

Historical Background of the Soviet Monetary Policy

2.1 TOWARD THE ESTABLISHMENT OF THE SOVIET MONETARY MANAGEMENT

2.1.1 *Money Must Be Eliminated but Needs to Be Used*

The socialist dogma advocating the elimination of market, money, and capital undoubtedly influenced the formation of the Soviet economic institutions. Following the socialist idea, material planning, that is, allocation of economic resources by the administrative power, was established as the foundation of the Soviet economy, whereas market activities were legally and institutionally restricted. However, despite the socialist dogma money continued to be used in the Soviet economy.

The money used in the Soviet economy was fiat money. In 1914, the Russian Empire abandoned the gold standard to finance her war efforts for World War I, much as other economies chose to do (Ikonnikov 1954, p. 95). The Soviet government temporarily used Chervonets, a gold-backed currency, during the monetary reform of 1922–1924 that intended to end hyperinflation caused by World War I and the Russian Civil War. Issuance of Chervonets was stopped in 1924 (Kravtsova 1983, p. 104). Excluding this temporary use of Chervonets, the socialist government did not re-introduce the gold standard.¹

Soviet authorities seemed to have the tendency to cling to the gold standard, at least in theory. In 1922, the Eleventh Party Congress announced that one of the basic objectives of the monetary reform of

1922–1924 was to stabilize the value of ruble by re-introducing the gold standard (Dobrokhotov et al. 2008, pp. 122–126; Manevich 1986, p. 22). Although Chervonets virtually stopped circulating after the monetary reform of 1922–1924, ideas of returning to the gold standard lingered well into the 1930s (Kashin 2007, pp. 45–56; Savluk 1986; Wilczynski 1978, p. 201). In the 1950s, the Soviet government asserted strongly that the ruble was backed by gold (Wilczynski 1978, p. 201). Soviet economics textbooks such as Institut (1962, Chaps. 26, 32) claimed that the gold parity of ruble secured the value of ruble. The gold parity of ruble was officially announced until the end of the Soviet system. However, all these had no real economic substance. Except for Chervonets, Soviet money was never converted into gold.² Even the socialist governments did not use gold to settle their foreign trade imbalances between them. When the governments needed to finally settle their accumulated debts after the collapse of the socialist system, they used neither gold nor their currencies but the US dollar (Lavigne 1990). It may be an interesting thought experiment to speculate what would have happened had the Soviet economy re-introduced the gold standard. Practically, it was impossible to use gold-backed money in the Soviet economy. Industrial development reached a certain level in the Soviet Union, even at the time of the socialist revolution, and it was certainly unacceptable that the limited gold reserve should constrain Soviet economic growth.

Thus, the money the Soviet economy used was fiat money. As is true for all fiat money, Soviet money did not have inherent value; the purchasing power of fiat money rests on people's confidence in fiat money. The demand for fiat money is basically infinite, given people's belief that it has value. In addition, the supply of fiat money is unrestricted in the sense that its issuance has only nominal cost. One can supply fiat money as long as people believe it has value. The main challenge in the management of fiat money is, therefore, learning the extent to which people believe in that the money issued has value and controlling this belief. The Soviet management of fiat money certainly faced the same problem.

From the perspectives of economic history and history of economic thought, "how to manage fiat money after departure from gold standard" was an open question in any economy and is probably still open. For example, Bank of Japan tried to control banknote emission by requiring a guarantee for banknote issuance and imposing a quantitative issuance limit after the *de facto* abolition of the gold standard

in 1914. It was only in 1941 that the departure from gold standard and those restrictions on banknote issuance were enacted as Bank of Japan law. During the period from 1914 to 1941, a return to gold standard was occasionally pursued; these attempts turned out to be unsuccessful. Both before and after the enactment, as a customary practice in Japan, banknotes were issued over the limit and revision of the limit was authorized following the fact of the issuance (FSA 1997). A similar practice was commonly observed in several countries at the time (Eichengreen and James 2003; Eichengreen and Temin 1997). In 1997, Bank of Japan law formally abolished the restrictions because, first, it was impossible to develop a method to calculate an optimal limit of banknote issuance and, second, it was unclear what type of influence the limiting of banknote issuance would have on the economy when demand for banknote existed.

It is certain that management of fiat money is based on the market in market economies, whether it is successful or not. The market generates information necessary to manage money, such as prices, unemployment rate, interest rate, and exchange rate; monetary and financial policy instruments are exercised in the market, as they are based on the information. In contrast to market economies, the Soviet economy should have established mechanisms to manage fiat money without relying on the market, because it legally and institutionally restricted most market activities. Soviet authorities, who had no theoretical knowledge or experience of managing fiat money, faced the problem of managing fiat money without using the market. In hindsight, the eventual collapse of the Soviet economy implied that they were not able to solve the problem. The Soviet economy, nevertheless, needed to search for a way to manage fiat money as long as it existed and used that money.

2.1.2 Before the Establishment of the Soviet Monetary Management

Vast literature, both Soviet and non-Soviet, describes the development of the banking institutions and monetary policy after the 1917 revolution (Alkhimov 1981; D'iachenko 1958; Dymshits 1956; Garvy 1977; Ikonnikov 1954; Kravtsova 1983; Kuschpeta 1978; Melkov 1969; Sigg 1981; Zakharov 2007). In this sphere, the first act the socialist government firmly executed was the nationalization of the banks. The predecessor of Gosbank, Narodny Bank of the Russian Soviet Federated Socialist Republic (People's Bank of the RSFSR), was established in

1918 through the merger of the Russian Empire's State Bank and other banks nationalized after the Bolshevik revolution. The Narodny Bank had mostly completed the consolidation of other private banks by 1919. However, the role of the Narodny Bank was limited to settlement operations and management of treasury funds. The bank provided few funds to the economy, as state budget funds primarily financed the economy.

Both socialist dogma calling for the abolition of money and practical needs for funds moved the Soviet government not to establish a prudential mechanism for managing fiat money but liberate monetary management. In May 1919, the Soviet government abolished all restrictions on banknote issuance that still existed after the departure from the gold standard. Financing became increasingly difficult for the Soviet government as the Civil War intensified. The Narodny Bank itself was abolished in January 1921; the People's Commissar of Finance, the equivalent of the Ministry of Finance, took over the functions of the Narodny Bank. After the abolition, paper money was simply printed more to finance the government and various state organizations; these state and public organizations also issued various money surrogates by themselves. The result was hyperinflation during the period of the "War Communism." In reality, the Soviet monetary economy was not functioning at the time, with or without the bank system. Of the total wages, 93% were paid in kind around the beginning of 1921 (Kuschpeta 1978, p. 28), and taxes were collected in kind (Nove 1992, pp. 57–68).

