

Prices, Labor Market, Finance, Credit, External Economic Relations in CPE. Was Soviet Economy a Planned One?

- **Prices in CPE**

 - The role of money and prices*

 - Private (individual) sector, collective farm market and cooperative trade*

 - Consumer goods market*

 - Black market*

 - Enterprises' incentive funds*

 - Prices and “normatives”*

- **Labor market and wages**

 - Labor force, employment, unemployment*

 - Wages*

 - Income distribution*

- **Finance, money, credit and banking**

- **External economic ties**

- **Was CPE a planned one?**

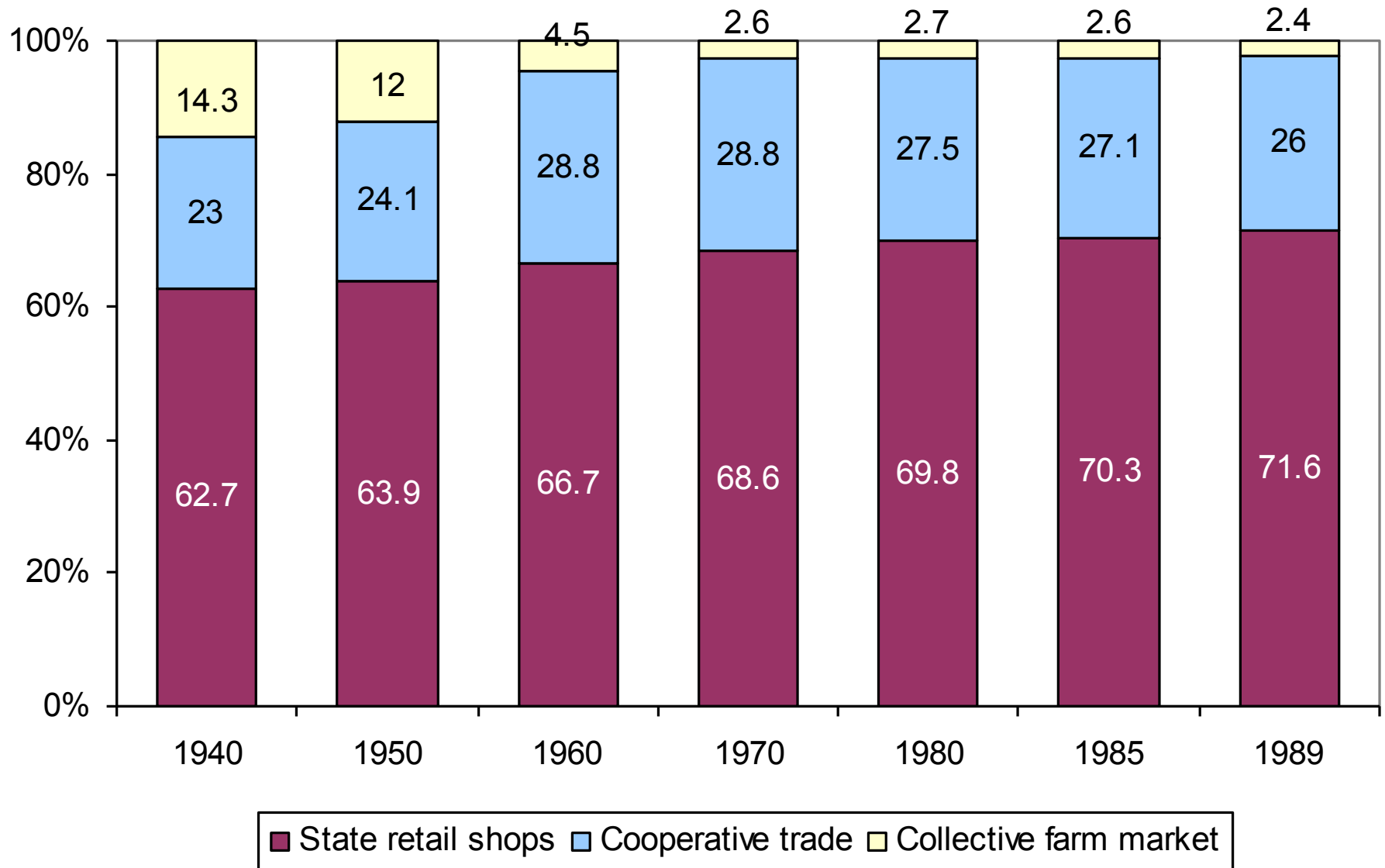
Prices of foods in consumer cooperative trade and at the collective farm markets, as compared to state retail trade prices (100%)

Year	1940	1970	1980	1985	1989
All goods					
- consumer cooperatives			171	194	201
- collective farm market ^a	/175	/168	225/257	240/263	261/294
Meat & poultry					
- consumer cooperatives			185	211	214
- collective farm market ^a	/155	/185	215/239	243/253	289/284
Butter					
- consumer cooperatives			128	187	190
- collective farm market ^a			151/-	203/-	224/-
Potatoes					
- consumer cooperatives			238	264	236
- collective farm market ^a	/328	/183	390/360	426/351	358/379
Vegetables					
- consumer cooperatives			155	157	160
- collective farm market ^a	/319	/168	277/250	280/269	281/283
Fruits and berries					
- consumer cooperatives			152	143	157
- collective farm market ^a	/100	/138	241/-	247/-	257/-

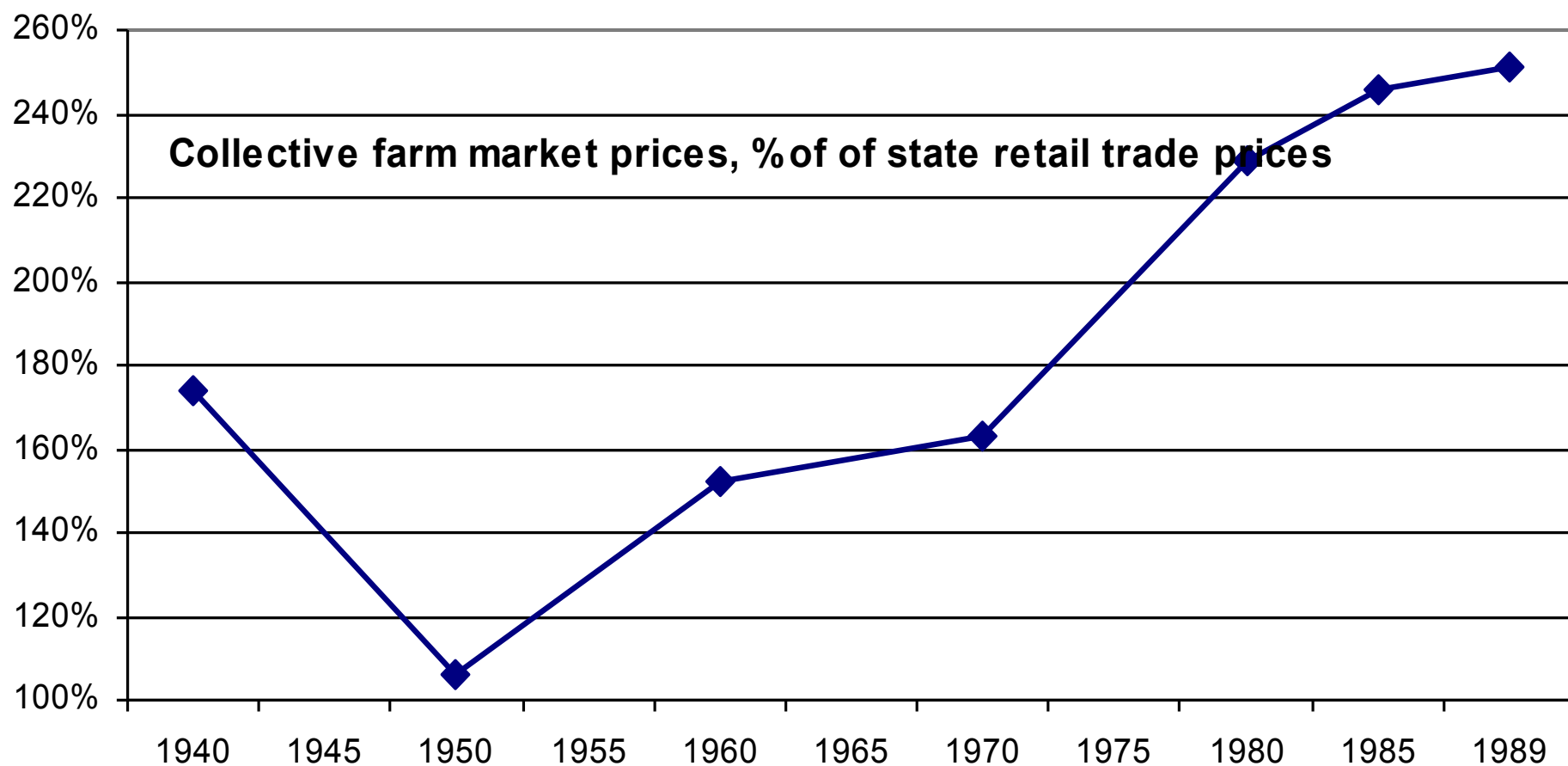
^a The first figure stands for comparison through cooperative prices, the second - for direct comparison.

Source: *Narodnoye Khozyaistvo SSSR* (National Economy of the USSR) for various years.

Collective farm market and cooperative trade



Prices of state trade and collective farm market



Turnover tax revenue, 1989, by industry

Industry	Total, billion rubles	As a % of total	As a % of net output ^a
Total	111.1	100.0	
Heavy industry	36.5	32.9	
-Metallurgy	0.6	0.5	2.5
-Petroleum products	12.0	10.8	60.9
-Chemical and petrochemical	4.3	3.8	24.6
-Chemical industry	2.0	1.8	
-Petrochemicals	2.3	2.1	
-Electric power	2.4	2.1	25.9
-Machine building	6.6	6.0	7.0
-Forestry industry	0.4	0.3	2.4
-Building materials	1.3	1.2	11.3
-Other ^b	9.0	8.1	
Light industry	19.8	17.9	68.4
-Textiles	9.3	8.4	
-Footwear	1.9	1.7	
-Knitwear	5.4	4.9	
-Other	3.2	2.9	
Food and beverages industry	52.0	46.8	227.9
-Fats and oils	1.6	1.4	
-Confectionary	1.7	1.6	
-Alcoholic beverages	41.9	37.7	
-Beer	1.8	1.6	
-Spirits	31.0	27.9	
-Wine	9.1	8.2	
-Tobacco products	1.8	1.6	
-Grain products	1.9	1.7	
-Other	3.1	2.8	
Other industry	3.4	3.0	
Refunds	(0.6)	(0.5)	

^a In wholesale prices of enterprises, excluding turnover tax.

^b Includes main directorate for diamonds and gold.

Source: *A Study of the Soviet Economy*. IMF, World Bank, OECD, EBRD. 1991. Vol. 1, p. 286.

Subsidies to producers and consumers, 1989

Item	Billion rubles	As a % of GNP
Total subsidies	126.5	13.7
Budget subsidies to domestic producers and consumers	103.0	11.1
-Agro-industrial complex	91.1	9.9
-Food production	55.6	6.0
-meat & milk products	39.8	4.3
-other	15.8	1.7
-Farmers	32.0	3.5
-Subsidies for fodder, seeds, fertilizers, tractors, etc.	3.5	0.4
-Other subsidies to consumers (housing, utilities, theatres, etc.)	4.4	0.5
-Subsidies to heavy industry (coal, thermal energy, etc.)	7.5	0.8
Agricultural price support fund	9.3	1.0
Subsidies for foreign economic activity (trade subsidies)	11.7	1.3
Subsidies financial by tax offsets or outside the budget (construction of farmers markets, children's clothing, Ministry of non-ferrous metals	2.5	0.3

