An Accidental Illiberal Recovery: Russia, 1999-2005

by Michael S. Bernstam and Alvin Rabushka

This is a story of an accidental series of policy decisions with enormous consequences. In September-December 1998, the Central Bank of Russia initiated a concerted effort to accumulate foreign exchange reserves. The simplest and quickest policy instrument was compulsory repatriation of export revenues. The policy has succeeded over the years in its intended objective. Russia's foreign exchange reserves increased from nearly zero in the late 1998 to over $170 billion by the end of 2005.

Beyond this specific facet, two issues intertwine. First, this policy shift was flagrantly illiberal. It was an act of de-liberalization in reversal of the policies of 1991-98, an act of imposition of government controls. Second, on the surface, this was a sectoral and peripheral policy. It affected one direction of the flows on the capital account. It imposed control of capital outflows in order to build up reserves. It did not affect capital inflows. It did not touch the current account and international trade. Outside foreign trade, it was not a deliberate fiscal policy or economic growth-related policy. Beneath the surface, however, this illiberal policy shift inadvertently changed the very mechanics of Russia's fiscal system, restoring solvency to the-then bankrupt government. Unexpectedly, this policy launched a lasting economic recovery of 1999-2005 from the bottom of the great contraction of 1992-98.

The big question is whether these two issues are coincidental or deeply related in the core of Russia's economic system. This note tracks this big question. It highlights the policy reversal of the late 1998, drawing on a lengthier discussion in chapter 1 of our book *From Predation to Prosperity*.[1]

A policy reversal

In the second half of 1998, the Russian government was, for all practical purposes, bankrupt and dysfunctional. After the great default on domestic debt on August 17, 1998, there was for several weeks a sequence of acting cabinets, none permanent. The President of Russia, the head of state and the chief executive, was nowhere to be found, and the CBS and other Western media reported that he either resigned or was dead. The Central Bank's foreign exchange reserves were almost depleted. In order to rebuild its stock of foreign reserves, in September 1998, the Central Bank started to enforce mandated repatriation and domestic sale of the foreign exchange revenues of exporters. The timing was crucial.

By sheer coincidence, interest and principal payments on the government's external debt, which had been rescheduled several times over the previous seven years, were due in September

[1]For a most updated, emended, and comprehensive treatment, see "Free and Not So Free to Charge: The Pendulum of Russia's Economy, 1992-2004," at http://www.russianeconomy.org/predation/pdf/pendulum.pdf .

1998 and thereafter. Less than a month before this day of reckoning, Russia's domestic bond market was annihilated. On August 17, 1998, the government defaulted on its domestic, ruble-denominated bonds. Simultaneously, it shifted from a crawling peg to a flexible exchange rate and devalued the ruble by one-third. The currency market responded with a further, rapid and sharp devaluation. When less than a month later the time came to make the foreign currency payment, a bankrupt and illiquid government found that it could not purchase the billions of dollars of foreign currency with its tax receipts in devalued rubles. The government appealed to the Central Bank as the lender of last resort **of foreign exchange**. The Central Bank extended the government a foreign currency loan of $6.7 billion in exchange for a dollar-denominated Russian bond, that is, a promise of the government to repay the bank $6.7 billion in foreign currency. The loan nearly depleted the bank's foreign exchange reserves and rendered its net international reserves (net of IMF loans) negative.[2] More payments on the government's external debt were coming due and the Central Bank could expect more requests from the government for foreign currency. Some measures had to be taken quickly lest the news of the Central Bank's foreign exchange void create a panic, further fall of the ruble, and defaults on the government's external debt.

Rapid accumulation of foreign exchange reserves became the Central Bank's top priority, indeed a survival strategy. Its first moves were experimental, by trial and error. As a stopgap measure, on August 26, 1998, the Central Bank enacted a provisional decree "On Introduction of Temporary Restrictions on Operations on the Capital Account by Residents."[3] In extension, on September 1, 1998, the Central Bank enacted an ordinance "On the Rules of Making Payments in Foreign Currencies in the Export and Import Operations by Residents of the Russian Federation."[4] This order was soon countermanded[5] as it was superceded by the next, final decree which locked in the new policy.

On September 11, 1998, the Central Bank issued a new decree which acquired the force of law on the day of its publication, September 16, 1998. The decree represented a seemingly minor and innocuous procedural adjustment to a long-standing regulation that required Russian enterprises to sell 50 percent of their export revenues in foreign exchange for rubles. The new decree carried a subtle (and perhaps a deliberately obscure) bureaucratic title: "On Introducing Amendments and

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[2]For the balance sheet and discussion, see Michael S. Bernstam and Alvin Rabushka, "How Big Are Russia's Foreign Exchange Reserves?" at http://www.russianeconomy.org/comments/091100.pdf .

[3]No. 328-U, *The Circular of the Bank of Russia*, no. 63 (318), September 2, 1998. All bylaws and regulations of the Central Bank of Russia are published in its official circular, *The Circular of the Bank of Russia* (*Vestnik Banka Rossii*), once to thrice a week except banking holidays. There are four types of regulations: instructions (I), ordinances (P), decrees (U), and telegrams (T). They have the same legal force of a bylaw and differ only in the genre and the method of distribution, which both depend on the length and content of the document. The documents have the date of issuance and the date of publication in *The Circular of the Bank of Russia*, which becomes the official date of being in force. Various secondary sources often mix up these dates. For consistency, we cite the date of issuance in the text and the date of publication in the footnotes.

[4]No. 55-P, *The Circular of the Bank of Russia*, no. 63 (318), September 2, 1998.

[5]*Ibid.*

Augmentations to the Decree of the Bank of Russia 'On the Rules of Mandatory Sale of Part of Foreign Exchange Revenues by Enterprises, Offices, and Organizations via Authorized Banks and the Conduct of Operations on the Domestic Currency Market of the Russian Federation', No. 7 of June 26, 1992."[6] The operating words are "via authorized banks."

Before September 16, 1998, Russian enterprises were obligated to sell 50 percent of their foreign exchange revenues at the market exchange rate, but this foreign exchange could be sold through the Russian banking system. From September 16, 1998 on, mandated sale could only be conducted through designated currency exchanges, the Moscow Inter-Bank Currency Exchange and seven regional exchanges. The adjustment in the regulation halted sales through the banking system and inter-bank sales of foreign exchange revenues.[7]

What's the difference? To put it simply, from September 16, 1998, foreign exchange revenues of Russian enterprises had to be sold **inside** Russia. Foreign exchange had to be brought and wired to Russia to be sold. The new rule meant **mandated repatriation** of foreign exchange revenues, indeed forced repatriation and forced exchange of export revenues. This amounted to an imposition of capital controls on the outflow side of the capital account.[8]

Before September 16, 1998, foreign exchange revenues of Russian enterprises could be sold outside Russia through correspondent accounts of various Russian banks held at foreign banks. They could be sold to subsidiaries of exporters themselves. Exporters could repurchase dollars at the cost of a banking transaction fee and deposit dollars abroad. They sold dollars for rubles, but the rubles did not enter their bank accounts in Russia. The preexisting rule mandated 50 percent sale of foreign exchange revenues, not 50 percent repatriation and deposit of ruble-denominated proceeds in enterprise accounts with Russian banks inside Russia. The preexisting rule could not address capital outflow. Most importantly, while foreign exchange revenues of Russian exporters, either sold to subsidiaries or repurchased, were deposited overseas, their ruble money balances with Russian banks remained drawn to low levels. Enterprises could amass billions of dollars overseas while withholding tax remittance from the government in Russia. Due to the low money balances of enterprises and the payment jam, described in Chapter 1 of *From Predation to Prosperity*, the government could not enforce tax remittance. The monetary authority was compelled both to monetize tax remittance, in order to force enterprises to remit taxes withheld from workers and consumers, and to monetize tax non-remittance, to enable the government to finance the budget

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[6]No 347-U, *The Circular of the Bank of Russia*, no. 66 (321), September 16, 1998.

[7]The legal and institutional part of the story is reconstructed by bits and pieces from various Central Bank instructions and explanations circulated by Russian financial organizations. For a succinct account by one of them see http://www.vergen.ru/archive/docs/full/1999/02/cb1102.html .

[8]Capital controls in developing and newly industrialized economies are usually associated with control of capital inflows. These are, specifically, short-term foreign portfolio investment, which may create currency risks upon quick withdrawal, and foreign bank lending, which may create excessive debt exposure and assets/liabilities misalignments (dollar-denominated liabilities and domestic currency-denominated assets) and thus create domestic bank failures. The type of capital control introduced by the Central Bank of Russia in late 1998 applies to capital outflows only.

deficit. Both tax non-remittance and monetization of tax remittance, which was multiplied by the banking system through credit transmission, summed up as a subsidy to the enterprise network. Figures 1 and 2 illustrate how these fiscal (tax non-remittance) and monetary (monetization multiplied by the banks) components of the subsidy added up in response to accumulation of enterprise receivables.[9]

What was the true rate of foreign exchange sales before September 16, 1998, when the mandated rate was 50 percent of export revenues? It could have been zero except when enterprises themselves required rubles to reduce payroll arrears and pay wages. The decree of September 16, 1998, raised it from nearly zero to 25 or 30 percent initially, when enforcement was incomplete, to close to 50 percent as enforcement strengthened. The Central Bank enforced its rule strictly through its regional branches by matching foreign trade accounts of enterprises with physical volume and world prices against resulting repatriation and sale of foreign exchange. Commercial banks, even the banks owned and controlled by exporting enterprises, had to cooperate in this process and regularly furnish all the necessary information lest their license be revoked. From September 16, 1998, the new rule was in force. Dollars and other foreign exchange flowed into Russia, were sold for rubles, and deposited in enterprise bank accounts. As the resulting ruble receipts entered enterprise bank accounts, enterprise money balances increased enabling the government to enforce tax remittance. The government's fiscal position started to quickly improve.

