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THE SRI-WEFA SOVIET ECONOMETRIC MODEL: PHASE THREE DOCUMENTATION – VOLUME II

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This volume contains the appendices for the Technical Note presenting the results of Phase Three work on the SRI-WEFA Econometric Model of the Soviet Union. Appendix A is documentation for SOVMOD II version of the SRI-WEFA model, while Appendix B documents the SOVMOD III version.

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19. KEY WORDS (Continued)

20. ABSTRACT (Continued)

ABSTRACT

This volume contains the appendices for the Technical Note presenting the results of Phase Three work on the SRI-WEFA Econometric Model of the Soviet Union. Appendix A is documentation for SOVMOD II version of the SRI-WEFA Model, while Appendix B documents the SOVMOD III version.

DISCLAIMER

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Appendix A

DOCUMENTATION FOR THE SRI-WEFA ECONOMETRIC MODEL OF THE SOVIET UNION

- SOVMOD II -

APPENDIX A

DOCUMENTATION FOR THE SRI-WEFA ECONOMETRIC MODEL OF THE SOVIET UNION: SOVMOD II

by

DONALD W. GREEN

I. Structure and Scale

In its fully endogenous mode, the model consists of 156 stochastic relationships (behavioral and technical) and 97 identities arranged in the sectors given below. Each sector is identified by a single letter which is then used as the initial letter in the names of all variables determined in that sector.

SECTOR IDENTIFIER	SECTOR NAME	EQUATIONS BEHAVIORAL	EQUATIONS IDENTITY
N	Population and Employment	26	2
I	Investment	19	5
K	Capital Formation	18	24
A	Other Agricultural Variables	2	
X	Production	19	
U	Material Inputs		33
W	Wages	6	
Z	Incomes	5	4
P	Prices	11	2
C	Consumption	4	1
T	Budget Renenues	5	2
B	Budget Outlays	6	1
E	Exports	14	7
M	Imports	15	6
F	Hard Currency	4	5
G	Aggregate Identities & Balances	2	5
	TOTAL	156	97

II. Simulation of SOVMOD II

The model is encoded into a simulation program using the WEFA general model solution system SOLVEM.* This program has standard facilities to convert the status of any variable (e.g., from endogenous) and to apply additive adjustments to any variable. In addition it has facility to change the status of BLOCKS of the model which has been utilized in the following way.

BLOCK NO.	DESCRIPTION	CONSISTING OF SECTORS
1	Population and Employment	N
2	Capital Formation	K
3	Production	A,X
4	Wages, Incomes and Prices	W,Z,P
5	Investment	I
6	Consumption	C
7	State Budget	T,B
8	Foreign Sector	E,M,F
9	Aggregates	G
10	Material Inputs	U

Most of the simultaneity in the model occurs in Blocks 1-5 and 10; the other four Blocks are virtually post-recursive except for certain import equations (grain and machinery) in Block 8. SOLVEM has a BLOCK feature which allows the user to change the status of an entire Block of equations from endogenous to enogenous.

SOLVEM also has the facility to allow the user to select different alternatives of an equation or set of equations, thus establishing different variants of the model. The alternative switches en-

* The coding of SOVMOD II was done by Raymond Chién. We are indebted to George Schink and Bill Brown, the developers of SOLVEM, for guidance in using it for this model.

coded in SOVMOD II are given below where ZERO is the initial default option:

ALTERNATE SWITCH NO.	SETTING	ALTERNATIVE	EQUATION NUMBERS
1	ZERO	Non-agricultural investment by adding components	I.1a-6a
	ONE	Non-agricultural investment by direct function (components by exogenous ratios).	I.1b-6b
2	ZERO	Industrial branch investment by direct function	I.10a-I.20a
	ONE	Industrial branch investment determined by aggregate level and exogenous share	I.10b-I.20a
3	ZERO	Gross profits, no anticipation variable	Z.7a
	ONE	Gross profits, with anticiaption variable ZFPG&9	Z.7b
	TWO	Gross profits determined by Residual Income	Z.7c
4	ZERO	Total consumption by adding components	C.1b
	ONE	Total consumption by direct function	C.1a
	TWO	Total consumption by residual function	C.1c
5	ZERO	Consumption Components by direct functions	C.2a-C.5a
	ONE	Consumption components by share functions.	C.2b-C.5b
6	ZERO	Industrial output, disaggregated capital stock, dummy variable 1964-1966	X.1a
	ONE	Industrial output, disaggregated capital stock, no dummy	X.1b

ALTERNATE SWITCH NO.	SETTING	ALTERNATIVE	EQUATION
6 (con't)	TWO	Industrial output, aggregated capital stock, dummy variable 1944-66.	X.1c
	THREE	Industrial output, aggregated capi-capital sotck, no dummy	X.1d
7	ZERO	Grain output, link equation to gross agricultural output.	X.18a
	ONE	Grain output, direct production function.	X.18b
8	ZERO	Direct production functions for industrial branches using only primary inputs.	X.7a-X.18a
	ONE	Production functions using exogenous material input series from I-O data.	X.7b-X.18b
	TWO	Same production functions as ONE with material inputs determined endogenously with balanced B matrix.	X.7b-X.18b U.1-U.2 UF-2
	THREE	Same production functions as ONE but material inputs determined endogenously using A Matrix and excess demands distributed using B Matrix.	X.7b-X.18b U.1-U.2 UF-3
	FOUR	Same as THREE, but excess demands distributed so as to minimize weighted coefficient change.	X.7b-X.18b U.1-U.2 UF-4

Except in the form in which total consumption is residually determined (Alt. 4=TWO), GNP is determined both from the side of production (eq. G.3) and from the side of use (by adding components). The difference is a simulation residual defined in equation G.7.

III. Variables

Variables in the model are contained in the attached alphabetical list; there are 252 endogenous and 140 exogenous variables. The following naming conventions have been employed.*

SYMBOL		CONVENTION
Initial Symbol		
Sector symbols		Sector of model (see above list) in which endogenous variable is determined.
Q		Dummy or time trend variables (figures following generally denote year(s), e.g., Q65 is a dummy variable for 1965).
Final Symbol		
9		Exogeneous variable other than Q-type.
Embedded or Trailing Symbols		
Industries	I	Industry
	C	Construction
	T	Transport and Communications
	S	Domestic Trade
	G	Government and Services
	A	Agriculture
Industrial Branches	EP	Electro Energy
	CP	Coal Products
	PP	Petroleum Products
	FM	Ferrous Metallurgy
	NF	Nonferrous Metallurgy
	CH	Chemicals and Petrochemicals
	FP	Forest Products
	PA	Paper and Pulp

* The reader is urged to study these conventions prior to consulting the equations of the model as an understanding of them will greatly facilitate that process.

SYMBOL		CONVENTION
Industrial Branches (cont)		
	CM	Construction Materials
	MB	Machine-Building and Metal-Working
	SG	Soft Goods
	PF	Processed Foods
	NC	Not-Classified Elsewhere (Residual)
Other	&	Current ruble value (always used)
	$	Current dollar value (always used)
	70	1970 Ruble basis (not always used)

NOTE: A variable is enogenous if and only if its name ends in 9 or begins with Q.

Data file management programs developed at WEFA were used to construct, maintain and utilize a databank for the model.* The structure of the list of variables is largely self-explanatory. Variable # refers to the number of the variable in the model (simulation program) which generally differs from the number on the data-bank. The set of model variables is a subset of the complete data-bank.

* We are indebted to Virginia Long for assistance in setting up these programs for our purposes.

SEPT 2, 1975

D O C U M E N T A T I O N

SERIES	LABEL	DESCRIPTION	QTR	MON	ANN	UNITS	SOURCE	VAR#	EQU#
67	AACI	INDEX OF AGRICULTURAL INPUTS, CURRENT PURCHASES				1965=100.	TRAN	1023	A.2
563	ALVP	VALUE OF PRODUCTIVE LIVESTOCK, (MEAN YEAR 1955 PRICES)				B RUBLES	DIAMOND	1013	A.1
362	BAD8	STATE BUDGET EXPENDITURES, ADMINISTRATION				B CUR R	NKHOZ	1498	B.4
361	BD89	STATE BUDGET EXPENDITURES, DEFENSE				B CUR R	NKHOZ	152E	
657	BLH89	DEFENSE PERSONNEL EXPENDITURES IN CURRENT PRICES				B.CURR.R.	COHN74	153E	
358	BFK.	STATE BUDGET EXPENDITURES, FINANCING THE NATIONAL ECONOMY, TOTAL				B CUR R	NKHOZ	1468	B.1
359	BGNR	STATE BUDGET EXPENDITURES, GOVT SPENDING, NATL ACCOUNTS BASIS				B CUR R	NKHOZ	151I	B.6
562	BNAUKA	SCIENCE EXPENDITURES, USSR BUDGET (CURRENT PRICES)				B RUBLES	COHN73	1488	B.3
160	BPSS	TRANSFER PAYMENTS (1973 FIGURES)				B R	73JEC393	2418	B.7
617	BRES&	STATE BUDGET,EXPENDITURE RESIDUAL				B RUBLES	NKHOZ	1508	B.5
360	BSCS	STATE BUDGET EXPENDITURES, SOCIAL AND CULTURAL MEASURES(INCL. SCIENCE)				B CUR R	NKHOZ	1478	B.2
415	CE	CONSUMPTION , OER BASIS , TOTAL				B 1970R	TRAN	134I	C.1
413	CHD	CONSUMPTION , OER BASIS , CONSUMER DURABLES				B 1970R	TRAN	137B	C.4
411	CNF	CONSUMPTION , OER BASIS , FOOD				B 1970R	TRAN	1352	C.2
412	CNJD	CONSUMPTION , OER BASIS , SOFT GOODS				B 1970R	TRAN	136B	C.3
414	CNS	CONSUMPTION , OER BASIS , SERVICES				B 1970R	TRAN	1358	C.5
714	EGJCM&	EXPORTS TO CMEA OF CATEGORY III AND IV EXCEPT GRAIN				MRB		2578	E.4
785	EGJCA1	EXPORTS TO CUBA				M$US	OER	2723	E.19
723	EFOD&,	EXPORTS OF FOOD TO THE DH				M$US	OER	2623	E.9
713	EGRCM&	GRAIN EXPORTS TO CMEA				MRB	OER	2568	E.3
734	EGRDA,	GRAIN EXPORTS TO THE DH				M$US	OER	2618	E.8
733	EGWLDC$	GRAIN EXPORTS TO LDC				M$US	OER	267B	E.14
775	EMCHN1	EXPORTS OF MACHINERY TO CHINA				M$US	OER	2698	E.16
702	EMCM&	EXPORTS TO CMEA OF CMEA CATEGORY I COMMODITIES				MRB	INDIANA	255B	E.2
715	EMCTCM&	BALANCE OF TRADE WITH CMEA				MRB		259I	E.6
726	EMETD$	EIGHS-NIGHS				M$US	OER	265I	E.12
737	EMETG=	NET GRAIN EXPORT BALANCE AT 63 PRICES				CONS.63$US		264B	E.11
722	EMFDA$	EXPORTS TO THE DH OTHER THAN FOOD				M$US	OER	2608	E.7
776	EMCH$	NONMACHINERY EXPORTS TO CHINA				M$US	OER	2708	E.17
787	EOSC$	EXPORTS TO YUGOSLAVIA AND THE FAR-EASTERN SOCIALIST COUNTRIES				M$US	OER	268B	E.15
703	EMCM$&	EXPORTS TO CMEA OF CMEA CATEGORY II COMMODITIES				MRB	INDIANA	254B	E.1
774	ETCH$	TOTAL EXPORTS TO CHINA				M$US	OER	271I	E.18
781	ETCM$	TOTAL EXPORTS TO EUROPEAN CMEA(EXCL.YUGOSLAVIA,ALBANIA)				MRB	INDIANA	258I	E.5
741	ETDA1	TOTAL EXPORTS TO THE DEVELOPED WEST				M$US	OER	263I	E.10
772	ETLDC1	TOTAL EXPORTS TO LDC				M$US	OER	266B	E.13
7e0	ETW$	TOTAL EXPORTS TO THE WORLD				M$US	OER	273I	E.20
762	ETW70	TOTAL EXPORTS TO THE WORLD IN DOMESTIC CURRENCY				M 1970 RB		274I	E.21
706	EUSCM&9	UNSPECIFIED EXPORTS TO CMEA				MRB	INDIANA	312E	
753	EUSW39	UNSPECIFIED EXPORTS TO THE WORLD				M$US	OER	308E	
754	FCDA39	HARD CURRENCY CREDIT DRAWINGS				M$US	OER	330E	
752	FCRP1,	CREDIT REPAYMENTS IN HARD CURRENCY				M$US	OER	322B	F.2
746	FDCH$	OUTSTANDING DEBT AT THE END OF THE YEAR				M$US	OER	323I	F.3
748	FDHC$	HARD CURR.BALANCE OF P.SURPLUS:EMETH$+GSALE$+CDRAW$9+SERTR9-INT$-CREP				M$US	OER	325I	F.5
745	FGOLD	GOLD RESERVES AT THE END OF THE YEAR				TONS	OER	328I	F.8
756	FGSALE$	GOLD SALES				M$US	OER	327B	F.7

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SERIES	LABEL	DESCRIPTION	QTR	MON	ANN	UNITS	SOURCE	VAR#	EQU#
751	FINT$	INTEREST PAYMENTS IN HARD CURRENCY				M$US	OER	324B	F.4
747	FLIC	(FGOLD*PGOLD9-FUEBT9)/PTOW$					TRAN	329I	F.9
757	FXETHC$	HARD CURRENCY BALANCE OF PAYMENTS				M$US	OER	321B	F.1
758	FSLR$9	HARD CURRENCY BALANCE OF SERVICES AND TRANSFERS				M$US	OER	320E	
744	FST$$	ACCUMULATED HC. HOLDINGS SINCE1959				M$US		326I	F.6
475	GEUSU1	GNP END- USE SUM (EXCL. CR AND NET IMPORTS)				D.1970R	TRAN	210I	G.5
595	GIKRER	GNP END-USE INVESTMENT , CAPITAL REPAIR				1970=100.	OER73	155B	G.4
474	GNP	USSR GNP = SOVMOD II				D.1970R	TRAN	96I	G.3
597	GNPA	GNP AT ESTABLISHED PRICES,AGRICULTURAL (1970 OER MOVED)				B RUBLES	TRAN	95I	G.2
791	GNPCH9	GNP OF CHINA				1968=100	JEC	306E	
473	GNPNA	NONAGRICULTURAL GNP = SOVMOD II				B.1970R	TRAN	94I	G.1
476	GRESE1	GNP END-USE RESIDUAL = SOVMOD II				D.1970R	TRAN	191B	G.6
647	GSIZRES	ZEROES TO USE AS ACTUAL VALUES FOR SIMULATION RESIDUAL				NONE	NONE	244I	G.7
349	IA	CAPITAL INVESTMENT IN AGRICULTURE 72R				B 1972R	TRAN	13B	I.7
262	ICONB	CAPITAL INVESTMENT IN CONSTRUCTION				B RUBLES	NARKHOZ	014B	I.2
339	IFAG89	STATE BUDGET FINANCE, AGRICULTURE				D CURR R	PRAVDA	22E	
593	IFAJ8	STATE BUDGET FINANCING OF CENTRALIZED INV., ADJUSTED				B CUR R	TRAN	227I	I.8
335	IFIN89	INDUSTRY AND CONSTRUCTION				B CUR R	CUR DIG	20E	
336	IFTR89	TRANSPORTATION AND COMMUNICATION				B CUR R	CUR DIG	21E	
426	IHS	INVESTMENT IN HOUSING, ADJ TO 1970 PRICES				B RUBLES	NARKHOZ	16B	I.4
657	IICH	CAPITAL INVESTMENT, (CHEMICALS AND PETROCHEMICALS)				B 1970 R	NKHOZ	6B	I.15
663	IICM	CAPITAL INVESTMENT, (CONSTRUCTION MATERIALS)				B 1970 R	NKHOZ	9B	I.18
651	IICP	CAPITAL INVESTMENT, (COAL PRODUCTS)				B 1970 R	NKHOZ	3B	I.11
649	IIEP	CAPITAL INVESTMENT, (ELECTROENERGY)				B1970 R	NKHOZ	2B	I.10
652	IIFM	CAPITAL INVESTMENT, (FERROUS METALS)				B 1970 R	NKHOZ	5B	I.13
661	IIFP	CAPITAL INVESTMENT, (FOREST PRODUCTS(INCL PAPER))				B 1970 R	NKHOZ	8B	I.17
659	IIMP	CAPITAL INVESTMENT, (MACHINE BUILDING AND METAL WORKING)				B 1970 R	NKHOZ	7B	I.16
347	IIN	CAPITAL INVESTMENT IN INDUSTRY 72R				B 72R	NARKHOZ	1B	I.1
681	IINF	CAPITAL INVESTMENT,NONFERROUS METALLURGY (RESIDUAL CATEGORY)				D.1970RUB.	NKHOZ.	12B	I.14
667	IIPF	CAPITAL INVESTMENT, (PROCESSED FOOD INDUSTRY)				B 1970 R	NKHOZ	11B	I.20
653	IIPP	CAPITAL INVESTMENT, (PETROLEUM PRODUCTS)				B 1970 R	NKHOZ	4B	I.12
665	IISK	CAPITAL INVESTMENT, (LIGHT INDUSTRY)				B 1970 R	NKHOZ	10B	I.19
503	IIX	INVESTMENT NONAGRICULTURAL				B RUBLES	TRAN	18I	I.6
31	IPCH9	BRANCH INVESTMENT SHARE: CHEMICALS & PETROCHEMICALS				NONE	NKH-TRAN	235E	
34	IPCM9	BRANCH INVESTMENT SHARE: CONSTRUCTION MATERIALS				NONE	NKH-TRAN	238E	
27	IPCP9	BRANCH INVESTMENT SHARE: COAL PRODUCTS				NONE	NKH-TRAN	231E	
25	IPEP9	BRANCH INVESTMENT SHARE: ELECTROENERGY				NONE	NKH-TRAN	230E	
27	IPFM9	BRANCH INVESTMENT SHARE: FERROUS METALLURGY				NONE	NKH-TRAN	233E	
32	IPFP9	BRANCH INVESTMENT SHARE: FOREST PRODUCTS				NONE	NKH-TRAN	237E	
481	IPIC9	PERCENTAGE NONAGRICULTURAL INVESTMENT, CONSTRUCTION				NONE	TRAN	184E	
643	IPIH9	PERCENTAGE NONAGRICULTURAL INVESTMENT, HOUSING				NONE	TRAN	186E	
479	IPII9	PERCENTAGE NONAGRICULTURAL INVESTMENT, INDUSTRY				NONE	TRAN	183E	
644	IPIS9	PERCENTAGE NONAGRICULTURAL INVESTMENT, SERVICES				NONE	TRAN	187E	
480	IPIT9	PERCENTAGE, NON AGRICULTURAL INVESTMENT, TRANSPORT AND COMMUNICATION				NONE	TRAN	185E	
32	IPMP9	BRANCH INVESTMENT SHARE: MACHINE-BUILDING & METAL-WORKING				NONE	NKH-TRAN	236E	

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SERIES	LABEL	DESCRIPTION	QTR	MON	ANN	UNITS	SOURCE	VAR#	EQU#
30	IBNF9	BRANCH INVESTMENT SHARE: NON-FERROUS (RESIDUAL SHARE)				NONE	NKH-TRAN	234E	
36	IBPF9	BRANCH INVESTMENT SHARE: PROCESSED FOODS				NONE	NKH-TRAN	240E	
28	IBPP9	BRANCH INVESTMENT SHARE: PETROLEUM PRODUCTS				NONE	NKH-TRAN	232E	
35	IBSG9	BRANCH INVESTMENT SHARE: SOFT GOODS				NONE	NKH-TRAN	239E	
371	ISER	CAPITAL INVESTMENT IN SERVICES 72R				B RUBLES	NARKHOZ	178	I.5
544	IS70NTA	INVENTORY STOCK, END YEAR, NON-TRADE,NON-AGR., 1970 PRICES				B 1970 R	TRAN	156I	I.24
541	IS70T	INVENTORY STOCK, END YEAR, DOMESTIC TRADE, 1970 PRICES				B 1970 R	TRAN	157I	I.22
470	IITOTAL	INVESTMENT, NATIONAL ECONOMY				B RUBLES	TRAN	019I	I.9
259	ITRUB	CAPITAL INVESTMENT IN TRANSPORT & COMMUNICATIONS				B RUBLES	NARKHOZ	015B	I.3
546	I70NTA	CHANGE IN INV. STOCK,END YEAR AT 1970 PRICES,NON-TRADE NON-AGRIC				B 1970 R	TRAN	158B	I.23
545	I70T	CHANGE IN INV. STOCK,END YEAR AT 1970 PRICES,DOMESTIC TRADE				B 1970 R	TRAN	159B	I.21
435	JPS9	SUM OF DEVIATIONS FROM MONTHLY PRECIPITATION VALUES				CM	IMS	98E	
611	JTW9	WEATHER INDEX, WINTER TEMP INDEX FOR SOUTHERN UKRAINE				NONE	D-G	99E	
562	KAIP	AGRICULTURAL FIXED CAPITAL (MEAN YEAR 1955 PRICES)				B RUBLES	DIAMOND	35I	K.17
426	KCOA	BASIC FUNDS: TRADE,SUPPLY,OTHER NP(JAN.1),1955 PRICES				B.1955R	NKH	33I	K.10
464	KCR	BASIC FUNDS, CONSTRUCTION (JAN 1, 1955 PRICES)				B RUBLES	TRAN	036I	K.4
505	KHA	ADJUSTED BASIC FUNDS, HOUSING (JAN 1, 1955 PRICES)				B RUBLES	TRAN	042I	K.14
427	KHBF	BASIC FUNDS IN HOUSING (JAN 1, 1955 PRICES)				B RUBLES	NARKHOZ	038I	K.12
507	KIA	ADJUSTED BASIC FUNDS,INDUSTRY JAN 1,1955 PRICES				B RUBLES	TRAN	041I	K.2
449	KICHF	BASIC FUNDS, CHEMICALS, WESTERN IMPORTS, JAN.1				B.1955R.	DG	339I	K.41
165	KICH	CAPITAL STOCK, CHEMICALS AND PETROCHEMICALS (JAN.1)				B.1955R	COHN 70	29I	K.27
164	KICM	CAPITAL STOCK, CONSTRUCTION MATERIALS				B.1955R	COHN 70	32I	K.33
159	KICP	CAPITAL STOCK, COAL PRODUCTS				B.1955R	COHN 70	26I	K.21
158	KIEP	CAPITAL STOCK, ELECTRIC POWER				B.1955R	COHN 70	25I	K.19
687	KIF	INDUSTRIAL CAPITAL DERIVED FROM WESTERN IMPORTS (END YEAR VALUE)				B.1970RUB.	DWG	44I	K.18
161	KIFM	CAPITAL STOCK, FERROUS METALS				B.1955R	COHN 70	28I	K.25
163	KIFP	CAPITAL STOCK, FOREST PRODUCTS				B.1955R	COHN 70	31I	K.31
506	KIH629	BASIC FUNDS ADJUSTMENT FOR 1962I-H TRANSFER OF HOUSING CAPITAL				B RUBLES	TRAN	179E	
502	KIMCF	BASIC FUNDS, MPMW, WESTERN IMPORTS, JAN.1				B.1955R.	DG	340I	K.42
166	KIMP	CAPITAL STOCK, MACHINE-BUILDING AND METAL-WORKING				B.1955R	COHN 70	30I	K.29
160	KIPF	CAPITAL STOCK, PROCESSED FOODS				B.1955R	COHN 70	34I	K.37
976	KIPPF	BASIC FUNDS, PETROLEUM PRODUCTS, TOTAL IMPORTS (JAN.1)				B.1955R.	DWG	331I	K.40
160	KIPP	CAPITAL STOCK, PETROLEUM PRODUCTS				B.1955R	COHN 70	27I	K.23
167	KISG	CAPITAL STOCK, SOFT GOODS				B.1955R	COHN 70	33I	K.35
169	KITOT	CAPITAL STOCK, TOTAL INDUSTRY				B 1955R	COHN70	024I	K.1
505	KIT589	BASIC FUNDS ADJUSTMENT FOR 1958 I-T TRANSFER OF RR CAPITAL (AT DEC 31)				B RUBLES	TRAN	178E	
514	KNBC	NET CHANGE IN BASIC FUNDS, CONSTRUCTION				B RUBLES	TRAN	163B	K.5
196	KNBDM	NET CHANGE IN BASIC FUNDS, DOMESTIC TRADE				B.1955R	NKH	165B	K.11
516	KNBH	NET CHANGE IN BASIC FUNDS,HOUSING				B RUBLES	TRAN	166B	K.13
511	KNBI	NET CHANGE IN BASIC FUNDS, INDUSTRY				B RUBLES	TRAN	162B	K.3
513	KNBT	NET CHANGE IN BASIC FUNDS, TRANSPORT & COMMUNICATIONS				B RUBLES	TRAN	164B	K.8
201	KNICH	NET CHANGE IN BASIC FUNDS: CHEMICAL & PETROCHEMICAL				B.1955R.	NKH	172B	K.28
204	KNICM	NET CHANGE IN BASIC FUNDS: CONSTRUCTION MATERIALS				B.1955R.	NKH	175B	K.34
196	KNICP	NET CHANGE IN BASIC FUNDS: COAL PRODUCTS				B.1955R.	NKH	169B	K.22
197	KNIEP	NET CHANGE IN BASIC FUNDS: ELECTROENERGY				B.1955R.	NKH	168B	K.20

