federal State Statistical Service.
- Titterton M. (2006) Social policy in a cold climate: health and social welfare in Russia. *Social Policy and Administration* 40: 88-103.

- Volchkova N, Gorshkova E, Lobanov S, et al. (2006) Microsimulation analysis of the consequences of monetization of social benefits in Russia. *New Economic School Working Paper #WP/2006/063*.
- Weigand C and Grosh M. (2008) Levels and patterns of safety net spending in developing and transition countries. *Social Protection Discussion Paper No. 0817*. Washington DC: The World Bank.

Table 1. Russia: Social Policy and Inequality, 2014

	Market Income	Disposable Income (+ net direct taxes and transfers)	Consumable Income (+ net indirect taxes)	Final Income (+ transfers in-kind)
Baseline scenario: Contributory pensions as government transfers				
Gini index	0.485	0.334	0.337	0.300
absolute change wrt market income	--	-0.15	-0.15	-0.18
% change wrt market income	--	-31.2	-30.5	-38.1
Sensitivity scenario: Contributory pensions as market income				
Gini index	0.358	0.334	0.337	0.300
absolute change wrt market income	--	-0.02	-0.02	-0.06
% change wrt market income	--	-6.8	-5.8	-16.1

Source: Authors' calculations based on RLMS-HSE 2014.

Table 2. Russia: Measure of Progressivity by Tax and Spending Instruments (baseline scenario for pensions), 2014

	Kakwani	Marginal Contributions			% of GDP
		Market to Disposable	Market to Consumable	Market to Final	
<i>Redistributive Effect</i>	--	<i>0.151</i>	<i>0.148</i>	<i>0.185</i>	--
<i>All Taxes</i>	-0.029	--	0.017	0.027	17.86%
<i>All Transfers</i>	0.676	--	--	0.179	19.47%
<i>All Direct Taxes</i>	0.035	0.020	0.020	0.028	10.84%
<i>All Direct Transfers</i>	0.775	0.143	0.169	0.145	11.32%
<i>All Indirect Taxes</i>	-0.197	--	-0.004	0.000	7.02%
<i>All Inkind Transfers</i>	0.429	--	--	0.034	8.16%
Social Insurance Contributions	0.028	0.011	0.011	0.017	7.05%
Personal income tax	0.050	0.008	0.008	0.011	3.78%
Property and land taxes	-0.078	0.000	0.000	0.000	
Contributory pensions	0.791	0.115	0.134	0.118	8.11%
Non-contributory Pensions	0.787	0.005	0.005	0.005	0.48%

	Marginal Contributions				% of GDP
	Kakwani	Market to Disposable	Market to Consumable	Market to Final	
Unemployment benefit	0.967	0.001	0.001	0.001	0.04%
Unified cash payments	0.856	0.001	0.001	0.000	0.89%
Other categorical benefits (cash and in-kind)	0.823	0.001	0.001	0.001	0.85%
Maternity allowance	0.217	0.000	0.000	0.000	0.13%
Lump-sum birth grant	0.443	0.001	0.001	0.001	0.03%
Compensation of childcare fees	0.485	0.000	0.000	0.000	0.02%
Maternity capital	0.706	0.001	0.001	0.001	0.38%
Child allowance up to 1.5 years	0.188	0.000	0.001	0.000	0.17%
Child allowance up to 16 (18) years	0.607	0.001	0.002	0.001	0.07%
State social assistance	0.765	0.000	0.000	0.000	0.03%
Housing subsidy	0.892	0.001	0.001	0.001	0.08%
Scholarships	0.573	0.001	0.001	0.000	0.02%
Vat	-0.200	0.002	-0.002	0.000	5.52%

Notes: The Kakwani index uses the Gini framework to measure the progressivity of spending and taxes. The larger the index, the more progressive is the expenditure or tax.

Source: Authors' calculations based on RLMS-HSE for 2014.