Restoring fiscal solvency was not an aim or intention of the Central Bank. The Central Bank did not intend to run fiscal policy, to become the effectual fiscal authority in lieu of the Finance Ministry. All that the Central Bank sought was to bring dollars to Russia so that the bank could purchase them to accumulate reserves. This focus of the Central Bank policy is clear from its next move. On September 28, 1998, the Central Bank issued an ordinance entitled "On the Rules and Conditions for Conducting Trades of U.S. Dollars for Russia's Rubles at the Special Trading Sessions of the Inter-Bank Currency Exchanges."[10] Foreign exchange revenues first had to be sold at special trade sessions of the Moscow Inter-Bank Currency Exchange, with the Central Bank commanding the right of first refusal at those sales. At the same time, this move tightened enforcement of mandated repatriation.

Further tightening was enacted on December 2 and 7, 1998, when the Central Bank closed the foreign exchange resale—and hence repurchase—window between domestic enterprises.[11] Finally, on December 31, 1998, the Central Bank raised the rate of mandated repatriation of foreign

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[9]For a detailed discussion, see especially "Free and Not So Free to Charge: The Pendulum of Russia's Economy, 1992-2004," at http://www.russianeconomy.org/predation/pdf/pendulum.pdf . In hindsight, it is interesting to recall that these issues were already discussed in August 1992, even if in a preliminary mode, due to lack of a lengthy experience and data, by the board of governors of the Central Bank of Russia, including its three concurrent and subsequent chairs, and one of the present authors. See Appendix.

[10]No. 57-P, *The Circular of the Bank of Russia*, no. 69 (324), October 1, 1998.

[11]No. 435-U, *The Circular of the Bank of Russia*, no. 85 (340), December 9, 1998; No. 437-U, *The Circular of the Bank of Russia*, no. 86 (341), December 7, 1998.

exchange revenues to 75 percent of receipts and shortened the operation from two weeks to one.[12] The latter detail was hardly necessary except for intimidation as a means of enforcement.

As the terms of trade for Russian exports improved, reinforced by the rise of world oil prices, the bank reduced the rate from 75 to 50 to 30 to 25 percent.[13] Over the course of 1999-2005, the Central Bank fulfilled its objective, increasing its foreign exchange reserves from almost zero to $171 billion by mid-December 2005. But the unintended fiscal consequences and real economic effects on output went much beyond that.

A reversal from contraction to recovery

The Central Bank printed rubles when it purchased foreign exchange reserves, that is, expanded the monetary base. These increases in the money supply in response to forced repatriation of export revenues produced an effect different from, indeed opposite to, monetization of the buildup in enterprise receivables in 1992-98. Three implications of this Central Bank monetary expansion in 1999-2005 ensued in the following sequence. Let us first describe their transmission mechanism and then submit evidence available in their support.[14]

(1) Enterprise money balances in bank accounts expanded. This reduced the balances of payables and receivables, thereby dissipating the payment jam. This process continued through the flows of funds across enterprises and industries, reversing the chain reaction of payment arrears and aging of receivables.

(2) **Enterprise export earnings, not Central Bank subsidy, started to monetize tax remittance**. The government could enforce tax remittance. The balances of tax arrears slowed down in 1999-2001 and declined significantly since October 2001. Figure 1 and table 1 document this trend in detail. The flow of tax non-remittance started to decline since 1999, that is, tax remittance increased, and since October 2001 enterprises started to pay off past tax arrears. The government's fiscal accounts reversed from deficits to surpluses.

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[12]No. 476-U, *The Circular of the Bank of Russia*, no. 1 (345), January 12, 1999. In addition, to reduce currency risks and to strengthen enforcement, the Central Bank on January 10, 1999 reduced the foreign exchange exposure of Russian banks. It reduced open currency positions to 10 percent of each bank's equity capital and established caps on foreign exchange contracts. No. 479-U, *The Circular of the Bank of Russia*, no. 2 (346), January 20, 1999.

[13]It follows that no level of and no increase in world oil prices would have mattered if effective repatriation of foreign exchange revenues was zero. At the same time, the effect of mandated repatriation of foreign exchange revenues was strong already in 1999 even though an increase in world oil prices was modest. This effect strengthened in 2001 and 2002—the balances of tax non-remittance started to decline, see figure 1—even though world oil prices declined (see figure 3). These considerations indicate that the connection between world oil prices and Russian economic recovery in 1999-2004 is specious if one abstracts from the economic system and policy.

[14]Again, a framework, a detailed explanatory discussion, and the flow of evidence are assembled in chapter 1 of *From Predation to Prosperity*, specifically "Free and Not So Free to Charge: The Pendulum of Russia's Economy, 1992-2004," at http://www.russianeconomy.org/predation/pdf/pendulum.pdf .

(3) The link between monetization and the tax subsidy was weakened. Expansion of the monetary base, inasmuch as it was created by purchasing foreign exchange from enterprises, does not represent a subsidy. Only multiplication of money through financial re-intermediation between enterprises, through credit rollover and expansion continued to subsidize the enterprise network.[15] Thus the overall money creation was, to a significant extent, no longer a subsidy. It did not stimulate a continuous major expansion of receivables. It only validated their moderate accumulation.

These effects reduced the actual tax subsidy and fiscal expectations. The accumulation of receivables slowed down, surcharged invoicing slowed down, and inflationary expectations subsided. Real money balances started to recover and real output followed suit.

The top row and blue arrows 9 to 11 in Box 1, "The Mechanism of Enterprise Network Socialism," incorporate these effects into a general framework. They show a new loop through which the reversal of policy shifted the outcomes. Figure 4 presents the data to explore the new developments and reversed relationships. It extends bivariate regressions to the entire period 1992-2004. Panels 1 to 3 use the polynomial functional forms and panels 1A to 3A test the same data in the linear form.

Panels 1 to 3 show that all principal bivariate relationships reversed from positive to negative some time after 1999. Their curves are non-monotonic concave and decreasing. However, there is an ambiguity concerning panel 3, the regression of the balances of receivables against the money balances.

In panel 1, the balances of tax non-remittance and receivables were positively related before 1999 and some time thereafter. They slowed down together soon after 1999, and tax arrears started to decline thereafter (in October 2001, says figure 1), and their relationship with receivables turned negative. The polynomial of the third degree accounts for 98 percent of the variation (the quadratic formula accounts for 96 percent of the variation, and the linear regression in panel 1A of figure 4, for 77 percent).

The relationship between tax non-remittance and monetization also turned from positive to negative some time after 1999 in panel 2 of figure 4. The quadratic formula accounts for 74 percent of the variation. Their linear bivariate relationship in panel 2A simply breaks down (adjusted R^2 is 0.26). The quadratic regression in panel 2 implies that monetization started to work to dissipate tax non-remittance. This suggests that forced repatriation of foreign exchange earnings indeed started to monetize tax remittance.

The relationship between the money balances and the balances of receivables in panel 3 of

[15]See the official policy and regulatory overview issued by the Central Bank of Russia on December 26, 2005, "Refinancing (Credit) of Credit Organizations as an Instrument of the Monetary Policy of the Bank of Russia," at http://www.cbr.ru/analytics/standart_system/print.asp?file=refinan.htm . It contains a detailed table on subsidized credit to the enterprise and banking network in 2004 and 2005.

figure 4 became ambiguous. Notice in panel 3 of figure 4 as well as in figure 1 that both the money balances (obviously) and the balances of receivables (not necessarily obviously) continued to grow during 1999-2004. But the growth of receivables slowed down significantly relative to money growth. A comparison between the quadratic equation in panel 3 and the linear regression in panel 3A is suggestive. The quadratic formula accounts for 94 percent of the variation, the linear for 78 percent. In Panel 3, the implied shape of the quadratic curve, which represents a better fit, is non-monotonic concave and decreasing. That is, the acceleration coefficient in the quadratic formula is negative and, after a slow down relative to the money supply, the balances of receivables are predicted to decline. Monetization does not significantly stimulate amassment of receivables any more and may even discourage it in the future. However, the polynomial of the third degree which accounts for 98 percent of the variation (not shown in figure 15) and makes the best fit, accords more with the linear regression. They suggest that the relationship between the money balances and receivables remains positive and the subsidy component in monetization persists, just to a lesser degree.

Judging from the data in figures 5, 6, and 4, a symbiotic relationship between the enterprise network and the government remains in place, but the positions of power have reversed. The Central Bank snatched fiscal power from the enterprise network. In effect, it started to run fiscal policy and delegated its execution, tax remittance, to the government. The latter started to reinforce its executive capacity to enforce tax remittance by additional crackdowns on the enterprise network, including partial and exemplary de-privatization and re-nationalization. The Central Bank also started to run independent monetary policy—independent, that is, from the enterprise network. This was a major reversal of powers. The enterprise network continues to maximize the tax subsidy, subject to fiscal expectations, but its power to do so significantly diminished. In was no longer as free to charge the government and the public at large in 1999-2004 as it was in 1992-98.