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SERIES	LABEL	DESCRIPTION	QTR	MON	ANN	UNITS	SOURCE	VAR#	EQU#
200	KNIFM	NET CHANGE IN BASIC FUNDS: FERROUS METALLURGY				B.1955R.	NKH	171B	K.26
201	KNIFP	NET CHANGE IN BASIC FUNDS: FOREST PRODUCTS				B.1955R.	NKH	174B	K.32
202	KNIMB	NET CHANGE IN BASIC FUNDS: MACHINE-BUILDING & METAL-WORKING				B.1955R.	NKH	173B	K.30
206	KNIPF	NET CHANGE IN BASIC FUNDS: PROCESSED FOOD				B.1955R.	NKH	177B	K.33
193	KNIPP	NET CHANGE IN BASIC FUNDS: PETROLEUM PRODUCTS				B.1955R.	NKH	170B	K.24
205	KNISG	NET CHANGE IN BASIC FUNDS: SOFT GOODS				B.1955R.	NKH	176B	K.36
194	KNSER	NET CHANGE IN BASIC FUNDS, SERVICES				B.1955R.	NKH	167B	K.16
207	KSER	BASIC FUNDS, SERVICES (JAN.1)				B.1955R.	NKH	40I	K.15
490	KSUM	BASIC FUNDS, NATIONAL ECONOMY, JULY 1				B.1955R.	TRAN	158I	K.39
503	KTA	ADJUSTED BASIC FUNDS, TRANSPORT AND COMMUNICATION (JAN 1,1955 PRICES)				B RUBLES	TRAN	043I	K.7
423	KTCUS	RAILROAD CAR UTILIZATION, AVE 24HR DISTANCE PER FREIGHT CAR				KMS/24HR	SVYAZ103	097B	K.9
483	KTR	BASIC FUNDS, TRANS & COMM JAN 1,1955 PRICES				B RUBLES	TRAN	037I	K.6
441	KWAL9	PERCENT OF KWAI LIVESTOCK BEING FATTENED & YOUNG LIVESTOCK				PERCENT	NARKHOZ	104E	
711	MCOEMA	IMPORTS FROM CMEA OF CMEA CATEGORY IV COMMODITIES				MRB	INDIANA	278B	M.5
733	MCOFGS	IMPORTS OF FOOD AND MANUF.CONS.GOODS,EXCLUDED GRAIN,FROM THE DW				MSUS	OER	202B	M.8
739	MCOMAC	IMPORTS FROM CMEA				MSUS	OER	289B	M.15
714	MEUCMA	IMPORTS FROM CMEA OF CMEA CATEGORY III COMMODITIES				MRB	INDIANA	277B	M.3
735	MGRDWS	GRAIN IMPORTS FROM THE DW				MSUS	OER	284I	M.10
972	MIECHA	IMPORTS, WEST, CHEMICAL EQUIPMENT				M.CUR.$	OER74	342B	M.21
692	MIEINA	IMPORTS,DEVELOPED WEST,MACHINERY&EQUIPMENT(LESS TRANSPORT EQUIP.)				MSUS	73JEC	211B	M.10
730	MMACMA	IMPORTS FROM CMEA OF CMEA CATEGORY I COMMODITIES				MRB	INDIANA	276B	M.2
727	MMADWS	MACHINERY IMPORTS FROM THE DW				MSUS	OER	281B	M.7
726	MNGDWS	IMPORTS FROM THE DW OTHER THAN GRAIN				MSUS	OER	280B	M.6
741	MOSOS	IMPORTS FROM YUGOSLAVIA AND THE FAR EASTERN SOCIALIST COUNTRIES				MSUS	OER	287B	M.13
709	MRMCMA	IMPORTS FROM CMEA OF CMEA CATEGORY II COMMODITIES				MRB	INDIANA	275B	M.1
731	MRNDWS	IMPORTS FROM THE DW,OTHER THAN MACHINERY,CONS,,OR UNSPEC.				MSUS	OER	283I	M.9
777	MTCHS	TOTAL IMPORTS FROM CHINA				MSUS	OER	288B	M.14
707	MTCMA	TOTAL IMPORTS FROM EUR. CMEA(EXCL.YUGOSLAVIA,ALBANIA)				MRB	INDIANA	279I	M.5
727	MTDWS	TOTAL IMPORTS FROM THE DEVELOPED WEST				MSUS	OER	285I	M.11
773	MTLDC	TOTAL IMPORTS FROM LDC				MSUS	OER	286B	M.12
978	MTM10	IMPORTS, TOTAL, MACHINERY (FTN 10 : METALWORKING MACHINERY)				M.CUR.R	VNTORG	343B	M.19
979	MTM12	IMPORTS, TOTAL, MACHINERY (FTN 12 : MINING,METALLURGY,PETROLEUM)				M.CUR.R	VNTORG	341B	M.20
781	MTWS	TOTAL IMPORTS FROM THE WORLD				MSUS	OER	290I	M.16
765	MTW70	TOTAL IMPORTS FROM THE WORLD IN DOMESTIC CURRENCY				M 1970 RB		291I	M.17
712	MUSCMA9	UNSPECIFIED IMPORTS FROM CMEA				MRB	INDIANA	311E	
732	MUSDW79	UNSPECIFIED IMPORTS FROM THE DW				MSUS	OER	313E	
759	MUSWS9	UNSPECIFIED IMPORTS FROM THE WORLD				MSUS	OER	317E	
492	NAMBV	AGRICULTURAL EMPLOYMENT, PRIVATE (MAN-YEAR EQUIVALENTS)				M.PERSONS	FDAD75	66B	N.12
493	NAS#	AGRICULTURAL EMPLOYMENT, STATE AND COLLECTIVE FARMS				M.PERSONS	FDAD75	65B	N.11
494	NAT	AGRICULTURAL EMPLOYMENT, TOTAL				M.PERSONS	FDAD75	67I	N.13
744	NC10	POPULATION IN THE EUROPEAN CMEA				M	UN	294E	
646	NEIND9	HIGH ED.ENR.: ALL INDUSTRIAL CATEGORIES				(000)	NKHOZ	74E	
635	NEMET9	HIGH.ED.ENR : METALLURGY				(000)	NKHOZ	334E	
628	NEMIN9	HIGH.ED.ENR : MINING				(000)	NKHOZ	333E	

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SERIES	LABEL	DESCRIPTION	QTR	MON	ANN	UNITS	SOURCE	VAR#	EQUA
639	NETRA9	HIGH.ED.ENR : TRANSPORT				(000)	NKHOZ	75E	
390	NLET	ENGINEERING-TECHNICAL WORKERS IN INDUSTRY				000 MEN	NARKHOZ	072B	N.27
743	NLDC9	POPULATION IN AFRICA,SOUTH AMERICA AND SOUTH ASIA				M	UN	304E	
52	NMC	EMPLOYMENT, CONSTRUCTION				000 PERS	RAPAWY74	60B	N.5
49	NMF	EMPLOYMENT FORESTRY				000 PERS	RAPAWY74	58B	N.9
695	NMG	EMPLOYMENT, GOVERNMENT AND SERVICES				000PERS	TRAN	63B	N.8
48	NMI	EMPLOYMENT, INDUSTRIAL				000 PERS	RAPAWY74	45B	N.4
5	NMICH	AVERAGE ANNUAL EMPLOYMENT, BRANCH:CHEMICALS & PETROCHEMICALS				000PERSONS	RAPAWY	51B	N.19
9	NMICM	AVERAGE ANNUAL EMPLOYMENT, BRANCH:CONSTRUCTION MATERIALS				000PERSONS	RAPAWY	54B	N.23
3	NMICO	AVERAGE ANNUAL EMPLOYMENT, BRANCH:COAL PRODUCTS				000PERSONS	RAPAWY	47B	N.15
2	NMIEP	AVERAGE ANNUAL EMPLOYMENT, BRANCH:ELECTROENERGY				000PERSONS	RAPAWY	46B	N.14
6	NMIFM	AVERAGE ANNUAL EMPLOYMENT, BRANCH:FERROUS METALLURGY				000PERSONS	RAPAWY	49B	N.17
900	NMIFP	EMPLOYMENT, FOREST PRODUCTS (EXCL. PAPER)				THOU. PER.	RAPAWY75	53B	N.21
8	NMIMB	AVERAGE ANNUAL EMPLOYMENT, BRANCH:MACHINE-BUILDING & METAL-WORKING				000PERSONS	RAPAWY	52B	N.20
13	NMIMC	AVERAGE ANNUAL EMPLOYMENT, BRANCH:NCE (RESIDUAL)				000PERSONS	RAPAWY	57B	N.26
7	NMINF	AVERAGE ANNUAL EMPLOYMENT, BRANCH:NON-FERROUS METALLURGY				000PERSONS	RAPAWY	50B	N.18
693	NMIPA	ANNUAL EMPLOYMENT, PULP & PAPER				THOUS.PERS	RAPAWY	189B	N.22
12	NMIPF	AVERAGE ANNUAL EMPLOYMENT, BRANCH:PROCESSED FOOD				000PERSONS	RAPAWY	56B	N.25
4	NMIPP	AVERAGE ANNUAL EMPLOYMENT, BRANCH:PETROLEUM PRODUCTS				000PERSONS	RAPAWY	48B	N.16
11	NMISC	AVERAGE ANNUAL EMPLOYMENT, BRANCH:SOFT GOODS (LIGHT INDUSTRY)				000PERSONS	RAPAWY	55B	N.24
46	NMNA	EMPLOYMENT, ALL NON-AGRICULTURAL SECTORS				000 PERS	RAPAWY	64B	N.3
61	NMO	EMPLOYMENT,OTHER				000 PERS	RAPAWY74	59B	N.10
53	NMS	EMPLOYMENT, TRADE ETC.				000 PERS	RAPAWY74	62B	N.7
694	NMTC	EMPLOYMENT, TRANSPORTATION AND COMMUNICATIONS				000PERS	TRAN	61B	N.6
279	NPA89	POPULATION, ABLE BODIED AGES (16-59/54)				000 PERS	73JEC520	69E	
356	NPOPR	POPULATION RURAL (END YEAR)				M PERS	NKH 72.7	071I	N.2
354	NPOPU	POPULATION URBAN (END YEAR)				M PERS	NKH 72.7	070B	N.1
466	NPOP9	POPULATION, TOTAL				M	TRAN	6AE	
95	NTSPA	SPECIALISTS,TRCO (ENDYEAR),INTERPOLATION WITH LAGGED ENROLLMENTS				000PERS	NKH*DG	73B	N.28
742	NWE9	POPULATION IN WESTERN EUROPE				M	UN	301E	
368	PAFC70	PRICE FOOD SOLD TO CONSUMER CO-OPS AT NEGOTIATED PRICES, 1970 WEIGHTS				1970=100.	NKH+TRN	122B	P.3
725	PEXPD9	WORLD IMPORT PRICES WEIGHTED BY SOVIET EXPORTS				1963=100		296E	
716	PEXUC9	UNIT VALUE PRICE OF EXPORTS				1963=100	NEWETT	190E	
418	PFCC	CONSUMPTION PRICE, FOOD (FROM PIRF70 & PAFC70)				1970=100	TRAN	123I	P.4
755	PGOLD9	PRICE OF GOLD				M$US/TON	ESTIMATE	319E	
756	PGR9	PRICE INDEX OF WORLD MARKET GRAIN PRICES				1963=100	UN	299E	
407	PIA	INVESTMENT DEFLATOR, AGRICULTURE				1972=100.	NARKHOZ	133B	P.13
405	PIC	INVESTMENT DEFLATOR, CONSTRUCTION SECTOR				1972=100	NARKHOZ	129B	P.9
429	PIHS	INVESTMENT DEFLATOR, HOUSING				1972=100.	NARKHOZ	132B	P.12
406	PII	INVESTMENT DEFLATOR, INDUSTRY				1972=100.	NARKHOZ	128B	P.8
573	PIRF70	INDEX OF STATE RETAIL PRICES FOR FOOD GOODS (DEFLATED)				1970=100	TRAN	121B	P.2
409	PIS	INVESTMENT DEFLATOR, SERVICES				1972=100.	NARKHOZ	131B	P.11
408	PIT	INVESTMENT DEFLATOR, TRANSPORT AND COMMUNICATIONS				1972=100.	NARKHOZ	130B	P.10
549	PIWH70	INDEX OF WHOLESALE INDUSTRIAL PRICES, HEAVY INDUSTRY (DEFLATED)				1970=100.	TRAN	126B	P.7
575	PIWL70	INDEX OF WHOLESALE INDUSTRIAL PRICES LIGHT AND FOOD INDUSTRY(DEFLATED)				1970=100	TRAN	125B	P.6

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SERIES	LABEL	DESCRIPTION	QTR	MON	ANN	UNITS	SOURCE	VAR#	EQU#
997	PUATZ0	PRICE DEFLATOR, INTERMEDIATE MATERIALS AND SERVICES				1970=100	DWG	393E	
796	PWX9	WORLD MARKET PRICES OF MANUFACTURED GOODS				1963=100	UN	298E	
717	PXMCU9	UNIT VALUE PRICE OF MACHINE				1963=100	HEWETT	310E	
415	PUF70	CONSUMPTION PRICE, NON-FOOD (FROM PIRNF)				1970=100	TRAN	120B	P.1
417	PUC	CONSUMPTION PRICE, TOTAL (FROM PNF&PFCC)				1970=100.	TRAN	124I	P.5
612	PREX9	OFFICIAL EXCHANGE RATE OF THE RUBLE IN DOLLARS				NONE	UKH	212E	
797	PWX89	WORLD MARKET PRICES OF PRIMARY PRODUCTS				1963=100	UN	193E	
795	PSUGSC9	UNIT VALUE PRICES OF SUGAR IMPORTS FROM CUBA				1963=100	OER	314E	
794	PSUSA9	WORLD SUGAR PRICES				1963=100	UN	316E	
376	PIX9	SOVIET TRADE WITH WORLD, IMPORTS, OFFICAL PRICE INDEX				1970=100.	V.TORG	318E	
793	PIW9	PRICES OF TOTAL WORLD IMPORTS				1963=100	UN	194E	
375	PIX9	SOVIET TRADE WITH WORLD, EXPORTS, OFFICAL PRICE INDEX				1970=100.	V.TORG	309E	
434	PXCONZ	PRICE DEFLATOR, CONSTRUCTION ACTIVITY				1972=100.	NARKHOZ	127E	
571	PJ99	IMPORTS, PRICE DEFLATOR, MANUFACTURED GOODS				1958=100	WEFA	213E	
973	PZIGE9	EXPORT PRICE INDEX,GERMANY,SITC 7.1,NONELEC MACHINERY				1970=100	NBER	344E	
431	QFYP	FIVE-YEAR-PLAN CYCLE (1954-57,62-64,69-71,74-76,ETC.)				NONE	DG	23E	
423	QLT20	LOG TIME TREND 1928=0				NONE	TRAN	161E	
432	QPL5	FIVE YEAR PLAN DUMMY (50-57,63-66,69-71,74-76)				NONE	D-G	203E	
550	QSH65	DUMMY VARIABLE FOR 1954-1964 (PRIVATE AGRICULTURAL EMPLOYMENT)				NONE	C-H	201E	
491	QSH67	PRICE REFORM DUMMY:BEFORE 1967=1, 1967=.5,AFTER 1967=0				NONE	NONE	252E	
581	QSH68	SHIFT VARIABLE FOR 1968 ON =1				NONE	D-G	222E	
382	QT50	TIME VARIABLE WITH 1950=1 AND 1973=24				NONE	NONE	160E	
604	QWPEF	DUMMY VARIABLE FOR 1967-1969 (WAGE REFORM)				NONE	C-H	226E	
773	Q4550	DUMMY,SCALED BY VOLUME OF EXACHG.64-65=1.69-70=1.8.0 OTHERWISE						195E	
622	Q5659	DUMMY VARIABLE FOR 1956-59				NONE	NONE	249E	
37	Q5660	DUMMY VARIABLE FOR 1956-60				NONE	NONE	247E	
620	Q5661	DUMMY VARIABLE FOR 1956-61				NONE	NONE	242E	
619	Q59	DUMMY VARIABLE FOR 1959				NONE	NONE	248E	
687	Q6064	DUMMY VARIABLE FOR 1960-1964				NONE	NONE	229E	
603	Q61	DUMMY VARIABLE FOR 1961				NONE	NONE	216E	
34	Q6162	DUMMY VARIABLE FOR 1961-62				NONE	NONE	217E	
782	Q6164	DUMMY VARIABLE FOR 1961-64						199E	
39	Q6165	DUMMY VARIABLE FOR 1961-65				NONE	NONE	246E	
463	Q62	DUMMY VARIABLE FOR 1962				NONE	NONE	207E	
783	Q6263	DUMMY VARIABLE FOR 1962-63						200E	
945	Q6264	DUMMY VARIABLE FOR 1962-64				NONE	NONE	335E	
626	Q63	DUMMY VARIABLE FOR 1963				NONE	NONE	208E	
779	Q6364	DUMMY VARIABLE FOR 1963-64						196E	
642	Q6368	DUMMY VARIABLE FOR 1963-68				NONE	NONE	243E	
947	Q6465	DUMMY VARIABLE FOR 1964-65				NONE	NONE	336E	
691	Q6466	DUMMY VARIABLE FOR 1964-66				NONE	NONE	332E	
623	Q6467	DUMMY VARIABLE FOR 1964-67				NONE	NONE	250E	
465	Q65	DUMMY VARIABLE FOR 1965				NONE	NONE	204E	
975	Q6566	DUMMY VARIABLE FOR 1965-66				NONE	NONE	338E	
644	Q6567	DUMMY VARIABLE FOR 1965-1967				NONE	NONE	214E	

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SERIES	LABEL	DESCRIPTION	QTR	MON	ANN	UNITS	SOURCE	VAR#	EQU#
40	D66	DUMMY VARIABLE FOR 1966				NONE	NONE	215E	
683	D6668	DUMMY VARIABLE FOR 1966-1968				NONE	NONE	219E	
577	D67	DUMMY VARIABLE FOR 1967				NONE	NONE	225E	
624	D6768	DUMMY VARIABLE FOR 1967-68				NONE	NONE	221E	
520	D68	DUMMY VARIABLE FOR 1968, INDUSTRY WAGE				NONE	TRAN	205E	
690	D6869	DUMMY VARIABLE FOR 1968-69				NONE	NONE	223E	
780	D6870	DUMMY VARIABLE FOR 1968-70						197E	
689	D69	DUMMY VARIABLE FOR 1969				NONE	NONE	206E	
645	D69ON	DUMMY VARIABLE FOR 1969 ON				NONE	NONE	202E	
625	D70	DUMMY VARIABLE FOR 1970				NONE	NONE	209E	
993	RGXAF9	RATIO GVO/X : AGRICULTURE/FORESTRY					GDG	373E	
992	RGXCG9	RATIO GVO/X : CONSTRUCTION					GDG	372E	
986	RGXCH9	RATIO GVO/X : CHEMICALS & PETROCHEMICALS					GDG	366E	
980	RGXCR9	RATIO GVO/X : CONSTRUCTION MATERIALS					GDG	368E	
982	RGXCP9	RATIO GVO/X : COAL PRODUCTS					GDG	362E	
984	RGXEP9	RATIO GVO/X : ELECTROENERGY					GDG	364E	
987	RGXFP9	RATIO GVO/X : FOREST PRODUCTS (INCL.PAPER)					GDG	367E	
985	RGXMB9	RATIO GVO/X : MACHINE BUILDING					GDG	365E	
981	RGXME9	RATIO GVO/X : METALLURGY					GDG	361E	
991	RGXOG9	RATIO GVO/X : IND OEC					GDG	371E	
996	RGXOB9	RATIO GVO/X : OTHER BRANCHES					GDG	376E	
990	RGXPF9	RATIO GVO/X : PROCESSED FOODS					GDG	370E	
983	RGXPP9	RATIO GVO/X : PETROLEUM PRODUCTS					GDG	363E	
989	RGXSG9	RATIO GVO/X : SOFT GOODS					GDG	369E	
994	RGXTC9	RATIO GVO/X : TRANSPORT/COMMUNICATIONS					GDG	374E	
995	RGXTD9	RATIO GVO/X : DOMESTIC TRADE					GDG	375E	
614	RTRP9	TAX RATE PROFITS				NONE	NONE	245E	
574	RTTO9	DEVIATIONS FROM MEAN OF TURNOVER TAX RATE (SMOOTHED)				%	TRAN	218E	
615	RTTO9	TAX RATE, ADJUSTMENT, OTHER SOCIAL SECTOR				NONE	NONE	220E	
959	RVAGVA9	RATIO VALUE ADDED(CUR. PRICES) /GNP					GDG	307E	
424	SAI9	INDEX OF AGRICULTURAL INPUTS, SOWN AREA				1965=100.		100E	
451	TDR9	REVENUES, DEDUCTIONS FROM PROFIT, STATE ENTERPRISES				B RUBLES	NKHOZ	139B	T.1
564	TOS8	REVENUES , OTHER SOCIAL SECTORS				B RUBLES	PRAVDA	141B	T.3
189	TR9	TOTAL STATE DEDUCTIONS (1973 FIGURES)				B RUBLES	73JEC393	144I	T.6
641	TRA89	ADJUSTMENT FOR LOCAL TAXES,ADMISSION FEES, AND LOTTERIES				B RUBLES	73JEC	251E	
453	TRP89	REVENUES, POPULATION (INCOME TAXES, STATE BONDS, LOTTERIES ETC)				B RUBLES	NKHOZ	143B	T.5
449	TR8	STATE BUDGET, TOTAL REVENUES (CURRENT RUBLES)				B RUBLES	NKHOZ	145I	T.7
454	TSO8	REVENUES , SOCIAL INSURANCE DEDUCTIONS				B RUBLES	NKHOZ	142B	T.4
456	TT8	REVENUES, TURNOVER TAX				B RUBLES	NKHOZ	140B	T.2
962	UAF8	MATERIAL INPUTS, AGRICULTURE/FORESTRY, CUR.PRICES				1970=100	GDG	389BU	.2-13
941	UCG8	MATERIAL INPUTS,CONSTRUCTION, CUR.PRICES				1970=100	GDG	386BU	.2-12
935	UCH8	MATERIAL INPUTS, CHEMICALS & PETROCHEMICALS, CUR.PRICES				1970=100	GDG	382B	U.2-6
937	UCR8	MATERIAL INPUTS, CONSTRUCTION MATERIALS, CUR. PRICES				1970=100	GDG	384B	U.2-8
931	UCP8	MATERIAL INPUTS, COAL PRODUCTS, CUR.PRICES				1970=100	GDG	378B	U.2-2
933	UEP8	MATERIAL INPUTS,ELECTROENERGY,CUR.PRICES				1970=100	GDG	380B	U.2-4

