CHAPTER 2

Characteristics and Development of State Statistics

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2.1 Introduction

In Russia, there are significant differences in the statistical systems of the Russian Empire (early nineteenth century to 1917), the Soviet Union (1917–1991), and the Russian Federation (1991 to the present). Moreover, in the Soviet Union period, we can identify three periods: early period (1917 to the 1920s) when a new statistical system was created; Stalin period (1930s to the first half of the 1950s); and late period of the Soviet Union (second half of the 1950s to 1991). Therefore, I will describe the statistical system of Russia separately in each of these periods.[1]

[1] Concerning the historical depiction of the Russian statistical system, Goskomstat Rossii (1996b) (which publishes in both Russian and English), Simchera et al. (2001), and Rosstat (2013) are the most relevant literature in recent years. I also referred to Tiurina (1999) and Danilov and Miniuk (1998), written as one of the results of the Asian historical statistics project. I made use of such Japanese literature as Yamaguchi (2003) for the Russian Empire and Soviet Union, and Sasaki (1974) for the Russian Empire.

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M. Kuboniwa et al. (eds.), *Russian Economic Development over Three Centuries*, https://doi.org/10.1007/978-981-13-8429-5_2

Despite the differences in these periods, three characteristics of the Russian and Soviet statistical systems are indicated. First, in most of the periods excluding the years 1929–1931 of the Stalin period, a "centralized statistical system" was established in which the central statistical organization conducted censuses and statistical surveys and bore responsibility for statistical surveys in general. This was in contrast to the decentralized system, where it was the obligation of individual ministries and agencies to, by themselves, collate the statistics required for their jobs (Yamaguchi 2003, p. 39). Second, most of the periods excluding contemporary Russia saw the formulation of a system of reporting statistics whereby statistics were compiled based on information collected through regular reports from business entities. This differed from the system based on sampling methods (Yamaguchi 2003, p. 70). Third, even from the Russian Empire and Soviet Union eras, Russia is abundant in well-preserved statistical resources arranged by administrative institutions. We should recall that particularly in the period from the 1900s to the 1940s, Russia and the Soviet Union experienced a series of crises such as revolutions, world wars, civil wars, the Great Purge, and famines.

2.2 State Statistics in the Russian Empire

In late imperial Russia, two kinds of statistics coexisted: statistics of the central state and those of the local government bodies, the *zemstvo*s. Zemstvos were established in 1864 in many provinces (*gubernia*s) and districts (*uyezd*s) under provinces in the central part of European Russia. Local administration in Russia after this period was characterized by the coexistence of, and division of labor between, state bureaucracy and zemstvos. Matsuzato (1995, p. 246) argues that, under this dual structure, zemstvos were free from bureaucratic duties, such as policing and legal functions, and were thus able to concentrate on such creative social activities as education, medicine, and agricultural improvements. One of such activities was statistics and the establishment of statistical bureaus in many zemstvos.

According to the present statistical authorities of Russia, the beginning of state statistics was September 8, 1802, when a royal manifesto ordered each minister to submit to His Imperial Majesty a written report concerning the activities of his ministry at the end of the year (Goskomstat Rossii 1996b, p. 17). It should be noted that 1802 was the year when ministries were established in Russia. In November of the same year, there was estab-

lished at the Ministry of Interior a committee including ten noblemen engaged in the processing of statistical information. In 1834, provincial statistical committees were established as local statistical organizations. The statistical section at the Ministry of Interior was reorganized into the Statistical Committee in 1852 and into the Central Statistical Committee in 1858. In this way, in the 1850s, the foundations of state statistical organizations and a centralized statistical organization regime were established. On this basis, as explained below, publications of basic statistics began in the 1860s. Statistical information for these publications was collected by provincial statistical committees as local statistical organs of the state.

The reliability of these state statistics, however, was not considered to be very high. Danilov and Miniuk (1998, p. 3) state that "due to incompleteness of the methodology of statistical observation, disorderliness of forms of statistical reports and absence of trained staff, the reliability of statistical information collected by organizations of state and departmental statistics was frequently highly questionable."