Figure 6 displays how growth of nominal receivables (the balances of invoices in excess of payments) aligns with price increases. Surcharged invoices automatically increase the price level. Fiscal expectations materialize as self-fulfilling inflationary expectations bypassing monetary policy. They contract real money balances. The converse is also true. When fiscal expectations are lowered by aggressive government policy of subsidy cutting (i.e., suppressing enterprise freedom to charge, enforcing tax remittance), real money balances can grow.

One can view the index of the ratio of money balances M2 to receivables in figure 5, as well as later in figures 7 and 8, as a proxy for the index of real money balances.[16] This proxy curve of

[16]The monetary aggregate M2 stands for nominal money balances in domestic currency. Measures of broad money which include foreign exchange deposits are not relevant for this study. The real value of foreign exchange is not affected by fiscal (subsidy) pursuits and inflationary expectations of Russian enterprises, although the amount of foreign exchange deposits with Russian banks may be so influenced to an unknown extent. Instead of M2 one could employ a narrower monetary aggregate M1 which includes demand deposits and excludes saving deposits. Both are close in Russia because saving deposits are low. The latter constituted about 20 percent of M2 in the 1990s and increased to about 35 percent in 2005 (as opposed to over 60 percent in China). For a detailed discussion see addendum to chapter 4 of *From Predation to Prosperity*, "Fixing China's Banks, not Russia's," especially figure 4, at http://www.russianeconomy.org/predation/pdf/ch4add.pdf . Since savings deposits as a component of M2 (as opposed

the index of money balances to receivables in figure 5 shows the pendulum of real money balances on the downward path from 1991 through 1998 and on the upward path from 1998 through 2004. This pendulum corresponds to contraction of real money balances in 1992-98 when receivables outgrew nominal money balances and to recovery of real money balances in 1999-2004 when the course reversed and nominal money balances outgrew receivables.

The movement of this proxy curve of the index of real money balances in figure 5 matches closely the index of real output (GDP) in 1992-2004 starting in 1991 as the benchmark 100 for both indices. Contraction of real money balances in 1992-98 matches the contraction path of real GDP during that period. Recovery of real money balances in 1999-2004 matches closely partial economic recovery since 1999. Minor annual fluctuations of real GDP upward and downward in 1996-98 also match annual movements of real money balances.

A uniform empirical relationship holds consistently for both contraction and recovery. When the outstanding balances of receivables outgrow nominal money balances, the economy contracts. When nominal money balances outgrow the balances of receivables, the economy recovers. **It is important, in our view, that this is a uniform and unified empirical regularity, with a unified mechanical and systemic explanation behind it.** Nothing is left to ad hoc reasoning. Notice, however, that nothing in the discussion above suggests that this relationship should hold for economic growth beyond recovery from a great contraction under Russia's economic system. Indeed, the above mechanics and systemic dissection are idiosyncratic and specific to the unique system of Enterprise Network Socialism.

Figure 5 and all prior discussion focused on the impact of subsidy maximization by surcharged invoicing on the real money balances. For simplicity, we abstracted from the independent impact of velocity of money circulation on overall spending in 1992-2004. There were already too many complicated variables to consider and to plot, and velocity (the inverse of the money demand) is one of the most difficult analytical issues which only specialists in that field can handle. But it is, in fact, real spending (money times its velocity), not just real money balances, that is approximated empirically in figure 5. In fact, another figure, figure 7, separates real money balances and shows in full their collapse from 1991 to 1992 from which they never recovered throughout the period 1992-2004.

Only figure 7 relays the meaning and the scope of the explosion of subsidy and inflationary expectations immediately after liberalization of January 1992 and shows how this brought down the real money balances in 1992 to about one-fifth of their level in 1991. Figure 7 plots the same data

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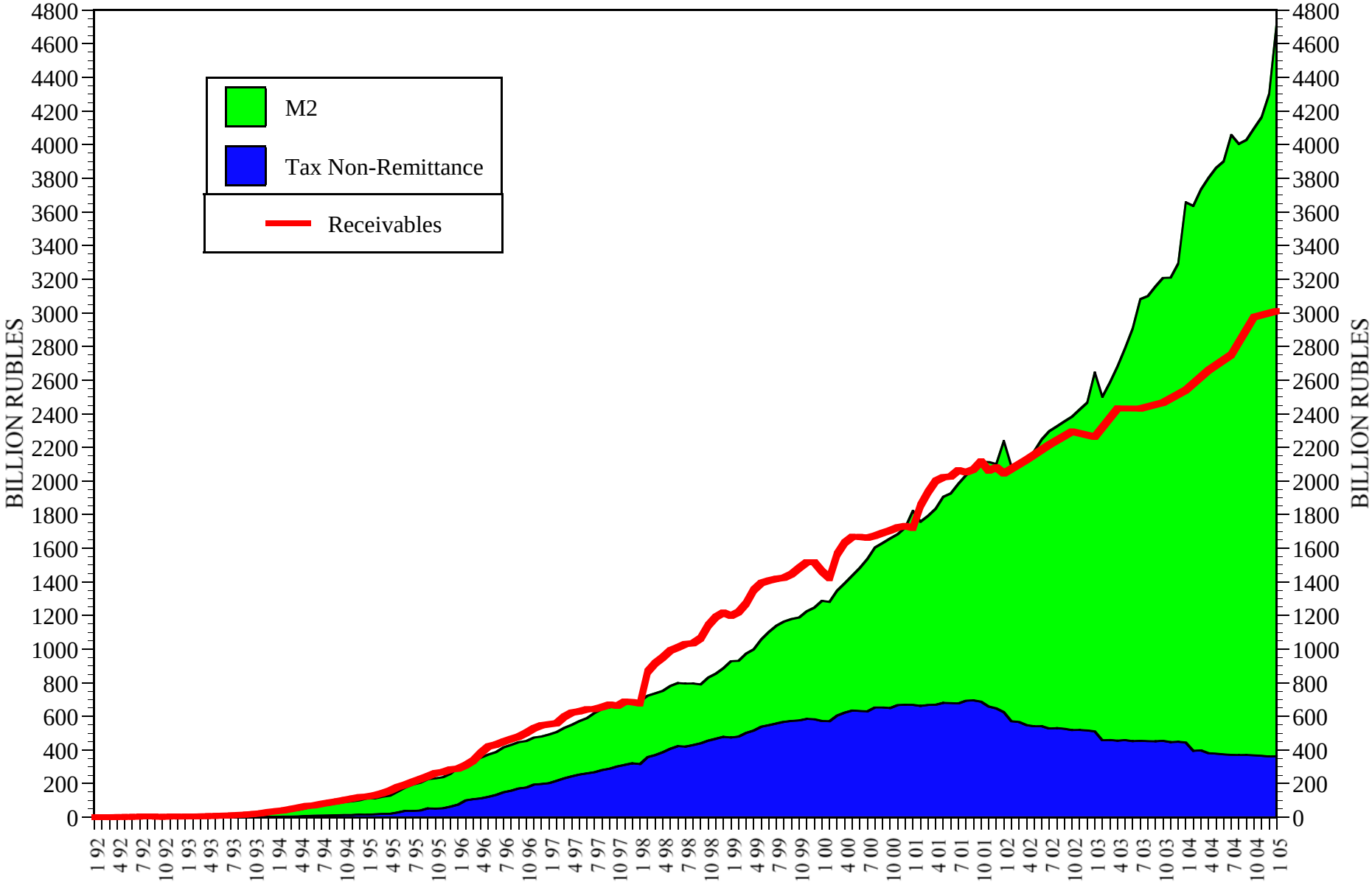
to large time deposits in M3) are of low maturity and money is fungible, it is more conventional to use M2 in simple, general-purpose studies. In a recent study, Milton Friedman summarized his multi-decade-long experience with the choice of monetary variables: "I use M2 rather than either narrower aggregates, such as the base or M1, or broader aggregates, such as M3, because in prior research I have found M2 to have a more reliable relation to other economic magnitudes than the other monetary aggregates." Milton Friedman, "A Natural Experiment in Monetary Policy Covering Three Episodes of Growth and Decline in the Economy and the Stock Market," *Journal of Economic Perspectives* 19, no 4 (Fall 2005), p. 146.

as figure 5 plus adds the year 1990 for reference. The difference is that figure 7 uses the same full scale for both indices of real GDP and the ratio of money to receivables and does not truncate the scale for the latter index. Figure 5 truncated the index of the ratio of M2 to receivables between 1991 and 1992 and truncated the latter's scale accordingly. By doing so, figure 5 in effect imitated a nearly fourfold increase in the velocity of money circulation in 1992 which did not let real GDP collapse by almost 80 percent on par with the real money balances. Such a rapid increase in money velocity often accompanies episodes of high inflation when the real value of money balances depreciates and money holders reduce their money demand accordingly. Thus figure 5 implicitly incorporates changes in velocity and compares the index of real GDP with a proxy for the index of real spending.

