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# The Anatomy of Russian Foreign Trade Statistics

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**Abstract:** The study, by a noted Japanese economist and observer of Soviet and post-Soviet economic affairs, represents a pioneering effort to evaluate the statistical data base reflecting Russian foreign trade. The author examines in minute detail the inconsistencies and deficiencies of data compiled from 1985 to mid-1994, focusing on classification and highlighting the changing and conflicting methods of compilation. Tracing and tabulating data valued in dollars and foreign trade rubles, he also covers and analyzes Russian statistics detailing trade in commodities. Also discussed is the geographic distribution of Russian exports and imports to foreign countries in the late 1980s and 1990s. 1 figure, 10 tables, 37 references.

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Our initial effort to investigate the volume, composition, and geographical distribution of Russia's foreign trade prompted us to address the availability and reliability of relevant statistical data. Before long, it became apparent that Russian foreign trade data are flawed, and that the quality of statistical information is a factor of critical significance. The problems are due in part to the rather sudden reappearance of the country's economy as an independent national entity detached from Soviet statistics (unlike the economy of the former RSFSR). Other reasons include the rapid change in economic conditions caused by the collapse of central planning; the gradual change in methodology of statistical compilation from the Marxist influence to international criteria; and the increasing number of statistical publications, ushered in by *glasnost*' and the demands of private-sector commercialism. In view of the above, the focus of this paper is on what one might term the anatomy of Russian foreign trade statistics, and our analysis of foreign trade per se will be limited.

## CLASSIFICATION OF FOREIGN TRADE DATA

Until the early 1980s, there was no reason of any great significance to divide the total volume of foreign trade of the USSR and apportion it to the Union's constituent republics. Thus, no statistics on the foreign trade of Russia (formerly the RSFSR) are in evidence. But since the mid-1980s, the reforms of *perestroika* prompted the compilation, release, and publication of the following:

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**Table 1.** Statistical Handbooks on Soviet Foreign Trade, 1985-1990<sup>a</sup>


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Values expressed in foreign trade rubles<sup>b</sup>

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*Narodnoye khozyaystvo SSSR v 19xx g.* Goskomstat SSSR. Moscow (7 volumes from 1985 through 1991)

*O vneshneekonomicheskoy deyatel'nosti SSSR v 1986-1990 godakh: Obzor.* Goskomstat SSSR. Moscow, 1991, 32 pp.

*SSSR v tsifrakh v 19xx godu.* Goskomstat SSSR. Moscow (7 volumes from 1985 through 1991)

*Statisticheskiy yezhgegodnik stran-chlenov Soveta Ekonomicheskoy Vzaimopomoshch. 19xx. Sekretariat SEV.* Moscow (6 volumes from 1985 through 1990)

*Vneshneekonomicheskiye svyazi v 1991 g.* Statkom SNG. 1992, 174 pp.<sup>c</sup>

*Vneshniye ekonomicheskiye svyazi SSSR v 1989 g.* Goskomstat SSSR and MVES SSSR, 1990, 303 pp.

*Vneshniye ekonomicheskiye svyazi SSSR v 1990 g.* Goskomstat SSSR and MVES SSSR, 1991, 288 pp.

*Vneshnyaya trgovlya SSSR v 19xx g. MVES SSSR.* Moscow (5 volumes from 1985 through 1989)

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<sup>a</sup>Excluding handbooks reporting quarterly or monthly data.

<sup>b</sup>Unless otherwise indicated, the ruble values are converted at the official rate of exchange (data B-1).

<sup>c</sup>Ruble values converted at the commercial exchange rate (data B-2).

**Table 2.** Statistical Handbooks on Russian Foreign Trade, 1990-1993<sup>a</sup>


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Values expressed in dollars

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*Vneshniye ekonomicheskiye svyazi Rossiyskoy Federatsii v 1992 g.* Goskomstat RF and MVES RF. 1993, 250 pp.

*Rossiyskaya Federatsiya v 1992 godu.* Goskomstat RF. 1993, 654 pp.

*Rossiyskaya Federatsiya v tsifrakh v 1992 godu.* Goskomstat RF. 1993, 224 pp.

*Rossiyskaya Federatsiya v tsifrakh v 1993 godu.* Goskomstat RF. 1994, 383 pp.

*Sotsial'no-ekonomicheskoye polozheniye Rossii 1993 g.* Goskomstat RF. 1994, 347 pp.

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Values expressed in foreign trade rubles converted at the official rate of exchange (B-1)

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*Narodnoye khozyaystvo RSFSR v 1990 g.* Goskomstat RF. 1991, 591 pp.

*Narodnoye khozyaystvo Rossiyskoy Federatsii. 1992.* Goskomstat RF. 1992, 607 pp.

*Rossiyskaya Federatsiya v tsifrakh. 1992.* Goskomstat RF. 1992, 227 pp.

*Vneshneekonomicheskiye svyazi RSFSR. 1991.* Goskomstat RF. 1991.

*Vneshneekonomicheskiye svyazi Rossiyskoy Federatsii. 1992.* Goskomstat RF. 1992, 118 pp.

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<sup>a</sup>Excluding handbooks reporting quarterly or monthly data.

- (1) Data A valued in dollars:
  - A-1. Data that exclude trade with CIS countries;
  - A-2. Data that exclude trade with FSU countries.
- (2) Data B valued in foreign trade rubles:<sup>2</sup>
  - B-1. Data in rubles converted at the official rate of exchange;
  - B-2. Data in rubles converted at the commercial rate of exchange.
- (3) Data C valued in domestic rubles.

Data C, which correspond with national income statistics, have been compiled by using information included in input-output tables. In this paper, however, we concentrate on foreign trade data proper, i.e., on data A and data B based on prices of relevant transactions in foreign currencies.

The availability of recent-year data A and data B for Russia and the USSR is summarized in Tables 1 through 4 based on Russian and Soviet statistical handbooks. The volume of exports and imports, both for Russia and for the USSR, is derived from a variety of such handbooks as shown in Tables 5 and 6.

#### Data in Foreign Trade Rubles Converted at the Official Rate of Exchange (B-1)

The first Russian statistical handbook, compiled by the State Committee on Statistics of the Russian Federation (Goskomstat RF), in which foreign trade data pertaining to Russia were published was *Narodnoye khozyaystvo RSFSR v 1990 g.* (*Narkhoz RF*, 1991). This handbook presented the volume of Russian exports and imports for the years 1988 to 1990, expressed in triple-digit figures (billions of rubles).<sup>3</sup> Although in the preceding several volumes of the *Narkhoz RF*, Russian foreign trade data were included, data on imports were not published and those on exports excluded the share of all centralized foreign trade organizations of the Ministry of Foreign Economic Relations of the USSR and other all-Union ministries (*Narkhoz RF*, 1991, p. 52). The succeeding volume, *Narkhoz RF* (1992), reported data for 1988 and 1990-1991 expressed in five-digit figures. Thus, Goskomstat RF has up to the present time released data in foreign trade rubles converted at the official rate of exchange for the period from 1988 to 1991.

In early 1992, the still-functioning State Committee on Statistics of the USSR (Goskomstat SSSR) began to publish foreign trade data pertaining to the union republics. It published *Vneshtorg SR* (1992), in which B-1 data on union republics for the year 1990 were reported for the first time. There were, however, significant differences between the two statistical organizations. Large differences were found in figures detailing total turnover, in data pertaining to commodities and in those arranged by groups of countries (the country's trading partners).<sup>4</sup> This implies that there were fundamental discrepancies between the two agencies in defining which part of the

<sup>2</sup>Data B exclude trade with FSU countries.

<sup>3</sup>These same figures were published in *Vneshtorg SR* (1991), which was the first Russian statistical handbook devoted to foreign trade (cf. Sagers, 1991, pp. 510-513).

<sup>4</sup>When we compare the physical quantities of exports of major commodities reported by Goskomstat SSSR (*Vneshtorg SR*, 1992, pp. 7-10) with those published by Goskomstat RF (*Narkhoz RF*, 1991, pp. 55-61), we find that one-half of the quantities are identical. The physical quantities of imports of major commodities reported by the two sources (there are only seven) are identical. There also are problems with data presented in *Vneshtorg SR* (1992). For example, whereas in Soviet statistics, arms exports usually were hidden in residuals, in *Vneshtorg SR* (1992) the volume of residuals was too small for this purpose, so that arms exports were thought to be concealed in data on fuels (cf. *PlanEcon Report*, No. 26, 1992, pp. 8-16).

