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ABSTRACT

This paper shows that the system of taxes and transfers in Russia has a limited redistributive capacity vertically (among different income groups)—particularly when pensions are assumed to be deferred income—though it does achieve significant horizontal redistribution (among sociodemographic groups).

The main results of the analysis, concern the Russian fiscal system's limited redistributive effect, low effectiveness in poverty reduction, and relatively poor net financial impact on all demographic groups except pensioners. Firstly, benchmarking shows that the Russian system of direct taxes and transfers does not compare well with countries that achieve larger redistribution, in particular European Union countries. Secondly, net direct taxes (incorporated into disposable income) are always equalizing, but net indirect taxes (incorporated into consumable income) are unequalizing in both the benchmark and the sensitivity analysis scenarios. Thirdly, under the benchmark scenario, the net effect of the fiscal system is actually poverty-increasing. Finally, it appears that all households of working-age people with and without children are net payers under the Russian fiscal system, while only pensioners' households benefit from the fiscal redistribution in Russia under both scenarios.

The main conclusion that emerges from this analysis is that there are both equity and efficiency reasons to review the tax and social spending structure. Such an exercise may require, however, a good understanding of the political economy of a potential reform.

JEL Codes: H22, I38, D31
Keywords: fiscal policy, fiscal incidence, social spending, inequality, poverty, taxes, Russia

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1. Introduction

The Russian Federation finished the first decade of 2000s as a high-income country, with a per capita gross national income (GNI) of US$15,177 per year (2005 purchasing power parity [PPP])—comparable to that of Chile, Estonia, Hungary, or Poland—and a population of 142.8 million people. Indeed, Russia enjoyed sustained, significant economic growth during the 2005–15 decade, growth that was accompanied by high rates of income mobility for all population groups.

Between 2000 and 2012, increases in gross domestic product (GDP) averaged 5.16 percent a year, above the regional mean for Europe and Central Asia (4.82 percent).[1] Throughout this period, the positive trend was interrupted only by the 2008–09 global financial crisis (when GDP declined by around 7.8 percent), after which growth quickly resumed. Indeed, by 2012, GDP per capita had nearly doubled from its 2000 level (from US$8,613 to US$15,177 2005 PPP), and Russia was ranked the eighth-largest country by nominal GDP and the fifth-largest by PPP.[2]

The positive outcomes in economic growth were accompanied by economic mobility for most households, reflected in substantial poverty reduction (Cancho et al. 2015). The share of people living in poverty declined steadily for more than a decade, from around 30 percent of the population in 2000 to about 11 percent in 2014, based on the national poverty line.[3] The overall positive trend, however, masks the stagnation in poverty reduction in 2013–14. (After reaching a record low of 10.7 percent in 2012, the poverty rate remained at 10.8 percent in 2013 and increased to 11.2 percent in 2014.)

Russia's poverty rates are lower when measured using the international per capita poverty lines instead of the national poverty line: based on the US$5-a-day poverty line (real 2005 PPP), the poverty rate was 7.3 percent in 2012 (Figure 1). On the other hand, extreme poverty is nearly nonexistent in Russia; using the international line of US$1.25 a day, the extreme poverty rate is close to zero (0.03 percent in 2012). Even using a higher international poverty line (US$2.50 a day, roughly equivalent to Rub 41.7), extreme poverty was well below 1 percent (0.77 percent) in 2012.

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[1] GDP data from the World Development Indicators database:
http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators.

[2] Economic rankings from the World Bank's International Comparison Program (ICP) database:
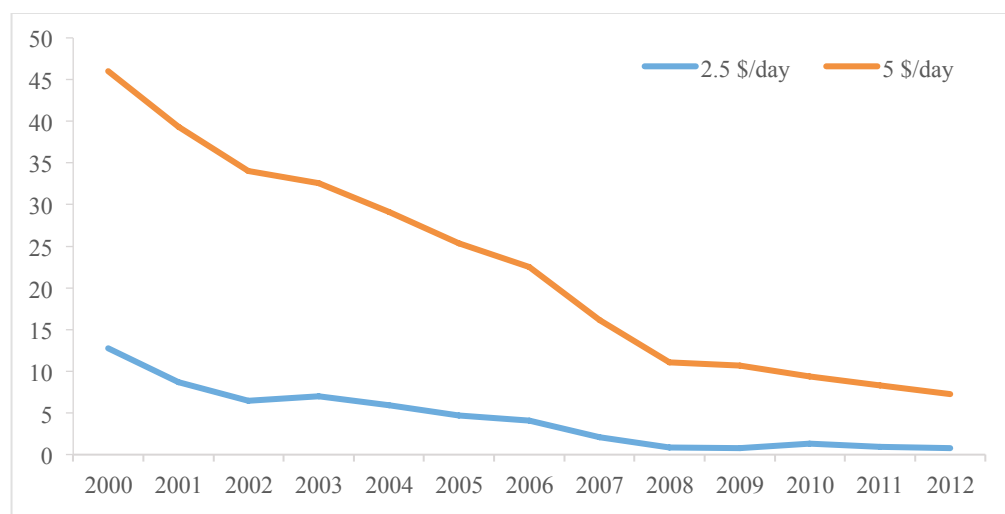http://data.worldbank.org/. For more information, see the ICP website:
http://siteresources.worldbank.org/ICPEXT/Resources/ICP_2011.html.

[3] In 2010, the national poverty line was approximately Rub 195.2 per person per day (US$9 2005 PPP) (Rosstat database, Federal State Statistics Service of the Russian Federation,
http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/population/poverty/).

Figure 1 Poverty Headcount Ratio in Russian Federation, 2000–12

Source: World Bank Europe and Central Asia Team for Statistical Development (ECATSD), using the Europe and Central Asia Poverty (ECAPOV) Database.

Note: Figure shows the poverty headcount ratio using two international per capita poverty lines: US$5 and US$2.50 per day in purchasing power parity (PPP) 2005 terms.

Income inequality in Russia, on the other hand, increased significantly after the market transition in the 1990s and only stabilized toward the second decade of the 21st century. Income inequality in Russia exceeds the world's average: the Gini coefficient for an average of 78 advanced and developing countries circa 2010 was 0.38 Lustig (2016), while it was 0.424 in Russia. It must be recalled that in the late 1980s, Russia, along with the Scandinavian nations, were among the countries with the lowest income inequality (OECD 2008). However, inequality sharply increased at the beginning of the transition from the state socialist economy to a market economy: between 1991 and 1994, the country's Gini coefficient grew from 0.260 to 0.409 (Milanovic 1999). Though the trend in overall inequality during the first decade of this century varied depending on the indicators used (income or consumption), it is well-established that income inequality remained basically flat (with slight fluctuations around the 0.42 level), while wage inequality decreased (Calvo, López-Calva, and Posadas 2015).

Some important questions arise after putting all these facts together: Particularly, what role does nonlabor income play in overall inequality? And, in turn, how sustainable are the observed trends in poverty, given that the poorest segments depend more heavily on nonlabor income sources? Indeed, after a period of profound reforms and retrenchment in the 1990s and early 2000s, the Russian welfare system began to expand again in the mid-2000s because of the greater fiscal space

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[4] Here and thereafter, unless indicated otherwise, inequality is measured using *per capita disposable income*: the household market income plus direct transfers minus direct taxes divided by the household size. Moreover, unless indicated otherwise, the statistics for Russia, including all poverty figures, refer to data from the Federal State Statistics Service of the Russian Federation (Rosstat): http://www.gks.ru/.

associated with the commodity boom. In spite of the introduction of means-tested programs, the social protection system continues to be dominated by categorical benefits, with two particular groups being the main beneficiaries: pensioners and families with children aged under 1.5 years (Ovcharova, Popova, and Pishniak 2007; UNICEF 2011).

Objectives and Contributions of This Working Paper

This working paper assesses the distributional impact of Russia's main tax and social spending programs by applying a state-of-the-art fiscal incidence analysis (Lustig 2016; Lustig and Higgins 2013). In particular, it quantifies the impact of direct and indirect taxes as well as cash and in-kind transfers on inequality and poverty. Second, the working paper assesses which sociodemographic categories of the population (defined by income, age, and household composition and size) are net payers or net beneficiaries of the fiscal system. It also examines the extent to which spending on education and health is not only equalizing but also pro-poor (meaning the average transfer declines with income).

For the analysis, we use data from the 2010 Russian Longitudinal Monitoring Survey of the Higher School of Economics (RLMS-HSE). Given the overwhelming weight of the pension system, both as a source of revenue (social insurance contributions representing 17 percent of total government revenues) and as a component of social spending (contributory pensions representing 38.7 percent of total social spending), this working paper analyzes the redistributive and poverty-reducing effect of the fiscal system under two extreme assumptions: contributory pensions as deferred income and contributory pensions as pure government transfers. In reality, the distinction between contributory and noncontributory pensions in Russia is quite arbitrary because a large share of the budget of the Pension Fund (41 percent in 2010) is covered by transfers from the federal budget. Hence, these two scenarios can be considered as an upper and a lower bound of a true estimate of the impact of the pension system.

Our analysis has three unique features:

- It is the first comprehensive fiscal incidence study for Russia that estimates the cumulative impact of both direct and indirect taxes as well as both cash transfers and in-kind transfers (public education and health care). The previous fiscal incidence studies for Russia assessed the impact of separate policy instruments, such as child and maternity benefits (Denisova, Kolenikov, and Yudaeva 2000; Notten and Gassmann 2008; Ovcharova and Popova 2005; Ovcharova, Popova, and Pishniak 2007; Popova 2013, 2016); in-kind privileges (Volchkova et al. 2006); direct taxes (Duncan 2014); or indirect taxes (Decoster 2003).

- The methodology applied in this study enables us to explore the redistributive capacity of the welfare system under two scenarios for the treatment of contributory pensions: as deferred income (benchmark scenario) and as government transfers (sensitivity analysis scenario).

- Because this working paper applies the Commitment to Equity (CEQ) approach (Lustig 2016; Lustig and Higgins 2013), the results for Russia are comparable with those for a number of middle-income countries for which the framework has been applied previously.

Summary of Results

The main results from the study concern the dominant fiscal impact of pensions on overall income redistribution, on poverty reduction, and on which demographic groups are net payers and net beneficiaries under this fiscal system. These results can be summarized as follows:

Redistributive impact of pensions. In terms of the redistributive capacity of fiscal policy, the defining role belongs to pensions—and when they are considered to be transfers instead of as deferred income, the overall redistributive impact is dramatically larger. Specifically, when pensions are considered deferred income (under the benchmark scenario), the redistributive effect of the fiscal system equals 0.028 Gini points, or a 7 percent reduction in the Gini, for consumable income relative to market income.[5] In contrast, if contributory pensions are considered to be transfers (under the sensitivity analysis scenario), the reduction in the Gini for consumable income relative to market income equals 0.129 Gini points, or 26.2 percent Gini reduction.