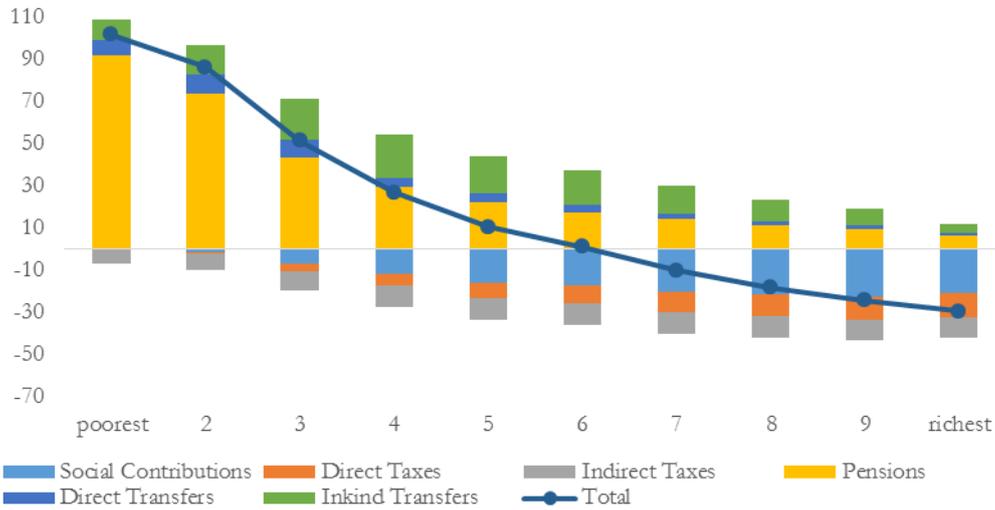


Figure 1. Russia: Distributional Impact of Different Components of the Tax and Benefit System by Market Income Deciles, in Percent of Disposable Income (baseline scenario for pensions), 2014

Source: Authors' calculations based on RLMS-HSE 2014.

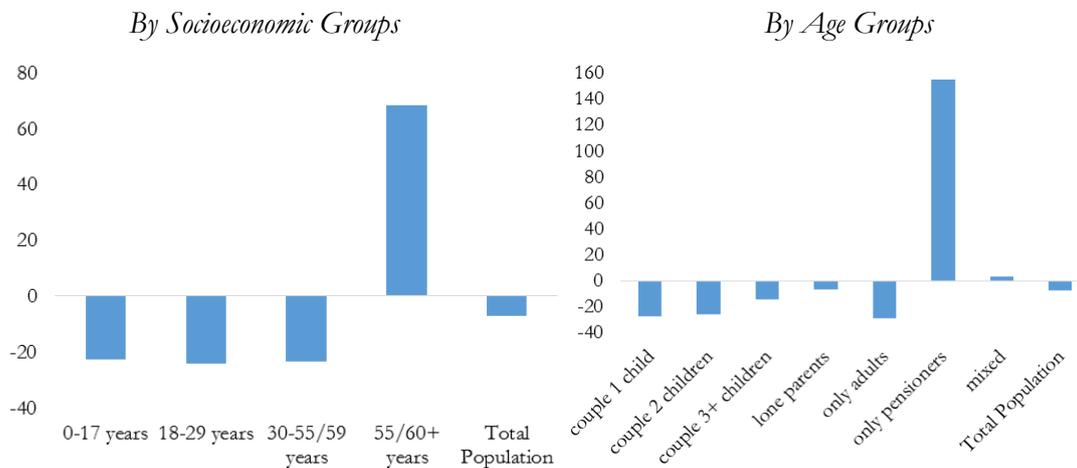


Figure 2. Net Benefits (+) or Payments (-) After Tax-Benefit Interventions, in percent of Market Income (baseline scenario for pensions), 2014

Source: Authors' calculations based on RLMS-HSE 2014.