**Table 3.** Statistical Handbooks on Foreign Trade of the Newly Independent States or CIS countries in the 1990s<sup>a</sup>

Values expressed in dollars
<i>Ekonomika Sodruzhestva Nezavisimyykh Gosudarstv (kratkiy spravochnik)</i> . Statkom SNG. 1992, 110 pp.
<i>Ekonomika Sodruzhestva Nezavisimyykh Gosudarstv (Kratkiy spravochnik)</i> . Statkom SNG. 1993, 165 pp.
<i>Strany-chleny SNG: Statisticheskiy yezhegodnik</i> . Statkom SNG, 1992, 605 pp.
<i>Vneshneekonomicheskaya deyatel'nost' gosudarstv Sodruzhestva</i> . Statkom SNG. 1993, 159 pp.
Values expressed in foreign trade rubles converted at the official rate of exchange (B-1)
<i>Ekonomika Sodruzhestva Nezavisimyykh Gosudarstv (kratkiy spravochnik)</i> . Statkom SNG. 1992, 110 pp.
<i>Strany-chleny SNG: Statisticheskiy yezhegodnik</i> . Statkom SNG. 1992, 605 pp.
<i>Vneshnyaya trgovlya suverennykh respublik i pribaltiyskikh gosudarstv v 1990 godu</i> . Goskomstat SSSR. 1992, 107 pp.
Values expressed in foreign trade rubles converted at the commercial exchange rate (B-2)
<i>Ekonomicheskiye vzaimosvyazi stran-chlenov SNG i pribaltiyskikh gosudarstv</i> . Goskomstat SSSR. 1992, 88 pp.
<i>Ekonomika Sodruzhestva Nezavisimyykh Gosudarstv (kratkiy spravochnik)</i> . Statkom SNG. 1992, 110 pp.
<i>Ekonomika stran-chlenov Sodruzhestva Nezavisimyykh Gosudarstv v 1991 godu</i> . Goskomstat RF. 1992, 68 pp.
<i>Ekonomika stran-chlenov Sodruzhestva Nezavisimyykh Gosudarstv v 1991 godu (po dannym statisticheskikh sluzhb SNG)</i> . Statkom SNG. 1992, 134 pp.
<i>Strany-chleny SNG: Statisticheskiy yezhegodnik</i> . Statkom SNG. 1992, 605 pp.
<i>Vneshnyaya trgovlya stran-chlenov Sodruzhestva Nezavisimyykh Gosudarstv v 1991 g.</i> Statkom SNG. 1992, 159 pp.

<sup>a</sup>Excluding handbooks reporting quarterly or monthly data

Soviet foreign trade was to be allocated to Russia. Most of the work performed by Goskomstat SSSR was transferred to the Statistical Committee of the CIS (Statkom SNG). One of the disadvantages of data compiled by Goskomstat SSSR and its successor, Statkom SNG, is their relatively poor availability, as is seen from Table 5.<sup>5</sup>

<sup>5</sup>Data for 1987, considered to be compiled in the same manner as those reported by Goskomstat SSSR and Statkom SNG, were published in *Ekonomika i zhizn'*, No. 10, 1990, p. 7; in the form of an average for 1987-1989 they were published in *Ekonomicheskiye* (1990, p. 4). Data presented in *Vneshtorg SR* (1992) are cited in World Bank (1992, p. 330) and slightly different data for 1989-1990 are reported on page 318 of the same source. Data considered to be a modified version of those appearing in *Vneshtorg SR* (1992) are to be found in *Strany-chleny* (1992, p. 330) and *Ekonomika* (1992, p. 82).

**Table 4.** Categories and Coverage of Published Foreign Trade Data, 1985-1993

Trade category	USSR			Russia		
	A	B-1	B-2	A	B-1	B-2
Total	1990-91	1990	1990-91	1985-93	1988-91	1990-91
By country	n.a.	1990	1990-91	1992-93	1990	n.a.
By groups of countries	n.a.	1990	n.a.	1990-93	1990-91	n.a.
By commodity						
classification TN	n.a.	n.a.	n.a.	1992-93	1991	n.a.
classification ETN	n.a.	1990	n.a.	n.a.	n.a.	n.a.
By groups of commodities						
classification TN	n.a.	n.a.	1990-91	1990-93	n.a.	1991
classification ETN	n.a.	1990	n.a.	n.a.	1990-91	n.a.
By major commodities						
classification TN	n.a.	n.a.	1991	1991-93	n.a.	n.a.
classification ETN	n.a.	1990	n.a.	n.a.	1990-91	n.a.

A = data valued in dollars; B-1 = data valued in foreign trade rubles converted at official rate of exchange; B-2 = data valued in foreign trade rubles converted at commercial rate of exchange; TN = *tovarnaya nomenklatura* (commodity nomenclature); ETN = *edinnaya tovarnaya nomenklatura* (uniform commodity nomenclature); n.a. = data not available.

Sources: Compiled from Tables 1 and 2.

We have a distinct impression that while Goskomstat SSSR and Statkom SNG were inclined to compile data on the basis of primary sources,<sup>6</sup> the staff at Goskomstat RF proceeded to carry out their work less precisely (or somewhat mechanically). For example, when one calculates the share of Russia in the total foreign trade of the Soviet Union using Goskomstat SSSR and/or Statkom SNG data, Russian shares in total Soviet exports and imports amounted to 75-80 and 55-70 percent, respectively. If we elect to rely on Goskomstat RF data, the share of Russia in both the exports and imports of the former USSR remains in the range of 67 to 68 percent every single year. And, when we look at the commodity composition of exports and imports of the Soviet Union and Russia, it is not unreasonable to suggest that Goskomstat RF data are less appropriate.

In its quarterly statistical reports, Goskomstat RF began to report complete data on Russian foreign trade, beginning with figures for the period from January to September 1991 (*Ekonomika i zhizn'*, No. 44, 1991, Appendix, p. 3).<sup>7</sup> Accordingly, by that time a system for compiling and releasing foreign trade data on Russia must have been introduced. But conversely, until that time, all foreign trade data pertaining to Russia, whether compiled by Goskomstat RF or by Goskomstat SSSR, must have comprised recalculations of foreign trade data of the USSR.

<sup>6</sup>There is a note in *Vneshtorg SR* (1992, p. 101) to the effect that its compilers relied on state statistical reports from all enterprises, organizations, *kolkhozy*, cooperatives, etc., with regard to delivery of goods for export as well as receipt of imported goods.

<sup>7</sup>These were B-2 data explained below. In the statistical report for January-June 1991, only export data were shown and the volume of exports was considerably smaller when compared with the volume of Soviet exports for the period (*Ekonomika i zhizn'*, No. 30, Appendix, p. 3; No. 31, 1991, p. 13).

