

CHAPTER TWO

The Nonmonetary System and the Ersatz Banking System in Russia: 1991–1995

In 1991, the newly independent Russian Federation was rich in assets, including a highly educated population, world-class science, a large pool of private savings and deposits, a generally high savings rate, great entrepreneurial drive, widespread infrastructure (even if substandard by Western comparisons), and vast natural resources. The new Russian Federation inherited \$69 billion of foreign debt from the Soviet period, a manageable level given the size, resources, and export earnings of the new country. The new government, in principle, was committed to the process of economic reform and received generous intellectual support from the West from a raft of institutional and individual economic advisers. On paper, the prospects for growth were encouraging.

By 1995, chronic inflation totaled 200,000 percent and a protracted decline approached 40 percent of national income and consumption. Between 1991 and 1995, the official gross domestic product (GDP) contracted (negative growth) every year and every quarter (see figures 1 and 2). Industrial production also fell every quarter during 1992–1995. Although the spontaneous privatization and monetary instability engendered by the 1988

Figure 2. Indexes of Real Credit and Real Gross Domestic Product, Russia, 1992–1995. Real credit represents commercial bank credits to enterprises at the end of the month, two months before, in constant December 1991 rubles, deflated by the consumer price index and indexed to December 1991. To allow for the GDP lag, the credit data precede the GDP data by two months. Monthly GDP values are deflated by the consumer price index (CPI) and adjusted for the difference between the CPI and the GDP deflator in 1992. The GDP data for 1992 are reconstituted from the industrial production series.

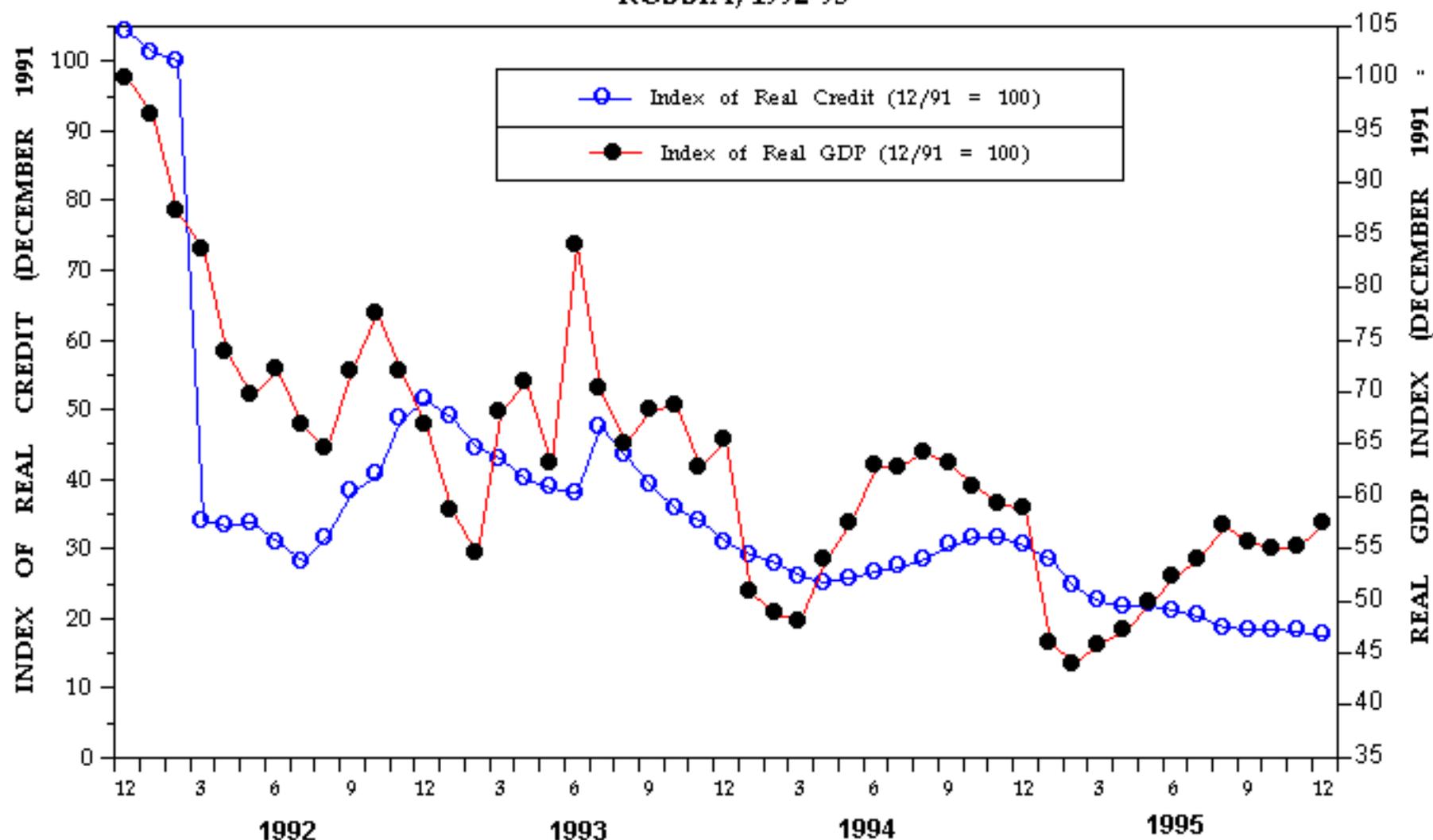
Source: Russian State Committee on Statistics and Central Bank of Russia, various releases.

enterprise reform generated a mild contraction during 1990–1991, the big reform of January 1992 was the direct source of accelerated contraction and extreme inflation.

A review of the Russian economy during 1991–1995 indicates that Russia failed to develop effective monetary and banking systems. A more accurate way of stating the problem is to say that Russia had a *nonsystem of monetary control* and regulation and a *nonbanking system*, or a *system of ersatz banks*. Until viable monetary and banking systems are established, the Russian economy will continue to flounder.

Figure 2

INDICES OF REAL CREDIT AND REAL GROSS DOMESTIC PRODUCT, RUSSIA, 1992-95



Notes: Real credit represents commercial bank credits to enterprises at the end of the month, two months before, in constant December 1991 rubles, deflated by the consumer price index, and indexed to December 1991. To allow for the GDP lag, the credit data precede the GDP data by two months.

Monthly GDP values are deflated by the consumer prices index and adjusted for the difference between the CPI and GDP deflator in 1992. The GDP data for 1992 are reconstituted from the industrial production series.

Sources: Russian State Committee on Statistics and Central Bank of Russia, various releases.

AN OVERVIEW OF RUSSIA'S
MONETARY NONSYSTEM: 1991–1995

One principal role of a commercial banking system in normal economies is to uphold the independence of the monetary system. An independent monetary system normally focuses on tasks of monetary management (see below); it stays scrupulously away from the direct or indirect financing of production, which is left to commercial banks. When monetary systems are used to finance production, however, they become a means for conducting industrial policy and attaining specific production targets. History shows that using monetary systems in this way, a hallmark of socialist economies, typically results in high inflation and poor economic performance.

Under central planning, money served primarily as an accounting device to monitor and enforce production quotas of inputs and outputs. The government set prices according to the planners' preferences, with consideration of the pressures facing enterprise managers. At any set of prices and specified quantities of inputs and outputs, an enterprise that ended a quarter or a year with positive money balances was considered to be achieving or even outperforming its plan target. The government then took back any excess money balances, as it was the rightful owner of the residual income.

Any enterprise that ended the quarter or the year with negative money balances was presumed to have overspent its quota of inputs (for example, used too much labor or diverted its output to internal use) or underproduced more valuable outputs. In these instances, the government might discipline enterprise managers or use other means to enforce production targets. Regardless of what other corrective measures might be employed to reach plan targets, the net effect of using the monetary system in this way was that the government inevitably accommodated with newly

printed money all excess production, even if useless and wasteful, and all enterprise losses. The alternative was to close down money-losing enterprises, but this only made it more difficult to meet plan targets. The system led to an inherently loose monetary policy.¹

Monetary policy under central planning was jointly determined by the government and enterprises—this is the essence of the socialist fiscal system under central planning. Strict enforcement of production quotas, remittance of enterprise money balances, and wage controls were necessary to prevent a monetary explosion and intolerable shortages. Potential inflation was repressed. When the Soviet government stopped requiring enterprises to remit profits (after the Enterprise Law came into force in 1988), enterprises converted their profits into higher wages and managerial bonuses. The socialist monetary system automatically accommodated this conversion. As would be expected, the flood of new money quickly devalued the currency in terms of goods, resulting in high inflation, partly open, partly repressed. Enterprises stopped shipping goods for money and switched to barter. Shortages mounted. Constituent republics took over state bank branches and inflated the currency quickly in the race for goods that remained in the trading system. The monetary system of the Soviet Union collapsed in late 1990–1991; the Soviet Union itself dissolved in late 1991.