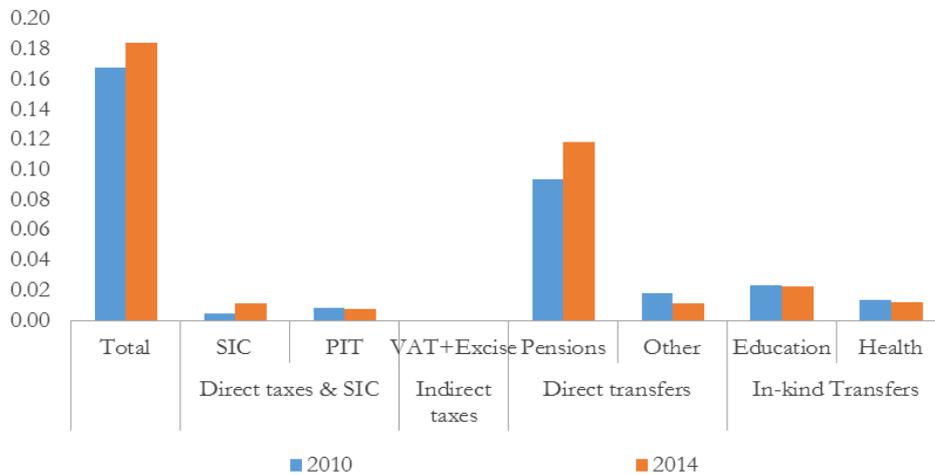


Figure 3. Russia: Impact of Main Components of Tax-benefit System on Inequality, from Market to Final Income (baseline scenario for pensions)

Note: The figure shows the impact of each instrument on inequality as changes in Gini points from market income to final (positive number indicates a decline in the Gini).
Source: Authors' calculations based on RLMS-HSE 2010 and 2014.

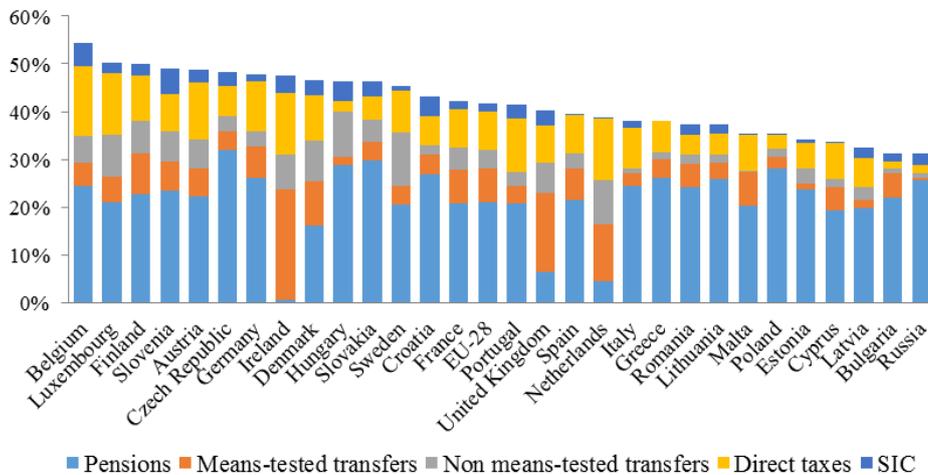


Figure 4. Distributional Impact of Direct Taxes and Transfers in the European Union and Russia (baseline scenario for pensions), 2014

Notes: Distributional impact is defined as the difference between Gini for market incomes and Gini for disposable incomes, expressed as a percentage of market income Gini.
Sources: For Russia – authors' calculations based on RLMS-HSE 2014; for EU countries – EUROMOD Webstatistics for version G4.0 (via <https://www.euromod.ac.uk/using-euromod/statistics>).