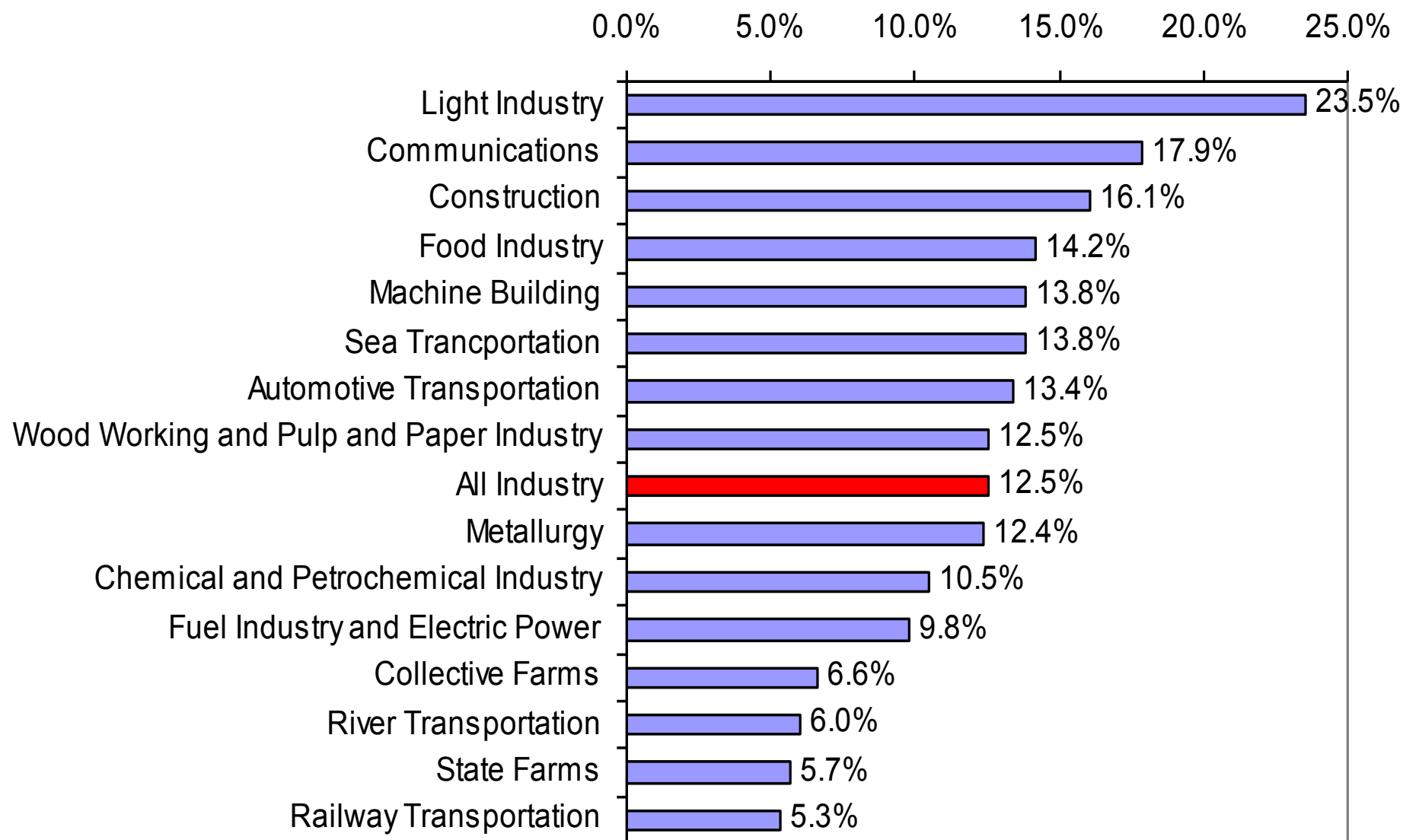
Source: *A Study of the Soviet Economy*. IMF, World Bank, OECD, EBRD, 1991. Vol. 1, p. 290-291.

Enterprises making losses, by industry

Loss-making enterprises, as a % of total number	1980	1985	1989
Industry	16	13	7
Agriculture (state farms)	56	23	4
Construction	31	23	6
Communications	10	12	1
Supply	26	19	19
Personal services	27	28	10
Total losses			
- billion rubles	13.6	6.5	1.1
- as a % of total profits	13.6	6.5	1.1

Source: *Narodnoye Khozyaistvo SSSR v 1989 gody* (National Economy of the USSR in 1989). Moscow, 1990, p. 623.

Profitability of key economic sectors in 1986, %



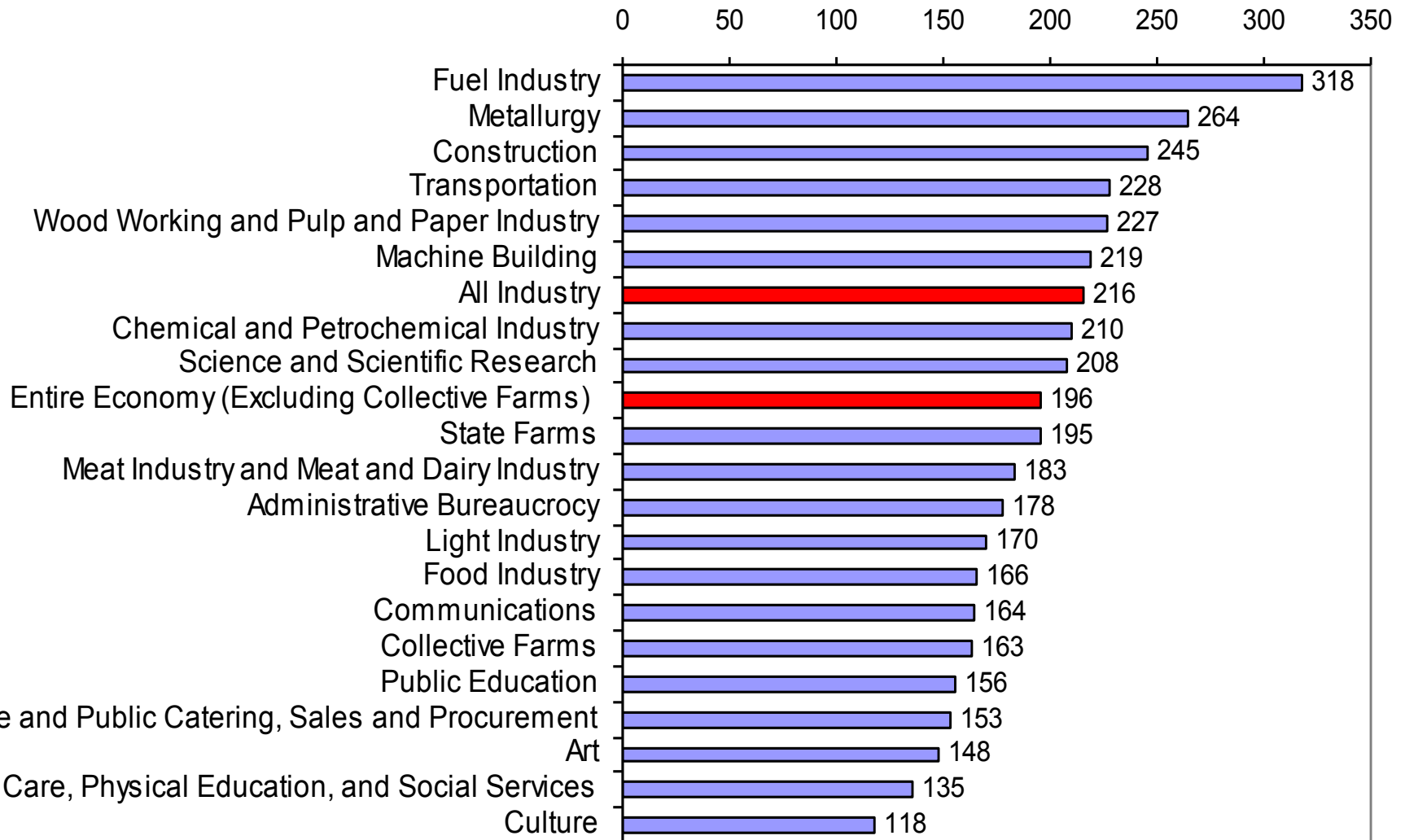
Labor force and employment, million people

Item	Official data, 1989		Shatalin's program estimate, January, 1990	
	total	as a % of labor force	total	as a % of labor force
Labor force (1)	163.0		164	
Employment (2)	139.3	85.0	139.3	85.0
- state enterprises	120.1	73.3		
- collective farms	11.6	7.1		
- cooperatives (not including part-time workers)	3.1	1.9		
- private plots	4.2	2.6		
- individual labor activity	0.3	0.2		
Students, not working (3)	11.7	7.1	11	6.7
Not working (4)	12.9	7.9	13.7	8.4
- military	4.0	2.4		
- women raising children and keeping the house	4.9	3.0		
- "temporally not working" (frictional and seasonal unemployment, not working disabled of III group, others)	4.0	2.4		
Unemployment			6.0	3.7
- frictional	-	-	1.5	0.9
- permanent	-	-	4.5	2.7

(1)=(2)+(3)+(4)

Source: *Narodnoye Khozyaistvo SSSR v 1989 godu* (National Economy of the USSR in 1989). Moscow, 1990, p. 47; *Perekhod k Rynku. Contseptsia i Programma* (Transition to the Market. Concept and Program). Moscow, 1990, p. 111.

Average monthly wages by industry in 1986, rubles



Distribution of Soviet families according to income

Percentage of families with an average monthly income per person of (rubles):	1980	1985	1989
- less than 50	7.3	4.3	2.8
- 50.1 - 75.0	18.5	13.6	8.3
- 75.1 - 100.0	23.2	19.8	13.7
- 100.1 - 125.0	19.5	19.3	16.1
- 125.1 - 150.0	13.2	15.0	15.2
- 150.1 - 175.0	8.2	10.4	12.6
- 175.1 - 200.0	4.7	6.7	9.5
- 200.1 - 250.0	4.1	6.9	11.8
- over 250	1.3	4.0	10.0
Approximate decile coefficient	5.1	4.5	4.9
Average monthly income per person, rubles	109.6	125.8	149.6

Source: *Narodnoye Khozyaistvo SSSR v 1989 godu* (National Economy of the USSR in 1989), Moscow, 1990, p. 89.

Distribution of income in the Soviet Union and other countries

Country	Decile coefficient		Gini ratio	
	Before tax	After tax	Before tax	After tax
USSR, non farm households, 1967	4.5			
USSR, urban households, 1972-74		7.1		
USSR, monetary income, 1975		6.2	0.27(1989)	0.30
USSR, including non-monetary income (privileges), 1975		8.2		0.34
Sweden, 1973-74	8.2 (1979)	5.9 (1972)	0.35	0.30
Norway, 1970	6.7	4.8	0.35	0.31
United Kingdom, 1973	6.8	5.4	0.34	0.32
Australia, 1966-67	7.3	7.3	0.31	0.31
West Germany, 1973		9.9(1974)	0.40	0.38
Japan, 1968			0.41	0.40
Canada, 1969	12.6	9.2	0.38	0.35
United States, 1972	15.9	11.7	0.40	0.38
France, 1970	15.9	16.4	0.42	0.41
Bangladesh, 1971		10.1		0.35
India, 1975		13.4		0.42
Iran, 1973		29.8		0.52
Mexico, 1968		66.7		0.56
Brazil, 1972		84.3		0.61

Source: Bergston A. "Income Inequality Under Soviet Socialism." - *Journal of Economic Literature*. Sept. 1984, pp. 1070,1072; Gardner S. *Comparative Economic Systems*. The Dryden press. Chicago, N.Y, 474-475; *A Study of Soviet Economy*. IMF, World Bank, OECD, EBRD, 1991. Vol. 2, p. 203.

Finance, Money, Credit and Banking

- Financial system
 - *Government finance*
 - *Enterprises' finance*
 - *Households' finance*
 - *Saving-investment balance*
- Monetary circulation
 - components of money supply - monetary aggregates
 - monetary policy
- Banking and credit
 - *Bank credit*
 - *Financial assets and debts of enterprises*
 - *Financial assets and debts of households*
 - *Government debt*
 - *Total credit and indebtedness*

Government budget, billion rubles

Years	1980	1981	1982	1983	1984
TOTAL REVENUES	282.6	300.8	328.1	344.3	362.2
Turnover tax	91.4	100.4	100.6	102.9	102.7
Payments of state enterprises from profit	89.8	92.4	102.4	106.6	115.6
- Payments for capital	29.2	28.0	31.2	33.2	35.6
- Payments for labor resources	-	-	-	-	-
- Transfers of "free profit residual"	44.0	45.3	46.3	45.9	49.2
- "Fixed payments"	0.4	0.3	5.2	5.4	5.5
- Normative & other payments	16.2	18.8	19.7	22.1	25.3
Income tax on cooperative and non-profit organizations	1.7	1.9	1.9	2.2	2.6
- Collective farms	NA	NA	NA	NA	NA
- Consumer cooperative	NA	NA	NA	NA	NA
- New producers cooperatives	-	-	-	-	-
Government bonds sold to individuals	0.6	0.4	1.0	1.0	1.0
Income tax & other taxes paid by individuals	24.5	25.5	26.6	27.6	28.0
Revenues of state social insurance system	14.2	15.0	22.3	23.1	24.5
Revenues from external economic operations	NA	NA	NA	NA	NA

Government budget, billion rubles (cont.)

Years	1980	1981	1982	1983	1984
EXPENDITURE TOTAL	294.6	309.8	343.1	354.3	371.2
- as a % of GNP	47.6	47.6	49.3	48.6	48.8
National economy ^a	161.0	169.8	197.3	201.8	211.7
Education and R&D	40.0	41.7	43.9	45.1	47.2
Health care and physical culture	14.8	15.2	16.0	16.5	17.2
Social insurance & other social programs	44.0	46.7	49.7	53.2	55.3
External economic operations	NA	NA	NA	NA	NA
Defence ^a	17.1	17.1	17.1	17.1	17.1
Government administration	2.5	2.6	2.8	2.9	2.9
EXPENDITURE EXCEEDING REVENUE	12.0	9.0	15.0	10.0	9.0
- as a % of GNP	1.9	1.4	2.2	1.4	1.2
FUNDS RAISED TO ALL UNION BUDGET	NA	NA	NA	NA	NA

Government budget, billion rubles (cont.)

Years	1985	1986	1987	1988	1989
TOTAL REVENUES	372.6	371.6	378.4	378.9	401.9
Turnover tax	97.7	91.5	94.4	101.0	111.1
Payments of state enterprises from profit	119.5	129.8	127.4	119.6	115.5
- Payments for capital	38.1	40.8	41.7	39.5	33.8
- Payments for labor resources	-	-	-	4.9	6.2
- Transfers of "free profit residual"	47.1	38.5	12.8	9.4	4.8
- "Fixed payments"	5.2	3.2	-	0.7	0.6
- Normative & other payments	29.1	47.3	72.9	65.1	70.1
Income tax on cooperative and non-profit organizations	2.5	2.6	2.8	2.8	4.2
- Collective farms	1.2	1.2	1.3	1.3	1.6
- Consumer cooperative	1.3	1.4	1.5	1.4	1.5
- New producers cooperatives	-	-	-	0.1	1.1
Government bonds sold to individuals	1.4	1.9	1.9	2.0	2.1
Income tax & other taxes paid by individuals	30.0	31.2	32.5	35.9	41.7
Revenues of state social insurance system	25.4	26.5	28.1	30.1	33.1
Revenues from external economic operations	71.1	64.4	69.3	62.6	67.2

Government budget, billion rubles (cont.)