After the Civil War, the government changed its economic policy to the New Economic Policy (NEP), a market-oriented economic policy, because the mobilization method used during the Civil War was unable to induce economic recovery. Gosbank RSFSR was re-established in October 1921 to develop a sound monetary policy and provide short-term loans to the economy³; Gosbank re-introduced the guarantee requirement and limit for banknote issuance. A functioning banking system was needed to conduct the NEP. Various banks and financial institutions were established to support market activities from 1922 to 1932 (Kashin and Mikov 2010, p. 8; Zakharov 2007, pp. VIII–IX). It was more important for the Soviet government to ensure the economy worked again than to maintain the socialist dogma to abolish money (Ericson 2006, p. 70).

A series of measures, which were known as the 1922–1924 monetary reform, were implemented from 1922 to 1924 in order to end the hyperinflation and restore monetary stability. The gold

standard money, Chervonets, was issued in 1922 mostly for external transactions. Of the value of Chervonets, 25% were backed with gold or foreign exchange reserves and the other 75% with short-term commodity bills (Baykov 1946, p. 89). The exchange rate of Chervonets became stable in the international currency market (Segal and Santalov 1925, p. 347; 1930, p. 417), although inflation had not ended in the domestic economy because paper money and monetary surrogates were still issued to finance the state budget deficit. In 1924, the 1924-face ruble banknotes were issued, while older-face banknotes, paper money, and money surrogates were demonetized. The inflation finally ended as the state budget and international balance of payments turned surplus by 1925 (Ikonnikov 1954, pp. 144–147). Gosbank SSSR, to which Gosbank RSFSR was reorganized to fit the union structure of the Soviet state in 1923, finally received the exclusive right of banknote issuance in 1925.

In the late 1920s, the banks gradually turned into institutions that controlled enterprises and conducted operations of the state budget funds, as the basic strategy changed again from market-oriented NEP to the Five-Year Plan (FYP), which symbolized the administrative command economy (Davies 1958, pp. 141–142). Gosbank started strengthening its control over the enterprises, especially after the rule that only one banking institution should serve each economic entity was introduced in 1927. Gosbank also started strengthening its dominant position in the financial economy. Although most of the other banking institutions were consolidated, some special banks still existed. These banks served specific spheres such as agriculture (collective farms), housing construction, and foreign trade. However, the economic roles of banks other than Gosbank were generally reduced to being minor and subsidiary. Gosbank took over the short-term loan operations from other banks and financial institutions, and its shares of the total short-term loans and grand total of the short- and long-term loans were 67 and 66%, respectively, at the end of the 1923/24 economic year.⁴ The shares slightly decreased to 57% for short-term loans and to 48% for all the loans at the end of the 1926/27 economic year. Then, they increased again to 97 and 65% for short-term loans and all the loans, respectively, at the end of 1932 and to 99 and 91%, respectively, at the end of 1940. After that, Gosbank's position in the Soviet banking changed little until the 1970s; the shares were 92% for short-term loans and 95% for all the loans at the end of 1970. Gosbank's shares slightly decreased in the 1970s; they were 85% for short-term loans and 80% for all the loans at the end of 1980. In

the 1980s, they recovered again: Gosbank's shares were 91% for short-term loans and 88% for all the loans (Kashin and Mikov 2010, pp. 8, 75; Narkhoz-1987, 1988, p. 595).

Nationalization and consolidation of the banks were completed in the 1930s, while the monetary policy was still in confusion. As mentioned previously, a way to manage fiat money was being searched. Return to the gold standard was still considered as a way to maintain a sound monetary policy. On the other hand, the management of money needed to be more flexible, as the first FYP started in 1928 intensified the industrialization drive. Piatakov, who assumed the chairmanship of Gosbank in April 1929, executed an inflationary policy to supply funds to enterprises in an almost unrestricted manner in order to maximize industrial growth (Davies 2001, pp. 72–73). However, he was dismissed in October 1930, as the negative effects of the inflationary policy became obvious (Gregory 2004, pp. 224–226; Gregory and Tikhonov 2000).

The basic framework of the Soviet monetary management was established during the period from the “1930–1932 credit reform” to the end of the second FYP in 1937. Therefore, it took 15–20 years after the socialist revolution of 1917 to establish the typical Soviet monetary management mechanism. The turmoil after the socialist revolution was certainly one reason why it took so long to establish the typical Soviet monetary management. However, it was not the only reason. The classic socialist theory did not instruct on the way to manage money, gold-backed or fiat. Soviet authorities did not seem to have a clear idea on the management of money, except for eliminating it. The 1930–1932 credit reform itself was not based on a coherent idea regarding monetary policy and management.⁵ The first phase of the 1930–1932 credit reform under Gosbank President Piatakov allowed the enterprises to access bank loans almost freely and, thus, caused inflation. Then, the monetary policy was changed to a sounder policy. The later stage of the 1930–1932 credit reform created a monetary system that adapted better to the administrative command economy: Supply of bank loans was restricted, and enterprises' financial transactions were monitored more closely (Gregory and Tikhonov 2000). The Soviet monetary management reached its completion by the end of the second FYP in 1937. From that point, the basic Soviet monetary management framework remained unchanged until 1987, when the pseudo-two-tier banking system was introduced in 1988 (Atlas 1967, p. 138; Garvy 1977, p. 31; Podolski 1973, pp. 19–57; Round Table 1989; Simonov 2016, pp. 27–45;

Zakharov 2005, p. 5). Whether the banking reform of 1987 changed the Soviet monetary management fundamentally is open to question, though it definitely changed its appearance. Gosbank's shares in short-term loans and all the loans were 1.3–0.1% at the end of 1990, respectively (Kashin and Mikov 2010, p. 8).

2.2 ESTABLISHMENT OF THE SOVIET MONETARY MANAGEMENT IN THE 1930s

2.2.1 *Basic Idea of the Soviet Monetary Management*

The Soviet monetary management was established in the 1930s. Its main features can be summarized as follows: (1) state budget funds, which did not require interest payments and repayment of principal, financed most capital investments including approved standardized (normative) liquid assets; (2) the “mono-bank” system aimed at monitoring and controlling all individual monetary transactions in the enterprise sector; (3) money flows were divided into cash and non-cash money flows in legal and institutional terms; and (4) government monopolized foreign exchanges.