The Central Statistical Committee was engaged mostly in population and agricultural statistics. As independently prepared departmental statistics, statistics on budget, credit, and foreign trade, which were aggregated and analyzed by the Ministry of Finance, were considered to be more reliable (Danilov and Miniuk 1998, p. 4). There were statistics on military horses compiled by the Military Ministry. Lenin evaluated them as reliable and used them in his own work (Sasaki 1974, pp. 276, 281). This was based on nine censuses (complete survey) conducted since 1875 (Goskomstat Rossii 1996b, p. 51). A population census was conducted in 1897 for the first time in Russia on the initiative of the Central Statistical Committee. Concerning industrial statistics, there existed factory statistics (*fabrichno-zavodskaia statistika*) in which many deficiencies were pointed out such as the definition of factories and its statistical methods (Arima 1973, Chapter 1; Tomioka 1998, Chapter 4). Under these circumstances, an industrial census (survey of factories) was implemented in 1900 and 1908.

In contrast to state statistics, zemstvo statistics were generally considered to be more reliable. It should be noted that, at that time, many talented people were forced to live in local areas as political prisoners and they engaged in this statistical work. Zemstvo statisticians collected data on things that the zemstvos were responsible for, which included the health and welfare of peasants. They placed great emphasis on agricultural surveys. In such surveys, sampling investigation of farm households was widely conducted (Danilov and Miniuk 1998, p. 6). The primary statisti-

cal sources were prepared by statistical experts of zemstvos. Such data as family composition, family budget, sown area, number of employed workers, number of livestock, and side business were collected. A number of advanced methods were invented and employed in surveys and data analysis in zemstvo statistics, including systematic sampling of farms (Takeuchi 1968, pp. 180–183). According to Matsuzato (1995, p. 256), zemstvo statistics were among the best statistics in the world in the late nineteenth century, comparable to US agricultural statistics and German vocational statistics.

It is well known that Lenin used zemstvo statistics when writing *The Development of Capitalism in Russia*. Lenin (1977, p. 213) wrote in *The Agrarian Question and the "Critics of Marx"* published in the 1900s:

> While German government statistics are superior to Russian *government* statistics, in their fullness and comprehensiveness, in their uniformity and exactness, and in the rapidity of their preparation and publication, our *Zemstvo* statistics are superior to the European partial inquiries and investigations because of the remarkable fullness and detailed analysis of certain particular data. Russian Zemstvo statistics have for a long time included surveys of individual farms and presented various group tables and the combined tables we have mentioned. A close study of Russian Zemstvo statistics by Europeans would no doubt give a strong impetus to the progress of social statistics generally. (Italics in the original)[2]

Thus, after the 1860s, as local statistical organizations, provincial statistical committees under the Central Statistical Committee and zemstvo statistical offices coexisted. Yamaguchi (2003, p. 21) argues that the relationship between the center and the regions was decentralized.

Although the zemstvo statistics were evaluated much more highly in terms of quality, these statistics only covered certain regions in the central part of European Russia; statistics for the entire territory of Russia were only available from the Central Statistical Committee. The systemic publication of state statistics began with the issue of the *Statistical Time-book of the Russian Empire* (*Statisticheskii vremennik Rossiiskoi imperii*) in 1866 (Sasaki 1974, pp. 277–279). This book was published in three series, totaling 51 publications until 1890. Series I consists of a comprehensive statistical book published in 1866. Series II comprises 25 volumes, published from 1871 to 1884, and covers specific fields such as demographic

[2] This evaluation by Lenin was cited in Anon (1993, p. 4).

statistics. Series III totals 25 volumes, published from 1884 to 1890, most of which concern specific fields as well.

In 1887 and 1888, two statistical series were issued: one was the *Time-book of the Central Statistical Committee of the Interior Ministry* (*Vremennik Tsentral'nogo statisticheskogo komiteta Ministerstva vnutrennikh del*), renamed from the previous *Statistical Time-book*, and the other was *Statistics of the Russian Empire* (*Statistika Rossiiskoi imperii*). The former includes 52 volumes published in 1888–1903 and the latter, 95 volumes published in 1887–1918. Most of them cover specific fields such as demographic trends and harvests.