Years	1985	1986	1987	1988	1989	1990
EXPENDITURE TOTAL	386.5	417.1	430.9	459.5	482.6	
- as a % of GNP	49.7	52.2	52.2	52.2	52.2	
National economy ^a	209.1	226.3	226.9	242.8	201.5	
Education and R&D	49.6	52.5	54.8	59.6	54.4	
Health care and physical culture	17.6	18.0	19.4	21.9	24.6	
Social insurance & other social programs	58.4	63.2	65.8	69.8	70.1	
External economic operations	15.1	18.0	24.6	26.0	28.4	
Defence ^a	19.1	19.1	20.2	20.2	75.2	
Government administration	3.0	3.0	2.9	3.0	2.9	
EXPENDITURE EXCEEDING REVENUE	13.9	45.5	52.5	80.6	80.7	
- as a % of GNP	1.8	5.8	6.3	9.3	8.8	6.2
FUNDS RAISED TO ALL UNION BUDGET	18.0	47.9	57.1	90.1	91.8	

^a Part of defense expenditure prior to 1989 was included in expenditure on national economy.

Source: *Narodnoye Khozyaistvo SSSR* (National Economy of the USSR) for various years; *PlanEcon Report*, 1991, March 27.

Distribution of profit of industrial enterprises, as a % of total

Years	1980	1985	1986	1987	1988	1989
Total profit	100	100	100	100	100	100
Paid to the budget						
- total	60	58	58	55	49	45
- payments for funds	24	26	26	25	22	19
- payment for labor resources	-	-	-	-	2	3
- fixed payments	1	5	3	-	-	-
- "free residual"	33	20	13	2	-	-
- paid according to normative	1	6	16	27	25	22
Paid to branch-ministry or other management body according to normative	-	-	-	6	8	10
Used for other purposes	4	4	3	3	2	2
Left at the enterprise						
- total	36	38	39	39	41	43
- diverted to incentive funds	17	15	17	17	33	40

Source: *Narodnoye Khozyaistvo SSSR* (National Economy of the USSR) for various years.

Money income and expenditure of households, billion rubles

Year	1985	1986	1987	1988	1989
(1) Income, total	420.1	435.3	452.1	493.5	558.0
(2) Taxes and similar payments	48.4	50.4	52.3	57.2	64.5
(3) Disposable income, (3)=(1)-(2)	371.7	384.9	399.8	436.3	493.5
(4) Expenditure on goods and services	347.3	356.9	367.8	394.4	431.7
(5) Savings, (5)=(3)-(4)	24.4	28.0	32.0	41.9	61.8
(6) Savings rate, (6)=(5):(3), %	6.6	7.3	8.0	9.6	12.5

Source: *Narodnoye Khozyaistvo SSSR* (National Economy of the USSR) for various years

Savings-investment balance

- In any economy savings should be equal to investment, that is, incomes not used for current consumption are finally used to finance investment in real (tangible) assets, government budget deficit and outflow of capital abroad.
- $S_p + S_b + G = I + CA$, where
 - S_p - personal (households) savings
 - S_b - business savings (depreciation and undistributed profit)
 - G - government savings (budget surplus), or dissavings (deficit)
 - I - gross investment in the economy
 - CA - current account surplus (net export of capital abroad)
- The economic meaning of the equality is that total savings of the private (non-government) sector (households and companies), should be suffice to finance investment, government budget deficit, net exports of capital abroad and build up of FOREX. Or, to put it differently, investment may be financed only through personal and business savings, government budget surplus and the inflow of capital from abroad (decrease in FOREX).
- The U.S. savings-investment balance in the 1980s and in 2000-06 was characterized by a low personal and business savings rate, and large government dissavings (budget deficit), that absorbed at one point nearly all net savings generated by private sector, so that net investment were financed mostly by the inflow of capital from abroad.

Savings and investment in Soviet economy, billion rubles, rough estimate^a

Year	1985	1986	1987	1988	1989
(1) Personal savings	24.4	28.0	32.0	41.9	61.8
(2) Enterprise savings	117.7	160.3	177.1	207.3	234.8
- depreciation	43.1	62.5	72.1	76.9	82.9
- profits and incomes left at enterprises	74.6	97.8	105.0	130.4	151.9
(3) Non-government investment	41.4	27.7	54.7	118.8	172.0
- state enterprises	-	5.3	32.9	77.2	102.4
- collective farms	15.4	15.5	15.2	16.5	18.1
- co-ops, non-profit organizations and households	6.2	6.9	7.6	8.8	9.6
-increase in inventories	19.8	-	-1.0	9.3	41.9
(4) Government borrowing	18.0	47.9	57.1	90.1	91.8
- net income from foreign economic operations	56.0	46.4	44.7	36.6	38.8
(5) Saving less investment, (1)+(2)-(3)-(4)=(5)	82.7	-	97.3	47.3	32.8

^a It was assumed that the share of net income left at the collective farms was the same as at state enterprises. Part of these profits (incomes) were used to pay bonuses and for other purposes, not for investment. Also, investment in fixed capital are in "comparable prices", while investment in inventories are measured in current prices. There was a change in statistical definition of inventories in 1986.

Source: *Narodnoye Khozyaistvo SSSR* (National Economy of the USSR) for various years.

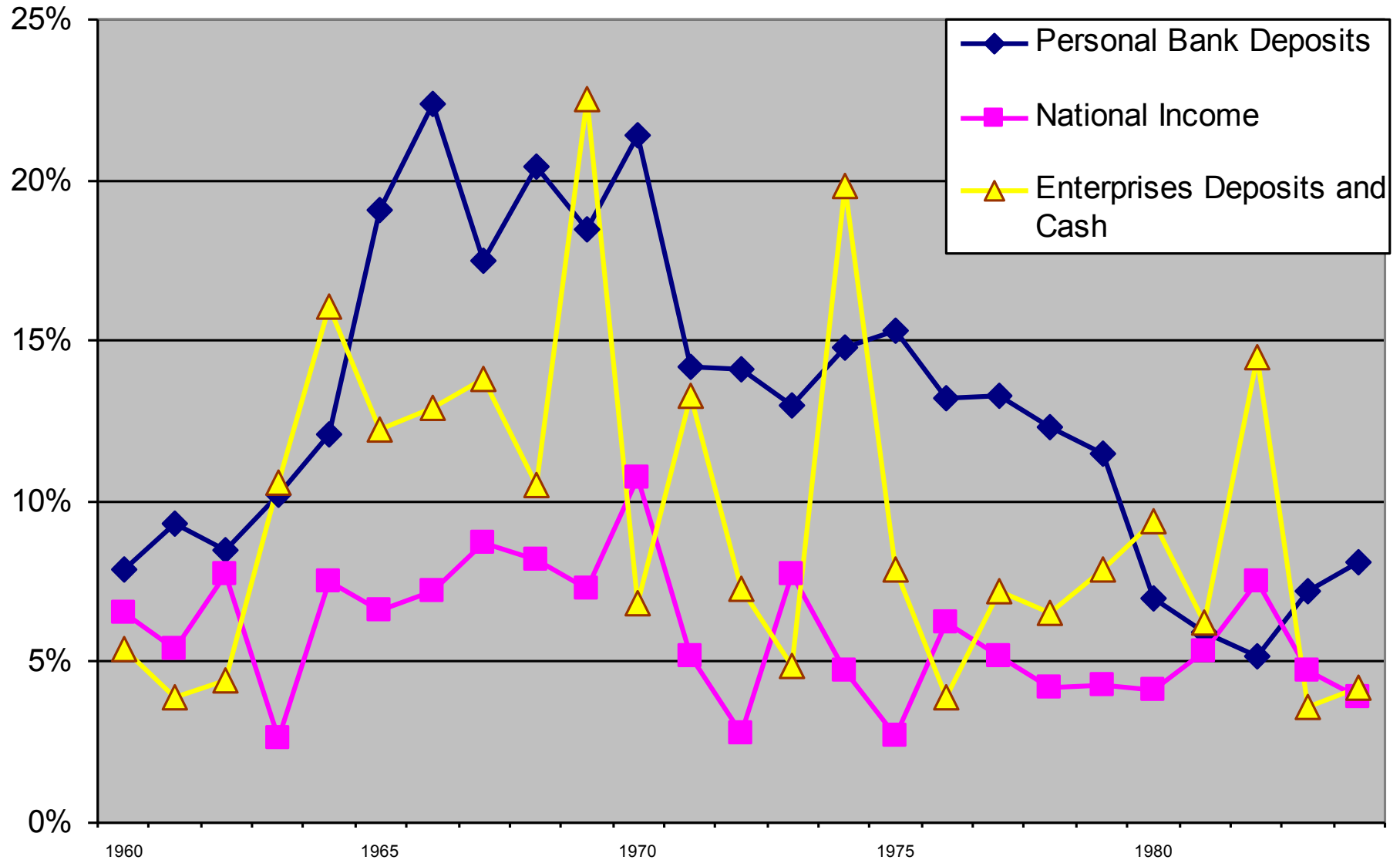
Monetary aggregates and financial assets, billion rubles, end of the year

Years	1980	1985	1986	1987	1988	1989	1990
M ₀ (currency)	52.6	70.5	74.8	80.6	91.6	109.5	138.8
Demand deposits of households and enterprises	145.8	205.6	222.2	263.0	304.8	343.6	398.5
M ₁ (M ₀ + demand deposits)	198.4	276.1	297.0	343.6	396.4	453.1	537.3
Time deposits of households and enterprises	62.6	95.3	104.7	116.6	128.3	149.0	201.4
M ₂ (M ₁ + time deposits + lottery bonds)	262.6	377.0	409.0	269.2	535.4	614.8	737.8
Other bank deposits ^a , bonds and insurance policies	37.5	98.8	29.0	30.8	39.7	41.8	88.4
Total financial assets (M ₂ + other bank deposits, bonds and insurance policies)	300.1	475.8	438.0	500.0	575.1	656.6	825.6
Money and financial assets of households	227.8	320.1	349.3	382.4	425.7	487.8	570.2
- total	50.9	68.9	73.0	78.9	88.3	105.0	132.7
- currency	102.4	134.7	146.5	159.2	176.2	201.6	238.5
- demand deposits	52.2	83.7	93.5	104.5	116.1	130.5	154.4
- time deposits	1.9	2.4	2.8	3.2	5.5	8.4	11.4
- long-term deposits	7.0	11.0	12.7	14.4	16.1	18.1	23.5
- bonds	13.4	19.4	20.8	22.2	23.5	24.2	24.7
- insurance policies							

^a Mostly unused money in enterprises construction funds.

Source: *A Study of the Soviet Economy*. IMF, World Bank, OECD, EBRD. 1991, Vol. 1, p. 130 (Data provided by Gosbank).

Money supply and national income in current prices, growth rates, 1960-85, %



Relative shares of retail and wholesale trade in the economy

Country	Share in			
	Employment		Investment	GDP
	All trade	Retail trade(1988)		
USSR, 1980	3.6		2.5	5.0
USSR, 1985	3.6	3.5	2.9	5.0
US, 1976	20.1		6.1	16.9
US, 1985	20.1		9.2	15.6
UK, 1976			4.6	
UK, 1985	14.3	4.8	7.0	13.3
France, 1976			5.6	
France, 1985	14.2	7.7	5.8	12.2
Italy, 1976	14.6			9.2
Italy, 1985	17.1			16.1
Japan, 1976				15.1
Japan, 1985				13.7
Netherlands, 1976	15.9		6.1	11.7
Netherlands, 1985	15.6	7.8	5.5	11.1

Source: *A Study of the Soviet Economy*. IMF, World Bank, OECD, EBRD. 1991, Vol. 3,p. 52.

Taxation and estimated underground production

Country	Underground income as a % of GNP		Current receipts of government as a % of GDP, 1978
	1960	1978	
Sweden	5.4	13.2	57.5
Belgium	4.7	12.1	42.4
Denmark	3.7	11.8	49.6
Italy	4.4	11.4	36.0
Netherlands	5.6	9.6	50.9
France	5.0	9.4	42.3
USSR	5 (1965)	10 (1980)	47.0 (1980)
Norway	4.4	9.2	52.0
Austria	4.6	8.9	46.2
Canada	5.1	8.7	36.2
West Germany	3.7	8.6	44.7
United Kingdom	4.6	8.0	37.5
Finland	3.1	7.6	38.0
Ireland	1.7	7.2	35.2
Spain	2.6	6.5	27.1
Switzerland	1.1	4.3	33.8
Japan	2.0	4.1	24.5

Source: Gardner S. *Comparative Economic Systems*. N.Y., The Dryden Press, 1988, p. 24.

Assets of enterprises, billion rubles, year-ends

Year	Fixed ^a capital stock	Inventories ^b	Money, bank deposits and other assets ^c	Total assets ^c
1980	1669	322	113	2104
1985	2259	463	163	2885
1986	<2457	470	194	< 3121
1987	<2578	469	217	< 3264
1988	2622	478	253	3353
1989	2741	520	277	3538
1990				

^a Capital stock is valued at "comparable prices", but data are not very different from those in current prices, as official statistics understates price increases.

^b Data for 1980 and 1985 do not include collective farms; there was a change in statistical definition of inventories in 1986.

^c Data do not include money of enterprises in incentive funds which totaled just over 20 billion rubles at the end of 1989, but then increased considerably.

