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APPENDIX D

Production Indexes and Weights

General Note

THE indexes given in Appendix D are, in general, expressed as values in constant prices. The exception is the index for all civilian industrial products in Table D-4, which is given in the form of index numbers since it is weighted by employment in 1955.

The series included in these indexes are given in Tables D-10 and D-11; weights, in Tables D-8 and D-9. The weighting systems used are described in Chapter 5 and Appendix A, technical note 3.

TABLE D-1
 INDEXES FOR INDUSTRIAL MATERIALS: SOVIET UNION, 1913-1955
 (million constant rubles)

	1913 Prices ^a			1928 Prices ^a			1955 Prices ^a		
	Total	Intermediate Industrial Products	Consumer Goods	Total	Intermediate Industrial Products	Consumer Goods	Total	Intermediate Industrial Products	Consumer Goods
	1913	2,687.6 ^b	1,385.1 ^b	1,302.5 ^b	5,535.9	2,545.9	2,990.0	33,225.7	13,136.4
1914	2,948			6,239			38,093		
1915	2,869			6,061			37,459		
1919	2,972			6,193			40,060		
1617	2,477			5,111			33,149		
1918	1,064			2,373			14,463		
1919	649			1,153			7,984		
1920	583			1,052			7,582		
1921	634			1,175			8,971		
1921/22	927			1,865			14,114		
1922/23	1,144			2,360			15,782		
1923/24	1,412			2,878			18,191		
1924/25	1,957			4,133			24,826		
1925/26	2,437			5,037			30,760		
1926/27	2,714			5,405			31,149		
1927/28	2,779.1	1,498.9	1,280.2	5,556.9	2,688.0	2,868.9	32,862.5	13,299.1	19,563.4
1928/29				6,039			35,219		
1929/30				6,884			41,957		
1931				7,183			44,134		
1932	3,781.0	2,562.8	1,218.2	7,264.0	3,876.3	3,387.7	43,144.7	22,896.3	20,248.4

1933		7,583			44,180
1934		9,006			52,467
1935		10,366			59,112
1936		12,325			68,774
1937	6,683.1	1,785.8	8,603.4 ^c	4,086.1 ^c	70,091.5 ^d
	4,897.3				41,593.5 ^d
1938		13,073			71,987
1939		13,395			74,452
1940	7,428.0	1,931.9	9,602.0	4,457.4	77,195.7
1945	4,324.2	3,455.5	6,181.2	1,998.3	47,319.9
		868.7			31,275.1
1946		9,510			53,849
1947		11,351			63,810
1948		13,834			75,296
1949		16,533			90,224
1950	9,773.6	7,745.4	13,883.3	4,815.4	99,527.7
		2,028.2			67,536.3
1951		21,092			112,047
1952		22,758			119,274
1953		25,326			129,089
1954		27,517			139,787
1955	15,807.8	12,582.5	22,376.0	8,072.0	153,747.1
		3,225.3			105,612.7
		30,448.0			48,134.4

^a The product coverage is the same for the indexes based on 1928 and 1955 prices, but slightly smaller for the index based on 1913 prices (see Table D-10). Weights are given in Table D-8.

^b The values on Tsarist territory for 1913, for a smaller product coverage, are 2,806.2, 1,594.1, and 1,212.1 mill. rubles for all industrial materials, intermediate industrial products, and consumer goods, respectively. The following series are not covered: 308, 309, 405.2, 405.3, 406, 510, 513, 604, 605, 1506, 1507, and 1614. The corresponding values on Soviet territory are: 2,374.4, 1,309.4, and 1,065.0 mill. rubles, respectively.

^c The values on post-World War II territory for 1937, for a slightly smaller product coverage, are 12,552.6, 8,176.4, and 4,376.2 mill.

rubles for all industrial materials, intermediate industrial products and consumer goods, respectively. The following series are not covered: 309, 512, 1511, and 1614. The corresponding values on pre-World War II territory for 1937 are 11,857.6, 7,866.9, and 3,990.7 mill. rubles, respectively.

^d The values on post-World II territory for 1937, for a slightly smaller product coverage (see note *c* above), are 71,172.6, 38,806.6, and 32,366.0 mill. rubles for all industrial materials, intermediate industrial products, and consumer goods, respectively. The corresponding values on pre-World II territory for 1937 are 64,916.4, 37,416.5, and 27,499.9 mill. rubles, respectively.

TABLE D-3
 INDEX FOR ALL CIVILIAN INDUSTRIAL PRODUCTS, 1928 WEIGHTS, BY GROUPS: SOVIET UNION, 1913, 1928-1955^a
 (million constant rubles, 1928 prices)

	<i>All Industrial Products</i>				<i>Intermediate Industrial Products</i>				
	Including Miscellaneous Machinery	Excluding Miscellaneous Machinery	Total	Ferrous Metals	Nonferrous Metals	Fuel and Electricity	Chemicals	Construction Materials	
1913	5,768.0	5,742.3	2,186.0	366.7	18.7	616.2	155.5	1,068.9	
1927/28	5,924.0	5,878.6	2,370.0	321.2	18.2	926.3	168.5	935.8	
1928/29		6,681	2,927	381	23	1,091	213	1,219	
1929/30		7,667	3,809	462	29	1,411	261	1,646	
1931		8,239	4,073	444	33	1,750	296	1,550	
1932	8,508.5	8,249.0	4,350.2	492.1	36.9	1,990.3	311.4	1,519.5	
1933		8,745	4,685	568	36	2,261	334	1,486	
1934		10,471	5,736	818	50	2,798	424	1,646	
1935		12,389	6,852	1,041	73	3,278	515	1,945	
1936		14,484	8,111	1,283	98	3,882	593	2,255	
1937	15,742.1	15,361.0	8,274.9	1,337.5	106.2	4,110.5	658.9	2,061.8	
1938		16,061	8,570	1,346	117	4,387	721	1,999	
1939		16,532	9,037	1,316	144	4,732	750	2,095	
1940	16,960.9	16,583.3	9,481.7	1,376.6	158.2	5,262.1	674.8	2,009.9	
1945	9,774.6	9,593.4	6,593.4	866.6	115.7	4,380.1	284.6	946.3	
1946		11,439.5	7,680	964	125	4,917	402	1,272	
1947		13,933	9,058	1,089	143	5,694	561	1,571	
1948		17,442	11,000	1,371	169	6,581	741	2,138	
1949		21,190	13,009	1,690	206	7,598	960	2,555	
1950	26,002.1	24,530.4	14,903.0	1,983.8	236.7	8,652.0	1,162.5	2,868.0	
1951		27,003	16,788	2,277	275	9,693	1,261	3,282	
1952		29,314	18,456	2,549	323	10,802	1,340	3,442	
1953		32,439	20,158	2,809	347	11,967	1,422	3,613	
1954		36,335	22,385	3,055	374	13,316	1,578	4,062	
1955	42,247.5	40,033.5	25,077.3	3,558.3	425.1	15,139.4	1,758.7	4,395.8	

(continued)

TABLE D-3 (concluded)

	<i>Machinery and Equipment</i>						<i>Consumer Goods</i>			
	Total Incl. Miscellaneous Machinery	Total Excl. Miscellaneous Machinery	Transport. Equipment	Agricult. Machinery	Miscellaneous Machinery	Total	Food and Allied Products	Textiles and Allied Products	Consumer Durables	
1913	127.0	101.3	67.9	33.4	25.7	3,455.0	1,878.4	1,571.2	5.4	
1927/28	189.8	144.4	60.8	83.6	45.4	3,364.2	1,580.7	1,774.9	8.6	
1928/29		193	83	110		3,561	1,521	2,027	13	
1929/30		275	114	161		3,583	1,803	1,760	20	
1931		337	130	207		3,829	2,104	1,697	28	
1932	690.9	431.4	261.3	170.1	259.5	3,467.4	1,784.4	1,644.3	38.3	
1933		663	427	235		3,398	1,747	1,603	48	
1934		909	613	296		3,826	2,160	1,587	79	
1935		1,291	939	351		4,247	2,461	1,681	105	
1936		1,401	1,049	352		4,972	2,649	2,137	186	
1937	2,025.8	1,644.7	1,462.7	182.0	381.1	5,441.3	2,867.6	2,375.0	198.8	
1938		1,707	1,557	150		5,784	3,174	2,404	206 ^b	
1939		1,633	1,490	143		5,862	3,081	2,624	157 ^b	
1940	1,571.0	1,193.4	1,100.4	93.0	377.6	5,908.2	3,049.1	2,738.1	121.0	
1945	687.9	506.7	485.0	21.7	181.2	2,493.3	1,363.7	1,110.4	19.2	
1946		757	717	39		3,003	1,615	1,351	37 ^b	
1947		1,041	959	82		3,834	1,974	1,791	71 ^b	
1948		1,592	1,422	170		4,850	2,498	2,215	137 ^b	
1949		2,363	1,998	265		5,918	3,062	2,592	264	
1950	4,395.2	2,923.5	2,585.8	337.7	1,471.7	6,703.9	3,433.0	2,936.0	334.9	
1951		2,310	2,020	290		7,905	3,926	3,567	412	
1952		2,404	2,105	299		8,454	4,189	3,802	463	
1953		2,759	2,436	323		9,522	4,433	4,525	564	
1954		3,147	2,761	386		10,803	4,903	5,122	778	
1955	5,733.8	3,519.8	3,058.9	460.9	2,214.0	11,436.4	5,239.6	5,287.4	909.4	

^a For product coverage, see Table D-10; for weights, Table D-9.

^b Interpolated logarithmically.

INDEX FOR ALL CIVILIAN INDUSTRIAL PRODUCTS, 1955 WEIGHTS, BY GROUPS: SOVIET UNION, 1913, 1928-1958^a
(1913 = 100)

	<i>All Industrial Products</i>			<i>Intermediate Industrial Products</i>				
	Including Miscellaneous Machinery	Excluding Miscellaneous Machinery	Total	Ferrous Metals	Nonferrous Metals	Fuel and Electricity	Chemicals	Construction Materials
1913	100	100	100	100	100	100	100	100
1927/28	107.0	106.8	94.7	86.6	98.6	128.1	139.0	86.2
1928/29		125	120	104	127	149	172	113
1929/30		141	157	124	166	183	198	153
1931		136	141	120	196	223	231	144
1932	150.4	145.2	161.1	135.9	216.6	250.5	252.5	141.5
1933		148	165	157	202	287	260	139
1934		172	192	227	291	354	310	152
1935		211	227	286	418	406	376	178
1936		233	264	350	559	473	423	206
1937	248.9	238.4	257.3	362.2	617.2	483.5	465.5	189.4
1938		241	260	366	698	506	500	185
1939		245	273	358	848	548	508	196
1940	242.8	231.5	269.9	372.4	923.9	610.6	448.9	187.2
1945	110.3	103.9	150.4	232.8	677.3	490.6	168.7	88.1
1946		135	186	260	745	551	259	115
1947		175	224	293	863	628	372	140
1948		229	286	368	993	718	492	190
1949		287	341	452	1,216	816	641	224
1950	367.4	335.4	395.6	530.2	1,406.8	908.6	780.2	261.1
1951		360	446	608	1,659	996	846	299
1952		371	475	682	1,941	1,072	887	314
1953		400	502	751	2,128	1,155	918	327
1954		446	556	817	2,311	1,266	1,016	366
1955	537.4	487.7	609.7	900.1	2,624.1	1,435.3	1,126.7	392.4
1956		529	929	967	1,585	1,585	1,241	411
1957		580	1,015	1,015	1,748	1,748	1,337	448
1958		605	1,086	1,086	1,914	1,914	1,434	483

(continued)

TABLE D-4 (concluded)

	<i>Machinery and Equipment</i>					<i>Consumer Goods</i>			
	Total Incl. Miscellaneous Machinery	Total Excl. Miscellaneous Machinery	Transport. Equipment	Agricult. Machinery	Miscellaneous Machinery	Total	Food and Allied Products	Textiles and Allied Products	Consumer Durables
1913	100	100	100	100	100	100	100	100	100
1927/28	129.0	129.0	81.5	227.0	129.2	110.1	82.1	132.2	122.1
1928/29		168	104	303		120	84	147	203
1929/30		227	132	421		111	93	121	297
1931		231	163	371		112	103	113	350
1932	273.5	239.1	194.1	332.1	682.0	113.8	97.2	122.9	326.8
1933		283	230	389		107	92	114	376
1934		362	312	463	778	117	112	115	449
1935		548	527	585		126	120	123	516
1936		502	405	698		154	138	156	656
1937	561.9	498.5	490.4	515.9	1,314.0	168.3	138.5	182.3	671.7
1938		481	529	377		175	146	190	618 ^b
1939		438	498	306		184	151	204	519 ^b
1940	421.0	338.3	402.3	206.8	1,402.2	181.1	137.1	212.5	436.1
1945	131.7	78.8	102.3	30.3	760.7	77.9	72.0	83.1	51.6
1946		167	216	65		93	82	102	119 ^b
1947		262	321	138		122	101	135	273 ^b
1948		423	468	326		148	115	165	610 ^b
1949		614	642	552		179	144	193	855
1950	1,004.4	782.8	772.9	803.9	3,635.4	196.0	147.8	216.9	1,093.4
1951		667	579	850		234	173	259	1,406
1952		625	553	776		244	180	270	1,597
1953		686	660	754		267	195	291	1,931
1954		781	736	876		298	217	319	2,574
1955	1,256.2	888.8	819.7	1,031.9	5,618.0	316.4	227.5	333.1	3,098.3
1956		1,029	863	1,372		334	245	344	3,470
1957		1,213	886	1,889		352	253	366	3,693
1958		1,152	949	1,571		376	265	391	4,093

^a For product coverage, see Table D-10; for weights, Table D-9.^b Interpolated logarithmically.

PRODUCTION INDEXES AND WEIGHTS

TABLE D-5
INDEX FOR INDUSTRIAL MATERIALS: RUSSIA,
BENCHMARK YEARS, 1860-1913^a
(million constant rubles, 1913 prices)

1860	116.4
1865	86.9
1870	130.8
1875	203.0
1880	273.2
1885	391.6
1888	466.5
1890	509.0
1895	797.8
1900	1,212.4
1905	1,234.5
1910	1,597.7
1913	2,041.8

^a For product coverage, see Table D-11; for weights, Table D-8.

TABLE D-6
INDEXES FOR INDUSTRIAL MATERIALS: SOVIET UNION, 1955-1958^a
(million constant rubles, 1955 prices)

	50 Products	49 Products	46 Products	41 Products	54 Products ^b
1955	146,659	145,904	144,601	137,085	153,747
1956	157,556	156,757		147,739	164,643
1957		168,373	166,853	158,934	176,260
1958			179,608	171,654	189,015

^a See Appendix A, technical note 3, for description of the indexes.

^b Output assumed to remain the same as in preceding year for those products whose output has not been published (4 for 1956, 5 for 1957, and 8 for 1958).

TABLE D-7
INDEXES FOR INDUSTRIAL MATERIALS, U.S. Weights: SOVIET UNION,
BENCHMARK YEARS, 1913-1955^a
(million constant dollars)

	1914 Prices	1929 Prices	1939 Prices	1954 Prices
1913	1,192.1	1,904.7	1,518.0	3,216.3
1927/28	1,256.3	1,991.5	1,556.7	3,296.2
1932	1,527.3	2,489.3	1,944.6	4,298.9
1937	2,680.5	4,077.2	3,354.6	7,309.2
1940	2,901.8	4,368.6	3,602.1	7,834.0
1945	1,609.6	2,394.1	1,993.9	4,356.7
1950	3,876.4	5,641.6	4,706.5	10,272.0
1955	6,308.2	9,146.4	7,581.6	16,449.3

^a For product coverage, see Table D-10; for weights, Table D-8. Product coverage is the same for all indexes except the one with 1929 weights, which excludes beer.