Figure 8 takes a closer look at annual fluctuations in 1992-2004. It uses different scales for the indices of real GDP and the ratio of M2 to receivables to implicitly account for an increase in money velocity in 1992. It adds a flow chart which summarizes the above discussed relationships between surcharged invoices, the price index, nominal money balances, the velocity, nominal spending, real spending, and, ultimately, real output. The left side of Box 1 incorporates this transmission mechanism with other mechanics of subsidy extraction under Russia's economic system of Enterprise Network Socialism.

This historical note explored the reversal of policy in September-December 1998 and tried to track a concomitant reversal of economic trends from fiscal insolvency to fiscal stability and from the great contraction of GDP in 1992-98 to economic recovery in 1999-2005. This reversal of economic position was an unintended consequences of peripheral policy decisions targeted at replenishing foreign exchange reserves of the Central Bank. The policy was illiberal, which, paradoxically, curbed the subsidy maximizing behavior of the enterprise network and thus greatly improved Russia's economic performance.

FIGURE 1. THE SELF-ENFORCEABLE TAX SUBSIDY: THE RELATIONSHIP BETWEEN ENTERPRISE RECEIVABLES, TAX NON-REMITTANCE, AND MONEY, RUSSIA, 1992-2005



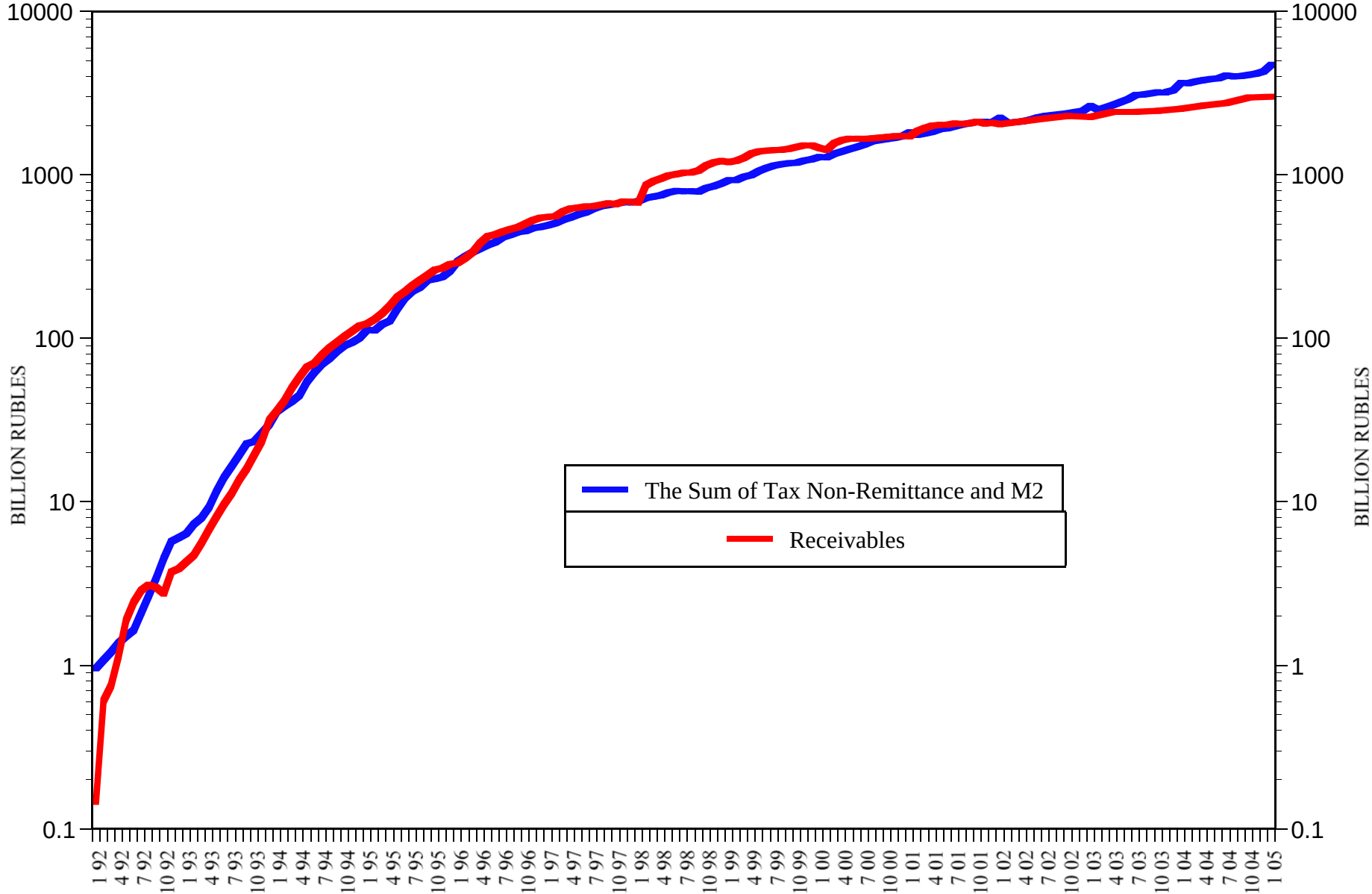
Note: 1. All data are denominated in billion 1998 nominal rubles

2. An increase in the deposit multiplier during 2000-2004, when tax non-remittance decreased and became negative and the subsidy to finance enterprise receivables decreased accordingly, makes the monetary aggregate M2 less suitable than M1 for approximating the quasi-fiscal component of the subsidy, which, together with tax non-remittance as a fiscal component, matches the outstanding balances of enterprise receivables. This change shows the excess of M2 over receivables in 2002-2004.

Sources: Receivables and tax non-remittance: Russian State Committee on Statistics; money: Central Bank of Russia.

FIGURE 2

THE SELF-ENFORCEABLE TAX SUBSIDY: THE RELATIONSHIP BETWEEN ENTERPRISE RECEIVABLES, TAX NON-REMITTANCE, AND MONEY (LOGARITHMIC SCALE), RUSSIA, 1992-2005

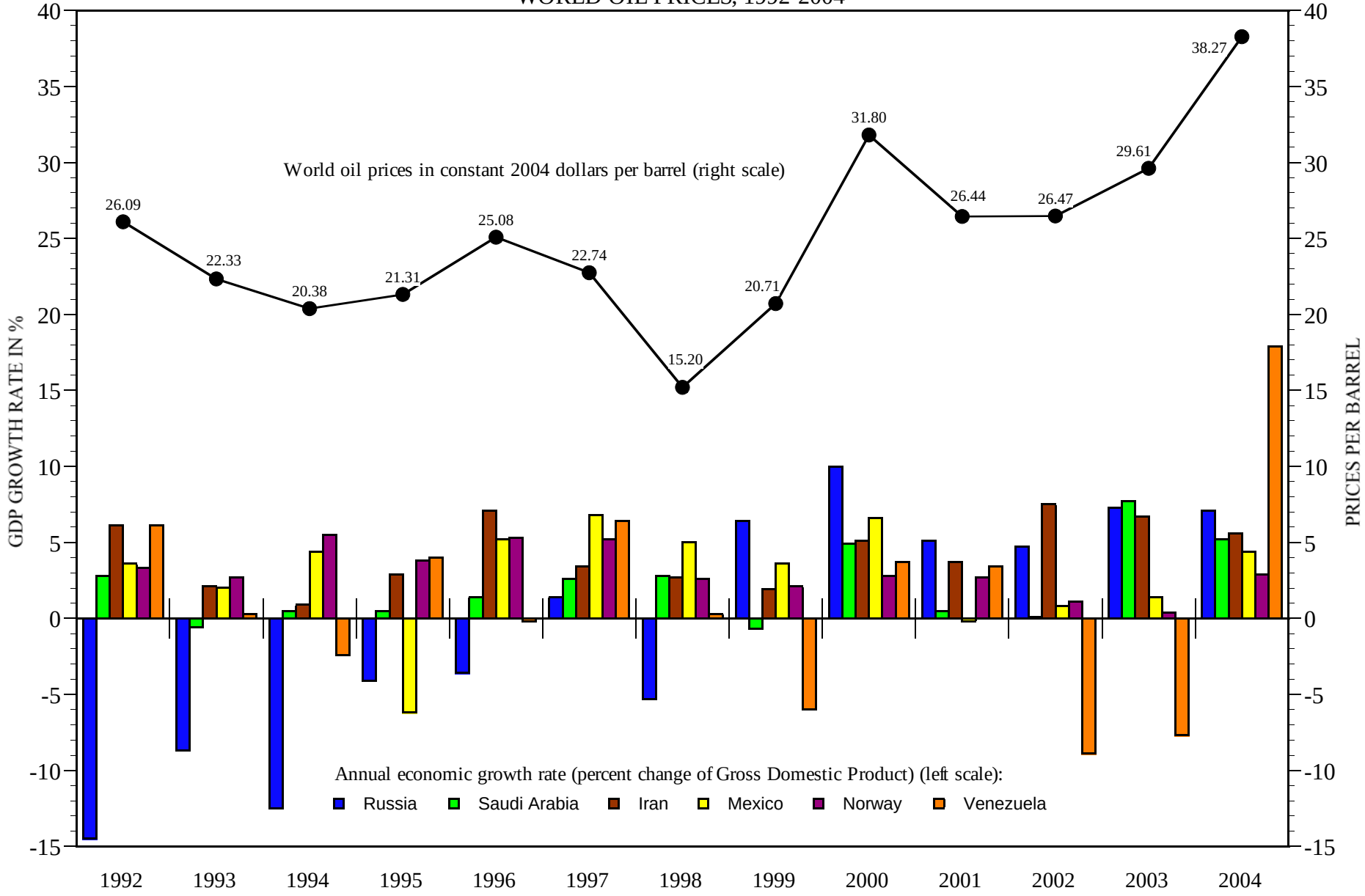


Note: All data are denominated in billion 1998 nominal rubles.