Assets and indebtedness of enterprises, billion rubles, year-ends

Year	Indebtedness		Debt/asset ratio, %	Trade debt
	Short-term	Long-term		
1980	261	81	16.3	
1985	426	92	18.0	
1986	357	94	> 14.5	
1987	334	94	> 13.1	
1988	302	96	11.9	81
1989	287	97	10.9	133
1990	294	73		

Source: *Narodnoye Khozyaistvo SSSR* (National Economy of the USSR) for various years.

Long term credit as a source of capital investment

	1980	1985	1986	1987	1988	1989
Long-term loans granted to all enterprises during the year						
- total, billion rubles		5.7 ^a	5.4 ^a	13.2		13.5
- as a % of capital investment		3.6 ^a	3.1 ^a	6.5		6.0
Long-term credit granted to collective farms during the year						
- total, billion rubles	4.7	3.8	3.5	2.7	2.2	1.4
- as a % of capital investment	35.3	24.7	22.6	17.8	13.3	7.7
Long-term loans granted to housing co-ops, during the year						
- total, billion rubles	0.4	1.0	1.0	1.2	1.1	1.1
- as a % of capital investment	50.0	71.4	66.7	75.0	68.7	73.3

^a Only state enterprises.

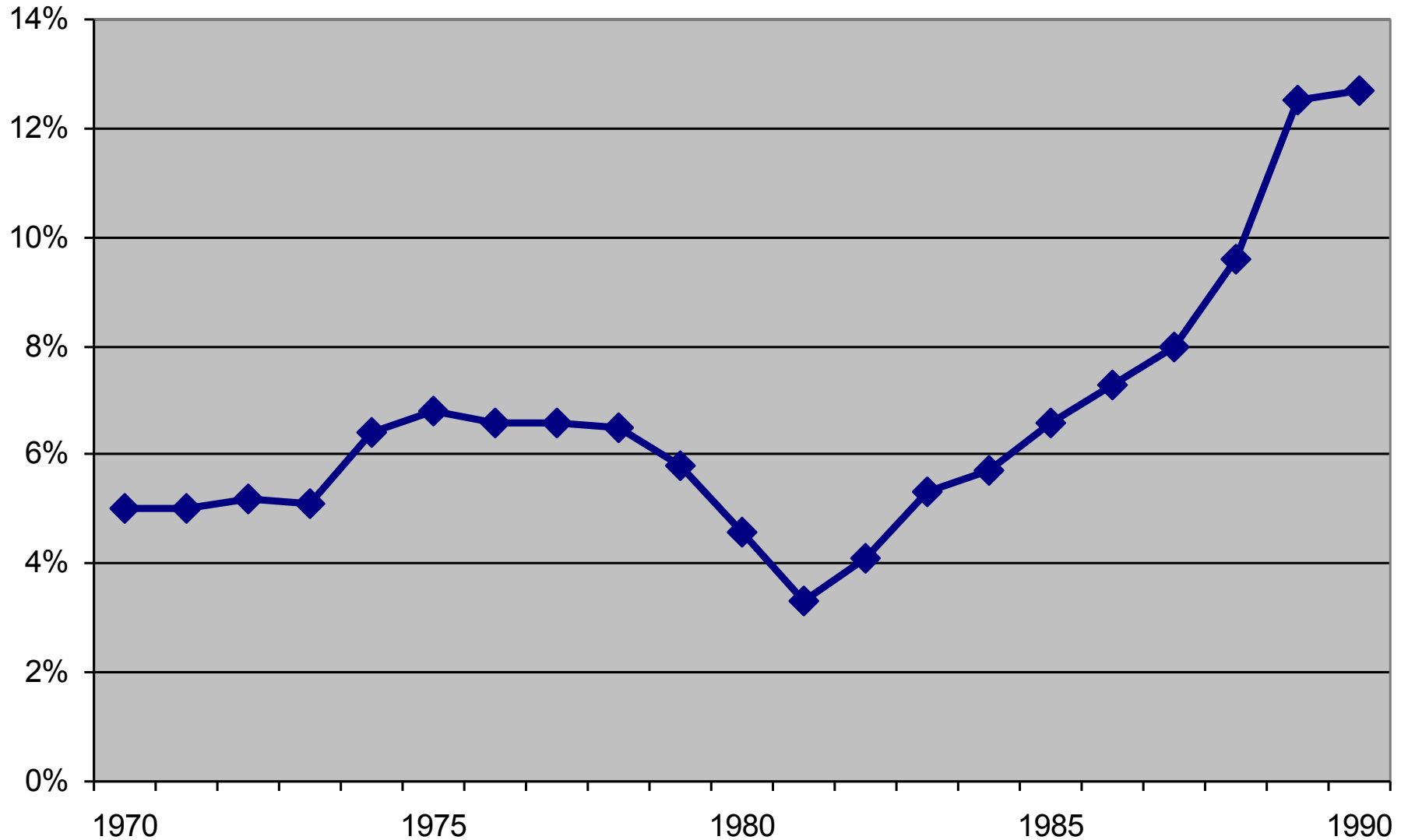
Source: *Narodnoye Khozaistvo SSSR* (National Economy of the USSR) for various years.

Assets and indebtedness of households, billion rubles, year ends

Year	Tangible assets ^a		Financial assets	
	Houses, cattle, structures	Consumer durables	Term deposits	Bonds, certificates, insurance policies
1980	73	50	52.2	22.3
1985	74	67	83.7	32.8
1986	NA	70	93.5	36.3
1987	NA	73	104.5	39.7
1988	78	77	116.1	45.1
1989	79	80	130.5	50.7
1990			154.4	59.6

^aTangible assets are in "comparable prices", as reported by official statistics, but due to understatement of price increases the data are very close to those in current prices.

Household savings rate, as a % of personal disposable income



Assets and indebtedness of households, billion rubles, year ends (*continuation*)

Year	Money		Long term loans from banks
	Currency	Demand deposits	
1980	50.9	102.4	0.7
1985	68.9	134.7	2.0
1986	73.0	146.5	2.4
1987	78.9	159.2	3.1
1988	88.3	176.2	5.8
1989	105.0	201.6	7.4
1990	132.7	238.5	10.6

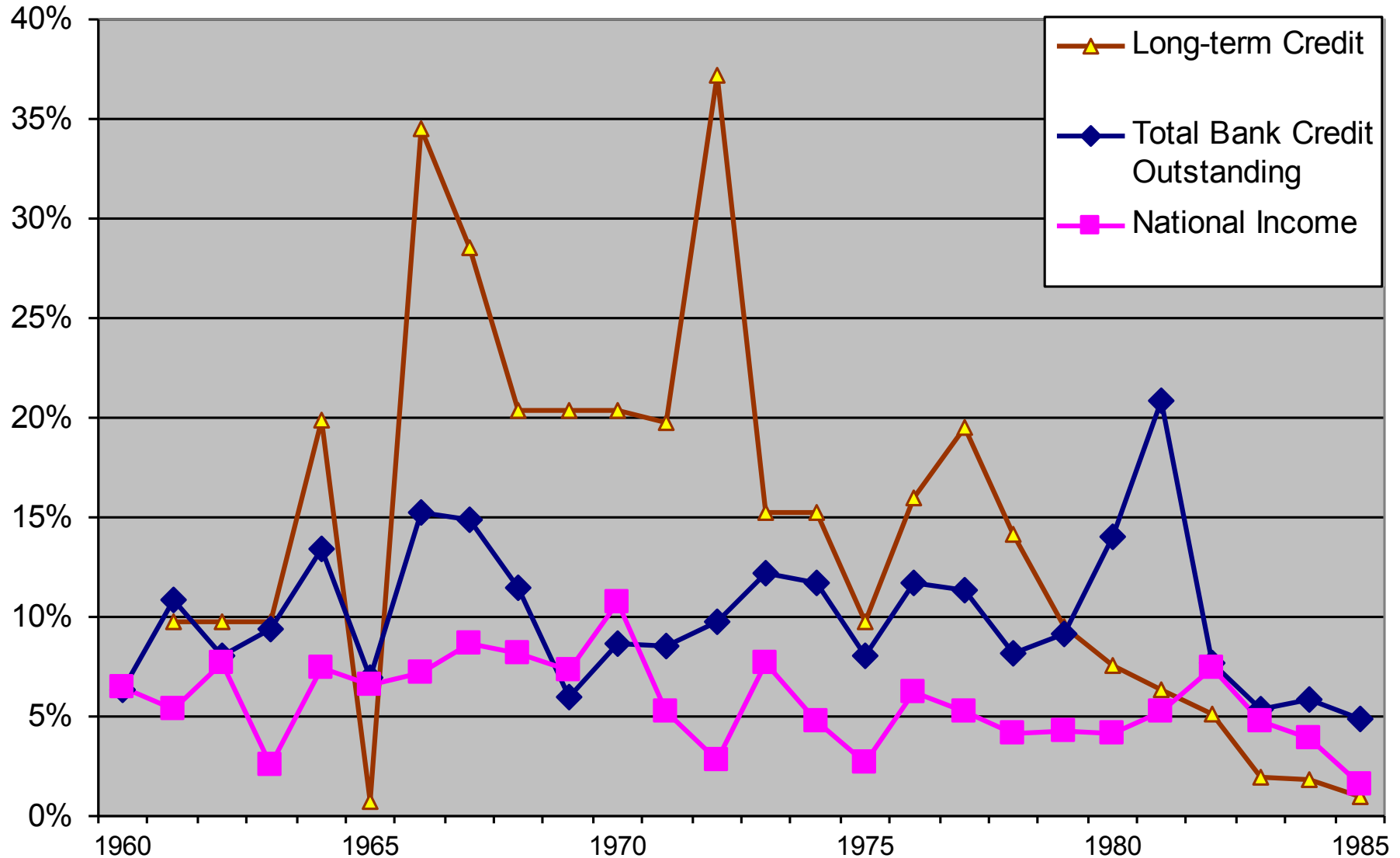
Source: *Narodnoye Khozyaistvo SSSR* (National Economy of the USSR) for various years; *A Study of the Soviet Economy*. IMF, World Bank. OECD, EBRD. 1991, Vol. 1, p. 130.

Credit outstanding, billion rubles, end of the year

Year	1980	1985	1986	1987	1988	1989	1990
Credit to enterprises							
- total	342.5	519.4	450.2	428.8	398.8	383.7	367.4
- short-term	261.4	426.5	356.6	333.5	302.3	287.1	294.0
- long-term	81.1	92.9	93.6	94.3	96.5	96.6	73.4
Credit to households	0.7	2.0	2.4	3.1	5.8	7.4	10.6
Credit to the government	78.2	118.0	140.6	200.7	298.0	390.1	534.9
Total domestic credit	421.1	639.4	593.2	631.6	702.6	781.2	902.9
Government bonds	7.0	11.0	12.7	14.4	16.1	18.1	23.5

Source: *A Study of the Soviet Economy*. IMF, World Bank. OECD, EBRD. 1991, Vol. 1, p. 126. (Data provided by the USSR Ministry of Finance and *Gosbank*).

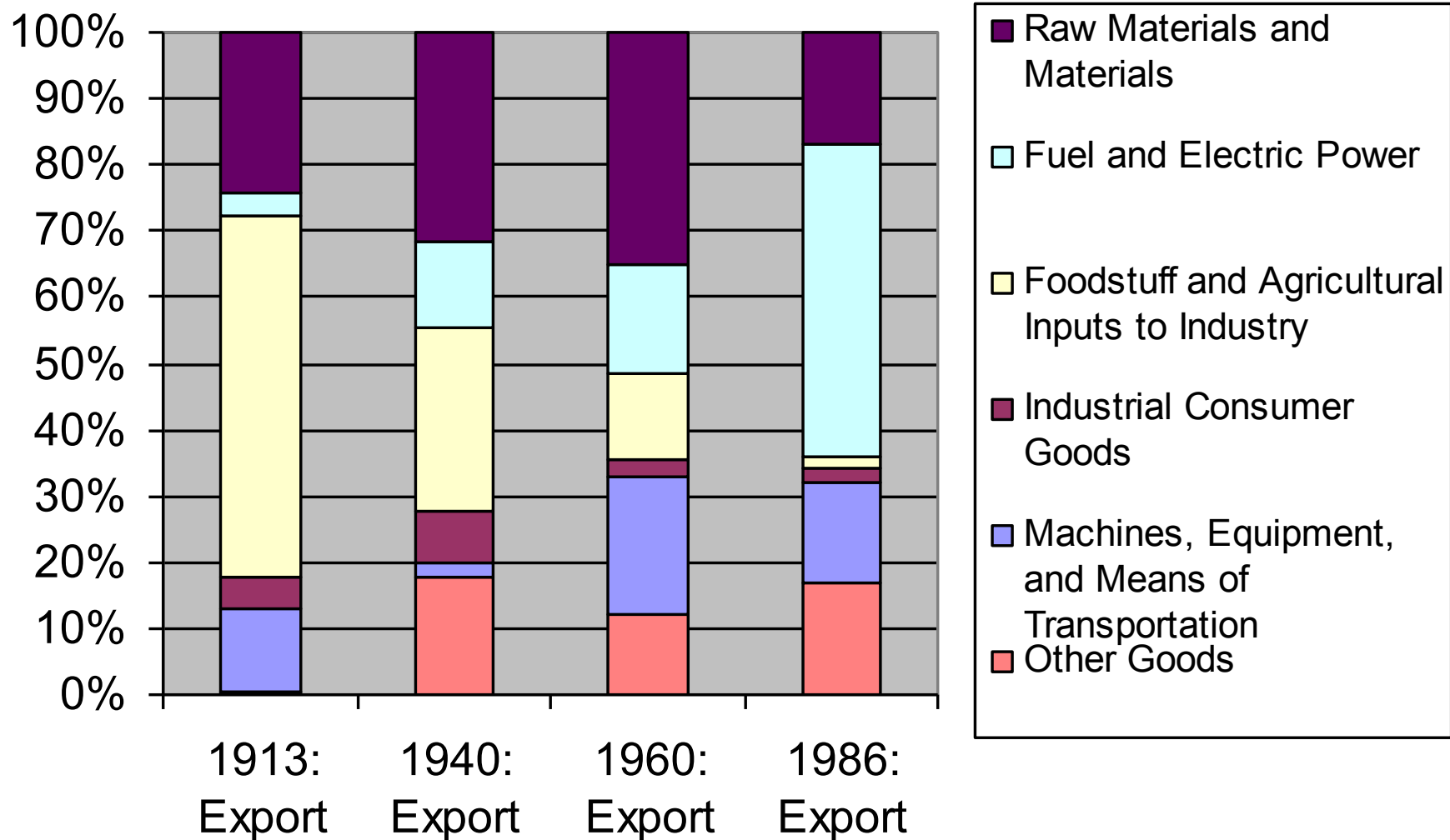
Credit outstanding to enterprises and households and nominal national income, growth rates, 1960-85, %