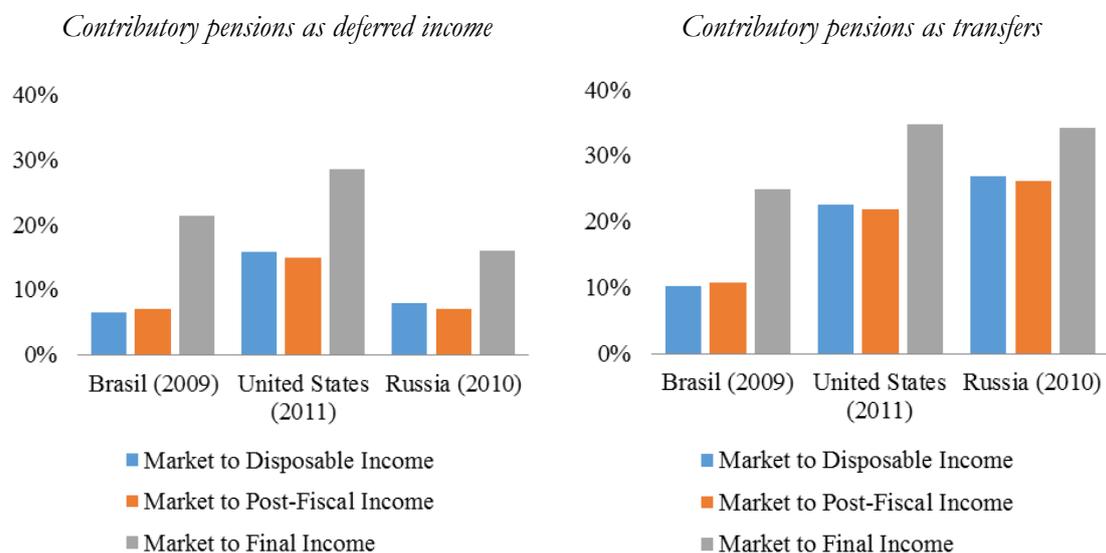


Figure 5. Distributional Impact of Different Components of the Tax-Benefit System in Brasil, United States and Russia, circa 2010, in Percent of Market Income

Notes: Distributional impact is defined as the difference between Gini for market incomes and Gini for disposable income, Gini for post-fiscal income, and Gini for final income, expressed as a percentage of market income Gini.

Sources: For Russia – Lustig et al. (2017); for Brasil and the United States – Higgins et al. (2016).

Supplementary Appendix

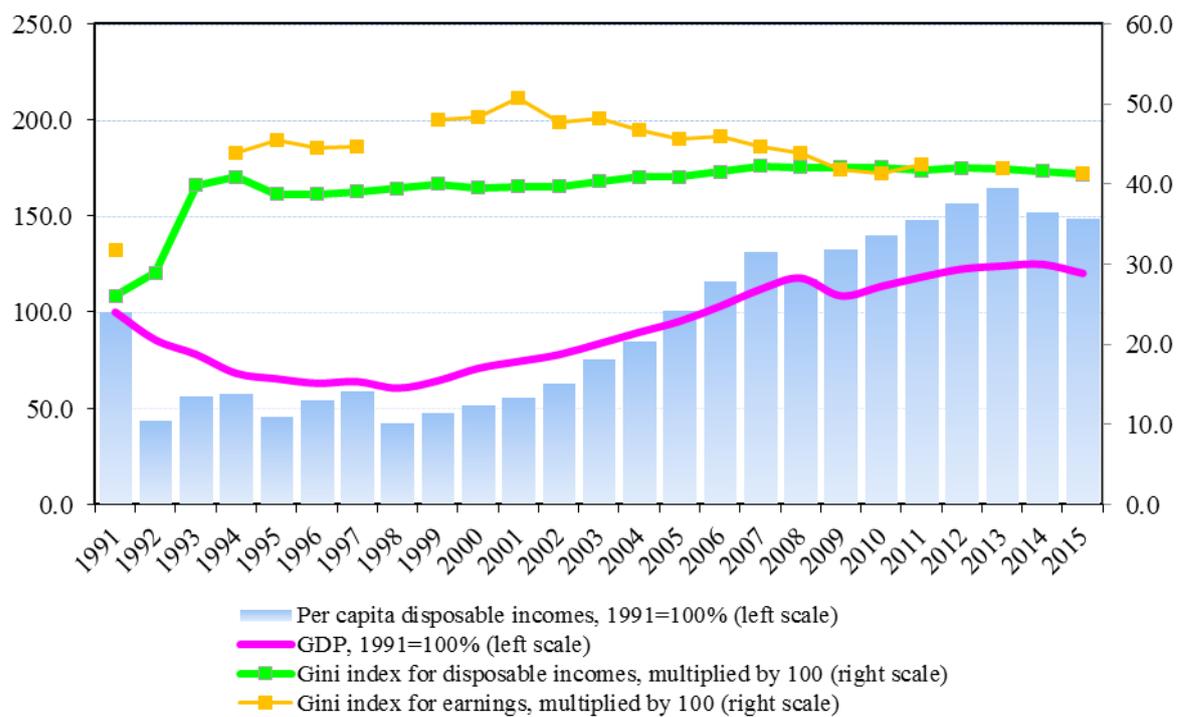


Figure A1. Russia: Changes in GDP, Real Disposable Income and Income Inequality, 1991-2015