When pensions are considered deferred income, Russia's reduction of the Gini through direct taxes and transfers (0.031 Gini points) is comparable to that of Brazil and Chile (0.035 and 0.037 Gini points, respectively). However, if pensions are considered transfers, the redistribution (a Gini reduction of 0.132 points) is larger than in the United States (a Gini reduction of 0.109 points).

Net direct taxes (such as income taxes) are always equalizing, but net indirect taxes (such as sales and excise taxes) are unequalizing in both the benchmark and the sensitivity analysis scenarios. In addition, if contributory pensions are treated as deferred income, in-kind transfers (public education and health care) are the largest redistributive fiscal component. In-kind transfers are always equalizing.

Poverty impact of pensions. If contributory pensions are considered deferred (market) income, we observe a 0.7 percent reduction in the poverty headcount using the national poverty threshold after net direct taxes (for disposable income) and a 2.6 percent increase after net indirect taxes (for consumable income). However, if pensions are treated as transfers, the Russian system achieves a 13.5 percent reduction in poverty for disposable income and an 8.9 percent reduction for consumable income. This is quite a modest outcome given the amount of spending on social benefits in Russia.

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[5] In the CEQ framework, "consumable income" (also sometimes called postfiscal income) takes into account all market income (also referred to in this paper as "benchmark income"), direct and indirect taxes, direct cash transfers, and indirect subsidies. For a more detailed discussion of the CEQ income concepts used in this work, see Inchauste and Lustig (2017).

Net indirect taxes increase the poverty rate (above the rate based on market income alone) by a nontrivial amount if contributory pensions are treated as market income. If contributory pensions are treated as transfers, in contrast, consumable-income poverty is lower than market-income poverty for any of the poverty lines considered. These results indicate that, in Russia, the poor who are not pensioners are not protected from poverty to the same extent as the poor who are pensioners.

Fiscal policy impact by demographic group. It appears that the households of working-age people with and without underage children are net payers, while only pensioners' households benefit from the fiscal redistribution in Russia under both the pensions-as-market-income and pensions-as-transfers scenarios. The biggest losers under both scenarios are one- and two-child couples. Among age groups, adults younger than 30 years old are penalized the most.

Overall, the Russian system of taxes and transfers has a limited redistributive capacity vertically (among different income groups), but it does achieve considerable horizontal redistribution (among different sociodemographic groups). There seems to be room to reconsider the targeting of some programs to enhance the fiscal system's distributional impact.

The working paper is organized as follows: "The Russian Fiscal System" briefly describes the country's tax and transfer system. "The Fiscal System's Distributive Capacity: Data and Assumptions" discusses methodology and data. "The Impact of Fiscal Policy on Inequality and Poverty" presents the main results. The final section summarizes "Conclusions and Policy Implications."

2. The Russian Fiscal System

Taxes

The Russian tax system is largely a unified, national system with few regional and local taxes. The major federal taxes are social insurance contributions, personal income tax, value added tax, tax on mineral resource extraction, corporate profit tax, and excises.[6] All regional and local taxes— property tax, vehicle tax, and land tax—are asset-related. Some federal taxes such as the personal income tax may be forwarded to regional budgets through intrabudgetary transfers. Meanwhile, the corporate profit tax is split into federal and regional shares defined by the Tax Code. The structure of tax revenues in Russia is shown in Table 1.

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[6] Other federal taxes prescribed by the Tax Code include a tax on animal and water wildlife (levied upon licensed hunters and fisheries) and a document tax (for example, the ad valorem duty required to start civil litigation in state courts).

Table 1 Tax Revenues in the Russian Federation, 2010

Revenue component	Rubles, billions	Share of GDP (%)	Included in analysis?	Ratio of survey total to external statistics (%)[a]
Social insurance contributions				
Social Insurance Fund contributions	243.4	0.5	Yes	120.2
Health care funds contributions	280.8	0.6	Yes	113.8
Direct taxes				
Personal income tax	1,790.5	3.9	Yes	86.4
Vehicle tax	—	—	Yes	n.a.
Indirect taxes				
Value added tax	2,498.6	5.4	Yes	62.3
Excise taxes	471.5	1.0	Yes	45.5
Other taxes				
Corporate profit tax	1,774.6	3.8	No	n.a.
Property taxes	628.2	1.4	No	n.a.
Taxes on natural resource extraction	1,440.8	3.1	No	n.a.
Taxes on total income	207.7	0.4	No	n.a.
Arrears and overpayment on cancelled taxes	56.1	0.1	No	n.a.
Total taxes and contributions analyzed (benchmark)[b]	5,284.8	11.4	n.a.	74.4
Total taxes and contributions (benchmark)[b]	9,392.2	20.3	n.a.	41.8
Pension Fund contributions	1,929	4.2	yes	106.8
Total taxes and contributions analyzed (sensitivity analysis)[c]	7,213.8	15.6	n.a.	83.0
Total taxes and contributions (sensitivity analysis)[c]	11,321.2	24.4	n.a.	52.9

Source: "Social Status and Standard of Living of the Russian Population," statistical digest, Russian Federal State Statistics Service (Rosstat):
http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/publications/catalog/doc_1138698314188.

Note: — = not available. n.a. = not applicable.

a. The "ratio of survey total to external statistics" is the ratio of the amount computed using the survey data used for analysis (the Russian Longitudinal Monitoring Survey of the Higher School of Economics, or RLMS-HSE) and the amount from the external data source (Rosstat).

b. Under the "benchmark" scenario, contributory pensions are treated as part of market income, and pension social insurance contributions as lifetime savings (that is, not included in direct taxes).

c. Under the "sensitivity analysis" scenario, contributory pensions are treated as government transfers, and pension insurance contributions as taxes.

Social Insurance Contributions

Social insurance contributions are the largest source of tax revenues, accounting for 5.3 percent of GDP in 2010. They represent a financial obligation imposed on employers (employees do not pay separate contributions) and the self-employed to obtain revenues required for providing pensions; social insurance allowances (including maternity, temporary incapacity, and unemployment benefits);[7] and health care.

Employers contribute a specified percentage of employees' gross annual earnings. Self-employed individuals, who contribute a specified percentage of the minimum wage, are only required to pay pension and health insurance contributions; participation in other social insurance programs is voluntary. The same tax rates apply for both employers and the self-employed. In 2010, an overall tax rate of 26 percent was applied to individuals' gross annual earnings below Rub 415,000, while earnings exceeding this amount were exempt.[8]

Personal Income Tax

Personal income tax (PIT) revenues accounted for 3.9 percent of GDP in 2010. Individuals' main income (from work for pay, contractor's agreements, or housing rents) is taxed at a 13 percent rate. Capital gains from asset sales are taxable only if the seller owned the asset for less than three years. A higher tax rate of 35 percent applies to some sources of income (for example, bank interest that exceeds the upper limit computed using a refinancing rate). However, interest rates are usually below the threshold, making interest generally tax-free. For nonresidents, all types of income received on Russian territory are taxed at a 30 percent rate. Dividends received by shareholders are subject to a 9 percent tax rate.

For taxpayers whose only taxable income comes from employment, the PIT is withheld by the employer and there is no need to file a tax return. There are small tax deductions for parents on low

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[7] Note that the workplace accident insurance is not part of the social insurance contributions. Each employer must contribute to group accident insurance. The rate varies between 0.2 percent and 8.5 percent, depending on the type of business.

[8] Since 2010, there have been several increases in the tax rates and changes in the tax schedule aimed at reducing the deficit of the Pension Fund.

earnings in addition to tax deductions for expenses related to charity, education, and health care as well as the purchase and sale of housing.

Value Added Tax

Value added tax (VAT) is the second-largest source of federal revenue, accounting for 5.4 percent of GDP in 2010. From 2004 on, the standard VAT rate has been 18 percent. However, a reduced rate of 10 percent is applicable to sales of basic foodstuffs such as bread, potatoes, vegetables, meat, fish, dairy, fats, sugar, and eggs; sales of some goods for children, including clothes; sales of periodical printed publications, except for those of advertising or of an erotic nature; and sales of some important medical goods manufactured both in and outside of Russia.

VAT-exempt transactions include, among other things, export sales, international transportation services, and supplies exported from Russia. Some types of activities, under certain conditions, are also exempt from VAT, such as the sale of specifically listed medical goods and services; funeral services; warranty repair services; license-based educational services rendered by nonprofit institutions; services provided by organizations carrying out activities in the areas of culture and art; and banking and insurance services.

Excise Taxes

Excise taxes account for 1 percent of GDP and are mainly imposed on the sale or import of manufactured excisable goods. Excisable goods include raw and refined alcohol; alcoholic drinks with more than 0.5 percent alcohol by volume, including beer; tobacco products; gasoline, diesel fuel, and motor oils; passenger cars and motorcycles with engines exceeding 90 horsepower; and, since 2013, home heating oil. In contrast to VAT, excise duties are typically expressed as a fixed amount of rubles per quantity bought by the consumer. Since 2007, cigarettes have been additionally taxed based on a percentage of the manufacturers' suggested retail price.

Other Taxes

The analysis takes all of the abovementioned taxes into account. Other taxes not included in the analysis include the corporate profit tax (3.8 percent of GDP); the natural resource extraction tax (3.1 percent of GDP); property taxes (1.4 percent of GDP); and the unified taxes on total income (0.4 percent of GDP), paid by taxpayers who have switched to a simplified taxation scheme. In 2009, the revenues from taxes on labor (PIT and total contributions toward pensions, health care, and social insurance) began to exceed the revenues from the natural resource extraction and corporate taxes.

Social Spending

Social spending in Russia without considering pensions accounted for 13.1 percent of GDP in 2010 (Table 2). This figure comprises spending on direct cash and near-cash transfers, social care services, education, and health-related spending at all levels of administration (federal, regional, and municipal). If spending on contributory pensions is taken into account, the total social spending in Russia amounts to 21.3 percent of the GDP. Direct transfers include a quasi-insurance unemployment benefit, insurance-based benefits, noncontributory (social) pensions, and other social assistance benefits, some of which are means-tested. In-kind transfers are benefits derived from the universal public education and health care systems.