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936	UFP&	MATERIAL INPUTS, FOREST PRODUCTS(INCL.PAPER), CUR.PRICES				1970=100	GDG	383B	U.2-7
934	UMB&	MATERIAL INPUTS, MACHINE BUILDING, CUR.PRICES				1970=100	GDG	381B	U.2-5
930	UME&	MATERIAL INPUTS, METALLURGY, CUR.PRICES				1970=100	GDG	377B	U.2-1
940	UMC&	MATERIAL INPUTS, IND. MEC., CUR.PRICES				1970=100	GDG	387BU	.2-11
945	UO&&	MATERIAL INPUTS, OTHER BRANCHES, CUR.PRICES				1970=100	GDG	392BU	.2-16
939	UPF&	MATERIAL INPUTS, PROCESSED FOODS, CUR.PRICES				1970=100	GDG	386BU	.2-10
932	UPP&	MATERIAL INPUTS, PETROLEUM PRODUCTS, CUR.PRICES				1970=100	GDG	379B	U.2-3
938	USG&	MATERIAL INPUTS, SOFT GOODS, CUR.PRICES				1970=100	GDG	385B	U.2-9
943	UTC&	MATERIAL INPUTS, TRANSPORT/COMMUNICATIONS,CUR.PRICES				1970=100	GDG	390BU	.2-14
944	UTD&	MATERIAL INPUTS, DOMESTIC TRADE, CUR.PRICES				1970=100	GDG	391BU	.2-15
584	WASK&	WAGES, AGRICULTURE, STATE AND COLLECTIVE FARMS				RUBLES	TRAN	106B	W.2
265	WC&	WAGES, CONSTRUCTION				RUBLES	70JEC82	107B	W.3
229	WGS&	ANNUAL WAGE RATE, GOVERNMENT & SERVICES				CUR.R.	NKH	110B	W.6
264	WIK	WAGES, INDUSTRY				RUBLES	70JEC82	105B	W.1
269	WS&	WAGES, DOMESTIC TRADE AND DISTRIBUTION				RUBLES	70JEC82	109B	W.5
228	WTC&	ANNUAL WAGE RATE, TRANSPORT & COMMUNICATIONS				CUR.R.	NKH	108B	W.4
786	WTDW9	TOTAL IMPORTS OF THE DEV.WEST				1963=100	UN M. BUL	297E	
785	WTLDC9	TOTAL IMPORTS OF THE LDC-S				1963=100	UN M.BUL.	302E	
784	WTW	TOTAL IMPORTS OF THE WORLD				1963=100	UN M.BUL.	305E	
252	XALTOAL9	VALUE OF FEED FED TO LIVESTOCK				M1965R	SRI	103E	
868	XAFGV&	INDEX OF AGRICULTURE/FORESTRY GVO IN CURRENT PRICES				1966=100	GDG	357IU	.1-13
866	XAT	AGRICULTURAL PRODUCTION TOTAL				B RUBLES	OER	88B	X.6
610	XATPK	POTENTIAL AGRICULTURAL OUTPUT, XAT PEAK-TO-PEAK SMOOTHED				B RUBLES	DG	89B	X.6
867	XCGV0	INDEX OF CONSTRUCTION GVO IN CURRENT PRICES				1966=100	GDG	356IU	.1-12
861	XCHGV&	INDEX OF CHEMICALS AND PETROCHEMICALS GVO IN CURRENT PRICES				1966=100	GDG	350I	U.1-6
863	XCMGV&	INDEX OF CONSTRUCTION MATERIALS GVO IN CURRENT PRICES				1966=100	GDG	352I	U.1-9
857	XCOAGV0	INDEX OF COAL PRODUCTS GVO IN CURRENT PRICES				1966=100	GDG	346I	U.1-2
243	XCRND	CONSTRUCTION ACTIVITY				B RUBLES	NARKHOZ	090B	X.2
859	XEPGV&	INDEX OF ELECTROENERGY GVO IN CURRENT PRICES				1966=100	GDG	348I	U.1-4
862	XFPPGV0	INDEX OF FOREST PRODUCTS GVO IN CURRENT PRICES				1966=100	GDG	351I	U.1-7
756	XGOLD&	GOLD PRODUCTION				TONS	OER	198E	
738	XGR	GRAIN PRODUCTION				M TONS	DIAMOND	337B	X.19
741	XGRCP&	GRAIN PRODUCTION IN THE EUROPEAN CMEA				M TONS	FAO	293E	
740	XGRLDC9	GRAIN PRODUCTION IN THE LDC-S				M TONS	FAO	303E	
781	XGRPK	SECOND PEAK GRAIN OUTPUT				M TONS	DIAMOND	295B	X.19
739	XGRWE9	GRAIN PRODUCTION IN WESTERN EUROPE				M TONS	FAO	300E	
960	XICH	CHEMICALS				1970=100	OER74	82B	X.13
959	XICM	CONSTRUCTION MATERIALS				1970=100	OER74	85B	X.12
953	XICP	COAL PRODUCTS				1970=100	OER74	78B	X.8
952	XIEP	ELECTRIC POWER				1970=100	OER74	77B	X.7
955	XIFM	FERROUS METALS				1970=100	OER74	80B	X.10
957	XIFP	FOREST PRODUCTS				1970=100	OER74	84B	X.15
961	XIMB	MACHINERY				1970=100	OER74	83B	X.14
956	XINF	NONFERROUS METALS				1970=100	OER74	81B	X.11
958	XIPA	PAPER AND PAPERBOARD				1970=100	OER74	188B	X.16

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SERIES	LABEL	DESCRIPTION	QTR	MON	ANN	UNITS	SOURCE	VAR#	EQN#
967	XIPF	PROCESSED FOODS				1970=100	OER74	87B	X.18
954	XIPP	PETROLEUM PRODUCTS & GAS				1970=100	OER74	79B	X.9
966	XISG	SOFT GOODS				1970=100	OER74	86B	X.17
296	XITOT	INDUSTRIAL OUTPUT INDEX, TOTAL				1970=100.	OER73	076B	X.1
860	XMBGVO	INDEX OF MACHINE BUILDING GVO IN CURRENT PRICES				1966=100	GDG	349I	U.1-5
856	XMETGVO	INDEX OF METALLURGY GVO IN CURRENT PRICES				1966=100	GDG	345I	U.1-1
866	XMFCGVO	INDEX OF IND NEC GVO IN CURRENT PRICES				1966=100	GDG	355I	U.1-11
871	XOBGVO	INDEX OF OTHER BRANCHES GVO IN CURRENT PRICES				1966=100	GDG	360I	U.1-14
865	XPFGVO	INDEX OF PROCESSED FOODS GVO IN CURRENT PRICES				1966=100	GDG	354I	U.1-10
858	XPPGVO	INDEX OF PETROLEUM PRODUCTS GVO IN CURRENT PRICES				1966=100	GDG	347I	U.1-3
79	XSER	INDEX OF SERVICES VALUE-ADDED, ESTABLISHED PRICES				1970=100.	730ER	038	X.5
864	XSGGVO	INDEX OF SOFT GOODS GVO IN CURRENT PRICES				1966=100	GDG	353I	U.1-9
792	XSUG9	SUGAR PRODUCTION OF CUBA				1000000T	FAO	315E	
869	XTCGVO	INDEX OF TRANSPORT/COMMUNICATIONS GVO IN CURRENT PRICES				1966=100	GDG	358I	U.1-14
870	XTDGVO	INDEX OF DOMESTIC TRADE GVO IN CURRENT PRICES				1966=100	GDG	359I	U.1-15
504	XTRADE	INDEX OF RETAIL TRADE ACTIVITY				1968=100	OER	92B	X.4
380	XTTR	TRANS-COMM INDEX, 1970 WEIGHTS, RUBLE SERIES FOR COMM				1970=100	D-G	091B	X.3
998	XVAT&	TOTAL VALUE-ADDED, I-O FINAL DEMAND COLUMN NORMALIZATION				B.CURR.R	GDG	228I	U.1-17
148	YCPEA9	NET MATERIAL PRODUCT IN CONSTANT PRICES, CMEA				1963=100	UNCTAD	192E	
605	ZD	REAL HOUSEHOLD DISPOSABLE INCOME				B RUBLES	TRAN	116I	Z.6
93	ZDT&	TOTAL AMORTIZATION FUNDS, NATIONAL ECONOMY				B.CUR.R.	NKH	117B	Z.8
460	ZFPG89	PLANNED GROSS PROFITS, NATIONAL ECONOMY				B.RUB	PRAVDA	119E	
181	ZP&	TOTAL MONEY INCOME (1973 FIGURES)				B RUBLES	73JEC393	114I	Z.4
579	ZPAK&	HOUSEHOLD AGRICULTURAL INCOME IN KIND				B RUBLES	RAND/TRA	115B	Z.5
461	ZPG&	ACTUAL GROSS PROFITS, NATIONAL ECONOMY				B RUBLES	NKHOZ	116B	Z.7
186	ZPPC89	PROFITS DISTRIBUTED TO COOPERATIVE MEMBERS (1973 FIGURES)				B R	73JEC393	180E	
183	ZPWC89	GROSS EARNINGS COOPERATIVE ARTISANS (1973 FIGURES)				B R	73JEC393	182E	
187	ZPWM89	MILITARY PAY AND ALLOWANCES (1973 FIGURES)				B R	73JEC393	181E	
185	ZPWS&	NET HOUSEHOLD INCOME FROM SALE OF FARM PRODUCTS (1973 FIGURE)				B RUBLES	73JEC393	113B	Z.3
518	ZPWSC&	WAGE PAYMENTS AGRICULTURE, STATE AND COLLECTIVE FARMS				B RUBLES	TRAN	112I	Z.2
973	ZR&	RESIDUAL INCOME * SOVMOD II				B.COR.R.	TRAN	253I	Z.9
465	ZWU&	GROSS EARNINGS URBAN WORKERS				B RUBLES	TRAN	110B	Z.1

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IV. Equations*

Equations are arranged by sector in the sector-order given above. Behavioral equations are written in the form used for estimation with the sample mean value of the dependent variable shown in parentheses beneath it. In some cases auxiliary variables have been defined below the equation in which they appear. Such auxiliary variables serve only this presentation purpose and do not have model variable numbers.

Figures in parentheses under coefficients are t-statistics; absence thereof implies extraneous estimate. R^2 is the multiple correlation coefficient (unadjusted for degrees of freedom); S.E. is the standard error of estimate and D.W. the Durbin-Watson statistic; D is the normal variate devised by Durbin to test for first order serial correlation in the presence of a lagged dependent variable.

Final equations were estimated by ordinary least squares using T.S.P. (Time Series Processor).+

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* In the estimation of SOVMOD II, valuable research assistance was provided by Michael Marrese, Marc Jarsulic, and Marc Rubin.

+ We are indebted to Jean-Pierre LeMaitre for assistance in adapting this program to out data files.

N POPULATION AND EMPLOYMENT

(N.1) NPOPU Urban Population

$$\frac{100.NPOPU}{NPOP9} = \underset{(14.26)}{-\ 78.13531} + \underset{(26.67)}{35.23935}\ QLT28$$

(54.51)

$$+ \underset{(1.46)}{1.07249}\ \left(\frac{IHS}{IHS_{-1}} - 1.\right)_{-2}$$

$$+ \underset{(4.74)}{0.01432}\ \left\{\frac{100.\ WI\&}{(ZPWSC\&+ZPWS\&)/(NAT/10.^{3})}\right\}_{-2}$$

$$- \underset{(1.71)}{2.69524}\ \left\{\left(\frac{XAT_{-1}}{XATPK_{-1}} + \frac{XAT_{-2}}{XATPK_{-2}} - 2.\right)/2.\right\}$$

$R^2 = 0.998$ S.E. = 0.16 D.W. = 1.67
Sample Period 1960-1973

(N.2) NPOPR Rural Population

NPOPR ≡ NPOP9 - NPOPU

(N.3) NMNA Nonagricultural Employment

$$\frac{.1 * NMNA}{(NPOPU_{-1} + NPOPU)/2} = \underset{(12.25)}{23.75604}\ QLT28\ (1. - Q69ON)$$

(56.13)

$$+ \underset{(12.96)}{89.38518}\ Q69ON + \underset{(1.72)}{0.02757}\ \left(\frac{NPAB9+NPAB9_{-1}}{NPOP9+NPOP9_{-1}}\right)$$

$$+ \underset{(1.37)}{8.3782}\ \left(\frac{WI\&/PRC}{WI\&_{-1}/PRC_{-1}}\right)$$

(N.3) NMNA Nonagricultural Employment, Continued

$$- \underset{(4.86)}{52.72211}\left\{\frac{(NPOPU+NPOPU_{-1}) + (NPOPU_{-1} + NPOPU_{-2})}{(NPOPU_{-1}+NPOPU_{-2}) + (NPOPU_{-2}+NPOPU_{-3})}.\right\}$$

$R^2 = 0.995$ S.E. = 0.24 D.W. = 1.44
Sample Period 1959-1973

(N.4) NMI Industrial Employment

$$\frac{100.NMI}{NMNA} = \underset{(16.63)}{0.92375}\left(\frac{100.NMI}{NMNA}\right)_{-1} - \underset{(0.01)}{0.00116}\left(\frac{100.NMC}{NMNA}\right)_{-1}$$

(40.153)

$$+ \underset{(1.37)}{0.23506}\left(\frac{100.NMTC}{NMNA}\right)_{-1}$$

$$- \underset{(4.12)}{2.11470}\left(\frac{100.NMS}{NMNA}\right)_{-1} + \underset{(4.37)}{0.71934}\left(\frac{100.NMG}{NMNA}\right)_{-1}$$

$$- \underset{(2.89)}{2.2286}\left(\frac{INA}{INA_{-1}} - 1.\right)$$

$R^2 = 0.997$ S.E. = 0.094 D.W. = 2.35
Sample Period 1957-1973 D. = 0.74

(N.5) NMC Construction Employment

$$\frac{100.NMC}{NMNA} = \underset{(0.87)}{0.07432}\left(\frac{100.NMI}{NMNA}_{-1}\right) - \underset{(4.52)}{0.72402}\left(\frac{100.NMC}{NMNA}_{-1}\right)$$

(10.998)

$$- \underset{(0.56)}{0.14580}\left(\frac{100.NMTC}{NMNA}_{-1}\right)$$

$$+ \underset{(2.13)}{1.67705}\left(\frac{100.NMS}{NMNA}_{-1}\right) - \underset{(2.01)}{0.50598}\left(\frac{100.NMG}{NMNA}_{-1}\right)$$

$$+ \underset{(2.84)}{3.35792}\left(\frac{INA}{INA_{-1}} - 1.\right)$$

$R^2 = 0.900$ S.E. = 0.144 D.W. = 2.25
Sample Period 1957-1973 D. = 0.69

(N.6) NMTC Transport and Communications Employment

$$\frac{100.NMTC}{NMNA} = \underset{(0.23)}{0.00854}\left(\frac{100.NMI}{NMNA}_{-1}\right) + \underset{(0.35)}{0.02394}\left(\frac{100.NMC}{NMNA}_{-1}\right)$$

(12.070)

$$+ \underset{(8.39)}{0.94521}\left(\frac{100.NMTC}{NMNA}_{-1}\right)$$

$$+ 1.05191\left(\frac{100.NMS}{NMNA}_{-1}\right) - 0.35967\left(\frac{100.NMG}{NMNA}_{-1}\right)$$

(N.6) NMTC Transport and Communications Employment, Continued

$$+ \underset{(2.29)}{1.16270} \left(\frac{INA}{INA_{-1}} - 1.\right)$$

$R^2 = 0.989$ S.E. = 0.062 D.W. = 2.01
Sample Period 1957-1973 D. = 0.02

(N.7) NMS Domestic Trade Employment

$$\frac{100.NMS}{NMNA} = \underset{(8.896)}{0.0507} + \underset{(2.10)}{0.08538} \left(\frac{100.NMI}{NMNA}_{-1}\right) + \underset{(1.88)}{0.08538} \left(\frac{100.NMC}{NMNA}_{-1}\right)$$

$$- \underset{(2.35)}{0.17491} \left(\frac{100.NMTC}{NMNA}_{-1}\right)$$

$$+ \underset{(3.15)}{0.70146} \left(\frac{100.NMS}{NMNA}_{-1}\right) + \underset{(1.03)}{0.07343} \left(\frac{100.NMG}{NMNA}_{-1}\right)$$

$$- \underset{(2.48)}{0.83225} \left(\frac{INA}{INA_{-1}} - 1\right)$$

$R^2 = 0.997$ S.E. 0.041 D.W. = 1.77
Sample Period 1957-1973 D. = 1.20

(N.8) NMG Services Employment

$$\frac{100.NMG}{NMNA} = \underset{(0.37)}{-\ 0.01470}\ \left(\frac{100.NMI}{NMNA}\right)_{-1} + \underset{(1.52)}{0.11300}\ \left(\frac{100.NMC}{NMNA}\right)_{-1}$$

(26.267)

$$+ \underset{(0.27)}{0.03348}\ \left(\frac{100.NMTC}{NMNA}\right)_{-1} - \underset{(0.50)}{0.18159}\ \left(\frac{100.NMS}{NMNA}\right)_{-1}$$

$$+ \underset{(8.83)}{1.03535}\ \left(\frac{100.NMG}{NMNA}\right)_{-1} - \underset{(4.14)}{2.27867}\ \left(\frac{INA}{INA_{-1}} - 1\right)$$

$R^2 = 0.997$ S.E. = 0.067 D.W. = 2.64
Sample Period 1957-1973 D. = 1.51

(N.9) NMF Forestry Employment

$$\frac{100.NMF}{NMNA} = \underset{(0.68)}{0.009133}\ \left(\frac{100.NMI}{NMNA}\right)_{-1} - \underset{(2.53)}{0.063775}\ \left(\frac{100.NMC}{NMNA}\right)_{-1}$$

(0.606)

$$+ \underset{(2.30)}{0.094811}\ \left(\frac{100.NMTC}{NMNA}\right)_{-1}$$

$$+ \underset{(1.86)}{0.22939}\ \left(\frac{100.NMS}{NMNA}\right)_{-1} - \underset{(2.18)}{0.086497}\ \left(\frac{100.NMG}{NMNA}\right)_{-1}$$

(N.9) NMF Forestry Employment

$$+ \underset{(0.87)}{0.16160} \left(\frac{INA}{INA_{-1}} - 1\right)$$

$R^2 = 0.944$ S.E. = 0.023 D.W. = 1.06
Sample Period 1957-1973

(N.10) NMO Other Branch Employment

$$\frac{100.NMO}{NMNA} = \underset{(0.46)}{-0.029339} \left(\frac{100.NMI}{NMNA}_{-1}\right) + \underset{(2.03)}{0.24467} \left(\frac{100.NMC}{NMNA}_{-1}\right)$$

(1.010)

$$- \underset{(1.11)}{0.21841} \left(\frac{100.NMTC}{NMNA}_{-1}\right)$$

$$- \underset{(2.51)}{1.48453} \left(\frac{100.NMS}{NMNA}_{-1}\right) + \underset{(3.10)}{0.58859} \left(\frac{100.NMG}{NMNA}_{-1}\right)$$

$$- \underset{(1.08)}{0.96157} \left(\frac{INA}{INA_{-1}} - 1\right)$$

$R^2 = 0.900$ S.E. = 0.108 D.W. = 1.09
Sample Period 1957-1973

(N.11) NASK Agricultural Employment, State and Collective Farms

$$\frac{100.NASK}{(NPOPR+NPOPR_{-1})/2.} = \underset{(4.07)}{0.78311}\left[\frac{100.NASK}{(NPOPR+NPOPR_{-1})/2.}\right]_{-1}$$

$$\underset{(25.26)}{} + \underset{(1.00)}{1.61122}\ QLT28 - \underset{(1.48)}{0.27513}\ QSH65 - \underset{(0.06)}{0.56095}$$

$$- \underset{(1.18)}{0.25410}\ JPS9 - \underset{(2.29)}{4.56542}\left(\frac{XAT_{-1}}{XATPK_{-1}} + \frac{XAT_{-2}}{XATPK_{-2}} - 2.\right)/2.$$

$R^2 = 0.813$ S.E. = 0.17 D.W. = 1.68
Sample Period 1961-1973 D. = 0.80

(N.12) NAPRV Agricultural Employment, Private

$$\frac{NAPRV}{NASK} = \underset{(24.24)}{0.46529} - \underset{(7.79)}{0.04081}\ QSH65 - \underset{(1.61)}{0.00841}\ JPS9$$

$$\underset{(0.4163)}{} - \underset{(1.63)}{0.96807}\left[\frac{NPOPU/NPOPR}{(NPOPU/NPOPR)_{-1}} - 1.\right]$$

$R^2 = 0.895$ S.E. = 0.0063 D.W. = 2.42
Sample Period 1959-1973

(N.13) NAT Total Agricultural Employment

$$NAT \equiv NASK + NAPRV$$

(N.14) NMIEP Employment, Electroenergy

$$\frac{100.NMIEP}{NMI} = \underset{(1.889)}{-\ 10.46001} + \underset{(2.27)}{0.04162}\left(\frac{100.NMIMB}{NMI}\right)_{-1}$$

$$+ \underset{(3.86)}{1.11504}\left(\frac{100.NMIFM}{NMI}\right)_{-1}$$

$$+ \underset{(0.43)}{0.02656}\left(\frac{100.NMICM}{NMI}\right)_{-1} + \underset{(0.98)}{0.59063}\left(\frac{100.NMIPP}{NMI}\right)_{-1}$$

$$- \underset{(0.21)}{0.07544}\left(\frac{INA}{INA_{-1}} - 1.\right) + \underset{(1.08)}{1.44683}\ QLT28$$