TABLE D-8
UNIT VALUE WEIGHTS USED IN ALL INDEXES OF INDUSTRIAL PRODUCTION

Code	Type of Weight ^a	Soviet Union (rubles)			United States (dollars)			
		1913 (1)	1927/28 (2)	1955 (3)	1914 (4)	1929 (5)	1939 (6)	1954 (7)
I. Intermediate Industrial Products								
A. Ferrous metals								
101	Pig iron		52.5	316				
102	Rolled steel		47.7	198				
103	Steel ingots and castings	62.4	115.8	500	21.48	25.49	33.47	78.66
	Steel ingots and castings		70.9	246				
B. Nonferrous metals								
202	Copper	1075.7	995	5,950	293	388	229	650
203	Lead	238.7	675	7,150	86	139	110	302
204	Zinc	297.3	700	3,150	112	146	115	238
C. Fuel and electricity								
301	Electric power		0.0858	0.137				
301.1	Hydroelectric power		0.0486	0.082	0.02600	0.02045	0.01717	0.01398
302	Anthracite	9.6	10.8	98	2.284	5.758	4.007	9.395
303	Bituminous coal	7.7	9.8	77	1.286	1.963	2.034	4.971
303.1	Coke		7.6	76				
304	Lignite	3.05	6.9	57	1.118	1.706	1.280	2.702
305	Crude petroleum	25.9	28.7	52	5.80	9.14	7.36	19.88
306	Natural gas		0.058	0.105	0.00561	0.00763	0.00763	0.00356
307	Oil shale		5.7	39.7				
308	Peat	4.9	8.8	34				
309	Firewood	2.46	5.7	34.9				
310	Coal (total)	6.10						
D. Chemicals								
401	Soda ash	70.8	73	275	12.7	29.7	23.1	36.4
402	Caustic soda		195	1,100				
404	Sulfuric acid	61	101.9	183	23.7	18.3	19.5	24.6

TABLE D-8 (continued)

Code	Type of Weights ^a	Soviet Union (rubles)			United States (dollars)			
		1913 (1)	1927/28 (2)	1955 (3)	1914 (4)	1929 (5)	1939 (6)	1954 (7)
E. Construction materials (continued)								
519	Window glass	0.98	2.65	6.0	0.469	0.694	0.551	0.932
F. Materials of agricultural origin								
601	Alcohol, crude	5.9	15.1	110	4.20	7.27	3.91	7.29
602.1	Cotton, ginned (consumption)	1,040						
604	Leather, hard	463	750	8,900	506	593	383	511
605	Leather, soft	16.9	27	300	17.0	19.8	16.4	32.9
G. Metallic minerals								
704	Iron ore		5.5	29.2				
706	Manganese ore		13.1	70				
II. Producer Durables								
A. Transportation equipment								
901	Automobiles		10,800	12,100				
902	Trucks and buses		11,258	14,150				
903	Diesel and electric locomotives		235,000	1,040,000				
904	Steam locomotives (main-line)		100,100	890,000				
905	Railroad freight cars		5,450	36,500				
906	Railroad passenger cars		16,400	245,700				
907	Railroad cars, narrow-gauge		1,700	10,500				
908	Street and subway cars		7,800	146,900				
B. Agricultural machinery								
1001	Tractors		5,352	16,000				
1002	Plows, tractor-drawn		135	2,225				
1003	Paring plows, tractor-drawn		190	3,075				
1004	Plows, horse-drawn		21.5	350				
1005	Harrows, tractor-drawn		92.7	2,300				
1006	Harrows, horse-drawn		20.9	350				
1007	Cultivators, tractor-drawn		105	1,700				

1008	Cultivators, horse-drawn	v/unit	24.4	170
1009	Drills, tractor-drawn	v/unit	243.3	2,000
1010	Drills, horse-drawn	v/unit	150	1,000
1011	Combined plows and drills	v/unit	65	
1013	Potato planters, tractor-drawn	v/unit		4,400
1014	Machines for planting seedlings	v/unit		7,350
1016	Combines, grain	v/unit		20,500
1017	Combines, all other	v/unit		14,400
1018	Windrowers	v/unit		4,200
1019	Reapers, horse-drawn	v/unit	163.3	840
1020	Cotton pickers	v/unit		22,700
1021	Haymowers, tractor-drawn	v/unit	166	5,050
1022	Haymowers, horse-drawn	v/unit	127.5	530
1023	Rakers, tractor-drawn	v/unit		2,680
1024	Rakers, horse-drawn	v/unit	74	695
1025	Threshers, tractor-driven	v/unit	2,272	6,055
1026	Threshers, horse-driven	v/unit	245	650
1027	Grain-cleaning machines	v/unit		4,925
1028	Winnowers, horse-drawn	v/unit	245	700
1029	Horse drivings	v/unit	130	950
1030	Chaff and silo cutters	v/unit		1,455

C. Prime movers and electrical machinery

1101	Steam boilers—capacity	v/m ²	103.4	181.4
1102	Water turbines—capacity	v/kw	46.9	120
1103	Steam and gas turbines	v/kw	34.3	87
1104	Locomotives	v/hp	151.1	680
1105	Diesel engines	v/hp	192.5	357
1106	Other internal combustion engines	v/hp	176.4	245
1107	Turbogenerators	v/kw	24.3	40
1108	Hydroelectric generators	v/kw	66	108
1109	Electric motors—AC	v/kw	101.3	109
1110	Power transformers	v/kva	18.8	11.2

D. Mining and industrial machinery

1201	Coal-mining combines	v/unit		56,200
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(continued)

TABLE D-8 (continued)

Code	Type of Weight ^a	Soviet Union (rubles)			United States (dollars)		
		1913 (1)	1927/28 (2)	1955 (3)	1914 (4)	1929 (5)	1939 (6)
D. Mining and industrial machinery (continued)							
1202	Coal-cutting machines			32,100			
1203	Electric mining locomotives			22,500			
1204	Ore-loading machines			59,700			
1205	Deep-shaft pumps			465			
1206	Turbodrills						
1210	Machine tools		2,549	13,000			
1211	Electric furnaces			17,600			
1212	Spinning machines			10,300			
1213	Winding machines		12,000	35,600			
1214	Looms		900	26,800			
1215	Cotton-carding machines		5,900	7,400			
1216	Knitting machines		1,100	11,400			
1217	Leather-spreading machines			5,800			
1218	Leather-dressing machines			15,900			
1219	Typesetting machines, linotype		10,700	16,200			
1220	Flat-bed printing presses		8,500	31,000			
1221	Industrial sewing machines		132	70,000			
1222.1	Presses		400	890			
				3,100			
E. Construction and road building machinery							
1301	Excavators		129,400	97,500			
1302	Trench excavators		18,200	12,000			
1303	Stone crushers		20,600	24,000			
1304	Road graders (ex. self-propelled)		5,900	8,000			
1305	Road graders, self-propelled			60,000			
1306	Concrete mixers		3,500	3,400			
1307	Scrapers, tractor-driven			27,300			

TABLE D-8 (concluded)

Code	Type of Weights	Soviet Union (rubles)			United States (dollars)		
		1913 (1)	1927/28 (2)	1955 (3)	1914 (4)	1929 (5)	1939 (6)
A. Food and allied products (continued)							
1517	Matches		6.2	27			
1518	Vodka (40%)		14	250			
1519	Candy		962	2,386			
B. Textiles and allied products							
1601	Boots and shoes		2.1	10.7			
1602	Rubber footwear		3.1	33			
	Rubber footwear		1.18	4.62			
1604	Cotton fabrics	0.12	0.347	0.82	0.0221	0.0457	0.0337
1607	Linen fabrics	0.23	0.662	1.0	0.0750	0.1983	0.3520
1609	Silk and rayon fabrics	0.68	3.0	2.3	0.254	0.398	0.1428
1610	Woolen yarn	2595.6					
1611	Woolen and worsted fabrics	0.79	1.855	6.8	0.3604	0.6673	0.9199
1612	Knitted goods			4.6			
1613	Hosiery			1.2			
1614	Felt footwear	0.62	5.2	63	1.10	1.70	5.04
C. Consumer durables							
1701	Bicycles		162.5	580			
1702	Cameras		45	720			
1703	Electric light bulbs		0.45	1.25			
1704	Phonographs		247	340			
1705	Radios		122	300			
1707	Household sewing machines		30.3	680			
1708	Clocks and watches			171.6			
1709	Motorcycles		1,600	4,000			

^a Where more than one weight is given, the unit value added was used in the indexes for all civilian products in the following cases: steel ingots and castings (Tables D-3 and D-4), lumber, plywood, roofing iron, and rails (Table D-4). For 1913, it was used in the prerevolutionary index (Table D-5) in the case of rails; for 1928 and 1955, in the index for civilian finished products (Table D-2) in the case of rubber footwear. A complete list of weights used in the indexes for all civilian products is given in Table D-9.

^b By error this price was not adjusted to exclude estimated turnover tax. The fact that this price was obviously too high was called to our attention by Naum Jasny in his review of the final draft. Unfortunately, it was then too late to undertake the massive recalculations required to correct the error. Fortunately, fish catch has grown at about the same percentage pace as all foods and as all industrial materials, so that its overweighing does not materially affect the indexes in which it is involved. The price was corrected to 3,300 rubles in our computations of price indexes (see Table A-18) and of value added and ruble-dollar ratios used in comparisons between the Soviet Union and the United States (see Tables A-26 and A-29). The adjusted price of 3,300 rubles was derived as follows: average retail price of 12,600 rubles (see source notes to this table) times ratio of commercial fish products excluding spoilage to fish catch (taken as 0.56, average over 1940 and 1959 from 300, 44), times 1955 ratio of all retail sales excluding turnover taxes to

those including them (0.52 from retail sales of 501.9 bill. rubles as given in 226, 40, and turnover taxes of 242.4 bill. rubles as given in 141a, 799), times 0.9 to eliminate retailing mark-up. The amount of turnover taxes eliminated may, of course, be too large or too small, depending on how the rate for fish products compares with the average for all products.

^c By error the unit value of 200 rubles including turnover tax was used in the index for industrial materials. This error was not discovered until it was too late to make the necessary recalculations. It is not too serious as is shown by general correspondence of all indexes for industrial materials.

- dcm = decimeter
- hp = horsepower
- kg. = kilogram
- kva = kilovolt-ampere
- kw = kilowatt
- kwh = kilowatt-hour
- m² = square meter
- m³ = cubic meter
- m.ton = metric ton
- thous. or th. = thousand
- sq. = square
- v = value
- va = value added

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SOURCE AND DESCRIPTION OF WEIGHTS IN TABLE D-8

Note: Unless otherwise stated, aggregate values were converted into unit values or vice versa on the basis of output as given in Appendixes B and E.

Derivation of 1913 Soviet Weights (col. 1)

103	Steel ingots and castings	Price of rails (68.4 rubles/m. ton, 243, 644) times 1927/28 price ratio of steel to rails (see series 103 and 518, col. 2).
202	Copper	243, 644. Price.
203	Lead	259, v. Price.
204	Zinc	259, v. Price.
302	Anthracite	234, 7 f. Median of 1914 prices for 15 kinds in the Donbas.
303	Bituminous coal	234, 6 ff. Median of 1914 prices for 17 kinds in the Donbas.
304	Lignite	28, 7. Price.
305	Crude petroleum	259, 78. Avg. price for 2 kinds in Baku.
308	Peat	28, 7. Price.
309	Firewood	28, 17. Price.
310	Coal (total)	Value (10, 91). Output is sum of series 302, 303, and 304.
401	Soda ash	259, 98.
404	Sulfuric acid	28, 18. Price.
405.1	Phosphoric fertilizer	28, 21. Price converted from 13% P ₂ O ₅ basis to 18.7% basis.
405.2	Ammonium sulfate	259, v. Price.
405.3	Potash fertilizer	259, v. Price.
406	Ground natural phosphate	1927/28 unit value (col. 2) divided by price index for mining industry (1913 = 100, 1928 = 106, 312, 1929, No. 6, 179).
410	Red lead	243, 652. Avg. of monthly prices.
411	Zinc oxide	243, 646. Price.
416	Paper	28, 38. Avg. price for 36 kinds.
417	Paperboard	28, 38. Avg. price for 10 kinds.
418	Motor vehicle tires	1927/28 unit value (col. 2) divided by price index for rubber industry (1913 = 100, 1928 = 163, 312, 1929, No. 6, 179).
419	White lead	243, 646. Price.
501	Red bricks	28, 6. Price.
505	Sand-lime, silica, and slag bricks	28, 6. Price.
506	Cement	28, 6. Avg. of prices for Portland and Roman cement.
507	Construction gypsum	28, 6. Price.
508	Construction lime	28, 6. Price.
510	Lumber	28, 44. Avg. of 12 prices for logs.
511	Plywood	1927/28 unit value (col. 2) divided by price index for wood products industry (1913 = 100, 1928 = 245, 312, 1929, No. 6, 179).
513	Roll roofing	234, 11. Price per 3 sazhen ² converted at 1 sazhen = 2.134 meters.
518	Rails	Price (68.4 rubles/ton, 243, 644) minus unit value of steel (see series 103).
519	Window glass	1927/28 unit value (col. 2) divided by price index for glass industry (1913 = 100, 1928 = 271, 312, 1929, No. 6, 179).

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601	Crude alcohol	Price (14 rubles/hectoliter, converted from data for 40% alcohol in vedros, 259) times 1927/28 ratio of unit value added (col. 2) to unit value (35.57 rubles/hectoliter, converted from data for 40% alcohol in vedros, 166, 294).
602.1	Ginned cotton consumption	Value added of cotton industry on Soviet territory (201, 192 f). Consumption is 325 th. m. tons, 363, 1940, No. 9, 78.
604	Hard leather	Price (1,759 rubles/m. ton, derived by dividing 1927/28 price, median of 28 prices in 400, 597 f, by price index for leather, 1913 = 100, 1927/28 = 162, 312, 1929, No. 6, 179) times 1927/28 ratio of unit value added (col. 2) to price.
605	Soft leather	Price (64.4 rubles/th. dcm ² , derived by dividing 1927/28 price, median of 22 prices in 400, 598, by price index for leather, 1913 = 100, 1927/28 = 162, 312, 1929, No. 6, 179) times 1927/28 ratio of unit value added (col. 2) to price.
1501	Flour	Avg. unit value added of wheat and rye flour. Avg. price of wheat flour (28, 23 f) minus avg. price of wheat (28, 45). Avg. price of rye flour (28, 23 f) minus avg. price of rye (28, 45).
1503	Butter	Price (28, 23) minus price of milk in butter (1,029 rubles/m. ton, derived from price of milk, 363, 1925, No. 11, 33, and no. of kg. of milk in 1 kg. of butter, derived as 21 from 37, vol. 3, 1290).
1504	Vegetable oil	Price of sunflower seed oil (28, 23) times 1927/28 ratio of unit value added (col. 2) to price (described in col. 2).
1506	Meat slaughtering	Avg. of prices for beef and pork (28, 45) minus price of product marketed by agriculture (363, 1925, No. 11, 333).
1507	Fish catch	363, 1925, No. 11, 340. Price.
1509	Salt	Value (10).
1510	Raw sugar consumption	Price (247, 71) times ratio of value added to gross value in food industry (201, 194).
1513	Canned food	Price (0.149 rubles/can, derived by dividing 1927/28 avg. price weighted by product composition, 166, 74, by price index for food industry, 1913 = 100, 1927/28 = 169, 312, 1929, No. 6, 179) times 1927/28 ratio of unit value added (col. 2) to price.
1514	Beer	Price (6.8 rubles/hectoliter, derived by dividing 1927/28 price, 166, 294, by price index for beer industry, 1913 = 100, 1927/28 = 313, 312, 1929, No. 6, 179) times 1927/28 ratio of unit value added (col. 2) to price.
1515	Cigarettes	Price (1.50 rubles/th., derived by dividing 1927/28 price, 166, 294, by price index for tobacco industry, 1913 = 100, 1927/28 = 190, 312, 1929, No. 6, 179) times 1927/28 ratio of unit value added (col. 2) to price.
1516	Low-grade tobacco	Price (5.10 rubles/crate, derived by dividing 1927/28 price, 166, 294, by price index for makhorka industry, 1913 = 100, 1927/28 = 223,

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		312, 1929, No. 6, 179) times 1927/28 ratio of unit value added (col. 2) to price.
1604	Cotton fabrics	Avg. price for 6 kinds (28, 28 f) times ratio of value added to gross value in cotton industry (201, 195).
1607	Linen fabrics	Avg. price for 15 kinds (28, 34 f) times ratio of value added to gross value in linen industry (201, 196).
1609	Silk and rayon fabrics	Price (375, 1933, Mar.-Apr.) times ratio of value added to gross value in silk industry (201, 195).
1610	Woolen yarn	Value of sales divided by volume of sales for 3 kinds (243, 243).
1611	Woolen and worsted fabrics	Avg. price for 9 kinds (28, 31 f) times ratio of value added to gross value in woolen industry (201, 195).
1614	Felt footwear	Avg. price for 2 kinds (28, 37) minus price of felt used in shoes (1.59 rubles/pair, derived from price of felt, 28, 31, and amount of felt used in one pair of shoes, avg. of 4½ lbs., 28, 31).

Derivation of 1927/28 Soviet Weights (col. 2)

101	Pig iron	Weighted avg. price for Jan.-Sept. 1928 for conversion iron, foundry iron, spiegeleisen, and ferromanganese (577, 31, weighted by outputs in 222, 134) minus unit value of iron ore (see series 704).
102	Rolled steel	Value of rolled steel (output times avg. price of quality and ordinary rolled steel, 428, 5, the latter weighted by outputs derived from 222, 133) minus value of steel ingots and castings used in rolled steel (440.3 mill. rubles). The latter derived as value of ingots and castings (series 103) minus computed value of ingots not used in rolled steel (price assumed same as for foundry iron, 577, 82; output as steel ingots and castings minus rolled steel, derived from 222, 133).
103	Steel ingots and castings	Value of gross turnover of ferrous metallurgy (1286.7 mill. rubles, adjusted monthly data in 315, Oct. 1927-Sept. 1928) minus value of pig iron (weighted avg. price of pig iron described in series 101) and value of rolled steel (described in series 102).
	Steel ingots and castings	Unit value added. Value of steel ingots and castings (see series 103) minus value of pig iron (see series 101).
202	Copper	388, 1928, No. 11, 64. Avg. of prices for Oct. 1927 and 1928 at Uralmed factory.
203	Lead	388, 1928, No. 11, 64. Price for Oct. 1928 at Altaipolimet and Anegar plants.
204	Zinc	388, 1928, No. 11, 64. Price for Oct. 1928 at Anegar plant.
301	Electric power	Value of sales divided by volume of sales (186, II, 137).
301.1	Hydroelectric power	Value of sales divided by volume of sales to industrial consumers (186, II, 136).
302	Anthracite	575, 58. Price.

