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Chapter VIII, NIE 11-13-83, Volume II

Technical footnote (asterisk at the end of the first paragraph of the cost section.)

* There are basic methodological problems and pricing uncertainties in estimates of the ruble costs of equipping and maintaining Soviet strategic forces. "Constant 1970 rubles" as calculated by the direct costing methodology are basically different from both "constant" and current Soviet rubles which are used by the Soviets to construct military budgets and to set Soviet national priorities. Therefore, the absolute ruble values shown in this section probably do not correspond to Soviet estimates of the future costs of the ABM deployments. Thus, the cost data should not be used for any assessment of the economic burden of equipping and maintaining the ABM forces we have hypothesized. We believe, however, that the cost relationships between the several ABM deployment options and overall strategic forces approximates that which the Soviets would perceive. The Director, Defense Intelligence Agency believes that because of the basic methodological differences between direct costing in "constant 1970 rubles" and Soviet rubles, no judgments may be made either as to the relationships depicted between ABM costs and the overall costs of Soviet strategic programs or as to the relative costs of the alternative ABM programs postulated in this estimate.

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Table 1

USSR: GNP by Sector of Origin at Factor Cost
(billion 1970 Rubles)

	<u>1970</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>
GNP*	383.3	459.8	481.8	497.4	514.2	516.1	524.7	536.1	547.0
Industry	122.6	163.6	170.1	177.0	182.8	186.6	191.8	196.6	201.0
Agriculture	81.0	72.0	80.2	83.0	86.0	78.5	74.0	73.7	76.0
Construction	28.0	36.8	38.0	38.9	40.1	40.4	41.3	42.2	42.5
Transportation	33.4	45.8	47.8	48.8	51.1	52.3	54.3	56.4	57.1
Communications	3.3	4.7	5.0	5.3	5.6	5.9	6.2	6.5	6.7
Trade	28.0	35.0	36.3	37.6	38.8	39.6	40.8	41.8	42.1
Services	78.5	92.7	95.0	97.3	100.3	103.2	106.6	109.2	111.6
Other (including military personnel)	8.4	9.3	9.4	9.5	9.6	9.6	9.7	9.8	10.1

* Components may not add exactly to total because of rounding.

Table 2.

USSR: GNP by End Use at Factor Cost
(billion 1970 Rubles)

	<u>1970</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>
GNP*	383.3	459.8	481.8	497.4	514.2	516.1	524.7	536.1	547.0
Consumption	207.8	247.3	252.8	260.1	267.8	275.1	283.7	289.5	291.7
goods	133.1	158.6	161.4	166.7	171.2	175.8	181.5	184.9	185.0
services	74.6	88.7	91.4	93.4	96.6	99.4	102.2	104.6	106.7
Investment	108.2	140.6	151.8	159.5	165.5	168.0	172.2	178.5	183.2
Other	67.3	72.0	77.2	77.8	80.9	73.0	68.8	68.1	72.2

* Components may not add exactly to total because of rounding.

Table 3

USSR: Value Added in Industry at Factor Cost
(billion 1970 rubles)

	<u>1970</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>
Industry*	122.6	163.6	170.1	177.0	182.8	186.6	191.8	196.6	201.0
Ferrous metals	8.8	10.7	11.0	11.0	11.3	11.3	11.2	11.2	11.1
Nonferrous metals	4.8	6.4	6.6	6.8	6.9	7.1	7.2	7.3	7.3
Fuel	12.1	15.4	16.0	16.7	17.2	17.7	18.0	18.3	18.7
Electric power	8.3	11.7	12.5	12.9	13.5	13.9	14.6	14.9	15.4
Machinebuilding & metalworking	38.5	56.6	59.9	63.3	66.5	69.3	72.2	74.6	77.5
Chemicals	7.6	11.7	12.3	12.9	13.4	13.4	14.0	14.5	14.8
Wood, pulp, and paper	9.4	10.7	10.7	10.7	10.7	10.3	10.5	10.8	10.9
Construction materials	8.0	10.4	10.8	11.1	11.5	11.0	11.0	11.2	11.0
Light industry	9.8	11.2	11.6	11.9	12.2	12.4	12.7	13.0	13.0
Food industry	11.6	14.1	13.9	14.5	14.3	14.8	14.9	15.2	15.6
Other industry	3.6	4.8	4.9	5.1	5.3	5.4	5.6	5.7	5.8

* Components may not add exactly to total because of rounding.

