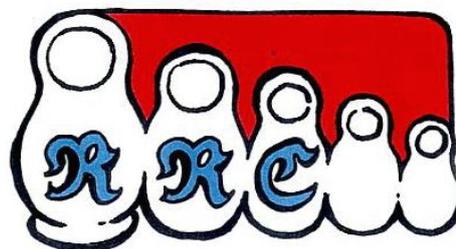


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Long-term Monetary Statistics for Russia

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Abstract

Monetary statistics in the Russian Empire, the Soviet Union, and the Russian Federation were reviewed. The result showed that it is difficult to construct some historical time series of monetary indicators consistent for the entire period of 150 years, because the financial systems in these three periods were very different from each other and that in a market economy. We need to understand the characteristics of each monetary and financial system to use the monetary and financial statistics. The financial system in the Russian Empire developed slower than that of West Europe and was characterized by strong government influence. This characteristic seemed to be carried over to the Soviet Union. The state budget was the main pillar of the Soviet financial system; bank financing merely had a minor and subsidiary role, and its main source of finance was government funds. This pattern of Soviet finance changed in the mid-1960s. Bank financing expanded rapidly using increasing household deposits as its source of finance, while the government sector became a net absorber of financial resources. This financial system was unsustainable and eventually collapsed. After the collapse of the Soviet Union, the Russian financial system returned to a standard financial system for a market economy; however, a sound financial system is still under construction.

1. Introduction

It is methodologically difficult to sub-divide most of macro-economic monetary data by region; it, therefore, seems almost impossible to adjust monetary data to the territorial changes of the Russian Empire, the Soviet Union, and the Russian Federation. In addition, it is difficult to compare the monetary statistics in the historical periods, and those of Russia and other countries because of the uniqueness of the Soviet monetary

system, which was prevalent for most of the period considered for our investigation. The socialist ideology asserted to do away with money and capital; there indeed existed a short period in the 1920s when the entire banking system was abolished. We need to be careful when we compare the monetary statistics of the Soviet Union and those of other Russian eras and other market economies. It is important to understand the basic characteristics of each period's financial and monetary system to use the Russian historical monetary statistics, because the Russian monetary and financial system was developed in a rather non-standard way until the end of the Soviet system. We first review the development of the monetary system in the Russian Empire, the Soviet Union, and the Russian Federation. Table 1 summarizes the periodization of the development of the monetary and financial system that this study assumes. A brief discussion on the monetary statistics of the three periods follows.

2. Monetary and financial systems of the three periods

2.1 Monetary and financial system in the Russian Empire

We divide the development of the Imperial Russian monetary and financial system in two periods, "proto-modernization" and the "modernization," before and after the establishment of private banks, respectively, in 1864. The "proto-modernization" period can be divided in two sub-periods, that is, the periods before and after the establishment of the two state banks in 1754; similarly, the "modernization" period can be divided in two sub-periods before and after the two events, the Imperial Gosbank (State Bank)'s assuming the functions of a central bank in 1894 and the introduction of the gold standard in 1897 (Table 1).

Owing to the economic backwardness of the Russian Empire relative to Western European countries, the development of the Russian monetary and financial system was lagging behind that in Western European countries. However, the modern monetary and financial system began to form in the latter half of the 18th Century. Post the establishment of the State Noble Bank (Dvorianskii zaemnyi bank) and the State Merchant Bank (Kommercheskii bank dlia kupechestva) in 1754, several state financial institutions were established; some were newly formed and others were established by

reforming existing financial institutions.¹ The establishment of the state financial institutions suggested that the Imperial Russian government well recognized the importance of upgrading its monetary system for economic development. At the same time, it indicated that the state was strongly committed to the development of the monetary and financial system.

The state financial institutions aimed to provide commercial credits to business-oriented landlord nobles and to Russian companies that heavily depended on foreign financial institutions to finance their foreign trade. The main sources of finance for the financial institutions were treasury funds and issuances of paper money; the financial institutions accepted few ordinary deposits. The Ministry of Finance exercised strong control over the state financial institutions: the ministry planned business activities of each state financial institution and allocated state funds among them. The scope of business of the state financial institutions was strictly regulated; market competition was virtually non-existent because of the strict control exerted by the state over the state financial institutions. On the other hand, borrowers often neglected their debt obligations to the state financial institutions (Garvy, 1972, p. 878). The monetary economy developed slower than that in the Western European countries even after 1754, despite the fact that the Imperial Russian government recognized the importance of the development of the monetary and financial system for Russia's modernization.

(Table 1)

The Russian Empire's defeat in the Crimean war in 1856 intensified her efforts for modernization and industrialization. In 1860, one year before the emancipation of the Russian serfs, the Imperial Gosbank was established. The main function of the Imperial Gosbank during the period was to provide the economy with state funds rather than play the role of a central bank. More funds were required to accelerate modernization and industrialization; however, the existing state financial institutions were close to or in a state of bankruptcy because of the financial crisis in 1857–1859, and foreign banks usually charged high interest rates such as 2% per month. This situation demanded the

¹ See Kulisher (2004, pp. 619–643) for the development of monetary system before 1754.

government's allowing to establish private banks. The first permission to open a private bank was granted in 1864, despite the fact that the Imperial government wanted to maintain its monopoly in the banking business. The permission to open private banks was the starting point of the formation of the modern monetary and financial system in the Russian Empire. Private banks, communal banks, and other financial institutions began to flourish rapidly after 1864, although the share of private banks in the banking business remained small relative to the Imperial Gosbank (Figure 1). Crisp (1967) asserts that state funds and foreign capital dominated the Russian monetary and financial economy until around 1890 despite the expansion of the private financial sector.

(Figure 1)

The next milestone in the development of the modern Russian monetary and financial system was the reform of the Imperial Gosbank to a central bank in 1894 and the introduction of the gold standard in 1897. The government issued Ruble notes until 1897. The Imperial Gosbank became the issuing bank in 1897, and Ruble notes became banknotes (Cameron, 1967, pp. 198-199). Since the start of Russia's "modernization" in the late 1850s, the Imperial Russian economy had been chronically inflationary; the reform of the Imperial Gosbank and the introduction of the gold standard in 1897 finally brought stability in the value of money. Crisp (1967) wrote that Russia's "modernization" was achieved under strict discipline regarding the issuance of money and not by the over-issuance of money followed by inflation.

The share of funds supplied by the government and the Imperial Gosbank remained large even after the introduction of the gold standard. Before the reform of the Imperial Gosbank in 1894, the Imperial Gosbank was virtually a commercial bank that provided loans to the economy by discounting short-term commercial bills. Even after 1894, the Imperial Gosbank continued to directly supply funds to certain economic sectors (Garvy, 1972, p. 882). The Imperial Gosbank offered more short-term loans to the economy compared to all private banks until 1905–1906. The share of the Imperial Gosbank in the total amount of loan and discount operations of all credit institutions was 15.4% in 1875. It increased to 25.8% in 1908. It was still 20.2% at the beginning of 1914 (Garvy, 1972, pp. 882–883). Although the Imperial Gosbank stopped accepting deposits

in 1899, it continued to offer loans using current account balances that the Ministry of Finance and state enterprises had at the bank. In addition, the deposits collected by Sberkassa (state savings bureau) served as a source of finance for the bank's lending operations. Sberkassa was under the jurisdiction of the Ministry of Finance and had 8,553 branch offices across the country in 1914. The dependence on the Ministry of Finance's funds, however, was not unique to the Imperial Gosbank; state funds accounted for 20% of the sources of finance for the entire banking system in 1914 (Garvy, 1972, p. 884).

The dominant role of the state in the monetary and financial system can be clearly observed in Imperial Russia even in the late period of her "modernization"; however, it is also probable that the monetary and financial system had been developing steadily toward the standard monetary and financial system of a market economy until the Socialist revolution. Private banks had been growing in size through selection and consolidation: the top 12 banks out of the 50 private banks held 79% of the assets of all private banks in 1914 just before World War I (Garvy, 1972, p. 880). The following was the structure of the financial institutions by ownership in 1917 before the Socialist revolution (Crisp, 1967; Crisp, 1976; Garvy, 1972).

1. State banks

The Imperial Gosbank served as both, the central bank and a commercial bank. It provided loans directly to the economy. There were two other state mortgage banks—People's Land Bank and Nobles' Land Bank, which provided long-term loans with land as security.

2. Private banks

(a) Joint-stock and limited liability banks

There were 47 joint-stock and limited liability banks including in 1914. Out of the 47 banks, 10 were mortgage financial corporations for agriculture.

(b) Other private financial institutions

There were private financial institutions that provided loans as well as facilitated financial transactions such as stock and commercial bill trading.

3. Municipal and collective financial institutions

(a) Municipal banks

These banks were under the jurisdiction of the regional offices of the Ministry of Finance. There were 342 such banks in 1916.

(b) Mutual credit unions

They mainly served merchants. There were 1,108 unions with a total of 643,355 members in 1914.