State Budget Funds and Bank Loans. State budget funds were the main pillar of the Soviet monetary management (Allakhverdian 1962; Atlas 1967; Baykov 1946, pp. 407–408; Shenger 1961). State budget funds that required neither interest payments nor repayment of the principal financed most of the state enterprises' financial needs. Other than state budget funds, enterprises were allowed to have their own funds including a part of amortization funds earmarked for fixed capital repairs, a part of retained surplus (profit) earmarked for certain restricted purposes, funds collected from enterprises and redistributed to them by the upper organizations, and bank loans. The roles of these funds were limited and subsidiary.

Bank loans were granted in a restrictive manner primarily to meet short-term financial needs that were changing temporarily and difficult to quantify in advance, such as seasonal demands for funds and bridge loans during transportation and settlement. Bank loans needed to be secured with material collateral and were allowed only for stipulated purposes. The item of loan was, therefore, changed according to the production process, even within a single enterprise, from loan to work-in-progress

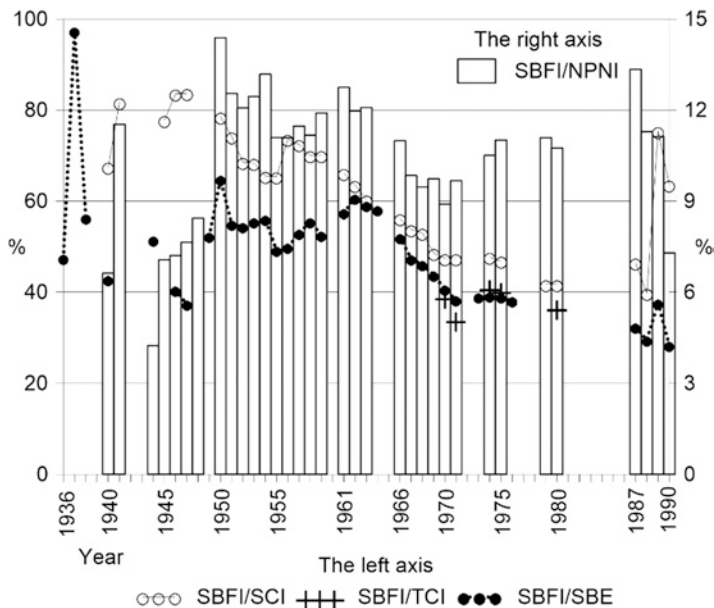


Fig. 2.1 State budget funds and capital investments (%). Note: SBFI, SCI, and TCI show their planned figures in the state budget plans. SBFI is a part of SBE. Capital investment in the peripheral sphere and normative liquid assets account for the difference between SCI and TCI. The data are unavailable for the years when the plots are not shown. *Source* Appendix shows the sources of all series.

goods, to loan to finished goods, to loan to goods on delivery, and finally to loan to goods on settlement. All due procedure and paperwork had to be done for each change of the item of loan (Smirnov 1982, p. 40).

Financing capital investments with bank loans in the state enterprise sector were not considered. The “state capital investment” was financed by state budget funds and corresponded to the dominant part of the capital investment done by state enterprises (Fig. 2.1). The list of the state capital investment projects was a part of annual national economic plan. Long-term loans supplied by special banks, such as the Agricultural bank and Industrial bank, were used to finance capital investments in peripheral spheres such as collective farms, cooperatives, health care and culture, and housing. The 1965 economic reform first introduced long-term bank loans as a financing source for state capital investment projects (Resheniia 1968, vol. 5, pp. 658–685, Art. 41; Rotleider 1979, p. 66). However, as

we will discuss in detail later, financing capital investments by bank loans never developed in the state enterprise sector. Note that the decreasing trends in the shares of state budget financing in capital investment financing (see SBFI/SCI and SBFI/TCI in Fig. 2.1) mostly reflected changes in rules for use of state budget funds and amortization funds. Earlier, most of enterprises' profits and capital depreciation allowances were collected to the state budget and then allocated to individual enterprises; later, the government made individual enterprises use their own funds more to finance their capital investments without collecting them to the state budget (Podshivalko 1983, pp. 62–85). From the hindsight, this change in the fund allocation rule may be understood as an additional measure to mobilize enterprises' funds in order to finance the increasing state budget capital investment if we consider that the ratio of SBFI to nominal PNI generally remained at the similar level (SBFI/NPNI in Fig. 2.1).

Both short- and long-term bank loans were allocated to enterprises in an administrative way, similar to the allocation of material inputs and state budget funds. Demand for bank loans was supposed to be derived from the real side of the economic plan. Planning agencies, including Gosbank, allocated quotas by item of loan to each enterprise based on applications from them. How the supply of bank loans was planned was unclear and only roughly explained as follows. The supply and demand balance table of bank loans were compiled first at the macroeconomic level. The total supply was broken down into limits on the bank loan supply for the republics and, then, for Gosbank's branch offices and other lower-level financial institutions (Borodin et al. 1973; Dobb 1966, pp. 389–400; Ikonnikov 1954; Kravtsova 1983; Kuschpet 1978, pp. 173–175). Supply and demand of bank loans were adjusted administratively; the interest rate was uniformly fixed; and terms of loans were not differentiated by enterprise, excluding cases in which enterprises violated loan contracts. Soviet monetary economists emphasized the importance of compiling various types of balance tables between the estimated inflows and outflows of money at various institutional levels. Kravtsova (1983, p. 145) used the term “balance method of monetary management” to summarize the Soviet method of monetary management. These balance tables certainly provided some useful information for managing money. However, this information was insufficient, because the balance tables could be closed in many ways and included little information on fund-use efficiency.

Procedures, regulations, models, and rules of thumb undoubtedly existed to estimate incoming financial resources to and outgoing funds

from financial institutions at various levels, and the various balance tables were compiled based on these information and estimations. There was, however, no mechanism equivalent to the reserve ratio and liquidity requirements in market economies (Podolski 1973, p. 53; Wilczynski 1978, p. 60). The nonexistence of reserve ratio and liquidity requirement seems to be the logical consequence of the supposed division between cash and non-cash money, which is another feature of the Soviet monetary management and explained in detail in the following.

Mono-bank System and Division Between Cash and Non-cash Flows. The nationalization and consolidation of the banks created the mono-bank system. The basic elements of the mono-bank system were the rejection of the two-tier banking system; concentration of banking operations in one bank, Gosbank; and assigning of each firm to only one bank branch office.