A market economy requires a monetary system independent from the financing of production, which is the exact opposite of the Soviet system of central planning. But an independent monetary system alone is not sufficient. A market economy also requires a commercial banking system (and capital markets), es-

1. Janos Kornai, "Resource-Constrained Versus Demand-Constrained Systems," *Econometrica* 47, no. 4 (July 1979): 801–19, and Kornai, "The Soft Budget Constraint," *Kyklos* 39, no. 1 (spring 1986): 3–30.

pecially in transition economies. A real monetary system and real commercial banks, separately yet in combination, provide the conditions to finance production, which the monetary system alone provided under central planning. *It is not enough just to rename the state bank a central bank and establish private payment franchises and call them commercial banks.*

The role of money in transition economies must be recast from its previous accounting function under central planning to a medium of private exchange and a store of private value. Without money, people cannot retain and store income. Without income, people would not voluntarily produce beyond subsistence (and we would be back to the forced production of central planning). Money is at the origin of private productive incentives and economic growth.

Let us summarize the transformation of money from central planning to the market economy and its importance in laying a foundation for growth in transition economies: The switch from central planning to a market economy means that the monetary system, which financed production, must become independent of production. Money, instead of accommodating production, must become the medium of exchange. Money instead of an accounting device for monitoring and enforcing production must become a unit of account in trade. Household savings under central planning, in effect owned jointly with the government and subject to confiscation and forced borrowing, must become a store of private value. Money must change from a vehicle to redistribute goods, services, and incomes and become an embodiment of private incomes and expenses.

The primary purpose of a monetary system in normal market economies is to ensure a stable currency for the dual purpose of facilitating economic transactions and providing a store of private value, which creates conditions and incentives for economic growth. In pursuit of these objectives, the typical normal mone-

tary institution issues currency to finance daily transactions, supplies liquidity to the economy, regulates the growth of credit, strives for price stability, regulates banks, determines some means of linking internal prices with external prices (through some exchange-rate regime), and, if the monetary and fiscal systems are linked (as they are in most contemporary economies), manages the portfolio of government debt. In normal circumstances, that is, in normal countries with normal central banks or central monetary authorities, those tasks are executed with varying degrees of success. The central bank/monetary authorities issue high-powered base money (notes and coins), conduct open market operations with government securities, require commercial banks to maintain reserves with the central monetary authorities, set short-term interest rates, regulate banks, choose an exchange-rate regime, and so on.

Most central monetary authorities are guided by explicit or implicit rules that emphasize one or more objectives and require one or more tools of policy. The normal chief objective is to maintain price stability but with an attendant concern for growth. The normal tools of monetary policy are three: (1) targeting some monetary growth indicator, typically M_2 (currency, demand deposits, time deposits), (2) setting interest rates, or (3) maintaining some kind of fixed or quasi-fixed exchange-rate regime. Once any of the three tools are put in place, the others adjust more or less automatically. Some large industrial countries follow a heterodox policy of fine-tuning among two or all three tools of monetary policy, sometimes raising or lowering interest rates, sometimes increasing or decreasing monetary targets, and sometimes revaluing or devaluing the national currency, while keeping a watchful eye on the other two.

Russia's monetary system during 1991–1995 is best described as a nonsystem. During 1991–1995, the CBR was unable to control the supply of money, the price level, or the exchange rate.

It was unable to prevent a collapse of the ruble. It failed to regulate commercial banks effectively. Perhaps worst of all, it was unable and unwilling to protect the store of private value entrusted to it, namely, households' deposits in the government-owned Savings Bank.

A normal monetary system begins with high-powered base money, which consists of notes and coins in circulation and reserves held by commercial banks with the central monetary authorities (and, in some instances, net foreign reserves held by the central monetary authorities). Starting with high-powered base money, banks accept demand and time deposits, which provide the resources for lending. (Banks are in business to make money. Normal banks in normal countries do so by lending out depositors' funds at a profit.) The standard money multiplier effect converts high-powered base money into a much larger credit structure. In mature credit systems, the demand deposit-to-cash ratio ranges between 3–4 to 1. The broader M_2 measure of demand plus time deposits-to-cash ratio typically exceeds 10 to 1.

During 1991–1995, the Russian nonsystem was a fiat monetary system with a vengeance. By the end of 1995, the monetary base consisted of 80.8 trillion rubles in cash (about \$17 billion at the exchange rate of the day), supported by about \$6 billion in net international reserves. Russian households held about \$37 billion in U.S. currency, but these banknotes were not part of the official money supply or the country's formal credit structure. The high level of dollar savings, amounting to 15–20 percent of household income, was well in excess of ruble savings (see figure 3). Apart from cash in circulation, Russia lacked a mature system of ruble demand and time deposits, a consequence of chronic inflation and the loss of confidence in the banking system after the loss of deposits.

Since 1992, ruble deposits have ranged between 3 and 8 percent of household income. The savings rate remained high during

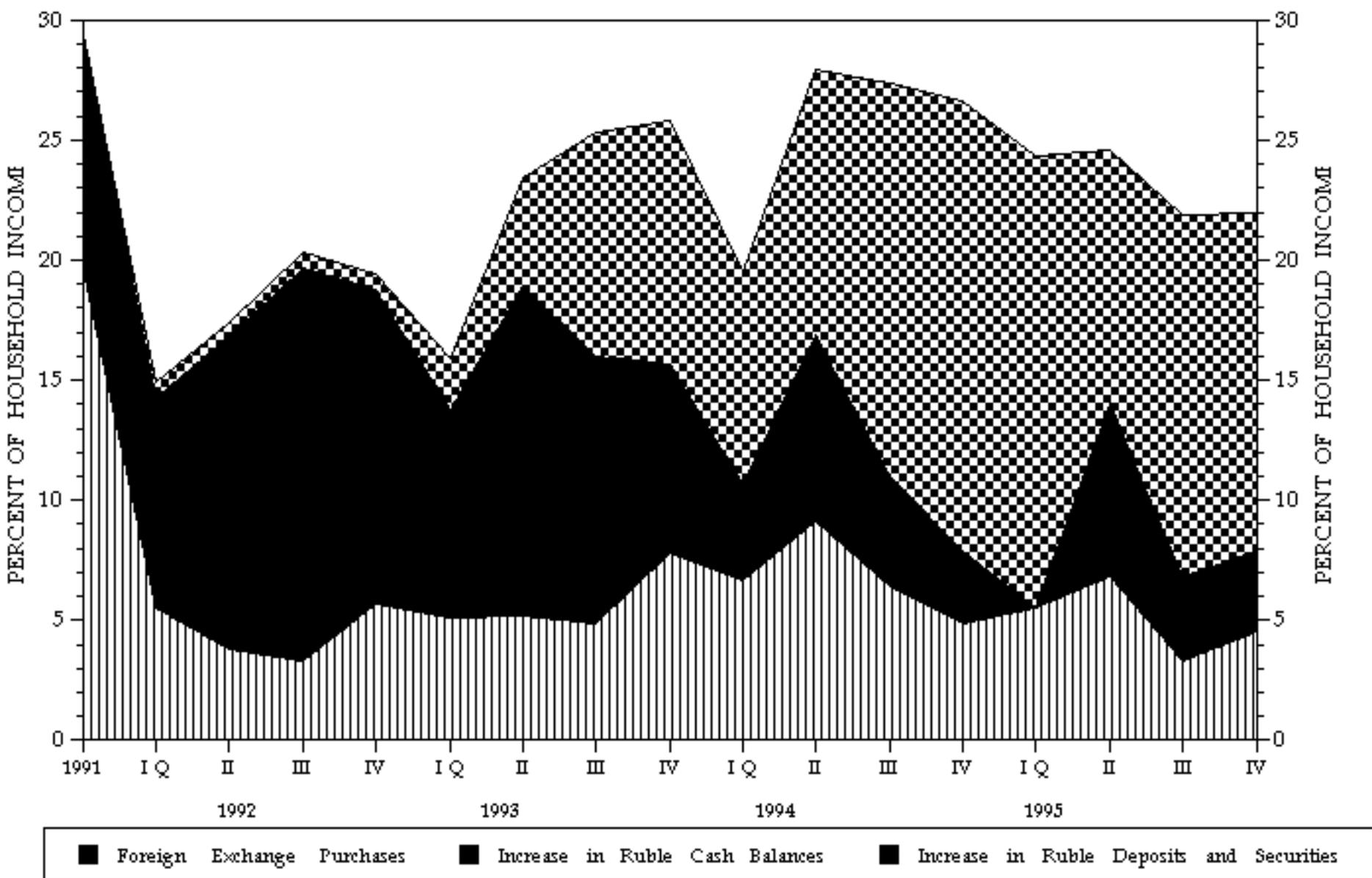
Figure 3. Russian Household Savings in Rubles and Foreign Exchange, 1991–1995 (in percent of total household income).

