

# Demythologizing the Russian Flat Tax

**by Clifford G. Gaddy and William G. Gale**

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# Viewpoints



## Demythologizing the Russian Flat Tax

by Clifford G. Gaddy and William G. Gale

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On January 1, 2001, Russia introduced what has frequently been called a flat tax. Over the next several years, the country's tax revenue and GDP grew dramatically. Some commentators claim those two sets of events were causally related (Mitchell, 2003). Others just link the two repeatedly, being careful never to explicitly assert causation (Rabushka, 2002, for example). In the United States, supporters of the Hall-Rabushka (1995) flat tax often refer to the Russian example as evidence in their favor.

In this paper, we examine the limited research and information available on the effects of Russia's personal income tax reform and reach five principal conclusions:

(1) The change in the personal income tax was not a stand-alone reform. Rather, it was part of a comprehensive set of fiscal reforms undertaken after the

country's debt crisis of 1998 — a crisis caused in significant part by Russia's inability to run its tax system.

(2) The personal income tax component of the reform package bears little resemblance to a Hall-Rabushka flat tax. Rather, it looks more like the changes enacted in the United States in the Tax Reform Act of 1986, which retained the income tax, broadened the base by closing capital income loopholes, and reduced rates at the top. In the Russian case, changes in tax administration and enforcement, and other structural changes, appear to be significantly more fundamental and sweeping than the changes in income tax rates.

(3) Economic growth had begun well before the reforms were introduced. GDP grew twice as fast before the income tax reform as it did after.<sup>1</sup>

(4) Microeconomic data suggest that the tax rate reductions had little if any effect on labor supply, which undercuts the notion of a large supply-side response.

(5) Although there was a significant increase in compliance following the 2001 reform, it is more likely attributable to changes in the administration and enforcement of tax laws and to other structural changes than it is to lower rates.

<sup>1</sup>In the six quarters leading up to January 1, 2001, when the "flat tax" reform came into effect, Russia's GDP grew at an average annual rate of 10.6 percent. In the six quarters immediately following the introduction of the new tax, it grew at a 4.7 percent annual rate.

## The Russian Tax System In the 1990s<sup>2</sup>

To understand the relative importance of various aspects of the 2001 reforms, it is useful to examine the prereform situation. The Russian tax system in the 1990s was very primitive. Administration and enforcement were weak. The legal basis for tax collection and auditing was severely limited. Taxpayer IDs did not exist. Also, tax rates were punitively high and took damaging forms, such as turnover (gross receipt) taxes that hit even those firms that were losing money.

### **The personal income tax component of the reform package bears little resemblance to a Hall-Rabushka flat tax.**

The results are predictable, if also colorful and destructive. Graft, corruption, and tax evasion were rampant. Large taxpayers negotiated tax payments independently of their obligations. That weak tax system existed in an overall environment of demonetization, including some of the most curious non-monetary payment schemes seen in the modern world. Throughout the Russian economy in the mid-1990s, transactions were occurring when no payment of any kind was made or the payment was made in the form of goods rather than money. Surveys of industrial enterprises showed a steady rise in the use of barter and other forms of nonmonetary settlements from about 5 percent of all transactions in 1992 to nearly 50 percent in 1997.

Of all the forms of nonmonetary transactions, so-called tax offsets were the key. At all levels, Russian governments allowed enterprises to offset their tax obligations against goods or services delivered to the government. In some cases, the goods had been ordered in government procurement orders; in others, cashless enterprises offered the goods — typically goods that were otherwise unmarketable — after they had been declared delinquent.

The problem was widely recognized. In early 1996 President Boris Yeltsin appointed a panel to investigate the causes and the extent of the general “payments crisis” and, specifically, the low rate of collection of taxes in Russia (Karpov, 1997). Presenting its report after an 18-month investigation of the largest corporate taxpayers in the country, the panel described a situation that was worse even than policymakers imagined. They found that during the

<sup>2</sup>See Gaddy and Ickes (2002) and Chua (2003) for more details.

period of review, those large enterprises paid less than 8 percent of their tax bills in cash. They did not pay 29 percent of their obligations at all, while “paying” the remaining 63 percent in the form of offsets and barter goods. The market value of the goods delivered was far below the nominal price used in the offsets, leaving the government with substantially less in real revenue than what was officially accounted for.