Table 4

United States and USSR: Production of Selected
Commodities in Selected Years

	<u>1970</u>	<u>1975</u>	<u>1978</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>
Primary energy (million b/d oe)						
US	29.5	28.6	28.9	30.5	30.4	30.1
USSR	18.3	23.2	26.6	28.2	29.0	29.8**
Oil*						
(million b/d)						
US	11.3	10.0	10.3	10.2	10.2	10.3
USSR	7.1	9.8	11.4	12.0	12.2	12.3
Natural Gas (Dry)						
(trillion cubic feet)						
US	21.0	19.2	19.1	19.6	19.4	17.8
USSR	7.0	10.2	13.1	15.4	16.4	17.7
Coal						
(million metric tons)						
US	555.8	593.9	608.0	752.7	747.3	756.1
USSR	624.1	701.3	723.6	716.4	704.0	718.0
Electricity (gross)						
(billion kilowatt-hours)						
US**	1,743	2,131	2,436	2,438	2,448	2,387
USSR	741	1,039	1,202	1,294	1,326	1,366
Iron ore (million metric tons)						
US	91.2	80.1	82.9	70.7	75.5	37.0
USSR	197.1	234.7	246.2	245.0	242.0	244.0
Bauxite (thousand metric tons)						
US	2,125	1,800	1,669	1,559	1,510	700
USSR	6,700	8,000	8,800	9,100	9,100	9,000
Pig iron (million metric tons)						
US	83.0	72.5	79.6	62.3	67.3	39.1
USSR	85.9	103.0	110.7	107.0	108.0	107
Crude steel (million metric tons)						
US	119.3	105.8	124.3	101.5	108.8	65.7
USSR	115.9	141.3	151.5	148.0	149.0	147.0

* Including natural gas liquids.

** Estimated.

Table 4 (cont.)

	<u>1970</u>	<u>1975</u>	<u>1978</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>
Refined copper (thousand metric tons)						
US	2,074	1,632	1,869	1,726	2,026	1684.0
USSR	1,015	1,320	1,460	1,520	1,530	1510.0
Primary aluminum (thousand metric tons)						
US	3,607	3,519	4,358	4,654	4,489	3,274
USSR	1,490	2,130	2,330	2,460	2,475	2,490
Lead (thousand metric tons)						
US	605	577	565	550	500	515
USSR	470	540	580	600	600	560
Refined zinc (thousand metric tons)						
US	866	450	441	370	345	298
USSR	690	820	875	900	900	820
Gold (million troy ounces)						
US	1.7	1.0	1.0	1.0	1.3	1.4
USSR	7.0	8.3	9.5	10.2	10.4	10.6
Synthetic ammonia (million metric tons of N)						
US	10.3	12.2	12.8	14.7	14.2	11.5
USSR	6.3	9.9	11.5	13.8	14.6	15.4
Mineral fertilizer (million metric tons, nutrient content)						
US	14.8	17.1	19.0	22.5	23.2	19.2
USSR	13.1	22.0	23.7	24.8	26.0	26.7
Nitrogen fertilizer (million metric tons of N)						
US	7.6	8.5	9.5	11.2	11.8	10.5
USSR	5.4	8.5	9.3	10.2	10.9	11.2
Plastics (million metric tons)						
US	9.7	10.2	12.4	12.8	13.1	12.4
USSR	1.7	1.8	3.5	3.6	4.1	4.1
Synthetic rubber (million metric tons)						
US	2.2	2.0	2.7	2.2	2.2	1.8
USSR	0.9	1.4	1.8	1.9	1.9	1.8
Woven cotton fabrics						
US (billion linear meters)	5.7	3.7	3.7	3.4	3.6	3.0
USSR (billion square meters)	6.2	6.6	7.0	7.1	7.2	7.1

Table 4 (cont.)