Table 5. Volume of Russian Foreign Trade, 1985-1993

Variable	1985	1986	1987 <sup>a</sup>	1987 <sup>b</sup>	1988	1989	1990 <sup>a</sup>	1990 <sup>b</sup>	1991	1992	1993
Data A-1											
Export (billion dollars)	—	—	—	—	—	—	—	—	—	42.4	44.3
Change from prior year (percent)	—	—	—	—	—	—	—	—	—	—	4.5
Import (billion dollars)	—	—	—	—	—	—	—	—	—	37.0	26.8
Change from prior year (percent)	—	—	—	—	—	—	—	—	—	—	-27.5
Balance (billion dollars)	—	—	—	—	—	—	—	—	—	5.4	17.5
Data A-2 <sup>c</sup>											
Export (billion dollars)	57.6	65.2	70.6	—	74.2	74.7	71.1	—	50.9	41.7	43.7
Change from prior year (percent)	—	13.2	8.3	—	5.1	0.7	-4.8	—	-28.4	-18.1	4.8
Import (billion dollars)	56.4	60.0	63.2	—	72.2	78.0	81.8	—	44.5	36.7	26.6
Change from prior year (percent)	—	6.4	5.3	—	14.2	8.0	4.8	—	-45.6	-17.6	-27.3
Balance (billion dollars)	1.2	5.2	7.4	—	2.0	-3.3	-10.6	—	6.4	5.0	17.1
Data B-1 <sup>d</sup>											
Export (billion rubles)	48.2	45.9	44.7	55.4	45.1	47.1	41.6	46.0	29.6	—	—
Change from prior year (percent)	—	-4.9	-2.6	—	0.9	4.4	-11.6	—	-29.0	—	—
Import (billion rubles)	47.2	42.2	40.0	42.6	43.9	49.2	47.8	42.1	25.8	—	—
Change from prior year (percent)	—	-10.7	-5.2	—	9.8	12.1	-2.8	—	-46.0	—	—
Balance (billion rubles)	—	3.7	4.7	12.8	1.2	-2.1	-6.2	3.9	3.7	—	—
Data B-2											
Export (billion rubles)	—	—	—	—	—	—	91.0	—	64.2	—	—
Change from prior year (percent)	—	—	—	—	—	—	—	—	-29.4	—	—
Import (billion rubles)	—	—	—	—	—	—	82.1	—	44.7	—	—
Change from prior year (percent)	—	—	—	—	—	—	—	—	-45.6	—	—
Balance (billion rubles)	—	—	—	—	—	—	8.9	—	19.6	—	—

<sup>a</sup>Data from Goskomstat RF.<sup>b</sup>Data from Goskomstat SSSR (for 1987 from *Ekonomika i zhizn'*, No. 10, 1990, p. 7).<sup>c</sup>1992 and 1993 data calculated from Table 9.<sup>d</sup>B-1 data for 1985-1987 calculated from A-2 data using the official rate of exchange.

### Data in Foreign Trade Rubles Converted by Applying the Commercial Exchange Rate (B-2)

The introduction of the commercial exchange rate in November 1990 prompted the compilation and release of foreign trade statistics for the year 1991 on the basis of rubles converted by such rate. Until 1990, Soviet statistics had been compiled by converting the volume of foreign trade with each country into amounts valued in foreign trade rubles in the following manner: (1) the volume of trade with capitalist countries in hard currencies was converted by using the official exchange rate; (2) the volume of trade with countries comprising the Council for Mutual Economic Assistance (CMEA) in transferable rubles was converted by applying a ratio of 1:1; and (3) the volume of trade with countries (e. g., India, Afghanistan, etc.) with special settlement schemes governed by bilateral payment agreements was converted in ways reflecting such agreements (IMF et al., 1991, Vol. 1, pp. 423-435). From November 1, 1990, the commercial rates relating to capitalist countries (which were set at levels of one-third of the official rate) began to be used for converting foreign trade volumes in hard currencies to amounts in foreign trade rubles. This measure was viewed as nothing less than a devaluation of the ruble by one-third. Another attempt to introduce a fundamental reform related to CMEA countries. Since the beginning of 1991, settlements in transferable rubles shifted to convertible currencies. And, gradually, settlements with countries governed by bilateral payments agreements, also gradually shifted in the same direction in tandem with CMEA countries.

The change in conversion rates ushered in serious problems with regard to consistency of foreign trade statistics of the USSR (*PlanEcon Report*, Nos. 32-33, 1991, pp. 24-25). When we analyze the dynamics of foreign trade in 1991, a comparison with data for 1990 becomes indispensable. In fact, as early as the first months of 1991, Goskomstat SSSR began to release B-2 data together with rates of increase in comparison with the corresponding period of the preceding year. This means that the effort to recalculate B-1 data for 1990 into B-2 data was completed in early 1991.<sup>8</sup>

When we calculate the ratio of foreign trade turnover for the year 1990 (turnover converted by use of the commercial rate to turnover converted at the official rate of exchange), it becomes apparent that the recalculation must have been carried out country by country. While the ratio is 2.838 for most countries, for some, including the countries comprising CMEA, it is materially lower, and with regard to several developing countries, the ratio is equal to 1:1.<sup>9</sup> The ratio of 2.838 is almost identical

<sup>8</sup>The statistical report of the USSR for January-February 1991, with foreign trade B-1 and B-2 data, was published in the form of two volumes (*Statisticheskii press-byulleten'*, No. 8, 1991, p. 17). To the best of our knowledge, it was the last report with B-1 data for the Soviet Union.

<sup>9</sup>The ratios for countries for which both B-1 data and B-2 data are available for the year 1990 (with recalculation ratio not equal to 2.838) are given below.

Country	Export	Import	Country	Export	Import
Finland	3.087	2.838	North Korea	1.184	1.184
Yugoslavia (former)	2.011	1.735	Vietnam	1.184	1.000
Poland, Hungary	1.919	1.606	India	1.000	1.000
Romania	1.919	1.000	Syria	1.000	1.000
Germany	1.748	1.802	Egypt	1.000	1.000
China	1.735	1.974	Afghanistan	1.000	1.000
Mongolia	1.735	1.919	Iran	1.000	1.000
Czechoslovakia	1.735	1.606	Laos	1.000	1.000
Bulgaria	1.365	1.606	Cuba	0.996	0.919

with that involving the commercial rate introduced on November 1, 1990 (\$1.00 = 1.6626 rubles) and the average of the official rates for 1990 (\$1.00 = 0.5856). The reason why lower ratios were applied to certain CMEA as well as developing countries is explained by statements to the effect that the official rate had nothing to do with trade between these countries and the Soviet Union.<sup>10</sup> Also, it was said that in 1991, the commercial rate was applied to such countries only in part.

With regard to 1990 for the USSR, the average ratio of the total ruble volume of foreign trade converted by using the commercial rate to one based on using the official rate is 1.97 for exports and 1.95 for imports. When we calculate such ratios for Russia in 1990 using data reported by Goskomstat RF, we obtain completely different figures: namely 2.19 for exports and 1.72 for imports. If, however, we use foreign trade data for 1990 compiled by Goskomstat SSSR (*Vneshtorg SR*, 1992), the ratios become almost identical with those for the Soviet Union: 1.98 for exports and 1.95 for imports. Actually, with regard to all other union republics, these ratios turn out to be almost identical if data published in *Vneshtorg SR* (1992) are used.<sup>11</sup> This provides additional evidence to suggest that B-2 data for 1990 must have been recalculated from B-1 data by Goskomstat SSSR.

As noted above, B-2 data for Russia were published for the first time in the statistical report for January-September 1991, signifying by that time that the recalculation of 1990 trade data for Russia (from B-1 to B-2) was completed. The work proceeded under the direction of Goskomstat SSSR, as evidenced by the fact that Russian foreign trade data for 1991 appeared in print together with data on the Soviet Union (in the beginning of 1992 in *Ekonomika i zhizn'*, No. 13, 1992, pp. 14-15) and that Statkom SNG published a pair of statistical handbooks in foreign trade—one for the Soviet Union (*Vneshtorg SNG*, 1992) and another for CIS countries (*Vneshtorg SNG*, 1992), both reporting B-2 data for 1991.<sup>12</sup>

The significant differences in B-1 data for 1990 (i.e., between those presented by Goskomstat RF and those by Goskomstat SSSR), tend to suggest that it may have been unacceptable for the former to publish B-2 data for 1990-1991 on the basis of statistical information and methodology employed by the latter. Thus, Goskomstat RF apparently began to compile data for 1991 using the official exchange rate (a rate not applied in 1991!) and introducing calculated adjustments to make them comparable with B-1 data for 1990 compiled by Goskomstat RF. The result of this work was published in *Rossiyskaya* (1992), *Narkhoz RF* (1992), *Vneshtorg RF*, and other sources. It was never explained how Goskomstat carried out its adjusted compilation. When we calculate the ratio of the volume converted by the commercial rate to that converted by the official for 1991, we come up with 2.17 for exports and 1.73 for imports—ratios that just about coincide with those for Russia in 1990.

We found significant differences between the physical quantities of exports and imports of major commodities in 1991 reported by Goskomstat RF and those released

<sup>10</sup>There was, of course, a measure of indirect influence. For example, when determining prices of transactions with CMEA countries, the values in transferable rubles converted from world market prices at the official rate were taken into account.