Sources: Receivables and tax non-remittance: Russian State Committee on Statistics.
Money: Central Bank of Russia.

FIGURE 3

THE SPECIOUS OIL CONNECTION: ECONOMIC PERFORMANCE OF THE SIX GREATEST OIL-EXPORTING COUNTRIES VS. WORLD OIL PRICES, 1992-2004



Sources:

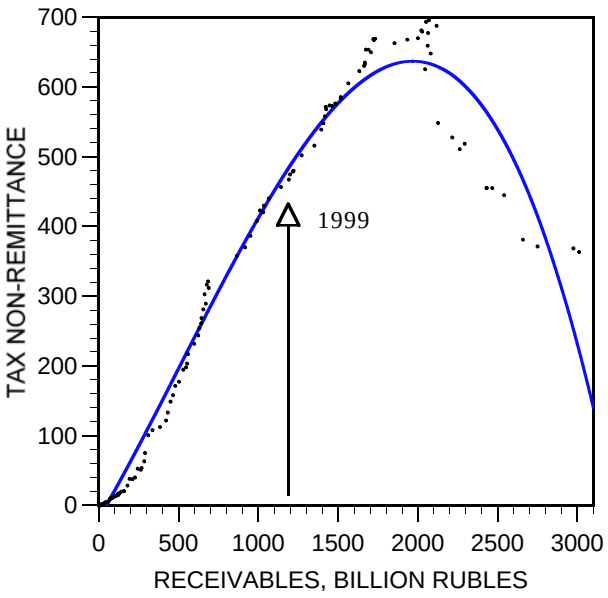
GDP growth rates: All countries except Russia: The IMF, *World Economic Outlook*, October 2000 (for 1992-1995) and September 2005 (for 1996-2004); Russia: Russian State Committee on Statistics, various releases

World oil prices in constant 2004 dollars: British Petroleum, at http://www.bp.com/downloads.do?categoryId=9003093&contentId=7005944

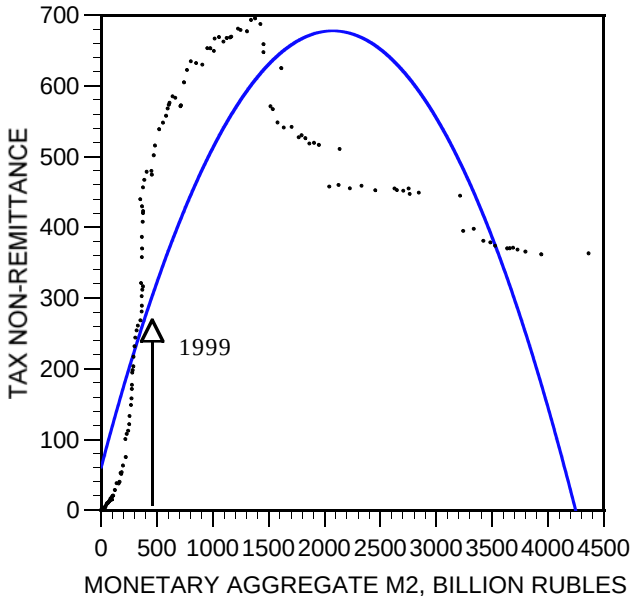
FIGURE 4

PANELS 1-3. TAX NON-REMITTANCE, MONEY STOCK, AND RECEIVABLES, IN BILLION RUBLES, MONTHLY DATA, RUSSIA, 1992-2005

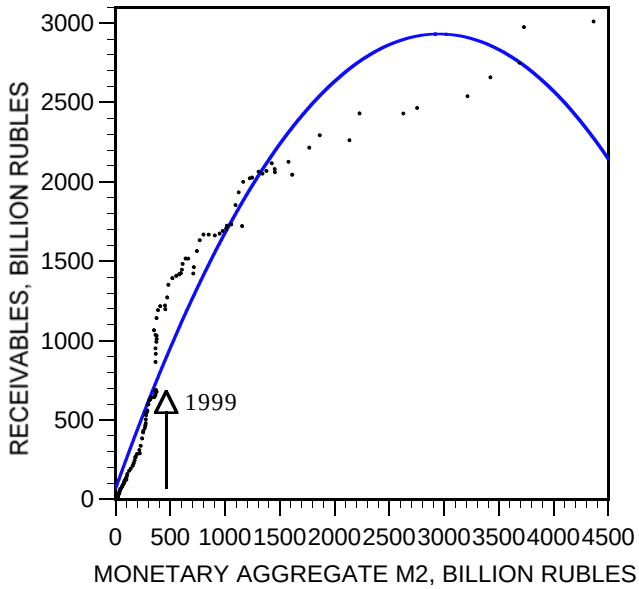
Panel 1. Tax Non-Remittance against Receivables, 1992-2005



Panel 2. Tax Non-Remittance against the Money Stock , 1992-2005



Panel 3. Receivables against the Money Stock, 1992-2005



Sources:

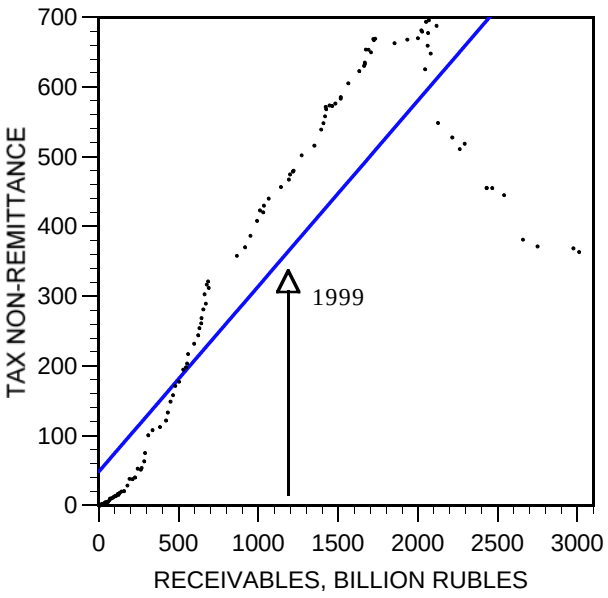
Receivables and tax non-remittance: Russian State Committee on Statistics

Money: Central Bank of Russia

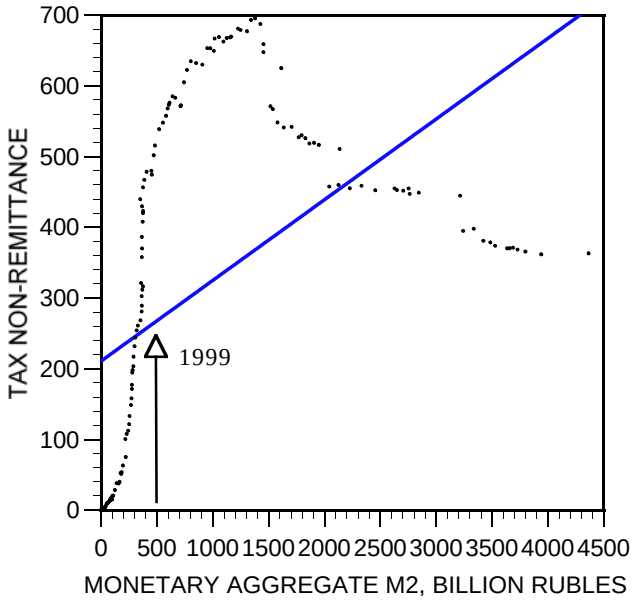
FIGURE 4

PANELS 1A-3A. TAX NON-REMITTANCE, MONEY STOCK, AND RECEIVABLES, IN BILLION RUBLES, MONTHLY DATA, RUSSIA, 1992-2005

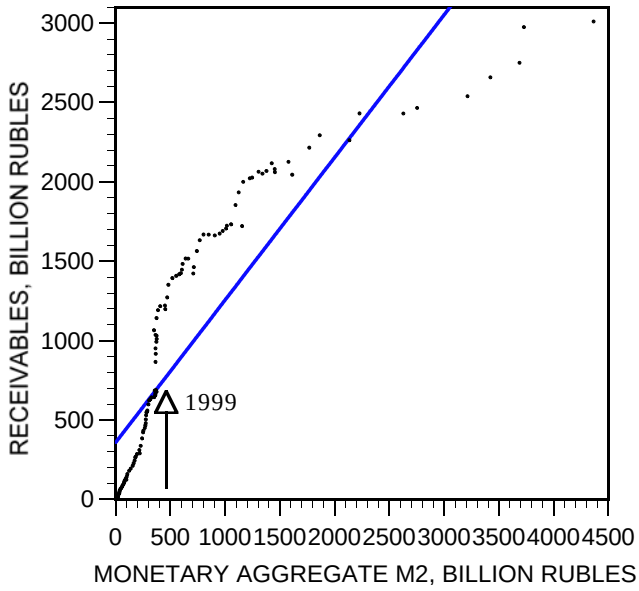
Panel 1A. Tax Non-Remittance against Receivables, 1992-2005