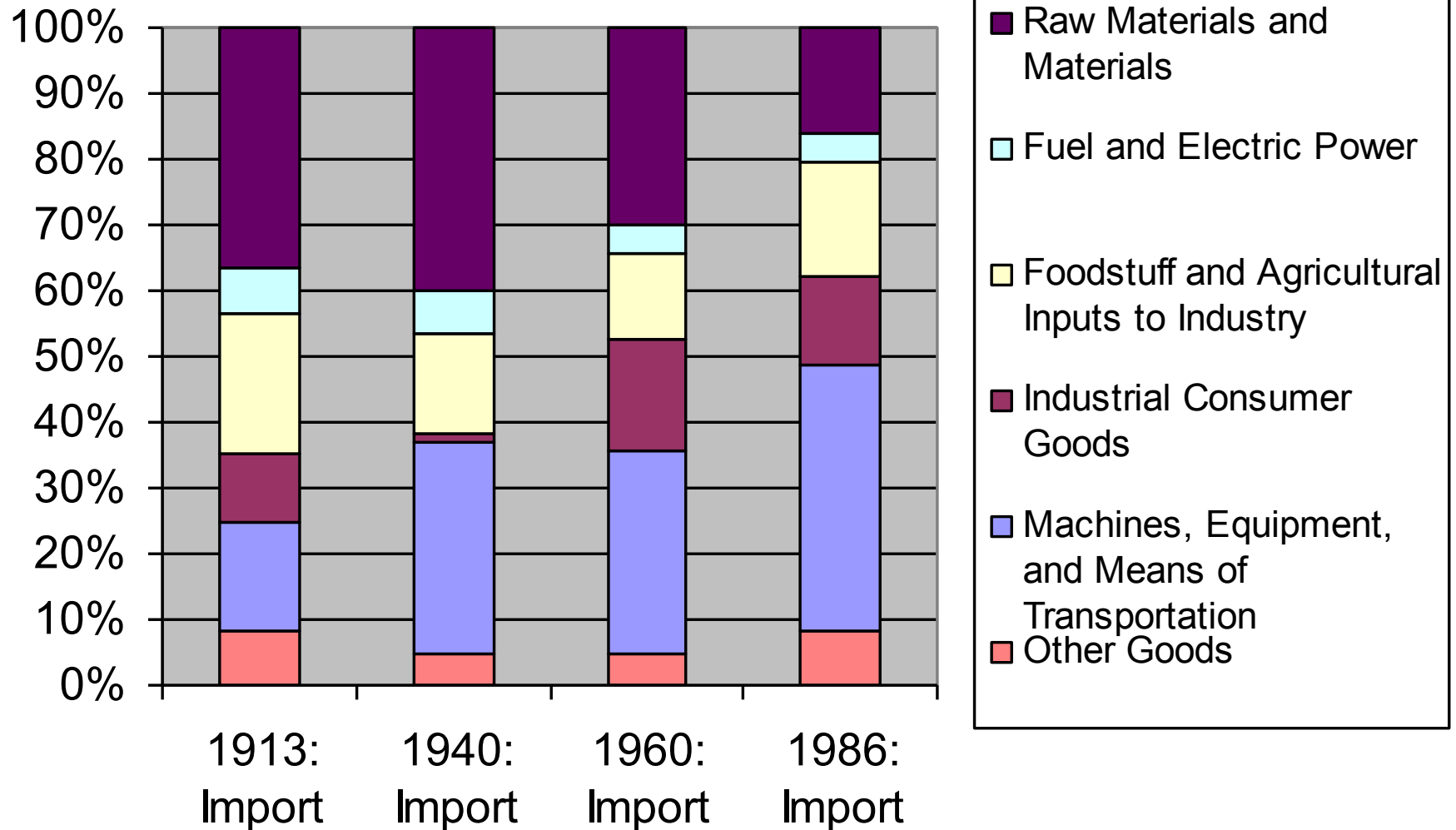
External Economic Ties

- Foreign trade mechanism, exchange rate in CPE
- The structure of foreign trade
 - *Commodity structure*
 - *Comparative advantages*
 - *Geographical structure*
 - *Comecon trade*
- Non-trade external relations
 - *Foreign direct investment*
 - *Soviet assistance to developing and socialist countries*
 - *Foreign workers in the Soviet Union*
 - *Balance of payments*
 - *International investment position*

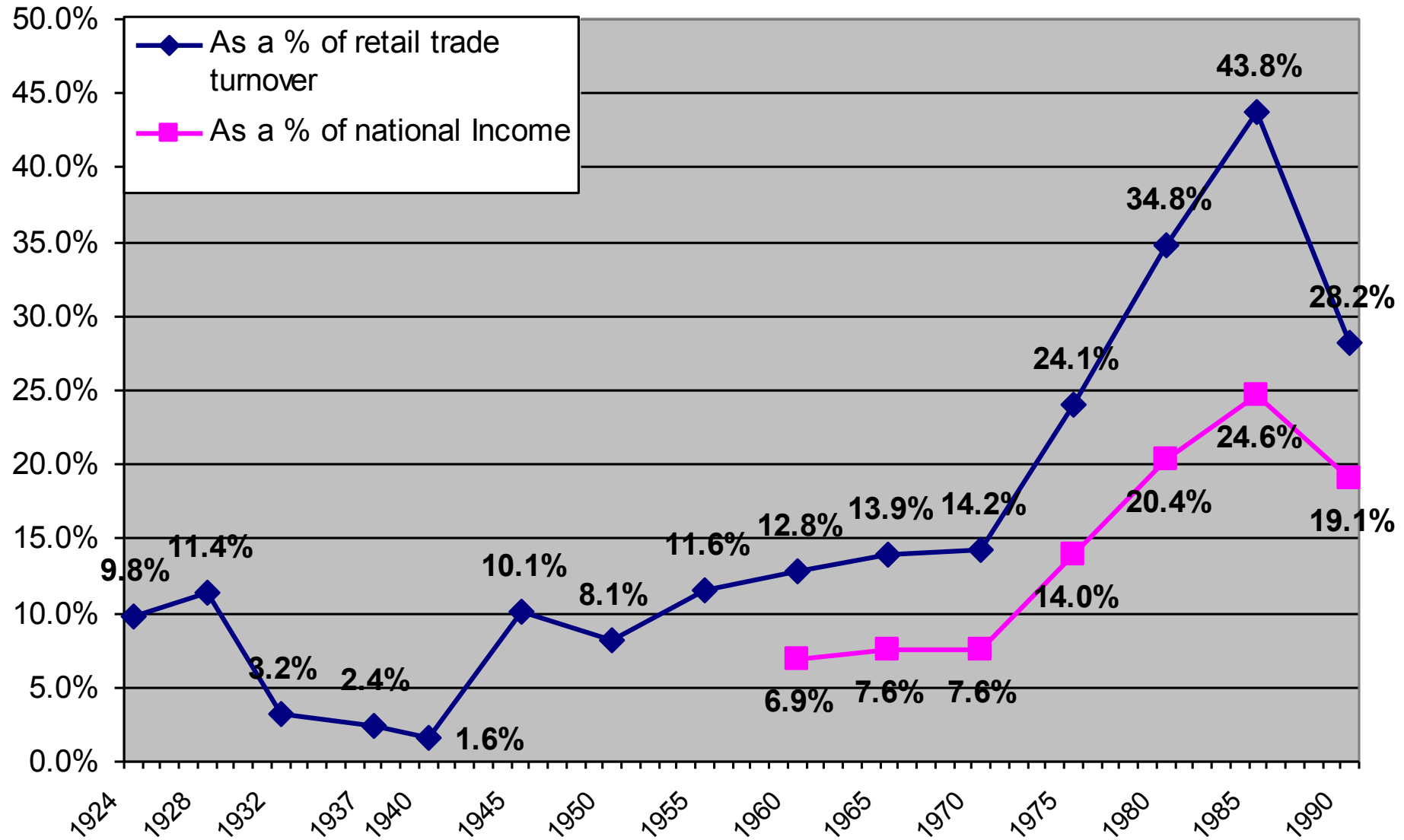
Changes in Export Structure of the USSR



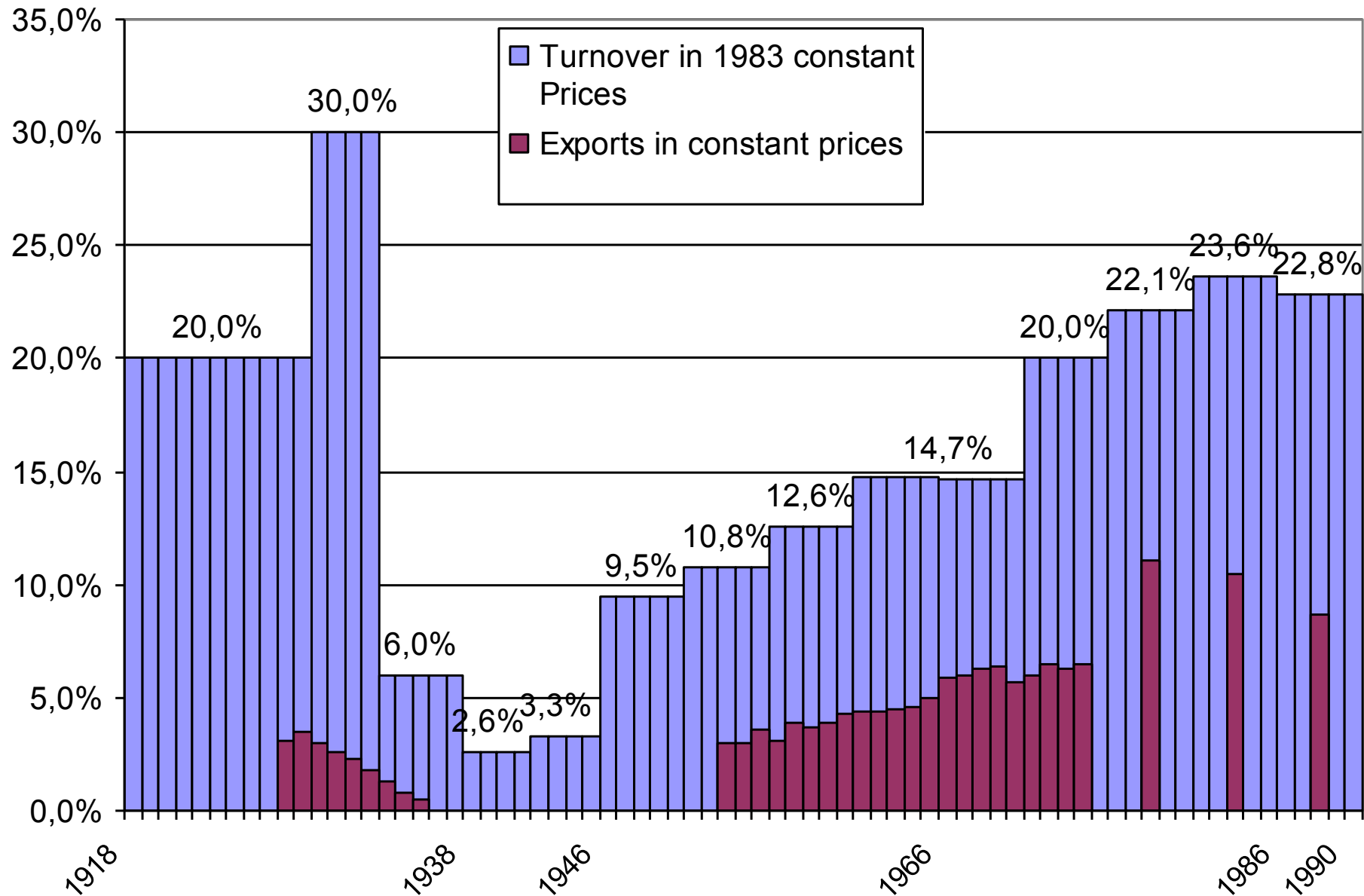
Changes in Import Structure of the USSR



Soviet foreign trade turnover, as a % of retail trade turnover and national income in current prices



Exports and foreign trade turnover as a % of national income in constant prices



Commodity structure of Soviet foreign trade, % of total

Years	1913	1940	1960	1985	1990
Exports					
Fuel and energy	24.2	13.2	16.2	52.7	40.6
Raw materials and semi-manufactured products	3.6	31.6	35.1	15.7	20.7
Food products	54.7	27.7	13.1	1.5	2.0
Industrial consumer goods	1.7	7.8	2.9	2.0	3.6
Machinery and equipment	0.3	2.0	20.7	13.9	18.3
Other	15.5	17.7	12.0	14.2	14.8
Imports					
Fuel and energy	7.1	6.5	4.2	5.3	2.6
Raw materials and semi-manufactured products	36.4	40.2	30.0	16.3	11.3
Food products	21.2	14.9	13.1	21.1	15.8
Industrial consumer goods	10.3	1.4	16.9	12.6	17.1
Machinery and equipment	16.6	32.4	31.1	37.1	44.8
Other	8.4	4.6	4.7	7.6	7.8

Source: *Narodnoye Khozyaistvo SSSR* (National Economy of the USSR) for various years.