(c) Credit associations

Cooperative-style economic entities emerged in various spheres of the economy after 1917; they became a common managerial form of economic entity by 1906. There were 14,562 credit or saving associations in 1914. Moskovskii Narodnyi Bank, which was established in 1912, played the role of the central organization for these associations.

(d) Other financial institutions including mutual aid societies, saving societies, and village banks.

4. Additionally, there was Sberkassa (state savings bureau) under the jurisdiction of the Ministry of Finance. It had 8,533 branch offices and stations in 1914.

2.2 Monetary and financial system in the Soviet Union

One of the basic characteristics of the Soviet monetary and financial system was the “mono-bank” system. In organizational terms, mono-bank refers to the existence of only one bank that performs the roles of both, a central bank and commercial banks. In functional terms, it was a banking system that only had a secondary and supplementary role next to state budget financing.

The establishment of the typical mono-bank system began during the “1930/32 credit reform” and was almost completed by the end of the second Five-Year Plan (FYP) in 1937; it persisted until the 1988 banking reform that formally introduced a quasi two-tier banking system. This implies that it took more than 15 years to establish the mono-bank system. Before the mono-bank system was prevalent, the nature of monetary and financial systems and policies that were required to be established and pursued in the Soviet economy was unclear. The period was characterized by confusion. After the 1917 revolution, the Soviet government pursued the nationalization of existing financial institutions and their consolidation into the Peoples’ Bank (hereafter, the Soviet Gosbank

for simplicity) reformed from the Imperial Gosbank. The government followed Lenin's doctrines: (1) a single bank should execute all banking operations for the entire economy, and (2) the government should use the banking system as the tool for monitoring and auditing all economic activities in the country. The nationalization and consolidation were essentially completed by 1919. Because non-financial enterprises were also nationalized, the share of state budget funds in financing the overall economy rapidly increased; however, the share of funds supplied by banks was also significant because the fiscal base of the Soviet government was still weak at that time (see Figure 2).

(Figure 2)

The gold standard had already been abandoned during the time of the Russian Empire in January 1914 to finance her war efforts for World War I. Immediately after the Socialist revolution, the Socialist government abolished the guarantee requirement for the loan supply that was imposed on the Imperial Gosbank before the revolution. In May 1919, when the Russian Civil War intensified, all restrictions on banknote issuances by the Soviet Gosbank were removed; it was decided that money would be issued according to the demands of the economy. In January 1920, the Soviet Gosbank itself was abolished, and the Ministry of Finance assumed the function of money issuance. Formally, the issuance of paper money carried out by the Imperial Ministry of Finance before 1897 resurfaced. In reality, the monetary and financial system did not fare well under the hyper-inflationary environment that started during World War I and intensified by the Socialist revolution. The monetary and financial economy came close to a catastrophe during the Russian Civil War (Alkhimov, 1981, pp. 8–9). On July 1, 1920, the value of the Ruble decreased to 1/13,000 of its value in 1913; 93% of the total amount of wages were paid in kind, and taxes were also collected in kind.

The economic policy was changed to the “New Economic Policy (NEP)” in 1921, when the Russian Civil War began to end in the victory of the Soviet government. The NEP intended to revive the economy by reintroducing market-oriented policies and institutions. The transition to the NEP required stability in the value of money and a functioning monetary and financial system, because the NEP intended to use the market mechanism. The Soviet Gosbank was re-established in October 1921 (Alkhimov, 1981, p.

9). Later, the monetary reform of 1922/24 was executed to curb inflation. During the period from 1922 to 1924, measures to stabilize the value of money and restore financial discipline were executed, such as the introduction of a gold-buck currency, Chervonets, stopping the issuance of paper money and various money surrogates, and the exchange of old-face banknotes with new-face banknotes, in combination with re-denominations of currency and demonetization of old notes and monetary surrogates.² In 1925, the authority of money issuance was transferred from the Ministry of Finance to the Soviet Gosbank: the position of the Soviet Gosbank as the issuing bank was finally restored, and the Ruble achieved full recognition as credit money again.

The economy recovered under the NEP: the state budget balance and the international balance of payments turned to surplus during the period from 1925 to 1926. The monetary reform and economic recovery succeeded in curbing inflation. Several state banks, communal banks, and mutual financial institutions were established in both urban and rural areas. Accordingly, the Soviet Gosbank's weight in all bank loans slightly decreased in the latter half of the 1920s (see Table 2). The financial sector expanded in size and also diversified in the NEP period.

(Table 2)

These market-oriented developments of the monetary and financial system ended as the policy course was changed again from the NEP to the FYP. The transition symbolized the management of the economy in the command-administrative manner. In January 1927, the rule of “one enterprise–one bank office” was introduced. This rule required that one economic unit was served by one specific bank branch office and, thus, established an institutional premise for monitoring and controlling all enterprises by the Soviet Gosbank. Then, “the 1930/32 credit reform” laid the foundation of the mono-bank system. The main properties of the mono-bank system were as follows:

² Issuance of Chervonets stopped in 1924, and Chervonets was demonetized in 1947 (Kravtsova, 1983, p. 104).

(1) State budget funds were allocated to state enterprises to meet their financial demands for capital investments, including the standardized portion of liquid assets. These enterprises were not required to pay interest and repay the principal of the state budget funds offered. There were some sectoral banks that offered long-term loans to finance investment projects; however, these long-term loans facilities were auxiliary and supplemental measures for peripheral areas such as kolkhoz (collective farms), cooperatives, and housing construction. Moreover, the main financial sources of the sectoral banks were state budget funds; the sectoral banks were institutions that aimed to manage state budget funds earmarked for investments in the peripheral areas, rather than banks to collect funds from clients and provide them with loans.

(2) Any kind of financing between enterprises was banned.³ All demands for short-term financing were met by the Soviet Gosbank's loans. Because state budget funds financed the standardized portion of liquid assets, the Soviet Gosbank's loans covered only seasonal financial demands and those financial demands that were difficult to foresee, such as bridge financing during transportation and settlement. The Soviet Gosbank offered loans in a restricted manner. Enterprises needed to provide material guarantees and were allowed to use the funds loaned only for the purposes stipulated in advance. Bank loan financing could not be but auxiliary and supplementary because state budget funds covered the financial needs for the main economic activities.

(3) Each individual transaction between enterprises was settled by an individual bank account transfer excluding offsets between enterprises belonging to the same regional or sectoral supervising organization. Using cash money for settlements was strictly prohibited in the enterprise sector except for the payment of wages and other monetary compensations to households and for small expenses such as the purchase of stationery. This was also known as the principle of "the division between cash and non-

³ In reality, inter-enterprise loans in the form of accounts receivable and payable financed around 20% of all liquid assets of state enterprises throughout the Soviet period (Narkhoz, 1968, p. 862; Narkhoz, 1981, p. 511; Narkhoz, 1991, p. 27). The Soviet government tacitly permitted them for smooth economic activities (Gregory, 2004, pp. 226–231).

cash money” because most transactions in the enterprise sector were settled via non-cash channels.⁴

These basic properties of the mono-bank system changed only slightly until the 1988 banking reform that introduced a quasi two-tier banking system. This does not imply that the mono-bank system worked well during the period from 1930/32 to 1987. The mono-bank system had an inherent problem of the absence of a mechanism to regulate the efficiency of fund use; there was no mechanism to collect information on fund-use efficiency and regulate it because the markets for money and funds were eliminated. The mono-bank system functioned on the naïve belief that funds would be efficiently used, because it was assumed that the use of funds would be planned and the plan would be executed, given the command-administrative management of the economy. Consequently, fund-use efficiency was chronically low and continued to deteriorate further during the Soviet period. Low fund-use efficiency resulted in the accumulation of non-performing financial assets; therefore, the value of the Ruble was not maintained well. This fundamental problem may be somewhat recognized even in the Soviet Union. Recent literature shows there were various reform proposals spanning the reintroduction of commercial bills to the abolishment of material planning already in the late 1930s and 1940s (Davies, 2001, pp. 69–79; Zverev, 2012, pp. 110–124). However, these proposals were not realized in the midst of the confusion created by Stalin’s Great Purge and World War II. The period from 1939 to the post-war monetary reform in 1947 was the period of war-time economy, during which cash issuances financed the over-spending of state budget funds. Material planning regulated the economic activities in physical terms to mobilize resources for the war; monetary and financial stability was not the issue of primary consideration. However, this time the Soviet authorities well-recognized the risks of the disrupted monetary economy and started projecting a post-war monetary reform during the war.

⁴ The enforcement of the division between cash and non-cash money was not very effective. See Gregory (2004, pp. 220–221) and Kim (2002).

The 1947 monetary reform aimed at eliminating excess liquidity accumulated by households during the war to abolish the inevitable but unpopular rationing of consumption goods during the war. The 1947 monetary reform under the reign of Stalin included authoritative measures such as the partial confiscation of cash and deposits and the partial default of government bonds; the reform, therefore, caused discontent among people. It was, nevertheless, successful in eliminating excess liquidity. The 1947 monetary reform brought back the mono-bank system; this implied that the mono-bank system's inherent problem, the low fund-use efficiency, was also reintroduced.