Comprehensive statistics for the Russian Empire as a whole comprised six volumes, including the *Statistical Time-book* in 1866, *Collection of Information of European Russia for 1882* (*Sbornik svedenii po Evropeiskoi Rossii za 1882 god*) published in 1884 independently from the rest of the series, the *Statistical Time-book of the Central Statistical Committee of the Interior Ministry* in 1886, and *Statistics of the Russian Empire* in 1887, 1890, and 1897 (Simchera et al. 2001, pp. 119–122).[3]

Finally, in 1905 (1904 in its title), a comprehensive statistical handbook, the *Yearbook of Russia* (*Ezhegodnik Rossii*), which combined the *Time-book of the Central Statistical Committee of the Interior Ministry* and *Statistics of the Russian Empire*, started to be published every year. In 1912 (1911 in its title), this volume was renamed the *Statistical Yearbook of Russia* (*Statisticheskii ezhegodnik Rossii*). This began the regular publication of a statistical yearbook in Russia. This series totaled 13 volumes published until 1918.[4]

2.3 State Statistics in the Soviet Union

In the period from the Russian Revolution in 1917 to the 1920s, a new statistical system was set up that corresponded to the socialist economic system. In the Stalin period, after the years 1929–1931, when the great statistical system of the early 1920s was almost wrecked, a so-called Soviet-

[3] The year mentioned here refers to the year of publication. The whole list of these statistics can be found in Simchera et al. (2001, pp. 267–279).

[4] The *Statistical Yearbook for 1916* was printed in 1918. Since the *Statistical Yearbook for 1918* was published in 1918, we may say that the number of total volumes was 14 although, in 2018, the Russian Empire is no longer in existence (Simchera et al. 2001, p. 280).

type statistical system and methods were established. After the mid-1950s, the statistical system changed considerably.

2.3.1 Early Period of the Soviet Union (1917 to the 1920s)

As demonstrated in the previous section, in the period of the Russian Empire, state and zemstvo statistics coexisted. Lenin sought to combine the traditions and activities of the Central Statistical Committee and the zemstvo in a unified hierarchy of statistical agencies (Wheatcroft and Davies 1994, p. 26). On July 25, 1918, the Central Statistical Agency (Tsentral'noe statisticheskoe upravlenie: TsSU) was established. The TsSU did not belong to any governmental office and was subordinated directly to the Council of People's Commissars (i.e., Council of Ministers), which meant that it had the same rank as a ministry. On September 3, 1918, provincial statistical committees were abolished and zemstvo and town statistical offices were reorganized into provincial offices as local organizations of the TsSU. In this way, zemstvo statisticians began to work within the framework of the TsSU. Zemstvo statisticians also held all the leadership positions as directors, members of collegia, and heads of sectors within the TsSU.

In the period until 1926, statistical activities were vitalized as various censuses were conducted and new experimental statistical methods were employed derived from zemstvo statistical experience. Such censuses as the "All-Russia industrial and occupational census" in 1918, the agricultural censuses in 1919 and 1920, and the population census in 1926 should be mentioned. At that time, a series of censuses was planned to be implemented every five years since 1920 and midterm censuses were also scheduled (Wheatcroft 1990, pp. 155, 169). As an example of new statistics, we should note the balance of the national economy for the economic year 1923/1924, which was based on a Marxian reproduction schema and influenced the input-output tables of Leontief (Ivanov 2006; Iwasaki 2012).

While the TsSU initiated these censuses, such governmental statistics as (operational-accounting) business statistics increased in importance. Information concerning industrial enterprises began to be collected by competent ministries as part of their regular accounting procedure. Statistics on public budgets, credit, and foreign and domestic trade were compiled solely by the ministries responsible (Danilov and Miniuk 1998, p. 12). In 1926 and 1927, when the period of the New Economic Policy was turning to the period of the first Five-Year Plan (FYP), methods of

compiling industrial statistics shifted toward those based on a reporting system (Yamaguchi 2003, pp. 106–109).