The federal government was particularly victimized by the schemes. Enterprises colluded with regional and local officials to hide income and keep revenues away from the federal government for taxes whose revenues were split between local and national authorities. Sometimes local governments demanded that enterprises pay their taxes in the form of goods and services that could be used only locally and not be shared with the federal government (for instance, by providing road construction or repairs of buildings). Often, if the federal government received anything at all in the schemes, it was only what the regional governments did not want.<sup>3</sup>

As a result, the Russian budget ran massive deficits. Even using the inflated prices used in the offset deals, federal revenues plummeted — from 16.2 percent of GDP in 1995 to 12.4 percent in 1998. In 1997 arrears equaled 34 percent of tax collections (compared to about 5 percent in the United States), and the situation worsened in 1998. To finance its deficits, the government had resorted to extensive borrowing outside and inside Russia at increasingly and unsustainably high costs, digging itself even deeper in debt. Finally, on August 17, 1998, the government defaulted on about US \$40 billion worth of its own ruble-denominated debt instruments (so-called GKOs), around US \$17 billion of which were held by foreigners.

Following the debt crisis and a brief period of near-paralysis of the economy, Yeltsin addressed the fiscal situation with new determination. Over the next year, he tapped three successive representatives of the police and security agencies to serve as

<sup>3</sup>In one notorious case reported in the Russian press in the spring of 1998, the oblast (province) government of Samara had permitted enterprises to pay their regional taxes in the form of goods. One of the items offered turned out to be 10 tons of toxic chemicals from a local chemical plant. Although the plant claimed (and was given) credit for RUB 400 million [US \$80,000] in taxes, auditors later determined that the chemicals were worthless (and indeed dangerous). The Samara government never suffered from this curious deal, however, since it had previously sought and received permission from the federal ministry of labor to fulfill its obligations to the federal unemployment compensation fund by delivering goods instead of money. Among the goods it offered were . . . the 10 tons of toxic chemicals. (Gaddy and Ickes, 2002, p. 176.)

prime minister. The last of those was Vladimir Putin, then head of the Federal Security Service, successor to the KGB. In December 1999 Yeltsin announced his own retirement, to take effect on January 1, 2000, and he appointed Putin as acting president.

Under Putin the Russian government showed even greater resolve to deal with tax enforcement issues, and it pursued a wide array of policies to improve administration and compliance. In his first presidential state of the union message, Putin declared that compliance with the new tax law, then about to be adopted by the parliament, was a civic duty of all Russians. Russia, he said, cannot afford to remain a weak country, subject to the dictates of others. He said that, for the country to be strong, its citizens must ensure that “all of us — businessmen, government officials, private citizens — profoundly feel their responsibility to the nation [and make] strict adherence to the law the conscious need of every citizen of Russia” (Putin, 2000).

Putin accompanied his exhortations with a public relations campaign to raise the profile, prestige, and power of tax enforcement agencies. A typical measure was his decree in early 2000 designating March 18 as a brand new “professional holiday”: the Day of the Tax Police. The tax police began asserting themselves regarding both corporate and individual taxpayers. Oil companies were threatened with denial of access to export pipelines if they failed to pay taxes. In June 2000, six months before the 2001 reforms took effect, the tax police began assembling from government departments detailed personal data on taxpayers in Moscow. In comments reported in the Western press, senior tax officials stated that the campaign was part of “an effort to clamp down on the widespread practice in Moscow of wealthy individuals sheltering income” (Jack, 2000). It was later reported that tax police in Moscow remitted double the amount in 2001 from tax evaders (as opposed to increased voluntary compliance) than they did in 2000 (ITAR-TASS, 2002).

### The 2001 Reforms<sup>4</sup>

The new tax law that was enacted in July 2000 and brought into force at the beginning of 2001 changed both the structure and administration of taxes. The personal income tax (PIT), which had been a graduated tax with marginal rates of 12, 20, and 30 percent, was replaced by one with a flat rate of 13 percent. That change reduced the marginal rates for the small share of taxpayers in the top two brackets, but it increased marginal rates for nearly all taxpayers who had faced the 12 percent rate. The

reforms also widened the tax base by eliminating many deductions and exemptions. Before the reform, the average tax rate was 14 percent, so the net change in average tax rates was small.