Soviet normalized trade balance in major product groups, 1989, %

Product group	Normalized trade balance	
	With all countries	With OECD countries
Fuel and energy	+85.4	+96.0
Wood products	+47.1	+23.1
Other products	+28.8	-8.7
Metals and metal ores	+15.6	-0.7
Materials for textile industry	-2.4	-52.5
Chemicals, fertilizers, rubber products	-14.5	-48.4
Machinery and equipment	-42.3	-86.1
Industrial consumer goods	-76.6	-55.8
Food products	-83.2	-84.1
All products	-2.4	-11.1

Note: Normalized trade balance is calculated as $(E-M):(E+M)$, where E - export, M - import.

Sourse: *Narodhoye Khozyaistvo SSSR v 1989 gody* (National Economy of the USSR in 1989).

Moscow, 1990, p. 663-666.

Geographical structure of Soviet foreign trade, % of total

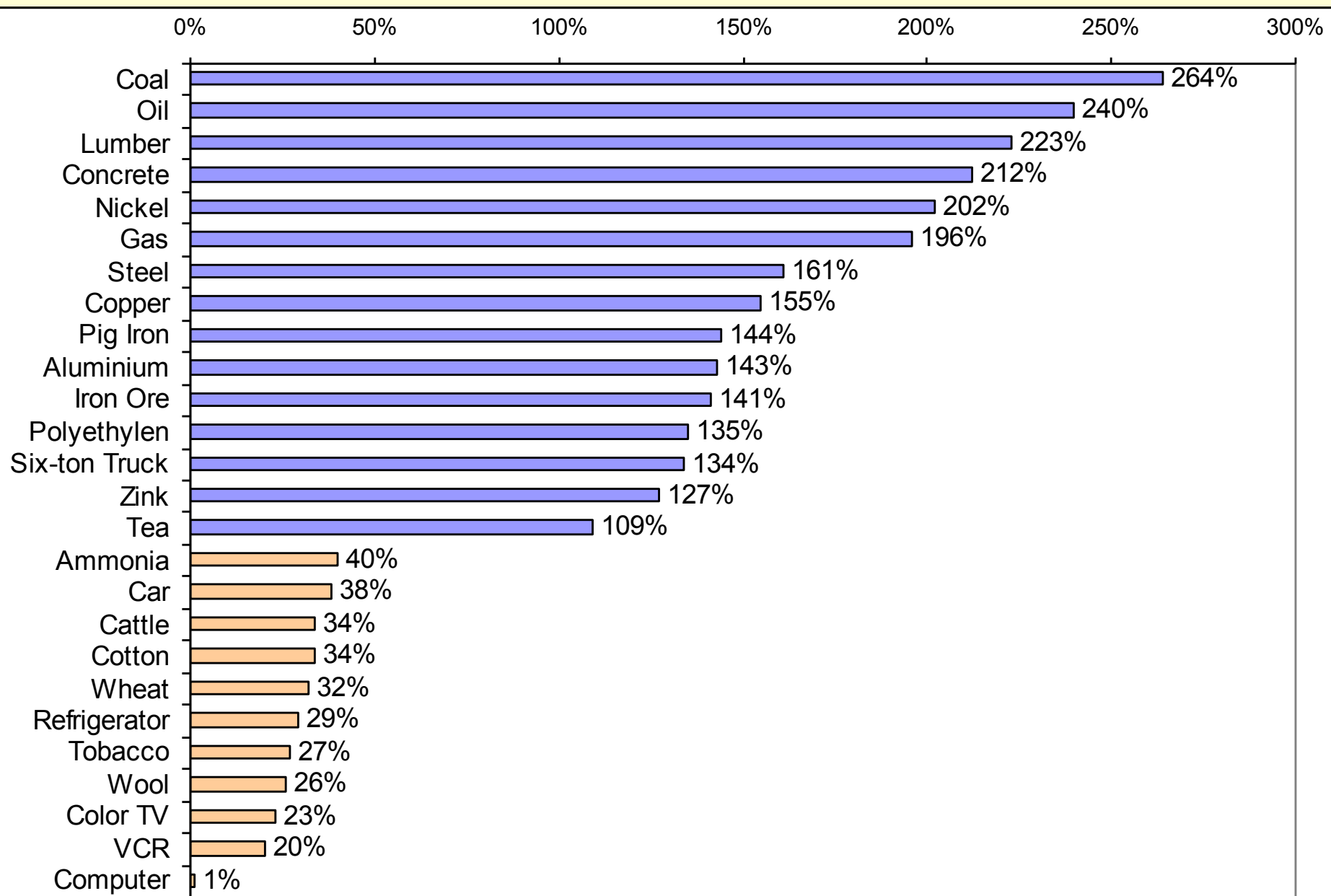
Years	1950	1960	1970	1980	1985	1990
Socialist countries	81.1	73.2	65.2	53.7	61.2	50.3 ^a
- Comecon	57.4	53.0	55.6	48.6	55.0	43.8 ^a
- Non-Comecon	23.7	20.2	9.6	5.1	5.2	6.5
Developed capitalist countries	15.0	19.0	21.3	33.6	26.7	38.1 ^b
Developing countries	3.8	7.8	13.5	12.7	12.1	11.6

^a Excluding trade with East Germany.

^b Including trade with East Germany.

Source: *Narodnoye Khozyaistvo SSSR* (National Economy of the USSR) for various years.

Ratio of world market prices to domestic prices for selected goods, 1990,%



Soviet balance of payments in convertible currencies, on a transaction basis, billion dollars

Year	1985	1986	1987	1988	1989	1990
Trade balance	1.3	3.6	8.2	4.8	-0.1	1.5
- Export	27.5	26.8	31.3	33.4	35.2	39.6
- Import	-26.2	-23.2	-23.1	-28.7	-35.4	-38.1
Service balance	-1.8	-1.8	-1.7	-3.3	-3.8	-5.0
- Transport and insurance	-0.3	-0.2	0.4	-0.4	-0.4	
- Travel	0.1	0.1	0.2	0.2	0.2	
- Interest, net	-0.7	-1.4	-1.8	-2.0	-2.9	
Current account	-0.5	1.8	6.6	1.6	-3.7	-3.4
- including gold sales	1.3	5.8	10.1	5.4	-0.2	0.2
Capital account	-2.8	-5.2	-12.4	-6.1	-3.5	
- Foreign direct investment	-0.0	-0.2	-0.2	0.5	-0.3	
- Long and medium term credits	0.7	-1.3	-3.3	-2.1	-2.2	
- Short term credits	1.3	0.6	-0.9	2.6	5.9	
- Trade credits	-4.8	-4.1	-8.0	-7.0	-6.9	
Gold exports	1.8	4.0	3.5	3.8	3.7	3.6
Overall balance	-1.5	0.6	-2.3	-0.7	-3.7	

Source: *A Study of the Soviet Economy*. IMF, World Bank, OECD, EBRD (February 1991); *PlanEcon Report*, 1991, March 27. Based on data provided by Soviet authorities.

Soviet balance of payments in non-convertible currencies, on a transaction basis, billion rubles

Years	1980	1985	1986	1987	1988	1989	1990
Trade balance	3.6	2.3	3.2	2.2	-0.8	-3.3	-10.9
- Exports	30.8	49.6	49.4	48.3	46.8	46.5	38.0
- Imports	-27.2	-47.5	-46.2	-46.1	-47.6	-49.8	-48.8
Service balance	-0.4	-0.2	-0.3	-0.6	-0.8	-0.7	-1.1
- Transport and insurance	0.3	0.5	0.5	0.6	0.4	0.4	
- Travel	+0.0	-0.0	-0.2	-0.0	-0.3	-0.5	
- Interest	0.0	0.0	0.1	0.1	0.1	0.1	
Current account	1.9	1.6	3.0	1.6	-1.5	-4.0	
Capital account	-1.3	-2.6	-2.4	-1.9	1.0	-0.3	
- Foreign direct investment	-0.1	-0.4	-0.4	-0.5	0.3	-0.8	
- Long and medium-term credits	0.3	-0.5	-1.4	0.2	0.5	1.4	
- Trade credits	-1.5	-1.7	-0.5	-1.6	0.1	-1.0	
Total, net	0.6	-1.0	0.5	-0.3	-0.6	-4.2	

Source: *A Study of the Soviet Economy*. IMF, World Bank, OECD, EBRD (February 1991); *PlanEcon Report*, 1991, March 27. Based on data provided by Soviet authorities.

Trade flows and trade balances for the republics, 1988, as a percentage of GNP

Republics	Trade flows ^a		Trade balance			
	Domestic	Foreign	Domestic ^b	Foreign	Total, in domestic prices	Total, in world prices
USSR	21.11	8.27	-0.01(-0.14)	-5.76	-5.78	0.21
Russia	12.92	9.37	0.05 (0.02)	-6.28	-6.23	5.76
Ukraine	26.90	7.14	2.55 (-0.3)	-4.61	-2.05	-2.04
Belorussia	44.56	7.39	11.14 (-1.6)	-5.42	-5.72	-5.78
Lithuania	47.26	7.21	-6.56 (4.0)	-5.83	-12.39	-29.97
Latvia	46.85	7.21	-1.03 (5.2)	-6.18	-7.21	-13.39
Estonia	50.11	8.79	-5.27 (5.3)	-7.03	-12.31	-22.86
Moldova	45.88	6.37	-1.87 (5.6)	-7.86	-9.74	-24.34
Armenia	47.85	5.84	-4.23 (-2.5)	-9.70	-13.92	-17.40
Georgia	37.88	5.90	1.98 (-4.9)	-6.15	-4.17	-13.43
Azerbaijan	35.38	5.95	13.89 (-2.6)	-6.61	-7.28	-3.31
Kazakhstan	29.48	4.69	-14.47(-1.3)	-5.09	-19.56	-17.69
Uzbekistan	34.10	5.62	-5.78 (-1.4)	-0.59	-6.37	-8.71
Turkmenistan	37.58	4.60	-1.53 (-3.0)	-3.07	-4.60	0.00
Kirghizia	39.65	5.98	-7.21 (0.4)	-10.24	-17.45	-15.86
Tadjikistan	37.70	6.01	-15.32 (3.0)	-2.10	-17.42	-16.52

a (Exports+Imports): (2xGNP), at domestic prices, assuming the same GNP/NMP ratios for the republics as for the USSR as a whole. Domestic trade is trade with the rest of the Union. Foreign trade is trade with the rest of the world.

b Estimates of the balance of tourist trade are shown in brackets.

Source: *Stabilization, Liberalization and Devolution: Assessment of the Economic Situation and Reform Process in the Soviet Union*. A Report, prepared by Commission of the European Communities. December 1990, p. 173. (Data is derived from official Soviet statistics); *Narodnoye Khozyaistvo SSSR v 1989 godu* (National Economy of the USSR in 1989). Moscow, 1990, p. 638.

Trade balances of the republics in inter-republican trade by commodity group, 1988, domestic prices, billion rubles

Republic	Total ^a	Energy	Steel and non-ferrous metals	Chemicals	Machinery	Wood and paper products	Construction materials	Light industry products	Food products	Agricultural products
Russia	0.3	6.1	0.5	2.1	6.3	3.4	0.4	-5.2	-10.5	-3.6
Ukraine	3.6	-3.6	2.8	-0.9	2.6	-1.2	0.4	-2.3	4.3	1.4
Belorussia	4.1	-0.8	-1.5	0.3	3.0	0.1	-0.0	2.4	0.7	0.1
Lithuania	-0.8	-0.7	-0.5	-0.4	-0.4	0.0	-0.0	0.6	0.6	0.0
Latvia	-0.1	-0.4	-0.4	0.0	-0.3	-0.0	-0.0	0.3	0.7	-0.0
Estonia	-0.3	-0.1	-0.2	-0.1	-0.5	0.0	-0.0	0.3	0.3	-0.0
Moldova	-0.2	-0.7	-0.4	-0.4	-0.7	-0.1	-0.0	0.3	1.6	0.2
Armenia	-0.3	-0.4	-0.3	0.1	-0.1	-0.1	-0.0	0.6	-0.0	-0.1
Georgia	0.3	-0.4	-0.2	-0.2	-0.6	-0.2	-0.1	0.4	1.6	0.1
Azerbaijan	2.1	0.5	-0.2	0.1	-0.2	-0.1	-0.1	0.9	0.9	0.2
Kazakhstan	-5.3	-0.4	0.1	-0.5	-3.9	-0.7	-0.1	-0.1	-0.7	1.4
Uzbekistan	-1.7	-0.4	-0.4	-0.2	-1.9	-0.5	-0.1	1.8	-0.6	0.5
Turkmenistan	-0.1	0.7	-0.1	-0.1	-0.9	-0.1	-0.0	0.7	-0.3	0.1
Kyrgyzstan	-0.4	-0.0	-0.1	-0.3	-0.0	-0.1	-0.1	0.5	0.3	0.0
Tajikistan	-0.1	-0.3	-0.0	-0.2	-0.6	-0.1	-0.0	0.2	-0.2	-0.0

a Includes other commodities.