Table 2 Social Spending in the Russian Federation, 2010

Spending component	Rubles, billions	Share of GDP (%)	Included in analysis?	Ratio of survey total to external statistics (%)
Direct transfers (cash and near-cash)	2,443.8	5.3	n.a.	42.1
Noncontributory (social) pensions[a]	230.4	0.5	Yes	125.1
Unemployment benefit and ALMPs (quasi-insurance)	183.9	0.4	n.a.	n.a.
Unemployment benefit and material aid to unemployed[b]	52.8	0.1	Yes	54.0
Employment promotion and ALMPs[c]	128.4	0.3	No	n.a.
Social insurance benefits	473.4	1.0	n.a.	n.a.
Maternity leave allowance[d]	67.3	0.1	Yes	74.4
Lump-sum birth or family placement grant[d]	18.7	0.0	Yes	103.5
Childcare allowance up to 1.5 years of age[d]	121.8	0.3	Yes	72.2
Temporary incapacity benefit[d]	185.2	0.4	No	n.a.
Other	80.4	0.2	No	n.a.
Noncontributory (social assistance) benefits	1,316.6	2.8	n.a.	n.a.
Non-means-tested benefits	1,078.4	2.3	n.a.	n.a.
Monthly and lump-sum cash payments (monetized privileges)[e]	419.3	0.9	Yes	33.8
Other privileges (cash and in-kind)[f]	362.4	0.8	Yes	45.2
Maternity capital[g]	97.6	0.2	Yes	47.1

Compensation for childcare fees[h]	9.9	0.0	Yes	139.9
Special forms of support for families with children[i]	16.4	0.0	No	n.a.
Other benefits (scholarships and others)[j]	172.7	0.4	Yes	29.9
Means-tested benefits	238.3	0.5	n.a.	n.a.
Child allowance up to 16 (or 18) years of age[b]	43.1	0.1	Yes	160.8
Housing subsidy[b]	55.7	0.1	Yes	96.3
State social assistance[h]	8.3	0.0	Yes	178.4
Social supplement to pension[g]	130.6	0.3	No	n.a.
Social care (not direct transfers)	239.5	0.6	n.a.	n.a.
Social care[k]	168.3	0.4	No	n.a.
Other social programs[l]	71.2	0.2	No	n.a.
Education	1,893.9	4.1	n.a.	51.7
Childcare and preschool[m]	321.3	0.7	Yes	57.9
Primary and secondary[m]	827.4	1.8	Yes	57.9
Vocational[m]	163.8	0.4	Yes	57.9
Tertiary[m]	377.8	0.8	Yes	57.9
Other[m]	203.6	0.4	No	n.a.
Health care	1,708.8	3.7	n.a.	50.4
Primary (outpatient) care and inpatient care[m]	1,592.9	3.4	Yes	54.1
Physical culture and sports[m]	115.9	0.3	No	n.a.
Social spending analyzed (benchmark)	4,943.3	10.7	n.a.	58.0
Total social spending (benchmark)	6,046.5	13.1	n.a.	47.5
Contributory pensions[a]	3,819.5	8.2	Yes	99.6
Social spending analyzed (sensitivity analysis)	8,762.9	18.9	n.a.	76.2
Total social spending (sensitivity analysis)	9,866.1	21.3	n.a.	67.6

Note: — = not available. n.a. = not applicable. ALMP = active labor market program. The "ratio of survey total to external statistics" is the ratio of the amount computed using the survey data used for analysis (the Russian Longitudinal Monitoring Survey of the Higher School of Economics, or RLMS-HSE) and the amount from the external data source (Rosstat). Under the "benchmark" scenario, contributory pensions are treated as part of market income and pension

social insurance contributions as lifetime savings (that is, not treated as taxes). Under the "sensitivity analysis" scenario, contributory pensions are treated as government transfers and pension insurance contributions as taxes.

a. Total spending on pensions is the sum of spending of the federal and regional Budgets (excluding expenditures on the regional social supplement to pension) and spending of the Pension Fund (excluding expenditures on privileges, maternity capital, and other social transfers). Spending on noncontributory pensions is approximated as total expenditures on state social pensions. Spending on contributory pensions is equal to total spending on pensions minus spending on noncontributory pensions.

b. Spending on the unemployment benefit and material aid to unemployed, the child allowance up to 16 years of age (18 years if the child is in full-time education), and the housing subsidy come from Rosstat data on expenditures on some social benefits.

c. Employment promotion and ALMP spending is provided for through subventions to the regional budgets for implementation of the federal active labor market programs (ALMPs).

d. Spending on the maternity leave allowance, lump-sum birth or family placement grant, the childcare allowance (for up 1.5 years of age), and the temporary incapacity benefit are provided through the Social Insurance Fund budget implementation. (See article [budget category] "Social Policy" [excluding expenditures on benefits for the victims of nuclear accidents, in-kind benefits for the disabled, recreation and vouchers to sanatoriums and transportation to the place of recreation, the guaranteed list of social services, and funeral benefit].)

e. "Monthly and lump-sum cash payments (monetized privileges)" refers to expenditures on the unified monthly payment and other regular and lump-sum cash payments for the privileged categories, such as the disabled, veterans of wars and labor, and so on. It is estimated as the sum of expenditures on payments from the federal budget (including interbudgetary transfers) and the regional budgets.

f. "Other privileges (cash and in-kind)" equals the sum of expenditures on social support for payment of rent and utilities for all categories of the population, provision of the set of social services for federal beneficiaries, provision of the technical means of rehabilitation for the disabled, transportation of pensioners to and from the place of recreation, and all other types of social support provided by the regional budgets.

g. Spending on the maternity capital and the social supplement to pension come from Pension Fund budget implementation data. The social supplement to pension is reported by the survey respondents together with pensions, hence it is accounted for in pension benefits.

h. Spending on compensation of childcare fees and state social assistance are provided for in the regional budget implementation laws.

i. "Special forms of support for families with children" equals the sum of expenditures on the lump-sum and monthly child allowance for the enlisted military, benefits related to the family placement of orphans, and the child allowance for the victims of radiation due to accidents.

j. "Other benefits (scholarships and others)" equals the sum of expenditures on compensations for material damage to the victims of political repressions, aid to refugees and internally displaced people, and other types of benefits (including noncontributory scholarships).

k. Social care expenditures of the consolidated budget. (See article [budget category] "Social Care" [excluding expenditures on the social supplement to pension in Moscow].)

l. Other social program expenditures of the federal budget. (See article 1005, "Applied Scientific Research in the Area of Social Policy"; article 1006, "Other Social Policy Issues" and expenditures of regional budgets; article 1003, "Social Welfare of the Population"; and article 1004, "Support to Families and Children" [excluding social welfare expenditures].)

m. Education and health care spending from Treasury data on implementation of the consolidated budget.

Pensions

Public pensions—including both contributory and noncontributory pensions account for the major part of social spending in Russia: 8.7 percent of GDP in 2010. Since 2002, Russia has maintained a three-pillar pension system:

1. A pay-as-you-go benefit, financed by contributions to the extrabudgetary Pension Fund paid by employers and the self-employed

2. A funded system (for those born after 1966), also financed by the Pension Fund

3. Contributory mechanisms whereby individuals can save additional money toward a better pension on a voluntary basis

In addition, Russia has a "zero" pillar that provides "social pensions," which are general revenue-financed benefits for uninsured pensioners (the disabled, orphans, and others). In 2010, out of 44.14 million pensioners, 2.6 million received social pensions accounting for 0.5 percent of GDP. The average social pension benefit in 2010 (Rub 4,731) was slightly more than half the average old-age labor pension benefit (Rub 8,166).[9]

Since the mid-2000s, the Pension Fund has been running a permanently growing deficit, which reached 41 percent in 2010. The distinction between contributory and noncontributory pensions in Russia is therefore quite arbitrary. As noted earlier, under our benchmark scenario, social pensions are treated as government transfers while contributory pensions are treated as a part of market income. In the sensitivity analysis, contributory pensions are treated as government transfers along with social pensions.

The statutory retirement age in Russia is one of the lowest in the world: 55 years for women and 60 years for men. Both early retirement and postponement are possible, while various occupational pensions also exist. All state pensions are untaxable, and people are allowed to work while receiving pension benefits; about 30 percent of pensioners continue to work. Contributory pensions are indexed to inflation and average wage growth rates. Social pensions are indexed to inflation rates and changes in the cost of a pensioner's minimum consumer basket. Additional ad hoc increases have been common in recent years. Therefore, the poverty risk of pensioners in Russia is the lowest relative to all other social groups. The replacement ratio, however—the ratio of the average pension to average earnings in the economy—amounted to 35.7 percent in 2010, well below its 1980s level (40 percent).

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[9] The 2005 PPP conversion factor used throughout the paper is Rub 21.79 rubles per US$1 USD (World Development Indicators Database).

Unemployment Benefits and Programs

Total spending on unemployment-related programs accounted for 0.4 percent of GDP in 2010. Russia's unemployment benefit can be considered a quasi-insurance program, because it is financed by general revenues and weakly related to an employee's earnings and length of service.[10] The benefit is paid monthly, conditional on the applicant's registration with the State Employment Service (SES) every two weeks. Registered unemployment rates in Russia are substantially lower than survey-based unemployment rates (by the International Labour Organization's definition),[11] predominantly because of the limited incentives for registration. Only about one-third of the unemployed are registered with the SES. The unemployment benefit is paid to nearly 90 percent of the registered unemployed. The total number of recipients in 2010 was 1.36 million, which is less than 1 percent of the population. The maximum unemployment benefit was set at Rub 4,900 per month, and the minimum at Rub 850 per month.

Until 2009, few workers benefited from the active labor market programs (ALMPs) in Russia. This changed when, in response to the global economic crisis of 2008–09, the government launched additional measures to decrease tension in the regional labor markets. In 2010, ALMPs covered 1.85 million unemployed people.[12]

Social Insurance Benefits

Spending on social insurance-based transfers accounted for 1 percent of GDP in 2010. These benefits are part of the contributory social security system. The most expensive of these benefits include (a) a temporary incapacity benefit (0.4 percent of GDP), paid during an absence from work due to sickness or to care for a sick family member; and (b) a (partly noncontributory) child allowance for children aged up to 1.5 years (0.3 percent of GDP).