<sup>11</sup>Data converted by use of the official and commercial rates are obtained, respectively, from *Vneshtorg SR* (1992, pp. 4-95) and *Ekonomicheskiye* (1992, p. 84). Actually, with regard to Georgia and the Baltic republics, these ratios are slightly different. This could be explained by defects in the statistics of all such countries, traced, in turn, to their reluctance to secure membership in the CIS in 1991.

<sup>12</sup>In addition to data in foreign trade rubles, *Vneshtorg SNG* (1992) reported data relating to delivery of goods for export and receipt of imported goods valued in domestic rubles. As pointed out in note 6 above, such data reportedly were utilized by the compilers of *Vneshtorg* (1992), indicating that the methodology employed for union republics also was used by compilers of the pair of handbooks.



by Goskomstat SSSR.<sup>13</sup> And as much as one-half of the quantities reported by the two agencies turn out to be identical.<sup>14</sup>

To sum up, B-1 data compiled by Goskomstat RF are available for the years 1990-1991, whereas Goskomstat SSSR compiled such data for 1990 and B-2 data for 1990-1991. It is worth noting that: (1) there were rather fundamental differences in the methodology employed by each of the two organizations. Accordingly, one should resist the temptation of mixing data compiled by one with the other; (2) with regard to B-2 data, the most detailed and apparently worth using, they are available only for 1990-1991; accordingly, their usefulness is limited; and (3) we are forced to use B-1 data compiled by Goskomstat RF simply because they are relatively readily available. It should be kept in mind, however, that their consistency, particularly in relation to data for 1988-1990 and for 1991, remains problematic.

### Data in Dollars

It was reported (*Vneshsvyazi RF*, 1993, p. 247) that since January 1, 1992, statistics on foreign trade have been valued in dollars. Indeed, such data have been compiled and released, due in part to the substitution of the market exchange rate for the commercial rate from the beginning of the year, and to gradual liberalization of currency regulations during the course of the year.

Since 1992, data A for the preceding years also have been compiled and released—all recalculated from data B. The method of recalculation was uncomplicated. B-1 data compiled by Goskomstat RF were converted to A by applying the official dollar exchange rate to the ruble.<sup>15</sup> One of the deficiencies of that method can be traced to the questionable suitability of the official exchange rate for 1991, which (as noted above) was not applied during the course of that year. As an alternative, it was proposed to convert B-2 data to A by application of the commercial rate.<sup>16</sup> The difference between the Goskomstat RF figures for the volume of exports and imports in 1991 and those obtained by the alternative method was materially significant.

We prefer the former method and data because the alternative method first used Goskomstat RF's B-1 data (up to the year 1990) and then switched in 1991 to data converted from B-2 compiled by Goskomstat SSSR (or Statkom SNG).<sup>17</sup> The second

<sup>13</sup>The Goskomstat RF data were reported in *Vneshsvyazi RF* (1992, pp. 13-35) and *Narkhoz RF* (1992, pp. 52-58), whereas Goskomstat SSSR data appeared in *Ekonomika i zhizn'* (No. 13, 1992, p. 15). In *Vneshnyaya torgovlya* (No. 2, 1993, p. 44), the Ministry of Foreign Economic Relations of the Russian Federation published the quantities of major commodities exported and imported in 1991. Although published together with data valued in dollars (considered to be compiled by Goskomstat RF), they were no different from those published in *Ekonomika i zhizn'* (loc. cit.).

<sup>14</sup>It is interesting to note that with regard to the majority of commodities (including the ones whose physical quantities are reported differently by each of the two sources) for which we have both the B-1 and the B-2 data, the ratios of B-1 to B-2 values are almost identical (2.17 for exports and 2.00 for imports).

<sup>15</sup>Statkom SNG and OECD (1993, p. 24) offer a similar explanation for the recalculation involving 1988-1990 data. For 1991, the official and commercial rates used to convert foreign trade rubles into dollars were averaged. The averaging, however, cannot be reconciled with actual figures.

<sup>16</sup>Data obtained by such application of the commercial rate appeared in print in *Ekonomika* (1992, p. 16) and *Strany-chleny* (1992, p. 76). In 1993, however, Statkom SNG published the same data, attributing their origin to Goskomstat RF (e.g., see *Ekonomika*, 1993, pp. 78-79, 129). The Center of Economic Analysis of the Russian Government continued to publish such data derived from B-2 (e.g., see *Rossiia—1993, ekonomicheskaya kon'yunktura*, No. 3, 1993, p. 265) and Kuboniwa (1993, pp. 24-25), also anchored his figures to the alternative compilation method.

<sup>17</sup>Data A for 1990-1991 pertaining to the Soviet Union were published in *Vneshnyaya torgovlya*, No. 2, 1993, pp. 43-44. While it was obvious that they were recalculated from data B-1 for 1990, the method of recalculation for 1991 was not explained. If we calculate the ratios of exports and imports in B-2 data in light of corresponding volumes in A data for 1990-1991, we come up with figures equal to 1.13-1.15 for exports as well as imports (i.e., \$1.00 = 1.13-1.15 rubles). This indicates that the commercial rate of exchange was not used to structure A data for the Soviet Union.

reason for our preference reflects the fact that A data obtained from B-2 data are excessively below those compiled by Goskomstat RF. Thus, if we use data compiled by the alternative method, exports and imports (when compared with those of the preceding year) decreased by 45 percent and 68 percent, respectively, whereas Soviet exports and imports expressed in B-2 data declined by 32 percent and 42 percent in that year.<sup>18</sup>

Finally, we should focus on the distinction between A-1 and A-2 data. By definition, the former include trade with the Baltic states, whereas the latter exclude such trade. We believe that because of the apparent absence of data on trade with Lithuania, Latvia, and Estonia expressed in foreign trade rubles prior to 1991,<sup>19</sup> all A data up to that year should be regarded as statistics that do not include trade with the Baltic states (even though some statistical handbooks appeared to claim that these states are included).<sup>20</sup> Actually, the problem is not overly significant because the volume of trade was small; in 1993 the share of the Baltic states in the total foreign trade turnover of Russia reached only about one percent.

All told, one of the most serious problems relating to foreign trade statistics for Russia can be traced to our inability to structure data series anchored in the same methodology for more than a few years. While we have A data for the period from 1985 to 1993, for the years from 1985 to 1989 only the total volume of both exports and imports is available. And we have to work with B-1 data for the 1988-1991 period, and with B-2 data for 1990-1991.

#### FOREIGN TRADE DATA BY COMMODITY GROUP

Until 1991, the foreign trade statistics of both the Soviet Union and Russia were based on the Uniform Foreign Trade Commodity Nomenclature (*Edinaya tovarnaya nomenklatura vneshney torgovli*, abbreviated as ETN)—a commodity classification system commonly used in trade with the CMEA countries. In May 1992, the authorities introduced a new system, called the Commodity Nomenclature of Foreign Economic Activity (*Tovarnaya nomenklatura vneshneekonomicheskoy deyatel'nosti*, abbreviated as TN), based on the international standard known as the Harmonized Commodity Description and Coding System.<sup>21</sup>

For Russia (as shown in Table 4), detailed foreign trade data by commodity are published only for the period from 1991 to 1993 (expressed in B-1 data for 1991 and A data in 1992-1993). Because all are reported in accord with the TN classification, we have consistent statistical distributions by commodity in terms denoting physical

<sup>18</sup>When we compare the volume of foreign trade for 1991 and 1992 (i.e., if we use data of Goskomstat RF), both exports and imports decreased by about 17 percent in 1992 (Table 3). But if we use the data obtained from B-2 data, the exports and imports increased by 2.9 percent and 33.8 percent, respectively (*Rossiia-1993, ekonomicheskaya kon'yunktura*, No. 3, 1993, p. 265).

<sup>19</sup>All B data exclude trade with FSU countries.

<sup>20</sup>For example, *Rossiyskaya* (1994, p. 247), *Sotsial'no-ekonomicheskoye* (1994, pp. 84-87), and Statkom SNG and OECD (1993, p. 24) reported A data, indicating that they excluded trade with CIS countries every year (i.e., they included trade with the three Baltic states). Data published in the aforementioned handbooks for the period that followed 1991 included trade with these states.