Source: Authors' calculations based on Rosstat data

Table A1. Social spending in Russia, 2014

Spending	Total amount in NAs, billions of rubles	% of GDP	Included in Analysis (Yes/No)
Contributory pensions	5,792.3	8.1%	yes
Direct transfers	3,229.1	4.5%	
Non-contributory (social) pensions	344.5	0.5%	yes
Unemployment benefit and ALMPs (quasi insurance)	35.5	0.0%	
Social insurance benefits	578.0	0.8%	
Maternity leave allowance	95.7	0.1%	yes
Lump-sum allowance on child birth/family placement	21.4	0.0%	yes
Child care allowance up to 1.5 years	121.4	0.2%	yes
Temporary incapacity benefit	178.8	0.3%	
Other	160.7	0.2%	
Social assistance benefits	1,849.8	2.6%	
Not means-tested benefits	1,546.3	2.2%	
Unified cash payments	636.9	0.9%	yes
Other categorical benefits (cash and in kind)	610.0	0.9%	yes
Maternity capital	270.7	0.4%	yes
Compensation for child care	16.2	0.0%	yes
Special forms of support for families with children	299.4	0.4%	
Other benefits (scholarships etc.)	12.5	0.0%	yes
Means-tested benefits	303.5	0.4%	
Child allowance up to 16(18) years	46.4	0.1%	yes
Housing subsidy	59.7	0.1%	yes
State social assistance	22.4	0.0%	yes
Social supplement to pension	152.6	0.2%	*
Monthly cash payment for the third child	22.3	0.0%	
Social care and other social programs	421.3	0.6%	
Education	3,037.3	4.3%	
Childcare/preschool	658.1	0.9%	yes
Primary/secondary	1,414.7	2.0%	yes
Vocational	201.8	0.3%	yes
Tertiary	519.7	0.7%	yes
Other	242.9	0.3%	

Healthcare	2,786.3	3.9%	
Primary (outpatient) care & in-patient care	2,532.7	3.5%	yes
Physical culture and sports	253.6	0.4%	
Total social spending	15,040.5	21.1%	

Sources: Federal Treasury data (<http://www.roskazna.ru/>); Laws on implementation of the Federal and Regional budgets; Federal State Statistics Service data (<http://www.gks.ru/>), Statistical digest "Social situation and living standards of the population of Russia"; Federal Employment Service data (<http://www.rostrud.ru/>).

Note: * Social supplement to pensions is counted as part of a pension in RLMS-HSE data

Table A2. Tax revenues in Russia, 2014

Tax revenues	Total amount in NAs, billions of rubles	% of GDP	Included in Analysis (Yes/No)
Social insurance contributions	5,035.7	7.1%	
Pension contributions	3,712.7	5.2%	Yes
Social insurance contributions	508.6	0.7%	Yes
Healthcare contributions	1,218.7	1.7%	Yes
Personal income tax	2,702.6	3.8%	Yes**
VAT	3,940.2	5.5%	Yes
Excise taxes	1,072.2	1.5%	Yes
Income tax paid by SMEs*	315.1	0.4%	
Corporate profit tax	2,375.3	3.3%	
Property taxes	957.5	1.3%	Yes***
Taxes on natural resource extraction	2,934.7	4.1%	
Export and import duties	5,463.7	7.7%	
Revenues from public property	797.2	1.1%	
Fees for using natural resources	261.5	0.4%	
Other revenues	910.4	1.3%	
Total revenues	26,766.1	37.5%	

Sources: Federal State Statistics Service data (<http://www.gks.ru/>)

Notes:

* Small and medium-sized enterprises

** Standard tax allowances are taken into account but their impact is negligible, thus they were not included in the analysis as a separate category.