Capital income was taxed at higher rates, though, and those rates generally increased in 2001. The tax rate on dividends was raised from 15 percent to 30 percent. The corporate tax rate remained at 30 percent, but municipalities were allowed to, and did, impose an additional 5 percent tax. Other forms of personal income, such as gambling, lotteries, insurance, below-market-rate loans, and excessive bank interest payments, were taxed at 35 percent rates, in an effort to shut down some particularly creative avoidance schemes.<sup>5</sup>

***Putin accompanied his exhortations with a public relations campaign to raise the profile, prestige, and power of tax enforcement agencies.***

Despite the 13 percent basic flat rate on most income, the reforms do not add up to a Hall-Rabushka (HR) flat tax. The HR flat tax is a two-part value added tax, in which all nonwage value added is taxed at the firm level, and wages, less personal exemptions, are taxed at the individual level. But Russia had not only the PIT, it also had a separate VAT and a separate corporate income tax. Moreover, the 2001 changes increased the taxation of capital income at the individual level, rather than setting it to zero, as under the HR tax. It is also worth noting that Russia’s PIT is a relatively small tax. Over the 1994-2004 period, it never accounted for more than about 10 percent of the combined total revenues of the federal and subnational governments. As a percentage of GDP, income tax revenues ranged from 2.6 percent to 3.5 percent. By contrast,

<sup>5</sup>These avoidance schemes are interesting (and audacious) in their own right and provide some evidence of what might occur in a U.S. system where only wages were taxed. Take, for instance, the insurance scheme. As explained to us by one Russian tax expert, a not atypical arrangement would have a firm buying an “insurance policy” that was virtually certain not to pay off, and its workers buying a different policy from the same “insurance company” — usually an entity created by the firm solely for the purpose of executing this scheme — that was almost certain to pay off. In such a transaction, the firm effectively transfers resources to the workers, just like a wage payment. Meanwhile, the firm receives a deduction for the insurance purchase (as it does for wages), while the insurance payment would not be taxed under a wage tax — hence the need to add a special provision for income received in the form of insurance benefits.

<sup>4</sup>See Ivanova et al. (2005) for details.

the U.S. federal income tax averaged 8.8 percent of GDP over the same period (CBO, 2005).

The 2001 reforms involved changes to other taxes as well. Deductions and exemptions in the VAT were reduced. The tax rates on cigarettes and gasoline rose. Some taxes were reduced significantly. Before the reform, social insurance taxes were a flat 39.5 percent (combined employer and employee rates, measured on a tax-exclusive basis). After the reform, those were changed to a sharply regressive structure, with rates starting at 35.6 percent and falling to 5 percent. Also, one tax on business turnover (gross receipts) was eliminated, and another was reduced substantially (and then repealed in 2003).

***Describing the 2001 reforms as ‘Russia instituted a flat tax’ distorts and oversimplifies what happened.***

Probably even more important than changes to the structure of taxation were the enforcement and administrative changes that continued the efforts noted in the pre-2001 period. First, the 2001 reform provided for the introduction of a common taxpayer ID number. Second, the law allowed tax authorities to assess tax liabilities indirectly — for example, when they could not secure entry to a taxpayer’s premises. Third, the law authorized tax audits when sufficient evidence of a tax or nontax crime was available. Each of those changes seems fundamental to the operation of a modern tax system. Regardless of rates and structure, it is hard to imagine how a modern tax system could have operated in the absence of such rules and information.

A series of administrative changes would help collect PIT revenues in particular. The new law stipulated that taxes on all income paid to private individuals — including taxes on interest payments and dividends — were to be withheld at source. Withholding at source and using taxpayer ID numbers would have to improve compliance significantly.<sup>6</sup> Also, the revenue-sharing rules were changed. In 2000 regional governments received about 80 percent of PIT revenues; starting in 2001, they received almost 100 percent. That would have removed the incentive of

<sup>6</sup>For example, in the United States, forms of income that are withheld at source and reported by third parties have enforcement rates of about 99 percent. Forms of income that are reported by third parties but not withheld at source have compliance rates above 90 percent. Forms of income that are neither reported by third parties nor withheld have compliance rates around 70 percent or less. See Gale and Holtzblatt (2002).

subnational governments to help local taxpayers hide income from national authorities.