<sup>21</sup>In the new system, codes are denoted in nine figures; the first eight are in concert with the system used in the European Union, which represents a detailed version of the Harmonized System denoted in six figures (*Vneshnyazi RF*, 1993, p. 247; *Rossiyskiye vesti*, September 29, 1992, p. 3).

Table 6. Volume of Soviet Foreign Trade, 1980-1991

Variable	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
	Data A <sup>a</sup>											
Export (billion dollars)	76.5	79.4	87.0	91.4	91.2	86.8	97.1	107.7	110.4	109.6	103.9	71.2
Change from prior year (%)	—	3.9	9.5	5.0	-0.2	-4.8	11.9	10.9	2.5	-0.7	-5.2	-31.5
Import (billion dollars)	68.5	73.2	77.7	80.2	80.1	82.9	89.0	96.0	107.0	115.0	121.0	70.1
Change from prior year (%)	—	6.8	6.1	3.2	-0.2	3.5	7.3	7.9	11.4	7.5	5.2	-42.1
Balance (billion dollars)	8.0	6.2	9.3	11.2	11.1	3.9	8.1	11.7	3.4	-5.4	-17.1	1.1
	Data B-1											
Export (billion rubles)	49.6	57.1	63.2	67.9	74.4	72.7	68.3	68.1	67.1	68.7	60.8	—
Change from prior year (%)	—	15.1	10.6	7.5	9.6	-2.3	-6.0	-0.2	-1.5	2.4	-11.6	—
Import (billion rubles)	44.5	52.6	56.4	59.6	65.3	69.4	62.6	60.7	65.0	72.1	70.7	—
Change from prior year (%)	—	18.4	7.2	5.6	9.6	6.3	-9.9	-2.9	7.1	10.9	-2.0	—
Balance (billion rubles)	5.2	4.5	6.8	8.3	9.1	3.2	5.7	7.4	2.1	-3.4	-10.0	—
	Data B-2											
Export (billion rubles)	—	—	—	—	—	—	—	—	—	—	119.8	81.4
Change from prior year (%)	—	—	—	—	—	—	—	—	—	—	—	-32.1
Import (billion rubles)	—	—	—	—	—	—	—	—	—	—	137.6	79.2
Change from prior year (%)	—	—	—	—	—	—	—	—	—	—	—	-42.4
Balance (billion rubles)	—	—	—	—	—	—	—	—	—	—	-17.8	2.2
	Official exchange rate <sup>b</sup>											
Rubles per dollar	0.6490	0.7190	0.7260	0.7430	0.8160	0.8376	0.7034	0.6328	0.6080	0.6274	0.5856	0.5819
Change from prior year (%)	—	10.8	1.0	2.3	9.8	2.6	-16.0	-10.0	-3.9	3.2	-6.7	-0.6

<sup>a</sup>For 1980-1989, the data are calculated from B-1 by applying the official rate of exchange; data for 1990-1991 are from *Vneshehnaya trgovlya*, No. 2, 1993, p. 44.

<sup>b</sup>Derived from CIA, 1986, p. 61; IMF et al., 1991, Vol. 1, p. 447; and IMF, 1992, p. 82.

Table 7. Commodity Composition of Russian Foreign Trade, 1988-1991<sup>a</sup>

Commodity	In billion foreign trade rubles				Share of total (percent)			Change from prior year (percent)			Distribution of change			
	1988	1989	1990	1991	1988	1989	1990	1991	1989	1990	1991	1989	1990	1991
Total exports	45.1	47.1	41.6	29.6	100.0	100.0	100.0	100.0	4.4	-11.6	-29.0	4.4	-11.6	-29.0
Machinery and equipment	7.7	7.9	7.3	3.0	17.1	16.8	17.5	10.1	2.6	-7.6	-58.9	0.4	-1.3	-10.3
Fields, mineral raw materials, and metals	23.9	24.5	21.4	18.5	53.0	52.0	51.4	62.6	2.5	-12.7	-13.6	1.3	-6.6	-7.0
Chemicals, fertilizers, and rubber	1.5	1.6	1.6	1.9	3.3	3.4	3.8	6.4	6.7	10.0	8.8	0.2	0.0	0.7
Raw materials and semi-manufactures	2.2	2.3	1.9	1.7	4.9	4.9	4.6	5.8	4.5	-17.4	-10.5	0.2	-0.8	-0.5
Raw materials for food	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Food products	0.4	0.5	0.6	0.6	0.9	1.1	1.4	2.0	25.0	20.0	0.0	0.2	0.2	0.0
Industrial consumer goods	1.1	1.3	1.7	1.1	2.4	2.8	4.1	3.7	18.2	30.8	-35.3	0.4	0.8	-1.4
Other	8.2	8.9	7.0	2.6	18.2	18.9	16.8	8.8	8.5	-21.3	-62.9	1.6	-4.0	-10.6
Total imports	43.9	49.2	47.8	25.8	100.0	100.0	100.0	100.0	12.1	-2.8	-46.0	12.1	-2.8	-46.0
Machinery and equipment	17.3	18.8	19.7	8.6	39.4	38.2	41.2	33.3	8.7	4.8	-56.3	3.4	1.8	-23.2
Fuels, mineral raw materials, and metals	5.3	4.9	3.4	2.3	12.1	10.0	7.1	8.9	-7.5	-30.6	-32.4	-0.9	-3.0	-2.3
Chemicals, fertilizers, and rubber	2.4	2.6	2.0	2.2	5.5	5.3	4.2	8.5	8.3	-23.1	10.0	0.5	-1.2	0.4
Raw materials and semi-manufactures	2.3	2.6	2.1	1.3	5.2	5.3	4.4	5.0	13.0	-19.2	-38.1	0.7	-1.0	-1.7
Raw materials for food	4.7	5.5	4.1	3.8	10.7	11.2	8.6	14.7	17.0	-25.5	-7.3	1.8	-2.8	-0.6
Food products	2.2	2.5	2.9	2.5	5.0	5.1	6.1	9.7	13.6	16.0	-13.8	0.7	0.8	-0.8
Industrial consumer goods	6.6	7.2	8.6	4.3	15.0	14.6	18.0	16.7	9.1	19.4	-50.0	1.4	2.8	-9.0
Other	3.1	5.1	5.0	0.8	7.1	10.4	10.5	3.1	64.5	-2.0	-84.0	4.6	-0.2	-8.8

<sup>a</sup>In foreign trade rubles converted at the official rate of exchange (B-1).  
Sources: Compiled from Sagers, 1991, p. 511 and *Narkhoz RP*, 1992, pp. 50-51.