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303	Bituminous coal	Value of bituminous coal and anthracite (325, 856 th. rubles, Table C-2) minus value of anthracite (for price, see series 302).
303.1	Coke	Unit value (17.4 rubles/m. ton, from value and output, 186, I, 12, 189) minus unit value of bituminous coal (see series 303).
304	Lignite	Avg. of prices for K, O (186, I, 195), and RM (273, 720).
305	Crude petroleum	Value and output (186, II, 56).
306	Natural gas	1955 unit value (col. 3) times ratio for crude petroleum unit value of 1927/28 to 1955 (series 305, cols. 2 and 3).
307	Oil shale	Assumed same as for firewood (series 309).
308	Peat	Value and output (186, II, 77).
309	Firewood	232, 6. Price for 1926/27.
401	Soda ash	186, I, 68. Price for April 1928. Also, 273, 711.
402	Caustic soda	186, I, 68. Price for April 1928. Also, 273, 711.
404	Sulfuric acid	273, 709. Price converted from 52% basis to 100% basis.
404.1	Sulfuric acid not used in phosphoric fertilizer	Same as sulfuric acid.
405.1	Phosphoric fertilizer	388, 1928, No. 11, 65. Price f.o.b. station sender converted into 18.7% P ₂ O ₅ . Given as rubles/100 kg., but assumed to be rubles/m. ton.
405.2	Ammonium sulfate	Planned value and planned output for 1932/33 in 1927/28 prices (400, 1931, No. 2, 126).
405.3	Potash fertilizer	Planned value and planned output for 1932/33 in 1927/28 prices (400, 1931, No. 2, 126). Reduced from 100% to 41.6% K ₂ O content.
406	Ground natural phosphate	1955 price (col. 3) times ratio for phosphoric fertilizer price of 1927/28 to 1955 (series 405.1, cols. 2 and 3).
410	Red lead	273, 701. Price.
411	Zinc oxide	273, 701. Price.
412	Synthetic dyes	Weighted avg. price of azo, sulfur, and nigrosin dyes (6,170, 1,078, and 3,950 rubles/m. ton, respectively; outputs from 222, 177). Price of azo dyes is weighted avg. of substantive, acid, and basic azo dyes (median prices in 273, 707; outputs in 215, 171). Price of sulfur dyes is weighted avg. of black and color sulfur dyes (median prices in 273, 707; outputs in 215, 171). Price of nigrosin dyes is median of prices in 273, 707.
416	Paper	370, 1929, No. 8, 54. Weighted avg. price.
417	Paperboard	370, 1929, No. 8, 54. Weighted avg. price.
418	Motor vehicle tires	First quartile of prices for 33 types (273, 448 f).
501	Red bricks	273, 553. Price.
505	Sand-lime, silica, and slag bricks	273, 552. Price.
506	Cement	388, 1929, No. 11, 66. Avg. price.
507	Construction gypsum	388, 553. Price.
508	Construction lime	273, 553. Avg. of 4 prices.
509	Industrial timber hauled	232, 6. Median of prices for 13 types of industrial wood excl. firewood.
510	Lumber	Value and output (103, 494 f).
511	Plywood	1926/27 value in 1927/28 prices; 1926/27 output (185, 234). 1926/27 value of lumber and

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		plywood (185, 233 f) times price index (1926/27 = 100, 1927/28 = 95.4, derived from 388, 1928, No. 11, 66) minus 1926/27 value of lumber in 1927/28 prices (for unit value, see series 510; for output, 185, 233).
512	Magnesite metallurgical powder	273, 551. Price.
513	Roll roofing	Weighted avg. price of rubberoid, pergamin, and tarpaper roofing, and tarpaper subroofing. Median prices for each in 273, 549. Outputs of each (186, 105) converted from rolls into m ² by factors derived from data for 1935 in 149, 94 f, and 393, 1937, No. 3, 3 (for details, see 567, Part 3, notes to series 723.1).
514	Roofing iron	430, 28. Price for roofing and pickled iron.
	Roofing iron	Unit value added. Unit value of roofing iron minus unit value of steel ingots and castings (see series 103).
516	Asbestos shingles	Value and output (186, II, 105).
518	Rails	430, 28. Price.
	Rails	Unit value added. Unit value of rails minus unit value of steel ingots and castings (see series 103).
519	Window glass	273, 531. Derived from median price for case containing 11 m ² of first-quality ordinary glass.
601	Crude alcohol (100%)	Price (35.57 rubles/hectoliter, converted from data for 40% alcohol in vedros, 166, 294) times ratio of value added to value of crude alcohol. The former derived as value added of alcohol and vodka (164,741 th. rubles in Table C-2) minus value added of vodka (output times unit value added, for which see series 1518). The latter derived as value of alcohol and vodka (362,711 th. rubles in Table C-2) minus value of vodka (output times price, for which see 1518).
604	Hard leather	Median of prices for 28 kinds of 2nd sort (273, 597 f) times ratio of unit value added to unit value for all leather. Value and value added of all leather: 581,221 and 152,980 th. rubles in Table C-2.
605	Soft leather	Median of prices for 22 kinds (273, 598) times ratio of unit value added to unit value for all leather (see series 604).
704	Iron ore	Value and output (186, I, 234).
706	Manganese ore	Weighted avg. cost derived from data in 200, 100 ff.
901	Automobiles	1927/28 price of 1½-ton truck (9,200 rubles) times 1937 ratio of avg. price of GAZ-A and M-1 (236, 7) to price of 1½-ton truck (236, 7). 1927/28 price of 1½-ton truck derived from value of all trucks (for unit value, see series 902), outputs of trucks of 1½ tons and of over 4 tons (222, 165), and 1937 ratio of price of 1½-ton trucks to price of trucks over 4 tons (236, 7).
902	Trucks and buses	Value and output of trucks only (monthly data, 315, Oct. 1927-Sept. 1928) since no buses were produced in 1927/28.
903	Diesel and electric locomotives	Assumed to be double the price of freight locomotives S.O. (118,700 rubles), approximate

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		1945 ratio (526, 52 f). Price of S.O. derived as 1927/28 price of freight locomotive E. (526, 7) times 1949 price ratio of S.O. to E. (526, 55).
904	Steam locomotives	Weighted avg. price of locomotives E. (94,900 rubles, 526, 7), O.V. (79,100), M. (79,100), and S.U. (116,600). Outputs in 222, 163. Prices of O.V. and M. derived as 1927/28 price of E. times 1949 price ratio of N. (assumed to be same as prices of O.V. and M.) to E. (526, 55). Price of S.U. derived as 1927/28 price of E. times 1949 price ratio of S.U. to E. (526, 55).
905	Railroad freight cars	Weighted avg. price of 2-axle flat cars, 2- and 4-axle box cars (370, 1929, No. 19, 59), and tank cars (11,520 rubles). Outputs in 222, 163 f. Price of tank cars is weighted avg. of prices of 2-axle tank cars (price of 2-axle flat cars times 1937 price ratio of 2-axle tank cars to 2-axle flat cars, 526, 24) and 4-axle tank cars (price of 4-axle box cars times 1937 price ratio of 4-axle tank cars to 4-axle box cars, 526, 24).
906	Railroad passenger cars	Weighted avg. price of 2- and 4-axle long-distance cars (370, 1929, No. 19, 61). Outputs in 222, 164 (suburban cars counted as 2-axle long-distance cars).
907	Narrow-gauge railroad cars	Price of 2-axle flat cars (series 905) times 1937 price ratio of narrow-gauge flat cars with brakes to standard-gauge 2-axle flat cars (236, 9).
908	Street and subway cars	Price of 4-axle long-distance cars (series 906) times 1913 price ratio of street cars to 3rd class passenger cars (28, 12).
1001	Tractors	Value and output (186, I, 261).
1002	Plows, tractor-drawn	Price of horse-drawn plows (series 1004) times 1955 price ratio of tractor-drawn (col. 3) to horse-drawn plows (series 1004, col. 3).
1003	Paring plows, tractor-drawn	Price of horse-drawn plows (series 1004) times 1955 price ratio of tractor-drawn paring plows (col. 3) to horse-drawn plows (series 1004, col. 3).
1004	Plows, horse-drawn	Median of prices for 3 types (273, 499 f).
1005	Harrows, tractor-drawn	Median of prices for 8 imported disk types (273, 790).
1006	Harrows, horse-drawn	Median of prices for 32 types (273, 500 f).
1007	Cultivators, tractor-drawn	273, 790. Price of imported type.
1008	Cultivators, horse-drawn	Median of prices for 19 imported types (273, 790 f).
1009	Drills, tractor-drawn	273, 791. Price of imported type.
1010	Drills, horse-drawn	Median of prices for 27 types (273, 501).
1011	Combined plows and drills	Median of prices for 7 types (273, 502).
1019	Reapers, horse-drawn	Weighted avg. of median prices for nonraking and self-raking types (273, 502). Outputs in 222, 162.
1021	Haymowers, tractor-drawn	Median of prices for 12 imported types (273, 793).
1022	Haymowers, horse-drawn	Avg. of prices for 2 types (273, 502).
1024	Rakers, horse-drawn	Median of prices for 7 imported types (273, 794).
1025	Threshers, tractor-drawn	Median of prices for 23 imported types (59, 786).

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1026	Threshers, horse-drawn	Median of prices for 14 types (273, 502 f).
1028	Winnowers, horse-drawn	Assumed same price as for horse-driven threshers (series 1020).
1029	Horse drivings	273, 504. Price for no. 1 × 2.
1101	Steam boilers (capacity)	Price per boiler (11,156 rubles) divided by avg. capacity per boiler (calculated as 107.9 m ² from 222, 154). Price is linear interpolation (based on rated capacities) of prices for boilers of 100 and 120 m ² capacities (273, 235) with pressure of 12 atmospheres, assuming avg. capacity of 107.9 m ² .
1102	Water turbines (capacity)	525, 137.
1103	Steam and gas turbines (capacity)	Unit value (72,133 rubles, derived from monthly values and outputs in 315, Oct. 1927–Sept. 1928) divided by avg. capacity per unit (calculated as 2,100 kw from 222, 154).
1104	Locomotives (capacity)	Unit value (12,190 rubles, derived from monthly values and outputs in 315, Oct. 1927–Sept. 1928) divided by avg. capacity per unit (calculated as 80.66 hp from 222, 154).
1105	Diesel engines (capacity)	Unit value (37,250 rubles, derived from monthly values and outputs in 315, Oct. 1927–Sept. 1928) divided by avg. capacity per unit (calculated as 193.53 hp from 222, 154, and 312, 1929, No. 2, 158).
1106	Other internal combustion engines (capacity)	Unit value (2,572 rubles, derived from monthly values and outputs in 315, Oct. 1927–Sept. 1928) divided by avg. capacity per unit (calculated as 14.58 hp from 222, 154).
1107	Turbogenerators (capacity)	Value and output (186, II, 134).
1108	Hydroelectric generators (capacity)	Unit value for turbogenerators (series 1107) times 1955 price ratio of hydroelectric generators in 1955 (col. 3) to turbogenerators (series 1107, col. 3).
1109	Electric motors, A.C. (capacity)	Unit value (791 rubles, derived from value and output in 186, II, 134) divided by avg. capacity per unit (calculated as 7.81 kw from 221, 45).
1110	Power transformers (capacity)	Unit value (2,509 rubles, derived from value and output in 186, II, 134) divided by avg. capacity per unit (calculated as 133.3 kva from 222, 155).
1210	Machine tools	Sum of monthly values divided by sum of monthly outputs (315, Oct. 1927–Sept. 1928).
1212	Spinning machines	273, 362. Midpoint of range of prices for 5 types.
1214	Looms	273, 362. Median of prices for 4 types.
1215	Cotton-carding machines	Sum of monthly values divided by sum of monthly outputs, both for carding machines (315, Oct. 1927–Sept. 1928).
1216	Knitting machines	273, 365. Midpoint of range of prices.
1219	Typesetting machines, linotype	273, 341. Median of prices for 6 types.
1220	Flat-bed printing presses	273, 341.
1221	Industrial sewing machines	273, 369. Median of prices for 6 types.
1222.1	Presses	237, 171. Median of prices (item 280). Rounded.
1301	Excavators	Unweighted avg. price of single-bucket (132,500 rubles) and multiple-bucket excavators (126,300 rubles). The latter are derived from 1955 prices (86,000 rubles for single-bucket, median

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		of 13 prices in 235, II, 3 f; and 82,000 rubles for multiple-bucket, median of 11 prices in 235, II, 10 f) divided by ratio (0.649) of 1955 to 1927/28 price for single-bucket internal combustion caterpillar excavators with capacity of 0.35 m ² . The ratio derived from relation of 1955 and 1949 prices (235, II, 10 f, and 527, 20) and price index for road-building and construction machinery (1937 = 100, 1927/28 = 83.8, 1949 = 120.8, 527, Table IV).
1302	Trench excavators	1955 price (col. 3) divided by ratio of 1955 to 1927/28 price (derived as 0.649 in series 1301).
1303	Stone crushers	1955 price (13,400 rubles, price for combined crushers in 235, II, 24) divided by ratio of 1955 to 1927/28 price (derived as 0.649 in series 1301).
1304	Road graders	Weighted avg. price of medium (7,100 rubles) and light (5,800 rubles) road graders. Outputs from 222, 166. Price of medium graders derived from price of heavy graders (9,300 rubles) times 1955 price ratio of medium to heavy graders (calculated as 0.7619 from 235, II, 20). 1927/28 price of heavy graders derived from 1937 price (11,100 rubles in 527, 20) times price index for road-building machinery (1937 = 100, 1927/28 = 83.8, 527, Table IV, 20). Price of light graders derived from 1927/28 price of medium graders above times U.S. price ratio of light to medium graders (calculated as 0.82 from 467, 103).
1306	Concrete mixers	273, 380. Midpoint of range of prices.
1401	Telephones	Avg. price of wall (no. 1145T) and table (no. 1405) hand-operated telephones (237, 110). No automatic telephones produced in 1927/28.
1402	Switchboards, hand-operated	Value (186, II, 135) and output (222, 165).
1403	Switchboards, automatic	237, 101. Price of 21,000 rubles given for exchange with 600 lines.
1405	Calculating machines	273, 443. Avg. price of 2 makes of 13-digit calculating machines.
1406	Typewriters	237, 18. Median of prices including delivery for 25 types.
1501	Flour	Value added from Table C-2.
1502	Macaroni	Avg. price (365 rubles/m. ton) presumably weighted by 1932 planned assortment (166, 294) minus value per unit of flour (109 rubles/m. ton, value from Table C-2).
1503	Butter	Price (2,145 rubles/m. ton) minus price of milk in butter (1,716 rubles/m. ton, from price of milk, 388, 1929, No. 5, 29, and no. of liters of milk per kg. of butter in 1913, 138, 90). Price of butter derived from 1926/27 price (2,000 rubles/m. ton, 233, 37) times ratio of 1926/27 to 1927/28 prices (calculated as 1.0727 from 388, 1929, No. 5, 29).
1504	Vegetable oil	Price (411 rubles/m. ton) times ratio of value added to value (0.992, from Table C-2). Price derived from 1927/28. Avg. price for 1932 planned product composition (414.38 rubles/m.