$R^2 = 0.973$ S.E. = 0.036 D.W. = 2.00
Sample Period 1957-1973

(N.15) NMICP Employment, Coal Products

$$\frac{100.NMICP}{NMI} = \underset{(4.425)}{24.13197} + \underset{(2.91)}{0.05559}\left(\frac{100.NMIMB}{NMI}_{-1}\right) + \underset{(0.68)}{0.07455}\left(\frac{100.NMIFM}{NMI}_{-1}\right) + \underset{(0.14)}{0.02658}\left(\frac{100.NMICM}{NMI}_{-1}\right) + \underset{(0.23)}{3.28373}\left(\frac{100.NMIPP}{NMI}_{-1}\right) + \underset{(3.02)}{1.88254}\left(\frac{INA}{INA_{-1}} - 1.\right) - \underset{(2.87)}{6.90990}\ QLT28$$

$R^2 = 0.997$ S.E. = 0.064 D.W. 2.30
Sample Period 1957-1973

(N.16) NMIPP Employment, Petroleum Products

$$\underset{(0.847)}{\frac{100.NMIPP}{NMI}} = \underset{(3.39)}{4.76174} + \underset{(2.72)}{0.03752}\left(\frac{100.NMIMB}{NMI}\right)_{-1} - \underset{(2.81)}{0.24763}\left(\frac{100.NMIFM}{NMI}\right)_{-1} + \underset{(1.27)}{0.02381}\left(\frac{100.NMICM}{NMI}\right)_{-1} + \underset{(0.37)}{0.06767}\left(\frac{100.NMIPP}{NMI}\right)_{-1} + \underset{(1.88)}{0.20798}\left(\frac{INA}{INA_{-1}} - 1.\right) - \underset{(2.94)}{1.19394}\ QLT28$$

$R^2 = 0.903$ S.E. = 0.011 D.W. = 3.06
Sample Period 1957-1973 D. = 3.35

(N.17) NMIFM Employment, Ferrous Metallurgy

$$\underset{(4.446)}{\frac{100.NMIFM}{NMI}} = \underset{(0.90)}{3.22183} + \underset{(0.50)}{0.01766}\left(\frac{100.NMIMB}{NMI}\right)_{-1} + \underset{(3.44)}{0.77451}\left(\frac{100.NMIFM}{NMI}\right)_{-1} + \underset{(1.29)}{0.06205}\left(\frac{100.NMICM}{NMI}\right)_{-1} - \underset{(0.99)}{0.46494}\left(\frac{100.NMIPP}{NMI}\right)_{-1} + \underset{(0.62)}{0.17647}\left(\frac{INA}{INA_{-1}} - 1.\right) - \underset{(0.76)}{0.79103}\ QLT28$$

$R^2 = 0.983$ S.E. 0.028 D.W. = 1.93
Sample Period 1957-1973 D. = 0.39

(N.18) NMINF Employment, Non Ferrous Metallurgy

$$\underset{(2.559)}{\frac{100.NMINF}{NMI}} = \underset{(6.04)}{14.82597} + \underset{(4.30)}{0.10362}\left(\frac{100.NMIMB}{NMI}\right)_{-1} - \underset{(1.56)}{0.24017}\left(\frac{100.NMIFM}{NMI}\right)_{-1} + \underset{(0.28)}{0.00908}\left(\frac{100.NMICM}{NMI}\right)_{-1} - \underset{(1.55)}{0.50040}\left(\frac{100.NMIPP}{NMI}\right)_{-1} - \underset{(3.29)}{0.63786}\left(\frac{INA}{INA_{-1}} - 1.\right) - \underset{(5.56)}{3.95831}\,QLT28$$

$R^2 = 0.990$ S.E. = 0.019 D.W. = 1.79
Sample Period 1957-1973

(N.19) NMICH Employment, Chemical and Petrochemical

$$\underset{(4.324)}{\frac{100.NMICH}{NMI}} = - \underset{(4.40)}{23.48491} + \underset{(1.62)}{0.08489}\left(\frac{100.NMIMB}{NMI}\right)_{-1} + \underset{(6.20)}{2.07976}\left(\frac{100.NMIFM}{NMI}\right)_{-1} - \underset{(4.77)}{0.34042}\left(\frac{100.NMICM}{NMI}\right)_{-1} - \underset{(0.55)}{0.38575}\left(\frac{100.NMIPP}{NMI}\right)_{-1} + \underset{(0.45)}{0.18963}\left(\frac{INA}{INA_{-1}} - 1.\right) + \underset{(3.21)}{4.96972}\,QLT28$$

$R^2 = 0.998$ S.E. = 0.041 D.W. = 1.97
Sample Period 1957-1973

(N.20) NMIMB Employment, Machine-Building and Metal-Working

$$\frac{100.NMIMB}{NMI} = \underset{(35.255)}{4.62478} + \underset{(0.18)}{0.76670}\left(\frac{100.NMIMB}{NMI}_{-1}\right) - \underset{(0.15)}{0.24136}\left(\frac{100.NMIFM}{NMI}_{-1}\right) - \underset{(0.05)}{0.01610}\left(\frac{100.NMICM}{NMI}_{-1}\right) - \underset{(2.70)}{9.13096}\left(\frac{100.NMIPP}{NMI}_{-1}\right) + \underset{(0.48)}{0.96943}\left(\frac{INA}{INA_{-1}} - 1.\right) + \underset{(0.48)}{3.55470}\,QLT28$$

$R^2 = 0.997$ S.E. = 0.199 D.W. = 1.93
Sample Period 1957-1973 D. = *

(N.21) NMIFP Employment, Forest Products

$$\frac{100.NMIFP}{NMI} = \underset{(9.607)}{75.40619} + \underset{(1.75)}{0.16006}\left(\frac{100.NMIMB}{NMI}_{-1}\right) - \underset{(4.45)}{2.51932}\left(\frac{100.NMIFM}{NMI}_{-1}\right) + \underset{(4.35)}{0.54956}\left(\frac{100.NMICM}{NMI}_{-1}\right) - \underset{(1.34)}{2.29041}\left(\frac{100.NMIPP}{NMI}_{-1}\right) + \underset{(1.52)}{1.18075}\left(\frac{INA}{INA_{-1}} - 1.\right) - \underset{(6.45)}{17.00851}\,QLT28$$

$R^2 = 0.998$ S.E. = 0.075 D.W. = 1.98
Sample Period 1957-1973

(N.22) NMIPA Employment, Paper and Pulp

$$\frac{100.NMIPA}{NMI} = \underset{(0.795)}{} -0.33794 - \underset{(0.24)}{0.000855} \underset{(0.06)}{} \left(\frac{100.NMIMB}{NMI}\right)_{-1}$$

$$+ \underset{(0.98)}{0.085595} \left(\frac{100.NMIFM}{NMI}\right)_{-1}$$

$$- \underset{(3.77)}{0.07519} \left(\frac{100.NMICM}{NMI}\right)_{-1} + \underset{(1.91)}{0.35700} \left(\frac{100.NMIPP}{NMI}\right)_{-1}$$

$$- \underset{(0.33)}{0.04055} \left(\frac{INA}{INA_{-1}} - 1.\right) + \underset{(0.63)}{0.26434} \; QLT28$$

$R^2 = 0.874$ S.E. = 0.012 D.W. = 2.19

Sample Period 1957-1973

(N.23) NMICM Employment, Construction Materials

$$\frac{100.NMICM}{NMI} = \underset{(6.407)}{9.12825} + \underset{(0.80)}{0.01611}\left(\frac{100.NMIMB}{NMI}\right)_{-1} - \underset{(1.59)}{1.13350}\left(\frac{100.NMIFM}{NMI}\right)_{-1} + \underset{(5.83)}{0.88652}\left(\frac{100.NMICM}{NMI}\right)_{-1} + \underset{(1.40)}{2.08320}\left(\frac{100.NMIPP}{NMI}\right)_{-1} + \underset{(1.20)}{1.08117}\left(\frac{INA}{INA_{-1}} - 1.\right) - \underset{(0.48)}{1.57299}\ QLT28$$

$R^2 = 0.908$ S.E. = 0.088 D.W. = 2.38
Sample Period 1957-1973 D = 1.01

(N.24) NMISG Employment, Soft Goods

$$\frac{100.NMISG}{NMI} = \underset{(16.18)}{11.64421} - \underset{(0.55)}{0.35485}\left(\frac{100.NMIMB}{NMI}\right)_{-1} - \underset{(1.71)}{0.99600}\left(\frac{100.NMIFM}{NMI}\right)_{-1} - \underset{(0.75)}{0.12314}\left(\frac{100.NMICM}{NMI}\right)_{-1} + \underset{(0.44)}{7.86867}\left(\frac{100.NMIPP}{NMI}\right)_{-1} + \underset{(2.84)}{}$$

(N.24) NMISG Employment, Soft Goods, Continued

$$+ \underset{(1.69)}{2.82151} \left(\frac{INA}{INA_{-1}} - 1.\right) + \underset{(0.68)}{4.18015}\ QLT28$$

$R^2 = 0.966$ S.E. = 0.163 D.W. = 1.91
Sample Period 1957-1973

(N.25) NMIPF Employment, Processed Foods

$$\frac{100.NMIPF}{NMI} = \underset{(0.73)}{5.7609} - \underset{(0.59)}{0.04514} \left(\frac{100.NMIMB}{NMI}_{-1}\right)$$

(9.406)

$$+ \underset{(3.96)}{1.94929} \left(\frac{100.NMIMB}{NMI}_{-1}\right)$$

$$- \underset{(3.17)}{0.33314} \left(\frac{100.NMICM}{NMI}_{-1}\right) + \underset{(3.53)}{3.63546} \left(\frac{100.NMIPP}{NMI}_{-1}\right)$$

$$+ \underset{(0.15)}{0.09462} \left(\frac{INA}{INA_{-1}} - 1.\right) + \underset{(0.85)}{1.93847}\ QLT28$$

$R^2 = 0.965$ S.E. = 0.061 D.W. = 2.13
Sample Period 1957-1973

(N.26) NMINC Employment, Industry NCE (Residual Branch)

$$\frac{100.NMINC}{NMI} = \underset{(3.863)}{-\ 10.27373} - \underset{(0.25)}{0.90234}\ \left(\frac{100.NMIMB}{NMI}_{-1}\right)$$

$$- \underset{(2.26)}{0.50822}\ \left(\frac{100.NMIFM}{NMI}_{-1}\right)$$

$$- \underset{(0.20)}{0.72073}\ \left(\frac{100.NMICM}{NMI}_{-1}\right) - \underset{(1.32)}{4.93324}\ \left(\frac{100.NMIPP}{NMI}_{-1}\right)$$

$$- \underset{(0.92)}{7.80506}\ \left(\frac{INA}{INA_{-1}} - 1.\right) + \underset{(-2.43)}{15.73648}\ QLT28$$

$R^2 = 0.814$ S.E. = 0.315 D.W. = 2.13
Sample Period 1957-1973

(N.27) NIET Engineering - Technical Employees in Industry (End Year)

$$NIET - NIET_{-1} = \underset{(13.38)}{0.16841} \quad \frac{NEIND9_{-1} + NEIND9_{-2}}{2.}$$

$$\underset{(149.43)}{} - \underset{(468)}{159.08975}\ Q69ON$$

$$+ 154.92920 \left\{ \frac{2.\ (NIET_{-1} - NIET_{-2})}{NEIND9_{-1} + NEIND9_{-2}} - 0.13589 \right\}$$

$R^2 = 0.726$ S.E. = 32.39 D.W.= 1.26
Sample Period 1958-1973

(N.28) NTSPA Specialists Employed in Transport and Communications

$$NTSPA - NTSPA_{-1} = \underset{(36.28)}{0.48120} \left(\frac{NETRA9_{-1} + NETRA9_{-2}}{2} \right)$$

$$\underset{(46.57)}{} + 43.69722 \left\{ \frac{2.*\ (NTSPA_{-1} - NTSPA_{-2})}{NETRA9_{-1} + NETRA9_{-2}} - 0.49761 \right\}$$

$R^2 = 0.895$ S.E. = 5.00 D.W. = 1.60
Sample Period 1958-1973

I Investment

(a) Non-Agricultural Investment, Sector Equations

(I.1a) IIN Capital Investment in Industry

$$\frac{IIN}{IIN_{-1}} - 1. = \underset{(6.66)}{0.06580} - \underset{(4.51)}{0.05812}\ Q6567 - \underset{(2.88)}{0.05178}\ Q69$$

$$\underset{(0.074)}{} + \underset{(2.29)}{0.26201}\ GFI + \underset{(3.34)}{0.17407}\ GPG - \underset{(5.30)}{0.21017}\ GDF$$

$R^2 = 0.851$ S.E. = 0.017 D.W. = 1.27
Sample Period 1959-1973

Where

$$GFI \equiv \frac{IFAJ\&/PII_{-1}}{IFAJ\&_{-1}/PII_{-2}} - 1.$$

$$GPG \equiv \frac{ZPG\&/PII_{-1}}{ZPG\&_{-1}/PII_{-2}} - 1.$$

$$GDF \equiv \frac{BDN\ \&9/PIWH70}{BDN\ \&9_{-1}/PIWH70_{-1}} - 1.$$

(I.2a) ICRUB Capital Investment in Construction

$$\frac{ICRUB}{ICRUB_{-1}} - 1. = \underset{(0.094)}{-\ 0.02216} \underset{(0.69)}{QFYP} - \underset{(0.14)}{0.00726} + \underset{(0.88)}{0.30240} \left(\frac{XAT}{XATPK} - 1.\right) + \underset{(2.78)}{1.97563}\ GINA$$

$R^2 = 0.593$ S.E. = 0.055 D.W. = 2.71
Sample Period 1961-1973

Where

$$GINA \equiv \frac{INA}{INA_{-1}} - 1.$$

(I.3a) ITRUB Capital Investment in Transport and Communications

$$\frac{ITRUB}{ITRUB_{-1}} - 1. = \underset{(0.092)}{0.11595} - \underset{(6.44)}{0.03159}\ \underset{(1.69)}{QFYP} - \underset{(3.15)}{0.07515}\ Q6567 - \underset{(0.96)}{0.03214}\ Q69 + \underset{(2.22)}{0.17208}\ GFT - \underset{(3.90)}{0.27395}\ GDF$$

$R^2 = 0.750$ S.E. = 0.030 D.W. = 1.86
Sample Period 1959-1973

(I.3a) ITRUB Capital Investment in Transport and Communications, Continued

Where GDF defined above under (I.1a)

$$GFT \equiv \frac{IFTR\&9/PIT_{-1}}{IFTR\&9_{-1}/PIT_{-2}} - 1.$$

(I.4a) IHS Capital Investment in Housing

$$\frac{IHS}{IHS_{-1}} - 1. = \underset{(6.58)}{0.24476} - \underset{(4.78)}{0.00876}\ QT50 - \underset{(9.35)}{0.13795}\ Q6064$$

(0.038)

$$- \underset{(2.47)}{0.03773}\ Q69 - \underset{(1.40)}{0.05105}\ GDF$$

$R^2 = 0.940$ S.E. = 0.014 D.W. = 2.36
Sample Period 1961-1973

GDF defined above under (I.1a)

(I.5a) ISER Capital Investment in Services and Domestic Trade

$$\frac{ISER}{ISER_{-1}} - 1. = \underset{(3.84)}{1.46506} - \underset{(1.06)}{0.02681}\ QFYP - \underset{(3.56)}{0.36961}\ QLT28$$

(0.076)

$$- \underset{(0.71)}{0.03311}\ Q69 + \underset{(1.38)}{0.55272}\left(\frac{XAT}{XATPK} + \frac{XAT_{-1}}{XATPK_{-1}} - 2.\right)/2.$$

$$- \underset{(1.29)}{0.11793}\ GDF$$

$R^2 = 0.701$ S.E. = 0.042 D.W. = 1.99
Sample Period 1959-1973

GDF defined above under (I.1a)

(I.6a) INA Capital Investment, Total Non-Agricultural

INA ≡ IIN + ICRUB + ITRUB + IHS + ISER

(b) Alternate Investment Model

Total Non-Agricultural Investment determined by equation (I.6b). Sectoral Investment determined by exogenous share variables in equations (I.1b) - (I.5b).

(b) Alternate Investment Model, Continued

(I.1b) IIN ≡ IRII9 * INA / 100.

(I.2b) ICRUB ≡ IRIC9 * INA /100.

(I.3b) ITRUB ≡ IRIT9 * INA /100.

(I.4b) IHS ≡ IRIH9 * INA /100.

(I.5b) ISER ≡ IRIS9 * INA/100.

(I.6b) INA Total Non-Agricultural Investment,

$$\frac{INA}{INA_{-1}} - 1. = \underset{(5.14)}{0.07384} - \underset{(0.81)}{0.013095}\ QFYP - \underset{(1.01)}{0.02078}\ Q6567$$

(0.069)

$$- \underset{(1.14)}{0.03235}\ Q69 + \underset{(1.80)}{0.14109}\ GPG - \underset{(2.38)}{0.13580}\ GDF$$

$R^2 = 0.563$ S.E. = 0.026 D.W. = 1.06
Sample Period 1959-1973

GPG and GDF defined above under (I.1a)

(I.7) IA Capital Investment in Agriculture

$$\frac{IA}{IA_{-1}} - 1. = \underset{(5.13)}{0.05343} - \underset{(0.79)}{0.01262}\ QSH65 + \underset{(5.38)}{0.51819}\ GFA$$

(0.107)

$$- \underset{(3.90)}{0.17120}\ GDF + \underset{(3.61)}{0.37863}\left(\frac{XAT}{XATPK} - 1.\right)$$

$$- \underset{(1.26)}{0.14341}\left(\frac{XAT}{XATPK} - 1.\right)_{-1}$$

$R^2 = 0.908$ S.E. = 0.015 D.W. = 2.12
Sample Period 1961-1973

GDF defined above under (I.1a)

Where

$$GFA \equiv \frac{IFAG\&9/PIA_{-1}}{IFAG\&9_{-1}/PIA_{-2}} - 1.$$

(I.8) IFAJ& Adjusted Finance for Centralized Capital Investment

$$IFAJ\& \equiv IFIN\&9 - 4.9\ QSH68_{-1}$$

(I.9) ITOTAL Total New Capital Investment in the National Economy

$$ITOTAL \equiv INA + IA$$

(a) Branch Investment, Direct Functions

(I.10a) IIEP Capital Investment, Electroenergy

$$\frac{IIEP}{IIEP_{-1}} - 1. = \underset{(0.053)}{-0.00416} + \underset{(0.24)}{0.08811}\ QFYP + \underset{(5.77)}{0.04703}\ Q6567 - \underset{(4.04)}{0.09926}\ Q69 + \underset{(2.78)}{0.27386}\ GFI$$

$R^2 = 0.799$ S.E. = 0.021 D.W. = 1.85
Sample Period 1959-1973

GFI defined above under (I.1a).

(I.11a) IICP Capital Investment, Coal Products

$$\frac{IICP}{IICP_{-1}} - 1. = + 0.03618 + 0.04771\ QFYP + 0.00816\ Q6567$$
$$(2.29) \qquad (2.66) \qquad (0.38)$$

$$(0.033)$$
$$- 0.08948\ Q69 - 0.28049\ GDF$$
$$(3.28) \qquad (4.66)$$

$R^2 = 0.861$ S.E. = 0.025 D.W. = 1.62
Sample Period 1961-1973

GDF defined above under (I.1a).

(I.12a) IIPP Capital Investment, Petroleum Products

$$\frac{IIPP}{IIPP_{-1}} - 1. = 0.03409 + 0.05256\ QFYP - 0.13867\ Q69$$
$$(2.01) \qquad (3.28) \qquad (4.57)$$

$$(0.088)$$
$$+ 0.89909\ GFI - 0.23682\ GDF$$
$$(3.94) \qquad (3.46)$$

$R^2 = 0.800$ S.E. = 0.026 D.W. = 2.26
Sample Period 1961-1973

GFI and GDF defined above under (I.1a).

(I.13a) IIFM Capital Investment, Ferrous Metallurgy

$$\frac{IIFM}{IIFM_{-1}} - 1. = \underset{(5.03)}{0.16046} - \underset{(3.20)}{0.13377}\ QFYP - \underset{(1.92)}{0.09740}\ Q6567$$

$$(0.074)$$

$$- \underset{(0.92)}{0.06800}\ Q69 - \underset{(1.00)}{0.14867}\ GDF$$

$R^2 = 0.588$ S.E. 0.068 D.W. = 2.77
Sample Period 1959-1973

GDF defined above under (I.1a).

(I.14a) IINF Capital Investment, Non-Ferrous Metallurgy And Industry NEC

$$\frac{IINF}{IINF_{-1}} - 1. = \underset{(1.57)}{0.04625} - \underset{(1.54)}{0.07858}\ Q6567 - \underset{(0.62)}{0.04462}\ Q69$$

$$(0.057)$$

$$+ \underset{(2.11)}{0.43727}\ GPG - \underset{(1.77)}{0.26357}\ GDF$$

$R^2 = 0.430$ S.E. = 0.069 D.W. = 2.65
Sample Period 1959-1973

GPG and GDF defined above under (I.1a).

(I.15a) IICH Capital Investment, Chemicals and Petrochemicals

$$\frac{IICH}{IICH_{-1}} - 1 = \underset{(1.61)}{0.05286} + \underset{(3.71)}{0.16279}\ QSH65 - \underset{(3.18)}{0.13426}\ Q6567$$

(0.093)

$$+ \underset{(1.57)}{0.77878}\ GFI - \underset{(2.47)}{0.40080}\ GDF$$

$R^2 = 0.838$ S.E. = 0.058 D.W. = 2.26
Sample Period 1961-1973

GFI and GDF defined above under (I.1a).

(I.16a) IIMB Capital Investment, Machine-Building and Metal-Working

$$\frac{IIMB}{IIMB_{-1}} - 1. = \underset{(0.64)}{0.02103} - \underset{(0.98)}{0.02664}\ Q6567 + \underset{(1.96)}{0.07929}\ Q70$$

(0.103)

$$+ \underset{(3.17)}{0.40442}\ GPG + \underset{(1.71)}{0.35652}\ \left(\frac{IIMB}{IIMB_{-1}} - 1.\right)_{-1}$$

(I.16a) IIMB Capital Investment, Machine-Building and Metal-Working, Continued

$R^2 = 0.747$ S.E. = 0.035 D.W. = 2.34
Sample Period 1961-1973 D. = 1.04

GPG defined above under (I.1a)

(I.17a) IIFP Capital Investment, Forest Products

$$\frac{IIFP}{IIFP_{-1}} - 1. = \underset{(4.77)}{0.11348} + \underset{(1.25)}{0.02928}\ QFYP - \underset{(3.72)}{0.10974}\ Q6567$$

(0.057)

$$- \underset{(3.10)}{0.12625}\ Q69 - \underset{(3.32)}{0.28559}\ GDF$$

$$- \underset{(2.04)}{0.34833}\ \left(\frac{IIFP}{IIFP_{-1}} - 1.\right)_{-1}$$

$R^2 = 0.791$ S.E. = 0.037 D.W. = 2.49
Sample Period 1959-1973 D. = 1.26

GDF defined above under (I.1a).