The mono-bank system was slightly changed after 1954 when the party and the government adopted a resolution to expand bank loan financing; through this resolution, it was expected that bank loan financing, which required the payments of interest and repayments of principal, would strengthen financial discipline and increase fund-use efficiency. The adoption of the resolution implied that one element of the mono-bank system, the restricted use of bank loans, was changed. Meanwhile, there was an important change in state budget financing as well—the government decided to reschedule its government bond repayments and abolish the subscription sale of government bonds entirely in 1958. The subscription sale of government bonds absorbed a dominant part of household savings, which financed around 5 to 10% of the annual state budget revenue. The main reason for the abolishment of the subscription sales was that the scheme brought little net revenues because the debt servicing costs became too high (Allakhverdian, 1962, p. 323; Chetverikov, 1972, p. 51). The subscription sales were generally unpopular among households because they were de facto forced savings. Moreover, the government had already rescheduled the repayment of government bonds to prepare for the war in 1938 and partially confiscated government bonds and rescheduled repayments of government bonds to end the war-time inflation in 1947. There seem to be specific reasons for the measures taken in 1938 and 1947; however, the social and political costs to further reschedule repayments seemed large. There might have been no other choice but to abolish the subscription sales. The subscription sales of government bonds were a dead-end (Nove, 1992, p. 354).

There was another change in the monetary and financial system in 1963: Sberkassa was transferred from the Ministry of Finance to the Soviet Gosbank. The motive of the transfer was unclear; nevertheless, this changed the Soviet's

macroeconomic flow of funds. Before 1963, the Soviet Gosbank accepted household deposits only in the exceptional cases of war participants; the proportion of household deposits in the Soviet Gosbank's financial sources was negligible. Further, the share of foreign financial sources was small. As expected, the enterprise sector was a net borrower from the Soviet Gosbank. Thus, the government was the only significant net supplier of funds for the Soviet Gosbank before 1963 (Appendix 2)⁵. Garvy (1972, 1977) saw the resemblance between the Imperial Gosbank and the Soviet Gosbank in this case. On the other hand, household deposits of Sberkassa almost became an exclusive source of finance for the Soviet Gosbank after 1963. Before 1963, the Ministry of Finance absorbed almost all household savings directly through the subscription sale of government bonds and indirectly through the sale of government bonds to Sberkassa. After the abolition of the subscription sales and transfer of Sberkassa, the Soviet government discontinued the collection of funds via bond sales and, therefore, became short of funds.⁶

The 1954 resolution to expand bank loan financing was completed in institutional terms with the transfer of Sberkassa to the Soviet Gosbank in 1963. After the transfer, the Soviet Gosbank assumed the financial intermediation function of collecting funds from households and providing loans to enterprises, which is equivalent to the typical banking system in a market economy. Moreover, bank loan financing expanded in terms of size (Figure 2), although the increase was accounted for almost exclusively by the expansion of short-term loans, which was, in turn, brought about by the introduction of a short-term loan facility similar to the "overdraft" facility in market economies. The expansion of long-term loans for investment financing, which was envisaged in the 1954 resolution, continued to be discussed and was partially introduced after 1954; however, the share of long-term loans in the overall investment financing of the state enterprises remained at around 5% until the end of the Soviet system.

As discussed, the basic motive behind the expansion of bank loan financing was to overcome the deterioration of fund-use efficiency. Bank loan financing, which required the payment of interest and repayment of principal, was promoted in the hope of

⁵ The net financial position of the enterprise sector against Gosbank can be observed as $LE - CE$ in Appendix 2.

⁶ Sale of government bonds, such as lottery bonds, continued on a small scale.

increasing fund-use efficiency. In reality, it was probable that fund-use efficiency did not increase, but further decreased. The expansion of bank loan financing did not at all imply the reintroduction of the markets for money and capital; bank loans were allocated in the same way as before, that is, in the administrative manner. This meant that neither administrative restrictions on bank loan financing nor strict control by the market over bank loan financing existed. Moreover, it was difficult to change the fundamental socio-political characteristic of the Soviet economy that financial relationships among the government, the Soviet Gosbank, and the state enterprises were internal relationships under one single owner of the state, that is, when enterprises failed to repay their debt obligations, the government and the Soviet Gosbank accepted responsibility for it.

The mono-bank system was finally dismantled by the banking reform in 1988 when the entire Soviet regime was in crisis. The Soviet Gosbank stopped giving direct loans to non-financial enterprises and merely served as the central bank. Five sectoral state banks, such as industry bank, construction bank, and agriculture bank, were created to perform credit operations for the economy. The establishment of private financial institutions was also permitted. The 1988 banking reform, however, did not have a clear strategy as to how to reform the Soviet monetary and financial economy. If it had aimed to introduce a completely independent management of enterprises and re-establishment of the markets for money and capital, it would undoubtedly lead to a market economy. Indeed, history shows us that the transition of the economy to a market economy, that is, the abolition of the Soviet regime, completed the reform of the mono-bank system.

2.3 The monetary and financial system in the Russian Federation

As discussed, the 1988 banking reform can be seen as the starting point of the development of the monetary and financial system of the Russian Federation. The 1988 act on cooperatives, which permitted the establishment of private financial institutions, was another milestone. The Central Bank of the Russian Federation (CBR) was created from the Russian Republic branch office of the Soviet Gosbank in June 1990; the Soviet Gosbank and CBR existed in parallel until the collapse of the Soviet Union in December 1991. The basic law on the central bank “Act on CBR” came into effect in December 1991 as well. A number of private banks were established in 1992 after the collapse of the Soviet Union; CBR’s regulation on the banking sector was hardly effective (Shiratori,

1966, pp. 4–5). It was said that the “shock therapy,” which implies the quick liberalization of the economy from the administrative regulations and the quick privatization of state-owned shops and enterprises, started from the beginning of 1992. However, the shock therapy was merely nominal in the financial sector. The Russian monetary and financial system began functioning on the basis of market forces only in 1995 when the following three supply channels of money were finally closed: (1) CBR’s automatic credit to the old republics of the Soviet Union, (2) administrative allocation of CBR loans to bail-out enterprises, and (3) financing of state budget deficits through CBR loans (Balino, 1998; Edwards, 1995. p.70).

Until the mid-1990s, the Ruble was the only currency in the old Soviet Republics; the relationships between the central banks of the ex-Soviet Republics and CBR remained the same as the relationships between the Soviet Gosbank’s headquarters in Moscow and its head branch offices in the Soviet Republics. The central banks of the ex-Soviet Republics were unable issue Ruble banknotes, but could give loans in Ruble (issue deposit money) to their domestic government and enterprises independently. CBR neither had effective measures to control loan supplies of these central banks, nor was it eager to control them until the mid-1990s. However, it was impossible to control inflation in this situation. To curb inflation, CBR issued new-face banknotes and demonetized old-face banknotes in July 1993. This rather abruptly executed measure caused confusion in the Russian domestic economy; nevertheless, it led the central banks of the old Soviet Republics to sign correspondent contracts with CBR. The contracts served as an effective tool for CBR to control the supply of Ruble-denominated loans by the central banks of the ex-Soviet Republics (Nakamura, 1999; Balino, 1998). Later, the ex-Soviet Republics began to switch from Ruble to their own currencies, because there were few merits to continue using the Ruble as their currency.

CBR continued to supply “soft loans” to help enterprises in financial difficulties after 1992. In May 1993, CBR and the Ministry of Finance officially announced that they obtained loans from the International Monetary Fund (IMF) and would shift to a stricter

monetary policy. However, the domestic politics itself was still unstable.⁷ It was not easy to execute a strict monetary policy because it was certainly unpopular among the Russian enterprises and people. In reality, CBR continued to allocate CBR loans with low or even negative real interest rates in an administrative manner (Rudnick, 1994, p.157). In February 1994, CBR started distributing a part of CBR loans via auctions; the auctions required that the lowest bidding interest rate be higher than the inter-bank rate. Auctions were not widely used; however, this was the first step to moving from the administrative allocation of the central bank loans to monetary management by the capital market. In the latter half of 1994, the administrative allocation of CBR loans was completely stopped, and the real interest rate of the CBR loans became positive (OECD, 1995, p. 38). Later, various monetary policy instruments of the market economy were introduced on a trial-and-error basis (Balino et al., 1997; Balino, 1998; Kamin et al., 1998).

In 1992, the state budget deficit of the consolidated government stood at 14.2% of the GDP, and was financed by loans from CBR. The state budget deficits of the consolidated government were 7.3% and 10.3% of the GDP in 1993 and 1994, respectively; 86% and 70.5% of these deficits were financed by CBR loans in 1993 and 1994, respectively.⁸ The financing of state budget deficits by CBR loans was prohibited by law from 1995; instead, the issuance of government bonds and borrowings from abroad were expected to finance state budget deficits.