Source: Central Bank of Russia and Russian State Committee on Statistics, various releases.

1992–1995, exceeding 20 percent of household income (see figure 3). The composition of savings, however, changed dramatically. Beginning in 1992, households began to substitute ruble cash for ruble deposits and then, during 1993–1995, substituted dollars for rubles. This can be described as a process of debanking and dollarization.

In practice, the CBR did not specify a program of money creation that it then faithfully attempted to follow. Rather, money (cash, CBR credit) was issued in response to debt created either by the government through its budget deficit (including the combined budget deficits of the eighty-nine regional governments—collectively, the regional budgets are almost as large as the federal budget and their deficits are larger) or, more important, by the credit enterprises extended to one another in exchange for goods and services. Interenterprise credit, however, is not normal trade credit (given by one firm to another as in a normal economy),

Figure 3
RUSSIAN HOUSEHOLD SAVINGS IN RUBLES AND FOREIGN EXCHANGE, 1991-95
 (in percent of total household income)



which is based on creditworthiness and never continuously extended if not repaid.

Between 1991 and 1995, Russia failed to achieve monetary stability, either in terms of a stable currency or in terms of a consistent, single-digit inflation. In 1991, the last year of the Soviet Union, the midyear exchange rate of the Russian ruble was R42 to \$1. It subsequently fell from R180:\$1 in January 1992 to R4,640:\$1 at the end of 1995, a staggering loss in value. During 1995, the inflation rate was 131.3 percent (CPI), although this was something of an improvement from 839.9 percent in 1993.

The chief cause of Russia's failure to develop an effective monetary system is found in the problem of enterprise arrears, which was the driving force in fiscal and monetary policy during this period.

Enterprise Arrears

In January 1992, the government decontrolled input and output flows, prices, and wages. Enterprises immediately took to financing one another through an enormous surge in interenterprise credit, opening virtually unlimited lines of credit to one another. Enterprise credits approached half of GDP. The creation of credits among enterprises during 1992–1995 far exceeded total bank credit and the entire ruble money stock (see figure 4). When the bills came due and enterprises could not pay, the government and the central bank stepped in to allocate funds to indebted enterprises. In so doing, the government transformed bad lines of credit into good ones. This covering of bad debts further encouraged enterprises to extend more credit to one another, and the process repeated. The creation of enterprise credit thus became the driving engine of fiscal and monetary policy.

During 1992–1995 this strange driving force of monetary policy operated as follows. Credit (interenterprise credit) was given

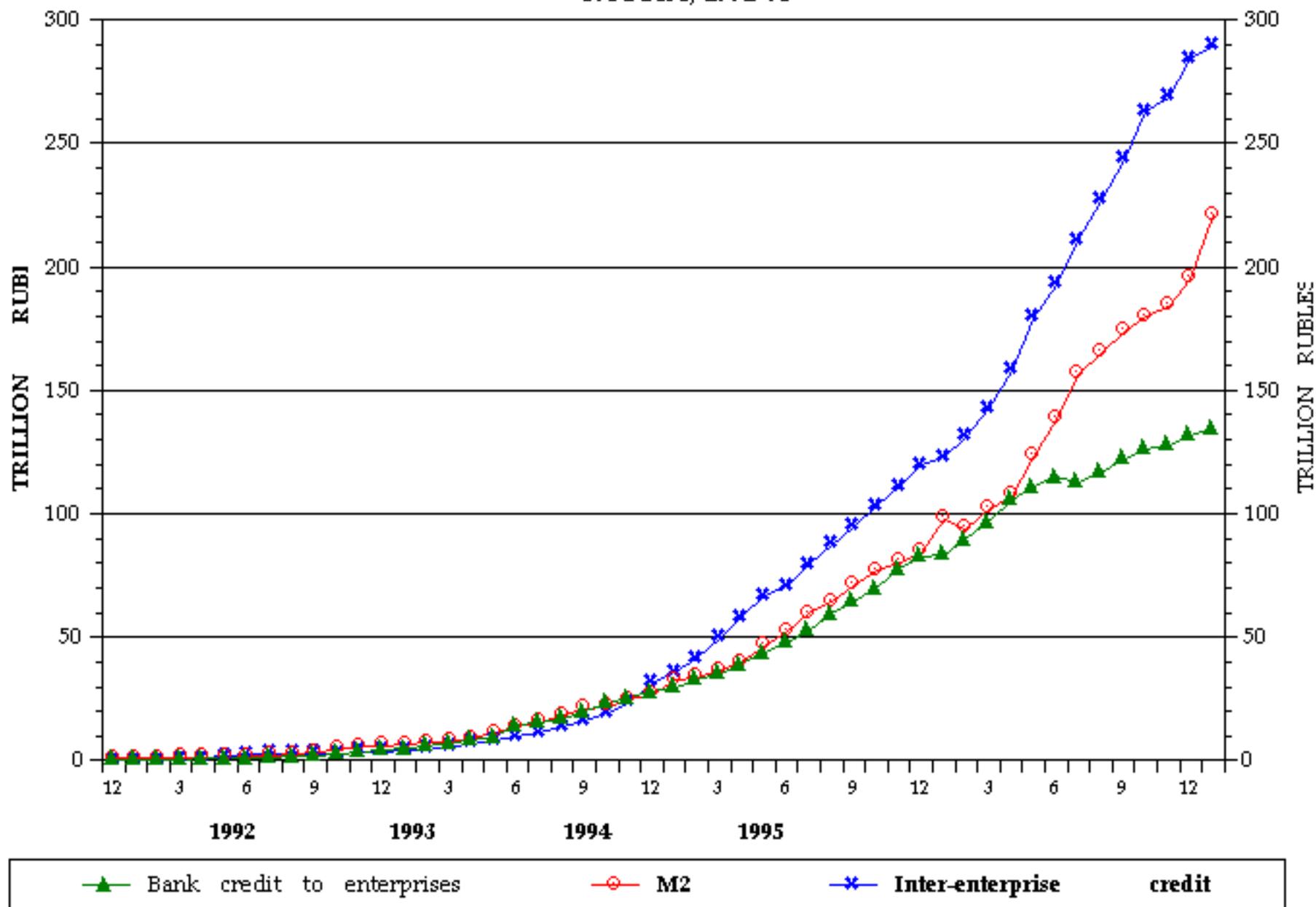
Figure 4. Interenterprise Credit, Bank Credit, and the Money Stock, Russia, 1992–1995.

Sources: Money and bank credit: Russian Central Bank, various releases. Interenterprise credit: Russian State Committee on Statistics, various releases.

by one firm to another with little or no regard for the other firm's willingness or ability to pay. The failure to pay bills by enterprises resulted in a massive accumulation of interenterprise debt (also called enterprise arrears, or EAs). It amounted to a backlog of delinquent accounts payable on the debtor side and unrecoverable (uncollected or uncollectible) accounts receivable on the creditor side. These delinquent and unrecoverable bills simply piled up. Some bills were paid, but new, larger bills were incurred; and the entire system expanded as it accumulated more and more bad debt. Thus it is important to look at the total amount of EAs as they increased, rather than at the share of EAs that were legally overdue at any point in time.

In terms of monthly GDP, the stock of unpaid receivables increased from 119 percent in January 1993 to 131 percent in

Figure 4
INTER-ENTERPRISE CREDIT, BANK CREDIT, AND THE MONEY STOCK,
RUSSIA, 1992-95



Sources: Money and bank credit Russian Central Bank, various releases; Inter-enterprise credit Russian State Committee on Statistics, various releases.