The child allowance has become one of the main child-related cash transfers after the implementation of the pro-natalist package resulting from the 2007 reforms. It is provided to socially insured mothers upon the completion of a 140-day maternity leave (during which they are entitled to a benefit equal to 100 percent of their average earnings for the 12 months preceding the leave, subject to an upper limit). The child allowance equals 40 percent of the mother's average monthly earnings, subject to both upper and lower limits.[13] Mothers whose contribution record is

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[10] In addition to this benefit, the State Employment Service provides early-retirement pensions to the recipients of unemployment benefits and material aid to those unemployed who exhausted their eligibility for the benefit.

[11] The International Labour Organization (ILO) unemployment rate assesses the number of persons in the given group who are unemployed (including jobless people who want to work, are available to work, and are actively seeking employment) in relation to the total of employed and unemployed persons in the group ("Main statistics (annual) – Unemployment," LABORSTA database, ILO, http://laborsta.ilo.org/applv8/data/c3e.html).

[12] The ALMP measures ranged from public works to subsidies for unemployed people interested in starting up a new business.

[13] In 2010, the lower limit was set at Rub 2,060 per month for the period of leave with the first child and at Rub 4,121 per month for the period of leave with the second and subsequent children.

less than six months are entitled to the minimum size of the allowance. As of 2010, the allowance was paid to 3.63 million people (of whom 44 percent were uninsured), or 2.5 percent of the population.

Noncontributory Social Assistance

Noncontributory social assistance accounted for 2.8 percent of GDP in 2010, with most of the resources being spent on categorical programs (2.3 percent of GDP) rather than means-tested programs (0.5 percent of GDP).

Privileges

The most expensive of the categorical (non-means-tested) programs is the "privileges" program (representing approximately 1.7 percent of GDP), which was inherited from the former Soviet social protection system. Privileges are free or discounted services provided to vulnerable categories of the population, such as people with disabilities, war veterans, dependents of war victims, victims of the Chernobyl accident, and so on.[14] They also cover numerous privileges for groups based on specific merits before the state (mainly military) and based on their occupational status. Since 2005, the responsibility to finance privileges has been divided between the federal and the regional governments.

By 2005, almost all federally funded privileges (apart from discounts on housing or utility payments) had been monetized (replaced by cash). As of 2010, a few regions (including Moscow) still provided in-kind benefits to the population along with regular and lump-sum cash payments. The complex structure of the system of privileges—the possibility of being entitled to several types of benefits at the same time, manifold forms of provision (cash and in-kind benefits), and the different sources of financing (federal and regional)—make it almost impossible to assess the full scope and scale of the program based on official statistics.

In 2010, 16.69 million people received a monthly cash payment for federal beneficiaries. The size of the benefit ranged from Rub 436 for blood donors to Rub 10,851 for holders of certain military decorations. At the same time, at least 11.01 million people received regular cash payments from the regional authorities, ranging from Rub 467 for labor veterans[15] to Rub 605 for citizens with honorary degrees or special merits recognized by the region. Hence, by a conservative estimate, at least 27.7 million people, or 19.4 percent of Russia's population, were entitled to one or another type of

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[14] These programs have a broad range, including free or discounted access to a wide span of services and goods such as exemptions from or discounts for rent or utility payments; telephone services; medicines, medical appliances, and health care services; municipal, commuter, or long-distance transport; and vouchers for sanatoriums, spas, childcare facilities, or summer camps. Some categories of citizens are exempted from or discounted for real-estate taxes, may receive substantial financial support to repair their house, or may receive a land plot.

[15] "Labor veterans" are holders of the civilian labor award of the former Soviet Union to honor workers for many years of hard work in the national economy, education, health care, government agencies, and so on.

privilege in 2010. However, given that the privileged citizens are mainly elderly people, their number has been decreasing.

Maternity Capital

The maternity capital is Russia's second-most expensive non-means-tested social program (amounting to 0.2 percent of GDP). Another element of the pro-natalist 2007 policy package, this lump-sum grant is paid to any woman who gives birth to, or adopts, a second (or third or subsequent) child. In total, 2.6 million people (1.8 percent of the population) were issued certificates for maternity capital between 2007 and 2010. Among those, 346,000 people (13.3 percent of all recipients) redeemed the capital (or a part of it). The size of the transfer is annually indexed for inflation; in 2010 it amounted to Rub 343,278.

The assets can be used once the child is three years old in three ways only: to purchase new housing or pay for a mortgage credit; to pay for any type of children's education; or to add to the funded element of the mother's pension. So far, 99 percent of families have chosen to spend these assets to improve their housing. Therefore, the program can be treated as either a direct transfer or an in-kind housing benefit. For the purpose of this analysis, we chose the first option, assuming that the maternity capital is a cash transfer that is disposed of in the same year as it is granted. A random non-take-up was assumed when the benefit was simulated, in order to account for the fact that only 13.3 percent of beneficiaries had redeemed the assets by 2010.

Means-Tested Benefits

There is no such thing in Russia as a solely antipoverty benefit, but the country does have four assistance programs that combine poverty and other eligibility criteria:

- A social supplement to pensions

- A child allowance up to 16 years of age (or up to 18 years if the child is in full-time education)

- A housing subsidy

- State social assistance

Altogether, the means-tested benefits of these programs account for 0.5 percent of GDP. Eligibility for means-tested benefits is derived from comparing family or household disposable income with the national poverty line. The poverty line is referred to as the minimum subsistence level (MSL) and equals the cost of a minimum basket of goods and services. The composition of the basket is defined for three demographic groups (children aged under 16 years, men and women of active working age, and men and women of state pension age) and estimated quarterly for each region and for the country as a whole. In 2010, the average national MSL amounted to Rub 5,688 (about US$261 2005 PPP) per capita per month.

The social supplement to pensions is funded by both federal and regional budgets. Regional budgets provide the other three means-tested benefits, although the federal budget cofinances housing subsidies and child allowances through intrabudgetary transfers. Their generosity and coverage therefore varies from region to region.

Social supplement to pensions. The most expensive means-tested benefit is the social supplement to pensions, which accounts for more than half of all means-tested social spending. This benefit is provided to all nonworking pensioners whose total income is below the cost of a pensioner's poverty line in a given region. The size of the benefit is equal to the gap between the pensioner's poverty line and the pension benefit. In 2010, 4.94 million people (12 percent of pensioners) received the supplement. In our analysis, this benefit is considered as part of the pension, as it is paid together with it and cannot be separated from pensions in the survey.

Child allowances. These allowances are provided to families with children up to 16 years (18 years if in full-time education) whose per capita income is below the regional poverty line, constituting the classic example of an antipoverty program. Nevertheless, the targeting accuracy of the program is low. As a result, the allowance fails to provide adequate support to participating families, while spreading its budget to 9.94 million children (about 40 percent of children under 16 years), of whom 65 percent are not poor. Regional authorities set the size of this benefit; as a result, a basic monthly payment in 2010 varied from Rub 70 to Rub 1,000 per child, with a median monthly payment of Rub 150.

Housing subsidies. In contrast, Russia's housing subsidies have a more complex objective. One of the major reforms of the 2000s in Russia was the transition to full cost recovery (no subsidies) for the population. This implied a cancellation of the program of cross-subsidies, whereby enterprises and companies paid for utilities at inflated rates, which helped to recoup a part of the cost of utilities for the population.

Housing subsidies were designed to protect people from spending a high share of their income on rent and utilities.[16] A household whose housing costs exceed the regional threshold (not more than 22 percent of household income) qualifies for a subsidy that brings the share of housing costs down to the threshold. However, eligibility and benefit formulas allow nonpoor households to qualify as beneficiaries. Regional authorities have little control over the program design, which is set by the federal legislation. In 2010, the average size of the benefit was Rub 896 per household-beneficiary; the benefit was paid to 3.76 million households (or 7.3 percent of all Russian households).

State social assistance. The program of state social assistance provides relief to poor or in-need households. The program design and the decision as to whether to target any benefits solely to the

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[16] By 2010, some regions, however, had not switched completely to 100 percent utility costs for the population. The cost of the discounted utility tariffs can be approximated by subtracting the gross amount of the utility costs actually covered by the population from the gross amount of accrued utility costs in each region. In Russia as a whole, the population covered approximately 93–95 percent of utility costs in 2005–12.

poor, however, have been fully left with regional authorities. Most often, the rules mix the notion of targeting with categorical assistance, defining certain groups (such as pensioners, families with 3 or more children, students, and others) who are eligible for the benefits. In addition, targeted assistance is often confused with one-time emergency assistance (for example, for loss of the breadwinner, severe illness, or natural disaster).

The interregional variation in spending on this program is the highest among the means-tested assistance programs. In 2010, the average monthly cash payment was Rub 306 per family member, while the average lump-sum payment was Rub 1,789. A total of 1.39 million people received a regular cash benefit, and 1.1 million people received a lump-sum payment, which altogether was less than 2 percent of the population.

Social Care Programs

The system of social care institutions provides services for orphans or children left without parental care, elderly and disabled people, and the homeless. In 2010, 126,000 children lived in state care institutions, while inpatient-care institutions for disabled and elderly people accommodated 269,000. Larger groups of the population were attended in centers of temporary or day care for disabled and elderly people (573,000) or were clients of the home-based care program (1.089 million). Thus, the most generous estimate of the number of clients of care institutions is 1.5 percent of the population, while spending for these purposes amounted to 0.4 percent of GDP.

Education Spending

Education-related spending in Russia accounted for 4.1 percent of GDP in 2010. The Russian constitution guarantees equal access to education free of charge at the preschool, primary, and secondary school levels as well as for primary vocational school and secondary vocational and tertiary education (on a competitive basis) at state and municipal educational institutions.

The current system of preschool education, inherited from the Soviet era, formally guarantees full-time day care for all children under the minimum school age (seven years). About 55–60 percent of preschool-age children attended preschool institutions during the 2000s.[17] Childcare is mostly public.

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[17] Currently, the offer of such services, both in quantity and quality, does not satisfy the growing demand. During the economic recession of the 1990s, which was accompanied by a fall in fertility rates, many preschool institutions closed. In the 2000s, the demand for childcare services started to grow again because of demographic and economic factors: an increasing number of preschool-age children and increasing economic activity in the population. These factors, in combination with the uneven distribution of these institutions across regions and municipalities, have led to a tenfold increase in the number of children waiting for a place in a preschool institution (from 200,000 in 1999 to over 2.2 million children in 2010–11). The problem is aggravated by the fact that the system of care services for the elderly is also weak, and the supply of these services is lower than the demand (UNICEF 2011).