(I.18a) IICM Capital Investment, Construction Materials

$$\frac{IICM}{IICM_{-1}} - 1. = \underset{(0.041)}{0.03871} - \underset{(2.19)}{0.08803}\ Q6264 + \underset{(2.60)}{0.14422}\ Q6869 \quad \underset{(3.64)}{}$$

$R^2 = 0.721$ S.E. = 0.050 D.W. = 2.46
Sample Period 1961-1973

(I.19a) IISG Capital Investment, Soft Goods

$$\frac{IISG}{IISG_{-1}} - 1. = \underset{(0.098)}{0.13957} - \underset{(5.54)}{0.11840}\ Q69 + \underset{(2.48)}{0.14302}\ GPG + \underset{(1.10)}{0.16856}\ Q66 - \underset{(2.03)}{0.19383}\ GDF - \underset{(3.10)}{0.41625}\left(\frac{IISG}{IISG_{-1}} - 1.\right)_1 \quad \underset{(3.43)}{}$$

$R^2 = 0.803$ S.E. = 0.046 D.W. = 1.15
Sample Period 1959-1973 D. = 1.93

GPG and GDF defined above under (I.1a).

(I.20a) IIPF Capital Investment, Processed Foods

$$\frac{IIPF}{IIPF_{-1}} - 1. = \underset{(0.043)}{0.05915} - \underset{(3.65)}{0.03897}\ Q6567 - \underset{(1.39)}{0.03907}\ Q69 + \underset{(2.56)}{0.28097}\ GPG - \underset{(5.57)}{0.44939}\ GDF - \underset{(1.04)}{}$$

$R^2 = 0.826$ S.E. = 0.036 D.W. = 2.25
Sample Period 1961-1973

GPG and GDF defined above under (I.1a).

(b) Branch Investment, Share Equations

(I.10b) IIEP ≡ IREP9 * IIN

(I.11b) IICP ≡ IRCP9 * IIN

(I.12b) IIPP ≡ IRPP9 * IIN

(I.13b) IIFM ≡ IRFM9 * IIN

(I.14b) IINF ≡ IRNF9 * IIN

(I.15b) IICH ≡ IRCH9 * IIN

(I.16b) IIMB ≡ IRMB9 * IIN

(I.17b) IIFP ≡ IRFP9 * IIN

(b) Branch Investment, Share Equations, Continued

(I.18b) IICM ≡ IRCM9 * IIN

(I.19b) IISG ≡ IRSG9 * IIN

(I.20b) IIPF ≡ IRPF9 * IIN

(I.21) I70T Change in Inventories, Domestic Trade

$$I70T = \underset{(2.249)}{2.93819} - \underset{(5.07)}{0.10606}\ IS70T_{-1} + \underset{(1.30)}{0.05940}\ (CR-CRS-CRF)^* + \underset{(1.02)}{0.29956}\ \{(CR-CRS-CRF)^* - (CR-CRS-CRF) - 0.45295\} + \underset{(1.66)}{0.10701}\ (XAT-XATPK_{-1} + 1.816) - \underset{(1.89)}{0.25209}\ \left(\frac{100\ BDN\&9}{PIWH70} - \frac{100\ BDN\&9_{-1}}{PIWH70_{-1}} - 0.50432\right) - \underset{(1.50)}{}$$

$R^2 = 0.711$ S.E. = 0.567 D.W. = 1.82
Sample Period 1958-1972

Where $X^* \equiv X_{-1}\ (.1\ \frac{X_{-1}}{X_{-2}} + .4\ \frac{X_{-2}}{X_{-3}} + .4\ \frac{X_{-3}}{X_{-4}} + .1\ \frac{X_{-4}}{X_{-5}})$

Projection from four previous growth rates.

(I.22) IS70T Stock of Inventories, Domestic Trade (End Year)

IS70T ≡ $IS70T_{-1}$ + I70T

(I.23) I70NTA Change in Inventories, Non-Trade Non-Agricultural

$$I70NTA = \underset{(6.156)}{-0.69281} - \underset{(0.28)}{0.42559}\ IS70NTA_{-1} + \underset{(2.40)}{0.18392}\ GNPNA^{*}$$

$$- \underset{(1.56)}{0.40307}\ (GNPNA^{*} - GNPNA - .87371)$$

$$+ \underset{(2.83)}{5.86858}\ Q66$$

$R^2 = 0.642$ S.E. = 1.952 D.W. = 1.66
Sample Period 1958-1972

Where X* defined above under (I.21)

(I.24) IS70NTA Stock of Inventories, Non-Trade Non-Agricultural (End-Year)

$$IS70NTA \equiv IS70NTA_{-1} + I70NTA$$

K CAPITAL

(K.1) KITOT Industrial Basic Funds (Capital Stock) (Jan. 1)

$$KITOT_{+1} \equiv KITOT + KNDI$$

(K.2) KIA Adjusted Industrial Basic Funds (Jan. 1)

$$KIA_{+1} \equiv KITOT_{+1} - KIT589 - KIH629$$

(K.3) KNDI Industrial Capital Formation

$$KNDI + \underset{(22.197)}{0.05}\ KITOT = \underset{(1.89)}{1.09890}\ QFYP + \underset{(0.03)}{0.00886}\ IIN + \underset{(16.57)}{0.3278}\ IIN_{-1} + \underset{(2.15)}{0.4327}\ IIN_{-2} + \underset{(1.66)}{0.3234}\ IIN_{-3}$$

$R^2 = .980$ S.E. = 1.119 D.W. = 1.24
Sample Period 1959-1973

Distributed Lag: Quadratic, 4-Period, Zero-constrained in 5th Period.

(K.4) KCR Construction Basic Funds (Jan. 1)

$KCR_{+1} \equiv KCR + KNDC$

(K.5) KNDC Construction Capital Formation

$$KNDC + \underset{(2.008)}{0.06}\ KCR = \underset{(2.06)}{0.33634}\ QPL5 + \underset{(19.22)}{0.93224}\ ICRUB$$

$R^2 = .902$ S.E. = 0.335 D.W. = 1.58
Sample Period 1958-1973

(K.6) KTR Transport and Communications Basic Funds (Jan. 1)

$KTR_{+1} \equiv KTR + KNDT$

(K.7) KTA Adjusted Transport and Communications Basic Funds (Jan. 1)

$KTA_{+1} \equiv KTR_{+1} + KIT589$

(K.8) KNDT Transport and Communications Capital Formation

$$KNDT + \underset{(7.571)}{0.025}\ KTR = \underset{(4.73)}{2.48932}\ Q65 + \underset{(56.73)}{0.61840}\ (ITRUB+ITRUB_{-1})$$

$R^2 = .954$ S.E. = 0.513 D.W. = 1.65
Sample Period 1959-1973

(K.9) KTCUS Freight Car Utilization Rate

$$KTCUS = \underset{(241.88)}{\underset{(35.46)}{182.425}\ QSH65} + \underset{(9.42)}{3.97263}\ QSH65 * QT50$$

$$+ \underset{(39.96)}{232.324}\ (1.- QSH65) + \underset{(3.56)}{1.02710}\ (1.-QSH65) * QT50$$

$$- \underset{(3.24)}{15.91244}\ \left(\frac{BDN\&9/PIWH70}{BDN\&9_{-1}/PIWH70_{-1}} - 1.\right)$$

$R^2 = 0.981$ S.E. = 2.23 D.W. = 2.30
Sample Period 1958-1973

(K.10.) KCOM Basic Funds, Domestic Trade (Jan. 1)

$$KCOM_{+1} \equiv KCOM + KNCOM$$

(K.11) KNCOM Capital Formation, Domestic Trade

$$KNCOM + 0.02\ KCOM = \underset{(2.245)}{\underset{(9.29)}{3.62055}\ Q65} + \underset{(5.49)}{2.19175}\ Q68$$

(K.11) KNCOM Capital Formation, Domestic Trade, Continued

$$- \underset{(4.80)}{1.93306}\ Q69 + \underset{(17.80)}{0.096837}\ (ISER_{-1} + ISER_{-2})$$

$R^2 = 0.940$ S.E. = 0.379 D.W. = 1.39
Sample Period 1960-1973

(K.12) KHBF Basic Funds, Housing (Jan. 1)

$$KHBF_{+1} \equiv KHBF + KNDH$$

(K.13) KNDH Housing Capital Formation

$$KNDH + 0.02\ KHBF = - \underset{(1.33)}{0.61240}\ QFYP + \underset{(8.83)}{7.89835}\ Q62$$

$$(11.179)$$

$$+ \underset{(39.18)}{0.48786}\ (IHS + IHS_{-1})$$

$R^2 = 0.914$ S.E. = 0.815 D.W. = 2.18
Sample Period 1960-1973

(K.14) KHA Adjusted Housing Basic Funds (Jan. 1)

$$KHA_{+1} \equiv KHBF_{+1} + \frac{7.84}{1.74} KIH\ 629$$

(K.15) KSER Basic Funds, Services (Jan. 1)

$$KSER_{+1} \equiv KSER + KNSER$$

(K.16) KNSER Services Capital Formation

$$KNSER + \underset{(8.839)}{0.02}\ KSER = \underset{(0.78)}{0.63499}\ QFYP + \underset{(2.95)}{4.49012}\ Q63 - \underset{(2.90)}{4.41527}\ Q70 + \underset{(19.46)}{0.49879}\ (ISER_{-3} + ISER_{-4})$$

$R^2 = 0.890$ S.E. = 1.355 D.W. = 1.15
Sample Period 1960-1973

(K.17) KAIR Agricultural Basic Funds (excl. Productive Livestock) (mid-year)

$$KAIR - \underset{(6.45)}{0.95}\ KAIR_{-1} = \underset{(2.65)}{0.55756}\ QPL7 + \underset{(48.16)}{0.67846}\ \left(\frac{IA+IA_{-1}}{2}\right)$$

$R^2 = .976$ S.E. = 0.430 D.W. = 1.82
Sample Period 1957-1972

(K.18) KIF Industrial Capital, From Western Imports (End Year Value)

$$KIF \equiv 0.95\ KIF_{-1} + 0.1\ MIEIN\$_{-1} * PREX9/(P599/1.1852)_{-1}$$

(K.19) KIEP Basic Funds, Electroenergy (Jan. 1)

$$KIEP_{+1} \equiv KIEP + KNIEP$$

(K.20) KNIEP Capital Formation, Electroenergy

$$KNIEP + 0.04\ KIEP = \underset{(3.432)}{-\ 0.21295}\ QFYP + \underset{(0.59)}{1.38961}\ IIEP - \underset{(1.13)}{1.33388}\ (IIEP_{-1} + IIEP_{-2}) + \underset{(1.66)}{1.52319}\ (IIEP_{-3} + IIEP_{-4})$$

$R^2 = 0.880$ S.E. = 0.522 D.W. = 2.34
Sample Period 1959-1973

(K.21) KICP Basic Funds, Coal Products (Jan. 1)

$$KICP_{+1} \equiv KICP + KNICP$$

(K.22) KNICP Capital Formation, Coal Products

$$KNICP + \underset{(0.790)}{0.03}\ KICP = \underset{(3.68)}{0.11613}\ QFYP - \underset{(4.71)}{0.30244}\ Q68 + \underset{(37.04)}{0.18559}\ (IICP + IICP_{-1} + IICP_{-2})$$

$R^2 = 0.856$ S.E. = 0.060 D.W. = 2.32
Sample Period 1959-1973

(K.23) KIPP Basic Funds, Petroleum Products (Jan. 1)

$$KIPP_{+1} \equiv KIPP + KNIPP$$

(K.24) KNIPP Capital Formation, Petroleum Products

$$KNIPP - \underset{(1.471)}{0.025}\ KIPP = - \underset{(2.59)}{0.44342}\ QFYP - \underset{(2.81)}{0.60611}\ Q6567 + \underset{(15.84)}{0.23246}\ (IIPP + IIPP_{-1} + IPP_{-2})$$

$R^2 = 0.868$ S.E. = 0.315 D.W. = 1.96
Sample Period 1959-1973

(K.25) KIFM Basic Funds, Ferrous Metallurgy (Jan. 1)

$$KIFM_{+1} \equiv KIFM + KNIFM$$

(K.26) KNIFM Capital Formation, Ferrous Metallurgy

$$KNIFM + \underset{(2.263)}{0.05}\ KIFM = \underset{(25.36)}{0.42263}\ (IIFM + IIFM_{-1} + IIFM_{-2})$$

$R^2 = 0.736$ S.E. = 0.357 D.W. = 2.16
Sample Period 1959-1973

(K.27) KICH Basic Funds, Chemicals and Petrochemicals (Jan. 1)

$$KICH_{+1} \equiv KICH + KNICH$$

(K.28) KNICH Capital Formation, Chemicals and Petrochemicals

$$KNICH + \underset{(2.064)}{0.04}\ KICH = \underset{(2.73)}{0.66416}\ QFYP + \underset{(12.60)}{0.51752}\ (IICH_{-1} + IICH_{-2})$$

$R^2 = 0.772$ S.E. = 0.476 D.W. = 2.05
Sample Period 1959-1973

(K.29) KIMB Basic Funds, Machine-Building and Metal-Working (Jan. 1)

$$KIMB_{+1} \equiv KIMB + KNIMB$$

(K.30) KNIMB Capital Formation, Machine-Building and Metal-Working

$$KNIMB + \underset{(4.666)}{0.05}\ KIMB = \underset{(1.25)}{0.23512}\ QFYP + \underset{(2.13)}{0.79425}\ Q66 + \underset{(40.40)}{0.57407}\ (IIMB + IIMB_{-1})$$

$R^2 = 0.973$ S.E. = 0.361 D.W. = 2.22
Sample Period 1959-1973

(K.31) KIFP Basic Funds, Forest Products (Jan. 1)

$$KIFP_{+1} \equiv KIFP + KNIFP$$

(K.32) KNIFP Capital Formation, Forest Products

$$KNIFP + \underset{(1.034)}{0.045}\ KIFP = \underset{(0.82)}{0.07759}\ QFYP + \underset{(17.39)}{0.44045}\ (IIFP + IIFP_{-1})$$

$R^2 = 0.749$ S.E. = 0.183 D.W. = 1.17
Sample Period 1959-1973

(K.33) KICM Basic Funds, Construction Materials (Jan.1)

$$KICM_{+1} \equiv KICM + KNICM$$

(K.34) KNICM Capital Formation, Construction Materials

$$KNICM + 0.04\ KICM = \underset{(1.325)}{0.18611}\ Q69 \underset{(0.95)}{} - \underset{(6.57)}{1.24738}\ Q70 + \underset{(1.51)}{0.3480}\ IICM + \underset{(22.62)}{0.3335}\ IICM_{-1} + \underset{(2.12)}{0.2707}\ IICM_{-2} + \underset{(1.28)}{0.1595}\ IICM_{-3}$$

$R^2 = 0.896$ S.E. 0.173 D.W. = 1.57
Sample Period 1959-1973

Distributed Lag estimation: Quadratic, 4-Period, Zero-Constrained in 5th Period.

(K.35) KISG Basic Funds, Soft Goods (Jan. 1)

$$KISG_{+1} \equiv KISG + KNISG$$

(K.36) KNISG Capital Formation, Soft Goods

$$KNISG + 0.05\ KISG = \underset{(1.015)}{0.2546}\ IISG + \underset{(0.39)}{0.5098}\ IISG_{-1} + \underset{(1.91)}{0.4249}\ IISG_{-2} \underset{(0.88)}{}$$

(K.36) KNISG Capital Formation, Soft Goods, Continued

$R^2 = 0.854$ S.E. = 0.163 D.W. = 2.14
Sample Period 1959-1973

Distributed Lag estimation: Quadratic, 3-Period, Zero Constrained in 4th Period.

(K.37) KIPF Basic Funds, Processed Foods (Jan. 1)

$KIPF_{+1} \equiv KIPF + KNIPF$

(K.38) KNIPF Capital Formation, Processed Foods

$$KNIPF + \underset{(1.852)}{0.05}\ KIPF = \underset{(3.63)}{0.95911}\ Q61 - \underset{(3.25)}{0.93297}\ Q62 + \underset{(0.22)}{0.1094}\ IIPF + \underset{(2.53)}{0.4942}\ IIPF_{-1} + \underset{(1.27)}{0.4577}\ IIPF_{-2}$$

$R^2 = 0.890$ S.E. = 0.234 D.W. = 1.52
Sample Period 1959-1973

Distributed Lag estimation: Quadratic, 3-Period, Zero-constrained in 4th Period.

(K.39) KSUM Basic Funds, National Economy (Mean Year)

$$KSUM \equiv KAIR + \tfrac{1}{2}\,(KIA + KCR + KTA + KCOM + KHA + KSER)_{+1} + \tfrac{1}{2}\,(KIA + KCR + KTA + KCOM + KHA + KSER)$$

(K.40) KIPPF Basic Funds, Petroleum Products, World Imports

$$KIPPF \equiv 0.95\ KIPPF_{-1} + 0.1\ \left(\frac{MTM12\&}{P599/1.1852}\right) - 1$$

(K.41) KICHF Basic Funds, Chemicals and Petrochemicals, Western Imports

$$KICHF \equiv 0.95\ KICHF_{-1} + 0.1\ \left(\frac{MIECH\$*PREX9}{P599/1.1852}\right) - 1$$

(K.42) KIMBF Basic Funds, Machine-Building, World Imports

$$KIMBF \equiv 0.95\ KIMBF_{-1} + 0.1\ \left(\frac{MTM10\&}{P599/1.1852}\right) - 1$$

A OTHER AGRICULTURAL VARIABLES

Define $RXA \equiv \frac{XAT}{XATPK} - 1.$

(A.1) ALVR Livestock (Value in 1965 Rubles)

$$\frac{ALVR}{ALVR} - 0.95 = \underset{(1.29)}{-\ 0.12038} \underset{(4.05)}{-\ 0.00879}\ QT50$$

(0.064)

$$+ \underset{(1.58)}{0.16540}\ \frac{XACTOAL9_{-1}}{1000.\ ALVR_{-1}} + \underset{(2.66)}{0.61302}\ \frac{KWAL9_{-1}}{100.}$$

$$+ \underset{(1.60)}{0.26799}\ \left(\frac{RXA_{-1} + RXA_{-2}}{2.}\right)$$

$R^2 = 0.777$ S.E. = 0.014 D.W. = 2.46
Sample Period 1959-1972

(A.2) AACI Index of Agricultural Current Purchases

$$\frac{AACI}{AACI} - 1. = \underset{(5.78)}{0.10286} \underset{(2.00)}{-\ 0.00191}\ QT50 + \underset{(2.68)}{0.04577}\ Q65$$

(0.074)

$$+ \underset{(2.22)}{0.18955}\ RXA - \underset{(1.44)}{0.22840}\ \left(\frac{RXA_{-1} + RXA_{-2}}{2.}\right)$$

$R^2 = 0.799$ S.E. = 0.014 D.W. = 1.63
Sample Period 1959-1972

X PRODUCTION

(X.1) XITOT Industrial Output Index

Cobb-Douglas production functions with labor elasticity constrained to 0.560. No technical progress terms included.

Sample Period 1961-1972.

Define the following dependent variable:

$$LXIC \equiv \underset{(-1.1249)}{} ln\ XITOT - 0.560\ \{0.845\ ln\ (NMI-NIET) + 0.155\ ln\ NIET\}$$

(a) Capital Disaggregation, Dummy Variable Q6466 (ALT (6)=0)

$$LXIC = \underset{(63.99)}{-3.41112} \underset{(6.35)}{- 0.01896}\ Q6466 \underset{(7.04)}{+ 0.22751}\ ln\ \left(\frac{KIF+KIF_{-1}}{2.}\right)$$

$$\underset{(17.25)}{+ 0.37416}\ ln\ \left(\frac{KIA_{+1}+KIA}{2.} - \frac{KIF+KIF_{-1}}{2.}\right)$$

$R^2 = 0.9996$ S.E. = 0.0043 D.W. = 2.72

(b) Capital Disaggregation, No Dummy Variable (ALT (6)=1)

$$LXIC = \underset{(27.48)}{-3.38701} \underset{(3.56)}{+ 0.26306}\ ln\ \left(\frac{KIF+KIF_{-1}}{2.}\right)$$

$$\underset{(7.14)}{+0.35578}\ ln\ \left(\frac{KIA_{+1}+KIA}{2.} - \frac{KIF+KIF_{-1}}{2}\right)$$

$R^2 = 0.997$ S.E. = 0.0100 D.W. = 1.08

(c) Aggregate Capital Series, Dummy Variable Q6466 (ALT (6)=2)

$$LXIC = \underset{(78.24)}{-3.81454} \underset{(3.22)}{- 0.02207}\ Q6466 + \underset{(55.81)}{0.53136}\ ln\ \left(\frac{KIA_{+1}+KIA}{2.}\right)$$

$R^2 = 0.997$ S.E. = 0.0101 D.W. = 0.81

(d) Aggregate Capital Series, No Dummy Variable (ALT(6)=3)

$$LXIC = \underset{(58.36)}{-3.85139} + \underset{(41.39)}{0.53753}\ ln\ \left(\frac{KIA_{+1}+KIA}{2.}\right)$$

$R^2 = 0.994$ S.E. = 0.0140 D.W. = 0.51

(X.2) XCRUB Construction Activity, State Enterprises

$$ln\ XCRUB = \underset{(3.44)}{-7.35112} + \underset{(6.74)}{1.07667}\ ln\ NMC + \underset{(7.93)}{0.06603}\ ln\ \left(\frac{KCR_{+1}+KCR}{2.}\right) + \underset{(1.26)}{0.24571}\ ln\ XICM \quad (4.59)$$

$R^2 = 0.999$ S.E. = 0.012 D.W. = 2.71
Sample Period 1958-1972

(X.3) XT7R Transport and Communications Index

$$ln\ XT7R = \underset{(4.25)}{-3.11578} + \underset{(3.16)}{0.76397}\ ln\ \left(\frac{KTA_{+1}+KTA}{2.}\right) \quad (4.88)$$

(X.3) XT7R Transport and Communications Index, Continued

$$+ \underset{(1.11)}{0.14441}\ ln\ \left(\frac{NTSPA + NTSPA_{-1}}{2.}\right)$$

$$+ \underset{(3.20)}{0.59203}\ ln\ KTCUS$$

$R^2 = 0.999$ S.E. = 0.012 D.W. = 1.08
Sample Period 1958-1973

(X.4) XTRADE Domestic Trade Index

$$ln\ XTRADE = \underset{(4.452)}{-\ 0.88405} + \underset{(2.04)}{0.06606}\ ln\ \left(\frac{KCOM_{+1}+KCOM}{2.}\right) + \underset{(8.74)}{1.18384}\ ln\ \frac{XILT + XILT_{-1}}{2.}$$

$R^2 = 0.996$ S.E. = 0.019 D.W. = 0.77
Sample Period 1960-1972

Where

$$XILT \equiv \frac{0.27744\ XISG + .38796\ XIPF}{(0.27744 + 0.38796)}$$

(1970 Value-Added Weights by Branch)

(X.5) XSER Services and Administration Output Index

$$ln\ XSER = \underset{(4.422)}{-\ 3.82213} + \underset{(1.16)}{0.73040}\ ln\ NMG + \underset{(0.58)}{0.19967}\ ln\ \frac{KHBF_{+1} + KHBF + KSER_{+1} + KSER}{2.}$$

(X.5) XSER Services and Administration Output Index, Continued

$R^2 = 0.994$ S.E. = 0.015 D.W. = 1.97
Sample Period 1960-1972

(X.6) XAT Agricultural Output

ln XAT = ln XATPK + LPRES

Where ln XATPK is capacity output (linked peak) in agriculture obtained from:

$$ln\ XATPK = \underset{(4.11)}{0.74658} + \underset{(0.68)}{0.40105}\ ln\ KAIR + \underset{(16.37)}{0.48752}\ ln\ NAT - \underset{(1.76)}{0.05219}\ Q6465 \quad \underset{(3.70)}{}$$

