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Behavioral responses and the distributional effects of the Russian 'flat' tax

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Abstract

This paper simulates the distributional impact of the Russian personal income tax (PIT) following the flat tax reform of 2001 using data from the Russian Longitudinal Monitoring Survey. I decompose the change in the distribution of net income into a direct (tax) effect and an indirect effect. The indirect effect is further decomposed into evasion and productivity effects using existing estimates of these respective elasticities. As expected, the direct tax effect increased net income inequality. Changes in the pre-tax distribution (indirect effect), on the other hand, had a large negative impact on inequality thus leading to an overall decline in net income inequality. I also find that the tax-induced evasion response increased reported net income inequality while reducing consumption inequality. To the extent that consumption approximates actual income, these results demonstrate that the flat tax reform had a much smaller effect on actual income inequality than on reported income inequality. More importantly, relative to non-tax factor, the reform had little overall effect on income inequality. This suggests that objection to flatter tax schedules on the grounds of income inequality is mostly misguided, especially in transitional countries with high levels of evasion.

JEL classification: D3; D63; H24; H26; H31

Keywords: Income distribution; Evasion; Simulation; Taxes; Consumption

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1. Introduction

An increasing number of countries have adopted or are considering the adoption of a flat rate PIT schedule. The most popular among these is the Russian flat tax reform of 2001, which is believed to have acted as a catalyst for other countries in recent years.[1] This trend toward flatter PIT schedules has generated significant debate in tax policy circles.[2] The conventional argument is simple; a flatter PIT schedule reduces the tax burden on the rich relative to the poor, thus increasing the inequality in net income. Simultaneously, the lower tax burden induces behavioral responses that not only improve efficiency, but also increases pre-tax income of the rich relative to that of the poor, which further increases net income inequality. That is, flattening PIT schedules increases income inequality due to changes in the direct tax burden as well as through tax-induced changes in behavior (indirect effects). As a result, policymakers with strong preferences for equality tend to oppose efforts to flatten PIT schedules.

However, it is not clear that the Russian flat tax reform, for example, had the effects described above. This is because the analysis above ignores the fact that tax-induced behavioral responses include evasion and avoidance, both of which represent income shifting rather than real changes in income.[3] Given the prevalence of evasion in Russia and other Eastern European countries, policy conclusions regarding the redistributive impact of flat tax reforms ought to consider the impact of a flattened PIT schedule on both Reported Net Income and Actual Net Income; the latter comprises both reported net income and hidden income. While the conclusions of the preceding analysis still hold for reported net income, the distributional impact of PIT rates on actual net income inequality is likely to be ambiguous and possibly counterintuitive under certain conditions. For example, if the rich are induced to report a greater share of their hidden income, both reported gross and net income inequality will rise while actual net income inequality will most likely fall. This example demonstrates the need to identify not only the effects of a tax policy change on reported and actual income inequality, but also the various channels through which this change affects the distribution of income, as these channels need not work in the same direction.

I use data from the Russian Longitudinal Monitoring Survey (RLMS) and elasticities of evasion and productivity in a micro-simulation counterfactual analysis to determine the effect of Russia's flat tax reform on income inequality in the years immediately after the reform. This methodology allows me to distinguish between direct tax effect and indirect behavioral effects, and identify whether the evasion or the productivity response is the major driving force behind the indirect behavioral effects.[4] Additionally, I am able to answer an important policy relevant question; do

[1] Current estimates put the number of independent countries with a flat rate PIT at 31 as at December 31, 2011. This number is up from 14 in 2005. The majority of countries using the flat rate PIT are the former communist countries of Eastern Europe.

[2] For example, Fuest et al. (2008) and Paulus and Peichl (2009) are among a long list of papers that evaluate the distributional impact of flat taxes.

[3] Avoidance occurs when taxpayers make strategic decisions to legally reduce their total tax liability. I assume that avoidance is accounted for in our measures of Actual Gross Income. Evasion occurs when taxpayers simply fail to report a portion of their actual gross income to tax authorities. Throughout the paper, I refer to this unreported portion of actual gross income as hidden income. Reported Gross Income represents actual gross income less hidden income.

[4] Following Gorodnichenko et al. (2009), I classify the behavioral responses into two broad categories: evasion and real productivity effects. The productivity effect is broadly defined to include all the possible behavioral changes that can affect the total income earned except compliance, which is identified separately. The indirect effect also includes non-tax induced changes in behavior. However, the primary focus of this paper is on the distributional impact of tax-induced behavioral responses.