After these developments, a monetary and financial system such as that in a market economy finally began to function in the Russian Federation in around 1995 (Edwards, 1995, p. 70; Balino, 1998). act on CBR, enforced in 1990, was replaced with the new act on CBR in April 1995; the new act on CBR established a legal and institutional foundation for financial supervision and the implementation of monetary policies that are common in market economies.⁹ After mid-1995, the inflation rate finally started to decrease and real lending rates turned positive. However, the banking sector

⁷Note that the coup d'état, led by the conservative fraction, occurred in July 1993. It was after the failed coup that the transition to a market economy became the somewhat established policy strategy.

⁸These figures slightly vary by sources. See Nakamura (1999, p. 125) for the details.

⁹Now CBR is functioning according to Act on CBR enforced in October 2002 (CBR, 2016).

comprised well over 2,000 relatively small banks whose business foundation was weak. These small banks did not have a nationwide network of branch offices excluding Sberbank (ex-Sberkassa) and other few banks. Moreover, the financial supervising authorities were inexperienced. The 1998 financial crisis triggered by the default of government bonds led many financial institutions to bankruptcy. The Russian economy recovered mainly because of the high oil prices after 1999; in the favorable economic situation, reforming the financial sector and refining the financial and monetary system were pursued to establish an efficient capital market. However, the 2008 Lehman shock and the low oil prices after 2015 showed that Russia was still on its way to establish an efficient capital market.

3. Monetary statistics during each period

As the nationwide monetary and financial system was in the process of formation in the Russian Empire, the monetary statistics covering the entire national monetary and financial system were virtually unavailable. In the period before 1861, monetary statistics representing the entire national monetary and financial system were essentially non-existent. Gindin (1948) and Morozan (2004) collected monetary statistics of individual regions and financial institutions; their works are impressive but insufficient to draw a statistical picture of the entire monetary and financial system during the period.

Since the Imperial Gosbank started operations in 1861, data on the main balance sheet items of the Imperial Gosbank have been available in a systematic way (Gindin, 1960; Appendix 1); however, data on the balance sheet totals are unavailable for unknown reason. Gindin (1960; 1997) and Salomatina (2004) collected data on private commercial banks after 1864. The aggregated data on financial institutions other than the Imperial Gosbank and private commercial banks seem to be unavailable; however, the materials on individual financial institutions might be preserved in the archives. It is possible to outline the developments of the monetary economy from the available data after 1861; however, the data are insufficient to quantitatively analyze relationships between the developments of the real and monetary economies. The money supply statistics (Figure 3) are an example of this situation. Even if we focus on the period after the adoption of the gold standard in 1897, it is not straightforward to know what money supply indicators were representing. The data on banknote issuance by the Imperial

Gosbank are systematically available and seem reliable; however, it is uncertain as to how well they represent the money supply. Gold and silver coins were issued other than Ruble notes. Moreover, various money surrogates were issued even after 1897. Further, we need to consider deposit money supply. The aggregated data on money surrogates and deposit money were sparingly available both before and after the adoption of the gold standard, although it was probable that money surrogates circulated more before the adoption of the gold standard. Drummond (1976) showed how the picture on money supply changes with different definitions of money supply. If we look at the issuance of paper money by the Imperial Gosbank, money supply decreased sharply after the adoption of the gold standard. In contrast, using the wider definitions of money supply provided by Drummond (1976), only a small decrease in the money supply can be estimated. With the availability of more comprehensive data on deposits and money surrogates, the picture of money supply may change. This example shows that we need to be careful about the representativeness of data when we use monetary and financial data from the period of the Russian Empire.

(Figure 3)

The monetary and financial statistics are more problematic in the Soviet period than in the period of the Russian Empire. First, the availability of data is extremely low. Until 1937, the Soviet Gosbank's balance sheets and the balance of payments tables were available; however, these data are not available after 1937 until the end of the Soviet system. Kashin and Mikov (2010) published a collection of the Soviet Gosbank's balance sheets for 1922–1990 compiled from archived materials. The publication of Kashin and Mikov (2010) is a great contribution to the Soviet monetary and financial statistics; it is Kashin and Mikov (2010) that made Soviet money supply data available for the first time (Figure 4). The availability of data on the Soviet monetary system is, nevertheless, still far from sufficient. As of September 2016, monetary and financial data such as balance sheets of financial institutions other than that of the Soviet Gosbank, money supply data by republic, and the balance of payments tables are unavailable.

Second, there is a more fundamental problem of the Soviet monetary statistics than their limited availability: It would be difficult to understand what the Soviet

monetary and financial indicators mean in economic terms. This problem stems from the fact that the Soviet monetary and financial system was not based on the market mechanism. In market economies, we observe the relationships between monetary and real economies using information generated by the market such as price indices, interest rates, and exchange rates. In contrast, such information was fundamentally unavailable in the Soviet economy where market activities were restricted by law and institution. Prices, interest rates, and exchange rates were set administratively in the Soviet economy; it is difficult for both, Soviet and non-Soviet observers, to understand their economic implications.

The Soviet monetary economy had been in a contradictory situation; the Soviet system restricted the market in conformity with the Socialist ideology, while money—in particular, fiat money—was used reality for practical reasons. From the perspective of the history of money, the time of the Socialist revolution was also the time of transition from the gold standard to fiat money. No country in the world had a clear idea as to how fiat money should be managed at that time. Later, market economies established a way to manage fiat money by using the information generated by markets and by intervening the markets, more or less adaptively, with monetary and financial policy instruments. However, the extent of their success is still open to argument, considering the recurrence of the global financial crises. In contrast, the Soviet economy was unable to establish a mechanism to manage fiat money; the Soviet monetary authority continued to claim that the gold parity of the Ruble officially guaranteed its value. The gold parity of the Soviet Ruble can be traced back to Chervonets, the gold-backed currency that was used during the 1922/24 monetary reform.¹⁰ Indeed, the 11th party congress officially announced that one of the aims of the 1922/24 monetary reform was to achieve monetary stability by re-establishing the gold standard. Despite the almost paranoid adherence to gold, the gold parity of the Ruble had no economic meaning at all, because no one, including foreign governments, was ever allowed to convert Ruble assets into gold. Soviet authorities did not seem to have any other choice but to claim that the gold parity of the Ruble had secured the value of the Ruble, because they were unable to establish any effective

¹⁰ The gold parity of Ruble had been changed several times for unclear reasons and grounds after 1922/24.

mechanism to manage the Ruble as fiat money. Because there was no way to identify the value of the Ruble other than the blind belief in its gold value, not only the non-Soviet but also the Soviet authorities and observers were unable to know what was occurring in the Soviet monetary economy. The situation would not have changed whether detailed monetary and financial data were available or not.

(Figure 4)

The Russian Federation has been making efforts to establish a standard system of monetary and financial statistics for a market economy. For example, IMF's *International Financial Statistics* have published Russian data including price indices, interest rates, exchange rates, and the balance of payments table since the end of 1991. They showed only the monetary survey until 1994. After 1994, they published the monetary and financial data in the standard format of the monetary authority, the deposit money banks, and the monetary survey (Figure 5); the published data in this period were, however, often changed and corrected later. Since 2006, the financial survey, including financial institutions other than deposit money banks, has been published in addition to the banking survey. The Russian national accounting statistics have showed the financial transactions table of the capital finance accounts by the five institutional sectors since 2012. As of October 2016, the detailed table of the flow of funds seems to be still unavailable in the main monetary and financial data in the Russian Federation. From the perspective of monetary and financial statistics, the transition of the Russian economy to a market economy was meant to reintroduce markets for money and capital to solve the problem of deficiency of market information necessary to manage fiat money.

(Figure 5)

4. Outlook

It is unlikely that we are able to discover some long-term aggregated monetary time-series data in the Russian Empire, although there may be some more monetary and financial data of individual financial institutions and regions. The unavailability of Soviet

monetary and financial statistics is still high, despite the opening-up of archival materials after the collapse of the Soviet Union. The basic data such as international balance of payments data and financial balance data included in the national economic balances system, which were roughly equivalent to a flow of funds table, are hardly available. Even detailed state budget data are unavailable excluding early years of the Soviet Union. Those data may be stored in the Russian archives. If they are found and published, it would contribute to deepening our understanding on not only the Soviet economy, but also the economy of the present Russian Federation. After all, the present economy is built on the past economy. I hope those somber, but important studies on the monetary and financial aspects of the Russian economic history continue to advance.