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		ton, 166, 294) times ratio of avg. cost weighted by 1927/28 output mix to avg. cost weighted by 1932 planned mix (0.992, from 166, 69, 294).
1504.1	Oleomargarine	Price (1,200 rubles/m. ton, assumed same as in 1926/27, 233, 41) minus difference between price and unit value added of vegetable oil (see series 1504).
1504.2	Vegetable oil minus oleomargarine	Same as for vegetable oil (series 1504).
1506	Meat slaughtering	Price (827 rubles/m. ton) times 1934 ratio of wages to total cost in meat industry (0.125, 222, 34). Price derived from 1926/27 price 840 rubles/m. ton) times ratio of 1927/28 to 1926/27 for avg. price of product marketed by agriculture (0.984, from 388, 1929, No. 5, 29). 1926/27 price derived from 1926/27 price of beef (800 rubles/m. ton, 233, 11) times 1926/27 ratio of avg. price of product marketed by agriculture to avg. price of beef (1.05, from 388, 1929, No. 5, 29).
1507	Fish catch	166, 294. Avg. price weighted presumably by 1932 planned assortment.
1508	Soap (40%)	Assumed same as price in 1926/27 (233, 21).
1509	Salt	186, 69. Price for April 1928.
1510	Raw sugar consumption	Price excluding excise tax (302 rubles/m. ton, 186, 69, 559) minus cost of raw materials (118 rubles/m. ton, 186, 553).
1510.1	Refined sugar	Price excluding excise tax (364 rubles/m. ton, 186, 69, 559) minus cost of raw materials (118 rubles/m. ton, 186, 553).
1510.2	Raw sugar minus refined sugar and sugar in candy	Same as for raw sugar (series 1510).
1511	Starch and syrup	Price (315 rubles/m. ton) times ratio of value added to value of starch and syrup industry (0.33 from Table C-2). Price derived from avg. price for 1932 planned product composition (319 rubles/m. ton, 166, 294) times ratio of avg. cost weighted by 1927/28 output mix to that weighted by 1932 planned mix (0.9866, from 166, 220).
1513	Canned food	Avg. price weighted by output mix (0.252 rubles/can, 166, 74) times 1934 ratio of wages to total cost in canned food industry (0.224, 215, 216).
1514	Beer	Price (21.3 rubles/hectoliter, converted from vedros, 166, 294) times ratio of value added to value of beer industry (0.628 from Table C-2).
1515	Cigarettes	Price (2.75 rubles/thous., f.o.b. receiving station, 166, 294) times 1926/27 ratio of value added to value of large-scale industry (0.472, from 48).
1516	Low-grade tobacco	Price (11.4 rubles/crate, 166, 294) times ratio of value added to value of large-scale makhorka industry in 1926/27 (0.31, from 48).
1517	Matches	186, 69. Price for April 1928.
1518	Vodka (40%)	Unit value (28.24 rubles/hectoliter, value and output in 186, 577) minus price of crude

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		alcohol (14.23 rubles/hectoliter, converted from vedros, 166, 294).
1519	Candy	Price (1580 rubles/m. ton) times ratio of unit value added to price of raw sugar (see series 1510). Price of candy assumed to be 112% of price of all confectionery (1,407 rubles/m. ton, 166, 294).
1601	Boots and shoes	Value added (Table C-2).
1602	Rubber footwear	Value and output (103, 494 f).
	Rubber footwear	Unit value (see series 1602) times 1932 ratio of wages to total cost in rubber industry (0.381, 215, 174).
1604	Cotton fabrics	Value added of cotton industry including ginning (Table C-2).
1607	Linen fabrics	Value added of linen industry including primary processing (Table C-2). Output taken as 175.3 mill. m ² from outputs for 1927 and 1928.
1609	Silk and rayon fabrics	Value added of silk industry (Table C-2).
1611	Woolen and worsted fabrics	Value added of woolen industry including washing (Table C-2).
1614	Felt footwear	Price of women's gray felt shoes in Yaroslav region (7 rubles/pair, 273, 609) times ratio of value added to value for felt industry (0.743, from Table C-2).
1701	Bicycles	Avg. price presumably including delivery (175 rubles/bicycle, 237, 143) minus value of 2 tires (4.4 rubles/tire, 273, 449) and 2 inner tubes (1.85 rubles/inner tube, 273, 443).
1702	Cameras	273, 437 f. Median of prices for 4 types.
1703	Electric light bulbs	Value and output (186, 134).
1704	Phonographs	Price of bicycle including tires (175 rubles/bicycle, 237, 143) times 1937 price ratio of phonographs PT-3 to bicycles (1.412, from 443, 11).
1705	Radios	273, 205. Median of prices for 4 types.
1707	Household sewing machines	Value and output (sums of monthly data in 315, Oct. 1927-Sept. 1928).
1709	Motorcycles	237, 143. Median of prices, presumably including delivery, for 9 types.

Derivation of 1955 Soviet Weights (col. 3)

101	Pig iron	Weighted avg. price (345 rubles/m. ton) of conversion iron, foundry iron, ferromanganese, ferrosilicon, and spiegeleisen (576, 31, weighted by outputs in 180, 109) minus price of iron ore (see series 704).
102	Rolled steel	Price (731 rubles/m. ton) times 1927/28 ratio of unit value added to unit value. (0.271, see series 102, col. 2). Price is avg. of quality steel (1,173 rubles/m. ton) and ordinary steel (604 rubles/m. ton), weighted by outputs (180, 110). Price of quality steel is weighted price of carbon, alloyed, and spring engineering steel; carbon, alloyed, and high-speed tool steel; special and dynamo steel; and cold rolled steel (576, 30, weighted by outputs in 72, 21 ff). Price of ordinary steel is weighted avg. of

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prices in col. 3 below, weighted by output (180, 110):

	Un-weighted 1955 Price (1)	Ratio of Weighted to Un-weighted Price (2)	Weighted 1955 Price (3)
a. Steel rims	722	0.892	644
b. Steel wire rods	559	1.101	616
c. Steel beams and channels (girders)	525	0.981	515
d. Rails	566	1.01	572
e. Steel bars	542	1.093	592
Rounds	542		
Squares	534		
Equal-leg angles	551		
L-bars	542		
f. Steel sheets			642
Plate	552	1.08	596
Thin sheet	653	1.101	719

Col. 1: 576, 29; price for *e* is unweighted avg. of subgroups.

Col. 2: Ratio of weighted avg. price to unweighted avg. price (derived from 430, 28, 55).

Col. 3: Col. 1 times col. 2 prices. Price for *f* is avg. of 2 subgroups weighted by 1950 planned percentage distribution of output (12, 33).

103 Steel ingots and castings

Value of steel not used in rolled steel (3,823.8 mill. rubles; output of steel ingots and castings minus output of rolled steel; price assumed same as for foundry iron, 576, 31) plus value of steel used in rolled steel (18,835.7 mill. rubles; output of rolled steel; 1955 price of rolled steel minus unit value added of rolled steel, series 102).

Steel ingots and castings

Unit value added. Value (derived above) minus value of pig iron (for price, see series 101).

202 Copper

576, 35. Price.

203 Lead

235, I, v. Median of prices for 6 kinds.

204 Zinc

235, I, v. Median of prices for 6 kinds.

301 Electric power

Avg. cost to power station (0.0938 rubles/kwh, 576, 48) times 1941 planned ratio of selling price to cost (1.464, derived from 1941 planned production and value, 505, 11, and cost in 1941, 72, 570).

301.1 Hydroelectric power

Assumed 60% of unit value of electric power (series 301).

302 Anthracite

235, I, 691 f. Median of prices for 8 kinds.

303 Bituminous coal

Value of all coal (29,034.5 mill. rubles; output, 180, 144; price 74.2 rubles/m. ton) minus value of lignite (6,532.2 mill. rubles from price in

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	series 304 and output) and of anthracite (5,958.4 mill. rubles from price in series 302 and output). Price of all coal is weighted avg. for Moscow, Donets, Georgia, other regions of European Russia, Urals, Kuznets, Karaganda, other regions of Central Asia, Eastern Siberia, and the Far East (mostly medians in 235, I, 691 ff; weighted by outputs mostly in 180, 142).
303.1 Coke	Median of prices for 63 kinds and grades (174 rubles/m. ton in 235, I, 696 ff) times 1927/28 ratio of unit value added to unit value (series 303.1, col. 2).
304 Lignite	235, I, 692 f. Median of 38 prices.
305 Crude petroleum	Value derived from as 3,684 mill. rubles from output in conventional tons (180, 133) and price per conventional ton (36.4 rubles/ton). The latter derived from value of a conven. ton of coal (93.4 rubles/ton, from output in conven. tons, 180, 133, and value of all coal, series 303) times cost ratio for a conven. ton of petroleum to coal (0.3895, from index in 410, 1956, No. 1, 23).
306 Natural gas	Value derived as 940.2 mill. rubles from output in conven. tons (180, 133) and price per conven. ton (82.47 rubles/ton). The latter derived from price of a conven. ton of coal (93.4 rubles/ton, series 305) times cost ratio for a conven. ton of natural gas to coal (0.883, from index in 410, 1956, No. 1, 23).
307 Oil shale	Weighted avg. of median prices for Estonia, Leningrad, and Volga region (prices in 235, I, 696, and outputs in 180, 166).
308 Peat	Weighted avg. of medians of zonal prices for milled peat and lump peat (235, I, 700). For weighting, 61% of all peat is taken as milled (395, 1956, No. 2, 4).
309 Firewood	576, 52. Price for 1956.
401 Soda ash	576, 56. Price.
402 Caustic soda	576, 56. Price.
404 Sulfuric acid	576, I, 687. Price converted from 75% basis to 100% basis.
404.1 Sulfuric acid not used in phosphoric fertilizer	Same as for sulfuric acid.
405.1 Phosphoric fertilizer	Price of sulfuric acid (see series 404) times 1939 cost ratio of phosphoric fertilizer to sulfuric acid (0.749, from 318, May 12, 1939).
405.2 Ammonium sulfate	1927/28 price (see series 405.2, col. 2) times phosphoric fertilizer price ratio of 1955 to 1927/28 (3.4, see series 405.1).
405.3 Potash fertilizer	1927/28 price (see series 405.3, col. 2) times phosphoric fertilizer price ratio of 1955 to 1927/28 (3.4, see series 405.1).
406 Ground natural phosphate	Price of phosphoric fertilizer (see series 405.1) times 1934 cost ratio of ground natural phosphate to phosphoric fertilizer (0.31 from adjusted data in 351, 1935, No. 5, 38).
410 Red lead	235, I, 678. Price.

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411	Zinc oxide	235, I, 678. Avg. price for 2 types.
416	Paper	235, I, 859 ff. Median of prices for 68 kinds.
417	Paperboard	235, I, 862. Median of prices for 21 kinds. For waterproof paperboard and electric insulated paperboard, only the median price for each group was taken.
418	Motor vehicle tires	235, I, 808 f. Median of 60 prices.
501	Red bricks	235, I, 9 ff. Median of 143 prices for brand no. 75.
502	Fire-clay bricks	235, I, 18. Median of 6 prices for first and second quality.
503	Magnesite bricks	235, I, 26 ff. Median of 72 prices for first and second quality.
504	Quartzite bricks	235, I, 24. Median of prices for 3 types.
505	Sand-lime, silica, and slag bricks	235, I, 12 f. Median of 33 prices for brand 100.
506	Cement	Weighted avg. price of Portland (avg. of Portland 300 and 400), Portland slag, puzzuolana, and all other cements (assumed to have same price as Portland 500). All prices in 576, 72, and outputs in 180, 278.
507	Construction gypsum	235, I, 4 f. Median of 57 prices for second quality.
508	Construction lime	235, I, 5 ff. Median of 110 prices for second quality.
509	Industrial timber hauled	Assumed to have same price as structural timber in 1956 (576, 52).
510	Lumber Lumber	576, 52. Price for 1956. Unit value added. Price of lumber minus price of timber (series 509).
511	Plywood Plywood	576, 52. Price for 1956. Unit value added. Price of plywood minus price of timber (series 509).
512	Magnesite powder	235, I, 31. Median of 3 prices.
513	Roll roofing	Weighted avg. of median prices for rubberoid, pergamin, and tarpaper roofing and tarpaper subroofing for zone 1 (235, I, 83 f). Outputs (180, 301) given for first 2 separately and for second 2 together; the latter broken down according to output of rubberoid and pergamin roofing.
514	Roofing iron	Unweighted avg. price (1,337 rubles/m. ton, 576, 29) times 1950 ratio of weighted to unweighted avg. price (0.9333, 430, 28, 78).
	Roofing iron	Unit value added. Price (series 514) minus price of steel ingots and castings (see series 103).
515	Roofing tiles	Weighted avg. of median prices for each republic. Prices in 235, III, 387-514, and outputs in 180, 307 ff.
516	Asbestos shingles	235, I, 48. Price for ordinary unpainted shingles for zone 1.
518	Rails	Unweighted avg. price (566 rubles/m. ton, 576, 29) times 1950 ratio of weighted to unweighted avg. price (1.01, 430, 28, 58).
	Rails	Unit value added. Price of rails minus price of steel ingots and castings (see series 103).
519	Window glass	235, I, 35. Zone I price for first quality 2-mm. glass sheets from 0.4 to 1 m ² .

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601	Crude alcohol	Price of rye grain in alcohol (530 rubles/hectoliter) times ratio of nonmaterial to material costs of alcohol (0.199, 180, 371). Price of rye grain in alcohol derived as retail price of rye flour (2,100 rubles/m. ton, 458, 377) times 0.8 to eliminate retailing and milling cost, the result divided by the amount of alcohol produced from one ton of rye grain (318 hectoliters, 180, 406).
604	Hard leather	Price (36,000 rubles/m. ton) times 1934 ratio of wages to total cost in leather industry (0.249, 222, 34). Price derived as 1927/28 price (2,850 rubles/m. ton, see series 604, col. 2) times ratio for shoes of 1955 price (80 rubles/pair, see series 1601) to 1927/28 unit value (6.3 rubles/pair, value from Table C-2).
605	Soft leather	Price (1,300 rubles/th. dcm ² , derived in same way as hard leather above, 1927/28 price 104.4 rubles/th. dcm ² , see series 605, col. 2) times 1934 ratio of wages to total cost in leather industry (0.249, 222, 34).
704	Iron ore	576, 27. Avg. of range of prices for Krivoi Rog ore with iron content of 57-65%.
706	Manganese ore	Price of iron ore (see series 704) times 1927/28 ratio of manganese ore to iron ore (2.38, see series 704 and 706, col. 2).
901	Automobiles	235, II, 905. Price for Pobeda.
902	Trucks and buses	Weighted avg. price of trucks (13,700 rubles for 4-ton Zis truck 150 in 235, II, 903) and buses (31,450 rubles, avg. of 2 prices in 235, II, 904). Outputs in 138, 57.
903	Diesel and electric locomotives	235, II, 878. Price for diesel locomotive.
904	Steam locomotives	235, II, 877. Price for type LV.
905	Railroad freight cars	Weighted avg. of median prices for flat cars, hopper cars, box cars, refrigerator cars, cars for cement, and oil tank cars (235, II, 879 ff). Outputs in 180, 222.
906	Railroad passenger cars	Weighted avg. price of upholstered compartment cars, unupholstered cars without compartments, mail cars, and baggage cars (235, II, 882 f). Weighted arbitrarily by 3, 5, 1, and 1, respectively.
907	Narrow-gauge railroad cars	Median of prices for self-dumping hoppers, narrow-gauge flat cars, hoppers, and hoppers for peat (235, II, 882).
908	Street and subway cars	Weighted avg. price of streetcars (135,000 rubles, median of prices for 5 types in 235, II, 883 f) and subway cars (220,700 rubles, assumed to be same as for unupholstered passenger cars without compartments in 235, II, 882). Outputs in 180, 220.
1001	Tractors	Weighted avg. price of DT-54, KD-35, KDP-35, Trelevoch, Belorus, Universal, and KhTZ tractors (235, II, 908). Outputs in 180, 228 f.
1002	Plows, tractor-drawn	Median of prices for 14 types (235, III, 160).
1003	Paring plows, tractor-drawn	Avg. price of 2 types (235, III, 161).
1004	Plows, horse-drawn	235, III, 160. Price.
1005	Harrows, tractor-drawn	235, III, 161. Median of 3 prices.

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1006	Harrows, horse-drawn	Assumed to be same as price of horse-drawn plows (series 1004).
1007	Cultivators, tractor-drawn	235, III, 161 f. Median of prices for 11 types.
1008	Cultivators, horse-drawn	235, III, 162. Median of prices for 3 types.
1009	Drills, tractor-drawn	235, III, 163. Median of prices for first 5 types.
1010	Drills, horse-drawn	235, III, 163. Price of grain drills.
1013	Potato planters, tractor-drawn	235, III, 164. Price.
1014	Machines for planting seedlings	235, III, 163. Avg. price for 2 types.
1016	Grain combines	235, III, 165. Avg. price for 2 types.
1017	All other combines	Weighted avg. price of beet-harvesting, corn-harvesting, potato-harvesting, and silage-harvesting combines (235, III, 165 ff). Outputs in 180, 230.
1018	Windrowers	235, III, 166. Price.
1019	Reapers, horse-drawn	235, III, 166. Price for self-raking horse-drawn reapers.
1020	Cotton pickers	235, III, 168. Price.
1021	Haymowers tractor-drawn	235, III, 164. Median of prices for 4 types.
1022	Haymowers horse-drawn	235, III, 164. Price.
1023	Rakers, tractor-drawn	235, III, 164. Avg. price.
1024	Rakers, horse-drawn	235, III, 164. Avg. price.
1025	Threshers, tractor-driven	235, III, 167. Avg. price for 2 complex and semicomplex threshers.
1026	Threshers, horse-driven	Price of tractor-driven threshers (see series 1025) times 1927/28 price ratio of horse-driven to tractor-driven threshers (see series 1025 and 1026, col. 2).
1027	Grain-cleaning machines	235, III, 166. Avg. price.
1028	Winnowers, horse-drawn	235, III, 166. Price.
1029	Horse drivings	235, III, 166. Price.
1030	Chaff and silo cutters	235, III, 168. Avg. price.
1101	Steam boilers (capacity)	Median of prices for 3 types (29,200 rubles, 235, II, 939) divided by corresponding capacity (161 m ² , 235, II, 939).
1102	Water turbines (capacity)	Price of steam turbines (see series 1103) times 1927/28 price ratio of water turbines to steam turbines (1.37, from series 1102 and 1103, col. 2).
1103	Steam and gas turbines (capacity)	Weighted avg. of median prices of turbines of 100,000 kw and over, 500,000 kw, 25,000-49,000 kw, and up to 25,000 kw (235, II, 1072 f). Outputs in 180, 216.
1104	Locomotives (capacity)	Median of prices for 11 types of locomotives (85,000 rubles, 235, II, 991 ff) divided by corresponding capacity (125 hp, 235, II, 939).
1105	Diesel engines (capacity)	Median of prices for 14 types (214,000 rubles, 235, II, 983) divided by corresponding capacity (600 hp, 235, II, 983).
1106	Other internal combustion engines (capacity)	Price (5,400 rubles, 235, II, 989) divided by capacity (22 hp, 235, II, 989).
1107	Turbogenerators (capacity)	Price of largest turbogenerator (481,000 rubles, 235, II, 533) divided by its capacity (12,000 kw, 235, II, 533).
1108	Hydroelectric generators (capacity)	Price of largest hydroelectric generator (432,400 rubles, 235, II, 534) divided by its capacity (4,000 kw, 235, II, 534).