January 1994 to 157 percent in January 1995 and to 185 percent in January 1996. At the end of 1995, the stock of EAs equaled R289.3 trillion (\$62.4 billion).

Enterprise arrears to the government (including the federal government), as well as pensions and other trust funds of federal social programs financed by payroll taxes and regional governments, rose in tandem, reaching R86.8 trillion (\$18.6 billion) at the end of 1995. Delinquent enterprise payments on bank loans amounted to R37.7 trillion. Although that number may seem small, it represents 22.9 percent of total loans because total bank credits to enterprises are modest. Recall that, according to international standards, 6–8 percent of nonperforming loans in a loan portfolio is considered problematic. When the share of nonperforming loans exceeds 10 percent, it is regarded as a crisis and a sign of structural insolvency of the banking system.

At the end of 1995, M_2 was equivalent to about 13.3 percent of GDP and the broadest definition of money was equivalent to 17.5 percent of GDP. The stock of unrecoverable enterprise receivables was 31 percent higher than M_2 and, at R289.3 trillion (\$62.4 billion), was exactly equal to the broad money supply. In effect, interenterprise credit became and remained the principal determinant of the domestic money supply.

Almost every creditor is also a debtor, thereby resulting in a cobweb of mutual indebtedness. One consequence of EAs is late payment of wages to workers: Wage arrears rose from a low 7 percent of the monthly wage bill in the first quarter of 1993 to 46 percent in mid-1994 to about 80 percent at the end of 1995. Since enterprises must pay salaries at some point, they required some source of money, which was the public purse: CBR credits and government-subsidized bonds or currency or both. Enterprises created accounting money, which was transformed into government debt and explicit money. They did so through EAs, the equivalent of a quasi-fiscal government deficit, which was

ultimately monetized into real money. It is as if each of the fifty thousand important enterprises in Russia were a branch of the federal Ministry of Finance and, because of subsequent monetization, also a branch of the CBR but with a time lag.

Despite price liberalization and privatization, the government continued to allocate money to enterprises. The government could no longer borrow from households, having wiped out their savings through inflation and highly negative interest rates in 1992. Nor could the government tap into new household savings because the public had lost confidence in it. Its only resort, in those circumstances, was to create new money to underwrite budget deficits. The Russian government and the Central Bank became the lenders of first, not last, resort. Enterprise arrears became synonymous with (implicit) government debt awaiting monetization.

CBR or government issue of cash, credits, or subsidized bonds validated the (implicit) state debt created among enterprises. *Validation of enterprise debt by the government had the fiscal effect of perpetuating the inherited common budget, a single credit card, for the entire economy, public and private.* As in the old regime, individual enterprises, regardless of whether they remained state owned or became private, did not face the private budget constraint of most private firms in normal economies. Enterprises extended credits to one another, raised prices, and accumulated mutual debts. In so doing, they compelled the government to monetize these debts through a number of fiscal and monetary tools used by the CBR and Ministry of Finance, a process far removed from any market

With the collapse of real credit after 1992 (see figure 2), Russian firms lived off debt and government monetization of that debt during 1992–1995, which periodically reduced the stock of EAs. The real and financial sectors of the Russian economy were on a treadmill: Increases in money supply covered past debts,

rolled over existing credits, and invited the accumulation of new debts and the issue of new credits.

The accommodation of EAs by the central bank naturally led to a rapid increase in money, which inflated the currency and depreciated the ruble. Russia was hit with a double whammy—rising prices and economic contraction.

The monetary regime in effect during 1991–1995 amounted to the absence of a monetary system because the monetary authority was unable to control the money supply over any sustained period of time. Almost every firm in this nonsystem was empowered to write postdated government checks.

The defining characteristic of Russia's monetary nonsystem during 1991–1995 was the absence of a firm separation of enterprises (private, joint stock, state owned) from the public purse. It is as if the government and private enterprises shared the same account number for all financial transactions. The fact that the share of industrial workers in “privatized” enterprises had risen from 1 percent in January 1992 to 82 percent by mid-1994 does not mean that these enterprises were truly private—by definition, if a private firm cannot make ends meet, it goes out of business. Rather, the financial budget of the country's balance sheet combining the public and private sectors, taken as a whole, amounted to a *common budget*.

During 1992–1995, monetization of EAs (enterprise budget deficits) was the main source of inflation in Russia—more than 200,000 percent by 1995. It also caused a massive depreciation of the ruble, which declined from an exchange rate of \$1 = R42 in mid-1991 to surpass \$1 = R4,640 in December 1995. (In 1992, as part of the price liberalization reforms, the exchange-rate regime was liberalized from its Soviet-era, rigidly fixed exchange rate.) From time to time, the CBR tightened credit in an attempt to fight inflation. But tight credit, given the overhang of EAs and the threat of widespread bankruptcies, which threatened the de-

struction of the country's tax base, invariably forced the CBR to relax its credit and money policies. It was thus unable to break the inflationary cycle.

COMMERCIAL BANKS IN RUSSIA:
THE ABSENCE OF NORMAL BANKS
DURING 1991–1995

The main theme of this volume is that commercial banks in Russia were not, and still are not, normal banks as found in market economies. They do not accept deposits paying a market rate of interest or make loans on the basis of commercial criteria. They do not fulfill the normal role of intermediating household deposits to enterprises, thereby converting savings into investment. Instead, Russian banks have served primarily as government agencies that redistribute public funds to enterprises, mostly to favored ones, or as profit centers trading in foreign exchange, government bonds, or insider lending. The banks may look and feel as though they are private enterprises, especially to outsiders, but in fact they have largely served the government's discretionary allocation of subsidies to other enterprises and also financed political causes.

In 1995, Russia had more than 2,500 banks apart from the state-owned Savings Bank. To quantify their liabilities, at the end of 1995, they held household deposits worth \$5.2 billion at the prevailing exchange rate, an astonishingly meager 1.5 percent of GDP and only about 11 percent of the value of outstanding rubles. Even combined with the Savings Bank, all household deposits only constituted 4.3 percent of GDP. On their books, the banks held enterprise debt with a book value of \$26 billion (about one-third of which was nonperforming), a mere 7 percent of GDP. Total credit (including the Savings Bank) represented 8.1 percent of GDP. The total of enterprise and government demand