Panel 2A. Tax Non-Remittance against the Money Stock , 1992-2005



Panel 3A. Receivables against the Money Stock, 1992-2005



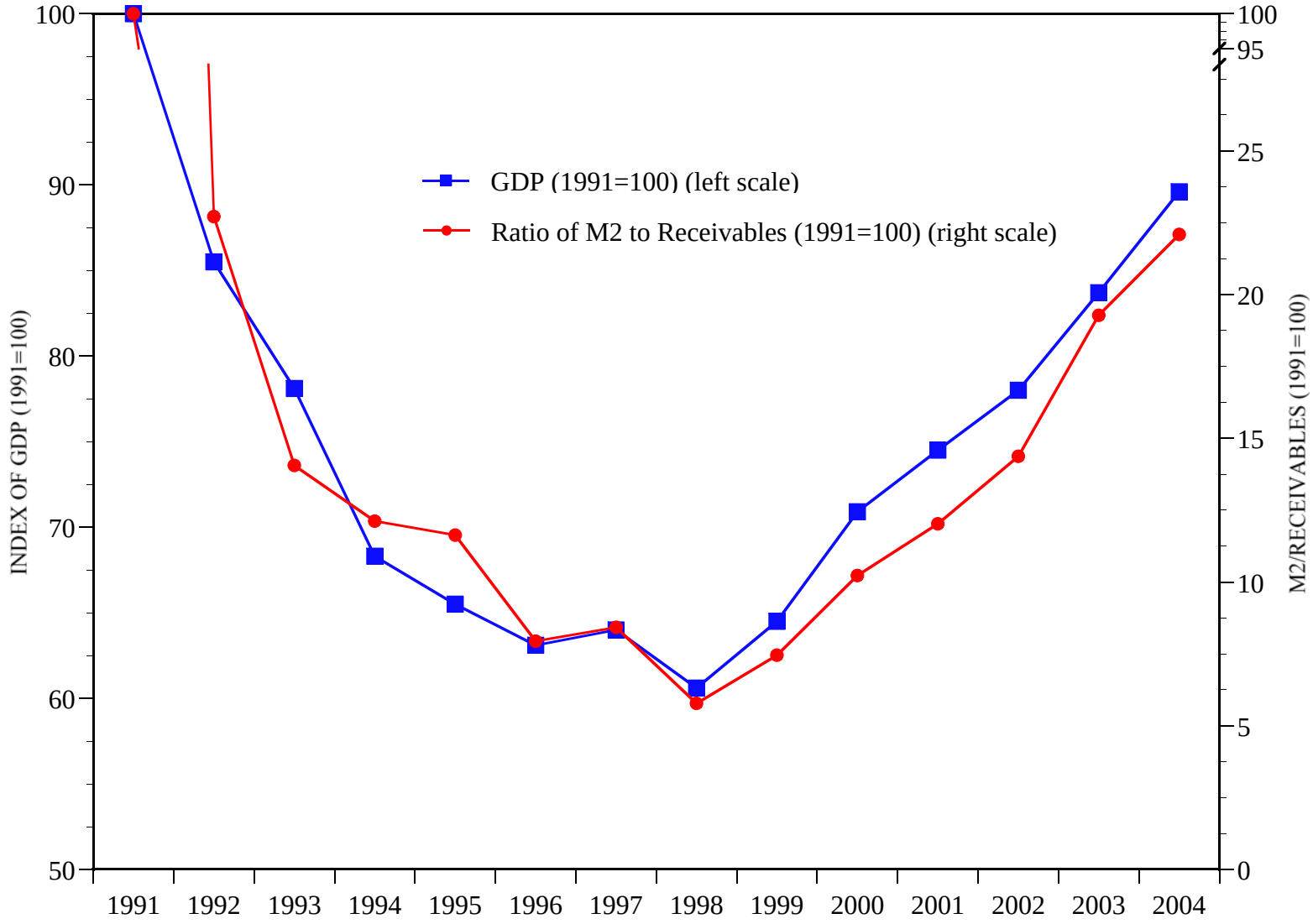
Sources:

Receivables and tax non-remittance: Russian State Committee on Statistics

Money: Central Bank of Russia

FIGURE 5

INDICES OF GROSS DOMESTIC PRODUCT (GDP) (1991=100) AND OF THE RATIO OF M2 TO RECEIVABLES (YEAR-END) (1991=100), RUSSIA, 1991-2004



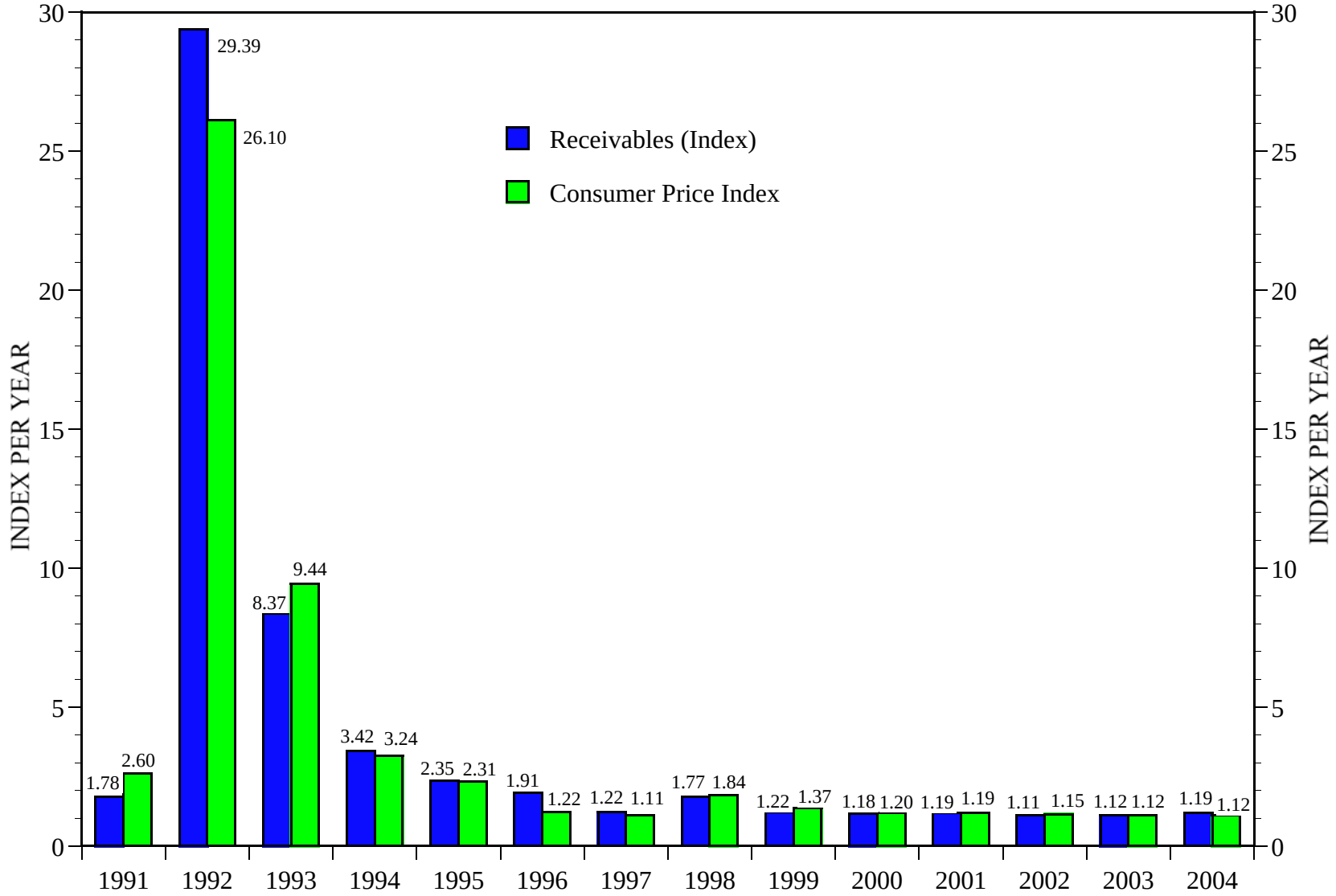
Note: The break in the right scale truncates the index of the ratio of M2 to receivables between 1991 and 1992, truncates its sharp decline in 1992. Figure 7 presents the full scale.