Gosbank performed both commercial and central banking services; Garvy (1972, pp. 882–883) noted that the central bank's taking commercial services were not a socialist invention but a tradition from the Imperial State Bank. As mentioned previously, other banks, including the Foreign Trade Bank and some sectoral special banks, existed even after the 1930–1932 credit reform (Nakamura 2011, p. 6). The Foreign Trade Bank had solely performed foreign exchange operations and had almost nothing to do with domestic banking. After the 1930–1932 credit reform, the other sectoral banks mostly performed long-term loan services. There was no central bank–commercial bank relationship between Gosbank and the sectoral banks. The sectoral banks had the term “bank” in their names, such as the Industry bank; however, their role was to perform operations of state budget funds for capital investments in the peripheral spheres. The financial source of those long-term loans was mainly state budget funds and centralized amortization funds (Atlas 1967, p. 135; Kuschpeta 1978, p. 237; Manoilo 1972).

On the other hand, Gosbank performed virtually all short-term loan services after the 1930s.⁶ Gosbank's short-term loans intended to replace short-term, inter-enterprise credits and loans so that Gosbank would be able to monitor and control all money flows in the enterprise sector. Inter-enterprise credit, however, survived in the form of “accounts receivable and payable” among state enterprises after the 1930–1932 credit reform through to the collapse of the Soviet system. The inter-enterprise credit accounted for a significant part of the financing of

enterprises' liquid assets: Narkhoz 1967(1968, p. 862), Narkhoz 1980 (1981, p. 511), and Narkhoz 1990 (1991, p. 27) indicated that inter-enterprise credit accounted for 20, 14, 13, 23.5, and 23.1% of the liquid asset financing of the state enterprises at the end of 1950, 1960, 1970, 1980, and 1990, respectively. Soviet authorities gave tacit approval to the use of inter-enterprise credit in favor of continuing business activities (Gregory 2004, pp. 226–231).

Gosbank performed almost all settlement operations, excluding those done in the form of netting between enterprises belonging to the same sectoral or regional upper organization. All enterprises had a transactional relationship with Gosbank through Gosbank's settlements service; each enterprise was allowed to open a bank account at only one Gosbank branch office. The enterprises were required to settle their transactions with bank transfer by each transaction, whereas use of cash was not allowed to settle transactions in the enterprise sector, excluding retail sales and wage payments. Consequently, Soviet authorities allowed enterprises to have cash to the stipulated amount and to convert their non-cash funds into cash only to pay wages, including various monetary benefits to households, and to defray small expenses.⁷

This situation was expressed as the “division between cash and non-cash money.” It would be more appropriate to use the terms “means of settlement used by households” and “means of settlement used by enterprises” instead of cash and non-cash money. Soviet households could use the means of settlement in a non-cash form, such as bank transfers, checks, and credit cards. Thus, the Soviet term “cash money” includes non-cash means of settlement. On the other hand, the Soviet term “non-cash money” does not correspond to the concept of “deposit money.” Deposit money was not “non-cash money” in the Soviet terminology, because deposit money included household deposits, which were not the means of settlement in the non-household sphere. Despite this ambiguity, I use the terms “cash money” and “non-cash money” in accordance with traditional Soviet terminology.

The rules of “one enterprise, one Gosbank branch office” and “division between cash and non-cash money” offered Gosbank the possibility of monitoring virtually all individual transactions done by all enterprises. This scheme was also assumed to serve as one of the most important tools to manage money. Under this scheme, wage payment was the sole channel of cash money supply. One was, therefore, able to control cash money supply by regulating the total amount of wage. The total amount

of planned wage was supposed to impose a ceiling on cash money supply. Then, the cash money supplied to the households through wage payment should have flowed back to the banking system by the households' consumption and deposits. If this idea is valid, the total amount of planned wage regulates the cash supply and the cash supply becomes independent from the bank loan supply. Under these circumstances, it would be logically correct not to impose reserve ratio and liquidity requirements on banking institutions, as suggested previously. Chapter 4 will empirically analyze the effectiveness of this scheme of Soviet cash money management.

Monopoly of Foreign Exchanges The government's monopoly of foreign exchange implied that the domestic circulation of money and flow of foreign exchange were legally and institutionally separated (Garvy 1977, Chap. 7; Kuschpeta 1978, pp. 189–202; Sigg 1981, Chap. 6). The enterprises were not allowed to directly transact foreign exchange and foreign currency even when they did export and import; there was, therefore, no need for enterprises to exchange foreign currency with ruble and vice versa. As we see later in Chap. 6, the separation between foreign exchange flows and domestic ruble flows was indeed effective in legal and institutional terms; foreign exchange flows, therefore, had little influence on domestic money supply. This makes our analysis of the Soviet monetary management easier. The monopoly of foreign exchange was, nevertheless, related to a fundamental feature of the Soviet economic regime. Chapter 6 will discuss this further.

2.2.2 *After the Establishment of the Soviet Monetary Management*

Dispute on monetary policy continued into the second FYP of 1933–1937, as did the dispute on economic policy (Davies 2001). Gregory (2004, pp. 228–229) wrote that Gosbank aimed to match money supply growth to real economic growth in the first half of the 1930s. This rather tight monetary policy, however, did not fit the rapid industrial growth in that period. In contrast, there were some proposals from government officials for liberalization of the economic management, such as enhancing role of price and profit, replacing turnover tax with the excise, and abolishing quota allocation for goods (Davies 2001, pp. 62, 74). In the second half of the 1930s, most Gosbank executive officers, who tended to support the traditional, prudent monetary policy in the

time of the gold standard, were expelled as part of Stalin's Great Purge. It was unclear how the purge influenced monetary policy; with or without the influence of the purge, a shift to a more growth-oriented monetary policy seemed inevitable as preparation for the war increasingly intensified. Indeed, inflationary pressure increased again after 1935, as the state budget began to record large deficits, that is, government borrowing, in order to finance the war preparation.

State budget deficits, government debts, and money supply had increased rapidly during World War II (see Appendix). The increase in money supply caused an increase in prices both in the state sector and in the *kolkhoz* (collective farms) market (Holzman 1960; Shida 2015). Only comprehensive mobilization and rationing of economic resources concealed the disruption of the monetary economy. Soviet authorities were well aware of the risk of a destabilized monetary economy and accumulation of excess liquidity held by rural households; they seemed to learn well from the past experiences of inflation. A postwar monetary reform was already projected during the war (Dobrokhotoev et al. 2010). The postwar monetary reform was carried out in 1947 after abolishing the rationing system and raising state retail prices; the reform was successful in restoring monetary stability.