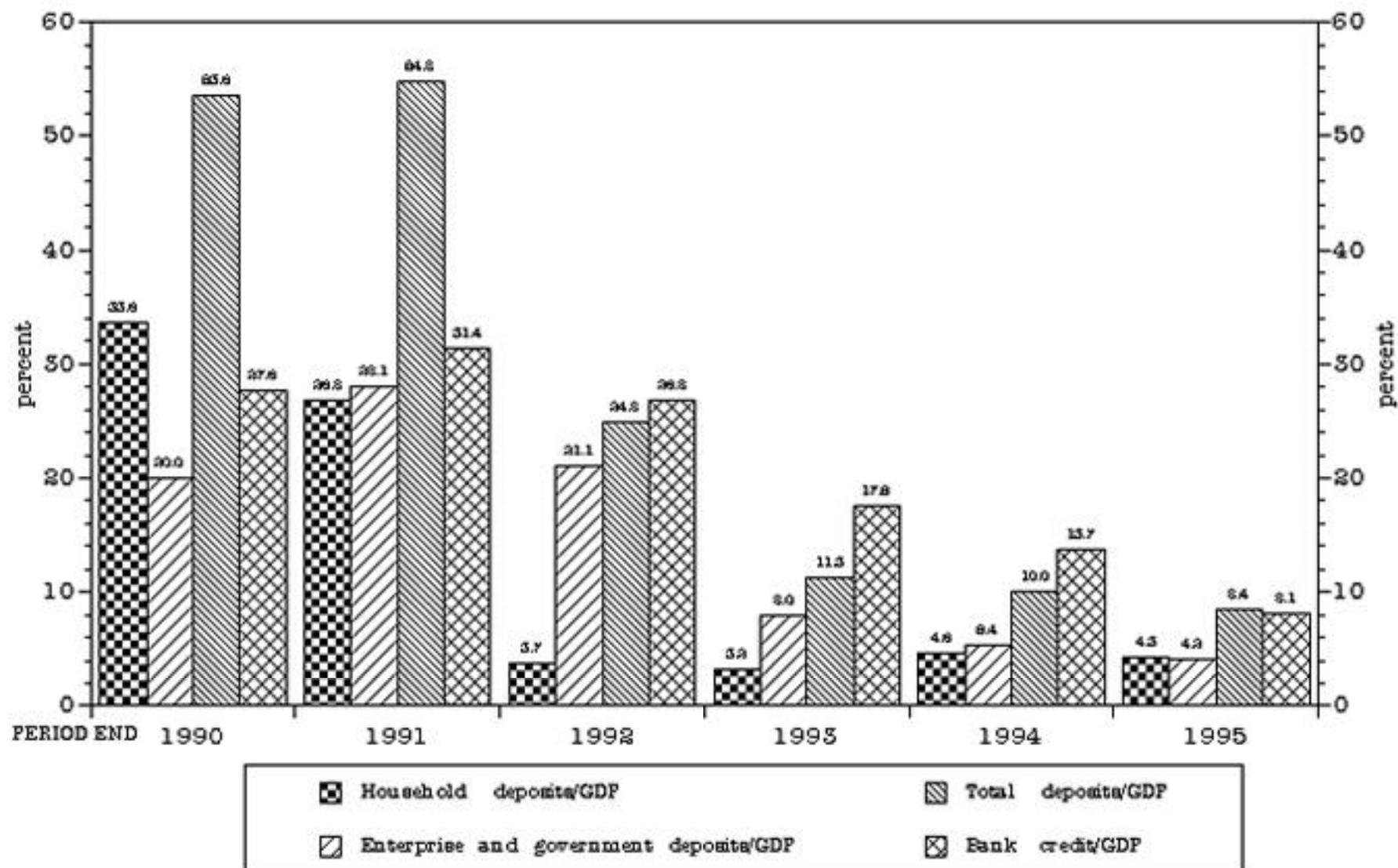
deposits held with commercial banks, along with household deposits held with the giant Savings Bank, amounted to total credit resources of 11.7 percent in rubles and dollars (only 8.4 percent in rubles) of Russian GDP. As to assets, the banks held home mortgages and other household debt in the neighborhood of \$270 million, an almost invisible 0.08 percent of GDP (compared with U.S. financial institutions with \$4.6 trillion, or 70 percent of U.S. GDP). The rest of their assets consisted of claims on the government and enterprises on their common account. Figure 5 shows the collapse in deposits and bank credit during 1992–1995.

Overall, the Russian banking system was structurally insolvent in 1995, with nonperforming debt constituting about one-third

Figure 5. Ruble Deposits and Bank Credit in Relation to Gross Domestic Product, Russia, 1990–1995. Ruble deposits and credits only. The data on foreign exchange deposits and credit were not available before 1996.

Sources: Bank credits and deposits: Central Bank of Russia and Russian State Committee on Statistics, various releases. GDP: Russian State Committee on Statistics, various releases.

Figure 5
RUBLE DEPOSITS AND BANK CREDIT IN RELATION TO GROSS DOMESTIC PRODUCT, RUSSIA, 1990-95



Note: Ruble deposits and credits only. The data on foreign exchange deposits and credit were not available before 1996.
 Sources: Bank credits and deposits: Central Bank of Russia and Russian State Committee on Statistics, various releases.
 GDP: Russian State Committee on Statistics, various releases.

of all ruble loans and one-quarter of total loans (see figure 6). The banking system avoided collapse through periodic government bailouts (aided by foreign grants and loans).

Origins of Russia's Commercial Banks

To understand the problem of creating real banks and credit markets in Russia, a few words are required on how banks were initially established after the state bank, Gosbank, was dismantled. By the early 1990s, three types of banks had developed: joint-venture banks (e.g., Dialog Bank), domestic commercial banks, and “wildcat” banks. Wildcat banks were those formed by enterprises, industrial sectors, and local governments. They grew rapidly to constitute the majority of all banks (in number, not in assets) because capital requirements were low and regulation was virtually nonexistent. Their main activity was to borrow from the CBR at subsidized rates and lend the proceeds to designated enterprises, which were the legal or de facto owners of the banks (firms established their own banks). Most of the assets of the Russian banking system are held by the large domestic commercial banks (e.g., Inkombank, Uneximbank), which provide short-term credit to enterprises but derive the bulk of their income from foreign currency trading, dealing in government bonds, and other nonlending activities.

On January 1, 1996, Russia had 2,598 commercial banks with 5,580 branch offices, in addition to state-owned giants such as the Savings Bank, the Bank for Foreign Economic Relations (Vneshekonombank), and the Bank for Foreign Trade (Vneshtorgbank). Although most banks are registered as private corporations, in reality the federal government owned large stakes in major Moscow banks (e.g., Menatep, National Credit, etc.), while regional and municipal governments owned large stakes in the leading banks in their cities. The rest of the shares usually

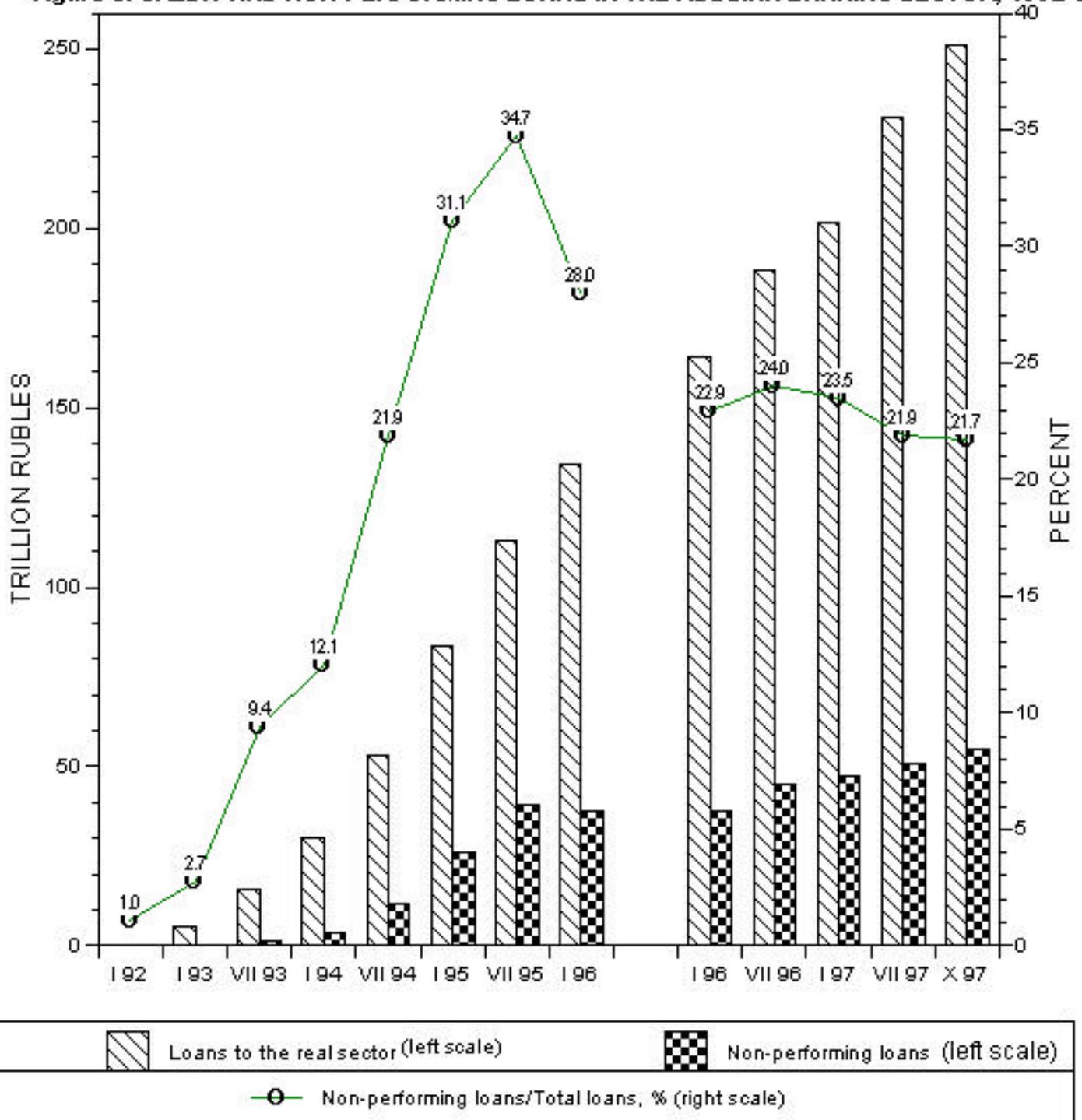
Figure 6. Credit and Nonperforming Loans in the Russian Banking Sector, 1992–1997. Before and on January 1996, total credit and nonperforming loans are in rubles only. After January 1996, total and nonperforming loans include both ruble and foreign exchange denominated contracts.