Sources: Gross Domestic Product and enterprise receivables: Russian State Committee on Statistics

The monetary aggregate M2: Central Bank of Russia

FIGURE 6

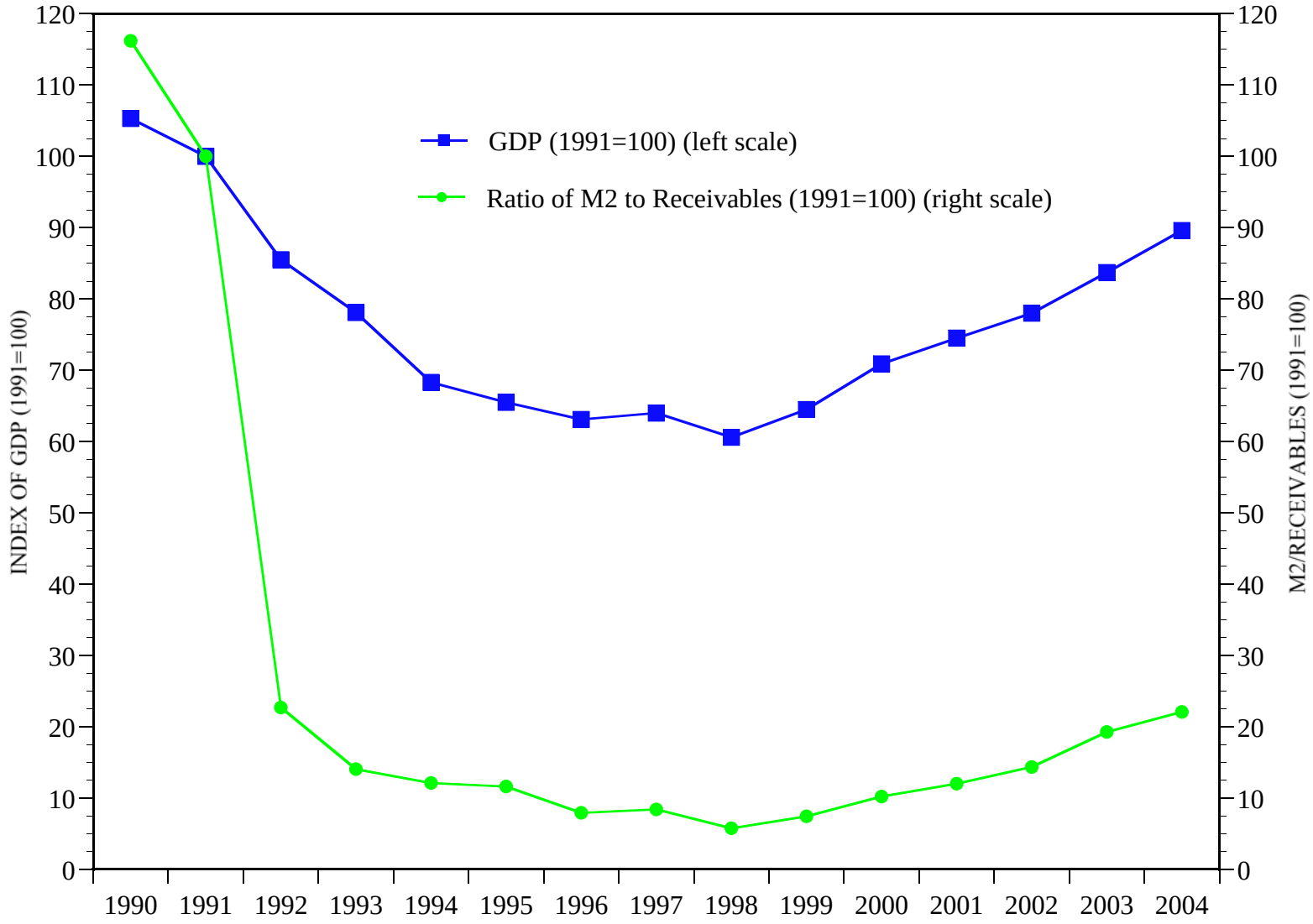
RECEIVABLES GROW WITH THE PRICE INDEX:
RECEIVABLES AND CONSUMER PRICES, ANNUAL INDICES,RUSSIA, 1991-2004



Note: The index fraction of the price index over unity is the inflation rate.
Source: Russian State Committee on Statistics

FIGURE 7

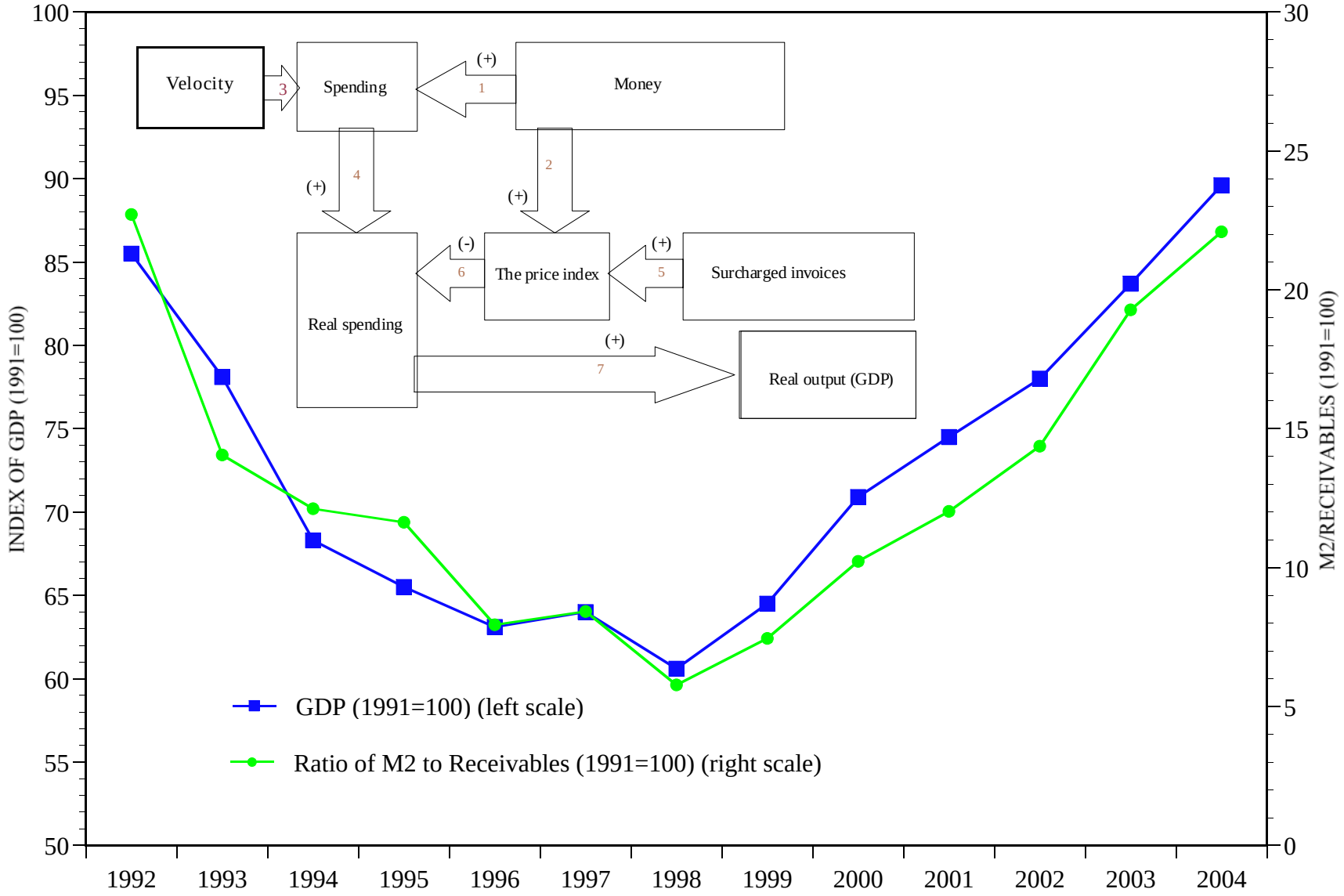
INDICES OF GROSS DOMESTIC PRODUCT (GDP) (1991=100) AND OF THE RATIO OF M2 TO RECEIVABLES (YEAR-END) (1991=100), RUSSIA, 1990-2004



Sources: Gross Domestic Product and enterprise receivables: Russian State Committee on Statistics
The monetary aggregate M2: Central Bank of Russia

FIGURE 8

INDICES OF GROSS DOMESTIC PRODUCT (GDP) (1991=100) AND OF THE RATIO OF M2 TO RECEIVABLES (YEAR-END), (1991=100), RUSSIA, 1992-2004



Note: The difference between the scales of the two vertical axes indicates the change in the velocity of money circulation

Sources: Gross Domestic Product and enterprise receivables: Russian State Committee on Statistics

The monetary aggregate M2: Central Bank of Russia

Table 1
Enterprise Money Balances and the Stock of Tax Non-Remittance, Russia, 1992-2005