Parents contribute in the form of fees, covering part of the actual cost. The supply-side subsidies for childcare constitute at least 80 percent of the cost of childcare services.[18]

Primary and secondary general education (for children aged 7–16 years) is compulsory. After that, children may either (a) proceed to secondary school for two more years to obtain a secondary education certificate, which allows them to start four to six years of tertiary education; or (b) follow the vocational education track to obtain a primary vocational degree (in 1.5 years) or a secondary vocational degree (in three to four years). The secondary vocational degree also allows students to continue with tertiary education after completing their vocational education.

Most of the students attending primary and secondary general school (13.57 million) and primary vocational school (1.01 million) are enrolled in the public system; the share of private schools at this level of education is negligible. Among the students enrolled in secondary vocational education (2.13 million), 95 percent attend public institutions. Close to 83 percent of all students in the tertiary education system (7.05 million in the 2010/2011 academic year) were enrolled in public colleges and universities, and only one-third of them occupied budgetary slots (that is, did not pay fees).

Health Care Spending

Health care is free at the point of demand for Russian citizens.[19] In 2010, health care spending amounted to 3.7 percent of GDP (including spending on physical culture and sports at 0.3 percent of GDP).[20] As for other services, there is a high disparity in health care spending among different regions.

The state guarantees of free health care include inpatient and outpatient treatment as well as rehabilitation or nursing care and provision of medicines and medical appliances for specific patient categories. In practice, however, free provision is quite limited, which results in the growth of private spending on health care services, including "additional" services provided by public medical institutions. The share of out-of-pocket spending by the population in total health care spending increased from 10 percent in the mid-1990s to 40–45 percent in the mid-2000s (UNICEF 2011).[21]

Public health care for working people is funded through contributions paid by employers and the self-employed to the Federal and Territorial Mandatory Health Insurance Funds. The cost of health insurance for nonworking citizens is covered from the regional budgets; the share of health care spending subsidized by the regional budgets is 56 percent.

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[18] Starting in 2013, the percentage of the total costs covered by parents is to be defined by regions.

[19] People without citizenship have a right to free emergency care.

[20] Relative to the level of public expenditure recommended by the World Health Organization (WHO)—6 percent of GDP—the health care system in Russia is underfunded. It is also inefficient. Russia ranked 75th among 191 countries in per capita health care spending and only 127th in the health of its population (WHO 2000). The same level of population health could be achieved at 60 percent of the actual health care expenditure (WHO 2000).

[21] The total figure includes expenditures of the public system and expenditures of the population on additional health care services in the public system or the private sector.

3. The Fiscal System's Distributive Capacity: Data and Assumptions

Data

Although a number of national household surveys were considered for the analysis, the one that fulfilled all the essential conditions was the Russian Longitudinal Monitoring Survey of the Higher School of Economics (RLMS-HSE). [22] The survey collects individual-level information on demographic characteristics, within-family relationships, labor market status, primary income by source, and social benefits as well as expenditure and other relevant characteristics that may affect tax liabilities or benefit entitlements. The survey also satisfies international standards in terms of sampling and quality of data collection.[23]

The sample includes both cross-sectional and panel components and is large enough to support the analysis of small groups at the national level. The analysis in this working paper uses the 2010 cross-sectional sample, which consists of 6,323 households and 16,867 individuals. In geographical terms, the survey covers 32 (out of 83) regions and is not representative at the regional level, which is the main limitation of the survey.

The data set (further described in Table 3) contains weights that adjust the cross-sectional sample not only for design factors (sampling probabilities and nonresponse) but also for deviations from the census characteristics. For our purposes, we have additionally computed the *grossing weights*. In other words, the weights provided with the original data were scaled up to the overall population. They were calculated as the ratio of population to sample counts for subgroups defined by household size (1, 2, 3, 4, and 5+ members) and location of residence (urban or rural). Population totals are taken from the 2010 census. Applying weights to gross the numbers up to the population figure gives about 54.4 million households and about 137.8 million individuals.[24]

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[22] For more about the RLMS-HSE, see the survey website: http://www.hse.ru/en/rlms/. Other potential sources of data were the Household Budget Survey (HBS) and the Survey of Income and Social Programmes (SISP). The HBS is conducted on a sample of 50,000 households but only collects consumption data. The SISP is designed for income distribution analysis but does not collect consumption data. Moreover, only the data of the 2012 pilot survey of 10,000 households are currently available.

[23] RLMS-HSE uses a three-stage probability sample drawn from the population of dwellings. Persons living in institutional households (such as children's homes, social care institutions, and convents) are excluded. On average, the household response rate exceeds 80 percent, but it is lower in Moscow and St. Petersburg (less than 60 percent).

[24] The census figures are 54.56 million households and 142.87 million individuals.

Table 3 Description of Data and Sampling for Fiscal Incidence Analysis, Russian Federation, 2010

Characteristic	Description
Source survey name	Russian Longitudinal Monitoring Survey of the Higher School of Economics (RLMS-HSE)
Provider	National Research University Higher School of Economics
Year of collection	2010
Period of collection	October–December 2010
Income reference period	Typically income and expenditure for the month preceding the survey; for some types of expenditures, three months preceding the survey
Sampling	A three-stage stratified clustered probability sample of dwellings
Unit of assessment	Household (people living together and sharing income and expenses)
Coverage	Permanent residents, excluding people living in institutions
Sample size	21,343 individuals; 7,923 households (total sample including the panel element)
Response rate for household grid	80 percent (60 percent in Moscow and St. Petersburg)
Final sample used in the analysis	16,867 individuals; 6,323 households
Weighting	The weights must be used to adjust the sample for design factors (sampling probabilities and nonresponse) and deviations from the census characteristics. In addition, the weights provided with the original data were scaled up to the overall population.

Another major data adjustment was the imputation of user-missing data on earnings, income or expenditure, and other important variables. "Don't know" or "Refuse to answer" responses were imputed whenever reasonable using median values. (Median values at the regional level were used if the sample was big enough.) Some households reported zero income or expenditure (the reference period in the survey is one month); however, there was no justification for omitting or imputing those observations.

4. Methodological Approach and Assumptions

To construct the four CEQ income concepts (market, disposable, consumable, and final income) used in the analysis, it is necessary to "map" the taxes and transfers from Russia's national accounts and administrative fiscal data to individual household members. This approach, however, differs from that followed by other initiatives with similar objectives such as EUROMOD, the tax-benefit microsimulation model for the European Union.[25] EUROMOD attempts to fully simulate as many fiscal interventions as possible and validates them against external statistics (including administrative data, national accounts, Eurostat data). The instruments that are simulated in all countries are cash transfers, direct taxes, and social insurance contributions. Noncash transfers, imputed rent, and indirect taxes are beyond the scope of the model, although they can be potentially accounted for within the EUROMOD framework.

The CEQ analysis, on the other hand, mainly relies on the data reported by survey participants. However, if the survey does not include questions on certain items, the values are either simulated or imputed following the methodologies described in Lustig (2016) and Lustig and Higgins (2013). The specific method followed for each fiscal intervention is presented in annex 7A, table 7A.1.

The welfare indicator used in the fiscal incidence analysis is income per capita. No calibration has been done toward external income aggregates for the reasons described below. Therefore, income distribution estimates do not match perfectly between the RLMS-HSE and the income distribution and poverty statistics published by the Russian Federal State Statistics Service (Rosstat).

Unfortunately, none of the current external sources generates fully reliable quantitative estimates of inequality in income distribution in Russia. The source of original data for assessing income distribution is the Household Budget Survey (HBS), which is administered by Rosstat. Since 1997, the HBS has collected data on consumption only, because income data are considered a priori unreliable. According to various estimates, the HBS sample does not cover about 5–10 percent of the Russian population, including the poorest, and—especially—the richest households.

To deal with unit nonresponse, the welfare aggregate derived from the HBS is statistically manipulated to match macro-level estimates of income using a two-parameter lognormal model. One of the parameters of this model, a root mean square deviation of logarithms, is derived from the HBS; another parameter, the mean per capita income, is taken from national accounts. Because of the adjustment for unreported earnings, the mean income in national accounts is considerably higher than the expenditure aggregate in HBS. Rosstat estimates the share of unreported earnings to be 30–40 percent of the official (declared) earnings, ranging from less than 15 percent in the bottom income decile to over 50 percent in the top income decile. These unreported earnings are imputed

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and included as an element of total population income in macroeconomic statistics.[26] As a result, poverty and inequality estimates in the macroeconomic statistics are lower than those derived from the original HBS data, while mean income is higher.

As for the quality of the RLMS-HSE income data and our simulations, as shown earlier in Table 1 (in the "ratio of survey total to external statistics" column), the survey appears to provide reliable estimates of formal earnings, direct taxes, and social insurance contributions, which are simulated based on formal earnings. The total amount of simulated VAT is 37 percent lower than the one in external statistics, which is the result of our approach whereby we do not use actual amounts of indirect taxes paid but apply the percentage of consumption paid in indirect taxes to income to calculate indirect taxes. This method allows us to correctly estimate the progressivity of indirect taxes, since for many households—especially for those at the bottom—the reported consumption is higher than income. Excises, on the other hand, are underestimated to a greater extent because of the lack of more precise survey data on consumed quantities of excisable goods.

Also, as shown earlier in Table 2 (in the "ratio of survey total to external statistics" column), our survey is accurate in predicting the total amount of contributory pensions while it overestimates the amount of noncontributory pensions by approximately 25 percent—probably because pensioners do not distinguish pensions from other benefits paid from the Pension Fund (such as the social supplement to pension). Other social benefits that are also reported or simulated with a high degree of precision are the birth grant and housing subsidies. Conversely, social benefits that are underreported include unemployment benefits, the maternity leave allowance, the child care allowance up to 1.5 years of age, the maternity capital, and privileges provided in cash and in-kind. The programs that are the responsibility of regions—such as the child allowance up to 16 (or 18) years of age, state social assistance, and compensation of childcare fees—are overreported in the survey. The imputed amounts of publicly provided education and health care were scaled down on purpose to reflect a lower mean income in the survey.

Table 4 shows that the income distribution characteristics in our analysis diverge from the Rosstat figures to varying degrees. The mean disposable income in RLMS-HSE is 33–40 percent lower than in national accounts (Rosstat), while the poverty headcount is 60–95 percent higher.

A large share of the earnings of both informal and formal sector workers is likely to remain unaccounted for by the RLMS-HSE survey because of the atypical composition of earnings in Russia (which have a large variable part)[27] or because of the nonresponse or underreporting by

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[26] The unreported earnings refer to something other than "hidden" or illegal economies (such as related to tax fraud or evasion or to other illegal activities). The nonobserved economy also comprises activities not related to criminality or tax evasion but that still remain unobserved because the traditional survey tools are not perfect (nonresponse, underreporting, short income reference period, and so on) and because business registers are not always complete and up-to-date.