Source: Central Bank of Russia, various releases.

belonged to state-owned enterprises and large corporations where the government also held a sizable or controlling interest or subsidized them.

The system of enterprise ownership of banks took the German model, in which banks hold substantial stakes in leading firms, to an extreme. The Russian firms owned their banks outright and

Figure 6: CREDIT AND NON-PERFORMING LOANS IN THE RUSSIAN BANKING SECTOR, 1992-97



Note: Before and on January 1996, total credit and non-performing loans are in rubles only. After January 1996, total and non-performing loans include both ruble and foreign-exchange denominated contracts. Source: Central Bank of Russia, various releases.

were the principal borrowers of funds from the banks they owned, giving new meaning to concept of “insider” lending. It worked because the government underwrote the implicit debt created by enterprise banks making (bad or risky) loans to themselves. The financial effect was that commercial banks transformed good liabilities (deposits) into bad assets (loans to their owners). They survived thanks to CBR and government subsidies, which allowed them to roll over and perpetuate bad credit.

Decline of Real Credit

As previously documented, the collapse of credit in Russia is almost unparalleled in modern history. Between 1991 and 1995, credit resources to the Russian economy contracted by about 80 percent. Using constant December 1991 prices, real credit declined from R439.4 billion (credit granted solely in rubles) at the end of December 1991 to R103.9 billion in all currencies (of which R75.2 billion was in rubles) at the end of 1995. The index of real credit declined over this period from 100 percent to 23.6 percent (17.1 percent rubles only). (See figure 2.) Total credit contracted from 31.4 percent of GDP to 11.2 percent during 1991–1995, while ruble credit contracted to 8.1 percent of GDP. Total loanable funds contracted from 68.4 percent of GDP to 16.7 percent of GDP during 1991–1995. The collapse in credit was due to the destruction of household savings through highly negative interest rates during the extremely high inflation years of 1992 and 1993, coupled with massive capital flight and the failure of a real banking system to develop.

The ratio of some broad definition of the money supply to cash in circulation is an indicator of the degree of financial and economic development in a country. The ratio of M_2 to M_0 , cash in circulation, declined from about 5:1 in 1991 to 2.7:1 in 1995. (The U.S. ratio of the money supply to currency in circulation is

about 12:1.) The decline in real credit went hand in hand with the sharp decline in the ratio of M_2 to cash. To all intents and purposes, Russia increasingly became a cash economy in rubles and dollars (see figure 3).

The collapse of real credit contributed to a contraction of recorded real output to 57 percent of the 1990 level, much deeper than the 30 percent decline during the U.S. depression. The declines in real credit and GDP tracked each other closely during 1991–1995 (see figures 1 and 2).

The contraction of credit dissipated (wiped out is a better phrase) household savings and the country's deposit base. Household deposits, equal to 34 percent of GDP in 1990, fell to 27 percent in 1991, dropped precipitously to 3 percent in 1993, and settled at 4.3 percent at the end of 1995. Banks became irrelevant to the real economy; their credits to enterprises fell from 31 percent of GDP in late 1991 to 8 percent of GDP at the end of 1995. Russian commercial banks (apart from the Savings Bank) were largely irrelevant to the household sector, holding household deposits equivalent to about 1 to 1.5 percent of GDP.

In 1992–1993, real interest rates on deposits were highly negative, –93 percent; in 1994 through early 1995 they were –40 percent. In the aggregate, the banking system literally stole its liabilities—depositors' real funds. (Interest rates turned positive for time deposits during the second half of 1995.)

Household disincentives to maintain ruble deposits were matched by bank disincentives to lend to the real economy. Banks found it more lucrative to engage in foreign exchange transactions, foreign trade servicing, government bonds, interbank lending, and a modest degree of equity and real estate investment.

Russian banks entered 1992 without a debt burden inherited from the past (the debt burden was the government's foreign debt). Unfortunately, the big inflation and highly negative interest rates of 1992 financed a rapid growth in nonperforming debt, up

to a third of all loans (see figure 6.) As nonperforming assets constituted an ever-higher share of the banks' balance sheets, they reduced the banks' ability to make new loans. The balance sheets of enterprises became endowed with negative collateral as paper liabilities exceeded paper assets.

Summary

During the immediate post-Soviet years of the Russian Federation, the commercial banking system was a banking system in name only. As mentioned, Russian banks did not accept deposits or make loans their primary activity. Rather, the banks were extensions of the CBR and the government, along with self-oriented profit centers through trading on their own accounts. Let us summarize the situation during 1991–1995:

1. Banks Served Primarily as Secondary Redistribution Vehicles of Public Funds. We have previously described the redistributive activities of banks as recipients of cheap CBR credit. After April 1995, new direct CBR credit to commercial banks and the government was banned. To replace it, the Ministry of Finance provided subsidies through the rollover of high-yield bonds. This subsidy was especially generous for large, government-connected banks in which the government held its deposits and through which it conducted its foreign exchange and debt service operations. Banks used government deposits to buy government bonds and kept the difference in interest—a huge sum. Then, selected banks used their growing accumulation of capital to purchase shares of the best energy and other enterprises at subsidized government auctions—the controversial loans-for-shares privatization phase of 1995. Throughout, there was no new source of credit emanating from household deposits.

2. *Lack of Deposit Multiplication and Money Creation by Banks.* In normal economies, banks create money by multiplying deposits, which increases the ratio of any broad definition of money supply to cash or high-powered base money. In Russia, banks largely shuffled CBR money from one enterprise or government account to another. The activities of banks consisted largely of servicing the current accounts of enterprises, reintermediation in foreign exchange between enterprises for foreign trade operations, foreign exchange arbitrage, government bond operations, interbank lending, and financing capital flight. The effective rollover of enterprise debt and the bailout of nonperforming bank loans by the government prevented the *hidden collective bankruptcy* of both the enterprise and the financial sectors.

3. *Lack of Bank Lending to Households.* In Russia, banks did not, and still do not, lend to households for home mortgages and consumer purchases. The volume of such credit is minuscule. There is little or no retail banking. (Ordinary Russians do not use checking accounts or credit cards.) On January 1, 1996, total household debt, mainly mortgages, equaled \$269 million, equivalent to 0.08 percent of GDP, 0.6 percent of the money stock, 0.2 percent of total bank assets, and about 1 percent of total credit. Credit to enterprises, subsidized by the government and the CBR, consumed 99 percent of total credit. Household lending was absent because all other banking activities were more profitable and a system of mortgages did not exist.

4. *The Structure of Loans, Performing and Nonperforming.* About 95 percent of all bank loans to the real sector were short term, less than three months in duration. The only source of longer-term loans, which ranged from six months to a year (hardly long term in a normal financial system), was the heavily subsidized, state-owned Savings Bank. Deposits at the Savings

Bank are insured by the government, which permits it to extend a larger part of its loans for more than three months.

During 1992–1995, lending in Russia was somewhat imperious to interest rates. The typical bank-enterprise situation was that banks rolled over short-term loans to enterprises regardless of the interest or inflation rate (especially when enterprises owned their own banks). In a normal economy, interest rates rise or fall with changes in inflation. Insolvent firms find it hard to borrow new funds or renew old loans. Banks are forced to write off bad assets. In Russia, loans were often reissued regardless of firm solvency and independent of either the interest or the inflation rate.

Another factor affecting the structure of loans is nonperforming debt, which would be written off in a normal financial system. By the end of 1995, nonperforming loans were estimated at 28 percent of total ruble credit. The size of bad debt meant that banks had few reserve assets that could be earmarked for long-term lending. Banks required all their spare funds (liquidity) to cover negative cash flow. As a result, banks largely financed working capital and had few funds left over with which to finance investment.

5. *Lack of Equity Investment.* Russian banks are permitted to function as German-type universal banks. Nonetheless, until 1997, they generally avoided investment in enterprise equity. Capitalization of the Russian stock market during 1995 ranged between \$19 and 26 billion, not much more than 5–7 percent of GDP, of which banks held about 30 percent of total equity. Of this 30 percent, about half was held for arbitrage resale to foreigners. The true equity position of banks amounted to about \$3 billion, equal to 4 percent of total bank assets and 0.8 percent of GDP.