*** Partial estimate, because only personal property, land and vehicle taxes are included in simulations.

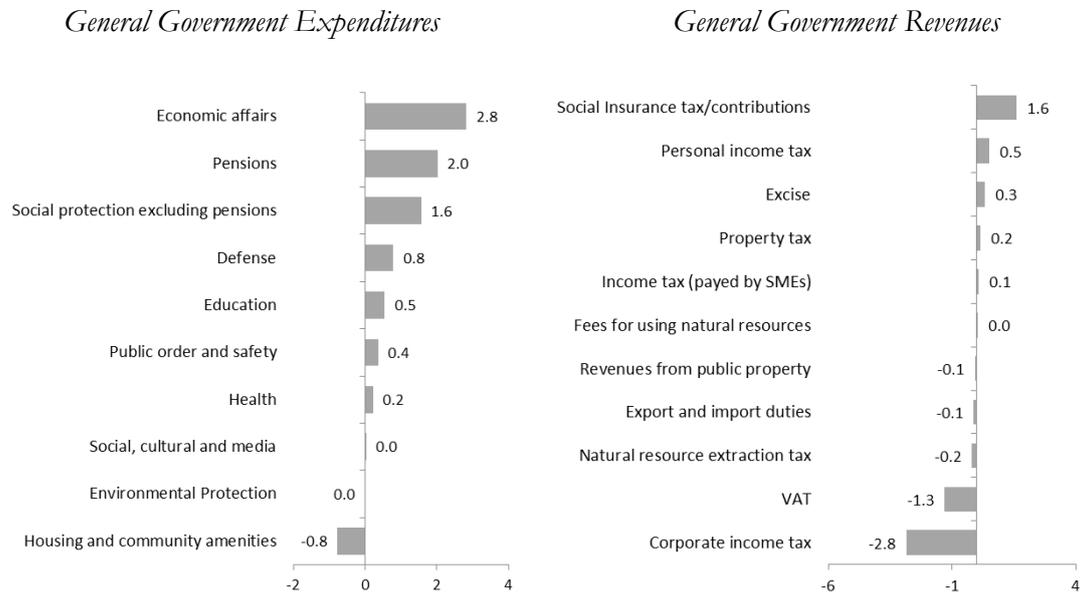


Figure A2. Russia: General Government Expenditures by Function and General Government Revenues by Type, Changes between 2005-2014 in % of GDP

Source: Authors' calculations from the Ministry of Finance and Rosstat data.

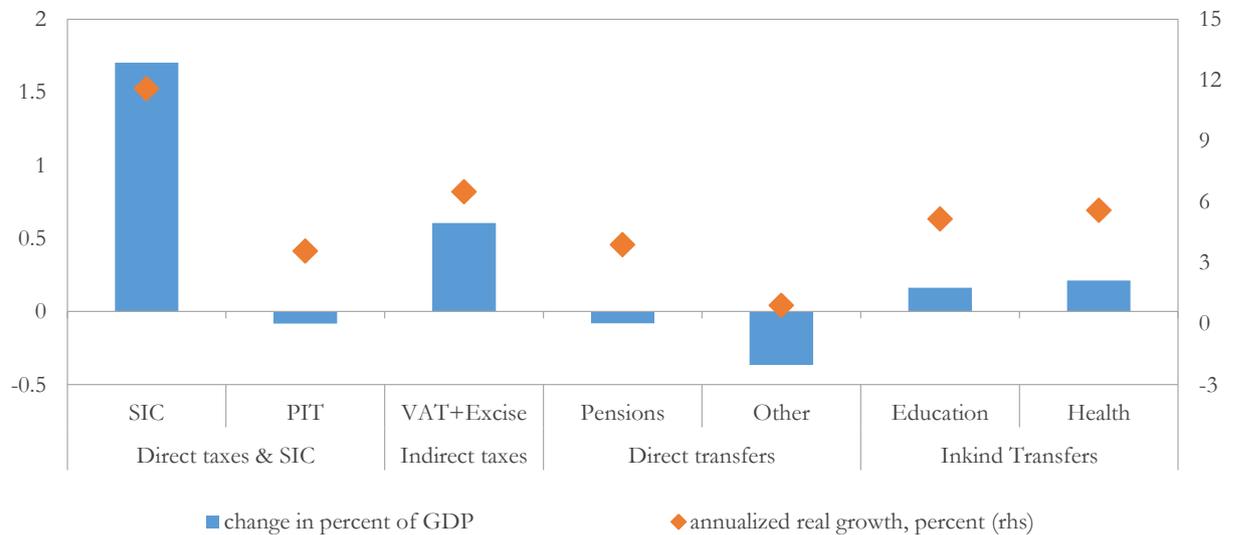


Figure A3. Russia: Growth of Spending on/Revenue from the Main Components of Tax-benefit System over 2010-2014

Source: Authors' calculations based on RLMS-HSE 2010 and 2014.