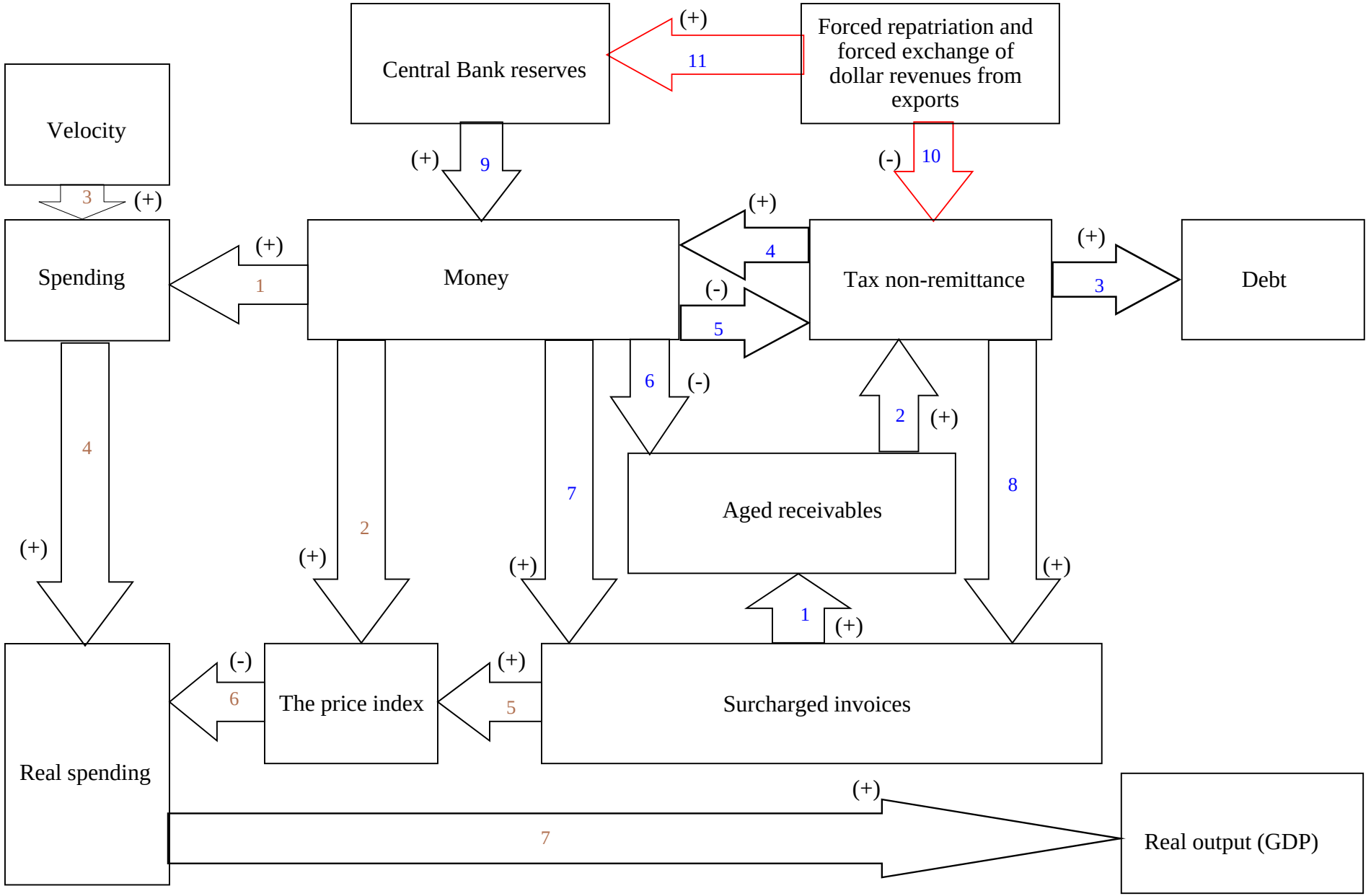
	(1)	(2)	(3)	(4)
Beginning of year	Enterprise money balances	Tax non-remittance	The ratio of (1) to (2)	The ratio of tax non-remittance to GDP (%)
1992	0.221	0.010	22.1	0.6
1993	0.980	0.122	8.0	1.7
1994	5.9	3.0	2.0	2.5
1995	15.7	15.1	1.04	5.3
1996	19.6	75.1	0.26	10.1
1997	39.3	203.4	0.19	13.5
1998	58.5	316.6	0.18	18.0
1999	93.5	474.5	0.20	11.3
2000	169.0	572.6	0.30	9.2
2001	231.3	668.5	0.35	7.0
2002	337.1	625.2	0.54	4.7
2003	549.9	510.8	1.08	3.4
2004	509.7	444.7	1.15	2.2
2005	679.4	363.2	1.87	

Note: All nominal values are denominated in billion 1998 rubles

Source: Russian State Committee on Statistics, various releases

BOX 1

THE MECHANISM OF ENTERPRISE NETWORK SOCIALISM



Note: The red arrows emphasize the relationship which became empirically dominant in 1999-2005

Appendix

Report on the Meeting of the Chairman and the Board of Governors of the Central Bank of Russia with Michael S. Bernstam, August 11, 1992
Submitted by Michael S. Bernstam on the request of Deputy Prime-Minister Georgii S. Khizha

1. Introduction

The Chairman of the Central Bank of Russia, Viktor V. Gerashchenko, stated in the introduction: "We have requested for this meeting in order to torture you for a couple of hours so that you explain your position papers on Russia's financial crisis and the so called payment jam and suggest your solutions. We need your advice."

2. The meeting

The meeting was held at the Central Bank of Russia on August 11, 1992, from 4:00 PM to 6:10 PM, after which a private discussion was held between Chairman Viktor V. Gerashchenko and Michael S. Bernstam from 6:10 PM to 6:35 PM.

Present at the meeting were all members of the Board of Governors except V.I. Solovoy who was ill.

Mr. Andrei O. Gorbachev, special assistant to Deputy Prime-Minister Georgii S. Khizha, was present and kept notes of the meeting.

3. Topics:

a. How to create a mechanism of financial responsibility of enterprises for their receivables and payables;
b. How to create a mechanism for enforcing governmental control over fiscal policy, specifically, budget subsidies to enterprises and revenues, and over monetary policy;
c. How to prevent a perpetuation of the inter-enterprise debt crisis;
d. What is relevant and what is irrelevant in the economic policy experience of the U.S., Latin America (specifically, Chile), and East Asia for the current conditions of Russia, and from which mistakes can one learn.

4. The mood

The discussion was sharp and at times heated. Deputy Chairmen Sergei M. Ignatiev and Dmitri V. Tulin expressed their disagreement with some of Bernstam's views, but some convergence developed by the end of the meeting.

5. Summary (excerpts)

In a ten-minute introduction, Chairman Viktor V. Gerashchenko described the depth of the financial crisis Russia is experiencing. He gave a comparative evaluation of various policy proposals and suggested that Mr. Bernstam's papers offer an interesting solution. He then gave floor to Mr. Bernstam.

The latter summarized his work on the relationship between the buildup of receivables by enterprises, tax non-remittance, government budget deficit, its monetization by the Central Bank, price increases by enterprises in overcharged invoices, their monetization by the Central Bank, inflation, and GDP contraction. Fiscal and monetary policy are taken over by enterprises and became endogenous. Bernstam said that a simple and quick solution would be to write-off the stock of enterprise receivables (inter-enterprise debt), continue to write-off the stock of overdue receivables on the monthly basis, and freeze the monetary base for the duration of this procedure and until the buildup of receivables stops. Chairman Viktor V. Gerashchenko and most governors agreed with the first part of this proposal and Deputy Chairman Sergei M. Ignatiev agreed with the second part of this proposal. However, all of them pointed out that these measures, even if desirable, are not feasible under current conditions because of the danger than many industries may collapse. Mr. Bernstam agreed that this proposal is incomplete and needs an additional mechanism of industrial de-subsidization, especially how to handle lost wages and unemployment. He mentioned a supplementary proposal of the wage subsidies with a built-in, self-enforceable mechanism of the subsidy phase-out.

Deputy Chairman Sergei M. Ignatiev took issue with Bernstam's papers. He said that enterprise debts are not driving monetary policy and are not increasing government expenditures and that the money supply in Russia is not endogenous. He said that enterprise receivables do not affect the retail price index which has risen slower than the balance of receivables. Deputy Chairman Aleksandr A. Khandruev supported Bernstam's position and raised the question of the retail price lag in the monthly data. He emphasized that Central Bank monetization of bank credit and government budget deficit is indeed continuous as a follow-up of enterprise receivables accumulation.

Bernstam showed a diagram of receivables growth, credit expansion, money growth, and the consumer price index and suggested that Governors Ignatiev and Khandruev are both right. The monthly data on the retail price index exhibits a lag after the wholesale price index and the producer price index. The latter indexes correspond to the index of growth of enterprise receivables. Deputy Chairman Ignatiev agreed with this reconciliation.

After that, the Governors and Bernstam engaged in a give-and-take discussion about specific policy measures which could minimize the influence of enterprise buildup of receivables on the fiscal and monetary policy. Bernstam laid out in more detail the above-mentioned proposal of the wage subsidies which phase-out themselves over time. These self-phasing-out wage subsidies can sustain the policy of disbanding the buildup of enterprise receivables when some enterprises and industries will have to restructure and contract labor force. The Governors of the Central Bank found this wage subsidy phase-out proposal acceptable.

The next round of discussion focused on the current government policy of the last nine months, which led to a loss of fiscal and monetary control and to a major output contraction.

The next issue was banking reform, financial intermediation, creation of private credit markets, and revamping of the Savings Bank. Only preliminary ideas were discussed.

6. (Deleted. There was an ad hominem discussion of other Western economic advisors in Russia).

7. Private off-the-record discussion between Chairman Viktor V. Gerashchenko and Michael S. Bernstam.

They discussed general issues of liberalization, privatization, financial stabilization, and other reform policies after the abolition of central planning.

8. Photographs

Photographs of the meeting of the Board of Governors of the Central Bank of Russia with Bernstam were taken.