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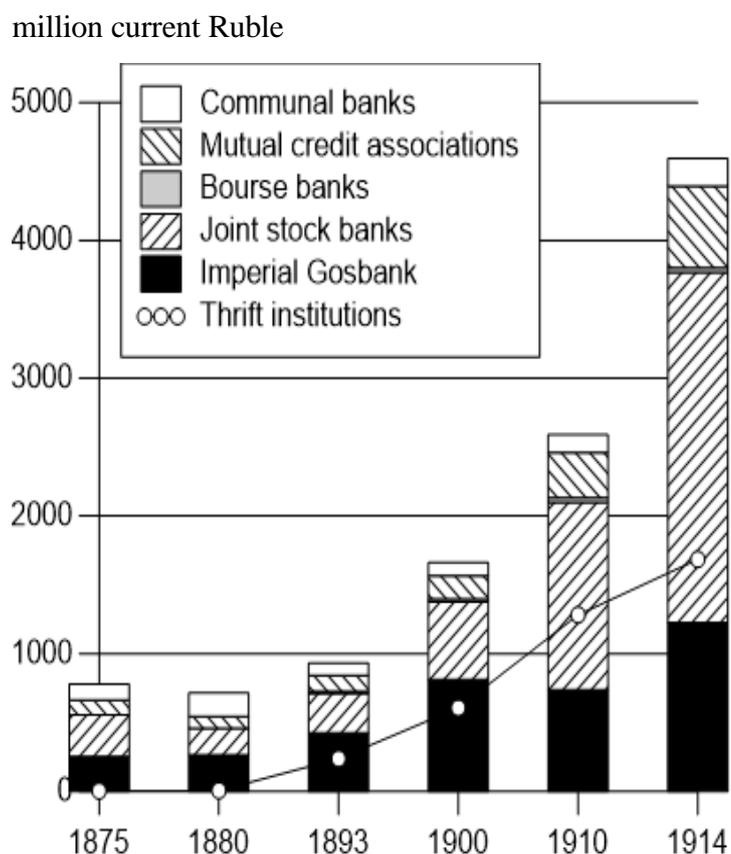
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Table 1. Historical developments of monetary and financial system

Regimes	Years	Periods and phases	Keywords
Imperial Russia	1754–1863	Proto-industrialization	State financial institutions
	1864–1896	Industrialization, the 1st	Private banks, Non-standard central bank
	1897–1917	Industrialization, the 2nd	Gold standard, Standard central bank
Soviet Union	1917–1922	Non mono-bank, the confusing	Nationalization and consolidation, Hyper-inflation, Abolition of central bank
	1922–1926	Non mono-bank, the NEP	Reintroduction of the gold standard, Revival of central bank
	1927–1932	Mono-bank, the forming	Forming the mono-bank, the Credit reform
	1933–1953	Mono-bank, the prime	State budget financing, Supplementary bank financing, War-time economy
	1954–1987	Mono-bank, the declining	Expansion of bank financing, Search for the way to manage money
	1988–1991	Mono-bank, the collapsed	Quasi two-tire banking system, Revival of private financial institutions
Russian Federation	1992–1995	Transition, the confusing	Hyper-inflation, Confusion in monetary and financial system and policy
	1995–	Standard system	Standard monetary and financial system for a market economy

Source: Compiled by the author.

Figure 1. Financial institutions in the Imperial Russia

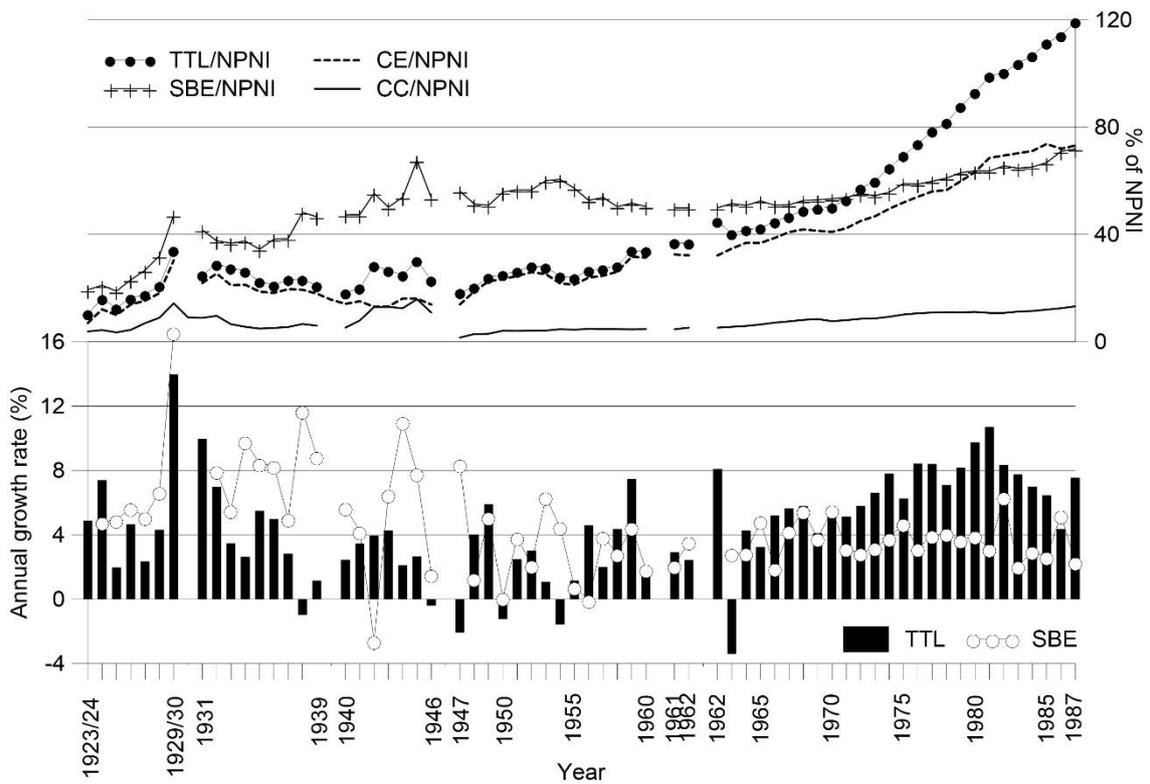


Notes:

1. The sum of deposits and current accounts' totals. The stock in million current Rubles.
2. The "joint stock banks" and "bourse banks" in the figure roughly correspond to the "joint stock and limited liability banks" in the text. It is unclear to what extent the "mutual credit associations" in the figure cover the "collective financial institutions" in the text.

Source: Gindin (1948), pp. 410–411.

Figure 2. State budget and bank loans in the Soviet Union



Notations: *TTL*: Gosbank's balance sheet total; *NPNI*: nominal PNI; *CE*: Gosbank's credits to the economy; *SBE*: state budget expenditure on the economy; *CC*: cash in circulation.

Note: *The top panel:* percentage of nominal PNI; *the bottom panel:* annual growth rates in percentage.

Source: Statistical Table 7.2.2.

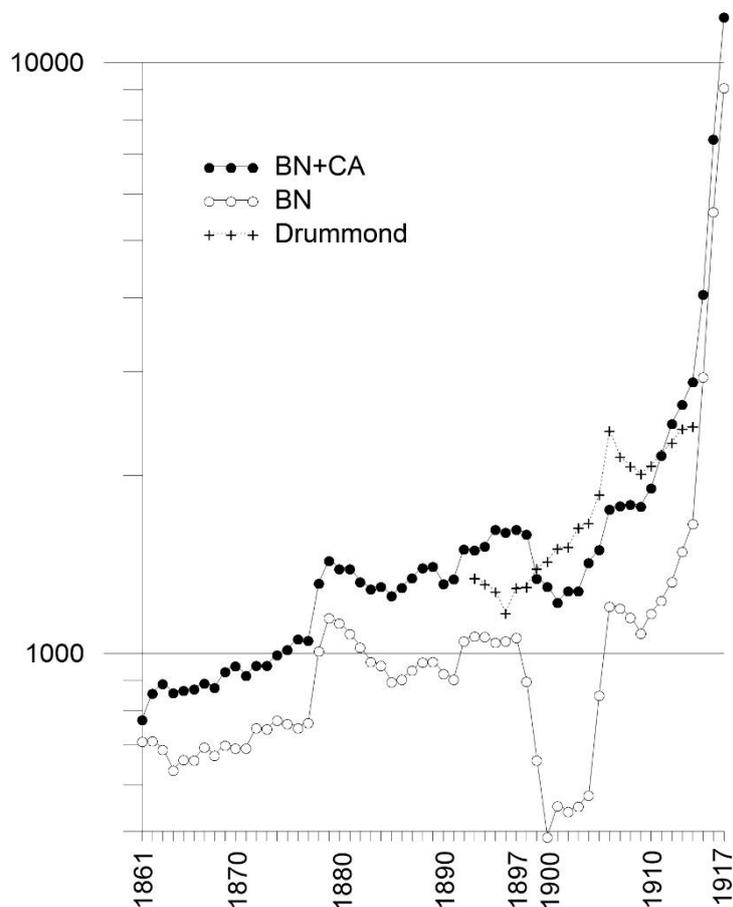
Table 2. Weights of the Soviet Gosbank in all bank loans (%)

<i>Year</i>	<i>Loans</i>	
	<i>Short-term</i>	<i>All</i>
<i>1923/24</i>	67	66
<i>1926/27</i>	57	48
<i>1932</i>	97	65
<i>1940</i>	99	91
<i>1950</i>	94	89
<i>1960</i>	96	95
<i>1970</i>	92	89
<i>1980</i>	85	80
<i>1987</i>	91	88
<i>1990</i>	1.3	0.1

Notes: In stock at the end of year. 1923/24 and 1926/27 indicate the economic year starting in October and ending in September.