The four different social insurance taxes whose combined rates were reduced also had their bases conformed to each other and to the measure of wages in the income tax. That likely simplified compliance and made enforcement easier as well.

Finally, a discussion of enforcement would be incomplete without reference to the atmosphere of tighter control and even coercion that characterized the Putin regime from the beginning. In the weeks following the introduction of the tax reform, newspapers described measures undertaken by the government independently of the law itself to ensure compliance. One account told of a decision by Putin’s newly appointed presidential representative in southern Russia to assign new “commissars” to sit on the boards of important local enterprises. Their task, the representative said, would be “to defend the interests of the state” by “pushing the enterprises to make full and accurate payment of all their obligations to the budget — above all, their taxes.”

Describing the 2001 reforms as “Russia instituted a flat tax” distorts and oversimplifies what happened. The tax rate on capital income was not zero, and in fact was higher than the 13 percent rate in the PIT. Many deductions, exemptions, and loopholes were closed. Social insurance taxes and turnover taxes, the latter a particularly damaging levy from an economic perspective, were cut dramatically. Other taxes were changed. A major effort at improved tax administration and enforcement, featuring the installation of some of the most basic tools of compliance and enforcement in a modern economy, occurred at the same time.

### Revenue Trends<sup>7</sup>

After the reforms were introduced, PIT revenue rose by just over 20 percent as a share of GDP, from 2.4 percent of GDP in 2000 to 2.9 percent in 2001.<sup>8</sup> Although flat tax proponents are quick to attribute the change to the tax rate structure, caution is warranted for several reasons. First, personal income, as measured by the national income accounts, rose by 10 percent relative to GDP during the year. Second, the enforcement and administration measures detailed above likely reduced avoidance and evasion by substantial amounts. Third, restrictions on deductions and exclusions — broadening of the base — likely helped as well. Those factors alone could easily explain

<sup>7</sup>The data in this section are taken from Ivanova et al. (2005).

<sup>8</sup>Real GDP itself grew at 5.1 percent in 2001, so real revenue growth in the PIT was quite remarkable — 25.8 percent.

the entire revenue change. This view is supported by the fact that revenues from several other taxes also rose. Relative to GDP, revenue from the VAT rose by 14 percent (from 6.3 percent of GDP in 2000 to 7.2 percent in 2001), resource taxes rose by almost 30 percent (from 1.1 percent of GDP in 2000 to 1.4 percent in 2001), taxes on trade rose by almost 20 percent (from 3.1 percent of GDP to 3.7 percent), and excise taxes rose by about 15 percent (from 2.3 percent of GDP to 2.7 percent).

By 2004, however, the PIT had grown to 3.4 percent of GDP, a more than 40 percent increase over its 2.4 percent share in 2000. Other than resource taxes, which tripled as a share of GDP from 2000 to 2004, the other taxes did not grow as significantly over the 2001-2004 period. Thus, a fuller explanation of revenue trends is warranted.

### The Macroeconomic Situation

Interpretation of revenue trends is likely to depend in part on macroeconomic considerations, and two issues in particular apparently can explain much of the trends noted above.

First, beginning in February 1999, the world price of oil — Russia's most important commodity export — began a rise that would lead to its quadrupling within 19 months. Revenues from crude oil exports soared from barely US \$2 billion in the first quarter of 1999 to nearly US \$7 billion in the third quarter of 2000, staying close to that level thereafter. Kwon (2003) estimates that 80 percent of the total post-1998-crisis gains (of about 5 percentage points of GDP) in the revenue of the general government came from the oil sector. He notes that the effects of tax reform and oil prices are difficult to separate, but he proceeds tax by tax to show that high oil prices accounted for most of the revenue gains. Tax reform, Kwon argues, played a secondary role and did so largely by making the tax regime more elastic to oil prices. He also provides an interesting corroborating analysis showing that Russia's revenue performance in the postcrisis period does not differ from that of other oil-exporting countries.

Second, wages grew rapidly after the debt crisis. Ivanova et al. (2005, p. 19) point out that after-tax real wage income grew by more than 18 percent in 2001, while gross real wages grew at about 12 percent. Both outpaced GDP growth, which was about 5 percent. They note that there was a significant increase in the share of labor income in GDP around the time of the tax reform, and that was in effect a recovery and return to its level before 1998. That procyclical pattern for labor is unusual compared to other countries, but not compared to earlier episodes in Russia, where real wages tend to overshoot GDP growth. Ivanova et al. conclude that "wage developments thus appear to be a large part of any explanation of the performance of PIT . . . revenues."