Table 8. Commodity Composition of Russian Foreign Trade, 1990-1993<sup>a</sup>

Commodity	In billion dollars				Share of total (percent)			Change from prior year (percent)			Distribution of change from prior year (percent)			
	1990	1991	1992	1993	1990	1991	1992	1993	1991	1992	1993	1991	1992	1993
Total exports	71.1	50.9	42.4	44.3	100.0	100.0	100.0	100.0	-28.4	-16.7	4.5	-28.4	-16.7	4.5
Food raw materials and products	1.5	1.3	1.5	1.7	2.1	2.6	3.5	3.8	-13.3	15.4	11.0	-0.3	0.4	0.4
Mineral products	32.3	26.3	21.7	20.7	45.4	51.7	51.2	46.6	-18.6	-17.5	-4.8	-8.4	-9.0	-2.5
Chemicals and rubber	3.3	3.4	2.5	2.7	4.6	6.7	5.9	6.0	3.0	-26.5	6.6	0.1	-1.8	0.4
Leather and articles thereof	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.0	0.0	-15.0	0.0	0.0	-0.0
Wood, cellulose, paper products	3.1	2.4	1.5	1.9	4.4	4.7	3.5	4.2	-22.6	-37.5	24.9	-1.0	-1.8	0.9
Textiles and footwear	0.7	0.5	0.3	0.2	1.0	1.0	0.7	0.4	-28.6	-40.0	-35.3	-0.3	-0.4	-0.3
Base and precious metals	9.2	7.3	8.5	10.3	12.9	14.3	20.1	23.2	-20.7	16.4	20.9	-2.7	2.4	4.2
Machinery and equipment	12.5	5.2	3.7	2.9	17.6	10.2	8.7	6.5	-58.4	-28.8	-22.2	-10.3	-2.9	-1.9
Other	8.4	4.4	2.6	4.0	11.8	8.6	6.1	9.0	-47.6	-40.9	-53.9	-5.6	-3.5	3.3
Total imports	81.8	44.5	37.0	26.8	100.0	100.0	100.0	100.0	-45.6	-16.8	-27.5	-45.6	-16.8	-27.5
Food raw materials and products	16.6	12.4	9.6	6.0	20.3	27.9	26.0	22.2	-25.3	-22.6	-38.0	-5.1	-6.3	-9.9
Mineral products	2.4	1.3	1.0	1.1	2.9	2.9	2.7	4.0	-45.8	-23.1	7.2	-1.3	-0.7	0.2
Chemicals and rubber	8.9	5.5	3.5	1.7	10.9	12.4	9.5	6.2	-38.2	-36.4	-52.5	-4.2	-4.5	-5.0
Leather and articles thereof	0.8	0.5	0.7	0.7	1.0	1.1	1.9	2.6	-37.5	40.0	0.3	-0.4	0.4	0.0
Wood, cellulose, paper products	0.9	0.5	0.5	0.1	1.1	1.1	1.4	0.5	-44.4	0.0	-71.6	-0.5	0.0	-1.0
Textiles and footwear	7.6	4.4	4.2	3.7	9.3	9.9	11.4	13.9	-42.1	-4.5	-11.5	-3.9	-0.4	-1.3
Base and precious metals	4.4	2.8	1.2	0.9	5.4	6.3	3.2	3.5	-36.4	-57.1	-21.8	-2.0	-3.6	-0.7
Machinery and equipment	36.3	15.8	13.9	9.1	44.4	35.5	37.6	33.8	-56.5	-12.0	-34.8	-25.1	-4.3	-13.1
Other	3.9	1.3	2.4	3.6	4.8	2.9	6.5	13.3	-66.7	84.6	48.3	-3.2	2.5	3.1

<sup>a</sup>For 1990-1991, the data exclude trade with FSU countries (A-2); for 1992-1993, the data exclude trade with CIS countries (A-1).  
Source: Compiled from *Rossiyskaya*, 1994, pp. 250-253.

quantities for the period from 1991 to 1993.<sup>22</sup> In terms of value, however, we are unable to compare data for 1991 with those for 1992.

Among the problems and deficiencies of Soviet foreign trade data by commodity was the practice of concealing certain strategically or commercially significant goods such as nonferrous metals, precious metals (including gold) and, of course, armaments. Such items, most if not all representing a materially large share of the total, were included in one of the commodity groups in the statistics detailing groups (rather than individual) commodities (see Tables 7 and 8), or in the residuals of such statistics. Accordingly, one needs to determine which individual commodities are included in each group—not an easy task, and one rather typical of the difficulties encountered in analyzing Soviet statistics in other sectors of the economy.

The problem reappears in the more recently published Russian data on foreign trade. The classification by groups of commodities arranged in accord with the ETN system for Russia (Table 7) is slightly different from the one used for the Soviet Union for many years. As a result of these differences, the rubric “other” (residuals) in Russian statistics appears to include only construction materials (ETN category 40-42), services involving construction, and armaments, whereas in Soviet statistics the residual category (“other”) seemed to include, in addition to the aforementioned three items, nonmetallic minerals (ETN 25), furs and pelts (ETN 52), other raw materials (ETN 53-59), and livestock (ETN 60).<sup>23</sup> In the TN system (Table 8), the so-called “other” rubric in data by groups of commodities is believed to have included stone, cement, ceramics and glassware (TN category 68-70), clocks and musical instruments (TN 91-92), armaments (TN 93), miscellaneous manufactured articles (TN 94-96), and works of art (TN 97).<sup>24</sup>

### FOREIGN TRADE BY GROUPS OF COUNTRIES

All available data relating to geographic distribution of Russian foreign trade are shown in Table 9, together with corresponding data for the Soviet Union.<sup>25</sup> One can readily detect the two strange instances of correspondence in the percentage shares for the period 1990-1991. And for 1990, B-1 data and A data for Russia are identical with B-1 data for the Soviet Union, while for 1991, A data for Russia are identical with B-2 data for the Soviet Union.

<sup>22</sup>With regard to major commodities, we have data in physical quantities for one additional year (i.e., for the period from 1990 to 1993), because data by major commodities classified in accord with the ETN system for the 1990-1991 period have appeared in print.

<sup>23</sup>This conclusion is based on Treml and Kostinsky (1982, pp. 32-35), *Statisticheskiiy* (1989, p. 482), and data on foreign trade for Russia and the Soviet Union. According to estimates made by Treml and Kostinsky (loc. cit.), in 1972, about 78 percent and 45 percent of the “other” exports and imports, respectively, could be attributed to armaments. Thus, exports and imports of arms accounted for 14 percent and 3 percent of the total.

<sup>24</sup>This estimate is based on data reported in *Vneshsvyazi RF* (1993), *Vneshneekonomicheskaya* (1993, pp. 51-52), and *Vneshstorg SNG* (1992). Data published in *Vneshsvyazi RF* (1993) indicate that in 1992 nearly 90 percent and more than 50 percent identified as “other” in exports and imports, respectively, can be traced to armaments. In other words, exports and imports of arms, respectively, accounted for about 6 percent and 2 percent of the total. Japan's foreign trade statistics, also based on the Harmonized System, include trade in certain arms (e.g., tanks, explosives, etc.) in various categories other than category 93 designated for arms. This also is true in the case of Russian statistics, as evidenced, for example, in Appendix 2 of the government decree dated July 1, 1994 (*Sobraniye zakonodatel'stva Rossiyskoy Federatsii*, No. 11, 1994, pp. 1760-1761).

<sup>25</sup>Apparently, B-2 data for Russia by groups of countries have not appeared in print. In Table 9, data for 1993 were derived from one of the issues of *Roshia toboeeki chosa geppo*, published monthly by ROTOB (Japan Association for Trade with Russia and Central and Eastern Europe). These 1993 data reportedly were based on *Vneshniye ekonomicheskiye svyazi Rossiyskoy Federatsii v 1993 g.*, compiled by the Russian Market Research Institute of the Russian Ministry of Foreign Economic Relations, based, in turn, on data prepared by Goskomstat RF statisticians.

Table 9. Volume of Russian and Soviet Foreign Trade by Groups of Countries, 1989-1993

Exports and imports	USSR				Russia			
	Data B-1 (million rubles)		Data B-2 (million rubles)		Data B-1 (million rubles)		Data A (million dollars)	
	1989	1990	1990	1991	1990	1991	1990	1991
Total exports, including Baltic states	—	—	—	—	—	—	42379	44297
Baltic states	—	—	—	—	—	—	682	590
Total exports	68742	60757	119838	81419	41632	29559	41697	43707
Former CMEA countries	31295	26228	42282	18650	17972	8689	8093	6587
China, North Korea, Laos, Yugoslavia	4269	4172	7172	5738	2858	2576	4258	3543
Developed countries, including East Germany	23055	21848	54859	46001	14971	13756	24563	28260
Less developed countries	10123	8509	15526	11031	5831	4583	4784	5317
Total imports, including Baltic states	—	—	—	—	—	—	36984	26807
Baltic states	—	—	—	—	—	—	333	172
Total imports	72137	70728	137628	79230	47816	25821	36651	26635
Former CMEA countries	33413	32399	50244	19450	21228	8030	5347	2707
China, North Korea, Laos, Yugoslavia	4066	4489	7831	5486	3033	2122	3082	2884
Developed countries, including East Germany	27673	28101	66756	46066	18988	12810	23055	16767
Less developed countries	6986	6739	12817	8229	4557	2859	5167	4277
	Share of total (percent)							
Total exports	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Former CMEA countries	45.5	43.2	35.3	22.9	43.2	29.4	19.4	15.1
China, North Korea, Laos, Yugoslavia	6.2	6.9	6.0	7.0	6.9	8.7	10.2	8.1
Developed countries, including East Germany	33.5	36.0	45.8	56.5	36.0	46.5	58.9	64.7
Less developed countries	14.7	14.0	13.0	13.5	14.0	15.4	11.5	12.2
Total imports	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Former CMEA countries	46.3	44.4	36.5	24.5	44.4	31.1	14.6	10.2
China, North Korea, Laos, Yugoslavia	5.6	6.3	5.7	6.9	6.3	8.2	8.4	10.8
Developed countries, including East Germany	38.4	39.7	48.5	58.1	39.7	49.6	62.9	63.0
Less developed countries	9.7	9.5	9.3	10.4	9.5	11.1	14.1	16.1

Sources: Compiled from *Vneshnyaya SSSR*, 1991, p. 8; *Ekonomika i zhizn'*, No. 13, 1992, p. 14; *Narkhoz RF*, 1992, p. 49; *Rossiyskaya*, 1993b, p. 50; *Vneshnyaya trgovlya*, No. 4, 1994, p. 42; and *Roshita toboekt chosa geppo*, No. 7, 1994, pp. 83-86.