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1109	Electric motors, A.C. (capacity)	Weighted avg. price of motors under 100 kw (derived as 73.5 rubles/kw from median of 17 prices for 40 kw motors in 235, II, 473 ff) and motors over 100 kw (derived as 215 rubles/kw from avg. price of 190 kw 3,000 volt motor and 180 kw 6,000 volt motor in 235, II, 512). Outputs in 180, 214 f.
1110	Power transformers (capacity)	Median of prices for 8 types (167,500 rubles, 235, II, 686 ff) divided by corresponding capacity (15,000 kva, 235, II, 686 ff).
1201	Coal-mining combines	235, III, 4 ff. Avg. price for Donbas-1 and UKMG-2M types.
1202	Coal-cutting machines	235, III, 6. Avg. price.
1203	Electric mining locomotives	235, III, 11. Median of 8 prices.
1204	Ore-loading machines	235, III, 7 f. Median of 6 prices.
1205	Deep-shaft pumps	235, III, 53 f. Median of 6 prices.
1206	Turbodrills	235, III, 49. Median of 5 prices.
1210	Machine tools	Weighted avg. of median prices for turret lathes, automatic and semi-automatic turret lathes, slotters, planers, milling machines, broaching machines, shapers, radial drilling machines, vertical drilling machines, boring machines, grinding machines, sharpening machines, gear-cutting machines, tool-grinding machines (235, II, 58-87) and bench and engine lathes (24,400 rubles). Price of bench and engine lathes is weighted avg. of median prices for bench lathes, screw-cutting lathes, boring and turning lathes, face and wheel lathes, and automatic and semi-automatic bench and engine lathes (prices in 235, II, 56 ff; weighted by planned outputs for 1941 in 72, 95). Outputs in 180, 208 f.
1211	Electric furnaces	235, II, 758. Median of 5 prices.
1212	Spinning machines	Avg. price of water spinning machines (33,800 rubles, median of 27 prices in 235, II, 220 ff) and water doubling frames (37,300 rubles, median of 14 prices in 235, II, 223 f).
1213	Winding machines	235, II, 233 f. Median of 30 prices.
1214	Looms	235, II, 238 f. Median of 13 prices.
1215	Cotton-carding machines	235, II, 218 f. Median of 5 prices.
1216	Knitting machines	235, II, 252.
1217	Leather-spreading machines	235, II, 254. Median of 3 prices.
1218	Leather-dressing machines	235, II, 255 f. Avg. price.
1219	Typesetting, machines linotype	235, II, 288 f. Median of prices for 5 types.
1220	Flat-bed printing presses	235, II, 294. Median of 6 prices.
1221	Industrial sewing machines	235, II, 250 ff. Median of prices for heads only for 23 types.
1222.1	Presses	Price of machine tools (see series 1210) times 1927/28 price ratio of presses to machine tools (0.177 from series 1210 and 1222.1, col. 2).
1301	Excavators	Weighted avg. price of single-bucket (100,000 rubles, median of 15 prices in 235, II, 3 f, 779) and multiple-bucket (82,000 rubles, median of 11 prices in 235, II, 10 f) excavators. Outputs in 180, 234 f.
1302	Trench excavators	235, II, 19. Median of 5 prices.

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1303	Stone crushers	235, II, 24 f. Median of 17 prices.
1304	Road graders	235, II, 20. Price for medium road graders.
1305	Self-propelled road graders	235, II, 20. Median of 3 prices.
1306	Concrete mixers	235, II, 27 f. Median of 11 prices.
1307	Scrapers, tractor-driven	235, II, 19. Median of 3 prices.
1308	Bulldozers	235, II, 19 f, 53 f, 779. Median of prices.
1309	Railroad cranes, steam	235, II, 13 f. Median of 11 prices.
1310	Self-propelled cranes	235, II, 12, 14. Median of 11 prices.
1311	Overhead traveling cranes	Weighted avg. price of electric (99,750 rubles, median of 64 prices in 235, II, 1001 ff) and hand-operated (8,610 rubles, avg. of median prices for single- and double-beam cranes in 235, II, 997 ff) cranes. Weighted by 1935 output (215, 80).
1312	Tower cranes	235, II, 14 f. Median of 16 prices.
1313	Electric elevators	235, II, 45 f. Median of 8 prices.
1401	Telephones	Unweighted avg. price of hand-operated (102.5 rubles, avg. price for table and table-wall telephones in 235, II, 816) and automatic (112.5 rubles, avg. price for table and wall telephones in 235, II, 815) telephones.
1402	Switchboards, hand-operated	235, II, 817 f. Median of 9 prices.
1403	Switchboards, automatic	Price of an automatic switchboard (117,000 rubles, 235, II, 819) divided by its no. of lines (600, 235, II, 819).
1405	Calculating machines	235, II, 301 f. Median of 5 prices.
1501	Flour	Commercial cost of processing in large-scale flour and groats industry (3,454 mill. rubles, 133a, 43) divided by corresponding output (19,702.4 th. m. tons, 133a, 41). Data adjusted upward to account for higher costs in small-scale industry.
1502	Macaroni	Price (4,000 rubles/m. ton) minus price of flour (2,200 rubles/m. ton, see series 1501). Price derived as retail price (4.35 rubles/kg., 458, 1955, No. 4, 377) times 0.9 to eliminate retailing mark-up.
1503	Butter	Price (25,000 rubles/m. ton) times ratio of wages to total cost in dairy products industry (0.078, 180, 371). Price derived as 1953 (same as 1955) retail price (27.8 rubles/kg.) times 0.9 to eliminate retailing mark-up. Retail price is avg. price in 1952 (30.6 rubles/kg., 442) times price ratio, 1953 to 1952 (0.090, 364, 4/1/53).
1504	Vegetable oil	Price (12,700 rubles/m. ton) times 1934 ratio of wages to total cost in vegetable oil industry (0.126, 215, 216). Price derived as 1927/28 price (411 rubles/m. ton, see series 1504, col. 2) times price ratio, 1955 to 1927/28 (30.88, derived from price index for sunflower oil for 1952 on 1927/28 = 100 in 441, 152, and official price index for vegetable oil for 1955 on 1952 = 100 in 226, 131).
1504.1	Oleomargarine	Price (13,700 rubles/m. ton) minus difference between price and unit value added of vegetable oil (11,100 rubles/m. ton, see series 1504).
1504.2	Vegetable oil minus oleomargarine	Same as for vegetable oil (series 1504).

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1506	Meat slaughtering	Price (11,100 rubles/m. ton) times ratio of wages to total cost in meat industry (0.038, 180, 371). Price derived as retail price (11,835 rubles/m. ton) times 0.935 (133, 112) to eliminate retailing mark-up. Retail price is weighted avg. price of beef, pork, lamb, and fowl (prices in 133, 112; outputs in 180, 378).
1507	Fish catch	Retail price (12,600 rubles/m. ton) times 0.5 (ratio of 1927/28 in col. 2 to avg. price paid by worker's family for fish, 422) to eliminate trade mark-up, transportation, and spoilage. Retail price derived as weighted avg. 1952 retail price (14,000 rubles/m. ton) of fresh and frozen (pike, perch), salted (herring), and other fish (sturgeon) (prices in 442; weighted by percentage distribution of 1955 production in 363, 1956, No. 1, 85) times price ratio, 1955 to 1952 (0.9, 226, 131). But see note b to this table.
1508	Soap (40%)	Price (3,400 rubles/m. ton) times 0.377 to eliminate turnover taxes (594, 131). Price derived as retail price (3,725 rubles/m. ton) times 0.9 to eliminate retailing mark-up. Retail price derived as value of sales of household and toilet soap (226, 68) divided by sales (assumed to be 90% of output).
1509	Salt	Price (200 rubles/m. ton) times 0.171 to eliminate turnover taxes (594, 131). Price derived as retail price (0.222 rubles/kg., derived as 1952 price in 442 times price ratio, 1955 to 1952, given as 0.66 in 408, 1956, No. 5, 83) times 0.9 to eliminate retailing mark-up.
1510	Raw sugar consumption	Price (8,500 rubles/m. ton) times ratio of wages to total cost in sugar industry (0.097, 180, 29, 371). Price is retail price for Sept. 1954 in Moscow (9.4 rubles/kg., 458, 1955, No. 4, 377) times 0.9 to eliminate retailing mark-up. Price same in 1955 as 1954 (408, 1956, No. 5, 83).
1510.1	Refined sugar	Price (9,700 rubles/m. ton) times ratio of wages to total cost in sugar industry (0.097, 180, 29, 371). Price is retail price for Sept. 1954 in Moscow (10.7 rubles/kg., 458, 1955, No. 4, 377) times 0.9 to eliminate retailing mark-up. Price same in 1955 as 1954 (408, 1956, No. 5, 83).
1510.2	Raw sugar minus refined sugar and sugar in candy	Same as for raw sugar (series 1510).
1511	Starch and syrup	Price (1,900 rubles/m. ton) times 1927/28 ratio of unit value added to price (0.33, see series 1511, col. 2). Price derived as price of yeast (4,800 rubles/m. ton, 67, 228) times 1927/28 price ratio of starch and syrup to yeast (0.4, from series 1511, col. 2, and 166, 294).
1513	Canned food	Price (2.20 rubles/can) times 1934 ratio of wages to total cost in canned food industry (0.223, 215, 216). Price derived as retail price (2.39 rubles/can, value of sales excl. canned milk in 226, 40, divided by volume of sales, assumed to be 90% of output excl. canned milk in 180, 399) times 0.9 to eliminate retailing mark-up.

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- 1514 Beer Price (338 rubles/hectoliter) times 1934 ratio of wages to total cost in beer and yeast industry (0.224, 215, 216). Price is retail price for April 1954 (4.5 rubles/liter, 461, 1955, No. 3, 111) times 1926/27 ratio of wholesale to retail price incl. excise and special tax (0.75 from data in 185, 518).
- 1515 Cigarettes Price (58 rubles/th.) times 1934 ratio of wages to total cost in tobacco industry (0.196, 215, 216). Price is retail price (64 rubles/th.) times 0.9 to eliminate retailing mark-up. Retail price derived from sales (assumed to be 90% of output) and value of sales (11,423 mill. rubles, value of sales of cigarettes and makhorka in 226, 42, minus value of sales of makhorka). Value of sales of makhorka (576 mill. rubles) derived as retail price of makhorka (see series 1516) times volume of sales of makhorka (assumed to be 90% of output).
- 1516 Low-grade tobacco Price (220 rubles/20 kg.-crate) times 1934 ratio of wages to total cost in tobacco industry (0.196, 215, 216). Price derived as retail price for Sept. 1954 (0.60 rubles/50 gms., 461, 1955, No. 3, 112) times 0.9 to eliminate retailing mark-up.
- 1517 Matches Price (75 rubles/crate) times ratio of wages to total cost in match industry (0.358, 180, 245). Price derived as retail price (80 rubles/crate) times 0.9 to eliminate retailing mark-up. Retail price derived as 1952 retail price (442) times price ratio, 1955 to 1952 (0.68, from data in 226, 131).
- 1518 Vodka (40%) Price (3,500 rubles/hectoliter) times ratio of wages to total cost of alcohol industry (0.070, 180, 371). Price is retail price (3,890 rubles/hectoliter) times 0.9 to eliminate retailing mark-up. Retail price derived as 1952 retail price (442) times price ratio, 1953 to 1952 (1.11, 364, 4/1/53).
- 1519 Candy Price (24,600 rubles/m. ton) times ratio of wages to total cost in sugar industry (0.097, see series 1510, col. 3). Price derived as 1927/28 price (1,580 rubles/m. ton, see series 1519, col. 2) times price ratio for raw sugar of 1955 to 1927/28 (15.6, from series 1510, col. 3, and 1927/28 price incl. excise tax in 186, 69).
- 1601 Boots and shoes Price (80 rubles/pair) times ratio of wages to total cost in shoe industry (0.134, 180, 322). Price is weighted avg. price of leather shoes (incl. shoes with rubber soles) and cloth shoes (outputs in 180, 351). Price of cloth shoes derived as value of sales (226, 42) divided by sales (assumed to be same as output in 180, 351). Price of leather shoes in 1952 weighted avg. price (110.8 rubles/pair) times price ratio, 1955 to 1952 (0.82, from data in 226, 131). 1952 price is weighted avg. price of

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		women's and men's leather shoes and rubber-soled leather shoes (prices in 442; weighted by 1955 percentage share of formed shoes [19%] and nonformed shoes [81%], 180, 351).
1602	Rubber footwear	Price derived as retail price (37.7 rubles/pair) times 1927/28 ratio of wholesale to retail price (0.87, from wholesale price derived from output and value of output in 103, 494 f, and retail price in 442). 1955 price derived as value of sales (226, 42) divided by sales (assumed to be same as output).
	Rubber footwear	Unit value added. Price (series 1602) times 0.14 to eliminate turnover tax (594, 131).
1604	Cotton fabrics	Price (7.5 rubles/meter) times ratio of wages to total cost in cotton industry (0.109, 180, 322). Price derived as weighted avg. retail price for first quarter, 1956 (8.3 rubles/meter, 394, 1956, No. 11, 60) times 0.9 to eliminate retailing mark-up.
1607	Linen fabrics	Price (11 rubles/meter) times ratio of wages to total cost in linen industry (0.094, 180, 322). Price derived as weighted avg. retail price for first quarter, 1956 (12.2 rubles/meter, 394, 1956, No. 11, 60) times 0.9 to eliminate retailing mark-up.
1609	Silk and rayon fabrics	Price (28.4 rubles/meter) times ratio of wages to total cost in silk industry (0.080, 180, 322). Price derived as weighted avg. retail price for first half, 1956 (31.5 rubles/meter, 394, 1956, No. 11, 60) times 0.9 to eliminate retailing mark-up.
1611	Woolen and worsted fabrics	Price (105 rubles/meter) times ratio of wages to cost in woolen industry (0.065, 180, 322). Price derived as weighted avg. retail price for first half, 1956 (116.1 rubles/meter, 394, 1956, No. 11, 60) times 0.9 to eliminate retailing mark-up.
1612	Knitted goods	Price (21 rubles/unit) times ratio of wages to total cost in knitted goods industry (0.22, 410, 1957, No. 7, 34). Price derived as retail price (23.6 rubles/unit, from value of sales in 226, 42, divided by sales, assumed to be 90% of output) times 0.9 to eliminate retailing mark-up.
1613	Hosiery	Price (55 rubles/pair) times ratio of wages to total cost in knitted goods industry (0.22, 410, 1957, No. 7, 34). Price derived as retail price (6.13 rubles/pair, from value of sales in 226, 42, divided by sales, assumed to be same as output) times 0.9 to eliminate retailing mark-up.
1614	Felt footwear	Price (85 rubles/pair) times 1927/28 ratio of value added to value in felt industry (0.743 from Table C-2). Price derived as retail price (88 rubles/pair, from value of sales in 226, 42, divided by volume of sales, assumed to be 90% of output) times 0.95 to eliminate retailing mark-up.
1701	Bicycles	Retail price (645 rubles/unit in 442) times price ratio, 1953 to 1952 (0.90, 364, 4/1/53).

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1702	Cameras	458, 1955, No. 4, 378. Price.
1703	Electric light bulbs	458, 1955, No. 4, 378. Price.
1704	Phonographs	458, 1955, No. 4, 378. Price.
1705	Radios	585, 48. Price for 3-tube radio in 1952. Price same in 1955 as 1952.
1707	Household sewing machines	Value of sales (1,120 mill. rubles) divided by sales (408, 1956, No. 5, 82). Value is sum of values for all republics except Karelo-Finnish (1,085 mill. rubles, 226, 231 ff) times ratio for value of sales of all "other nonfood products" of USSR to USSR excl. Karelo-Finnish Republic (1.032, from data in 226, 43, 231 ff).
1708	Clocks and watches	Value of sales (3,293 mill. rubles) divided by sales (408, 1956, No. 5, 82). Value is sum of values for all republics except Karelo-Finnish Republic (3,191 mill. rubles, 226, 231 ff) times ratio described above (see series 1707).
1709	Motorcycles	Value of sales (871 mill. rubles) divided by volume of sales (226, 57). Value derived as summed values of bicycles and motorcycles (2,496 mill. rubles, 226, 43) minus value of bicycles (sales in 226, 57, and price in series 1701).