Sources: Narkhoz 1987 (1988, p. 595) and Kashin and Mikov (2010, p. 75) for 1987. Kashin and Mikov (2010, p. 8) for all other years.

Figure 3. Money supply in the Russian Empire (at the end of year, million current Ruble)

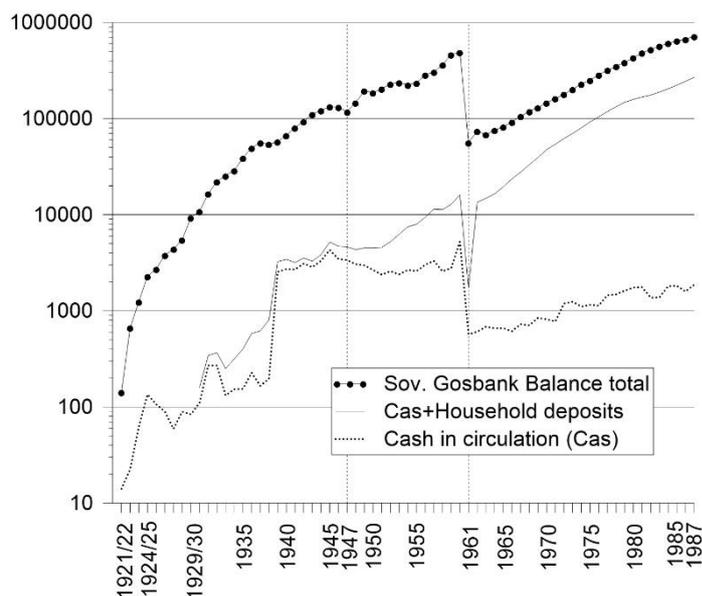


Notations: *BN+CA*: the sum of the stocks of banknotes and current account balances; *BN*: the stock of banknotes; *Drummond*: money supply adjusted by Drummond (1976).

Note: *CA* includes the balances of the accounts those the treasury held and the current accounts at Sberkassa. *Drummond* includes metallic coins in addition to banknotes and current accounts balances.

Source: Appendix 1.

Figure 4. Money supply in the Soviet Union (at the end of year, million current Ruble)

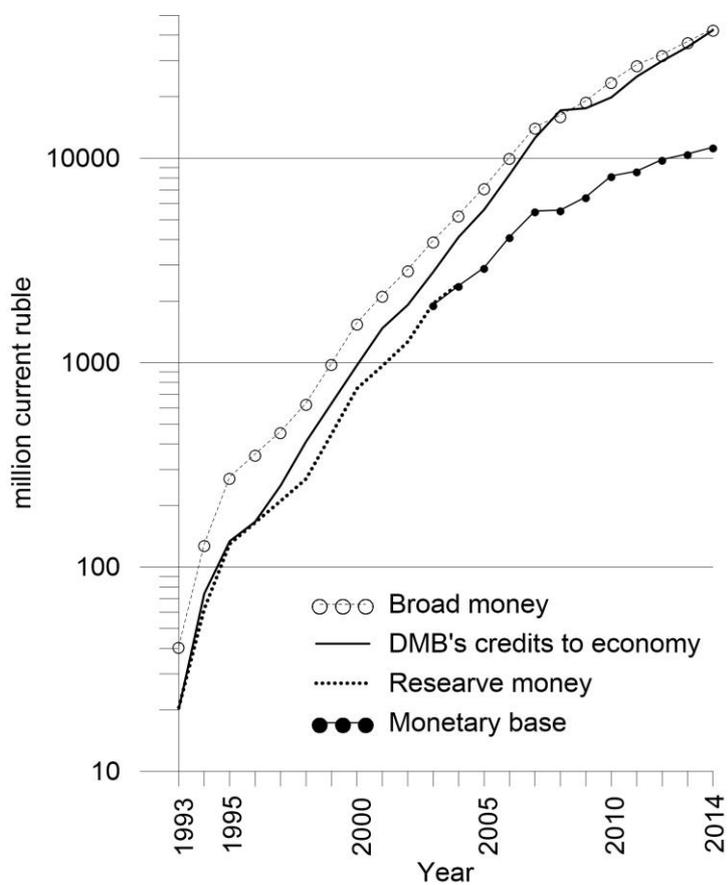


Notes:

1. 1921/22, 1924/25, 1929/30 indicate the economic year (see the note of Table 7.2.2).
2. Household deposits are deposits at Sberkassa. Cash indicates the banknotes only.
3. The currency re-denomination accounts for most of the decrease in 1961; the measurement unit is current ruble.

Source: Statistical Table 7.2.2.

Figure 5. Money supply in the Russian Federation (at the end of year, million current Ruble)



Note: “Reserve money” and “Monetary base” slightly differ each other by definitions.

Sources: IMF (2005, pp. 501–503) and IMF (2015, pp. 678–683).

Appendix 1. Financial time series of the Russian Empire (million current Ruble)

Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Deposits							
	Sberkassa	Joint stock banks			Imperial Gosbank		Sum	Non-treasury deposits at Imperial Gosbank
		Merchants banks			Treasury funds	(1)+(2)+(5)		
				Current a/c				
1861					62	30		
1862					146	33		
1863					202	42		
1864					224	62		
1865					206	40		
1866					212	40		
1867					197	32		
1868					204	49		
1869					233	50		
1870	5				262	62		
1871					228	56		
1872					207	32		
1873					211	17		
1874		275	154.4	120.1	224	17	498.5	
1875	5	300	179.3	120.4	256	30	560.7	
1876		278	173.2	104.5	311	48	588.7	
1877		227	146.2	81.1	290	60	517.3	
1878		275	128.1	146.5	305	39	579.6	
1879		254	116.6	137.7	289	30	543.3	
1880	8	197	93.9	103.1	268	42	473	
1881	9	207	96.8	110.1	313	89	528.9	
1882	11	227	102.9	124.1	299	70	537	
1883	13	211	99.6	110.9	318	58	541.5	
1884	17	214	94.1	119.5	344	79	574.6	
1885	25	219	96.5	122.7	357	66	601.2	
1886	42	264	110.5	153.7	392	72	698.2	
1887	65	255	103.5	151.6	407	118	727.1	
1888	88	235	92.2	142.8	432	167	755	
1889	111	212	89.3	122.3	436	185	758.6	
1890	139	230	99.6	130.5	389	162	758.1	
1891	191	288	114.9	172.8	437	200	915.7	
1892	239	320	127.7	191.8	454	204	1012.5	
1893	283	285	110.8	174.6	427	148	995.4	226.5
1894	330	268	102.8	165	454	172	1051.8	207.3
1895	368	308	115.3	192.4	580	331	1255.7	197.7
1896	409	305	133.6	171.6	556	324	1270.2	185.8
1897	466	354	150.4	203.6	560	332	1380	199.3
1898	537	448	168.4	279.7	698	419	1683.1	205.8
1899	608	551	231.3	320.1	684	472	1843.4	204.2
1900	662	548	245.6	302.3	813	594	2022.9	195.6
1901	723	536	235.2	300.9	671	480	1930.1	167.6
1902	784	545	229.9	315	738	499	2066.9	183.9
1903	861	613	236	377.3	726	354	2200.3	257.5
1904	911	722	264.6	457.5	854	554	2487.1	231
1905	831	776	254.4	521.2	650	351	2256.6	255.1
1906	1035	671	214.2	457.2	554	290	2260.4	263.8
1907	1149	761	217	543.9	587	301	2496.9	249.2
1908	1208	818	239.8	578.3	640	357	2666.1	231.1
1909	1283	977	290.1	686.7	695	433	2954.8	309.7
1910	1397	1262	334	928.2	739	427	3398.2	273.7
1911	1503	1675	422.9	1252.1	937	651	4115	261.3
1912	1595	1817	528.9	1288.4	1134	857	4546.3	258.3
1913	1685	2293	657.7	1635.6	1154	873	5132.3	266
1914	1835	2539	752.9	1786.1	1228	951	5602	263.1
1915	2449	2873	711.3	2161.9	1126	602	6448.2	
1916	3890	3931	632.9	3298.2	1835	794	9656.1	
1917		6748	678.1	6069.5	2892	1357		