The correspondence of B-1 data with A data for Russia in 1990 did not surprise us, because A data were converted from B-1 by application of the official rate of exchange. The correspondence of B-1 data for Russia with B-1 for the Soviet Union in 1990 is but another instance of seemingly mechanical recalculation of Russian from Soviet data carried out by employees of Goskomstat RF.<sup>26</sup> The most strange and less credible correspondence was the one between A data for Russia and B-2 for the Soviet Union in 1991. As noted above, Goskomstat RF appeared to reject B-2 data for Russia traced to Goskomstat SSSR. But why, one might ask, did the Goskomstat RF statisticians use B-2 data for the Soviet Union in order to compile data by groups of countries for Russia? Was it simply because no other reliable 1991 data at the time were at their disposal? Moreover, a material discrepancy in percentage shares between data A and B-1 for Russia in 1991 needs to be justified and explained. Why did Goskomstat RF's statisticians fail to convert B-1 data to A data using the official rate of exchange in the process of calculating the geographic distribution for 1991, bearing in mind that they did rely on such conversion in their calculations for 1990 as well as in calculations relating to total exports and imports for 1991? These questions remain unanswered. All told, although we have access to foreign trade data for Russia by groups of countries for the period from 1990 through 1993, the data for 1990, those for 1991, and those for 1992-1993 are not comparable and not in conformity with each other.<sup>27</sup>

### RELIANCE ON CUSTOMS STATISTICS

Until recently, data on foreign trade involving the Soviet Union and Russia have not been based on statistics originating in customhouses. The system depended on statistical reports submitted by enterprises and organizations allowed to participate, and later managing by themselves to participate, in foreign economic activities. When limited numbers of state organizations were engaged in foreign trade, this method was more or less adequate to meet the needs of statisticians seeking all relevant data relating to foreign trade. However, as the forms of ownership diversified and the number of participants in trade with foreign countries increased, it apparently became necessary to introduce customhouse statistics.

As late as the first quarter of 1994, the State Customs Committee of the Russian Federation began to publish a quarterly statistical bulletin (*Tamozhennaya statistika vneshey trgovli Rossiyskoy Federatsii*), and in June 1994 customs statistics relating to imports replaced those relying on reports from participants in Russia's foreign trade.<sup>28</sup> As expected, the volume of foreign trade reported by customs statistics by far exceeded that originating from and reported by the participating firms and organizations.<sup>29</sup> The change created imbalances, such as the instance of imports reported as

<sup>26</sup>Russia's shares of the total foreign trade of the USSR in 1990 amounted to 68.5 percent for exports and 67.6 percent for imports for all the groups of countries presented in Table 9. In *Vneshtorg SR* (1992), compiled by Goskomstat SSSR, foreign trade data by country were published for each of the union republics, indicating that the breakdown of Soviet data by republic was not a mechanical exercise; the data are cited in *PlanEcon Report*, Nos. 27-29, 1992, pp. 34-51.

<sup>27</sup>Comparability between data for 1992 and 1993 also has not been achieved, because those reproduced in Table 9 were derived from different statistical handbooks.

<sup>28</sup>The statistical report for January-June 1994 (*Sotsial'no-ekonomicheskoye polozheniye Rossii*, January-June 1994, p. 4) notes that the register (*uchet*) of Russian imports for the first half of 1994 has been based on data of customhouse origin.

<sup>29</sup>During the first quarter of 1994, the volume of exports and imports reported by the participating enterprises and organizations (in accord with the preceding method) reached 9.1 and 3.9 billion dollars, respectively, while the volume reported on the basis of customs statistics reached 12.1 and 8.7 billion dollars, respectively (*Sotsial'no-ekonomicheskoye polozheniye Rossii*, January-March 1994, pp. 3-4; *Tamozhennaya statistika vneshey trgovli Rossiyskoy Federatsii*, January-March 1994, p. 5).



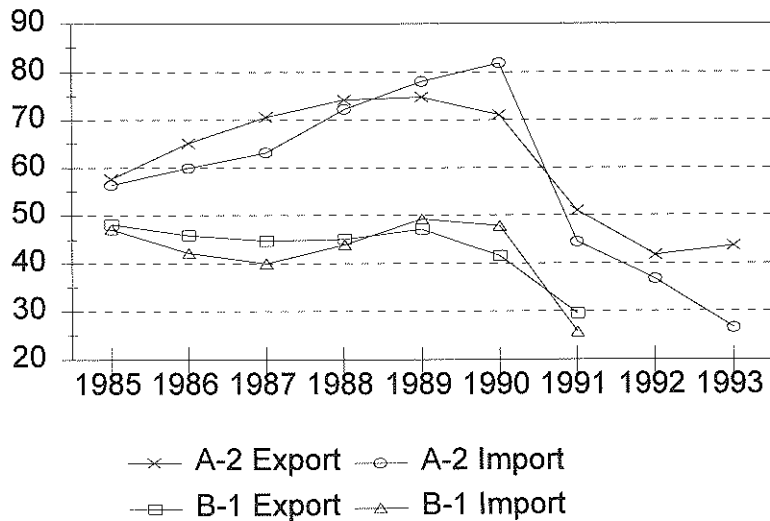


Fig. 1. Russian exports and imports, 1985-1993, in billions of dollars (A-2) and rubles (B-1), respectively.

having decreased by as much as 31.4 percent during the first five months (January to May) of 1994 (in comparison with the corresponding period in 1993) and, based on customhouse data, increased within one month so much so that figures for the six-month period (January to June 1994) shifted by 35.4 percent (resulting in a net gain of 4 percent).<sup>30</sup> The introduction of customhouse statistics into the system no doubt will bring about additional inconsistencies between data of organizational origin for 1993 and those for 1994.

### THE DYNAMICS OF FOREIGN TRADE

Table 5 and Figure 1 show a decrease in Russian exports and imports expressed in B-1 data in 1986-1987 and, after a slight recovery in 1988-1989, another decrease in 1990.<sup>31</sup> More particularly, in 1991 exports and imports declined by 30 and 50 percent, respectively. As late as 1993, only exports turned the corner and began to increase.

But according to A data, Russia's exports as well as imports in 1986-1987 managed to increase. This was the result of a considerable depreciation of the dollar vis-à-vis the ruble, which appreciated by 27 percent in 1988 in comparison with 1985, as shown in Table 6. We believe that data B-1 are more useful for an analysis of the period, bearing in mind that the dollar depreciated against almost all major currencies and that the bulk of Russian foreign transactions was settled in such currencies rather than in dollars.

<sup>30</sup>The physical quantities of most commodities imported in January-June were several times higher than those reported for January-May (in the case of meat and chicken, nearly ten times higher). See *Sotsial'no-ekonomicheskoye polozheniye Rossii*, January-May 1994, p. 4; January-June 1994, p. 4.

<sup>31</sup>B-1 data for 1985-1987 in Table 5 and Figure 1 are calculated from A data, applying the official exchange rate presented in Table 6.