6. *Insolvency.* Bank insolvency was structural and inherent. Banks were liquid to the extent that continuing government subsidies bailed out banks. The failure to bail out banks would have converted a liquidity crisis into a collective insolvency crash.

Virtually all banks, large and small, were illiquid and technically insolvent, according to a 1995 study by the Moscow-based, Western-funded Institute of Economic Analysis, which analyzed the books of 629 Moscow commercial banks. (Unlike the State Statistical Committee's publication of a broad range of national income accounts data, data on banks are notoriously difficult to obtain.) The study found that small banks were generally undercapitalized. It reported that major banks had about 75 percent of their assets in short-term foreign exchange loans, with up to 85 percent of liabilities in ruble demand deposits earning positive real interest rates, with the nominal exchange rate lagging inflation. This was a bubble waiting to burst, which required the government to bail out (or take equity positions in or both) several leading banks during 1994 and 1995.

Tables 1 and 2 present two different balance sheets for Russia's commercial banks as of January 1, 1996.² Indeed, the authors of

2. The data presented in tables 1, 2, 4, and 5 are found in, or derived from, three partially overlapping sources published by the CBR. One is the monthly printed bulletin of banking statistics, which in Russian is *Bulleten Bankovskoi Statistiki*. This bulletin is not collected by U.S. libraries, but it can be purchased directly from the CBR's private information agency. The bulletin contains detailed data on credit extended by commercial banks, along with various categories of assets and liabilities of the banking system. It also provides abridged balance sheets of both the CBR and the commercial banks, as well as a monetary survey based on IMF conventions. This source presents data from January 1993 but contains no comprehensive balance sheets before January 1996.

The second source is the Web site of the CBR. Most of its tables are updated each month. It provides less data on commercial banks than the first source but contains more extensive data on monetary aggregates and CBR reserve positions, along with a detailed balance sheet of the CBR itself. This second source includes data from January 1996. However, the balance sheet of both the CBR

Table 1. Standard Balance Sheet of Russian Commercial Banks as of January 1, 1996 (all values in billions of current rubles)

<i>Assets</i>		<i>Liabilities</i>	
Reserves	36,712	Demand deposits	69,332
Foreign assets	46,149	Time deposits	69,241
Claims on the government	62,639	Foreign exchange deposits	55,256
Claims on enterprises (performing)	196,247	Government deposits	9,741
Claims on other financial institutions	525	Central Bank credit	8,005
		Bank-issued bills of exchange, equal to quasi- Central Bank credit	11,859
		Foreign liabilities	29,970
		Undistributed liabilities	22,182
Total Assets	342,272	Total Liabilities	275,586
Memorandum item: bank liquidity (nonborrowed reserves)	28,707	Equity	66,688

the *OECD Economic Surveys 1997–1998: Russian Federation*, which contains a special chapter on “Commercial Banking,” repeatedly complain of the difficulties in getting accurate information on the balance sheets of the banks. Among other charges,

and the commercial banks as of January 1993 exists in other published sources.

The third source is a quarterly statistical journal of the CBR, *Current Trends in the Monetary and Credit Sphere (Tekushchie Tendentsii v Denezhno-Kreditnoi Sfere)*. It contains data for the period before 1993, along with various additional indicators. It can be purchased from the CBR’s information agency. This is the only source that published reliable data on net international reserves and a number of other specific items before April 1998.

Taken together, these three sources provide the wherewithal to compile a more accurate set of financial statements for the CBR and the commercial banks than would be possible just using readily available statistical sources found in libraries or in Web sites.

Table 2. Revised Balance Sheet of Russian Commercial Banks as of January 1, 1996 (all values in billions of current rubles)

<i>Assets</i>		<i>Liabilities</i>	
Reserves and CB deposits	36,712	Demand deposits	69,332
Reserves	23,000	Time deposits	69,241
CB deposits	13,712	Foreign exchange deposits	55,256
Foreign assets	46,149	Government deposits	9,741
Claims on the government	62,639	Central Bank credit	8,005
All claims on enterprises (performing) (equities, loans issued as bank bills of exchange, performing money loans)	174,749	Bank-issued bills of exchange, equal to quasi- Central Bank Credit	16,893
Equities (market value)	30,000	Foreign liabilities	29,970
Loans issued as bank bills of exchange	16,893	Bank bonds (tradeable)	6,093
Money loans (performing)	127,856	Undistributed liabilities	22,182
Nonperforming loans (principal) (for information only)	(15,870)	Loans to bank-owned enterprises (estimated)	40,000
Nonperforming loans (interest) (for information only)	(21,800)	Contingent liabilities: direct government loans to bank-owned enterprises (est.)	5,000
Claims on other financial institutions	525	Contingent liabilities: tax arears (est.)	20,000
		Contingent liabilities: payroll arears (est.)	2,000
Total Assets	320,774	Total Liabilities	353,713
Memorandum item: bank liquidity (nonborrowed reserves)	(1,898)	Equity	(32,939)

the authors state that commercial banks seriously underestimate the share of bad assets in their balances.³

Both tables 1 and 2 draw on official Russian sources but present different portraits of the health of the commercial banking system. Table 1 presents what we might call the “standard” balance sheet of the commercial banks. It is published monthly, roughly in this form, by the Central Bank in its official releases and posted on its web site. It contains the standard list of assets and liabilities that appear in the balance sheets of most banks. The left-hand side of the table itemizes the assets of the banks. These include reserves held with the Central Bank, the ruble value of foreign assets (at the exchange rate of the day), claims on the government (holdings of Treasury bills, bonds, and other government financial instruments), claims on enterprises (performing loans), and claims on other financial institutions. As of January 1, 1996, total assets of Russian commercial banks amounted to R343,272 billion. The memorandum item at the bottom indicates that bank liquidity was healthy, amounting to R28,707 billion in nonborrowed reserves.

The right-hand side of the table enumerates the liabilities of the banks. The list is self-explanatory. It includes demand deposits, time deposits, foreign currency deposits, Central Bank credit, bank-issued bills of exchange (see the end of chapter 3 for a discussion of bank-issued bills of exchange and why they amount to quasi-Central Bank credit), foreign liabilities, and undistributed liabilities. Total liabilities sum to R275,586 billion. Subtracting liabilities from assets yields positive equity of R66,688 billion, suggesting that the commercial banking system was in good financial shape at the end of 1995.

3. Organization for Economic Cooperation and Development (OECD), *OECD Economic Surveys 1997–1998: Russian Federation* (Paris: OECD, 1997), p. 91.

We believe that table 1 misrepresents the true situation. With recourse to official figures that required considerably more digging, disaggregation, reaggregation, and estimation, we have attempted to reconstruct a more accurate balance sheet. Table 2 presents this more-comprehensive statement, what we will call the “revised” balance sheet.

In constructing the revised balance sheet, we set out to quantify three basic measures: (1) comprehensive assets, (2) comprehensive liabilities; and (3) the true level of nonborrowed reserves as a measure of liquidity. Let us take each of these in turn.

Comprehensive Assets

When we say that assets should be comprehensive, this means that they consist solely of either performing assets or those that have a positive market value. It means, in effect, pruning out various deadweight (or deadwood) nonperforming assets. The true market value of nonperforming assets is zero. They should be scored as zero and removed, or subtracted, from positive assets. Conversely, some good assets, such as equity in natural resource enterprises, should be significantly revalued over their subsidized sales value (original cost) to the banks on which they appear on the books. Thus, instead of R12,328 billion worth of enterprise equity listed on the books of the banks, we increase that figure to the estimated market value of R30,000 billion on January 1996. Thus some of the numbers in the “revised” balance sheet are lower than on the “standard” balance sheet, while others are higher.

To continue, the official data in the monthly statistical releases of the CBR published as hard-copy bulletins disaggregate bank claims on enterprises by types (enterprise equity, total loans, nonperforming loans [principal], nonperforming loans [interest], loans issued as bank bills of exchange) and allow the precise

calculation of enterprise bills of exchange (which are unrecoverable and worthless claims) in the banks' portfolio of assets. It is possible, then, to subtract all nonperforming claims on enterprises from true assets as well as add in the market value premium of performing claims on enterprises in order to arrive at true total assets.