Simultaneously, as statistics began to demonstrate plan implementation, statistical figures came to have political implications. These figures were destined to show the success of socialism and were used for socialist propaganda. It was well known that the TsSU was criticized for "underestimation" of stocks of grain by peasants in the second half of the 1920s (Wheatcroft and Davies 1994, pp. 26–27; Danilov and Miniuk 1998, pp. 14–17). Faced with friction against the State Planning Commission (Gosplan) and pressure from persistent government hostility over this and from other politicians, P. I. Popov, the founding director of the TsSU, resigned in January 1926 and the new director, V. V. Osinsky, was removed from his office in the spring of 1928. The scale of statistical publications was greatly reduced and several prominent statisticians were arrested and tried (Wheatcroft 1990, p. 155). Difficult times for statisticians had come.

2.3.2 Stalin Period (the 1930s to the First Half of the 1950s)

In the 1930s, as a Soviet-type socialist economic system was established, and the statistical system was reorganized to correspond to it. This was the period in which Soviet-type or socialist statistical methods were established.

We can point out two of the major changes in the statistical system in this period. First, statistical organizations began to play a controlling role of plan implementation (Treml 1988, pp. 72–73; IMF et al. 1991, pp. 135–136). With the start of the first FYP in 1928, statistical organizations were required to collect information for the compilation of plans and to control the results of their implementation. On January 23, 1930, the TsSU was abolished and transformed into the Section of Economic Accounting in Gosplan. Correspondence between indicators of plan compilation and those of statistics was pursued, and statistical methodologies were worked out by Gosplan. Since statistics were responsible for the control of plan implementation, a reporting system of all enterprises was created. Therefore, complete surveying replaced the sample surveying that was actively attempted in the 1920s. Grossman (1985, p. 15) wrote that "the years 1930 and 1931 witnessed purges of personnel and the merger of statistical and planning staffs on all levels."

But there was a backlash against this, since this was regarded as having gone too far. On December 17, 1931, the Section of Economic Accounting was reorganized as the Central Administration of Economic Accounting

(Tsentral'noe upravlenie narodnokhoziaistvennogo ucheta, TsUNKhU for short) under Gosplan, and Osinsky was reappointed as director (Wheatcroft 1990, p. 156). There was a revival of publication of several statistical handbooks and compilation of balances of the national economy for the years 1928–1930 that was the first since the economic year 1923/1924 balance (Wheatcroft and Davies 1994, p. 28; 1985).

This revival of more objective state statistics, however, did not survive the next few years, except for some demographic and agricultural statistics (Wheatcroft and Davies 1994, p. 29). Afterward, such practices began to prevail in which only statistics favorable to the authorities were published and statistics unfavorable to them were classified. In addition, the volume of open and published statistics decreased considerably (Kazer 1972, pp. 47–50; Danilov and Miniuk 1998, p. 21; Suhara 2013, pp. 10–12).[5] Crackdown on statisticians became severe: a number of statisticians, including two heads of the TsSU (V. V. Osinsky and I. A. Kraval'), were executed (Anon 1993, p. 5).

As one enterprise belonged to one ministry under the socialist economic system, reports of enterprises flowed through ministries. Because central statistical organizations obtained data from ministries, the statistical system in this period should be regarded as a decentralized one where departmental statistics became overwhelming. Such a vertical administrative system prevented exchange of information between ministries and resulted in low efficiency not only in statistics but also in administration as a whole.

Second, a so-called Soviet-type statistical system and methods were established. One of their characteristics was the priority placed on material products. The idea that only the production of goods increases the wealth of a society and that the provision of services is a mere redistribution of the wealth originated in Marxian economics. Note that trade and transportation, which are directly related to the production and distribution of material products, are included in productive activities. Based on this idea, an original system of national economic accounting, called the Material Product System (MPS), was created (see Chap. 11 on national income).