Source: *Vestnik Statistiki*, 1990, N3.

Financial flows between republics

Republic	Revenues of republican budgets, plan for 1990		Share of tax revenues retained by the republic (turnover, profit, and personal income tax), plan for 1990,% ^a	Revenues from turnover, personal income and profit taxes generated at the territory of republic		Grants from union government, plan for 1990, % of total republican budget revenues	Share in total personal bank deposits, 1989, %	Share in total bank credits, 1989, % ^b	Ratio of share in bank deposits to share in bank credits, 1989, %
	total, billion rubles	per capita, rubles		total, billion rubles	as a share of 1988 national income				
USSR	248.7	862	48.8 (38.0)	266.7	42	3.5	100.0	100.0	100.0
Russia	137.5	929	43.0 (31.0)	174.6	45	-	56.8	54.8	104
Ukraine	39.5	762	41.1 (42.0)	45.0	44	-	22.0	12.4	177
Belorussia	11.8	1150	54.8 (46.5)	12.6	48	-	4.5	2.8	161
Lithuania	4.3	1155	79.5 (60.8)	3.3	37	-	2.0	1.2	167
Latvia	3.2	1191	59.4 (61.3)	3.6	51	-	1.1	0.8	138
Estonia	1.9	1200	79.3 (71.5)	1.6	40	-	0.7	0.4	175
Moldova	3.4	779	65.7 (71.6)	2.8	36	-	1.2	1.0	120
Armenia	3.5	1063	60.5 (49.2)	3.9	67	2.9	1.5	1.1	136
Georgia	4.4	806	76.5 (68.6)	3.4	33	-	2.0	2.2	91
Azerbaijan	4.4	617	59.5 (53.3)	4.2	39	-	0.9	1.8	50
Kazakhstan	15.2	911	75.6 (50.5)	8.2	30	25.0	3.6	7.1	51
Uzbekistan	11.6	571	75.8 (65.2)	6.6	32	30.9	2.1	4.2	50
Turkmenistan	2.3	635	82.9 (63.0)	1.2	25	26.7	0.4	0.8	50
Kyrgyzstan	3.0	618	78.4 (67.0)	1.8	37	15.2	0.6	1.0	60
Tajikistan	2.7	572	82.3 (71.1)	1.6	33	18.3	0.5	0.7	71

^a Figures in brackets stand for the share of industrial enterprises subordinated to union-republican and republican ministries in total industrial output.

^b 7.8% of total credit was not broken down by republic.

Source: *A Study of the Soviet Economy*. IMF, World Bank, OECD, EBRD. 1991, Vol. 1, p. 129, 279; *Narodnoye Khozyaistvo SSSR v 1989 godu* (National Economy of the USSR in 1989). Moscow, 1990, p. 17, 628; *Stabilization, Liberalization and Devolution: Assessment of the Economic Situation and Reform Process in the Soviet Union*. EC, December 1990, p. 171.

Share of republics in net material product, retail sales, and expenditure of the republican budgets, 1988, % of total

Republic	Share in		
	net material product	retail sales	expenditure of republican budgets ^a
Russia	61.1	56.5	55.7
Ukraine	16.3	17.0	16.8
Belorussia	4.2	3.9	4.5
BALTICS	3.2	3.9	4.3
Lithuania	1.4	1.7	2.0
Latvia	1.1	1.4	1.4
Estonia	0.7	0.8	0.9
Moldova	1.2	1.4	1.5
TRANSCAUCASIA	4.2	4.0	4.6
Armenia	0.9	1.0	1.1
Georgia	1.6	1.6	1.8
Azerbaijan	1.7	1.4	1.7
Kazakhstan	4.3	4.8	6.4
CENTRAL ASIA	5.7	6.8	7.8
Uzbekistan	3.3	4.1	4.6
Turkmenistan	0.8	0.8	0.9
Kyrgyzstan	0.8	1.0	1.2
Tajikistan	0.8	0.9	1.1

^a Plan for 1988.

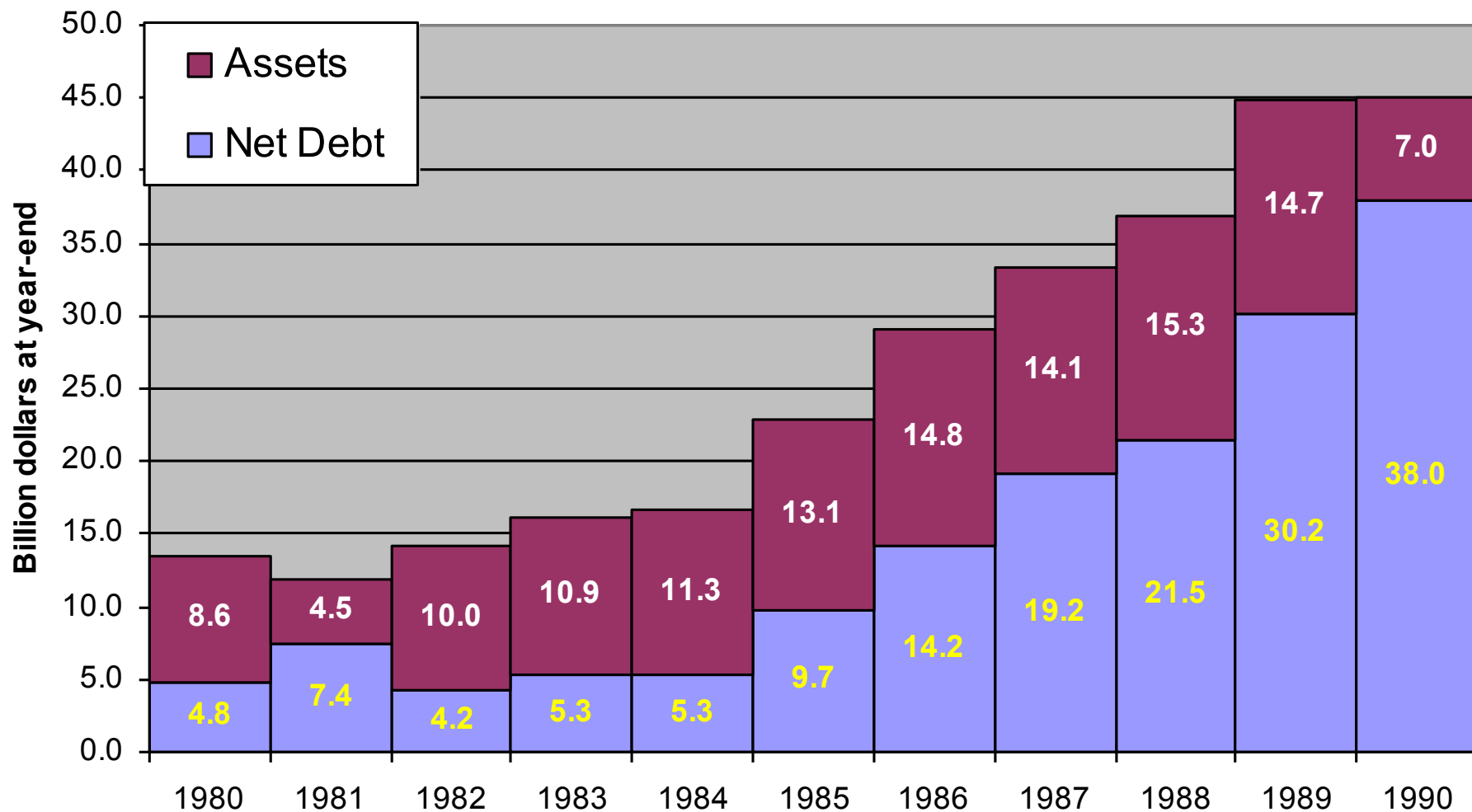
Source: *Narodnoye Khozyaistvo SSSR v 1989 godu* (National Economy of the USSR in 1989). Moscow, 1990, p. 101; *Stabilization, Liberalization and Devolution: Assessment of the Economic Situation and Reform Process in the Soviet Union*. EC, December 1990, p. 171; *Izvestiya*, October 21, 1987.

Soviet international investment position, 1988, end of the year, billion rubles, official Soviet data

Assets		Liabilities	
Type of claims	Amount	Type of debt	Amount
Claims in convertible currencies	15.6 (\$25.2)	Hard currency indebtedness	28.1
Foreign exchange reserves in convertible currencies (deposits in Western banks)	9.5 (\$15.3)	Indebtedness within clearing arrangement with:	
		- Finland	0.6
		- Yugoslavia	1.0
		- Other countries	0.3
Claims in soft currencies (within clearing arrangement)	21.8 (\$35.2)	Ruble debt	3.6
Claims in rubles	40.3		
TOTAL	87.2	TOTAL	33.6

Source: *Pravitel'stvenniyi Vestnik*, 1989, N19; *Izvestiya* 1990, March 1; *Ekonomika i Zhiz'n*, 1990, N12; *PlanEcon Report*, 1991, March 27.

Soviet debt and asset position vis-a-vis BIS-area banks in hard currency, billion of dollars at year-ends



Was the Soviet Economy a Planned One?

- Annual and five year plans
- Long term planning
- Why in a market economy increase in the money supply leads to the growth of output (short-term) and/or prices (long-term)
- Planned anarchy - How the increase in money supply leads to the increase in prices and output in the CPE

Ratio of actual to planned growth rates of key indicators, by Five-Year Plan periods, %

	First Five-Year Plan, 1928/29-32-33 ^a		Second Five-Year Plan, 1933-37	Fourth Five-Year Plan, 1946-50	Fifth Five-Year Plan, 1951-56
	Initial variant	Optimal variant			
National income produced	76	60	93	168	113
Utilized national income					
Gross industrial output	105	87	105	152	121
- production of means of production	153	116	143	-	114
- production of objects of consumption	66	59	74	-	117
Gross agricultural output	-44	-33	25	-4	-
Labor productivity					
- in industry		5	106	125	88
- in construction				62	82
- in agriculture					92
Retail trade			32	36	127
Real incomes			20 ^b		111 ^b
Average deviation of actual growth rates from planned (either direction), % of planned growth	52	56	39	58	16

Ratio of actual to planned growth rates of key indicators, by Five-Year Plan periods, % (continued)

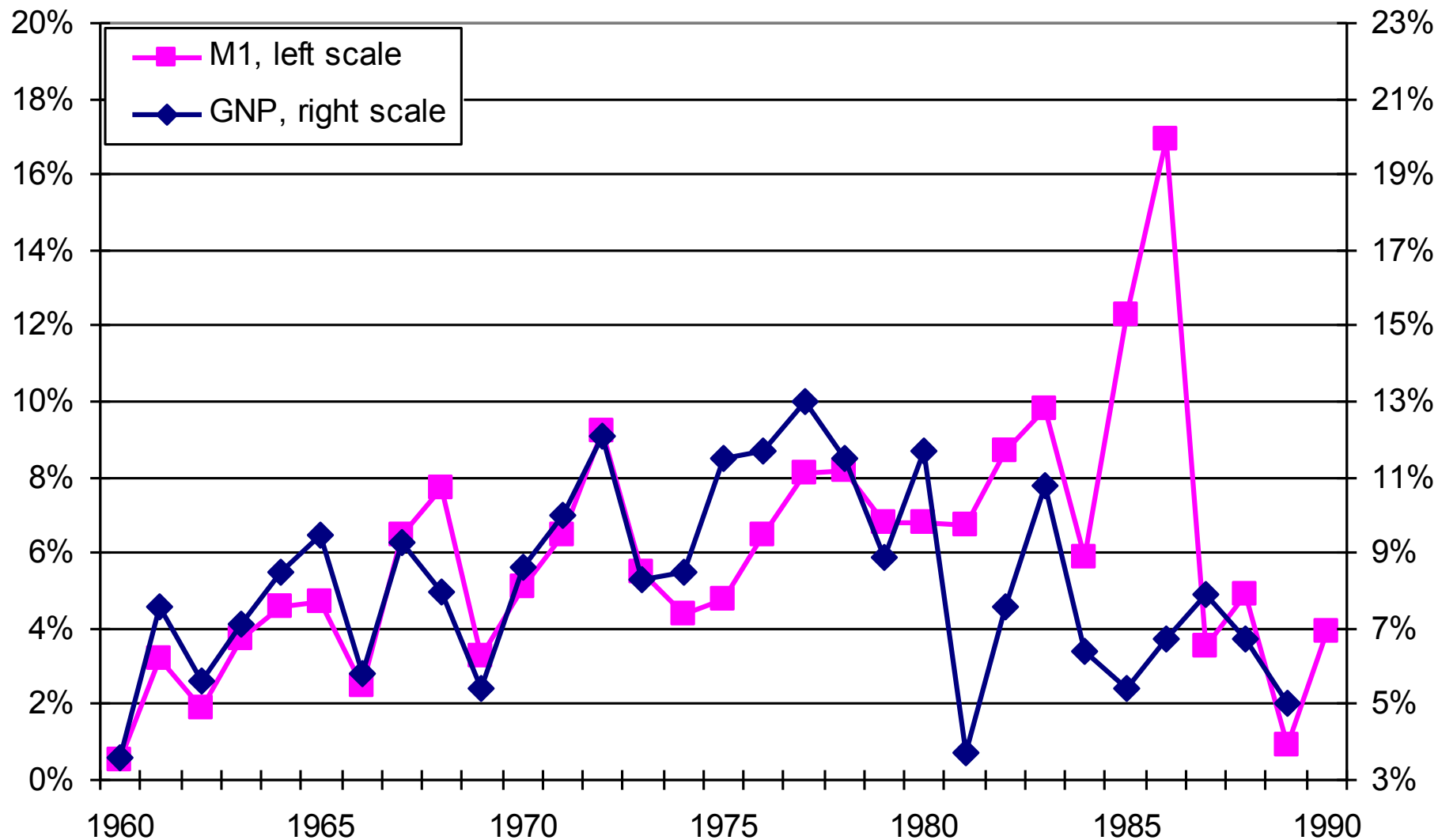
	Seven- Year Plan 1959-65	Eighth Five-Year Plan, 1966-70	Ninth Five-Year Plan, 1971-75	Tenth Five-Year Plan, 1976-80	Eleventh Five-Year Plan, 1981-85
National income produced	94	114	-	-	-
Utilized national income			72	80	92
Gross industrial output	105	103	91	67	77
- production of means of production	112	101			
- production of objects of consumption	94	112			
Gross agricultural output	21	84	68	56	42
Labor productivity					
- in industry	88	93	87	55	74
- in construction	85	59	78	36	93
- in agriculture	75	87	20	53	34
Retail trade	97	120	86	84	70
Real incomes	75	110	80	85	67
Average deviation of actual growth rates from planned (either direction), % of planned growth	19	14	27	36	31

^a Planned indicators calculated by fiscal year, beginning October 1; actual rates by calendar year.