**Table 10.** Export of Hydrocarbons from Russia, Selected Indices, 1990-1993

Variable	Unit	1990	1991	1992	1993
Oil					
Exports to foreign countries	Million dollars	—	7162.7	8544.8	8370.0
Change from prior year	Percent	—	—	19.3	-2.0
Share of total exports	Percent	—	14.1	20.2	18.9
Exports to foreign countries	Million tons	99.0	56.5	66.2	79.9
Change from prior year	Percent	—	-43.0	17.2	20.7
Domestic production	Million tons	516.0	462.0	399.0	354.0
Exports to CIS countries	Million tons	123.0	117.0	72.0	42.7
Share of domestic production					
Exports to foreign countries	Percent	19.2	12.2	16.6	22.6
Exports to CIS countries <sup>a</sup>	Percent	23.8	25.3	18.0	12.1
Export price per unit	Dollars	—	126.8	129.1	104.7
Oil products					
Exports to foreign countries	Million dollars	—	—	4170.8	3471.0
Change from prior year	Percent	—	—	—	-16.8
Share of total exports	Percent	—	—	9.8	7.8
Exports to foreign countries	Million tons	—	27.0	25.3	35.3
Change from prior year	Percent	—	—	-6.1	39.1
Export price per unit	Dollars	—	—	164.6	98.4
Natural gas					
Exports to foreign countries	Million dollars	—	8298.0	7479.4	7443.0
Change from prior year	Percent	—	—	-9.9	-0.5
Share of total exports	Percent	—	16.3	17.6	16.8
Exports to foreign countries	Billion cubic meters	96.0	89.6	87.9	96.0
Change from prior year	Percent	—	-6.7	-1.9	9.1
Domestic production	Billion cubic meters	641.0	643.0	641.0	619.0
Exports to CIS countries	Billion cubic meters	89.0	92.0	101.0	75.0
Share of domestic production					
Exports to foreign countries	Percent	15.0	13.9	13.7	15.5
Exports to CIS countries <sup>a</sup>	Percent	13.9	14.3	15.8	12.1
Export price per unit	Dollars	—	92.6	85.1	77.6

<sup>a</sup>For 1990-1991, "exports to CIS countries" refers to exports to all the FSU countries.

Sources: Compiled from *Narkhoz RF*, 1991, p. 59; *Vneshsvyazi RF*, 1992, pp. 13-22; 1993, pp. 12-23; *Vneshnyaya torgovlya*, No. 2, 1993, p. 44; *Roshia toboeki chosa geppo*, No. 7, 1994, pp. 87-90; and *Rossiyskaya*, 1994, pp. 157, 245, 248.

As shown in Table 6, the dynamics of Soviet foreign trade in the 1980s after the second half of the decade tended to parallel the trend in Russia. For the period from 1985 to 1990 (with data for the USSR and Russia in print), the correlation between both the exports and imports of the USSR (expressed in A and B-1 data) and the corresponding indices for Russia evidently is quite high ( $r$  values reached 0.978-0.998). This is, at least in part, due to the method for compiling B-1 data for Russia,

indicating that factors that tended to influence Russian foreign trade during the period for the most part are no different from those shaping the foreign trade of the Soviet Union. At this point, it is not unreasonable to focus our attention on the period that followed 1991, especially on the causes of the large decline in the volume of foreign trade.

Tables 7 and 8 show that the period from 1990 to 1992 was marked by continued decreases in two major items, namely fuels and armaments, accounting for the overall decline in exports each year. Also, in 1991, a sharp reduction in machinery exports, by nearly 60 percent, was the major factor contributing to the sizable reduction during the course of that year.

The decrease in fuel exports in 1990-1991 can be traced to a reduction in quantities, whereas in 1992-1993, the price of fuels dropped considerably, effectively nullifying the increases in exported quantities. This trend for 1990-1991 was evident in light of data for the USSR (see Langhammer, Sagers, and Lücke, 1992, p. 621), whereas that for 1992-1993 is illustrated by Table 10.

The decline in arms exports is indirectly evidenced by the decline in the so-called "other" categories in Tables 7 and 8. Soviet data classified in accord with the ETN system indicate that the share of arms in the "other" categories was estimated to have reached 81 percent in 1988 and 69 percent in 1989.<sup>32</sup>

In 1991, the decline in exports of machinery was extremely large. Its contribution to the change in total exports was -10 percent (Table 8),<sup>33</sup> mainly because of the collapse of CMEA. Looking at B-2 data for the USSR in Table 9, one can calculate that the contribution of exports to former CMEA countries to the change in total exports (-32 percent in 1991) reached the level of -19.7 percent. The continued decline in imports since 1991 can be attributed to reduction in such major items as machinery, agricultural raw materials and products, and chemicals.

The impact of the decline in machinery imports on total imports was especially severe in 1991. Its contribution to change in the total reached -25 percent, also largely due to the collapse of CMEA, a trading partner contributing as much as -22 percent to the large change in total imports (-42 percent) (Table 9). The decline in imports of agricultural raw materials and products (food) also has been significant in recent years (Table 8). This seemed to be mainly related to the reduction in raw material imports, whereas imports of food products appeared to be increasing—an observation particularly valid for 1993. Chemicals, another commodity exhibiting a sizable drop in imports, was affected by reduction in the import of pharmaceuticals, down by 70 percent in 1993.<sup>34</sup>

The overall decrease in imports, particularly of food, was, at least in part, related to the massive reduction in centralized imports, due, in turn, to the shortage of hard currencies retained by the government to cope with the mounting budget deficit. Centralized imports usually relied on subsidies extracted from the budget, in order to keep the price of imported goods much below the level determined by measuring world

<sup>32</sup>This estimate was based on figures published in *Vneshsvyazi SSSR* (1990, p. 20) and *Statisticheskty* (1990, p. 573).

<sup>33</sup>The contribution of each item to the change in total exports or imports is calculated throughout this paper by dividing the annual change in each item by the total (exports or imports) for the preceding year. The sum of contributions of each item is equal to the annual change in total exports or imports. A contribution to change in total exports of -10 percent means that, solely because a change in the given item, the total for exports is reduced by 10 percent.

<sup>34</sup>The difference in the value of chemicals in Tables 7 and 8 can be traced to changes in classification of commodity groups. In Table 7, classified in accordance with the ETN system, pharmaceuticals, soaps, and cosmetics are included in industrial consumer goods, whereas in Table 8, based on the TN, these categories are included in chemicals.

market prices in rubles converted at substantially undervalued market rates. It was reported that centralized imports fell from 30 billion dollars in 1991 (two-thirds of total imports), to 20 billion in 1992 (roughly one-half of the total), and 12 billion dollars in 1993 (about 45 percent of total imports, as stated in *Finansovyye izvestiya*, January 27-February 2, 1994, p. 1). Import subsidies reportedly reached 7.28 billion dollars in 1992, but declined to 1.735 billion dollars in 1993 (Rossiyskiye, 1994, p. 34).

In 1993, Russian exports began to increase. The figures in Table 8 indicate that the turn mainly reflected increases in the export of metals (such as iron and steel and aluminum), as well as increases in the "other" category (probably arms). The 1993 rise seemed largely to occur in tandem with the shift in the direction and orientation of Russian exports from the CIS to non-CIS countries. Table 10 clearly shows that while Russian exports to CIS countries continued to shrink, the physical quantities of commodities sold to foreign countries were increasing.

### CONCLUDING COMMENTS

The main thrust of this paper was to highlight the difficulty of coping with foreign trade statistics embracing Russia. We are confronted by two types of problems.

First, changes in the methodology of compiling and processing statistics have occurred so frequently that reasonable efforts to compare data of even two consecutive years are beyond one's reach. This is true particularly for data detailing the commodity composition of trade and arranging trade by groups of countries trading with Russia. Needless to say, without such basic data a thorough analysis scarcely is possible.

Second, it is quite obvious that Russian statistics have failed to capture the actual size of the country's foreign trade turnover. There are transactions based on smuggling, those anchored in tax-evasion strategies of enterprises, and similar "non-organized" imports.<sup>35</sup> Apparently, no one has managed to reliably estimate the volume of these transactions. But our assumption that it is very high and significant is reinforced by the difference in the volume of exports and imports reported by customs statistics and that forthcoming from the trading enterprises and organizations, even though it is not altogether apparent that the new statistics of customhouse origin cover the entire spectrum of foreign trade activity in Russia.

Although Russian statistics on foreign trade should show signs of improvement in the not too distant future (they really need to improve quite substantially), the lack of consistency in data for recent years will continue to invite serious criticism.

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<sup>35</sup>The Russian term for such imports is *chelnok*.

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