[27] The variable part of earnings comprises premiums and bonuses that can fluctuate contingent upon general economic conditions and firm performance. In case of economic slowdown, the variable part of earnings shrinks, while in the

respondents. The greatest disparity on poverty measures is in the estimates for working-age population and children, while the estimates of pensioners' poverty are very close to external statistics. This reflects the fact that the survey reports public pensions much better than income from employment and capital incomes, and that the latter are concentrated in the households of working-age people.

Inequality measures are affected to a lesser extent. The survey appears to overestimate the share of the bottom quintile and to underestimate the share of the top quintile, which results in a 15 percent lower value of Gini index and a 20 percent lower value of the ratios of mean incomes of the top and bottom deciles (funds ratio) than the one reported by Rosstat.

Table 4 Comparison of Disposable-Income Distribution Indicators by Statistical Source and Method, Russian Federation, 2010

Indicator	Source and method		
	Rosstat, disposable income (macro statistics)	RLMS-HSE, disposable income (benchmark)[a]	RLMS-HSE, disposable income (sensitivity analysis)[b]
Mean income (rubles per month)	18,958.40	12,628.30	11,382.05
Income distribution, 1st quintile (%)	2.0	6.0	6.1
Income distribution, 2nd quintile (%)	9.8	11.9	12.1
Income distribution, 3rd quintile (%)	14.8	16.6	16.8
Income distribution, 4th quintile (%)	22.5	22.8	22.7
Income distribution, 5th quintile (%)	47.7	42.6	42.3
Gini index[c]	0.421	0.362	0.359
Funds ratio[d]	16.6	13.6	13.3
National poverty rate[e] (%)	12.5	20.1	23.8

Source: Based on 2010 Russian Longitudinal Monitoring Survey of the Higher School of Economics (RLMS-HSE) data.

upturn the employees are likely to enjoy an additional premium. For the majority of Russian firms both in public and private sector, over a third of total earnings are variable and not fixed in labor contracts (Gimpelson and Kapeliushnikov 2011).

Note: "Disposable income" = "market income" (pretax salaries, wages, income from capital assets, and private transfers) – direct taxes and social security contributions + direct cash transfers. Rosstat = Russian Federal State Statistics Service. Income distribution quintiles range from poorest (1st quintile) to richest (5th quintile).

a. The benchmark analysis treats contributory pensions as part of market income and pension social insurance contributions as lifetime savings (that is, not included in direct taxes).

b. The sensitivity analysis treats contributory pensions as government transfers and social insurance contributions as taxable income.

c. The Gini index measures the equality of income distribution, ranging from zero (perfect equality) to 100 (maximal inequality).

d. The funds ratio is the ratio of total income of the top decile to the total income of the bottom decile.

e. The national poverty rate is calculated using the official regionally adjusted poverty line. National poverty lines for the 4th quarter of 2010 in local currency are as follows: children under 16 years = Rub 5,709 per month; adults = Rub 6,367 per months; pensioners = Rub 4,683 per month. The mean per capita poverty line = Rub 195.2 per day, US$9 per day in 2005 purchasing power parity (PPP) terms.

It would be unrealistic to expect to achieve completely identical results for all income distribution indicators, because of the additional statistical adjustments of Rosstat data (such as the lognormality assumption) to account for the HBS sample bias. The appropriateness of using the lognormality assumption for modeling income distribution in Russia has been a subject of criticism in the Russian academic community for quite a while. The development of a more accurate method of accounting for unit nonresponse in Russian survey data is beyond the scope of this study, but it is a highly relevant area for future research.

Other limitations of fiscal incidence analysis apply here as well. This study uses point-in-time analysis and does not incorporate behavioral or general equilibrium effects. It is a first-order approximation that measures the average incidence of fiscal interventions. However, our estimates take into account economic rather than statutory tax incidence. For example, it is assumed that PIT and contributions by employees and employers are borne by labor 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 analysis takes into account the lower consumption tax incidence associated with own consumption.

5. The Impact of Fiscal Policy on Inequality and Poverty

Table 5 shows the change in the Gini coefficient induced by fiscal policy for each of the four income concepts (market, disposable, consumable, and final) for the two scenarios: pensions as deferred income (the benchmark) and pensions as government transfers (sensitivity analysis).

The first result to note is the striking difference in the redistributive effect of net direct taxes—that is, from "market income" to "disposable income," depending on whether pensions are treated as deferred income (and contributions to social security as mandatory savings) or treated as

government transfers (and social security contributions as taxable income). When pensions are considered deferred income, the overall redistributive effect of the fiscal system is 0.028 Gini points, or a 7 percent Gini reduction with respect to market income. In contrast, if contributory pensions are considered government transfers, the effect amounts to 0.129 Gini points, or a 26.2 percent reduction in inequality.

The next element to note is that net direct taxes (reflected in disposable income) are equalizing but net indirect taxes (reflected in consumable income) are unequalizing in both scenarios. The latter is observed by calculating the change from the disposable to consumable income Gini. In-kind education and health transfers (reflected in final income) are always equalizing. If pensions are transfers, the marginal contribution to the reduction in inequality from net direct taxes is large—almost as large as the marginal contribution of in-kind transfers. This is observable when comparing the change from the market to disposable income Gini with the change from the consumable to final income Gini.

Table 5 Changes in Gini Index, by Income Concept, in the Russian Federation, 2010

Indicator	Market income[a]	Disposable income[b]	Consumable income[c]	Final income[d]
Benchmark analysis (contributory pensions are market income)				
Gini index	0.394	0.362	0.366	0.331
Absolute change wrt market income (Gini points)	n.a.	−0.031	−0.028	−0.063
Change wrt market income (%)	n.a.	−7.9	−7.0	−16.0
Sensitivity analysis (contributory pensions are government transfers)				
Gini index	0.491	0.359	0.363	0.324
Absolute change wrt market income (Gini points)	n.a.	−0.132	−0.129	−0.168
Change wrt market income (%)	n.a.	−26.9	−26.2	−34.2

Source: Based on 2010 Russian Longitudinal Monitoring Survey of the Higher School of Economics (RLMS-HSE) data.

Note: n.a. = not applicable. wrt = with respect to. The Gini index measures the equality of income distribution, ranging from zero (perfect equality) to one (maximal inequality).

a. Market income comprises pretax wages, salaries, income earned from capital assets (rent, interest, or dividends), and private transfers.

b. Disposable income = market income – personal income taxes and social security contributions + direct cash transfers.

c. Consumable income = disposable income – indirect (sales and excise) taxes + indirect subsidies.

d. Final income = consumable income + in-kind transfers for education and health care.

The importance of the assumption regarding pensions also applies to changes in poverty (Table 6). If pensions are considered market income, we observe a 0.7 percent reduction in the poverty headcount using the national poverty threshold after net direct taxes and a 2.6 percent increase after net indirect taxes. However, if pensions are treated as a transfer, there is a 13.5 percent reduction in poverty for disposable income and an 8.9 percent reduction for consumable income. In any case, net indirect taxes increase poverty above the market-income poverty rate by a nontrivial amount if pensioners are excluded from the poor (for example, under the benchmark scenario in which pensions are part of market income). If pensions are treated as pure transfers, in contrast, consumable-income poverty is lower than market-income poverty for each one of the considered poverty lines.

Table 6 Poverty Headcount, and Changes by Income Concept, in the Russian Federation, 2010

Percentage change

Poverty line	Market income[a]	Disposable income[b]	Consumable income[c]
Benchmark analysis (contributory pensions are market income)			
US$1.25 PPP	2.6	1.4	1.6
Absolute change wrt market income	n.a.	−1.2	−1.0
US$2.5 PPP	4.0	2.6	2.8
Absolute change wrt market income	n.a.	−1.4	−1.2
US$4 PPP	6.3	4.6	5.5
Absolute change wrt market income	n.a.	−1.7	−0.8
National poverty line (US$9 PPP)	18.9	18.2	21.5
Absolute change wrt market income	n.a.	−0.7	2.6
Sensitivity analysis (contributory pensions are government transfers)			
US$1.25 PPP	12.2	1.5	1.7
Absolute change wrt market income	n.a.	−10.8	−10.5
US$2.5 PPP	15.8	2.5	3.0
Absolute change wrt market income	n.a.	−13.1	−12.7
US$4 PPP	19.8	5.3	6.6
Absolute change wrt market income	n.a.	−14.5	−13.3
National poverty line (US$9 PPP)	35.2	21.8	26.4
Absolute change wrt market income	n.a.	−13.5	−8.9

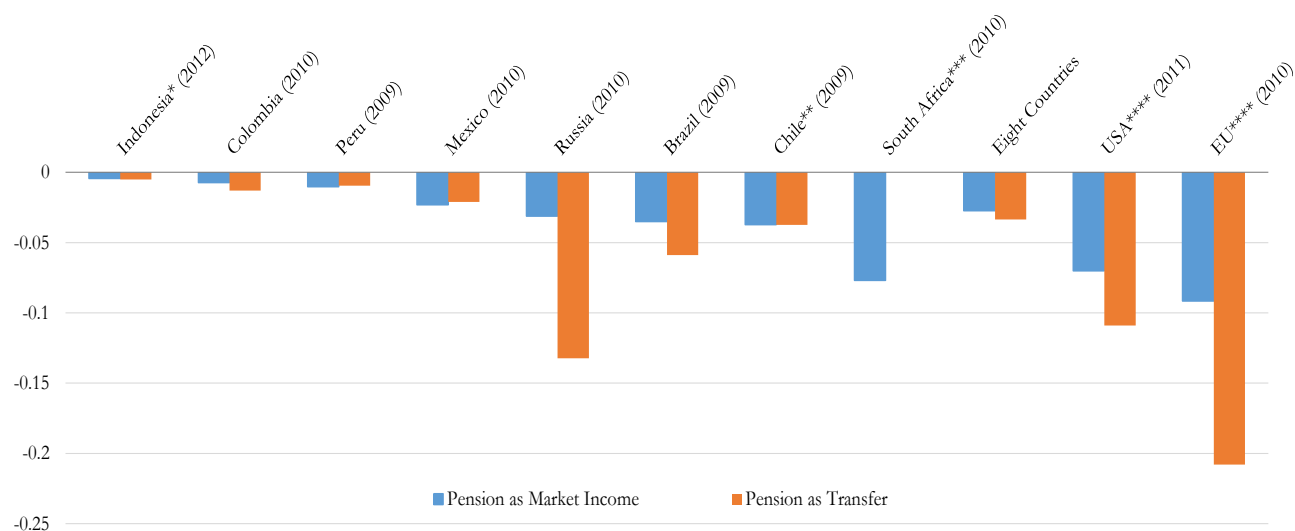*Source:* Based on 2010 Russian Longitudinal Monitoring Survey of the Higher School of Economics (RLMS-HSE) data.