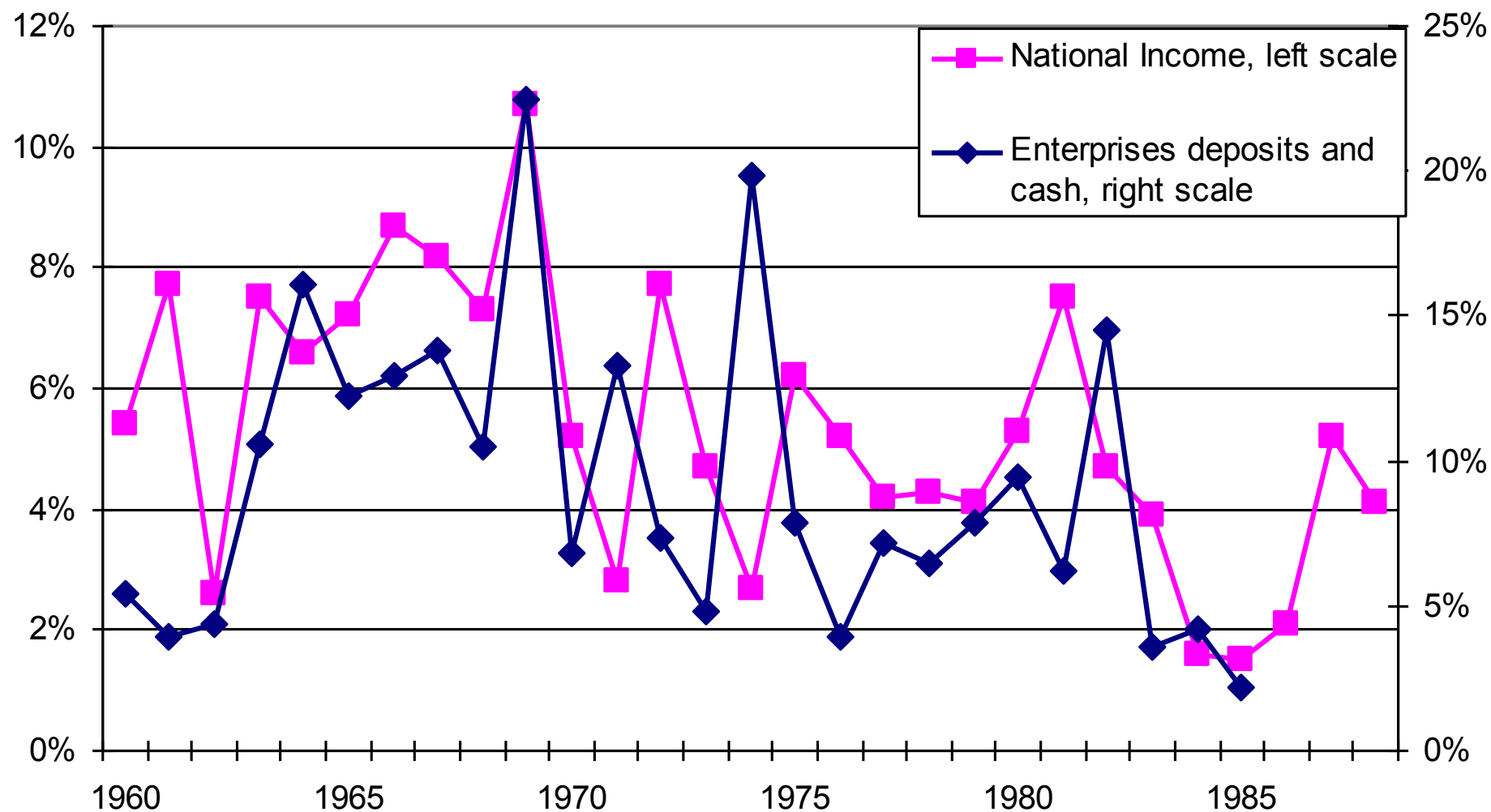
^b Real wages.

Source: *EKO*, 1987, N.11, pp. 37-50.

US money supply and GNP, annual growth rates, %

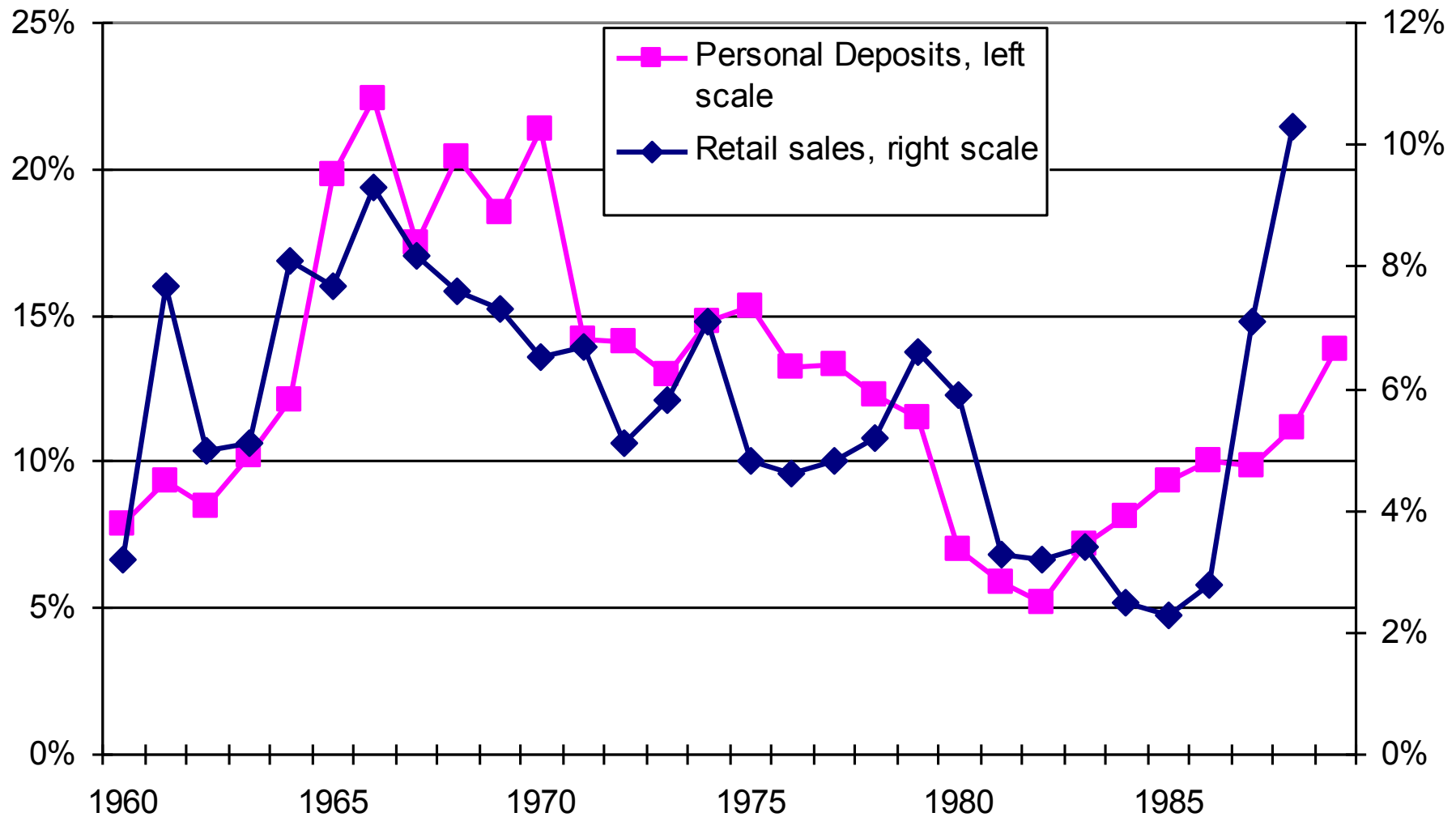


Enterprises deposits and national income in current prices, annual growth rates, %



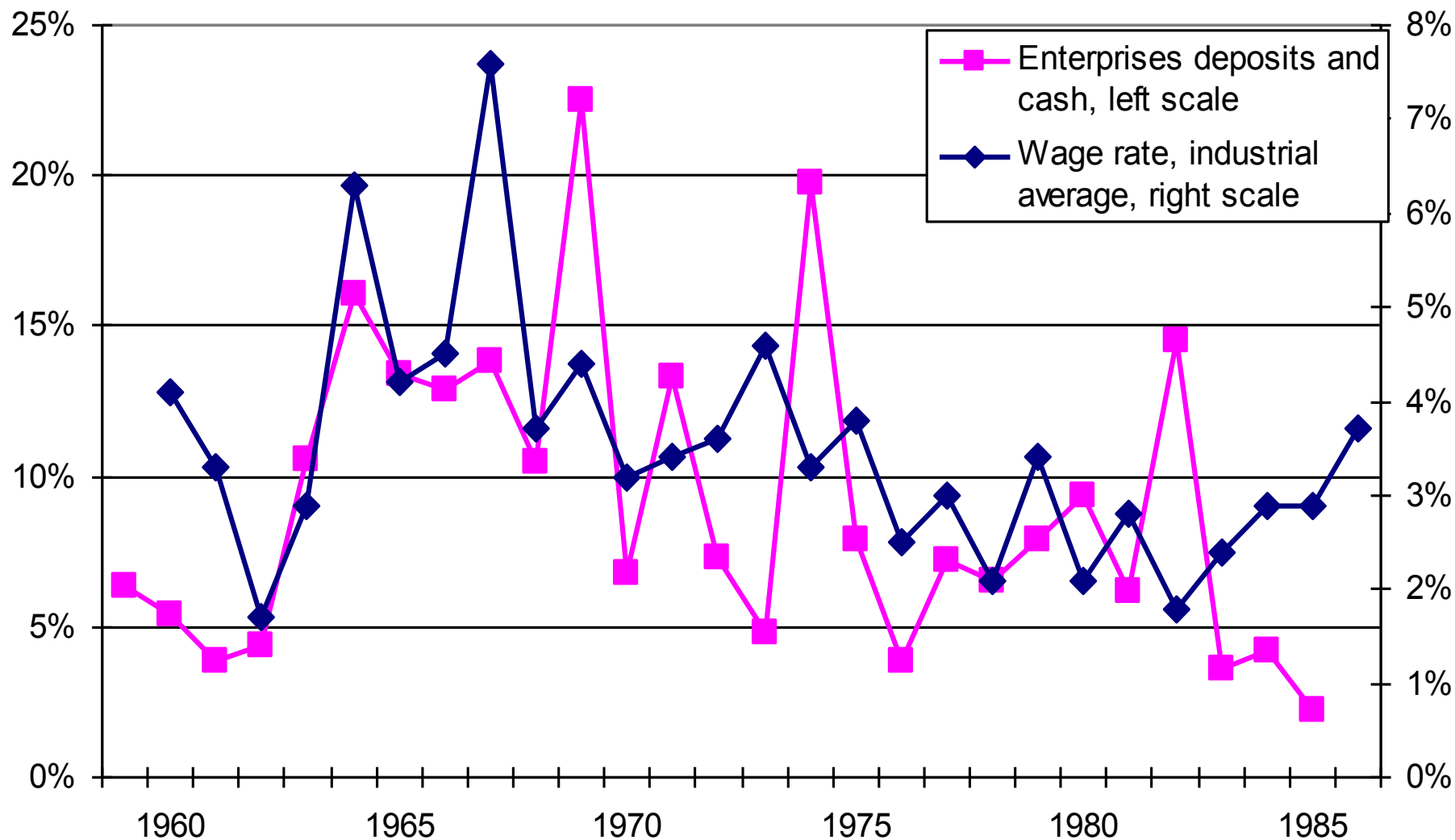
Note: the National Income curve is shifted to the left by one year

Personal bank deposits and retail sales in current prices, annual growth rates, %



Note: the retail sales curve is shifted to the left by one year

Money supply and wages, annual growth rates, %



Note: The wage rate curve is shifted to the left by one year

How the increase in money supply leads to the increase in prices and output in the CPE