Derivation of 1914 U.S. Weights (col. 4)

103	Steel ingots and castings	640, 74. Avg. unit value of unrolled steel ingots produced for sale and interplant transfer. Also, 618, 546.
202	Copper	626, 150. Also, 637, 580.
203	Lead	626, 150.
204	Zinc	626, 150.
301.1	Hydroelectric power	Avg. price of electric power for 1912 and 1917 (derived from sales and value of sales to commercial and industrial consumers in 626, 159).
302	Anthracite	626, 142.
303	Bituminous coal	626, 142.
304	Lignite	Unit value of bituminous coal in 1914 (see series 303) times 1929 ratio of unit value of lignite to bituminous coal (0.869, see series 303 and 304, col. 5).
305	Crude petroleum	626, 146. Converted from barrels at 1 barrel = 139.07 kg.
306	Natural gas	626, 146.
401	Soda ash	655, No. 493, 192. Price.
404	Sulfuric acid	655, No. 493, 186. Price. Converted from 66° Baumé basis to 100% H ₂ SO ₄ basis with 66° Baumé = 93.19% H ₂ SO ₄ .
405.1	Phosphoric fertilizer	618, 498. Price. Converted from 16% P ₂ O ₅ basis to 18.7% basis.
405.2	Ammonium sulfate	655, No. 473, 225. Price f.a.s. N.Y.
405.3	Potash fertilizer	655, No. 473, 225. War Industry Board avg. price for muriate of potash (80-85% K ₂ O) converted to 41.6% K ₂ O.
406	Ground natural phosphate	626, 148.
410	Red lead	655, No. 473, 204. Price of dry red lead in N.Y.
416	Paper	618, 481 f. Avg. unit value of all kinds excl. building paper.

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417	Paperboard	618, 482.
418	Motor vehicle tires	618, 480. Pneumatic tires and casing (motor vehicle tires, excl. motorcycle and bicycle tires).
501	Red bricks	618, 522. Common brick.
505	Sand-lime, silica, and slag bricks	618, 533. Sand-lime brick.
506	Cement	626, 147. Converted from barrels at 1 barrel = 170.55 kg.
507	Construction gypsum	640, 74. Price of crude gypsum.
508	Construction lime	626, 147.
510	Lumber	649, 1923, 233. Avg. mill value for 1915. Also, 640, 74. Converted from board ft. at 1 bd. ft. = 0.00236 m ³ .
512	Magnesite metallurgical powder	626, 148.
513	Roll roofing	618, 482. Building paper. Converted from short tons into metric tons and then into m ² at 1 m ² = 1.48 kg.
516	Asbestos shingles	1929 unit value (see series 516, col. 5) times unit value ratio for asbestos of 1915 to 1929 (0.4, from data in 649, 1932, 693).
519	Window glass	618, 528.
601	Crude alcohol	Price of 188° denatured alcohol in N.Y. (\$0.338/gallon, 655, No. 473, 212) times ratio of value added to value of distilled liquors, excl. internal revenue taxes (0.471, from 609, 1939, II, part 1, 228). Also, 640, 75.
604	Hard leather	Avg. price of 3 kinds (Hemlock middle, no. 1, oak, in Boston; scoured back, in Boston; and Union backs, steer, tannery run, in N.Y.—\$0.398/lb. in 655, No. 473, 124 f) times ratio of value added for leather, tanned, curried, and finished, to computed value of leather (0.577, from 640, 75).
605	Soft leather	Avg. price of 2 kinds (chrome calf, grade B, in Boston; and side, black, chrome, tanned, grade B, in Boston—\$0.274/ft. ² in 655, No. 473, 123 f) times ratio described above in series 604. Converted at 1 ft. ² = 9.29 dcm ² .
1501	Flour	640, 75. Value added of flourmill and gristmill products and 2-year avg. output (1912 and 1913). Converted from barrels into m. tons at 1 barrel = 196 lbs.
1503	Butter	Avg. unit value (\$0.284/lb. in 609, 1914, 353, 349) times ratio for creamery butter of value added to value (0.1267, from 609, 1939, II, part 1, 80).
1504	Vegetable oil	Value added of crude cottonseed oil (609, 1929, II, 709) and output (640, 70).
1506	Meat slaughtering	Avg. value per lb. of fresh meat, edible offal, and dressed poultry (value and output in 609, 1914, II, 333) times ratio for slaughtering and meat packing of value added to value (0.1284, from 609, 1914, II, 319).
1507	Fish catch	Avg. price of 3 kinds (pickled or cured cod, in Gloucester, Mass.; pickled herring, in N.Y.; and pickled, salted, and large mackerel, in Boston—in 655, No. 473, 107).

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1509	Salt	626, 148.
1510	Raw sugar consumption	Value added and output of beet sugar in 649, 1923, 311, 213.
1511	Starch and syrup	Avg. price of 42° glucose and corn starch in N.Y. (\$0.0418/lb., from 655, No. 493, 86) times ratio for glucose and starch of value added to value (0.2358, from 609, 1914, vol. II, 411).
1513	Canned food	Value added of canning and preserving (609, 1914, II, 363) and output of canned food excl. milk and meat products. Converted from lbs. into 400-gm. cans.
1514	Beer	Value added of malt liquors excl. internal revenue tax (609, 1939, II, part 1, 210) and 2-year (1914 and 1915 fiscal years) avg. output (640, 70). Converted from barrels into hectoliters at 1 barrel = 1.1735 hectoliters.
1515	Cigarettes	Value added excl. internal revenue tax (609, 1914, 1029) and output (618, 414).
1516	Low-grade tobacco	Value added excl. internal revenue tax of "other tobacco products" (609, 1914, 1029) and output (618, 415). Converted from lbs. into 20-kg. crates.
1604	Cotton fabrics	Avg. unit value of cotton woven goods excl. "other cotton products" (609, 1914, 32) times ratio for cotton manufactures of value added to value (0.3676, from 609, 1914, 20). Converted from square yards to m ² ; then adjusted to linear meters, Soviet width (1.4286 linear meters = 1 m ² from Appendix A, technical note 1).
1607	Linen fabrics	Avg. unit value (609, 1914, 152) times ratio for linen goods of value added to value (0.3837, from 609, 1914, 148). Converted from square yards to m ² . No adjustment to linear meters necessary since avg. Soviet width is assumed to be 100 cm.
1609	Silk and rayon fabrics	Avg. unit value of broad woven silk (609, 1914, 138) times ratio for silk industry of value added to value (0.4314, from 609, 1914, 125). Converted from yards to m ² ; then adjusted to linear meters, Soviet width, at 1.0753 linear meters = 1 m ² (265, II, 124 ff).
1611	Woolen and worsted fabrics	Value added of woolen and worsted goods (609, 1914, 51) and output (618, 457). Converted from square yards to m ² ; adjusted to linear meters, Soviet width (0.7812 linear meters = 1 m ² from 478, 121).
1614	Felt footwear	Avg. value of 4 lbs. of saddle felt (609, 1914, 77, 4 lbs. of felt needed to produce a pair of Soviet felt shoes) times ratio for felt goods of value added to cost of materials (0.6529 from 609, 1914, 51).

Derivation of 1929 U.S. Weights (col. 5)

103	Steel ingots and castings	618, 546.
202	Copper	626, 150. Also, 637, 580.
203	Lead	626, 150.
204	Zinc	626, 150.

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301.1	Hydroelectric power	626, 159. Sales and value of sales of electric power to commercial and industrial consumers.
302	Anthracite	626, 142.
303	Bituminous coal	626, 142.
304	Lignite	638, 797.
305	Crude petroleum	626, 146. Converted from barrels at 1 barrel = 139.07 kg.
306	Natural gas	626, 146.
401	Soda ash	655, No. 521, 34. Price.
404	Sulfuric acid	655, No. 521, 33. Price converted from 66° Baumé basis to 100% H ₂ SO ₄ basis with 66° Baumé = 93.19% H ₂ SO ₄ .
405.1	Phosphoric fertilizer	618, 498. Avg. price for nonammoniated superphosphate and concentrated phosphates. Converted from 16% P ₂ O ₅ basis to 18.7% basis.
405.2	Ammonium sulfate	655, No. 521, 35. Price in N.Y.
405.3	Potash fertilizer	655, No. 521, 35. Price for muriate of potash (80-85%) in N. Y. converted to 41.6% K ₂ O.
406	Ground natural phosphate	626, 148.
410	Red lead	655, No. 521, 51. Price of dry red lead in N.Y.
416	Paper	609, 1939, II, part 1, 643 f. Avg. unit value of all kinds excl. building paper.
417	Paperboard	618, 482.
418	Motor vehicle tires	618, 480. Pneumatic tires and casing (motor vehicle tires, excl. motorcycle and bicycle tires).
501	Red bricks	618, 522. Common brick.
505	Sand-lime, silica, and slag brick	618, 533. Sand-lime brick.
506	Cement	626, 147. Converted from barrels at 1 barrel = 170.55 kg.
507	Construction gypsum	610, 4. Value of shipment of primary product.
508	Construction lime	626, 147.
510	Lumber	649, 1938, 695.
512	Magnesite metallurgical powder	626, 148.
513	Roll roofing	618, 482. Building paper. Converted from short into m. tons, then into m ² at 1 m ² = 1.48 kg.
516	Asbestos shingles	618, 520.
519	Window glass	618, 528.
601	Crude alcohol	Price of denatured alcohol at works (\$0.57/gallon, 655, No. 521, 33) times avg. ratio for distilled liquors in 1914 and 1939 of value added to value of product excl. internal revenue tax (0.482, from 609, 1939, II, part 1, 228).
604	Hard leather	Avg. price of 3 kinds (sole oak insides, scoured backs and sole, and Union backs—\$0.50/lb. in 655, No. 521, 25) times avg. ratio for leather industry in 1914 and 1939 of value added to value of product (0.538, from 640, 75).
605	Soft leather	Avg. price of 2 kinds (chrome calf, grade B; and side black, chrome, tanned, grade B, in Boston—\$0.342/sq. ft. in 655, No. 521, 25) times avg. ratio described above in series 604.
1501	Flour	Value added of flour and other grain mill products (609, 1929, II, 134) and output (605, 131, 128). Converted from barrels at 1 barrel = 196 lbs.
1503	Butter	Avg. price of creamery butter and whey (\$0.437/lb. in 609, 1929, II, 71) times ratio of value

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		added to value of product (0.1481, from 609, 1929, II, 67).
1504	Vegetable oil	Value added to crude cottonseed oil (609, 1929, II, 709) and avg. output for 1929 and 1930 (649, 1938, 678).
1506	Meat slaughtering	Unit value of fresh meat (value and output in 609, 1929, II, 176) times ratio for meat packing of value added to value (0.1341, from 609, 1929, II, 173).
1507	Fish catch	Avg. price of 3 kinds (pickled or cured cod, in Gloucester, Mass.; pickled herring, in N.Y.; and salted mackerel, in N.Y.—in 655, No. 521, 23).
1509	Salt	626, 148.
1510	Raw sugar consumption	Value added (605, 192) and output of beet sugar including molasses (609, 1929, II, 20).
1511	Starch and syrup	Avg. price of 42° mixing glucose and laundry starch in N.Y. (\$0.0485/lb., from 655, No. 521, 23, 37) times ratio for glucose and starch of value added to value (0.3717, from 609, 1929, II, 121).
1513	Canned food	Value added of canning and preserving (609, 1929, II, 80) and output of canned food excl. milk and meat products. Converted from lbs. into 400-gm. cans.
1515	Cigarettes	Value added of cigar and cigarette industry incl. internal revenue tax (609, 1929, II, 1376) times ratio for tobacco industry of value added excl. and incl. tax (0.4682, from 626, 302, and 609, 1929, II, 1376). Output (626, 186).
1516	Low-grade tobacco	Value added incl. internal revenue tax for chewing and smoking tobacco (609, 1929, II, 1377) times ratio for tobacco industry of value added excl. and incl. tax (0.4682, from 626, 302, and 609, 1929, II, 1376). Output (618, 415). Converted from lbs. into 20-kg. crates.
1604	Cotton fabrics	Avg. unit value of woven goods over 12" wide (609, 1929, II, 249) times ratio for cotton industry of value added to value (0.4108, from 609, 1929, II, 247). Adjusted as in col. 4.
1607	Linen fabrics	Avg. unit value of linen and partly linen woven goods (618, 446) times ratio for linen goods of value added to value (0.4645, from 609, 1929, II, 241). No width adjustment (see col. 4).
1609	Silk and rayon fabrics	Avg. unit value of broad woven silk goods excl. velvet, plush, upholstery, and tapestry (609, 1929, II, 339) times ratio for silk and rayon manufactures of value added to value (0.4363, from 609, 1929, II, 337). Adjusted as in col. 4.
1611	Woolen and worsted fabrics	Avg. unit value (609, 1929, II, 415) times ratio for woolen and worsted goods industry of value added to value (0.3923, from 609, 1929, II, 412). Adjusted as in col. 4.
1614	Felt footwear	Avg. value of 4 lbs. (see col. 4) of shoe and slipper felt (609, 1929, II, 425) times ratio for felt goods of value added to cost of materials (0.7406, from 609, 1929, II, 424).

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Derivation of 1939 U.S. Weights (col. 6)

103	Steel ingots and castings	640, 74.
202	Copper	626, 150.
203	Lead	626, 150.
204	Zinc	626, 150.
301.1	Hydroelectric power	626, 159. Sales and value of sales to commercial and industrial consumers.
302	Anthracite	626, 142.
303	Bituminous coal	626, 142.
304	Lignite	71, 12 A-4. Value of net shipments.
305	Crude petroleum	626, 146.
306	Natural gas	626, 146.
401	Soda ash	655, No. R 1069, 40. Price.
404	Sulfuric acid	655, No. R 1069, 39. Price. Converted from 66° Baumé basis to 100% H ₂ SO ₄ basis unit 66° Baumé = 93.19% H ₂ SO ₄ .
405.1	Phosphoric fertilizer	609, 1939, II, part 1, 801. Unit value of non-ammoniated superphosphate incl. concentrated phosphates converted to 18.7% P ₂ O ₅ basis. Converted from short to m. tons.
405.2	Ammonium sulfate	655, No. R 1069, 41. Price, bulk, ex vessel, port.
405.3	Potash fertilizer	655, No. R 1069, 41. Price for 80% muriate of potash converted to 41.6% K ₂ O basis.
406	Ground natural phosphate	626, 148.
410	Red lead	655, No. R 1069, 37. Price for dry red lead in N.Y.
416	Paper	609, 1939, II, part 1, 643 f. Avg. unit value of all kinds excl. building paper.
417	Paperboard	609, 1939, II, part 1, 644. Avg. unit value.
418	Motor vehicle tires	609, 1939, II, part 2, 21. Pneumatic tires and casings.
501	Red bricks	609, 1939, II, part 2. Red burning clay bricks, all sizes.
505	Sand-lime, silica, and slag bricks	655, No. R 1069, 36. Price of sand-lime brick.
506	Cement	626, 147. Converted from barrels at 1 barrel = 170.55 kg.
507	Construction gypsum	610, 4. Value of shipments of primary product.
508	Construction lime	626, 147.
510	Lumber	649, 1942, 823. Also, 640, 74. Converted from bd. ft. at 1 bd. ft. = 0.00236 m ³ .
512	Magnesite metallurgical powder	626, 148.
513	Roll roofing	609, 1939, II, part 1, 644. Building paper. Converted from short to m. tons and then to m ² at 1 m ² = 1.48 kg.
516	Asbestos shingles	655, No. R 1069, 38. Individual shingles, composite price, factory.
519	Window glass	609, 1939, II, part 2, 73.
601	Crude alcohol	Price at works (\$0.299/gallon, 655, No. R 1069, 39) times ratio for distilled liquors of value added to value of excl. internal revenue tax (0.494, from 609, 1939, II, part 1, 228). Also, 640, 75.
604	Hard leather	Avg. price of 3 kinds (sole, oak scoured backs, and Union backs, steers—\$0.349/lb., 655, No. R 1069, 24) times ratio of value added for leather, tanned, curried, and finished, to total

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		computed value of leather (0.498, from 640, 75).
605	Soft leather	Avg. price of 2 kinds (chrome calf, grade B, and side back, chrome, tanned, grade B, in Boston — \$0.306/sq. ft., 655, No. R 1069, 24) times ratio described above in series 604. Converted at 1 sq. ft. ² = 9.29 dcm ² .
1501	Flour	Value added of flour and other grain mill products 609, 1939, II, part 1, 134) and output (640, 69). Converted from barrels (1 barrel = 196 lbs.) into m. tons.
1503	Butter	Avg. price of creamery butter (609, 1939, II, part 1, 83) times ratio for creamery butter of value added to value (0.1493, from 609, 1939, II, part 1, 80).
1504	Vegetable oil	Value added of crude cottonseed oil and output (609, 1939, II, part 1, 28 G5, 28 G1).
1506	Meat slaughtering	Avg. unit value of fresh meat (value and output in 609, 1939, II, part 1, 57) times ratio for meat packing of value added to value (0.1593, from 609, 1939, II, part 1, 54).
1507	Fish catch	Avg. price of 3 kinds (pickled or cured cod, in Gloucester, Mass.; pickled herring, in N.Y.; and salted mackerel, in N.Y.—in 655, No. R 1069, 23).
1509	Salt	626, 148.
1510	Raw sugar consumption	Value added and output of beet sugar including molasses (609, 1939, II, part 1, 178).
1511	Starch and syrup	Avg. price of 42° unmixed glucose and corn starch in N.Y. (\$0.0375/lb. from 655, No. R 1069, 22 f) times ratio for corn syrup, corn sugar, corn oil and starch of value added to value (0.4396, from 609, 1939, II, part 1, 243).
1513	Canned food	Value added of canned fish, crustacea and mollusks, and canned and dried fruits and vegetables, incl. canned soups (609, 1939, II, part 1, 105, 111) and output of canned food excl. meat and milk products. Converted from lbs. into 400-gm. cans.
1514	Beer	Value added of malt liquors excl. internal revenue tax (609, 1939, II, part 1, 216) and output (608, 132). Converted from barrels into hectoliters at 1 barrel = 1.1735 hectoliters.
1515	Cigarettes	Value added excl. internal revenue tax for cigarettes (609, 1939, II, part 1, 271) and output (626, 186).
1516	Low-grade tobacco	Value added and output of chewing and smoking tobacco (609, 1939, II, part 1, 274). Converted from lbs. into 20-kg. crates.
1604	Cotton fabrics	Avg. unit value of woven goods over 12" wide (609, 1939, II, part 1, 291) times ratio for cotton industry of value added to value (0.5042, from 609, 1939, II, part 1, 287). Adjusted for width as in col 4.
1607	Linen fabrics	1937 avg. unit value (609, 1939, II, part 1, 392) times 1939 ratio for linen goods of value added to value (0.468, from 609, 1939, II, part 1, 389). No width adjustment (see col. 4).