$R^2 = .987$ S.E. = 0.018 D.W. = 1.14
Sample Period 1959-1973

Actual LPRES is defined as

ln XAT - (fitted) ln XATPK and obtained from:

$$LPRES = \underset{(-0.032)}{-0.04404} + \underset{(6.52)}{0.09305}\ JPS9 + \underset{(5.38)}{0.51957}\ JTW9 + \underset{(3.74)}{1.60386}\ \left(\frac{NAT}{SAI9} - .39076\right) + \underset{(4.17)}{0.07877}\ Q6465$$

$R^2 = .878$ S.E. = 0.024 D.W. = 2.35
Sample Period 1959-1973

(X.7a) XIEP Branch Output Index: Electroenergy

$$\ln XIEP = \underset{(4.208)}{-0.17125} + \underset{(10.03)}{0.61955}\ \ln KIEP + \underset{(2.71)}{0.40462}\ \ln NMIEP$$

$R^2 = 0.996$ S.E. = 0.030 D.W. = 0.70
Sample Period 1958-1973

(X.8a) XICP Branch Output Index: Coal Products

$$\ln XICP = \underset{(4.497)}{2.42307} + \underset{(15.56)}{0.39983}\ \ln KICP + \underset{(1.42)}{0.11452}\ \ln NMICP + \underset{(4.35)}{0.10095}\ \ln\left(\frac{NEMIN9 + NEMIN9_{-1}}{2.}\right)$$

$R^2 = 0.993$ S.E. = 0.011 D.W. = 1.14
Sample Period 1958-1973

(X.9a) XIPP Branch Output Index: Petroleum Products

$$\ln XIPP - \underset{(3.968)}{\frac{.667}{10.145}}\ \ln NMIPP = \underset{(27.61)}{3.00148} + \underset{(8.65)}{0.23498}\ \ln KIPPF + \underset{(9.25)}{0.43336}\ \ln (XIPP-KIPPF)$$

$R^2 = 0.997$ S.E. = 0.019 D.W. = 1.35
Sample Period 1960-1973

(X.10a) XIFM Branch Output Index: Ferrous Metallurgy

$$\ln \text{XIFM} = \underset{(4.330)}{} 0.30635 + \underset{(0.19)}{0.53367}\ \ln \text{KIFM} \underset{(8,67)}{}$$

$$+ \underset{(1.51)}{0.36817}\ \ln \text{NMIFM}$$

$R^2 = 0.996$ S.E. = 0.019 D.W. = 1.27
Sample Period 1958-1973

(X.11a) XINF Branch Output Index: Non-Ferrous Metallurgy

$$\ln \text{XINF} = \underset{(4.242)}{} -\underset{(1.31)}{1.82145} + \underset{(2.08)}{0.20921}\ \ln \frac{\text{IINF} + \text{IINF}_{-1}}{2.}$$

$$+ \underset{(3.04)}{0.73740}\ \ln \text{NMINF}$$

$$+ \underset{(1.08)}{0.08038}\ \ln \left(\frac{\text{NEMET9} + \text{NEMET9}_{-1}}{2.}\right)$$

$$+ \underset{(5.02)}{0.04501}\ \text{QT50}$$

$R^2 = 0.999$ S.E. = 0.011 D.W. = 1.48
Sample Period 1958-1973

(X.12a) XICM Branch Output Index: Construction Materials

$$\ln \text{XICM} = \underset{(4.304)}{-\ 6.02570} + \underset{(2.34)}{0.08493}\ \ln \frac{\text{KICM}_{+1} + \text{KICM}}{2.} + \underset{(3.51)}{1.29829}\ \ln \text{NMICM} + \underset{(2.96)}{0.02692}\ \text{QT50}$$

$R^2 = 0.993$ S.E. = 0.032 D.W. = 0.96
Sample Period 1958-1973

(X.13a) XICH Branch Output Index: Chemicals & Petrochemicals

$$\ln \text{XICH} - \underset{(1.823)}{\frac{3053.}{8953.}}\ \ln \text{NMICH} = \underset{(5.19)}{1.15104} + \underset{(2.08)}{0.48794}\ \ln \text{KICHF} + \underset{(1.78)}{0.22697}\ \ln (\text{KICH-KICHF})$$

$R^2 = 0.980$ S.E. = 0.050 D.W. = 0.44
Sample Period 1960-1973

(X.14a) XIMB Branch Output Index: Machine-Building & Metal-Working

$$\ln \text{XIMB} = \underset{(4.374)}{1.05824} + \underset{(0.90)}{0.17078}\ \ln \text{NMIMB} + \underset{(0.88)}{0.16203}\ \ln \text{KIMBF} + \underset{(1.93)}{0.50608}\ \ln (\text{KIMB-KIMBF}) - \underset{(1.45)}{0.02081}\ \text{Q6466}$$

(X.14a) XIMB Branch Output Index: Machine-Building & Metal-Working, Continued

$R^2 = 0.998$ S.E. = 0.015 D.W. = 2.08
Sample Period 1960-1973

(X.15a) XIFP Branch Output Index: Forest Products

$$\ln XIFP - \frac{4.343}{7.472} \ln NMIFP = \underset{(-0.605)}{-1.51307} + \underset{(30.91)}{0.43466} \ln KIFP - \underset{(2.80)}{0.05548} Q6566$$

$R^2 = 0.971$ S.E. = 0.026 D.W. = 0.84
Sample Period 1960-1973

(X.16a) XIPA Branch Output Index: Paper and Pulp

$$\ln XIPA = \underset{(4.346)}{0.34776} + \underset{(1.15)}{0.56182} \ln NMIPA + \underset{(7.98)}{0.11573} \ln KIFP - \underset{(4.64)}{0.03722} Q6364 + \underset{(1.50)}{0.04098} QT50 \quad \underset{(8.87)}{}$$

$R^2 = 0.9995$ S.E. = 0.008 D.W. = 2.03
Sampel Period 1960-1973

(X.17a) XISG Branch Output Index: Soft Goods

$$\ln XISG = \underset{(4.334)}{-\ 4.83933} + \underset{(1.82)}{0.19830}\ \ln KISG + \underset{(2.94)}{0.92222}\ \ln NMISG + \underset{(2.56)}{0.27061}\ \ln XAT_{-1} - \underset{(6.85)}{0.08130}\ Q6567$$

$R^2 = 0.995$ S.E. = 0.019 D.W. = 1.82
Sample Period 1958-1973

(X.18a) XIPF Branch Output Index: Processed Foods

$$\ln XIPF = \underset{(4.351)}{-\ 0.82716} + \underset{(0.59)}{0.41096}\ \ln KIPF + \underset{(2.29)}{0.41980}\ \ln NMIPF + \underset{(2.10)}{0.21101}\ \ln XAT_{-1}$$

$R^2 = 0.996$ S.E. = 0.019 D.W. = 2.12
Sample Period 1958-1973

(X.19) XGR Grain Index, M. Metric Tons (Diamond Series)

(a) Link to Gross Agricultural Output (ALT (7) =0)

$$\underset{(4.550)}{ln\ XGR} = \underset{(323.90)}{1.11803}\ ln\ XAT + \underset{(2.47)}{0.08254}\ JPS9$$

$$+\ \underset{(2.44)}{0.67223}\ JTW9 - \underset{(3.95)}{0.21716}\ Q65$$

$R^2 = 0.965$ S.E. = 0.051 D.W. = 1.67
Sample Period 1959-1973 Fit $R^2 = 0.966$

1965 is an unusual year in that grain production fell sharply while animal products increased substantially. The net result is a slight increase in XAT for 1965.

(b) Direct Production Function (ALT (7) =1)

(i) $ln\ XGR \equiv ln\ XGRPK + LGRES$

Where

XGRPK is a smoothed "normal" output measure constructed from XGR.

(ii) ln XGRPK = - 0.24857 + 0.53782 ln KAIR
(4.629) (0.18) (13.10)

+ 0.83028 ln NASK
(2.25)

R^2 = 0.989 S.E. = 0.020 D.W. = 0.37
Sample Period 1959-1973

(iii) LPRES = - 0.07125 + 0.11648 JPS9
(4.27) (2.94)
(-0.0790)

+ 1.50461 JTW9 - 0.19986 Q65
(4.58) (3.06)

R^2 = 0.820 S.E. = 0.061 D.W. = 2.72
Sample Period 1959-1973

The fit R^2 for the Direct Production Function is 0.963, slightly inferior to the Link Equation (a). The production function for grain differs slightly from that for gross agricultural output since only social sector employment is used and the dummy variable Q65 replaces the man/acre ratio (which was insignificant for grain).

Alternative Production Functions for Industrial Branches

When ALTE(8)≠0, the equations (X.7a) - (X.18a) are suppressed and the following equations used. These production functions include indexes of material inputs by branch, variables which may be exogenous (ALTE(8)=1) or endogenously determined in the U sector of the Model (ALTE(8)=2,3 or 4).

The equation for chemicals and petrochemicals (X.13b) would not converge when material inputs were determined endogenously with the A Matrix. This was due to the high estimated elasticity with respect to material inputs (0.72) and the large diagonal coefficient in the A Matrix for that branch (0.30). Consequently, in the current version of SOVMOD II equation (X.13b) has been suppressed and equation (X.13a) is used for all determinations of output in the chemicals branch.

(X.7b) XIEP Branch Output Index: Electroenergy

$$ln\ XIEP - .5811\ (\frac{1.226}{8.875})\ (3.760) \quad ln\ NMIEP = 1.89904 + 0.62623\ ln\ KIEP \quad (17.15) \quad (20.09)$$

$$+ 0.09585\ ln\ \frac{UEP\&}{PMAT70} \quad (2.79)$$

$R^2 = 0.999$ S.E. = 0.012 D.W. = 1.54
Sample Period 1960-1972

(X.8b) XICP Branch Output Index: Coal Products

$$ln\ XICP - .5435\ (\frac{3.579}{5.057})\ (1.795) \quad ln\ NMICP = 0.58038 + 0.53764\ ln\ KICP \quad (3.40) \quad (7.80)$$

$$+ 0.00931\ ln\ \frac{UCP\&}{PMAT70} \quad (0.23)$$

$R^2 = 0.986$ S.E. = 0.014 D.W. = 1.00
Sample Period 1960-1972

(X.9b) XIPP Branch Output Index: Petroleum Products

$$ln\ XIPP - .6125\ (\frac{.667}{10.145})\ (4.071) \quad ln\ NMIPP = 3.10026 + 0.45686\ ln(KIPP - KIPPF) \quad (11.08) \quad (4.11)$$

$$+ 0.18398\ ln\ KIPPF + 0.03297\ ln\ \frac{UPP\&}{PMAT70} \quad (8.30) \quad (0.47)$$

$R^2 = 0.998$ S.E. = 0.017 D.W. = 1.39
Sample Period 1960-1972

(X.10b) XIFM Branch Output Index: Ferrous Metallurgy

$$\ln XIFM = \underset{(4.340)}{0.16526} + \underset{(0.12)}{0.39288}\ \ln KIFM + \underset{(6.00)}{0.44823}\ \ln NMIFM + \underset{(2.13)}{0.11424}\ \ln \frac{UME\&}{PMAT70}$$

$R^2 = 0.998$ S.E. = 0.012 D.W. = 1.70
Sample Period 1959-1972

(X.11b) XINF Branch Output Index: Non-Ferrous Metallurgy

$$\ln XINF = \underset{(4.246)}{0.61863} + \underset{(0.89)}{0.40584}\ \ln NMINF + \underset{(3.58)}{0.07409}\ \ln \frac{UME\&}{PMAT70} + \underset{(1.65)}{0.06093}\ QT50 \quad (11.62)$$

$R^2 = 0.999$ S.E. = 0.011 D.W. = 1.63
Sample Period 1959-1972

(X.12b) XICM Branch Output Index: Construction Materials

$$\ln XICM - \underset{(2.076)}{0.4853}\left(\frac{4.317}{6.989}\right)\ln NMICM = \underset{(8.60)}{1.23330} + \underset{(7.66)}{0.41264}\ \ln \frac{KICM_{+1} + KICM}{2} + \underset{(4.14)}{0.26243}\ \ln \frac{UCM\&}{PMAT70}$$

$R^2 = 0.992$ S.E. = 0.025 D.W. 1.25
Sample Period 1959-1972

(X.13b) XICH Branch Output Index: Chemicals & Petrochemicals

$$ln\ XICH - .4068\ (\tfrac{3.053}{8.953})\ ln\ NMICH = \underset{(8.44)}{3.25399} + \underset{(0.10)}{0.02679}\ ln\ KICHF$$

$$\underset{(3.228)}{}$$

This equation was not used due to problems with convergence. Equation 13a was used instead.

$$+ \underset{(0.84)}{0.10566}\ ln\ (KICH-KICHF)$$

$$+ \underset{(2.37)}{0.72230}\ ln\ \frac{UCH\&}{PMAT70}$$

$R^2 = 0.992$ S.E. = 0.037 D.W. = 0.96
Sample 1960-1972

(X.14b) XIMB Branch Output Index: Machine-Building & Metal-Working

$$ln\ XIMB - 0.4469\ (\tfrac{22.837}{40.575})\ ln\ NMIMB = \underset{(1.87)}{1.64252} + \underset{(0.53)}{0.13770}\ ln\ (KIMB-KIMBF)$$

$$\underset{(2.022)}{}$$

$$+ \underset{(1.13)}{0.18610}\ ln\ KIMBF$$

$$+ \underset{(2.00)}{0.25559}\ ln\ \frac{UMB\&}{PMAT70}$$

$R^2 = 0.997$ S.E. = 0.015 D.W. = 0.79
Sample Period 1960-1972

(X.15b) XIFP Branch Output Index: Forest Products

$$ln\ XIFP - 0.4370\ (\tfrac{4.843}{7.472})\ ln\ NMIFP = \underset{(13.46)}{1.98777} + \underset{(2.75)}{0.16838}\ ln\ KIFP$$

$$\underset{(2.242)}{}$$

$$+ \underset{(4.35)}{0.32318}\ ln\ \frac{UFP\&}{PMAT70}$$

$R^2 = 0.984$ S.E. = 0.018 D.W. = 1.18
Sample Period 1960-1972

(X.16b) XIPA Branch Output Index

$$\ln \text{XIPA} = \underset{(4.314)}{1.23570} + \underset{(2.15)}{0.40438}\ \ln \text{NMIPA} + \underset{(3.16)}{0.47880}\ \ln \text{KIFP} + \underset{(5.30)}{0.31548}\ \ln \frac{\text{UFP\&}}{\text{PMAT70}} - \underset{(3.51)}{0.04329}\ \text{Q6364}$$

$R^2 = 0.999$ S.E. = 0.012 D.W. = 1.97
Sample Period 1960-1972

(X.17b) XISG Branch Output Index: Soft Goods

$$\ln \text{XISG} - \underset{(3.958)}{0.2813}\left(1.-\frac{7.273}{27.774}\right)\ln \text{KISG} = \underset{(2.34)}{-4.67276} - \underset{(4.59)}{0.07769}\ \text{Q6567} + \underset{(3.45)}{0.98962}\ \ln \text{NMISG} + \underset{(0.81)}{0.08054}\ \ln \text{USG\&}$$

$R^2 = 0.976$ S.E. = 0.024 D.W. = 1.23
Sample Period 1959-1972

(X.18b) XIPF Branch Output Index: Processed Foods

$$\ln \text{XIPF} = \underset{(4.358)}{-\ 0.92633} + \underset{(0.64)}{0.05503}\ \ln \text{KIPF} + \underset{(2.99)}{0.42484}\ \ln \text{NMIPF} + \underset{(5.31)}{0.42966}\ \ln \text{UPF\&}$$

$R^2 = 0.998$ S.E. = 0.012 D.W. = 1.83
Sample Period 1959-1972

U MATERIAL INPUTS

This is an optional sector of SOVMOD II (Alternate (8)=2, 3 or 4) which computes material input indexes in current prices for 16 sectors using the I-O table balanced for the given year; the 16 sectors are listed in table 1 below. The vector of gross outputs X in the macromodel is first transformed into a simulated vector of gross value of outputs in current prices (XGVO) based to 1966= 100.

(U.1-1,16) $XGVO_i \equiv RGX9_i * X_i \qquad i = 1, 16$

The exogenous RGX9 vector for each year 1959-1972 was computed from actual GVO and X observations. Sectoral GVO is moved by corresponding X variables, with two macromodel outputs being aggregated into one GVO variable for metallurgy and forest products (1970 Value-Added weights were used in the aggregation):

Metallurgy $\quad XIFMNF \equiv \dfrac{8.575\ XIFM + 4.193\ XINF}{12.768}$

Forest Products $\quad XIFPPA \equiv \dfrac{7.472\ XIFP + 1.254\ XIPA}{8.726}$

The GVO's of Industry NEC and Other Branches are moved by Aggregate Industrial Output and GNP, respectively.

This vector of GVO indexes is then converted to current rubles using levels from the 1966 I-O table:

$XGVO\&_i \equiv CXG_i * XGVO_i \qquad i = 1, 16$

CXG is a vector of constant coefficients given in Table 1.

This vector XGVO& is then used to determine material inputs by sector in three alternative ways. First, the B matrix corresponding to the balanced A matrix of the given year may be used directly to form a flow matrix F&(Alterate(8)=2).

(UF-2)* $$F\&_{ij} \equiv b_{ij} * XGVO\&_i \qquad \begin{matrix} i = 1,16 \\ j = 1,16 \end{matrix}$$

In the second alternative (Alternate (8)=3), a flow matrix is formed by multiplying each column of the A matrix by the corresponding element in XGVO&:

(U.1-17) $$XGVO\&_{17} \equiv XVAT\& \equiv RGXVA9 * GNP$$

$$F\&'_{ij} \equiv a_{ij} * XGVO\&j \qquad \begin{matrix} i = 1,16 \\ j = 1,17 \end{matrix}$$

In this case, the row sum of materials requirements (including final demand) will not generally equal gross output. A distribution matrix $\bar{B}$ (16,17) is then used to distribute those excess demands to obtain a new flow matrix:

(UF-3)* $$F\&_{ij} \equiv F\&'_{ij} + \bar{b}_{ij} * (XGVO\&_i - \sum_{j=1}^{17} F\&'_{ij}) \qquad \begin{matrix} i = 1,16 \\ j = 1,17 \end{matrix}$$

Although we have used the 1966 B matrix for $\bar{B}$, the model may be programmed to apply any specific distribution matrix $\bar{B}$.

In the third alternative which determines materials inputs endogenously (Alternate(8)=4), the procedure is identical to the second until the final distribution of excess demands. Here, the distribution scheme is a minimization of weighted A coefficient changes using a matrix $\bar{B}$ of weights:

(UF-4)*

$$F\&_{ij} \equiv F\&'_{ij} * (1. + D_{ij}) \qquad \begin{matrix} i = 1,16 \\ j = 1,17 \end{matrix}$$

$$\text{where } D_{ij} \equiv \bar{b}_{ij} \frac{F\&'_{ij}}{R_i} \left(XGVO\&_i - \sum_{j=1}^{17} F\&'_{ij}\right)$$

$$R_i \equiv \sum_{j=1}^{17} \bar{b}_{ij} (F\&'_{ij})^2$$

Again, we have used the 1966 B matrix as weights for the minimization but the algorithm could be used with other weighting matrices.

When the A matrix is used (Alternate(8)=3 or 4), it is adjusted each iteration as coefficients change. Iterations cease not when the matrix converges but when model outputs and material inputs converge.

Material inputs delivered to each sector are computed by aggregating over each column:

$$UF\&_j \equiv \sum_{i=1}^{16} F\&_{ij} \qquad j = 1, 16$$

Finally, this vector of material inputs in current rubles is converted to a vector of material input index values based to 1970=100.

(U.2-1,16) $$U\&_i \equiv UF\&_j / CUF_j \qquad j = 1, 16$$

CUF is a vector of constant coefficients based on the 1970 material inputs computed from actual GVO's and the balanced I-O matrix for 1970 and is given in Table 1.

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* Starred equations are for reference only and are not counted as model equations.

TABLE 1.

NO.	SECTOR		CXG B. 1966 R. * $10.^{-2}$	CUF B. 1970 R. * 10^{-2}
1.	FMNF	Metallurgy	0.21324581	0.23652038
2.	CP	Coal Products	0.05413076	0.04650122
3.	PP	Petroleum and Gas	0.05663796	0.05118781
4.	EP	Electric Power	0.05895195	0.05002713
5.	MB	Machine-Building & Metal-Working	0.54508163	0.48210769
6.	CH	Chemicals & Petrochemicals	0.14197281	0.12792019
7.	FPPA	Forest Products & Paper	0.12623556	0.10759606
8.	CM	Construction Materials	0.10689850	0.08286788
9.	SG	Soft Goods	0.44730625	0.45682106
10.	PF	Processed Foods	0.60772925	0.74888594
11.	NC	Industry NEC	0.10324238	0.06832763
12.	CG	Construction	0.43312381	0.34587294
13.	AF	Agriculture & Forestry	0.80061444	0.32588250
14.	TC	Transport & Communications	0.19000031	0.05045913
15.	TD	Domestic Trade	0.16150025	0.02810113
16.	OB	Other Branches of Material Production	0.02928288	0.00641645

WHARTON ECONOMETRIC FORECASTING ASSOCIATES INC.
WHARTON EFA

W WAGES

(W.1) WI& Average Wage, Industry

$$DVWI - DVWI_{-1} = \underset{(-0.127)}{0.39342} \underset{(4.07)}{(28.1927 - DVWI_{-1})} - \underset{(4.76)}{0.48571} + \underset{(5.91)}{1.77880}\ QWREF + \underset{(4.55)}{1.56531}\ Q61$$

$R^2 = 0.883$ S.E. = 0.326 D.W. = 1.53
Sample Period 1959-1972

Where

$$DVWI = \frac{10.\ WI\&/PRC_{-1}}{1766.28\ XITOT/NMI}$$

$\frac{\text{(real wage)}}{\text{(average product)}}$

(W.2) WASK& Average Wage, State and Collective Farms

$$DVWA - DVWA_{-1} = \underset{(1.96)}{1.27835} \underset{(5.71)}{(DHWA-DVWA_{-1})} - \underset{(1.05)}{0.74025}$$

$R^2 = 0.731$ S.E. = 1.94 D.W. = 1.95
Sample Period 1959-1972

Where

$$DVWA = \frac{10.\ WASK\&/PRC_{-1}}{(XAT/NAT)_{-1}}$$

$\frac{\text{(real wage)}}{(\text{average product})_{-1}}$

(W.2) WASK& Average Wage, State and Collective Farms, Continued .