[5] See examples of classified data in the period 1942–1963 in Miniuk (2014), which includes a table of contents of the *Statistical Bulletin of the TsSU* in the period 1948–1963 and other statistical documents in the period 1942–1963, collected by the Russian State Archive of the Economy (RGAE). This book was jointly published by RGAE and the Institute of Economic Research, Hitotsubashi University, in conjunction with the long-term historical statistics project on Asia and with a preface written by Professor Emeritus Yoshiaki Nishimura.

In accordance with this, a new industrial classification that distinguished material production branches and non-productive spheres was invented (Becker 1972, pp. 71–73; Nonomura 1958, pp. 48–52).[6]

Another characteristic of the Soviet-type statistical system and methods was the priority of quantitative indexes over such indicators as money or prices. This corresponded well to the requirements of a socialist economic system (administrative command economic [ACE] system). For example, systemic calculation of wholesale and procurement prices was stopped (Danilov and Miniuk 1998, p. 21; Suhara 2013, pp. 155–156). This might be due to the consideration that it was unnecessary to observe these prices costing time and effort since they were all determined by the state. Such Soviet-type statistical system and methods were introduced in China and the Council for Mutual Economic Assistance countries including Eastern European countries after World War II.

2.3.3 Late Period of the Soviet Union (the Second Half of the 1950s to 1991)

There are two important differences in statistics in the Soviet Union before and after the mid-1950s. First, the centralized statistical regime replaced the decentralized one based on departmental statistics (in 1941, the TsUNKhU was renamed the TsSU and, on August 10, 1948, the TsSU was separated from Gosplan and placed under the jurisdiction of the Council of Ministers). There was an influence of the reforms by Khrushchev from 1956 on this change in statistical regime, in which ministerial organization by industrial branch was abolished and a transition to administrative organization by region was attempted (administration by *sovnarkhoz*). As a result, a new system emerged in 1957 or 1958 where regional offices of state statistics received statistical reports directly from enterprises and sent the information based on them to various organizations (Campbell 1972, pp. 24–26; Danilov and Miniuk 1998, pp. 26–27). After the revival of ministerial organization by the industrial branch in 1965, state and departmental statistics coexisted and reports from enterprises were sent to both organizations. The installation of machine-calculation stations at the

[6] Although it is not clear as to exactly when this classification was introduced, it was already being used in the abovementioned balance of the national economy for 1923/1924 (Iwasaki 2012, pp. 257–262).

TsSU and the concentration of statistical data in them contributed to the emergence of a centralized statistical regime (Yamaguchi 2003, p. 88).

Second, regular publications of statistical handbooks began, and the release of statistical information advanced to a certain degree. It should be noted that the annual publication of the *Statistical Yearbook of the National Economy* (*Narodnoe khoziaistvo*) began in 1956.[7] Not only statistical handbooks for the Soviet Union as a whole, but also those for constituent republics and regions, came to be published. In addition, although their publications were irregular and infrequent, statistical handbooks of specific fields such as industry, agriculture, capital construction and investment, transportation and communications, labor, finance, domestic trade, living standards, and prices were published.

Other ministries also launched the publication of statistics (Treml 1988, pp. 73–75; IMF et al. 1991, pp. 134–135, 167). The Ministry of Foreign Trade (Ministry of Foreign Economic Relations since 1988) began to release annual foreign trade handbooks in 1960 (a handbook for 1959).[8] The Ministry of Finance has published statistical handbooks of state budgets every five years.

On the other hand, there was still a large range of classified data. For example, the State Bank (Gosbank) has never released financial statistics nor has the Ministry of Internal Affairs released criminal statistics. If we look at the released statistics more precisely, there was the problem of concealing information on military production in the industrial statistics. In addition, since around the 1970s, data on export and import of crude oil, petroleum products, natural gas and coal; production, export, and import of grains; average life expectancy; and infant mortality have been classified.