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1609	Silk and rayon fabrics	Avg. unit value of rayon, silk, and silk mixtures, broad woven goods, over 12" wide (609, 1939, II, part 1, 314) times ratio for rayon manufactures and silk manufactures of value added to value (0.3883, from 609, 1939, II, part 1, 309). Adjusted for width as in col. 4.
1611	Woolen and worsted fabrics	Avg. unit value of woven woolen goods (609, 1939, II, part 1, 325) times ratio for woolen and worsted manufactures of value added to value (0.3866, from 609, 1939, II, part 1, 322). Adjusted for width as in col. 4.
1614	Felt footwear	Avg. value of 4 lbs. (see col. 4) of boots, shoes, and slipper felt and linings (609, 1939, II, part 1, 376) times ratio for felt goods of value added to cost of materials (0.8067, from 609, 1939, II, part 1, 375).

Derivation of 1954 U.S. Weights (col. 7)

103	Steel ingots and castings	609, 1954, II, part 2, 33A-14, 33A-19 ff. Avg. unit value of carbon, alloy, and stainless steel shipped for sale and interplant transfer weighted by total production of each.
202	Copper	649, 1957, 724.
203	Lead	649, 1957, 724.
204	Zinc	649, 1957, 724.
301.1	Hydroelectric power	649, 1957, 533.
302	Anthracite	649, 1957, 730.
303	Bituminous coal	649, 1957, 730.
304	Lignite	610, 12A-4. Total value of shipments.
305	Crude petroleum	649, 1957, 736.
306	Natural gas	649, 1957, 734. Value at wells.
401	Soda ash	601, 4. Code 06-11-65.
404	Sulfuric acid	601, 4. Code 06-11-09.
405.1	Phosphoric fertilizer	601, 4. Code 06-62-21.
405.2	Ammonium sulfate	601, 4. Code 06-61-16.
405.3	Potash fertilizer	601, 4. Code 06-63-11-0.1.
406	Ground natural phosphate	649, 1957, 723.
410	Red lead	1939 price (see col. 6) times white lead price ratio of 1954 to 1939 (1.37, from 601, 4, code 06-22-16, and 655, No. R 1069, 37).
416	Paper	609, 1954, II, part 1, 26 A-10-14. Avg. unit value of all kinds excl. construction paper and paperboard.
417	Paperboard	609, 1954, II, part 1, 26 A-14-16. Avg. unit value.
418	Motor vehicle tires	609, 1954, II, part 2, 30 A-12. Avg. unit value of pneumatic tires (casings) of passenger cars, trucks, and buses, incl. off-the-road.
501	Red bricks	608, 181. Wholesale price of common brick f.o.b. plant. Also, 601, 9.
505	Sand-lime, silica, and slag bricks	609, 1954, II, part 2, 32 E-15. Avg. value per sand-lime brick.
506	Cement	649, 1957, 722. Converted from barrels at 1 barrel = 170.55 kg.
507	Construction gypsum	649, 1957, 722.
508	Construction lime	649, 1957, 722.
510	Lumber	1947 avg. mill unit value (\$55/1,000 bd. ft. in 649, 1957, 703) divided by price ratio, 1955 to

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		1947 (1.241, from 608, 29). Converted from bd. ft. at 1 bd. ft. = 0.00236 m ³ .
512	Magnesite metallurgical powder	649, 1957, 722.
513	Roll roofing	609, 1954, II, part 1, 26 A-16. Avg. value per short ton of construction paper converted into m ² at 1 m ² = 1.48 kg.
516	Asbestos shingles	609, 1954, II, part 2, 32 E-14. Avg. value per 100 ft. ² of asbestos-cement shingles, clapboard, siding, and roofing shingles.
519	Window glass	609, 1954, II, part 2, 32 A-9. Avg. value per 1 ft. ² of flat window glass, single strength.
601	Crude alcohol	Price of ethyl alcohol (\$0.55/gallon, 601, 4) times ratio for distilled liquors of value added to value (0.5015, from 609, 1954, II, part 1, 20 G-3).
604	Hard leather	Avg. wholesale price of 3 kinds of sole leather (light bends, heavy bends, and bellies—\$0.465/ lb., 601, 3 ff) times 1939 ratio for leather of value added to value (0.498, 640, 75).
605	Soft leather	Avg. price of 3 kinds (upper, smooth side; upper, kip side; and upper, chrome tanned—\$0.613/ sq. ft., 601, 3 ff) times 1939 ratio for leather of value added to value (0.498, 640, 75).
1501	Flour	Avg. unit value of wheat flour, excl. blended or prepared (\$5.98/cwt., 609, 1954, II, part 1, 20 D-12) times ratio of value added to value (0.1695, from 609, 1954, II, part 1, 20 D-3).
1503	Butter	Value added and total shipments (609, 1954, II, part 1, 20 B-1, 20 B-16).
1504	Vegetable oil	Value added and output of crude cottonseed oil (609, 1954, II, part 1, 28 G-5, 28 G-1).
1506	Meat slaughtering	Value added and live weight of slaughtered cattle, calves, hogs, sheep, and lambs (609, 1954, II, part 1, 20 H-4, 20 A-3).
1507	Fish catch	Value and output of cured, dried, pickled, salted, smoked, and kippered fish (594, 585).
1509	Salt	649, 1957, 723.
1510	Raw sugar consumption	Value added and output of refined raw sugar and beet syrup and molasses (609, 1954, II, part 1, 20 F-3, 20 F-104).
1511	Starch and syrup	Unit value of corn syrup, corn starch, other starch incl. reprocessed, starch reprocessed from purchased stock, and dextrin (\$0.06717/ lb. from 609, 1954, II, part 1, 20 H-15-16) times ratio for corn wet milling of value added to value (0.3854, from 609, 1954, II, part 1, 20 H-4).
1513	Canned food	Avg. unit value of canned tomatoes, all kinds (\$0.1419/lb., 609, 1954, II, part 1, 20 C-19) times ratio for canned fruits and vegetables of value added to value (0.3725, from 609, 1954, II, part 1, 20 C-4).
1514	Beer	Value added of beer and ale (609, 1954, II, part 1, 20 G-2) and output (649, 1957, 805). Con- verted from barrels into hectoliters at 1 barrel = 1.1735 hectoliters.
1515	Cigarettes	Value added and output (609, 1954, II, part 1, 21 A-3). Also 649, 1957, 786, 807.

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1516	Low-grade tobacco	Value added and output of chewing and smoking tobacco (609, 1954, II, part 1, 21 A-3).
1604	Cotton fabrics	Avg. unit value of cotton broad-woven fabrics, gray goods (609, 1954, II, part 1, 22 B-15 ff, code 2233) times ratio of value added to (0.4042, from 609 1954, II, part 1, 22 B-5). Converted from yds to m ² ; then adjusted for width as in col. 4.
1607	Linen fabrics	Avg. unit value of flax or hemp woven goods and towels (609, 1954, II, part 1, 22 F-14) times ratio for linen goods of value added to value (0.4450, from 609, 1954, II, part 1, 22 F-14). No adjustment for width (see col. 4).
1609	Silk and rayon fabrics	Avg. unit value of rayon and related broad woven fabrics, gray goods (609, 1954, II, part 1, 22 B-19) times ratio for synthetic broad woven fabrics of value added to value (0.37, from 609, 1954, II, part 1, 22 B-5). For conversion and adjustment, see col. 4.
1611	Woolen and worsted fabrics	Avg. unit value of woolen and worsted apparel and nonapparel fabrics, excl. woven felt (609, 1954, II, part 1, 22 A-9) times ratio for woolen and worsted fabrics of value added to value (0.3546, from 609, 1954, II, part 1, 22 A-3). Converted from yds to m ² ; then adjusted for width as in col. 4.
1614	Felt footwear	Avg. value of 4 lbs. (see col. 4) of industrial felt (609, 1954, II, part 1, 22 F-12) times ratio for felt goods of value added to cost of materials (0.8122, from 609, 1954, II, part 1, 22 F-3).

APPENDIX D

TABLE D-9
VALUE-ADDED AND EMPLOYMENT WEIGHTS USED IN INDEXES FOR ALL CIVILIAN
INDUSTRIAL PRODUCTS

Code		Value Added, 1927/28 (mill. rubles) (1)	Value per Unit, 1927/28 (rubles) (2)	Employment, 1955 (per cent) (3)	Value per Unit, 1955 (rubles) (4)	
Ferrous mining and metals						
101	Pig iron	286.8	52.5	5.7	316	
102	Rolled steel		47.7		198	
103	Steel ingots and castings		70.9		246	
704	Iron ore		27.6			
706	Manganese ore		6.8			
		321.2				
Nonferrous mining and metals						
		18.2				
202	Copper		995		5,950	
203	Lead		675		7,150	
204	Zinc		700		3,150	
Fuel and electricity						
301	Electric power	274.4		1.5		
302	Anthracite	333.5	10.8	7.7	98	
303	Bituminous coal		9.8		77	
303.1	Coke		7.6		76	
304	Lignite		6.9		57	
305	Crude petroleum		287.3		28.7	52
306	Natural gas		0.058		0.105	
307	Oil shale	n.i.			39.7	
308	Peat	31.1			34	
		926.3		9.2		
Chemicals (incl. rubber and paper)						
				5.5		
401	Soda ash	25.5	73	n.i.	275	
402	Caustic soda		195		1,100	
404.1	Sulfuric acid		101.9		183	
405.1	Phosphoric fertilizer		39.9		135	
405.2	Ammonium sulfate		100		340	
405.3	Potash fertilizer		62.4		210	
406	Ground natural phosphate		12		42	
410	Red lead	1.7			7,300	
412	Synthetic dyes	10.7				
416	Paper	63.9	444		1,900	
417	Paperboard		275		1,780	
418	Motor vehicle tires		83		430	
1602	Rubber footwear		66.7		3.1	33
			168.5			

(continued)

PRODUCTION INDEXES AND WEIGHTS

TABLE D-9 (continued)

Code		Value Added, 1927/28 (mill. rubles) (1)	Value per Unit, 1927/28 (rubles) (2)	Employment, 1955 (per cent) (3)	Value per Unit, 1955 (rubles) (4)
Construction materials				18.1	
501	Red bricks		38		205
505	Sand-lime, silica, and slag bricks		38		160
507	Construction gypsum		11		100
508	Construction lime	88.8	15.4		100
512	Magnesite metall. powder		286.7		122
513	Roll roofing		0.355		1.035
516	Asbestos shingles		147		377
506	Cement	33.9			116
509	Industrial timber hauled	577.0			78
510	Lumber		28.6		77
511	Plywood	144.9	131.9		822
514	Roofing iron	28.1			748
518	Rails	4.4			72
519	Window glass	58.7			6.0
502	Fire-clay bricks	n.i.			179
503	Magnesite bricks	n.i.			355
504	Quartzite bricks	n.i.			227
		935.8			
Transportation equipment		60.8		11.3	
901	Automobiles		10,800		12,100
902	Trucks and buses		11,258		14,150
903	Diesel and electric locomotives		235,000		1,040,000
904	Steam locomotives		100,100		890,000
905	RR freight cars		5,450		36,500
906	RR passenger cars		16,400		245,700
907	Narrow-gauge RR cars	n.i.			10,500
908	Street and subway cars	n.i.			146,900
Agricultural machinery		83.6		6.9	
1001	Tractors		5,352		16,000
1002	Plows, tractor-drawn		135		2,225
1003	Paring plows, tractor- drawn		190		3,075
1004	Plows, horse-drawn		21.5		350
1005	Harrows, tractor-drawn		92.7		2,300
1006	Harrows, horse-drawn		20.9		350
1007	Cultivators, tractor-drawn		105		1,700
1008	Cultivators, horse-drawn	n.i.			170
1009	Drills, tractor-drawn		243.3		2,000
1010	Drills, horse-drawn		150		1,000
1013	Potato planters, tractor- drawn	n.i.			4,400

(continued)

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TABLE D-9 (continued)

Code		Value Added, 1927/28 (mill. rubles) (1)	Value per Unit, 1927/28 (rubles) (2)	Employment, 1955 (per cent) (3)	Value per Unit, 1955 (rubles) (4)
1014	Machines for planting seedlings	n.i.			7,350
1016	Grain combines	n.i.			20,500
1017	All other combines	n.i.			14,400
1018	Windrowers	n.i.			4,200
1019	Reapers, horse-drawn		163.3		840
1020	Cotton pickers	n.i.			22,700
1021	Haymowers, tractor-drawn		166		5,050
1022	Haymowers, horse-drawn		127.5		530
1023	Rakers, tractor-drawn	n.i.			2,680
1024	Rakers, horse-drawn		74		695
1025	Threshers, tractor-driven		2,272		6,055
1026	Threshers, horse-driven		245		650
1027	Grain-cleaning machines	n.i.			4,925
1028	Winnowers, horse-drawn		245		700
1029	Horse drivings		130		950
1030	Chaff and silo cutters	n.i.			1,455
	Miscellaneous machinery	45.4		9.7	
1101	Steam boilers (capacity)		103.4		181.4
1102	Water turbines (capacity)		46.9		120
1103	Steam and gas turbines (capacity)		34.3		87
1104	Locomotives (capacity)		151.1		680
1105	Diesel engines (capacity)		192.5		357
1106	Other internal combustion engines		176.4		245
1107	Turbogenerators (capacity)		24.3		40
1108	Hydroelectric generators		66		108
1109	Electric motors, A.C.		101.3		109
1110	Power transformers		18.8		11.2
1201	Coal-mining combines	n.i.			56,200
1202	Coal-cutting machines	n.i.			32,100
1203	Electric mining locomotives	n.i.			22,500
1204	Ore-loading machines	n.i.			59,700
1205	Deep-shaft pumps	n.i.			465
1206	Turbodrills	n.i.			13,000
1210	Machine tools		2,549		17,600
1211	Electric furnaces	n.i.			10,300
1212	Spinning machines		12,000		35,600
1213	Winding machines	n.i.			26,800
1214	Looms		900		7,400
1215	Cotton-carding machines		5,900		11,400
1216	Knitting machines		1,100		5,800
1217	Leather-spreading machines	n.i.			15,900
1218	Leather-dressing machines	n.i.			16,200
1219	Typesetting machines, linotype		10,700		31,000
1220	Flat-bed printing press		8,500		70,000

(continued)

PRODUCTION INDEXES AND WEIGHTS

TABLE D-9 (continued)