	<u>1970</u>	<u>1975</u>	<u>1978</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>
Tractors (thousands)						
US	191.7	232.0	197.3	155.4	151.0	97.4
USSR	458.5	550.4	576.1	555.0	559.0	555.0
Automobiles (millions)						
US	6.5	6.7	9.2	6.4	6.2	5.0
USSR	0.3	1.2	1.3	1.3	1.3	1.3
Trucks and buses (millions)						
US	1.7	2.3	3.7	1.7	1.7	1.9
USSR	0.6	0.8	0.8	0.9	0.9	0.9
Cement (million metric tons)						
US	67.4	61.8	76.2	69.8	66.1	57.5
USSR	95.2	122.1	127.0	125.0	127.0	124.0
Grain (million metric tons)						
US	186.7	249.2	276.5	269.7	333.4	339.0
USSR	186.8	140.1	237.4	189.1	158	180 ^a
Wheat (million metric tons)						
US	36.8	57.9	48.3	64.5	76.0	76.4
USSR	99.7	66.2	120.8	98.2	81.0	86 ^a
Coarse grain (million metric tons)						
US	146.1	185.5	222.1	198.6	248.9	255.5
USSR ^b	85.8	71.9	114.5	88.3	75.0	83.6
Potatoes (million metric tons)						
US	14.8	14.6	16.6	13.6	13.9	15.6
USSR	96.8	88.7	86.1	67.0	72.0	78.0
Sugar (million metric tons)						
US	5.3	6.0	5.1	5.3	5.6	5.4
USSR	11.1	11.3	13.3	11.0	10.3	13.2
Meat (million metric tons)						
US	22.5	23.0	25.0	24.3	24.5	23.8
USSR	12.3	15.0	15.5	15.0	15.2	15.2
Milk (million metric tons)						
US	53.3	52.3	55.1	58.3	60.2	61.6
USSR	83.0	90.8	94.7	90.9	88.5	90.1
Ginned cotton (thousand metric tons)						
US	2,219	1,808	2,364	2,422	3,426	2,602
USSR	2,343	2,674	2,669	2,858	2,947	2,738

^a USDA estimate

^b Excluding rice

Table 5

USSR: Selected Indicators of Agricultural Output

	<u>1970</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>
Value of output ^a (billion rubles)	83.6	82.0	88.6	92.8	95.8	89.8	86.9	87.2	90.0
Commodity Production (million metric tons)									
Grain ^b	186.8	140.1	223.8	195.7	237.4	179.3	189.1	158.0 ^c	180.0 ^d
Potatoes	96.8	88.7	85.1	83.7	86.1	91.0	67.0	72.1	78.0
Sugar beets	78.9	66.3	99.9	93.1	93.5	76.2	81.0	60.8	71.3
Sunflower seed	6.14	4.99	5.28	5.90	5.33	5.41	4.62	4.68	5.30
Cotton	6.89	7.86	8.28	8.76	8.50	9.16	9.96	9.64	9.28
Vegetables	21.2	23.4	25.0	24.1	27.9	27.2	27.3	27.1	29.2
Meat	12.3	15.0	13.6	14.7	15.5	15.3	15.1	15.2	15.2
Milk	83.0	90.8	89.7	94.9	94.7	93.2	90.9	88.9	90.1
Wool	.419	.467	.435	.459	.467	.478	.461	.460	.460
Eggs (billions)	40.7	57.4	56.2	61.2	64.5	65.8	67.9	70.9	72.1

^a Net of feed, seed, and waste in constant 1970 prices.

^b Bunker weight. To be comparable to Western measures, an average reduction of 11 percent is required.

^c Unofficially reported.

^d USDA estimate

Table 6

USSR: Freight Turnover by Transport Mode
(billions of ton/kilometers)

<u>Year</u>	<u>Total All Modes</u>	<u>Railroads</u>	<u>Roads</u>	<u>Inland Waterways</u>	<u>Maritime</u>	<u>Pipelines (Oil & Oil Products)</u>	<u>Air</u>
1970	3829.2	2494.7	220.8	174.0	656.1	281.7	1.88
1975	5200.9	3236.5	337.9	221.7	736.3	665.9	2.59
1976	5432.7	3295.4	355.1	222.7	762.2	794.6	2.71
1977	5632.7	3330.9	373.3	230.7	772.6	922.4	2.80
1978	5948.7	3429.4	396.0	243.7	827.6	1049.1	2.86
1979	5986.3	3349.3	409.6	232.7	851.1	1140.7	2.91
1980	6184.2	3439.9	432.1	244.9	848.2	1216.0	3.09
1981	6337.4	3503.2	458.9	255.6	853.4	1263.2	3.08
1982	6328.4	3464.2	464.0	262.5	827.9	1306.8	3.03