In the 1947 monetary reform, the old-face ruble notes were exchanged with the new-face ones at the rate of 10 to 1. Amounts of household deposits of less than 3000 rubles at Sberkassa, the Soviet thrift institution, were exchanged at the same amount for new-face ruble; household deposits over 3000–10,000 in old rubles were reduced to two-thirds its amount at the new ruble; household deposits over 10,000 at old rubles were halved at the new rubles. Non-household deposits were not revalued. Government bonds were partially confiscated, partially converted from 3- to 2%-yield bonds, and partially rescheduled. The 1947 monetary reform did not include currency denomination; the nominal amounts of financial flows, including wages and pensions, remained unchanged. The official Soviet statistics, therefore, did not adjust the values of the nominal indicators, such as nominal PNI and average monthly wage, before and after the 1947 monetary reform (Holzman 1955, pp. 206–208). The 1947 monetary reform was a vigorous action to reduce excess liquidity by confiscating hoarded cash, deposits, and governments bonds. These authoritative measures were certainly unpopular among people; the 1947 monetary reform was, nevertheless, successful in avoiding postwar inflation. Soviet authorities

seemed more concerned with monetary stability than possible social and political unrest.

During the 1950s, the Soviet authority executed a policy to reduce consumer prices in order to increase real income (Nove 1992, pp. 333–335, 354–358; Khanin 2003). Official prices of consumer goods were raised in 1946 as part of the preparation for abolishing the rationing in 1947; consumer prices showed a decreasing tendency afterward (Holzman 1960; Shida 2015). Official wholesale prices of industrial goods were also raised, whereas subsidies for these goods were decreased in 1949. Then, industrial goods prices were reduced in 1950 and 1952 (Berliner 1988, p. 278). Despite this price-decreasing policy, money supply grew slowly but steadily during the period from 1950 to 1960 (see Appendix). A Gosbank report wrote that it was content that, so far, the money supply was controlled within the permissible range, but it was carefully watching the increasing tendency of money stock and, therefore, requested the planning and industrial authorities to increase retail sale in order to flow cash money back to Gosbank (Kashin 2008, pp. 16–41). It was unclear what caused the failure of the price-decreasing policy. One reason, nevertheless, seems clear: The very concept of decreasing prices was pointless for new products that had not been produced before, and the emergence of new products characterized postwar economic growth throughout the world.

The Soviet economy obviously had an inflationary tendency between the early-1930s and the 1947 monetary reform (Davies 1958; Holzman 1960; Hutchings 1983). After the mid-1950s, the inflationary tendency was not as evident as before. There was no apparent monetary turmoil in the 1960s and 1970s, such as the inflations before 1947. The official statistics showed that prices remained stable, despite the official prices of goods being revised, mostly upward, in large scale in 1967, 1973, 1975, 1978, and 1982 (Suhara 2013, pp. 152–173).⁸ It is difficult to say if the prices had been increasing “uncontrollably” and “unexpectedly”; this is because Soviet prices were not market-based prices but fixed prices set administratively. This problem was known as “hidden” or “repressed” inflation in the Soviet economy. (Hereafter, the term “repressed” inflation is used.) Repressed inflation means that inflation was difficult to observe because Soviet prices were fixed prices set administratively, but it would have manifested in other ways such as accumulation of excess liquidity in the enterprise and household sectors, shortage of goods, long queues for goods, deterioration in quality of goods, decrease in

competitiveness of Soviet goods in the world market, and thriving of the informal economy. Many non-Soviet economists suspected that repressed inflation existed in the Soviet economy (see Kim 2002). This suspicion turned out to be generally valid. It is, nevertheless, difficult to measure the repressed inflation and to identify the economic consequences of the repressed inflation fully. The reason for the difficulty was that not only was the Soviet price data scarcely available but Soviet prices were also not market based. Even Soviet authorities did not know whether repressed inflation existed and what its influence on the economy was. If repressed inflation could be quantified, it would prove that ruble had been depreciated and, thus, the Soviet management of fiat money malfunctioned; we would not have needed to do the analyses in this book to prove it. It is, however, difficult even now to quantify the repressed inflation because of lack of relevant data.

In the period from the mid-1950s to the mid-1960s, Soviet authorities shifted their policy to using more bank loan financing. This led to a change in the pattern of the Soviet flow of funds. We will discuss the cause, background, and consequence of this policy change in detail in the following chapters. This change in the flow of funds, however, was not accompanied by any fundamental change in the Soviet monetary management. In the late-1980s, Soviet authorities lost their control of prices and money supply, as half-hearted economic reforms eroded the administrative management of the economy without establishing any alternatives. Eventually, the Soviet economy collapsed in the midst of monetary destabilization (Aslund 1991; Elman 1992; Gaidar 2003; Simonov 2016, pp. 27–45). It seemed ironic that an economy that claimed the eventual abolition of money had continuously faced monetary problems and, finally, collapsed in a monetary turmoil. This brief historical review suggests that Soviet authorities were sincere in maintaining monetary stability, excluding the short period of War Communism. Official Soviet textbooks claimed that the goal of the Soviet monetary policy and management was to bring stability to the value of money. They also asserted that the Soviet economy that could directly control demand and supply of goods and the prices of goods was easily able to achieve the goal (Baykov 1946, p. 415; Ikonnikov 1954, pp. 31–39; Institut 1962, Chap. 32; Savluk 1986; Tsagolov 1974, Chap. 25). Despite the assertion, they did not indicate practical ways both to know the extent to which people give credence to fiat money and to control the credence. They are difficult tasks, even if we can use

information generated by the market. Soviet authorities seemed to face more difficult task to manage fiat money without using the market. The eventual collapse of the Soviet economy probably suggests that the task was not achieved.

2.3 SOVIET MATERIAL PLANNING AND MANAGEMENT OF MONEY

This subsection briefly reviews the functioning of Soviet material planning to understand what kind of problems the material planning imposed on the monetary management and policy. First, the nature and limitation of material planning is reviewed from the viewpoint of the compilation process of the annual economic plan. Next, a Soviet dispute on the difference between state budget funds and bank loans is reviewed to understand systemic characteristics of monetary and financial transactions in the Soviet economic system.

2.3.1 *Legal and Institutional Premises of the Soviet Planning System*

Soviet material planning had evolved from the 1917 revolution to its end; Smirnova (2011) gave a brief review of its evolution. The planning mechanism outlined here was a stylized one and based on the actual mechanism that existed during the period from the mid-1960s to the early-1980s (Fink 1972; Iotkovskii and Fasoliak 1974; Kurotchenko 1975). However, the fundamental characteristics of a “centralized administrative command economy” had remained unchanged for the entire Soviet period despite modifications on the planning mechanisms and procedures (Smirnova 2011).