DHWA = 2.78935 QT50 (1.-QSH68) + 54.50375 QSH68

(DVWA Fitted over 1959-1972)

(W.3) WC& Average Wage, Construction

$$\frac{WC\&}{WI\&} = \underset{(1.0659)}{0.34269\ QLT28} - \underset{(13.08)}{0.18268} \quad \underset{(1.91)}{}$$

$R^2 = 0.924$ S.E. = 0.013 D.W. = 1.62
Sample Period 1958-1973

(W.4) WTC& Average Wage, Transport and Communications

$$\frac{WTC\&}{WI\&} = \underset{(0.922)}{0.98313}\ \left(\frac{WTC\&}{WI\&}_{-1}\right) + \underset{(11.72)}{0.02098} + \underset{(0.26)}{0.03188\ Q61} \quad \underset{(3.21)}{}$$

$R^2 = 0.922$ S.E. = 0.009 D.W. = 2.15
Sample Period 1959-1973 D. = 0.31

(W.5) WS& Average Wage, Trade and Distribution

$$\frac{WS\&}{WGS\&} = \underset{(250.02)}{0.98957}\left(\frac{WS\&}{WG\&_{-1}}\right) + \underset{(7.32)}{0.07728}\ Q65 - \underset{(1.54)}{0.01628}\ Q61$$

(0.708)

$R^2 = 0.907$ S.E. = 0.010 D.W. = 1.63
Sample Period 1959-1973 D. = 0.72

(W.6) WGS& Average Wage, Government and Services

$$\frac{WGS\&}{WI\&} = \underset{(465.40)}{1.00336}\left(\frac{WGS\&}{WI\&_{-1}}\right) + \underset{(4.51)}{0.02584}\ Q6162$$

(0.978)

$R^2 = 0.934$ S.E. = 0.008 D.W. = 1.77
Sample Period 1959-1973 D. = 0.46

Z INCOMES

(Z.1) ZWU& Urban Workers Gross Earnings

$$\underset{(85.871)}{ZWU\&} = \underset{(352.30)}{0.97565}\ ZWH\& + \underset{(8.23)}{11.47676}\ (1. - QSH65) - \underset{(8.02)}{0.59859}\ QT50 * (1. - QSH65)$$

$R^2 = 1.000$ S.E. = 0.457 D.W. = 0.83
Sample Period 1958-1972

Where $ZWH\& \equiv (NMI * WI\& + NMC * WC\& + NMTC * WTC\& + NMS * WS\& + NMG * WGS\&)/10.^6$

(Z.2) ZPWSC& State and Collective Farm Wage Payments

$$ZPWSC\& \equiv NASK * WASK\&/10.^3$$

(Z.3) ZPWS& Income from Sale of Farm Products

$$\underset{(2.032)}{ln\ ZPWS\&} = -\underset{(6.90)}{3.44986} + \underset{(10.94)}{0.64368}\ (ln PAFC70 + ln\ XAT) - \underset{(4.69)}{1.53755}\ \left(\frac{XAT}{XATPK} - 1\right) - \underset{(3.39)}{0.21259}\ Q69$$

$R^2 = .919$ S.E. = 0.056 D.W. = 1.42
Sample Period 1958-1972

(Z.4) ZP& Total Money Income

$$ZP\& \equiv ZWU\& + ZPWSC\& + ZPWS\& + ZWPC\&9 + ZPPC\&9 + ZPWM\&9 + BPS\&$$

(Z.5) ZPAK& Agricultural Income in Kind

$$\ln ZPAK\& = \underset{(2.533)}{-1.94988} + \underset{(4.83)}{1.10702}\ \ln XAT \qquad (11.12)$$

$R^2 = .905$ S.E. = 0.055 D.W. = 1.44
Sample Period 1958-1972

(Z.6) ZD Real Disposal Income

$$ZD \equiv 100.\ (ZP\& + ZPAK\& - TP\&)/PRC$$

(Z.7) Gross Profits, National Economy

(a) Without Anticipation Term

$$\underset{(1.114)}{ZPG\&/ZPG\&_{-1}} = \underset{(63.95)}{1.09277} + \underset{(4.25)}{0.12996}\ Q6668 + \underset{(2.20)}{0.10389}\ Q70 + \underset{(1.50)}{0.39267}\ \left(\frac{XAT}{XATPK} - 1.\right)$$

$R^2 = 0.745$ S.E. = 0.044 D.W. = 2.19
Sample Period 1959-1973

(Z.7) Gross Profits, National Economy, Continued

(b) With Anticipation Term

$$\underset{(1.114)}{ZPG\&/ZPG\&_{-1}} = \underset{(62.16)}{1.08931} + \underset{(4.31)}{0.14061}\ Q6668 + \underset{(2.38)}{0.11883}\ Q70 + \underset{(1.47)}{0.38681}\left(\frac{XAT}{XATPK} - 1.\right) + \underset{(0.96)}{0.18028}\left(\frac{ZFPG\&9}{ZPG\&_{-1}} - 1.127\right)$$

$R^2 = 0.766$ S.E. = 0.044 D.W. = 2.24
Sample Period 1959-1973

(c) With Residual Income Term

$$\underset{(1.119)}{ZPG\&/ZPG\&_{-1}} = \underset{(93.26)}{1.06260}\ ZR\&/ZR\&_{-1} - \underset{(9.91)}{0.42123}\ Q70 - \underset{(4.27)}{0.25520}\ (QSH67-QSH67_{-1})$$

$R^2 = 0.790$ S.E. = 0.039 D.W. = 1.42
Sample Period 1959-1972

(Z.8) ZDT& Amortization Funds, National Economy

$$\underset{(1.124)}{ZDT\&/ZDT\&_{-1}} = \underset{(44.60)}{1.02532} + \underset{(3.63)}{0.07104}\ KSUM/KSUM_{-1} + \underset{(24.24)}{0.27301}\ Q63 + \underset{(1.88)}{0.03168}\ (QSH67-QSH67_{-1})$$

$R^2 = 0.984$ S.E. = 0.011 D.W. = 1.45
Sample Period 1959-1972

(Z.9) ZR& Income Residual

ZR& ≡ PII * (GNP - ZD)/100. - TT& - ZDT&

P Prices

(P.1) PNF70 State Retail Price, Non-Food Goods

$$\frac{PNF70}{1+RTTD9} - \left(\frac{PNF70}{1+RTTD9}\right)_{-1} = \underset{(0.260)}{-0.29527} + \underset{(1.66)}{2.10261}\ Q6668 + \underset{(4.52)}{0.11012}\ (PWIQN - \left(\frac{PNF70}{1+RTTD9}\right)_{-1})$$

$R^2 = 0.837$ S.E. = 0.519 D.W. = 1.70
Sample Period 1961-1972

Where

PWIQN ≡ K. WIQN (marked-up industrial wage)

$$WIQN \equiv \frac{100.WI\&}{1766.28\ XITOT/(.001\ NMI)}$$

K = - 0.41978 + 1.15080 QLT28 - 0.19918 QSH68

Estimated over sample period 1958-1972

(P.2) PIRF70 State Retail Price, Food Goods

$$\frac{PIRF70}{1+RTTD9} - \left(\frac{PIRF70}{1+RTTD9}\right)_{-1} = \underset{(1.049)}{0.64672} + \underset{(2.20)}{1.77265}\ Q6668 + \underset{(3.00)}{}$$

(P.2) PIRF70 State Retail Price, Food Goods, Continued

$$+ \underset{(1.69)}{0.21488} \left(.85\ PWIQN + .15\ PAFC70_{-1} - \left(\frac{PIRF70}{1+RTTD9}_{-1}\right)\right)$$

$R^2 = 0.551$ S.E. = 0.882 D.W. = 2.05
Sample Period 1961-1972

(P.3) PAFC70 "Negotiated" Agricultural Price

(Food sold by collective farms to consumer cooperatives.)

$$ln\ PAFC70 - ln\ PAFC70_{-1} = \underset{(2.01)}{0.03485} + \underset{(1.53)}{0.04370}\ Q6869$$
$$\underset{(0.034)}{} - \underset{(3.35)}{0.02045}\ \frac{MGRDW\$}{PGR9} - \underset{(4.62)}{0.97120}\left(\frac{XAT_{-1}}{XATPK_{-1}} - 1.\right)$$
$$- \underset{(2.11)}{0.65908}\ (1. - QSH65)\left(\frac{XAT}{XATPK} - 1.\right)$$

$R^2 = 0.791$ S.E. = 0.032 D.W. = 3.01
Sample Period 1961-1973

(P.4) PFCC Consumption Price, Food

$$PFCC \equiv .875\ PIRF70 + .125\ PAFC70$$

(P.5) PRC Consumption Price, Total

$$PRC \equiv .60\ PFCC + .40\ PNF70$$

(P.6) PIWL70 Wholesale Price, Light Industry

$$PIWL70 - PIWL70_{-1} = \underset{(-0.056)}{-} \underset{(0.98)}{0.25850} - \underset{(2.30)}{1.86950}\ Q67 + \underset{(0.93)}{0.75035}\ Q61 + \underset{(1.70)}{0.10072}\ (PWIQN - PIWL70_{-1})$$

$R^2 = .438$ S.E. = 0.775 D.W. = 2.11
Sample Period 1958-1972

(P.7) PIWH70 Wholesale Price, Heavy Industry

$$PIWH70 - PIWH70_{-1} = \underset{(0.379)}{-} \underset{(1.41)}{0.45455} - \underset{(3.81)}{4.09088}\ Q61 + \underset{(13.14)}{14.09091}\ Q67$$

$R^2 = .957$ S.E. = 1.023 D.W. = 1.77
Sample Period 1961-1972

(P.8) PII Investment Deflator, Industry

$$PII = \underset{(87.9)}{0.81500}\ PXCON9 + \underset{(13.42)}{0.20588}\ PIWH70$$

$R^2 = .934$ S.E. = 1.62 D.W. = 0.36
Sample Period 1957-1972

(P.9) PIC Investment Deflator, Construction

PIC = 0.32125 PXCON9 + 0.68619 PIWH70
(91.1) (2.40) (5.64)

R^2 = .727 S.E. = 3.56 D.W. = 2.13
Sample Period 1957-1972

(P.10) PIT Investment Deflator, Transport and Communications

PIT = 0.67878 PXCON9 + 0.32086 PIWH70
(87.0) (4.10) (2.13)

R^2 = .699 S.E. = 4.40 D.W. = 0.34
Sample Period 1957-1972

(P.11) PIS Investment Deflator, Government, Trade, Services, etc. (excl. Housing)

PIS = 0.78015 PXCON9 + 0.24469 PIWH70
(88.6) (11.04) (3.81)

R^2 = .899 S.E. = 1.88 D.W. = 0.36
Sample Period 1957-1972

(P.12) PIHS Investment Deflator, Housing

PIHS = 0.82329 PXCON9 + 0.19220 PIWH70
(87.3) (19.76) (5.08)

R^2 = .971 S.E. = 1.11 D.W. = 0.53
Sample Period 1957-1972

(P.13) PIA Investment Deflator, Agriculture

PIA = 0.34481 PXCON9 + 0.06897 PIWH70 + 58.03934
(93.5) (22.19) (3.00) (30.86)

R^2 = .983 S.E. = 0.410 D.W. = 1.16
Sample Period 1957-1972

C Consumption

(C.1) CR Total Consumption

(C.1a) Identity Determination

$$CR \equiv CRF + CRND + CRD + CRS$$

(C.1b) Direct Determination

$$\frac{CR}{ZD} = \underset{(1.246)}{1.82930} - \underset{(3.04)}{0.34160}\ QLT28 + \underset{(1.37)}{0.27182}\ \frac{XAT_{-1}}{ZD}$$

$$+ \underset{(3.82)}{1.36466}\ \left(\frac{.27744\ XISG + .38796\ XIPF}{ZD}\right)$$

$R^2 = 0.977$ S.E. = 0.017 D.W. = 1.97
Sample Period 1956-1972

(C.1c) Residual Determination

$$CR \equiv GNP + \frac{MTW70}{1000} - \frac{ETW70}{1000} - GRESEM - I70T$$

$$- I70NTA - ITOTAL - .17391\ GIKREP$$

$$- \{BAD\& + \frac{6.954}{49.5}\ (BSC\& - BNAUK\&)\}/\ (.65\ \frac{WG\&}{1246.8}$$

$$+ .35\ \frac{PIWH70}{100})$$

(C.1c) Residual Determination, Continued

$$- (BD\&9 - BDN\&9) - \frac{100\ BDN\&9}{PIWH70}$$

$$- BNAUK\&/(.2\ \frac{WG\&}{1246.8} + .8\ \frac{PIWH70}{100})$$

(C.2) CRF Food Consumption

(C.2a) Direct Determination

$$\frac{CRF}{ZD} = \underset{(0.642)}{1.67893} - \underset{(5.47)}{0.34206}\ \frac{ZD}{ZD_{-1}} - \underset{(4.21)}{0.98667}\ \frac{PFCC}{PNF70}$$

$$+ \underset{(1.67)}{0.24844}\ \frac{XAT}{ZD} + \underset{(1.87)}{0.62497}\ \frac{0.38796XIPF}{ZD}$$

$R^2 = 0.981$ S.E. = 0.013 D.W. = 1.94
Sample Period 1956-1972

(C.2b) Share Determination

$$\frac{CRF}{CR} = \underset{(0.511)}{0.50614}\ (\frac{CRF}{CR})_{-1} + \underset{(2.89)}{0.90761}\ (\frac{CRND}{CR})_{-1} + \underset{(4.51)}{}$$

$$- \underset{(1.04)}{0.81116}\ (\frac{CRD}{CR})_{-1} + \underset{(4.96)}{1.25255}\ (\frac{CRS}{CR})_{-1}$$

$$- \underset{(1.98)}{0.19716}\ \frac{PFCC}{PNF70} + \underset{(0.74)}{0.03253}\ (\frac{XISG}{XISG_{-1}} - 1.)$$

$$+ \underset{(0.92)}{0.10526}\ \frac{100BDN\&9/PIWH70}{ZD}$$

(C.2b) Share Determination, Continued

$$+ \underset{(1.53)}{0.05603} \left(\frac{INA}{INA_{-1}} - 1.\right)$$

$R^2 = 0.991$ S.E. = 0.003 D.W. = 2.30
Sample Period 1957-1972 D. = 0.84

(C.3) CRND Softgoods

(C.3a) Direct Determination

$$\frac{CRND}{ZD} \underset{(0.276)}{=} \underset{(4.32)}{0.32920} + \underset{(2.81)}{0.26531} \frac{QT50}{100.} - \underset{(3.43)}{0.29562} \frac{PFCC}{PNF70}$$

$$+ \underset{(8.94)}{1.15378} \frac{0.27744\ XISG}{ZD}$$

$R^2 = 0.978$ S.E. = 0.003 D.W. = 1.53
Sample Period 1956-1972

(C.3b) Share Determination

$$\frac{CRND}{CR} \underset{(0.222)}{=} \underset{(2.11)}{0.26163} \left(\frac{CRF}{CR}\right)_{-1} + \underset{(4.33)}{0.61716} \left(\frac{CRND}{CR}\right)_{-1} + \underset{(1.32)}{0.72767} \left(\frac{CRD}{CR}\right)_{-1}$$

$$- \underset{(2.09)}{0.37389} \left(\frac{CRS}{CR}\right)_{-1}$$

(C.3b) Share Determination, Continued

$$+ \underset{(0.08)}{0.00548}\ \frac{PFCC}{PNF70} + \underset{(0.15)}{0.00453}\ \left(\frac{XISG}{XISG_{-1}} - 1.\right)$$

$$- \underset{(2.26)}{0.18249}\ \frac{100.BDN\&9/PIWH70}{ZD}$$

$$- \underset{(0.25)}{0.00659}\ \left(\frac{INA}{INA_{-1}} - 1.\right)$$

$R^2 = 0.936$ S.E. = 0.002 D.W. = 1.96
Sample Period 1957-1972 D.W. = 0.10

(C.4) CRD Durables

(C.4a) Direct Determination

$$\frac{CRD}{ZD} = \underset{(0.067)}{-} \underset{(6.97)}{1.42926} - \underset{(5.90)}{1.02849}\ \frac{QT50}{100.} + \underset{(6.93)}{0.45360}\ QLT28$$

$$+ \underset{(1.92)}{0.11033}\ \frac{0.40575\ XIMB}{ZD} - \underset{(2.20)}{0.11888}\ \frac{100.BDN\&9/PIWH70}{ZD}$$

$R^2 = 0.990$ S.E. = 0.001 D.W. = 1.65
Sample Period 1957-1972

(C.4b) Share Determination

$$\frac{CRD}{CR} = \underset{(0.055)}{0.018201}\left(\frac{CRF}{CR}\right)_{-1} - \underset{(0.30)}{0.150996}\left(\frac{CRND}{CR}\right)_{-1} + \underset{(2.19)}{0.760549}\left(\frac{CRD}{CR}\right)_{-1}$$

$$- \underset{(2.84)}{0.110318}\left(\frac{CRS}{CR}\right)_{-1}$$

$$+ \underset{(1.28)}{0.069496}\ \frac{PFCC}{PNF70} - \underset{(2.04)}{0.007663}\left(\frac{XISG}{XISG_{-1}} - 1.\right)$$

$$- \underset{(0.51)}{0.030335}\ \frac{100\ BDN\&9/PIWH70}{ZD}$$

$$- \underset{(0.78)}{0.017899}\left(\frac{INA}{INA_{-1}} - 1.\right)$$

(C.4b) Share Determination, Continued

$R^2 = 0.996$ S.E. = 0.001 D.W. = 1.95
Sample Period 1957-1972 D. = *

(C.5) CRS Services

(C.5a) Direct Determination

$$\frac{CRS}{ZD} = \underset{(0.263)}{-} \underset{(4.09)}{1.20889} - \underset{(4.09)}{1.02855} \frac{QT50}{100.} + \underset{(4.47)}{0.40920}\ QLT28$$

$$+ \underset{(7.41)}{0.55668} \frac{.43808\ XSER}{ZD}$$

$R^2 = 0.962$ S.E. = 0.003 D.W. = 1.84
Sample Period 1956-1972

(C.5b) Share Determination

$$\frac{CRS}{CR} = \underset{(0.212)}{0.21404} \left(\frac{CRF}{CR}\right)_{-1} - \underset{(3.90)}{0.37376} \left(\frac{CRND}{CR}\right)_{-1} + \underset{(0.87)}{0.32307} \left(\frac{CRD}{CR}\right)_{-1}$$

$$+ \underset{(1.93)}{0.23163} \left(\frac{CRS}{CR}\right)_{-1}$$

(C.5b) Share Determination, Continued

$$+ \underset{(2.58)}{0.12218} \frac{PFCC}{PNF70} - \underset{(2.14)}{0.04473} \left(\frac{XISG}{XISG_{-1}} - 1.\right)$$

$$+ \underset{(1.98)}{0.10758} \frac{100.BDN\&9/PIWH70}{ZD}$$

$$- \underset{(1.81)}{0.03154} \left(\frac{INA}{INA_{-1}} - 1.\right)$$

$R^2 = 0.986$ S.E. = 0.001 D.W. = 2.73
Sample Period 1957-1972 D.W. = 1.66

T BUDGET REVENUES

$$DDF \equiv \frac{BD\&9}{BGN\&} - 0.132$$ Defense Share, Deviation from Mean

$$DPRC \equiv \frac{PRC}{PRC_{-1}} - 1.$$ Consumption Price Deflator, Rate of Change

$$ZW\& \equiv ZWU\& + ZPWSC\& + ZPWC\&9$$ Total Money Wage Income

(T.1) TDP& Deductions from Gross Profits

$$\frac{TDP\&}{ZPG\&} = \underset{(0.731)}{1.02793} \underset{(69.84)}{RTDP9} + \underset{(2.49)}{1.60270}\ DDF - \underset{(2.46)}{0.10077}\ Q68$$

$R^2 = 0.780$ S.E. = 0.039 D.W. = 1.30
Sample Period 1958-1972

(T.2) TT& Turnover Tax

$$\frac{TT\&}{ZW\&} = \underset{(0.400)}{0.69335} \underset{(49.62)}{(1. - QSH68)} + \underset{(66.08)}{0.31965}\ QSH68$$

$$- \underset{(19.33)}{0.01895}\ (1. - QSH68) * QT50 + \underset{(4.25)}{0.95172}\ DPRC_{-1}$$

(T.2) TT& Turnover Tax, Continued

$$- \underset{(4.28)}{0.82918}\ DDF$$

$R^2 = 0.989$ S.E. = 0.008 D.W. = 2.10
Sample Period 1958-1972

(T.3) TOSS& Other Revenues from Social Sector (including Social Insurance Deductions)

$$\frac{TOSS\&}{ZPG\&} = \underset{(42.51)}{0.47409} + \underset{(12.08)}{0.20879}\ Q6165 + \underset{(18.11)}{0.36882}\ Q5860$$

(0.618)

$R^2 = 0.968$ S.E. = 0.030 D.W. = 2.96
Sample Period 1958-1972

(T.4) TSD& Social Insurance Deductions

$$\frac{TSD\&}{ZW\&} = \underset{(311.48)}{0.05720} + \underset{(3.45)}{0.00246}\ Q59$$

(0.057)

$R^2 = 0.480$ S.E. = 0.001 D.W. = 1.25
Sample Period 1958-1972

(T.5) TPOP& Taxes on the Population

$$\frac{TPOP\&}{ZWU\&} = \underset{(85.03)}{0.09193} + \underset{(7.96)}{0.02018}\ Q5859 - \underset{(6.02)}{0.01174}\ Q6467$$

(0.092)

$R^2 = 0.915$ S.E. = 0.003 D.W. = 1.52
Sample Period 1958-1972

(T.6) TP& Personal Taxes (for Disposable Income)

$$TP\& \equiv TPOP\& + TPA\&9$$

(T.7) TR& Total Revenues, State Budget

$$TR\& \equiv TDP\& + TT\& + TOSS\& + TPOP\&$$

B State Budget Outlays

$DDF \equiv \frac{BD\&9}{BGN\&} - 0.132$ Defense Share, Deviation from Mean

$DWG \equiv \frac{WGS\&}{WGS\&_{-1}} - 1.03536$ Rate of Change of Government Wage, Deviation from Mean

Q6768 Industrial Price Reform Dummy

Q65 Governmental Financial Reorganization

(B.1) BF& Financing of the National Ecomony

$$\frac{BF\&}{BF\&_{-1}} = \underset{(107.82)}{1.07119} - \underset{(3.35)}{0.11518}\ Q61 + \underset{(2.71)}{0.06875}\ Q6768 + \underset{(3.61)}{0.12432}\ Q70$$

(1.081)

$R^2 = 0.755$ S.E. = 0.033 D.W. = 2.91
Sample Period 1959-1973

(B.2) BSC& Social and Cultural Measures (including Science)

$$\frac{BSC\&}{BSC\&_{-1}} = \underset{(439.73)}{1.07203} + \underset{(8.23)}{0.07511}\ Q65 + \underset{(4.20)}{0.0381}\ Q68$$

(1.080)

$R^2 = 0.871$ S.E. = 0.009 D.W. = 1.74
Sample Period 1959-1973

(B.3) BNAUK& Science

$$\frac{BNAUK\&}{BNAUK\&_{-1}} = \underset{(63.24)}{1.25618} - \underset{(7.86)}{0.008904}\ QT50$$

(1.105)

$R^2 = 0.826$ S.E. = 0.019 D.W. = 2.44
Sample Period 1959-1973

(B.4) BAD& Administration

$$\frac{BAD\&}{BAD\&_{-1}} = \underset{(85.58)}{1.01199} + \underset{(3.91)}{0.16510}\ Q65 + \underset{(1.74)}{0.05381}\ Q6768$$

(1.033)

$$- \underset{(1.31)}{0.78529}\ DDF$$

$R^2 = 0.638$ S.E. = 0.041 D.W. = 1.71
Sample Period 1959-1973

(B.5) BRES& Expenditure Residual

$$\frac{BRES\&}{BGN\&} = \underset{(13.49)}{0.08371} - \underset{(6.72)}{0.002605}\ QT50 - \underset{(3.47)}{0.01610}\ Q63$$