### Microevidence on Labor Supply

Although the macroanalyses are suggestive, more compelling evidence on the effects of the tax rate changes can be obtained from microeconomic data. A study by the International Monetary Fund (IMF) (Ivanova et al., 2005) uses data from the Russian Longitudinal Monitoring Survey, a household survey that provides data on income and other characteristics of about 3,500 adults for most years between 1994 and 2002. The study restricts itself to data for 2000 and 2001 and focuses on households that are available in both years.<sup>9</sup>

Using a difference-in-differences approach,<sup>10</sup> the IMF authors identify the effects of tax rates on economic behavior by noting that the 2001 changes raised the marginal tax rate by 1 percentage point for people who were in the 12 percent bracket before reform but reduced marginal rates by 7 and 17 percentage points for those in the 20 percent and 30 percent brackets, respectively. If lower tax rates encourage labor supply (or other economic behavior), one should see — other things being equal — an increase in labor supply for people who were originally in the 20 percent and 30 percent brackets and a decrease for those in the 12 percent bracket. Of course, other things may have been changing, so to account for changes over time, the authors emphasize that the increase in labor supply should be larger for those originally in the top two brackets than for those in the lowest bracket.

They also note that including the changes in social insurance tax rates implies net marginal tax rate reductions for both groups, but the difference in tax rate changes between the two groups expands because social insurance rates were cut much more for high-income than for low-income households. Thus, including social insurance tax rates makes the test even stronger.

Their results are straightforward: Labor supply did not change differentially across the groups. To put it differently, there was no increase in labor supply in 2001 among households that faced high tax rates in 2000, relative to households that faced the 12 percent rate in 2000. The results are inconsistent with the notion that the cut in tax rates raised labor supply, and they undermine any claim that the flattening of tax rates in the PIT led to a big increase — or even any increase — in economic activity in Russia.

<sup>9</sup>The authors of the IMF study present a careful discussion of both the strengths and shortcomings of the data. They also show that estimated PIT revenue growth in the data set closely matches aggregate PIT growth over the 2000-2001 period.

<sup>10</sup>Their approach is similar to that taken by Feldstein (1995), Eissa (1995), and others.

## Microevidence on Compliance

In contrast, the same IMF study (Ivanova et al., 2005) does find significant evidence of an improvement in compliance. The estimated compliance rate — based on comparisons of reported income and consumption — for those originally in the 12 percent bracket was essentially constant, at 74 percent in both years. The estimated compliance rate for those in the top two brackets in 2000 rose, from 52 percent in 2000 to 68 percent in 2001.

It is possible that the change was due to the reduction in tax rates. It is also possible that the broadening of the tax base to tighten up on capital income and the avoidance schemes noted above (for example, for insurance payments) could have had a significant influence as well in the higher-income group relative to the lower-income group. Finally, it seems likely that the efforts to crack down on evasion and increase auditing and indirect assessment would have had differential effects by income group. As a result, it is hard to pin down why compliance rose for higher-income groups.

It is interesting to note, however, that any notion of a Laffer curve effect should be abandoned, for two reasons. First, revenues collected from taxpayers in

the top two marginal tax rate groups in 2000 fell dramatically relative to revenue collected from the lowest tax-rate group. This is true both for the PIT and for the sum of PIT and social insurance taxes. Second, Chua (2003) estimates that in the absence of macroeconomic effects and enforcement changes, revenues from the PIT would have fallen by 0.2 percent of GDP in 2001, or by about 10 percent.

## Conclusion

There is no doubt that Russia has improved the operation and structure of its tax system by leaps and bounds in the past decade and that it has experienced strong economic and revenue growth since the debt crisis in 1998. Understanding the links between these two sets of events is complicated by many factors, including the complexity and range of tax changes introduced and the enormous number of factors that influence economic growth. Although it seems clear that simple statements like “the flat tax caused significant growth in the economy and revenues” are not supported by the evidence, it is also clear that much additional work remains to sort out the various causes and effects of policies in the Russian transition. ♦

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