The term “centralized” implies that the enterprises never had full authority to make all their managerial decisions. From the inverted perspective, this reflected the fact that the Soviet state owned the enterprises; the Soviet state always had some legal authority to intervene in enterprises’ activities. Administrative and planning organizations used administrative methods to enforce their decisions on the enterprises; this is what the terms of “administrative” and “command” suggest. Practically, the structure of the Soviet economic management hierarchy was more complicated; authority to make managerial decisions of an

enterprise was split and rested with both the enterprise itself and other various units of the hierarchical administrative system. From the standpoint of enterprises, they needed authorization for their economic activities from those various administrative and planning organizations. It was probable that the enterprises were able to perform their economic activities with or without commands and authorization from the administrative and planning agencies in managerial and technological terms; however, their economic activities became illegal without such authorization. Planning authorities assigned production and sales targets; allocated quotas for economic resources including materials and equipment, funds, and labor forces; set prices; decided the implementation of capital investment projects; and so on. Assignment of these plan targets and allocation of the resources necessary for achieving the targets did not always mean that the planning authorities elaborated those issues by themselves; on the contrary, it was usual that the enterprises made their economic plans by themselves under the constraints of the plan targets and resource assignments imposed by the planning authorities. The Soviet economic planning was better understood as a process to provide legal justification for the economic activities of the enterprises rather than as a process to pursue economic rationality and coordination.

The compilation of an annual national economic plan started in the second quarter of the plan compilation year, which was usually the year before plan execution. The entities at all levels of the hierarchy of the Soviet economy, including planning agencies, ministries, supervising agencies of the enterprises, local governments, and the enterprises, started projecting their economic activities in the plan execution year. The information of their projections might be exchanged with each other. It should be noted that the economic agents at all levels of the hierarchy projected not only outputs of their economic activities, but also inputs necessary to realize their economic activities. Securing the balance between inputs and outputs at the microeconomic level was left to lower entities, whereas the most important thing done by the top planning agencies was securing the balance between supply and use of various economic resources, including materials and equipment, energy, labor force, state budget, household income, foreign exchanges, and so on, at the macroeconomic level. At the end of this phase of plan compilation, the central planning agency gave the guidelines on output targets and quotas of inputs to the enterprises.

Upon receiving the guidelines, the enterprises started compiling their draft economic plans. The format of the enterprise plan changed as the Soviet planning mechanism developed; the enterprises used a unified format of the enterprise plan, including the sub-plans for production, procurement of materials and equipment, cost reduction, personnel, capital investment, research and development, and financing after 1965 (Gosplan SSSR 1979; Smirnova 2011).

Next, the enterprises started negotiating their draft plans with the supervising organizations, planning agencies, local governments, Gosbank, and so on. Negotiations were also conducted between upper organizations at different levels of the Soviet economic hierarchy. They negotiated the balance between the outputs and inputs that the enterprises and other organizations projected. It was obviously impossible to produce something without material and financial inputs, whereas it would be easy for an enterprise to achieve any ambitious output targets if the enterprise is allowed to use unlimited amounts of inputs. It was difficult for planning and supervising agencies to identify the optimal point of balance between the outputs and inputs because they usually had less information on economic activities of the enterprises than the enterprises themselves.

Note that financial inputs, such as state budget funds, reserve funds redistributed within a ministry or supervising organization, and bank loans, were included in the inputs that administrative and planning agencies allocated. The Soviet economy continued to use money; the enterprises, therefore, needed not only material but also financial inputs to conduct their business. On the other hand, the Soviet economy abolished the market of money and capital; there was only administrative way to allocate money and funds. Acquirement of those financial inputs cost almost nothing to an enterprise, excluding efforts to persuade their supervising and planning organizations to give funds to the enterprise.

Around the beginning of the third quarter of the plan compilation year, the individual enterprises were informed of the quotas of material and financial inputs. Enterprises that received quotas for materials, equipment, and funds started negotiating with both suppliers of their inputs and purchasers of their outputs to indicate the specifications of goods and detailed conditions of the deliveries in order to enter into contracts with the partner enterprises, if the partner enterprises were specified. If the partner enterprises were not specified yet, they needed to look for partner enterprises first. Enterprises were working out the exact terms

with their trading partners, while negotiations for input quotas and output targets might have continued at various levels.

At the final stage of the plan compilation process, industry ministers negotiated their plans in a way that a ministry increased its output target of a certain product by an additional percentage point on the condition that the ministry will receive a further 10 million rubles for its capital investment. The final adjustments and judgments would be made at the highest level of the party and the government. Finally, the draft annual economic plan was voted as law in the Soviet national assembly, usually at the end of December in the plan compilation year. The plan compilation process ended in December not because they had finally developed a consistent economic plan, but because the plan execution year started in the next month of January. Compilation of an "optimal" plan was out of question. They did not have any more time to continue to compile an economic plan. In the first quarter of the plan execution year, the enterprises and their supervising organizations at all levels of the hierarchy were busy with adjustments and negotiations to make their economic plans as consistent and operational as possible. This was the reason why the plan compilation process started in the second quarter; enterprises and other organizations were too busy to start preparing for the economic plan for the next year.

2.3.2 *Basic Characteristics of the Soviet Planning System*

The Soviet plan compilation process is sometimes compared to planning an economy using an input-output table; this comparison, however, overly simplifies the plan compilation process in the Soviet economy. This is because one of the most important aspects of the plan compilation process in the Soviet economy was to decide which and how much inputs should be used to produce certain amounts of outputs, as the previous review on the plan compilation process suggested. It would be more appropriate to understand that the enterprises negotiated in order to determine the values of input coefficients for an input-output table in the plan compilation process. The plan compilation process is better understood as a process to make an input-output table and not as a process to use an input-output table.

What was the basis of these negotiations to make a Soviet economic plan? It was obviously impossible to build an automatic system to compile an optimal economic plan because of the organizational and spatial

complexity of the Soviet economy, limitation of the information processing capacity in terms of technology and costs, problems of incentives and conflicting interests, and lack of a theoretical foundation for optimal economic planning. Berliner (1988, pp. 51–59, 276–291) concluded that the basic principle of plan compilation was not to decrease the level of output targets achieved in the previous period and named it the “ratchet principle.” Birman (1978) asserted from his own experience of working as an officer of a planning agency that the basic method to compile an economic plan was “from the achieved level”; that is, to make incremental adjustments and revisions, usually upward, to the achieved levels of the plan targets in the previous period. Dyker (1985) wrote that the rule of “from the achieved level” was a prudent way for planning authorities to compile a nationwide economic plan because the levels achieved in the previous period would, at least, be achieved in the next period as well, however, inconsistent the new economic plan would be. Buck and Cole (1987) wrote the rule of “from the achieved level” was observed widely in the process of compilation of state budget plans in market economies. It is unusual to compile a state budget plan from the zero base without considering the results of past years; in most cases, a state budget plan was compiled in a way to make some adjustments to the actual results of the previous year.