Code		Value Added, 1927/28 (mill. rubles) (1)	Value per Unit, 1927/28 (rubles) (2)	Employment, 1955 (per cent) (3)	Value per Unit, 1955 (rubles) (4)
1221	Industrial sewing machines		132		890
1222.1	Presses		400		3,100
1301	Excavators		129,400		97,500
1302	Trench excavators		18,200		12,000
1303	Stone crushers		20,600		24,000
1304	Road graders		5,900		8,000
1305	Self-propelled road graders	n.i.			60,000
1306	Concrete mixers		3,500		3,400
1307	Scrapers, tractor-driven	n.i.			27,300
1308	Bulldozers	n.i.			6,000
1309	RR cranes, steam	n.i.			126,000
1310	Self-propelled cranes	n.i.			48,000
1311	Overhead traveling cranes	n.i.			95,100
1312	Tower cranes	n.i.			55,000
1313	Electric elevators	n.i.			5,300
1401	Telephones		34		107.5
1402	Switchboards, hand-operated		29		69
1403	Switchboards, automatic		35		195
1405	Calculating machines		400		1,400
1406	Typewriters		500	n.i.	
	Food and allied products			9.3	
1501	Flour	511.5			178
1502	Macaroni		256		1,800
1503	Butter	} 214.7	429		1,950
1506	Meat		103		420
1513	Canned food		0.0564		0.50
1504	Vegetable oil	} 71.9	120		
1504.1	Oleomargarine		909	n.i.	2,600
1504.2	Vegetable oil minus oleomargarine	n.i.			1,600
1507	Fish catch	194.2			6,300
1508	Soap	44.8			1,282
1509	Salt	11.7			34.2
1510	Raw sugar consumption	210.8		n.i.	
1510.1	Refined sugar	n.i.			2,025
1510.2	Raw sugar minus refined sugar and sugar in candy	n.i.			825
1511	Starch and syrup	9.2			627
1514	Beer	52.2			76
1515	Cigarettes		1.3		11
1516	Low-grade tobacco	} 75.5	3.5		43
1517	Matches		20.6		27
1518	Vodka	} 108.9	14		250
601	Crude alcohol				110
1519	Candy	54.7	15.1		2,386
			1,580.7		

(continued)

APPENDIX D

TABLE D-9 (concluded)

Code		Value Added, 1927/28 (mill. rubles) (1)	Value per Unit, 1927/28 (rubles) (2)	Employment, 1955 (per cent) (3)	Value per Unit, 1955 (rubles) (4)
Textiles and allied products				17.0	
602	Ginned cotton	20.9		n.i.	
604	Hard leather	} 153.0	750		8,900
605	Soft leather		27		300
1601	Boots and shoes	248.0			10.7
1604	Cotton fabrics	909.5			0.82
1607	Linen fabrics	102.3			1.0
1609	Silk and rayon fabrics	42.9			2.3
1611	Woolen and worsted fabrics	217.1			6.8
1612	Knitted goods	n.i.			4.6
1613	Hosiery	n.i.			1.2
1614	Felt footwear	81.2			63
		1,774.9			
Consumer durables		8.6		3.1	
1701	Bicycles		162.5		580
1702	Cameras		45		720
1703	Electric light bulbs		0.45		1.25
1704	Phonographs		247		340
1705	Radios		122		300
1707	Household sewing machines		30.3		680
1708	Clocks and watches	n.i.			171.6
1709	Motorcycles		1,600		4,000
Total:		5,924.0		95.8	

n.i.: not included.

PRODUCTION INDEXES AND WEIGHTS

SOURCES AND DERIVATION OF TABLE D-9

Value Added, 1927/28 (col. 1)

In general, the value-added weights are taken from Table C-2. Value added for the following industrial categories was not used because no corresponding output series were available: petroleum refining; artificial gas; shipbuilding; metal products; extraction of minerals for the chemical, construction, and glass and china industries; pharmaceutical chemicals; china; extraction of all other minerals; miscellaneous wood products; primary processing of mixed fibers; hemp and jute products; knitted goods; garment industry; fur industry; printing, publishing, and stationery; "all others"; and district railroad repair shops. When the 1927/28 value of output as computed from outputs in Table B-2 and unit values in Table D-8 was within 10% of the value of output for that industry as given in Table C-2, the entire value added was used as a weight. When the computed value was not within this range, value added was multiplied by the ratio of computed to given (Table C-2) value of output. The following tabulation gives these ratios rounded to three decimal places:

Nonferrous mining and metallurgy	0.347
Electric power stations	2.241
Basic chemicals	0.591
Paints and varnishes	0.074
All other chemicals	0.228
Pulp and paper	0.723
Rubber	0.650
Glass	0.748
Electrical and industrial machinery	0.179
All other food	0.721
Grease, tallow, soap, and perfume	0.610
Beer and malt	0.857
Wine, yeast, and vodka	0.661
Confectionery	0.749
Felt products	0.837
Consumer durables	0.179

Value added for roofing iron and rails was computed as output (Table B-2) times unit value added (Table D-8).

Value added for tractors (derived as 3.1 mill. rubles from value of output times 0.45, the ratio for land transportation equipment of value added to value of output) was transferred from land transportation equipment to agricultural machinery.

Value added of electrical and industrial machinery was apportioned to miscellaneous machinery and consumer durables on the basis of computed value of output.

Value per Unit, 1927/28 (col. 2)

From Table D-8.

Employment, 1955 (col. 3)

Percentage breakdown of production workers (180, 24). The percentage for timber haulage, wood industry, and paper industry (14.7%) was apportioned as follows on the basis of computed value of output: (1) to the paper industry (2.3%), included under chemicals; (2) to timber, lumber, and plywood (12.2%), included under construction materials; and (3) to matches (0.2%), included under food and allied products. The percentage for machine building and metal products (31.0%) was apportioned as follows on the basis of computed value of output: (1) to transportation equipment (11.3%); (2) to agricultural machinery (6.9%); (3) to miscellaneous machinery (9.7%); and (4) to consumer durables (3.1%).

Value per Unit, 1955 (col. 4)

From Table D-8.

APPENDIX D

TABLE D-10
LIST OF SOVIET OUTPUT SERIES INCLUDED IN INDEXES OF
INDUSTRIAL PRODUCTION, 1913-1955
(entry indicates indexes in which series is included^a)

Code		Indexes for Industrial Materials		Indexes for Finished Industrial Products	Indexes for All Industrial Products
		Soviet Weights	U.S. Weights		
Intermediate industrial products					
	Ferrous metals				
101	Pig iron				Both
102	Rolled steel				Both
103	Steel ingots and castings	All	All		Both
704	Iron ore				Both
706	Manganese ore				Both
	Nonferrous metals				
202	Copper	All	All		Both
203	Lead	All	All		Both
204	Zinc	All	All		Both
	Fuel and electricity				
301	Electric power				Both
301.1	Hydroelectric power	B,C	All		
302	Anthracite	All	All		Both
303	Bituminous coal	All	All		Both
303.1	Coke				Both
304	Lignite	All	All		Both
305	Crude petroleum	All	All		Both
306	Natural gas	B,C	All		Both
307	Oil shale	B,C			C
308	Peat	All			Both
309	Firewood, consumption	All			
	Chemicals				
401	Soda ash	All	All		Both
402	Caustic soda				Both
404	Sulfuric acid	All	All		
404.1	Sulfuric acid not used in phosphoric fertilizer				Both
405.1	Phosphoric fertilizer	All	All		Both
405.2	Ammonium sulfate	All	All		Both
405.3	Potash fertilizer	All	All		Both
406	Ground natural phosphate	All	All		Both
410	Red lead	All	All		Both
412	Synthetic dyes				B
416	Paper	All	All		Both
417	Paperboard	All	All		Both
418	Motor vehicle tires	All	All		Both
1602	Rubber footwear ^p			Both	Both
	Construction materials				
501	Red bricks	All	All	Both	Both

(continued)

PRODUCTION INDEXES AND WEIGHTS

TABLE D-10 (continued)

Code		Indexes for Industrial Materials		Indexes for Finished Industrial Products	Indexes for All Industrial Products
		Soviet Weights	U.S. Weights		
502	Fire-clay bricks			C	C
503	Magnesite bricks			C	C
504	Quartzite bricks			C	C
505	Sand-lime, silica, and slag bricks	All	All	Both	Both
506	Cement	All	All	Both	Both
507	Construction gypsum	All	All	Both	Both
508	Construction lime	All	All	Both	Both
509	Industrial timber hauled				Both
510	Lumber	All	All	Both	Both
511	Plywood	All		Both	Both
512	Magnesite metallurgical powder	B,C	All	Both	Both
513	Roll roofing	All	All	Both	Both
514	Roofing iron			Both	Both
516	Asbestos shingles	B,C	All	Both	Both
518	Rails			Both	Both
519	Window glass	All	All	Both	Both
Machinery and equipment (excl. miscellaneous machinery)					
Transportation equipment					
901	Automobiles			Both	Both
902	Trucks and buses			Both	Both
903	Diesel and electric locomotives			Both	Both
904	Steam locomotives, main-line			Both	Both
905	Railroad freight cars			Both	Both
906	Railroad passenger cars			Both	Both
907	Railroad cars, narrow-gauge ^c			Both	C
908	Street and subway cars ^c			Both	C
Agricultural machinery					
1001	Tractors			Both	Both
1002	Tractor-drawn plows			Both	Both
1003	Tractor-drawn paring plows			Both	Both
1004	Horse-drawn plows			Both	Both
1005	Tractor-drawn harrows			Both	Both
1006	Horse-drawn harrows			Both	Both
1007	Tractor-drawn cultivators			Both	Both
1008	Horse-drawn cultivators ^c			Both	C
1009	Tractor-drawn drills			Both	Both
1010	Horse-drawn drills			Both	Both
1011	Combined plows and drills ^c			B	
1013	Tractor-drawn potato planters			C	C

(continued)

APPENDIX D

TABLE D-10 (continued)

Code		Indexes for Industrial Materials		Indexes for Finished Industrial Products	Indexes for All Industrial Products
		Soviet Weights	U.S. Weights		
1014	Machines for planting seedlings			C	C
1016	Grain combines			C	C
1017	Other combines			C	C
1018	Windrowers			C	C
1019	Horse-drawn reapers			Both	Both
1020	Cotton pickers			C	C
1021	Tractor-drawn haymowers			Both	Both
1022	Horse-drawn haymowers			Both	Both
1023	Tractor-drawn rakers			C	C
1024	Horse-drawn rakers			Both	Both
1025	Tractor-drawn threshers			Both	Both
1026	Horse-drawn threshers			Both	Both
1027	Grain-cleaning machines			C	C
1028	Horse-drawn winnowers			Both	Both
1029	Horse drivings			Both	Both
1030	Chaff and silo cutters			C	C
Miscellaneous machinery ^d					
Prime movers and electrical machinery					
1101	Steam boilers			Both	Both
1102	Water turbines			Both	Both
1103	Steam and gas turbines			Both	Both
1104	Locomotives ^c			Both	Both
1105	Diesel engines			Both	Both
1106	Other internal combustion engines ^c			Both	Both
1107	Turbogenerators ^c			Both	Both
1108	Hydroelectric generators			Both	Both
1109	Electric motors, A.C.			Both	Both
1110	Power transformers			Both	Both
Mining and industrial machinery					
1201	Coal-mining combines			C	C
1202	Coal-cutting machines			C	C
1203	Electric mining locomotives			C	C
1204	Ore-loading machines ^c			C	C
1205	Deep-shaft pumps ^c			C	C
1206	Turbodrills			C	C
1210	Machine tools			Both	Both
1211	Electric furnaces			C	C
1212	Spinning machines ^c			Both	Both
1213	Winding machines			C	C
1214	Looms			Both	Both
1215	Cotton-carding machines ^c			Both	Both
1216	Knitting machines ^c			Both	Both

(continued)

PRODUCTION INDEXES AND WEIGHTS

TABLE D-10 (continued)

Code		<i>Indexes for Industrial Materials</i>		Indexes for Finished Industrial Products	Indexes for All Industrial Products
		Soviet Weights	U.S. Weights		
1217	Leather-spreading machines			C	C
1218	Leather-dressing machines			C	C
1219	Typesetting machines, linotype			Both	Both
1220	Flat-bed printing presses			Both	Both
1221	Industrial sewing machines			Both	Both
1222.1	Presses			Both	Both
	Construction machinery				
1301	Excavators			Both	Both
1302	Trench excavators ^c			Both	Both
1303	Stone crushers ^c			Both	Both
1304	Road graders, not self-propelled ^c			Both	Both
1305	Self-propelled road graders			C	C
1306	Concrete mixers ^c			Both	Both
1307	Tractor-driven scrapers			C	C
1308	Bulldozers			C	C
1309	Railroad cranes, steam-operated			C	C
1310	Self-propelled cranes, not railroad cranes			C	C
1311	Overhead traveling cranes ^c			C	C
1312	Tower cranes			C	C
1313	Electric elevators ^c			C	C
	Machinery, n.e.c.				
1401	Telephones ^c			Both	Both
1402	Switchboards, hand-operated ^c			Both	Both
1403	Switchboards, automatic ^c			Both	Both
1405	Calculating machines ^c			Both	Both
1406	Typewriters ^c			B	B
	Consumer goods				
	Food and allied products				
1501	Flour	All	All	Both	Both
1502	Macaroni			Both	Both
1503	Butter	All	All	Both	Both
1504	Vegetable oil	All	All		B
1504.1	Oleomargarine			Both	Both
1504.2	Vegetable oil minus oleomargarine			Both	C

(continued)

APPENDIX D

TABLE D-10 (concluded)

Code		Indexes for Industrial Materials		Indexes for Finished Industrial Products	Indexes for All Industrial Products	
		Soviet Weights	U.S. Weights			
1506	Meat slaughtering	All	All	Both	Both	
1507	Fish catch	All	All	Both	Both	
1508	Soap			Both	Both	
1509	Salt	All	All	Both	Both	
1510	Raw sugar consumption	All	All		B	
1510.1	Refined sugar			Both	C	
1510.2	Raw sugar minus refined sugar and sugar in candy			Both	C	
1511	Starch and syrup	All	All	Both	Both	
1513	Canned food	All	All	Both	Both	
1514	Beer	All	D,F,G	Both	Both	
1515	Cigarettes	All	All	Both	Both	
1516	Low-grade tobacco	All	All	Both	Both	
1517	Matches			Both	Both	
1518	Vodka			Both	Both	
1519	Candy			Both	Both	
601	Crude alcohol	All	All		Both	
	Textiles and allied products					
1601	Boots and shoes			Both	Both	
602	Ginned cotton				B	
1604	Cotton fabrics	All	All	Both	Both	
1607	Linen fabrics	All	All	Both	Both	
1609	Silk and rayon fabrics	All	All	Both	Both	
1611	Woolen and worsted fabrics	All	All	Both	Both	
1612	Knitted goods ^c			C	C	
1613	Hosiery ^c			C	C	
1614	Felt footwear	All	All	Both	Both	
604	Hard leather	All	All		Both	
605	Soft leather	All	All		Both	
	Consumer durables					
1701	Bicycles			Both	Both	
1702	Cameras			Both	Both	
1703	Electric light bulbs			Both	Both	
1704	Phonographs			Both	Both	
1705	Radios			Both	Both	
1707	Household sewing machines			Both	Both	
1708	Clocks and watches			C	C	
1709	Motorcycles			Both	Both	

^a When series is included in all variants of the specified index, the word "all" or "both" is entered. Otherwise, variant in which series is included is indicated as follows: A, 1913 Soviet weights; B, 1928 Soviet weights; C, 1955 Soviet weights; D, 1914 U.S. weights; E, 1929 U.S. weights; F, 1939 U.S. weights; and G, 1954 U.S. weights.

^b Rubber footwear was included in textiles in the index for finished industrial products.

^c Output data missing for one or more benchmark years.

^d These items are included in illustrative indexes only, not in the basic indexes.

PRODUCTION INDEXES AND WEIGHTS

TABLE D-11
LIST OF RUSSIAN OUTPUT SERIES INCLUDED IN PRODUCTION
INDEX FOR INDUSTRIAL MATERIALS, 1860-1913

Code		Period Covered
103	Steel ingots and castings	1860-1913
202	Copper	1860-1913
203	Lead	1860-1913
204	Zinc	1860-1913
305	Crude petroleum	1860-1913
310	Coal	1860-1913
401	Soda ash	1860-1913
404	Sulfuric acid	1860-1913
405.1	Phosphoric fertilizer	1860-1913
411	Zinc oxide	1860-1913 ^a
420	White lead	1860-1913 ^a
501	Red bricks	1890-1913 ^a
506	Cement	1893-1913 ^a
518	Rails	1878-1913 ^a
519	Window glass	1900-1912 ^a
601	Crude alcohol	1859/60-1912/13
602.1	Ginned cotton consumption	1860-1913
1501	Flour	1888-1912 ^a
1504	Vegetable oil	1888-1913 ^a
1509	Salt	1860-1913
1510	Raw sugar	1859/60-1912/13
1511	Starch and syrup	1888-1913 ^a
1514	Beer	1896-1913 ^a
1515	Cigarettes	1860-1913
1516	Low-grade tobacco	1881-1913 ^a
1610	Woolen yarn	1893-1913 ^a

^a Output data missing for one or more benchmark years.