Note: n.a. = not applicable. wrt = with respect to. PPP = purchasing power parity.

a. Market income comprises pretax wages, salaries, income earned from capital assets (rent, interest, or dividends), and private transfers.

b. Disposable income = market income – personal income taxes and social security contributions + direct cash transfers.

c. Consumable income = disposable income – indirect (sales and excise) taxes + indirect subsidies.

How does Russia compare with middle-income countries, the EU-27, and the United States?[28] Again, depending on the assumption about pensions (whether treated as deferred income or as transfers), Russia can look as redistributive as Brazil and Chile or even more redistributive than the United States (Figure 2). When pensions are considered deferred income, Russia's inequality reduction (by 0.031 Gini points) due to direct taxes and benefits is comparable to Brazil's (0.035 Gini points) and Chile's (0.037 Gini points). However, if pensions are considered transfers, Russia's inequality reduction (by 0.132 Gini points) is larger than that of the United States (0.109 Gini points).

What is important to note is that the difference in outcomes between the two pension-treatment scenarios, while smaller than that observed for the EU-27, is the largest relative to all other countries. This reinforces the conclusion that Russia's redistributive machinery at the level of direct taxes and transfers is very modest unless pensions are considered as transfers.

Figure 2 Redistributive Effect of the Fiscal System in the Russian Federation vs. the United States and Selected Middle-Income and European Union Countries, circa 2010

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[28] The EU-27 member states include Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, the Slovak Republic, Slovenia, Spain, Sweden, and the United Kingdom.
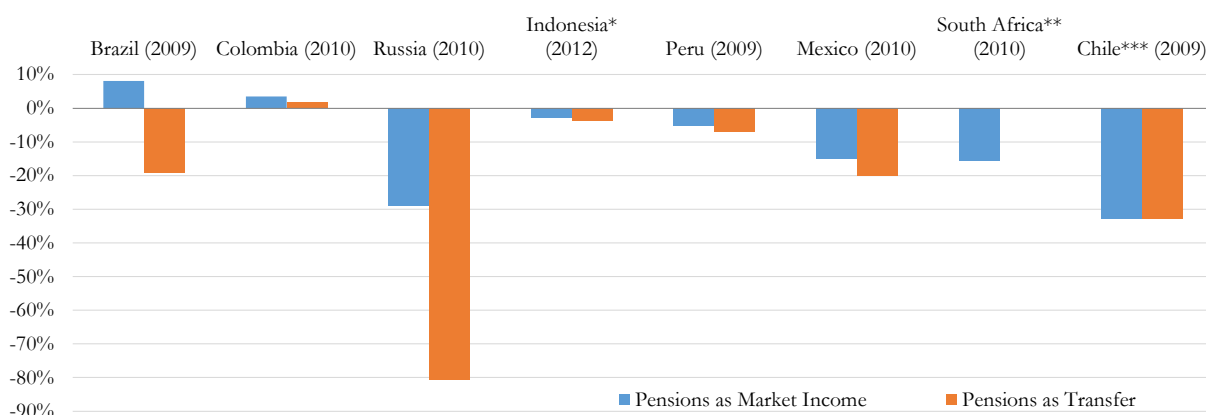
Sources: Higgins and Pereira 2014 (Brazil); Higgins et al. 2016 (United States); Inchauste et al. 2015 (South Africa); Jaramillo 2014 (Peru); Lustig 2016; Melendez 2014 (Colombia); Ruiz-Tagle and Contreras 2014 (Chile); Scott 2014 (Mexico). Indonesia data from Jellema, Wai-Poi and Afkar (2017). European Union data from EUROMOD Statistics on Distribution and Decomposition of Disposable Income (version G2.0), http://www.iser.essex.ac.uk/euromod/statistics/. Russian data from 2010 Russian Longitudinal Monitoring Survey of the Higher School of Economics (RLMS-HSE).

Note: The "redistributive effect" is here defined as the difference in income inequality (as measured by change in the Gini index) between "market income" (pretax wages, salaries, income from capital assets, and private transfers) and "disposable income" (market income – direct taxes and social security contributions + direct cash transfers). The Gini index measures the equality of income distribution, ranging from zero (perfect equality) to one (maximal inequality). The year of each country's (or country group's) household survey shown within parentheses.

a. For Indonesia, the fiscal incidence analysis was carried out adjusting for spatial price differences.

b. Chile only has a pay-as-you-go system for older workers and a fully funded system running since 1980 based on individual accounts. The contributions to the old system (the ones that may persist) are not available as a separate item in national accounts.

c. The scenario for South Africa assumed that free basic services (such as power, sanitation, water, and refuse removal) are direct transfers. The only contributory pensions in South Africa are for public servants, who must belong to the Government Employees Pension Fund (GEPF). Since the government made no transfers to the GEPF in 2010/11, there is no scenario in which contributory pensions are treated as transfers. Therefore, the fiscal incidence analysis for South Africa does not include a scenario with contributory pensions as transfers; hence it is not shown in the figure.

d. "Eight-country average" refers to the average of the eight leftmost countries shown (left to right): Indonesia, Colombia, Peru, Mexico, Russian Federation, Brazil, Chile, and South Africa

e. The Gini coefficients for the United States and the EU-27 countries are for equalized income (household income divided by the number of equivalent adults). The EU-27 are the following European Union member states: Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, the Slovak Republic, Slovenia, Spain, Sweden, and the United Kingdom

Given that all public pensions are treated as transfers, the reduction in poverty induced by cash transfers net of direct taxes (as reflected in disposable income) is large as compared with other middle-income countries. Under that scenario, Russia achieves an 81 percent reduction in the poverty headcount based on the international poverty line of US$2.50 per person per day (Figure 3). If pensions are considered as market income, however, the poverty reduction in Russia drops to 29 percent, which is comparable to the reduction in Chile (33 percent).

Figure 3 Effect of the Fiscal System on Poverty Reduction in the Russian Federation vs. Selected Middle-Income Countries, circa 2010

Sources: Based on Higgins and Pereira 2014 (Brazil); Inchauste et al. 2015 (South Africa); Jaramillo 2014 (Peru); Melendez 2014 (Colombia); Ruiz-Tagle and Contreras 2014 (Chile); Scott 2014 (Mexico). Indonesian data from Jellema, Wai-Poi and Afkar (2017). Russian data from the 2010 Russian Longitudinal Monitoring Survey of the Higher School of Economics (RLMS-HSE).

Note: Poverty is measured using the international per capita poverty line of US\$2.50 per day in 2005 PPP (purchasing power parity). "Market income" comprises pretax wages, salaries, income earned from capital assets (rent, interest, or dividends), and private transfers. "Consumable income" = market income – direct and indirect taxes and social security contributions + direct cash transfers and indirect subsidies.

a. For Indonesia, the fiscal incidence analysis was carried out adjusting for spatial price differences. **[[**Data for Indonesia is consumption-based and income-based for the rest of countries.

b. The scenario for South Africa assumed that free basic services (such as power, sanitation, water, and refuse removal) are direct transfers. The only contributory pensions in South Africa are for public servants, who must belong to the Government Employees Pension Fund (GEPF). Since the government made no transfers to the GEPF in 2010/11, there is no scenario in which contributory pensions are treated as transfers; hence, it is not shown in the figure.

c. Chile only has a pay-as-you-go system for older workers and a fully funded system running since 1980 based on individual accounts. The contributions to the old system (the ones that may persist) are not available as a separate item in national accounts.

Looking at the impact of the fiscal system by demographic group (Table 7), it appears that the households of working-age people with and without children are net payers, while only pensioners' households benefit from the fiscal redistribution in Russia if contributory pensions are considered as market income. Once pensions are treated as transfers, the group of beneficiaries grows to include mixed households with working-age people and pensioners. The biggest losers under both scenarios are one- and two-child families and households with working-age adults only. Among the age groups, young adults under 30 years old are penalized the most.

Table 7 Fiscal Incidence by Demographic Group in the Russian Federation, 2010
Percentage change from market to consumable income

Group	Net payers (−), pensions as market income	Net payers (−), pensions as transfers
Household type		
Couple w/ 1 child	−16.4	−22.5
Couple w/ 2 children	−12.3	−18.2
Couple w/ 3+ children	−4.5	−7.2
Lone parents	−8.4	−3.
Only adults	−16.2	−16.1
Only pensioners	5.1	365.0
Mixed	−11.5	24.3
Age group		
0–17 years	−13.0	−18.1
18–29 years	−15.9	−22.0
30–64 years	−14.9	−12.3
65+ years	−1.3	136.3
Total population	−13.1	−6.3

Source: Based on 2010 Russian Longitudinal Monitoring Survey of the Higher School of Economics (RLMS-HSE).

Note: Market income comprises pretax wages, salaries, income earned from capital assets (rent, interest, or dividends), and private transfers. Consumable income = market income – direct and indirect taxes and social security contributions + direct cash transfers and indirect subsidies.

The national poverty profile presented in Table 8 shows that children under 18 years are in the most vulnerable position. In 2010, under both pension-treatment scenarios, the poverty headcount of this group was 1.7 times as high as the national poverty headcount using disposable income and 1.65 times as high using consumable income. The poverty headcount for young people (16–30 years) is slightly higher than the overall poverty measure. The probability of falling into poverty for the working-age adults over 30 years old is approximately 10 percent higher than the average figures. People aged 65+ years appear to be in the most privileged position: their poverty headcount is two-thirds lower than the national average.

These results show that there seems to be room to reconsider the targeting of some programs in order to enhance the distributional impact of the system. The existing redistributive impact (horizontal) may reflect political economy considerations, the efficiency implications of which have not been analyzed but could be non-negligible.