	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Lending	Money in						
	Marchants banks	Bnaknotes	Gold and silver coins	Cash in circulation	Cash held by marchants banks	Cash held by communal banks	Gold and silver coins	Money held by public (12)-(13)- (14)+[(11) or (15)]
1861		713						
1862		714						
1863		691						
1864		637						
1865		664						
1866		662						
1867		697						
1868		675						
1869		703						
1870		694						
1871		695						
1872		752						
1873		748						
1874	109	774						
1875	113	764						
1876	107	752						
1877	90	767						
1878	82	1015						
1879	100	1153						
1880	107	1130						
1881	109	1085						
1882	128	1026						
1883	121	973						
1884	124	959						
1885	131	900						
1886	137	907						
1887	159	941						
1888	167	971						
1889	162	973						
1890	164	928						
1891	164	907						
1892	169	1055						
1893	192	1074		1084.1	24.8	6.8	67	1119.5
1894	189	1072		1071.9	23.2	8	67	1107.7
1895	231	1048		1047.7	27.6	7.5	67	1079.6
1896	254	1055		1055.3	126	8.3	67	988
1897	257	1068	66	1067.9	30.9	8	67	1096
1898	254	901	227	901	37.4	6.9	236.7	1093.4
1899	290	662	573	661.8	36.9	6.1	572.6	1191.4
1900	275	491	786	491.2	32.2	5.9	787.8	1240.9
1901	258	555	829	555	31.8	8.1	828.9	1344
1902	236	542	834	542.4	32.5	8.6	833.3	1334.6
1903	246	554	870	553.5	34.3	7.9	869.2	1380.5
1904	258	578	908	578.4	38.4	7.8	906.8	1439
1905	251	854	807	853.7	43.7	7.2	806.6	1609.4
1906	289	1208	971	1207.5	44.2	6.8	971.2	2127.7
1907	285	1195	762	1194.6	39.3	6.6	761.7	1910.4
1908	286	1155	742	1154.7	40.1	8.2	742	1848.4
1909	287	1087	672	1087.1	41.9	7.7	671.6	1709.1
1910	331	1174	693	1173.8	48.3	8	693.4	1810.9
1911	530	1234	758	1234.5	64.1	6.7	757.6	1921.3
1912	633	1326	774	1326.5	68.6	6.5	773.4	2024.8
1913	895	1495	749	1495	95.3	6.4	749.2	2142.5
1914	998	1665	617	1665	106	6.8	617	2169.2
1915	931	2947	601					
1916	1011	5617	588					
1917	1457	9104	580					

Notes:

1. All figures are the stock values at the end of year shown in million current Ruble.

2. **Joint stock banks (2)** include **Merchants banks** and **Municipal banks**. Drummond's **Cash in circulation (12)** series much to Khromov's **Banknotes (10)** series which show banknotes excluding those held by the Imperial Gosbank.

The amount calculated as Khomov's series (5) - Khomov's series (6) did not agree with Drummond's **Non-treasury deposits at the Imperial Gosbank (8)** series.

Sources: The series (1): Mitchel (1993); the series (2)–(6) and (9): Khromov (1950), pp. 531–545; the series (8) and (10)–(15): Drummond (1976).

Appendix 2. Financial and monetary time series of the Soviet Union (million current Ruble)

	The Soviet Gosbank's main balance sheet items										Lons of all banks	State budget expenditure on economy
	Foreign assets	Credits to the economy	Credits to the government	Credits to foreign governments	Foreign liabilities	Liabilities to the economy	Liabilities to the government	Cash in circulation	Household deposits	The balance sheet total		
1921	28.1	57.8	0.8	--	5.8	33.9	15.5	-	-	142.8		-
1922	147.4	456.0	0.0	--	14.9	176.3	109.0	212.5	-	664.9		-
1923	301.0	838.5	0.2	--	70.1	305.2	160.1	459.5	11.2	1247.7		-
1924	301.4	1717.7	2.0	--	55.7	854.1	316.6	621.7	33.5	2301.1		557
1925	256.7	2143.3	76.0	--	59.5	988.1	368.1	750.2	65	2723.1		916
1926	306.1	3246.3	53.1	--	129.7	1220.0	771.2	1037.2	126	3805.6		1224
1927	308.6	3832.5	33.8	--	143.9	1017.1	621.8	1738.5	213	4389.0		2085
1928	433.1	4755.5	77.6	--	142.4	1529.3	705.8	2354.1	316	5519.4		2815
1929	590.9	8424.0	48.4	--	163.5	3073.0	1113.4	3949.4	502	9353.7		3810
1930	585.5	9874.5	64.9	--	145.5	3889.2	1611.9	3967.8	494	10869.4		7910.5
1931	720.0	14825.0	225.5	--	78.7	7763.4	1625.2	5091.6	729	16576.9		16311
1932	839.0	17189.8	3205.5	--	95.7	9838.8	2315.4	7778.8	974	22175.5		25494
1933	942.2	20983.8	3014.0	--	146.9	10356.5	6216.7	6360.9	1182	25541.1		25647
1934	958.9	24414.1	3032.1	--	94.1	9629.9	9208.5	7184.6	1638	28904.9		31914
1935	1080.2	34114.2	3289.7	--	47.4	13044.4	13498.6	9136.8	2461	39075.8		40338
1936	2224.5	42346.8	4446.6	--	369.1	19312.6	16234.4	11028.3	3539	49709.2		42735
1937	2512.9	47694.2	4428.5	--	730.2	19581.7	18971.7	13416.4	4515	56581.0		43413
1938	2345.4	46179.9	4120.3	--	653.8	20953.2	12749.5	17020.1	6061	54106.5		51724
1939	2601.3	49714.7	4364.3	--	879.0	24803.8	7446.3	21947.4	7057	57862.7		60416
1939	318.5	49714.7	4365.7	--	879.0	23708.4	8414.5	19665.6	7057	57862.7		--
1940	860.2	58038.3	4364.9	--	1050.0	27794.6	13010.4	19391.2	7253	66869.3		58264
1940	860.2	57740.0	4364.9	--	1050.0	28652.4	12135.4	19391.1	7253	66871.6	64060	--
1941	779.0	57065.6	18728.5	--	828.3	32363.5	6161.1	32033.9	4960	80793.4		51657
1942	703.0	49913.8	39248.4	--	1294.8	33659.7	7220.8	42731.1	4410	93820.3		31557
1943	721.2	54524.7	52147.3	--	1793.4	37622.1	8869.2	54518.4	4405	111634.4		33083
1944	834.9	64534.9	51651.6	--	2031.7	39040.5	9834.3	61214.4	5232	121946.9		53800
1945	1199.2	71102.9	53835.0	--	2557.7	39401.3	10456.0	69965.6	9001	133644.3		74500
1945	1200.0	71100.0	53300.0	--	2558.0	39105.0	8226.0	69587.0	9001	133644.0		--
1946	2255.7	79565.1	43812.9	--	2399.0	39601.1	15857.0	62356.4	12208	131390.4	85900	106200
1947	2689.3	89767.4	19918.4	--	1980.6	42858.7	47395.6	10045.8	12661	118094.5		133100
1948	4841.1	135436.7	1623.8	--	2169.9	39697.4	70709.9	20730.4	12879	147024.3		149600
1949	4928.1	182870.9	2217.7	--	2372.7	53754.0	96767.0	24159.8	15461	194833.6	143000	161900
1950	5360.2	173111.1	3011.7	--	2604.9	52642.4	81708.5	30453.6	18530	185804.6	193418	158000
1951	6895.4	191402.4	2874.2	--	2224.1	57220.4	93055.5	31607.3	21924	205134.5	214500	179600
1952	9546.7	210815.0	4965.6	--	2220.9	53028.2	115398.2	33857.5	26445	229458.8	236880	178800
1953	12438.0	216137.7	5819.7	*1230.3	2281.6	60453.7	112523.9	35848.4	38649	238641.7	243300	180400
1954	14189.1	199777.4	5769.6	*1100.6	2832.6	66913.6	82703.2	43075.0	48353	224324.8	229600	213400
1954	14189.1	199777.4	5769.6	*1100.6	2832.6	66913.6	93600.3	43075.0	48353	224324.8	--	--
1955	18788.5	209471.0	3418.1	*1549.4	2347.8	69142.8	104479.9	44380.0	53664	235604.8	240840	222300
1956	20172.9	255922.8	3236.1	*1520.4	3129.8	84763.1	129035.9	51460.4	63748	284420.3	286700	245000
1957	4563.5	277613.8	3945.2	15960.3	3201.0	88474.8	145733.2	53132.1	80579	306791.2	312500	267000
1958	2703.7	333585.6	4242.7	17127.1	2510.5	108999.4	175583.8	59211.4	87186	362294.7	371370	290000
1959	4011.7	431767.4	6941.5	16612.3	2785.6	124443.2	250560.4	64271.4	100564	463865.1	437570	324000
1960	4107.9	454904.8	8102.5	16496.0	2324.5	123015.0	266428.8	53543.9	109092	491730.5	465350	341000
1960	873.7	45513.8	960.6	3682.0	523.4	12325.4	29053.8	5230.3	10909	52112.1	--	--
1961	853.1	49744.7	758.9	4320.6	726.0	13746.6	30313.0	7133.9	11671	56561.2	51549	32600
1962	967.6	52983.3	903.1	4807.6	782.2	14275.0	32081.6	8689.2	--	60554.7	55375	36200
1962	967.6	52983.3	13594.6	4807.6	782.2	14054.3	32624.1	8659.6	12880.9	73859.2	--	--
1963	1150.5	58664.1	1958.8	5313.8	832.0	16447.8	22479.0	9420.9	14124.6	68134.1	61011	38800
1964	952.9	66945.6	991.6	5926.4	868.6	19503.1	24001.7	10692.8	15834.9	75846.4	69217	40600
1965	850.8	71273.3	2118.3	6610.8	1188.8	22190.0	22515.9	12441.7	18855.7	82091.9	74030	44900
1966	807.4	80326.0	2341.1	7559.0	1147.0	25124.7	23829.2	14817.3	23045.9	92860.9	85435	45200
1967	1344.2	92208.3	1584.5	8513.0	1424.8	29313.3	25582.9	17150.3	26997.0	105565.7	98178	52800
1968	1505.0	102284.9	4486.0	9736.8	1857.0	32569.4	27306.7	19929.3	32500.8	119645.8	109518	58700
1969	1945.8	108326.2	7672.2	10953.3	2176.6	35397.3	26189.9	22158.9	38536.7	130336.1	116081	62400
1970	2396.6	118755.4	11276.1	11998.8	2554.3	38828.7	28897.2	22254.2	46743.1	145935.4	126234	74600