Comprehensive Liabilities

The standard balance sheet of the commercial banks, as presented by the CBR, is incomplete. It uses standard international conventions as employed by the IMF, but it omits several liabilities that are specific to the peculiar Russian banking system. Between the IMF and the CBR, this amounts to a version of "don't ask, don't tell." To arrive at comprehensive liabilities, items must be added or revised.

To begin with, bank-issued bills of exchange should be listed in full, rather than as partial segments that are labeled "monetary instruments." Although they qualify as monetary instruments by the IMF definition, Russian banks also issue what might be classified as "less-qualifying junk monies." Junk monies, regardless of their market quality, are issued by the banks, are credited to enterprises, and represent banks' liability, as well as quasi-central bank credits (because they are issued by banks without using deposits as backing for them). Tradeable bank bonds should also be added to liabilities. The next large item to be added to liabilities is internal loans to bank-owned enterprises. The CBR includes those in assets. Those internal loans can either be subtracted from assets or added to liabilities, which we have done. This (to count them as both assets and liabilities of the banks) generates a more comprehensive accounting.

Other liabilities of bank-owned enterprises should be treated as bank liabilities, especially since there is cross-subsidization and

cross-responsibility according to Russian laws. There is no limited liability for Russian banks that separates their liabilities from those of the enterprises they own. In late 1997, when the government desperately needed to collect tax arrears from the largest enterprise debtors, it did not approach enterprises but rather squeezed major banks (e.g., Uneximbank, Russian Credit, etc.) and got paid. In this vein, we also include in comprehensive liabilities what amount to contingent liabilities of the banking system: direct government loans to bank-owned enterprises, tax arrears, and payroll arrears of bank-owned enterprises. In each case, our estimates of these additional liabilities are conservative and minimal.

Nonborrowed Reserves

Nonborrowed reserves should reflect the true volume of domestic currency reserves. First, they should include reserves in coins and currency (central bank notes) only, not book-entry deposits held by banks with the CBR. Book-entry deposits cannot help increase liquidity in terms of cash. To increase liquidity, the CBR would have to print (or mint) additional money. Commercial bank deposits with the central bank may be called reserves in some accounting sense, as banks can resort to them to force the central bank to print new money. This is, in fact, the reason that banks place book-entry deposits with the central bank: to exchange on demand an illiquid, book-entry value (which represents merely a pledge not to lend this amount to enterprises at this moment) for liquid, hard cash printed by the central bank. This arrangement keeps structurally illiquid Russian banks liquid at any moment in time.

This arrangement potentially undermines the monetary base, however, because banks can, on demand, force the CBR to print as much money as they deposit (and they can, if need be, deposit

the entire stock of broad money, less currency in circulation). But those bank deposits with the CBR are not reserves in the standard monetary sense of bank reserves and thus should be subtracted from the central bank notion of reserves reported on the balance sheet (again, the IMF did not ask, and the central bank did not tell). Second, bank-issued bills of exchange granted to enterprises as credit are banknotes loaned without deposits to back them. Issuing such credits by banks is equivalent to receiving central bank credits, in notes and coins, and relending them to enterprises. This is how banks behaved, except that they did not receive central bank credit as they issued bills of exchange. When U.S. financial institutions issue private monies (e.g., travelers' checks), they exchange these notes for official central bank notes, which means that the ultimate notes are created by the central bank, not by the issuer of private monies.

In Russia, banks became the autonomous and ultimate issuers of notes, on par with the central bank and its equivalents. They self-accommodate and self-issue central bank credit to themselves this way. Those bank notes must be subtracted from banks' reserves, along with direct central bank credit to banks on the books, to arrive at the true volume of nonborrowed reserves. This is because under normal conditions banks would have to purchase central bank notes in the amount equal to their privately issued notes. Since they cannot acquire them from households and enterprises (neither households nor enterprises buy bank notes, which are bad monies, with good money, which is central bank notes), the issue of such notes by banks is equivalent to the quasi purchase of central bank notes from the central bank, or a forced central bank credit. By subtracting items such as bank deposits with the central bank from bank reserves listed on the central bank's standard balance sheets, central bank credit to banks, and bank-issued bills of exchange, we arrive at the true

amount of nonborrowed reserves of the Russian banking system, which happens to be perpetually negative.

With these comments in hand, let us derive the revised balance sheet of the commercial banks, beginning with the assets. A portion of what is listed as reserves held with the CBR is, in fact, deposits. The true level of reserves requires subtracting these deposits from official reserves. We have performed this exercise in the second and third rows of table 2, which yields reserves of R23,000 billion, compared with the simple figure of R35,712 billion. This disaggregates but does not reduce total assets. Foreign assets are the same in both tables. To obtain the true value of performing assets, some R174,749 billion, we add together R30,000 billion in our augmented market value of equities held by the banks, R16,893 billion in loans issued as bank bills of exchange, and R127,856 billion in genuine performing loans. (The value of genuine performing loans was obtained by subtracting all nonmoney claims on enterprises, at market value, from total claims on enterprises and then subtracting nonperforming loans, both principal and interest.) For information purposes, in the revised balance sheet we show the value of nonperforming loans for both principal and interest. Total assets amount to R320,774 billion, which is considerably lower than the corresponding figure in table 1.

Even more adjustments must be made on the liability side of the balance sheet. The first four entries in table 2 are identical with those in table 1. The actual level of bank-issued bills of exchange is higher than the figure that appears in the simple balance sheet of table 1. The difference is that the standard CBR balance sheet uses a narrow IMF definition of monetary instruments whereas the monthly bulletin lists all bank-issued bills of exchange, including less liquid ones.

We also include several categories of liabilities that are missing from table 1. These include tradeable bank bonds, loans issued

to enterprises owned by banks, and three contingent liabilities: direct government loans to bank-owned enterprises, tax arrears, and payroll arrears. These revisions increase total liabilities to R353,713 billion, well above the corresponding figure in table 1. The result is that banks have a negative equity of R32,939 billion. Thus table 2 presents a completely different picture from that in table 1: The system is insolvent, rather than in good health. We also add, as described above, the revised value of nonborrowed reserves: minus R1,898 billion, highly negative.

7. The Relationship between the Banking System and the Real Sector. The banking system—a winding maze of borrower ownership of banks, insider lending, rollover of bad loans, misallocation of credit, lack of competitive credit markets, and lack of long-term investment and credit—impeded the development of the new private sector and the restructuring of potentially viable enterprises. Misallocation of credit and depletion of real deposits deprived productive users of credit and investment. A vicious circle developed that perpetuated bad credit, reinforced financial repression, and depressed the real sector. Most emerging private firms were forced to self-finance or organize informal arrangements with individuals.

8. The Relationship between the Banking System, the Budget, and Tax Policy. In normal countries, the budget of the government and the budgets of households and firms are separate. In Russia, the two have been blurred. The government—the Ministry of Finance, the Executive Office of the President, the CBR, the eighty-nine regional governments of the Russian Federation—all use their resources to subsidize “private” economic activity.

To raise the additional revenue required given insufficient tax collections, the CBR granted credits to the government. Almost

all of the 1994 budget deficit (a staggering 10.4 percent of GDP) was financed directly by the CBR. The explosion in credit fueled inflation and eroded the exchange-rate value of the currency, resulting in a revised central bank law that appeared to limit direct CBR financing of the budget to R5 trillion.

In response to reduced CBR credits, the government financed its deficit through a second means: the issue of government bonds. The government began to sell three-month Treasury bills (GKOs in Russian) in earnest in June 1994. The volume of GKO sales rose sharply in the spring of 1995 (the government financed 70 percent of its 1995 deficit through short-term bonds). Outstanding government debt more than doubled over this brief period, to constitute 8 percent of GDP. A growing stock of short-term debt drove up interest rates on new and refinanced issues to 60 percent and higher.

High interest rates created a perverse incentive. To the extent that firms and individuals met their tax obligations, the government's need to borrow would correspondingly decline. Noncompliance, however, became enormously profitable. Firms that withheld tax payments, when in fact they had the funds to remit, could earn 60 percent interest on government bonds. This was an enormous incentive to delay tax payments, buy bonds, collect 60 percent interest, and then pay back taxes with interest earnings. The government—happy to get money however and whenever it was remitted—was grateful that someone was buying domestic debt. The explosion in GKOs carried over into 1996, which was a year of exceptionally high yields on government debt. Indeed, the commercial banking system as a whole derived about 70 percent of its income from government securities in 1996.