Table 8 Poverty Headcount by Demographic Group in the Russian Federation, 2010
Percentage by income concept

a. Benchmark analysis (contributory pensions are market income)

Group	Market income[a]	Net Market income[b]	Disposable income[c]	Consumable income[d]
Household type				
Couple w/ 1 child	16.8	19.7	17.5	20.7
Couple w/ 2 children	28.5	34.0	29.1	34.4
Couple w/ 3+ children	51.1	59.5	49.2	55.2
Single parents	39.1	42.0	37.6	41.2
Only adults	12.8	16.0	13.6	16.6
Only pensioners	5.9	6.0	2.0	2.5
Mixed	10.5	11.4	8.7	12.3
Age group				
0–17 years	31.4	35.7	31.4	35.7
18–29 years	19.6	22.6	19.4	23.2
30–64 years	18.6	22.0	19.1	22.5
65+ years	9.5	10.0	6.2	8.0
Total population	18.9	21.7	18.2	21.5

b. Sensitivity analysis (contributory pensions are government transfers)

Group	Market income[a]	Net Market income[b]	Disposable income[c]	Consumable income[d]
Household type				
Couple w/ 1 child	21.2	32.8	22.1	29.0
Couple w/ 2 children	31.8	45.4	36.6	44.3
Couple w/ 3+ children	56.8	67.1	55.5	59.9
Single parents	51.2	61.7	41.4	45.3

Only adults	15.6	24.1	17.2	20.6
Only pensioners	73.6	75.5	2.0	2.6
Mixed	31.1	40.1	9.5	13.8
Age group				
0–17 years	36.5	48.3	37.2	43.5
18–29 years	23.6	33.6	23.0	28.1
30–64 years	25.3	35.7	23.4	28.5
65+ years	58.0	63.3	6.8	9.0
Total population	35.2	44.6	21.8	26.4

Source: Based on 2010 Russian Longitudinal Monitoring Survey of the Higher School of Economics (RLMS-HSE).

Note: Poverty headcounts use the national poverty line, which in 2010 was approximately Rub 195.2 per person per day (US$9 2005 PPP).

a. "Market income" comprises pretax wages, salaries, income earned from capital assets (rent, interest, or dividends), and private transfers.

b. "Disposable income" = market income – personal income taxes and social security contributions + direct cash transfers.

c. "Consumable income" = disposable income – indirect taxes (value added and excises) + indirect subsidies.

d. Final income = consumable income + in-kind transfers for education and health care.

6. Conclusions and Policy Implications

This working paper shows that the system of taxes and transfers in Russia has a limited redistributive capacity vertically (among different income groups)—particularly when pensions are assumed to be deferred income—though it does achieve significant horizontal redistribution (among sociodemographic groups).

The analysis of the sources of redistribution in Russia is particularly important, given the large increase in inequality that took place after the market transition in the 1990s. Moreover, the tax-benefit system has been questioned given its risk of fiscal unsustainability. Changes may require a revision of the retirement age with pension rights—given also the demographic dynamics. The system could also benefit from a review and potential elimination or enhanced targeting of myriad transfer programs, which, as a net effect, redistribute relatively little.

The main results of the analysis, as summarized below, concern the Russian fiscal system's limited redistributive effect, low effectiveness in poverty reduction, and relatively poor net financial impact on all demographic groups except pensioners.

Impact on redistribution. Benchmarking shows that the Russian system of direct taxes and transfers does not compare well with countries that achieve larger redistribution, in particular European Union countries. When pensions are considered deferred income, Russia's reduction of the Gini through direct taxes and transfers (a reduction of 0.031 Gini points between market income and disposable income) is comparable to Brazil's and Chile's (by 0.035 and 0.037 points, respectively). However, if pensions are considered transfers, the redistribution (an inequality reduction of 0.132 Gini points) is larger than that of the United States (0.109 Gini points).

Net direct taxes (incorporated into disposable income) are always equalizing, but net indirect taxes (incorporated into consumable income) are unequalizing in both the benchmark and the sensitivity analysis scenarios. When pensions are considered deferred income, the redistributive effect of the fiscal system equals 0.028 Gini points, or a 7 percent reduction in the consumable-income Gini with respect to the market-income Gini. In contrast, if contributory pensions are considered transfers, the reduction in the Gini for consumable income with respect to market income equals 0.129 Gini points, or 26.2 percent.

Impact on poverty reduction. Under the benchmark scenario, the net effect of the fiscal system is actually poverty-increasing. If pensions are considered market income, we observe a 0.7 percent reduction in the poverty headcount using the national poverty threshold after net direct taxes (disposable income) and a 2.6 percent increase after net indirect taxes (consumable income).

If pensions are treated as transfers, the Russian system achieves a 13.5 percent reduction in poverty for disposable income and an 8.9 percent reduction for consumable income. Given the level of spending, the effectiveness is quite low. Poor people who are not pensioners are actually not protected by the tax-benefit system.

Impact by demographic group. It appears that all households of working-age people with and without children are net payers under the Russian fiscal system, while only pensioners' households benefit from the fiscal redistribution in Russia under both scenarios. The biggest losers under both scenarios are one- and two-child couples. Among the age groups, young adults under 30 years old are the most penalized group.

Overall, then, the Russian fiscal system has a weak capacity to redistribute and is basically taxing effectively the most productive population groups. Although the CEQ analysis does not take into account behavioral responses, these effects could be potentially negative for labor participation and efficiency in general. The main conclusion that emerges from this analysis is that there are both equity and efficiency reasons to review the tax and social spending structure. Such an exercise may require, however, a good understanding of the political economy of a potential reform.

Annex 7A

Table 7A.1 Construction of Income Concepts: Definitions, Assumptions, and Sources

Income or taxation type, by income concept	Construction of income concepts	Benchmark	Sensitivity analysis
Market Income			
Earned and unearned incomes from all possible sources, excluding government transfers	Included	Included	Included
Contributory pensions	*Direct identification method:* All labor and occupational pensions. Note that contributory pensions in Russia are not fully social-insurance based, as the Pension Fund deficit is covered from the federal budget.	Included	Not included
Gifts, proceeds from sale of durables	Included	Included	Included
Autoconsumption	Included	Included	Included
Imputed rent for owner-occupied housing	Not computed because of the lack of data in the survey. Also, few households in Russia rent housing at market prices.	Not included	Not included

Net Market Income = Market Income − direct taxes and employee contributions to social security (in benchmark except for contributions to pensions)			
Direct taxes	*Simulation method:* The data on income tax were not collected in the survey, and income measures reported were net (after-tax) incomes. Therefore, income tax was imputed using the inversion of rules for workers in the formal sector and added to net income to arrive at gross (before income tax) market income.	Included	Included
	Direct identification method: Vehicle and property taxes, stamp duties, and so on, apart from land tax.	Included	Included
Employee contributions to social security	*Simulation method:* Social insurance contributions (SICs) were not reported in the survey and were simulated using the existing tax rates for formal sector workers and added to the income tax base to arrive at gross market income (before SICs and income tax).	Only contributions to the Social Insurance Fund and Health Insurance Funds were deducted from market income, while contributions to the Pension Fund were not deducted because they are treated as a form of lifetime earnings.	Contributions to the Pension Fund, Social Insurance Fund, and Health Insurance Funds were deducted from market income.

Disposable Income = Net Market Income (including contributory pensions in benchmark scenario)+ direct government transfers (including contributory pensions in sensitivity analysis)			
Noncontributory pensions	*Direct identification method:* All social pensions and state provision pensions.	Included	Included
Targeted monetary transfers	*Direct identification method:* Child allowance up to 16 years (or 18 years if in full-time education; state social assistance; and housing subsidy. The fourth means-tested transfer is a supplement for nonworking pensioners, whose pensions are below the minimum subsistence level. This one is paid together with the state pension and cannot be separated.	Included	Included
Other direct transfers	*Direct identification method:* Unemployment benefit, unified monthly payment (monetized privileges), childcare allowance up to 1.5 years, scholarships.	Included	Included
	Simulation method: Maternity allowance, lump-sum birth grant, the maternity capital, and compensation of childcare fees.	Included	Included
	Imputation method: Other privileges in cash and in kind, including various irregular cash transfers; free or discounted public transportation for pensioners, pupils and students, disabled people, and families with many children in some regions; and vouchers to summer camps or sanatoriums for children and pensioners, the disabled, and so on. We imputed the estimated average cost of these transfers (Rub 13,082.2 per year) to those	Included	Included

	who received a unified monthly payment (monetized privileges).		
Food transfers	All in-kind transfers are accounted for within the category "other privileges" (see above).	Included	Included
Contributory pensions	*Direct identification method:* All labor and occupational pensions. Note that contributory pensions in Russia are not fully social-insurance based, as the Pension Fund deficit is covered from the federal budget.	Not included	Included
Consumable Income = Disposable Income + indirect subsidies − indirect taxes			
Indirect subsidies	*Imputation method:* Subsidized tariffs for utilities for the population. Subsidies vary from region to region, while on average the price subsidy amounted to 5–7% of the total cost of utilities.	Included	Included
Indirect taxes	*Simulation method:* Value added tax (VAT) is simulated using the data on expenditures available in the same survey. Tax evasion is unlikely, so it was not considered. Excises on alcohol, tobacco, and car fuel are simulated using consumed quantities. Indirect effects are not accounted for, because an input-output matrix is not available.	Included	Included

Final Income = Consumable Income + government in-kind transfers			
Education	*Imputation method:* The survey reports whether the individual attends kindergarten or preschool; general secondary school; vocational school; or is in tertiary education. We assumed that all kindergartens or preschools and secondary schools are public (private education at these levels is rare) and excluded students who reported paying fees at secondary vocational schools and higher education institutions. The education benefit is based on the estimated average cost per student by level, as follows: (a) childcare: Rub 59,641.5 per year; (b) secondary general school: Rub 60,978 per year; (c) vocational school: Rub 53,975.8 per year; and (d) tertiary education: Rub 64,591.2 per year. The amounts were scaled down using the ratio of income in national accounts and income from sensitivity analysis scenario.	Included	Included
Health care	*Imputation Method:* Basic health care coverage is universal, although there are user fees for services beyond the basic coverage and informal payments are still quite widespread. Imputations are based on average cost of public health care per one citizen (Rub 11,952.9 rubles per year), which was imputed to those who reported using public services. The survey reports whether the individual visited a doctor or had tests in	Included	Included

	the past month and stayed in a hospital over the past three months (36% of the respondents). Those who reported having private health insurance (4%) were excluded, because we assumed that that they are unlikely to use public health care at the same time, although theoretically they are eligible. The amounts were scaled down using the ratio of income in national accounts and income from sensitivity analysis scenario.	

Note: The shaded rows indicate the income components that are treated differently in the benchmark and sensitivity scenarios. Under the benchmark scenario, contributory pensions are treated as part of market income, and pension social insurance contributions are treated as lifetime savings (that is, not included in direct taxes). Under the sensitivity analysis scenario, contributory pensions are treated as government transfers, and pension social insurance contributions are taxable.

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