Table 7
USSR: Estimated Hard Currency Balance of Payments

	(Million current US dollars)									
	1970	1975	1976	1977	1978	1979	1980	1981	1982	
Current account balance	260	-4,607	-3,216	462	422	2,178	1,904	-100	4,508	
Trade balance	-560	-6,297	-5,253	-2,942	-3,690	-2,018	-2,486	-4,000	-992	
Exports, f.o.b.	2,424	8,280	10,225	11,863	13,336	19,417	23,584	23,778	26,552	
Imports, f.o.b.	2,984	14,577	15,478	14,805	17,026	21,435	26,070	27,778	27,544	
Additional military deliveries to LDCs, f.o.b. ^a	400	1,500	1,850	3,220	3,965	3,855	4,200	4,200	5,900	
Net interest	-80	-570	-724	-848	-881	-799	-710	-1,300	-1,500	
Other invisibles and transfers	500	760	911	1,032	1,028	1,140	900	1,000	1,100	
Capital account balance	Negl.	6,522	3,888	2,830	1,734	338	1,628	5,940	-1,270	
Gross drawings ^b	NA	6,371	5,495	2,857	3,096	4,474	2,865	6,300	2,600	
Government backed	450	1,972	2,450	1,991	2,565	2,410	2,195	2,100	2,800	
Commercial	NA	4,399	3,045	866	531	2,064	670	4,200	-200	
Repayments	NA	969	1,365	1,955	2,332	2,800	3,051	3,200	3,400	
Government backed	160	730	1,035	1,285	1,456	1,702	1,915	2,000	2,100	
Commercial	NA	239	330	670	876	1,098	1,136	1,200	1,300	
Net change in assets held in Western banks	NA	-395	1,611	-310	1,552	2,826	-234	-140	1,570	
Gold sales	Negl.	725	1,359	1,618	2,522	1,490	1,580	2,700	1,100	
Net errors and omissions ^c	NA	-1,915	-672	-3,292	-2,156	-2,516	-3,532	-5,840	-3,238	

^a These estimates exclude the value of arms-related commercial exports included in the reporting on Soviet exports to individual LDCs, which we estimate at about \$2 billion in 1981. They are based on the reported export residuals in published Soviet data on trade with LDCs (i.e., the difference between Soviet reported aggregate exports to the LDCs and Soviet reporting on exports to individual LDCs). The export residuals were reduced by the estimated value of Soviet exports of major arms systems to non-hard currency paying LDCs on a f.o.b. basis. The estimates also excludes the value of follow-on services, which may be substantial.

^b Including additions to short-term debt.

^c Reflects hard currency assistance to other Communist countries; hard currency trade with other Communist countries; hard currency credits to LDCs to finance Soviet sales of machinery and equipment (including military equipment); and credits to developed Western countries to finance sales of oil and other commodities, as well as errors in other line items of the accounts.

Table 8

USSR: Estimated Hard Currency Debt to the West

(Million US dollars, yearend)

	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982^a</u>
Gross debt	10,577	14,707	15,609	16,373	18,047	17,861	20,900	20,100
Commercial debt	6,947	9,662	9,858	9,513	10,479	10,013	13,000	11,500
Government and government-backed debt	3,630	5,045	5,751	6,860	7,568	7,848	7,900	8,600
Assets in Western banks	3,127	4,738	4,428	5,980	8,806	8,572	8,430	10,000
Net debt	7,450	9,969	11,181	10,393	9,241	9,289	12,470	10,100

^a Provisional estimate.

Table 9

USSR: Foreign Trade by Major Region

(million current rubles)

	<u>1970</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>
Total Exports	11,520	24,034	28,022	33,255	35,668	42,426	49,635	57,108	63,165
Communist Countries	7,530	14,584	16,448	19,101	21,254	23,628	26,903	31,192	34,136
Developed West	2,154	6,140	7,834	8,817	8,699	12,506	15,862	17,247	18,849
Less Developed Countries ^a	1,836	3,310	3,740	5,337	5,715	6,292	6,870	8,669	10,180
Total Imports	10,559	26,671	28,731	30,092	34,556	37,864	44,463	52,631	56,411
Communist Countries	6,873	13,968	15,104	17,171	20,744	21,427	23,650	26,742	30,816
Developed West	2,540	9,704	10,822	9,924	10,981	13,248	15,721	18,112	18,892
Less Developed Countries	1,146	2,999	2,805	2,997	2,831	3,189	5,092	7,777	6,703

^a Including exports of military goods, which rose from an estimated 944 million rubles in 1970 to 5,352 million rubles in 1981 and 6,600 million rubles in 1982.