There were no substantial changes in one of the features of the Soviet statistics, that is, the basic method was complete surveying, and sample surveying played a limited role. Under the situation where almost all enterprises were state owned in reality, since the statistical reporting sys-

[7] The title of the statistical yearbook published in 1956 did not include the year. From the following year, the title began to include the year to which it referred such as the *Statistical Yearbook of the National Economy of the USSR for 1956*. Since, as for 1957, 1967, 1977, 1982, and 1987, this yearbook was published as a memorial publication celebrating 40 years from the October Revolution or 60 years of the Founding of the Soviet Union, for example, these yearbooks have different titles.

[8] Handbooks published in 1990 and 1991 were co-published by the state statistical organization (Tabata 1994, p. 434).

tem was able to cover almost all activities, sample surveying was conducted in only such spheres as households and agriculture.[9]

It should be noted that, in this period, there was a growing interest in Soviet statistics, especially in the USA, and various estimations were made in order to make up for deficiencies in Soviet statistics. This was promoted by the following factors. First, it was frequently argued that there were upward biases in the growth rates of the Soviet Union published in the official statistics. Therefore, many scholars in Europe and the USA tried to make their own estimates of the growth rate of the Soviet Union. In particular, in the period after the 1960s, the Central Intelligence Agency (CIA) regularly released an estimate whose figures were regarded as more reliable than the official statistics of the Soviet Union.[10] Second, since in the Soviet Union a peculiar statistical system and methods were adopted for national income and other statistics, as described above, for the purpose of international comparison, recalculation of statistical data was needed. In this connection, systemic estimation of input-output tables of the Soviet Union was conducted by American scholars, including Vladimir Treml, and, based on this, estimates of the gross domestic product (GDP) were made. As a result of the estimation of input-output tables, calculations of such classified figures as military production, agricultural subsidies, and special foreign trade earnings were conducted (Kuboniwa 1990, pp. 254–257; Mochizuki 1984, pp. 51–121). Third, since one of the distinct features of the Soviet economy was a large size of informal or second economy that was not captured by the official statistics, estimates of them were attempted. One of the reasons for the insufficient coverage of these activities was the reluctance of the TsSU to use sample surveying, as explained above (see Sect. 11.3 of Chap. 11).

2.4 State Statistics in the Russian Federation

Although it was at the end of 1991 when the Soviet Union fell apart and Russia declared its independence, already by the perestroika period, that is, in the latter half of the 1980s, some trials were observed for the improvement of the state statistics and the advancement of their openness (*glas-*

[9] As for sample surveying in agriculture, see Goskomstat Rossii (2004, pp. 293–306).

[10] With respect to the problem of biases in Soviet growth rates and those in estimates by the CIA pointed out after the collapse of the Soviet Union, see Suhara (2013, pp. 3–79, 440–454).

nosti in Russian). By the joint Resolution of the Central Committee of the Communist Party and the Council of Ministers No. 822 of July 17, 1987, entitled "Measures for the radical improvement of statistical work in the country," the TsSU was ranked as a state committee that is similar to a ministry and named the State Committee of Statistics (abbreviated to Goskomstat) (Anon 1988, p. 188). Further, *perestroika* concerning statistics was launched by the Resolution of the Council of Ministers: "Perestroika of activities and organizational structure of Goskomstat" dated October 9, 1987 (Anon 1987, p. 3). This was partly influenced by an article entitled "The Cunning Figure" written by an economist, Khanin, and a journalist, Seliunin, in February 1987, criticizing the official statistics (Seliunin and Khanin 1987). Since then, there has been substantial improvement in the opening of statistics, including the release of classified data and the publication of statistical handbooks in specific fields (Treml 1988, pp. 88–89; Heleniak and Motivans 1991, pp. 480–488).