The compilation of an annual economic plan in the Soviet economy was, nevertheless, far complicated in both quantitative and qualitative terms than the compilation of a state budget plan in market economies. In quantitative terms, the Soviet economic planning should have comprised every aspect of the national economy and relationships between all economic agents in the economy. In qualitative terms, the relationships the Soviet economic planning should have dealt with were essentially dynamic because they included relationships between input and output sides, both within an economic agent and between economic agents.

A simple example of the dynamic complexity was the capital investment plan. Economic plans at various levels of the Soviet economic hierarchy included capital investment and its financing. It is obvious that inputs that were planned for use in production in the plan execution year included goods and services supplied from production capacities, which would be newly introduced in the plan execution year. However, the completion of investment projects may be delayed because of many reasons that are difficult to predict: A severer-than-usual winter might delay construction work; recruitment of personnel necessary for operating the

new capacity might take more time than expected; some other technical problems in construction works might occur; and installed equipment might be unable to satisfy the expected specifications. The Soviet economic planning was inherently uncertain because it involved future results of investment projects. It is true that we face the dynamic complexity irrespective of whether we are in a planned economy or a market economy, because we do not have perfect foresight in any case. The difference between the Soviet economic planning and state budget planning in market economies was in their aims: State budget planning in market economies never aims to plan all aspects of the economy and the interrelationships between all economic agents comprising the economy. State budget planning determines how much and for what a government spends government revenues. State budget planning ends with spending money; direct return on the expended state budget is usually not expected. Naturally, there is a dynamic relationship between the expenditure of state budget money and its economic effect; however, the relationship is usually not critically important in state budget planning of market economies.

Even if the Soviet planning agencies had had detailed knowledge on economic activities of every economic agent, it probably would not have been of much help to deal with dynamic complexities. The dynamic complexity is concerned with future events, and we are able to foresee the future, at most, very vaguely. Practically, the Soviet planning agencies did not have even detailed and reliable information on the economic activities of enterprises. For example, Bel'chuk (1967), Fink (1972), and Kiperman (1968) reported that the Soviet planning agencies did not use quota requests from enterprises for the compilation of their economic plans. This was because the requests were so unreliable that the total demand calculated from the submitted quota requests often turned out to be far more than the possible national total supply. As the planning agencies had neither knowledge nor resources to check the validity of each quota request, they often used their own estimations or uniformly reduced all quota requests using a single reduction rate. Once planning agencies did this, enterprises had no choice but to pad their quota requests, because enterprises expected uniform reduction of their requested amounts. Thus, quota requests from enterprises became completely unreliable.

Having some reserves and slacks may have helped deal with uncertainties; however, it was again difficult to foresee how much and what type

of reserves they would need. In market economies, uncertainties caused by the dynamic complexity are dealt with through continuous re-planning and re-arranging within and between economic agents using the market. In contrast, the Soviet planning mechanism lacked such flexibility because of its static complexity. It naturally took 9 months or longer to repeat the whole process of compiling a national economic plan; it would be absurd if the recompilation process of a national economic plan exceeded the year in which the plan should have been executed. Consequently, Soviet authorities responded to the unforeseen problems in uncoordinated, ad hoc, and localized way; none exactly knew whether the adjustments and rearrangements would be good or bad for the overall economic management (Birman 1988; Powell 1977; Wilhelm 1985).

To close this brief review of the Soviet material planning, we need to answer the following question: What was the purpose of the Soviet economic planning if it was unable to develop a consistent and optimal economic plan? From the legal and institutional perspective, the answer was simple: The Soviet economic planning was a process to authorize economic activities of the economic agents. It was probable that Soviet enterprises were able, in managerial and technological terms, to do their business with or without the national economic plan. However, their economic activities became illegal without an approved economic plan. In other words, legitimate economic activities never began in the Soviet economy without the enacted law of the annual economic plan.

2.3.3 Did State Budget Funds and Bank Loans Differ in the Soviet Economy?

The review of the Soviet material planning indicated that material planning was not a way to eliminate uncertainties in the economic process. Moreover, material planning probably generated additional uncertainties, because practical problems, such as shortage of information processing capacities, incentive problems, and time and cost constraints on the plan compilation process, made it more difficult for the Soviet economic agents to respond to unpredictable occurrences in a timely manner. Existence of the uncertainty itself did not seem to be a problem of Soviet material planning, because uncertainty inevitably exists in human economic activities with or without an economic plan. The problem seemed to be that the Soviet economic theory remained silent about this issue. This circumstance was certainly related to the indefinite position of

Soviet authorities and economists on the problem of understanding how the Soviet monetary policy and management should have functioned. The controversy on the difference between state budget funds and bank loans was a good example to show their equivocal position on the Soviet money and monetary management.

Soviet monetary economists had long discussed whether state budget funds and bank loans differed in their economic nature in the Soviet economy (Allakhverdian 1971, pp. 29–30; Barkovskii 1976, pp. 5–14; Lavrushin 1974, pp. 61–67; Levchuk 1971, pp. 26–36; Shenger 1961, pp. 67–69; Rybin 1978, pp. 61–67). The controversy involved a practical problem that both financing methods were often used interchangeably: In most cases, bank loan financing was switched to state budget financing. This implied that bank loans were waived, and the funds lent were granted to the borrower enterprises, being regarded as an expenditure of state budget funds (Kashin and Kozlova 2013, pp. 51–54, 130, 194; Shenger 1961, p. 23). In the following, we discuss the theoretical aspects of the controversy, not the practical issues.