1970	2396.6	118738.4	9803.5	13381.3	1070.4	37309.5	30839.2	22254.1	46743.1	145935.4	--	--
1971	3486.0	129127.3	13180.9	13979.7	1183.0	41875.6	32290.8	24570.4	53369.0	161546.7	137000	80400
1971	3486.0	129127.3	13180.9	13979.7	1184.4	38902.7	36109.4	24570.4	53369.0	161546.7	--	--
1972	1677.9	141251.1	17290.0	17373.2	2282.1	41252.3	41566.5	26864.6	60889.4	179692.5	150500	84900
1973	2118.9	158073.9	21007.0	18535.5	6798.6	45504.9	44458.5	29350.2	68815.8	202035.8	168900	91300
1974	3451.0	175577.2	27275.9	21004.7	9257.7	51313.3	49391.0	32974.2	79074.2	229646.5	188700	99700
1975	3134.1	188746.5	35744.8	22233.3	11582.3	55878.8	49998.8	36936.5	91153.8	252338.8	204044	110700
1976	4135.1	208523.0	45024.1	24536.3	13314.7	60725.4	59379.6	40977.0	103174.3	284782.4	227868	118500
1977	5158.3	227273.6	54338.1	28932.3	14259.7	66933.3	68324.1	44177.1	116839.7	318855.3	254000	129800
1978	5639.4	241211.0	64109.8	35063.5	15985.4	73175.8	72561.7	46973.7	131322.3	349094.5	274900	141300
1979	7982.1	262574.3	71331.7	39600.8	18742.7	82257.6	76281.4	48158.8	146438.2	384866.1	300400	151400
1980	9435.6	292753.1	79762.3	44039.8	20883.0	97828.3	87121.6	51355.1	156729.8	429846.0	342464	161000
1981	10653.4	333685.1	85526.5	47528.9	29428.4	114343.0	99800.1	52360.3	165945.2	481893.5	413533	169800
1982	12361.8	363496.7	92995.6	53137.3	29729.4	137444.0	106831.1	56245.9	174572.1	525473.2	445500	197300
1983	13759.5	384700.2	105758.3	60144.6	30815.6	144370.5	121102.2	61543.8	187187.0	567870.6	469700	201800
1984	15238.8	405197.5	115584.4	67582.8	31580.5	156284.5	127963.7	65283.6	202339.2	607706.5	496800	211700
1985	14696.5	426662.4	126859.6	72498.1	36431.5	161453.5	132388.9	69367.3	221078.4	645017.0	521300	209100
1986	15706.2	422544.2	149587.5	78497.5	40163.4	167290.9	122047.7	73510.9	243080.5	670547.5	452600	226300
1987	13638.0	438705.2	173094.8	84716.1	40948.9	176788.7	127450.2	79130.9	267193.5	715771.6	432100	226900
1988	--	--	--	--	--	--	--	--	--	--	404600	242800
1989	--	--	--	--	--	--	--	--	--	--	391100	201500
1990	--	--	--	--	--	--	--	--	--	--	364414	197500

Notes:

1. All figures are the figures at the end of year shown in million current Ruble excluding the figures of state budget expenditure on economy, which indicate the annual flow figures in million current Ruble. The label of a year such as 1921/22 denotes the economic year starting October and ending in September. The symbols “-” and “--” denote “the figure is unavailable” and “the figure is not defined”, respectively.

2. The source of the balance sheets of the Soviet Gosbank is Kashin and Mikov (2010). The table here shows only the items aggregated by the author based on the balance sheets of the Soviet Gosbank in Kashin and Mikov (2010). There are a number of changes in definitions and compilation methodologies of the balance sheets throughout the Soviet period. Even the aggregated items are not completely comparable between the two years marked with # which show the figures based on the old and new methodologies, respectively. The figures for the period after 1988 were omitted, because they are completely incomparable with the figures in the table because of the 1988 banking reform that introduced a quasi two-tire banking system. Kashin and Mikov (2010) include the Soviet Gosbank’s balance sheets in this period as well.

3. Household deposits indicate the deposits accepted by Sberbank; they include, therefore, deposits of cooperatives and other organizations. Sberbank was transferred from the Ministry of Finance to the Soviet Gosbank in 1963; the household deposits were not an item of the Soviet Gosbank’s balance sheet until then. figures until 1962 (the figures in italic). During the period from 1962 to 1987, the household deposits figures include the household deposits accepted by the Soviet Gosbank the in addition to the deposits at Sberkassa and they are the Soviet Gosbank’s balance sheet item. The household deposits accepted by the Soviet Gosbank were negligible because the Soviet Gosbank accepted household deposits only in a special case of war participants (Nakamura, 2012). The household deposits after 1988 are again the deposits accepted by Sberkassa only because of the 1988 banking reform. Kashin and Mikov (1990, p. 75) indicates all household

deposits accepted by the total banking system were 2672, 2981, 3415 billion current Ruble at the end of years of 1987, 1988, and 1989, respectively.

4. The item “Credits to foreign governments” was included in the foreign assets item until 1956 (the figures with *); the item was separated from the foreign assets in 1957 and after. The accumulated trade imbalances against socialist countries accounted for the most of credits to foreign governments. As the Soviet Union generally recorded trade surplus against socialist countries, the credits to foreign governments increased in the net term. The credits to foreign governments were foreign assets, but their repayments were uncertain. This might be the reason why the credits to foreign governments were separated from the foreign assets item. Note also that the Soviet Gosbank’s balance sheet did not record most of foreign borrowings in hard currency (US dollar) from the Western countries, because those funds in hard currency were used to pay obligations in hard currency and, thus, did not need to be converted into Ruble. Foreign borrowings in hard currency were treated like off-shore financial transactions (see Nakamura, 2015).

5. The series of “loans of all banks” include all short- and long-term loans to the economic and non-economic sectors lend by the Soviet Gosbank and the other financial institutions. The Soviet Gosbank did not give long-term loans excluding loans to the government and loans to sectoral banks which gave long-term loans. The sectoral banks gave long-term loans to agriculture collectives, cooperatives, and housing construction. Loans to the non-economic sector included consumer loans, housing loans, and loans to social organizations.

6. The figures of the state budget expenditure on economy before 1937 are figures adjusted for the major change in compilation methodology in 1937; they are basically comparable to the figures after 1938 and differ the figures published before 1937.

Sources:

The Soviet Gosbank’s balance sheet items: Kashin and Mikov (2010); ***Loans of all banks:*** Narkhoz (1959, p. 908; 1961, p. 849; 1963, p. 641; 1964, p. 776; 1966, p. 788; 1969, p. 779; 1971, p. 737; 1976, p. 746; 1981, p. 528; 1986, p. 566; 1991, p. 301); ***State budget expenditures on economy:*** RGAE 7733/15/491/25/29 and RGAE 7733/36/1847/119, 127, 129 for 1924/24 to 1930; RGAE 1562/41/543/21–25, RGAE 1562/41/654/9, RGAE 1562/41/885, RGAE1562/41/1093., RGAE 1562/41/1413, and GARF R7523/104/112D for 1931 to 1970 excluding 1940 to 1945; Goskomstat SSSR(1990, p. 215) for 1940 to 1945; Narkhoz (1976, p. 742; 1981, p. 522; 1983, p. 521; 1985, p. 573; 1986, p. 559; 1991, p. 16) for 1971 to 1990.