Table 10
USSR: Average Annual Growth of Per-Capita Consumption
(1970 established prices)

	Percent								
	<u>1966-70</u>	<u>1971-75</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982^a</u>
Total consumption	5.1	2.8	1.8	2.3	2.4	2.4	3.0	1.1	-0.7
Food	4.3	1.6	0	1.3	2.0	1.5	2.1	-0.5	-1.0
Soft goods	7.1	3.0	3.6	2.7	2.0	3.5	3.7	1.9	-0.6
Durables	9.1	10.0	5.6	8.0	3.3	3.6	6.7	5.3	-3.5
Services	5.8	4.6	3.8	1.7	3.8	3.8	3.8	2.6	2.1
Housing	2.1	1.7	1.4	1.4	1.4	1.3	1.2	0.8	1.2
Utilities	5.4	5.3	5.1	3.0	3.8	3.3	3.7	2.3	2.9
Transportation	8.0	6.1	5.0	-1.3	3.0	3.6	3.0	2.5	1.2
Communications	7.8	6.3	5.5	4.7	4.5	4.9	4.7	3.7	2.3
Repair and Personal care	8.4	5.7	5.0	4.1	6.2	6.1	6.1	4.4	3.5
Recreation	1.6	0.6	-2.5	-0.4	1.7	0.9	1.9	-0.4	-0.3
Health	3.2	1.4	0.9	0.8	2.9	0.7	0.1	-0.7	0.3
Education	5.8	1.4	1.6	1.2	2.2	1.2	1.7	0	0.1

^a Preliminary.

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Table 11
United States and USSR: Production of Selected Consumer Goods

	1970	1975	1976	1977	1978	1979	1980	1981	1982
Food									
Grain^a (kilograms per capita)									
US ^b	910	1,154	1,197	1,208	1,242	1,345	1,184	1,450	1,461
USSR ^c	769	551	872	756	908	681	712	590	667
Meat^d (kilograms per capita)									
US	110	106	117	114	112	104	107	107	103
USSR	51	59	53	57	59	58	57	57	56
Transportation									
Passenger automobile production^e (units per hundred persons)									
US	3.19	3.11	3.95	4.18	4.12	3.74	2.81	2.71	2.18
USSR	0.14	0.47	0.48	0.49	0.50	0.50	0.50	0.49	0.48
Household equipment									
Washing machine production^e (units per thousand persons)									
US	20	20	21	23	23	22	20	19	17
USSR	22	13	14	14	14	14	14	15	15
Washing machines in use^f (units per thousand persons)									
US ^g	194	238	248	256	263	273	280	287	291
USSR	141	189	195	200	203	205	205	205	205
Refrigerator production (units per thousand persons)									
US ^e	26	21	22	26	26	25	23	21	19
USSR	17	22	23	22	23	23	22	22	22
Refrigerators in use^f (units per thousand persons)									
US ^g	336	340	344	349	349	352	352	352	349
USSR	89	178	194	210	225	240	252	262	268

^a The data do not necessarily represent food available for consumption, because imports of foreign grain and exports of domestically produced grain are not included.

^b Excluding corn silage and forage but including sorghum for grain.

^c Including miscellaneous grains and pulses. Measured in bunker weight, i.e., gross output from the combine which includes excess moisture, unripe and damaged kernels, weed seeds, and other trash. For comparison with US or other country grain output, an average discount of 11 percent should be applied.

^d Data are on a slaughter weight, bone-in basis.

^e Data are for factory sales and include complete units exported for assembly.

^f As of the end of the year.

^g Data are understated because they are based on the number of households with one or more units; thus, a household with more than one is counted as having only one.