There were two main schools of thought on the issue, although the division between them was unclear. One school, which seemed to be the mainstream during the period until the end of the 1950s and prevailed even after that time, asserted that there was no fundamental difference between state budget funds and bank loans. This school assumed that both state budget financing and bank loan financing redistributed funds accumulated by the Soviet state, and thus, the difference between them was the superfluous difference between the practical methods and procedures used to achieve the same purpose. An enterprise did not need to repay the state budget funds they received; however, they needed to pay their gross profits to the government, excluding approved retained funds. Their payment of gross surplus (profit) to the government could be regarded as repayment of the principal and payment of interest from the financial return of the state budget funds advanced to the enterprises. Indeed, official reports of the state budget often compared the total amount of funds advanced to the economic sector with the total amount of the funds accumulated in the economic sector (Finansovyi institut 1956, p. 218; Grin'ko 1935; Zverev 1944–1959). The former included state budget funds and reserve funds retained at the enterprises; the latter included profits and amortization funds yielded in the economic sector. Moreover, before the 1960s, the main financial source of bank loans was state budget funds, as we see it later. It was not entirely wrong if

one understood that bank loans were state budget funds, the receiver of which needed to pay the interest on them and repay their principal.

Another school emerged after the 1950s, which asserted that state budget funds and bank loans fundamentally differed in the Soviet economy as well as in other market economies. The 1950s was the time when the monetary policy changed to expand bank loan financing, and the main financial source of bank loans changed to household deposits. According to this school, first, Gosbank was able to supply bank loans without accumulating the corresponding funds in advance. Indeed, even in the Soviet economy, granting a bank loan to an enterprise meant creating the corresponding deposit money at the bank account of the enterprise (Shenger 1961; Shteinshleiger 1956; Sivul'skii 1983, pp. 27–29). A branch office of Gosbank needed to neither have the corresponding fund in advance nor decrease the balance of the bank account of some other enterprise at the branch office in order to provide a bank loan to an enterprise. Second, bank loan financing was related to risk and uncertainty even in the Soviet economy. Bank loan financing needed payment of the interest and repayment of the principal, and, more importantly, it was uncertain whether the enterprise would accomplish this in time. State budget financing was also not free from risk and uncertainty; however, they did not define state budget financing because the state budget financing involved one-way spending of funds accumulated, and thus it was irrelevant if one repaid the state budget funds the one received (Krol 1983; Levchuk 1971, pp. 10, 104).

The second school's assertions seem based on a notion of bank loan which is more familiar to most Western economists. Nevertheless, the first school's assertions seem reasonable enough in the Soviet economic context. First, there was no reason for assuming that uncertainty and risk differed between state budget financing and bank loan financing, because all economic activities in the Soviet economy were supposed to be carried out according to the economic plan. The economic plan should guarantee that all debt obligations would be executed in time. Second, the unnecessary of repaying the granted state budget funds and paying interest on it was an irrelevant difference, as the first school asserted. In the Soviet economy, state budget funds were mostly used to finance business operations of state-owned enterprises. Whether or not enterprises had obligations to repay the state budget funds they received, these business operations should yield adequate financial results, at least equivalent to the amount of the state budget funds given. Otherwise,

state budget revenue would diminish and, eventually, vanish. A case in which a government borrowed from the households makes the problem of the efficient use of state budget funds clear: If the government was unable to use the funds borrowed from households efficiently to yield more financial results than the amount of funds it borrowed, then government bonds held by the households would become low- or nonperforming financial assets. This logic was as same as the logic of bank loan financing that the second school asserted. In the case of bank loan financing, household deposits that were the financial source of bank loans given to enterprises would become low- or nonperforming financial assets if the borrower enterprises were unable to yield financial results sufficient to repay the principal and interest.

It seems difficult to provide a clear answer to the question of whether state budget financing and bank loan financing were essentially different in the Soviet economy; the answer may change depending on the aspect to which one gives more importance, socialist ideology, economic theory, or practical problems of the Soviet economic management. Further investigation into which school explained the Soviet economy more appropriately is not the purpose of this book; however, the following point should be noted before ending this chapter. This review of the controversy on the difference between state budget and bank loan made it clear that the main problem was whether funds advanced to the economy, state budget fund or bank loan, would yield sufficient financial returns. Theoretically, this problem might be considered as a problem of the real economy and material planning: How the real economy was better managed in order to obtain more real and financial returns on the real and financial economic resources advanced to the economy. Practically, material planning itself could hinder knowing to what extent financial resources advanced to the economy were lost or yielded more financial returns because material planning restricted market activities. The seriousness of this problem seems to increase as division between the Soviet party and government, the economic entities, and the people becomes clearer. If the Soviet people thought that they were truly united, then the nonperforming financial assets were the result of their own collective mismanagement of their funds, regardless of whether state budget financing or bank loan financing was used. In such a case, examining whether state budget and bank loan were inherently different might have little meaning. The Soviet party and government, the state enterprises, and the people might simply write off their financial assets

and debts and bear their losses. It was their collective responsibility after all. In contrast, if they thought that there was some division between the Soviet party and government, the state enterprises, and the people, then the problem would be complex and difficult. They would want to identify who was responsible for the poor financial results and should bear the losses. In other words, this was the problem in defining ownership in the Soviet regime. The controversy on the difference between state budget and bank loan, therefore, seemed related to the understanding of the fundamental nature of the Soviet regime. Drawing the line between state budget financing and bank loan financing involved the question on how the Soviet people drew the line between the Soviet party and government, the state enterprises, and the people themselves.

NOTES

1. Chervonets had little domestic circulation. However, the currency undoubtedly contributed to the stabilization of the Russian exchange rate in the international currency market. Chervonets was demonetized in the 1947 monetary reform (Kravtsova 1983, p. 104).
2. Purchase of gold by households for accessories and ornaments was also strictly regulated during the Soviet time. See Baykov (1946, p. 104) and Schoppe (1978, p. 44). However, the Central Intelligence Agency (CIA 1955, pp. 8–9; 1967, p. 4) indicates gold was officially sold freely after World War II to absorb excess liquidity of households.
3. The name of the re-established bank was the People's Bank of the RSFSR. Hereafter, for simplicity, "Gosbank" is used to refer to the bank that was located at the center of the Soviet banking system.
4. The economic year of 19xx/xx + 1 started on April 1, 19xx, and ended on September 30, 19xx + 1. The economic year was abolished at the end of the 1929/30 economic year, that is, on September 30, 1930.
5. The major decrees and resolutions related the credit reform of 1930–1932 (January 30, 1930, January 14, 1931, March 20, 1931, March 23, 1931, October 21, 1931, and May 5, 1932) are included in Resheniia (1967, vol. 2).
6. To be exact, the Construction bank also performed short-term loan operations for construction enterprises (Podshivalenko 1983).
7. Hereafter, for simplicity, "wage payment" includes payment of cash allowances and small expenses, unless noted otherwise.
8. Narkhoz-1962 issued in 1963 and after regularly published price indices for agriculture procurement and industrial wholesale.

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2017, XVII, 222 p. 17 illus., Hardcover

ISBN: 978-1-137-49416-0