In December 1991, just before the collapse of the Soviet Union, by order of the Resolution of the Presidium of the Supreme Soviet dated November 18, 1991, Goskomstat of Russia took over all facilities of the Soviet Union in the territory of Russia. Thereafter, the rank and name of the central statistical organization has been changed several times. In 2004, it was reorganized as a *sluzhba* (service) that was ranked inferior to a ministry and named the Federal State Statistics Service (Federal'naia sluzhba gosudarstvennoi statistiki, abbreviated to Rosstat). In the period 2008–2012, it was under the jurisdiction of the Ministry of Economic Development, and for 2012–2017, it was directly subordinated to the government. By Presidential Decree No. 141 on April 3, 2017, it was again put under the Ministry of Economic Development. It is regarded that a centralized statistical regime is basically maintained.

In the first half of the 1990s, there was chaos in statistics as was the case in politics, economics, and society under systemic transformation in Russia. In particular, concerning foreign trade statistics before customs statistics was introduced in 1994 explained below, data were extremely unreliable in the period 1991–1993 (Tabata 1994). One of the major causes was the dismantlement of the command economic system by the liberalization of trade and the discontinuation of complete surveying by the statistical reporting system. This was also the case for statistics on employment, wages, and prices.

There were three fundamental changes in the statistical system after the independence of Russia. First, there was a transition from the Soviet-type

statistical system and methods to internationally standard ones (Kuboniwa and Tabata 1999). By Supreme Soviet Resolution No. 3708 of October 23, 1992, the "State Program of the transition of the Russian Federation to the accounting system and statistics adopted in international practice in accordance with the request for development of a market economy" was approved. In this program, transition from MPS to System of National Accounts (SNA) was regarded as one of the most important tasks, and this transition was implemented from around 1995. Balance of payments was compiled and released in accordance with its manual of 1993 (fifth edition) compiled by the International Monetary Fund (IMF). Changes in industrial classification took time, however, and were finally realized in around 2005 (see Sect. 11.4 of Chap. 11). Although SNA is basically adopted now, there remains significant room for improvement, including flow-of-funds tables, capital stock statistics, input-output tables, and regional GDP statistics. This may be due to the lack of an appropriate system of collecting primary information for these statistics, which in turn may be explained by low priority of statistical compilation in Russia.

It should be noted as another change in statistical surveying and methods that customs statistics began to be used in foreign trade statistics in 1994 (Tabata 1994) and that budget statistics of general government were introduced in state budget statistics in 2005 (see Chap. 8). Rosstat has published methodological explanations as five volumes since 1996 (Goskomstat Rossii 1996a, 1998, 2000, 2003; Rosstat 2006).

Second, sample surveying began to be widely adopted. This was due to the discontinuation of mandatory statistical reports submitted by enterprises to ministries, as privatization was implemented in the 1990s. At present, statistics are compiled in combination with statistical reporting and sample surveying in many fields. For example, with respect to industrial production statistics, frequency of reporting differs between large, small and medium, and individual firms, and sample surveying is used in the period when or the sphere where statistical reports are insufficient. In addition, a number of censuses were carried out including those in agriculture in 2006 and in small and medium firms in 2010.

Third, the publication and release of statistical information advanced unprecedentedly. This might be due to the intention of the statistical authorities to raise the level of publication to the international standard. In addition, traditionally in Russia, collection of statistical information has been widely conducted so that there is no shortage of materials for publication and release. In this connection, it should be noted that statistical

handbooks in specific fields began to be published annually or biennially.[11] Since around 2010, all statistical handbooks have been published and downloadable at Rosstat's website. Statistical publications by other ministries have increased as well. The Central Bank of Russia has released a wide range of data concerning balance of payments and has issued monthly the *Bulletin of Banking Statistics* (since October 2012, *Bank of Russia Statistical Bulletin*). The Ministry of Finance and Federal Treasury release detailed public budget statistics at their websites. Thus, with respect to the publication and openness of statistical materials, Russia is by no means inferior to developed countries, although there are some problems such as the absence of statistical handbooks incorporating long-term statistical data and the lack of retroactively revised data when statistical methods or definitions are changed.

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[11] The list of statistical handbooks published after 1985 is available at http://src-h.slav.hokudai.ac.jp/tokeisyu/handbooks-e.html.

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