Table 12

USSR: Average Annual Employment by Sector
(thousands)

Sector of the Economy	1970	1975	1980	1981	1982
Total	103,774	113,942	121,990	122,988	123,932
Industry	31,593	34,054	36,891	37,236	37,550
Construction	9,052	10,574	11,240	11,298	11,321
Socialized agriculture	23,440	22,756	21,600	21,300	21,141
Transport and communications	9,315	10,743	11,958	12,172	12,375
Trade, public dining, sales & material technical supply, procurement	7,537	8,857	9,694	9,828	9,880
Health, education, social security, cultural arts, science & scientific services	16,561	19,196	21,515	21,909	22,275
Government administration, credit & insurance organizations	2,226	2,707	3,144	3,218	3,265
Other (housing, personnel services, etc.)	4,050	5,055	5,948	6,027	6,125

Table 13

USSR: Gross Fixed Capital Investment*

	(Billion rubles, 1973 prices)								
	<u>1970</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>
Total investment**	80.7	112.9	118.0	122.3	129.7	130.7	133.7	138.8	141.7
of which									
State	69.2	98.0	103.0	106.9	113.9	114.6	117.7	122.7	125.4
Collective farms	7.6	10.7	11.0	11.3	11.6	11.8	11.9	11.9	12.0
Cooperative enterprises and organizations	2.2	2.4	2.3	2.5	2.5	2.5	2.5	2.5	2.7
Private housing and apartments	1.6	1.8	1.7	1.7	1.7	1.7	1.6	1.7	1.6
Industry	28.5	39.7	41.6	43.5	45.6	45.7	47.6	49.9	NA
Agriculture	14.3	23.3	24.3	24.9	25.8	25.3	26.9	27.5	NA
Transport and communications	8.0	12.7	13.3	13.9	16.3	16.2	16.1	16.8	NA
Construction	3.0	4.3	5.0	4.7	5.2	5.3	5.4	5.8	NA
Other	26.9	32.9	33.8	35.3	36.8	37.2	37.7	38.8	NA

* Source: IDI Reference Aid, SOV 82-10093 (Unclassified), August 1982, Soviet Statistics on Capital Formation and N.kh. SSSR, 1922-1982.

** Components may not add exactly because of rounding.

Table 14

USSR: Growth of GNP and Factor Productivity
(average annual percentage change)

	<u>1966-70^a</u>	<u>1971-75^a</u>	<u>1976-80^a</u>	<u>1981</u>	<u>1982</u>
Gross national product ^b	5.3	3.7	2.7	2.2	2.0
Combined inputs ^c	4.1	4.2	3.6	3.2	3.1
Manhours	2.0	1.7	1.3	1.0	1.1
Capital	7.4	8.0	6.9	6.7	6.1
Land	-0.3	0.8	Neg.	Neg.	Neg.
Total factor productivity	1.1	-0.5	-0.8	-1.0	-1.0
Manhour productivity	3.2	2.0	1.3	1.2	-0.9
Capital productivity	-2.0	-4.0	-4.0	-4.2	-3.8

^a For computing average annual rates of growth, the base year is the year prior to the stated period

^b Based on indexes of GNP (1970 rubles), by sector of origin, at factor cost.

^c Inputs of manhours, capital, and land are combined using weights of 55.8 percent, 41.2 percent, 3.0 percent, respectively, in a Cobb-Douglas (linear homogeneous) production function. These weights represent the distribution of labor costs (wages, other income, and social insurance deductions), capital costs (depreciation and a calculated capital charge), and land rent in 1970, the base year for all indexes underlying the growth rate calculations.

Table 15

USSR: Growth of Industrial Output and Factor Productivity
(average annual percentage change)

	<u>1966-70^a</u>	<u>1971-75^a</u>	<u>1976-80^a</u>	<u>1981</u>	<u>1982</u>
Industrial production	6.3	5.9	3.2	2.5	2.2
Combined inputs ^b	5.7	4.9	4.5	4.1	3.6
Manhours	3.1	1.5	1.6	0.9	0.7
Capital	8.8	8.7	7.7	7.8	6.9
Total factor productivity	0.5	1.0	-1.2	-1.6	-1.3
Manhour productivity	3.1	4.4	1.6	1.6	1.5
Capital productivity	-2.3	-2.6	-4.2	-4.9	-4.3

^a For computing the average annual rates of growth, the base year is the year prior to the stated period.

^b Inputs of manhours and capital are combined using weights of 52.4 percent and 47.6 percent, respectively, in a Cobb-Douglas (linear homogeneous) production function. These weights represent the distribution of labor costs (wages and social insurance deductions) and capital costs (depreciation and a capital charge) in 1970, the base year for all indexes underlying the growth rate calculations.