(0.038)

$$- \underset{(3.86)}{0.01115}\ Q6768 + \underset{(1.41)}{0.005766}\ DWG - \underset{(1.96)}{0.20697}\ DDF$$

(B.5) BRES& Expenditure Residual, Continued

$R^2 = 0.932$ S.E. = .004 D.W. = 2.68
Sample Period 1958-1973

(B.6) BGN& Total Expenditures

BGN& ≡ BF& + BSC& + BAD& + BRES& + BD&9

(B.7) BPS& Transfer Payments (for Disposable Income)

$$\frac{BPS\&}{BSC\&-BNAUK\&} = \underset{(129.34)}{0.49375} + \underset{(1.75)}{0.01005}\ Q5861 - \underset{(4.72)}{0.02438}\ Q6368$$

(0.487)

$R^2 = 0.787$ S.E. = 0.009 D.W. = 2.32
Sample Period 1958-1972

E Exports

(E.1) ERMCM& Export of Raw Materials and Semifabricates to CMEA

$$100\ \frac{ERMCM\&}{PERMCM9} = \underset{(3.63)}{-937.22} + \underset{(15.5)}{30.983}\ YCMEA9$$

$$- \underset{(1.26)}{13.364}\ \{\ 100\ (\frac{PRMW9}{PTW9} - \frac{PRMW9_{-1})}{PTW9_{-1}}$$

$$- (PERMCM9 - PERMCM9_{-1})\}$$

(3098)

$R^2 = 0.964$ S.E. = 195 D.W. = 1.23
Sample Period 1961-1973

(E.2) EMACM& Exports of Machinery, to CMEA

$$EMACM\& = \underset{(10.65)}{-712.392} + \underset{(26.57)}{0.658452}\ ERMCM\& - \underset{(4.65)}{125.552}\ Q4590$$

(2674)

$R^2 = 0.985$ S.E. = 66 D.W. = 1.51
Sample Period 1960-1973

(E.3) EGRCM& Exports of Grain, to CMEA

$$\frac{EGRCM\&}{NPOP9} = \underset{(10.97)}{2.06403} + \underset{(3.49)}{2.45125} * \left(\frac{XGR}{NPOP9} - \frac{XGRCM9}{NCM9}\right)$$

(1.09)

$$+ \underset{(3.80)}{3.3278} \left(\frac{XGR_{-1}}{NPOP9_{-1}} - \frac{XGRCM9_{-1}}{NCM9_{-1}}\right)$$

$$+ \underset{(2.99)}{2.23734} \frac{GRSTK}{NPOP9}$$

$R^2 = 0.808$ S.E. = 0.14 D.W. = 2.29
Sample Period 1960-1972

Where $GRSTK \equiv \sum_{I=1}^{3} (XGR_{-I} - XGRPK_{-I})$

(E.4) ECOCM& Exports of Consumption Goods; other than Grain

$$ECOCM\& = \underset{(2.42)}{178.607} + \underset{(2.10)}{7.49858}\ XAT_{-1} - \underset{(1.80)}{6.39453}\ XGRCM9$$

(255)

$R^2 = 0.315$ S.E. = 37 D.W. = 0.91
Sample Period 1960-1973

(E.5) ETCM& Total Exports to CMEA

$$ETCM\& \equiv ERMCM\& + EMACM\& + EGRCM\& + ECOCM\& + EUSCM\&9$$

(E.6) ENETCM& Balance of Trade with CMEA

$$ENETCM\& \equiv ETCM\& - MTCM\&$$

(E.7) ENFDW$ Non-food Exports to the Developed West

$$\frac{ENFDW\$}{ENFDW\$_{-1}} = \underset{(1.86)}{-\ 0.07584} + \underset{(1.29)}{.27125}\left(\frac{MTDW\$-ENETDW\$_{-1}}{MTDW\$_{-1}} - 1.\right) + \underset{(2.80}{1.27199}\left(\frac{WTDW9}{WTDW9_{-1}}\cdot\frac{PENFDW9}{PENFDW9_{-1}} - 1.\right)$$

$R^2 = .820$ S.E. = 0.083 D.W. = 1.34
Sample Period 1961 - 1973

Revised 11/11/75

(E.8) EGRDW$ Grain Exports to the DW

$$\frac{100\ EGRDW\$}{PGR9\ \ NPOP9} = \underset{(0.217)}{1.73703} - \underset{(5.99)}{3.88386}\ \frac{XGRWE9}{NWE9} + \underset{(4.74)}{2.06302}\ \frac{GRSTK}{NPOP9}$$

$R^2 = 0.786$ S.E. = 0.091 D.W. = 1.98
Sample Period 1960-1972

Where GRSTK is defined below (E.3)

(E.9) EFODW$ Export of Food other than Grain to the DW

$$EFODW\$ = \underset{(131)}{-125.30} + \underset{(3.19)}{3.5929}\ XAT_{-1} \quad (5.37)$$

$R^2 = 0.724$ S.E. = 20 D.W. = 1.02
Sample Period 1960-1972

(E.10) ETDW$ Total exports to the Developed West

$$ETDW\$ = ENFDW\$ + EGRDW\$ + EFODW\$$$

(E.11) ENETGR Net Balance of Grain Trade

$$ENETGR = 1.1111\ EGRCM\$ + \frac{100.}{PGR9}(EGRDW\$ + EGRLDC\$ - MGRDW\$)$$

Revised 11/11/75 Now an identity

(E.12) ENETDW$ Balance of Trade with the DW

$$ENETDW\$ = ETDW\$ - MTDW\$$$

(E.13) ETLDC$ Total Exports to the Less Developed Countries (including grain EGRLDC$)

$$ETLDC\$ = \underset{(1.54)}{-\ 137.69} + \underset{(3.63)}{0.213556} * WTLDC9$$

(1035)

$$+\ \underset{(1.51)}{0.339775} * ETLDC\$_{-1}$$

$R^2 = 0.954$ S.E. = 93 D.W. = 2.07
Sample Period 1961-1973 D. = 0.22

(E.14) EGRLDC$ Exports of Grain to the LDC's

$$\frac{EGRLDC\$ * 100}{NPOP9 * PGR9} = \underset{(2.09)}{2.47943} + \underset{(2.42)}{1.42838} * \frac{GRSTK}{NPOP9}$$

(0.33)

$$-\ \underset{(1.76)}{9.95524} * \frac{XGRLDC9_{-1}}{NLDC9_{-1}}$$

$R^2 = 0.404$ S.E. = 0.12 D.W. = 1.57
Sample Period 1960-1972

where GRSTK see at Equ. (E.3)

(E.15) EOSC$ Exports to Yugoslavia and the Far Eastern Socialite Countries (except China and Cuba)

$$EOSC\$ = \underset{(2.94)}{-\ 174.24} + \underset{(2.69)}{4.26099} * WT9 + \underset{(1.44)}{0.38366} * EOSC\$_{-1}$$

(690)

$R^2 = 0.970$ S.E. = 62 D.W. = 1.80
Sample Period 1961-1973 D. = 1.35

(E.16) EMACH$ Exports of Machinery to China

$$EMACH\$ = \underset{(0.48)}{17.40668} + \underset{(1.02)}{0.35579}\ GNPCH9 - \underset{(2.84)}{39.3286}\ Q6870$$

(44)

$R^2 = 0.509$ S.E. = 20 D.W. = 1.80
Sample Period 1962-1972

(E.17) EOCH$ Exports of Other than Machinery to China

$$EOCH\$ = \underset{(38)}{-\ 9.2943} + \underset{(0.56)}{0.48417}\ EMACH\$ + \underset{(7.20)}{0.66898}\ EOCH\$_{-1}$$

$R^2 = 0.898$ S.E. = 28 D.W. = 2.83
Sample Period 1961-1973 D. = 1.66

(E.18) ETCH$ Total Exports to China

$$ETCH\$ = EMACH\$ + EOCH\$$$

(E.19) ECUBA$ Exports to Cuba

$$ECUBA\$ = \underset{(0.26)}{-\ 12.8513} + \underset{(12.38)}{3.71639}\ WT9 + \underset{(0.96)}{37.719}\ Q6263$$

$R^2 = 0.948$ S.E. 46 D.W. = 0.93

(E.20) ETW$ Exports to the World

$$ETW\$ \equiv ETDW\$ + ETCM\&\ PREX9 + ETCH\$ + EOSC\$ + ECUBA\$ + ETLDC\$ + EUSW\$9$$

(E.21) ETW70 Exports to the World at Domestic Constant Prices

$$ETW70 \equiv 1.5\ \frac{100\ ETW\$}{PREX9\ PTX9}$$

M Imports

(M.1) MRMCM& Imports of Raw Materials and Semifabricates from CMEA

$$\frac{100\ MRMCM\&}{PMRMCM9} = \underset{(13.02)}{502.182} + \underset{(5.81)}{0.073422}\ \frac{100\ ERMCM\&}{PERMCM9} + \underset{(1.97)}{0.13713}\ DEVMMACM\&_{-1}$$

(717)

$R^2 = 0.755$ S.E. = 42 D.W. = 1.61
Sample Period 1960-1973

Where DEVMMACM& = {MMACM& - (-983.61 + 179.55 QT50)}

(M.2) MMACM& Imports of Machinery from CMEA

$$MMACM\& = \underset{(2.50)}{-756.457} + \underset{(4.88)}{1.09899}\ ERMCM\& + \underset{(3.10)}{1.714289}\ DEVEMACM\&_{-1}$$

$R^2 = 0.972$ S.E. = 145 D.W. = 1.47
Sample Period 1960-1973

Where DEVEMACM& = {EMACM& - (-915.905 + 109.89 QT50)}

(M.3) MFOCM& Imports of Food from CMEA

$$MFOCM\& = \underset{(379)}{-\ 327.438}\ \underset{(2.81)}{+\ 6.62172}\ \underset{(3.09)}{CRF} + \underset{(1.91)}{0.407572}\ MFOCM\&_{-1}$$

$R^2 = 0.971$ S.E. = 30 D.W.= 2.15
Sample Period 1960-1972 D.= 0.42

(M.4) MCOCM& Imports of Manufactured Consumer Goods from CMEA

$$MCOCM\& = \underset{(1010)}{-\ 253.2914}\ \underset{(1.58)}{+\ 12.8992}\ \underset{(1.35)}{CRND} + \underset{(1.41)}{0.20878}\ ENETCM\&_{-1} + \underset{(3.39)}{0.81653}\ MCOCM\&_{-1}$$

$R^2 = 0.983$ S.E. = 60 D.W. = 1.84
Sample Period 1960-1972 D. = 0.58

(M.5) MTCM& Total Imports from CMEA

$$MTCM\& \equiv MRMCM\& + MMACM\& + MFOCM\& + MCOCM\& + MUSCM\&9$$

(M.6) MNGDW$ Imports Other Than Grain from the Developed West

$$\frac{100.MNGDW\$}{PMAW9} = \underset{(5.04)}{-2803.8} + \underset{(9.75)}{47.80074}\ XITOT + \underset{(3.73)}{601.24}\left(\frac{PGOLD9\cdot FGOLD+FSTK\$-FDEBT\$}{MTDW\$}\right)_{-1}$$

$R^2 = .955$ S.E. = 162. DW = 1.64
Sample Period 1961 - 1973
Revised 11/11/75

(M.7) MMADW$ Imports of Machinery from the DW

$$\frac{100.MMADW\$}{P71GE9_{-1}} = \underset{(1.09)}{-621.19} + \underset{(3.68)}{61.98962}IIN + \underset{(1.17)}{+197.984}\left(\frac{PGOLD9\cdot FGOLD+FSTK\$-FDEBT\$}{MTDW\$}\right)_{-1} + \underset{(0.51)}{+69.596}\left(\frac{FDHC\$}{FDEBT\$}\right)_{-1} \underset{(1.08)}{-33.122}\ \frac{MGRDW\$}{PGR9}$$

$R^2 = 0.786$ S.E. = 170. DW = 1.58
Sample Period 1961 - 1973
Revised 11/11/75

(M.8) MCODW$ Imports of Consumer Goods other than Grain form the DW

$$\frac{MCODW\$}{MNGDW\$-MUSDW\$9} = \underset{(5.75}{-0.221545} + \underset{(2.10)}{0.634093}\ \frac{CR - CR_{-1}}{CR_{-1}}$$

(0.0748)

$$\underset{(7.29)}{+4.68463}\ \frac{CRD}{CR} - \underset{(2.01)}{0.11211}\ \frac{MGRDW\$}{MTDW\$}$$

(M.8) MCODW$ Imports of Consumer Goods other than Grain from the DW, Continued

$R^2 = 0.871$ S.E. = 0.020 DW = 1.77
Sample Period 1960 - 1972

(M.9) MRMDW$ Imports of Raw Materials from the DW

MRMDW$ = MNGDW$ - MMADW$- MCODW$ - MUSDW$9

(M.10) MGRDW$ Imports of Grain from the DW

$$10^4 \cdot \left(\frac{MGRDW\$}{PGR9 \cdot GRAVE} + \frac{MGRDW\$_{-1}}{PGR9_{-1} GRAVE_{-1}}\right) = \underset{(2.78)}{133.01} - \underset{(-3.89)}{1794.959}\left(\frac{GRSTK+GRSTK_{-1}}{GRAVE \quad GRAVE}\right)$$

$$\underset{(-2.89)}{-106.585}\left(\frac{PGOLD9 \cdot FGOLD+FSTK\$-FDEBT\$}{MTDW\$}\right)_{-1}$$

$R^2 = .663$ S.E. = 79.6 DW = 2.04
$GRAVE = XGR+XGR_{-1}+XGR_{-2}$
Sample Period 1961 - 1973
Revised 11/11/75 (now a behavioral eq'n)

(M.12) MTLDC$ Total Imports from the Less Developed Countries

$$MTLDC\$ = \underset{(1.43)}{-\ 99.3283} + \underset{(2.66)}{0.507074}\ ETLDC\$$$

(1064)

$$+\ \underset{(3.78)}{1538.13}\ \left\{\frac{PRMW9}{PMAW9} - \frac{PRMW9_{-1}}{PMAW9_{-1}}\right\}$$

$$-\ \underset{(1.86)}{136.922}\ Q67 + \underset{(3.23)}{0.674961}\ MTLDC\$_{-1}$$

$R^2 = 0.989$ S.E. = 67 D.W. = 2.04
Sample Period 1960-1973 D. = 0.11

(M.13) MOSC$ Total Imports from Yugoslavia and the Far Eastern Socialist Countries (Except China)

$$MOSC\$ = \underset{(2.50)}{95.07715} + \underset{(9.33)}{0.46756}\ EOSC\$$$

(418)

$R^2 = 0.888$ S.E. = 57 D.W. = 0.76
Sample Period 1961-1973

(M.14) MTCH$ Imports from China

$$MTCH\$ = \underset{(0.30)}{-\ 3.81454} + \underset{(23.99)}{1.03969}\ ETCH\$ + \underset{(11.14)}{212.664}\ Q6164$$

(259)

(M.14) MTCH$ Imports from China, Continued

$R^2 = 0.987$ S.E. = 31 D.W. = 3.01
Sample Period 1960-1972

(M.15) MCUBA$ Imports from Cuba

$$100.\ \frac{MCUBA\$}{PSUGSU9} = \underset{(2.10)}{347.80} + \underset{(2.83)}{5.31084}\ XSUG9_{-1} - \underset{(1.69)}{0.86734}\ WT9$$

(311)

$$- \underset{(1.56)}{213.32}\ \frac{PSUGW9}{PSUGSU9}$$

$R^2 = 0.519$ S.E. = 81 D.W. = 2.81
Sample Period 1960-1973

(M.16) MTW$ Imports from the World

$$MTW\$ \equiv MTDW\$ + MTCM\& \quad PREX9 + MTLDC\$ + MOSC\$ + MTCH\$$$

$$+ MCUBA\$ + MUSW\$9$$

(M.17) MTW70 Imports from the World at Constant Domestic Prices

$$MTW70 \equiv 2.00\ \frac{100\ MTW\$}{PREX9\ PTM9}$$

(M.18) MIEIN$ Imports from Developed West, Machinery and Equipment (less Transport Equipment)

$$ln \frac{100.*MIEIN\$}{IIN*P71AW9_{-1}} = \underset{(3.210)}{3.16642} + \underset{(52.43)}{0.13621}\ ln\ FLIQ_{-1} - \underset{(3.20)}{0.31936}\ Q6466 + \underset{(3.10)}{0.02056}\ QSH68*QT50$$

$R^2 = 0.877$ S.E. = 0.114 D.W. = 2.16
Sample Period 1961-1973

(M.19) MTM10& Machinery Imports, Total, FTN10: Metal-Working

$$ln \frac{100.\ MTM10\&}{IIMB*P71GE9_{-1}} = \underset{(3.936)}{3.95025} + \underset{(115.9)}{0.24639}\ ln\ FLIQ_{-1} + \underset{(5.98)}{0.60787}\ Q70 + \underset{(1.99)}{0.008716}\ QSH68*QT50$$

$R^2 = 0.886$ S.E. = 0.091 D.W. = 1.78
Sample Period 1961-1972

(M.20) MTM12& Machinery Imports, Total, FTN12: Mining, Metallurgy and Petroleum

$$ln \frac{100.MTM12\&}{IIPP*P71GE9_{-1}} = \underset{(4.334)}{4.38313} + \underset{(59.70)}{0.19781}\ ln\ FLIQ_{-1} + \underset{(1.40)}{0.12809}\ QFYP$$

$R^2 = 0.649$ S.E. = 0.158 D.W. = 1.35
Sample Period 1961-1972

(M.21) MIECH$ Machinery Imports, West, Chemical Equipment

$$ln \frac{100.MIECH\$}{IICH*P71GE9_{-1}} = \underset{(4.454)}{4.74609} + \underset{(46.74)}{0.36499}\ ln\ FLIQ_{-1} - \underset{(3.60)}{0.47258}\ QFYP + \underset{(1.54)}{0.01588}\ QSH68*QT50$$

$R^2 = 0.666$ S.E. = 0.222 D.W. = 2.35
Sample Period 1961-1973

F Hard Currency

(F.1) FNETHC Hard Currency Balance of Trade

$$FNETHC\$ = \underset{(-434)}{-60.7808} + \underset{(14.32)}{1.21162}\ ENETDW\$$$

(1.45)

$R^2 = 0.945$ S.E. = 123 D.W. = 2.12
Sample Period 1960-1973

(F.2) FCREP$ Credit Repayments

$$FCREP\$ = \underset{(246)}{0.73024} + \underset{(2.90)}{0.28217}\ FCDR\$9_{-1} + \underset{(3.10)}{0.68156}\ FCREP\$_{-1}$$

(0.05)

$R^2 = 0.976$ S.E. = 28 D.W. = 1.26
Sample Period 1960-1973

(F.3) FDEBT$ Outstanding Debt

$$FDEBT\$ \equiv FDEBT\$_{-1} + FCDR\$9 - FCREP\$$$

(F.4) FINT$ Interest Payments

$$FINT\$ = \underset{(41.9)}{-\ 4.0578} + \underset{(76.97)}{0.055122}\ (FDEBT\$ + FDEBT\$_{-1})/2$$
$$\underset{(5.32)}{}$$

$R^2 = 0.998$ S.E. = 1.6 D.W. = 1.96
Sample Period 1960-1972

(F.5) FDHC$ Hard Currency Inflow (Balance of Payments)

$$FDHC\$ \equiv FNETHC\$ + FSER\$9 + FCDR\$9 + FGSALE\$$$
$$- FINT\$ - FCREP\$$$

(F.6) FSTK$ Hard Currency Holdings

$$FSTK\$ \equiv FSTK\$_{-1} + FDHC\$$$

(F.7) FGSALE$ Gold Sales

$$FGSALE\$ = \underset{(261)}{263.274} - \underset{(3.49)}{0.14013}\ \underset{(1.00)}{}\ \frac{FNETHC\$ + FNETHC\$_{-1}}{2}$$
$$- \underset{(4.24)}{0.45661}\ (FSTK\$ - FGSALE\$)$$

(F.7) FGSALE$ Gold Sales, Continued

$R^2 = 0.828$ S.E. = 141 D.W. 2.27
Sample Period 1961-1973

(F.8) FGOLD Gold Reserves

$$FGOLD \equiv FGOLD_{-1} + XGOLD9 - \frac{FGSALE\$}{PGOLD9}$$

(F.9) FLIQ Liquidity Ratio

$$FLIQ = \frac{FGOLD\ PGOLD9 - FDEBT\$}{MTDW\$}$$

G AGGREGATE IDENTITIES AND BALANCES

(G.1) GNPNA Non-agricultural Gross National Product

$$GNPNA \equiv 1.76628\ XITOT + 0.59943\ XCRUB + 0.34390\ XT7R + 0.17099\ \frac{XTRADE}{1.156} + 0.43808\ XSER$$

(G.2) GNPA Agricultural Gross National Product

$$GNPA \equiv XAT - 11.230\ \frac{AACI}{135.}$$

(G.3) GNP Gross National Product

$$GNP \equiv GNPNA + GNPA$$

(G.4) GIKREP Capital Repair

$$0.17391\ \frac{GIKREP}{KSUM} = \underset{(52.21)}{0.02942} - \underset{(6.48)}{0.00021}\ QT50$$

$R^2 = .792$ S.E. = 0.0004 D.W. = 1.60
Sample Period 1960 - 1973

(G.5) GEUSUM End-Use Sum, Excluding Foreign Trade and Consumption

$$GEUSUM \equiv \{ BAD + \frac{6.954}{49.5} (BSC\&-BNAUK\&) \} / (.65 \frac{WGS\&}{1246.8} + .35 \frac{PIWH70}{100.})$$

$$+ BNAUK\&/ (.2 \frac{WGS\&}{1246.8} + .8 \frac{PIWH70}{100.})$$

$$+ (BD\&9 - BDN\&9) + 100.BDN\&9/PIWH70$$

$$+ ITOTAL + I70T + I70NTA + .17391\ GIKREP$$

(Administration + Science + Defense + New Investment + Inventory Change + Capital Repair)

(G.6) GRESEM End-Use Residual

$$GRESEM = \underset{(7.77)}{0.03219}\ GNP - \underset{(0.95)}{1.25214}\ QSH65 + \underset{(2.13)}{0.50992}\ (XAT-XATPK)$$

$R^2 = 0.634$ S.E. = 2.51 D..W = 2.20

Sample Period 1960 - 1972

Note: Actual Values for GRESEM defined by

$$GRESEM \equiv GNP + .001\ (MTW70 - ETW70) - GEUSUM-CR$$

(G.7) GSIMRES ≡ GNP + .001 (MTW70 - ETW70) - GEUSUM

- CR - GRESEM

NOTE: Actual values for GSIMRES are identically zero. Solution values represent the difference between "production" and "end use" determinations of GNP when consumption is not obtained by residual identity.

Appendix B

DOCUMENTATION FOR THE SRI-WEFA ECONOMETRIC MODEL OF THE SOVIET UNION

- SOVMOD III -

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APPENDIX B

DOCUMENTATION FOR THE SRI-WEFA ECONOMETRIC MODEL OF THE SOVIET UNION: SOVMOD III

by

DONALD W. GREEN, GENE D. GUILL, PETER MIOVIĆ

I. Structure and Scale:

In its fully endogenous mode, the model consists of 189 stochastic relationships (behavioral and technical) and 106 identities arranged in the sectors given below. Each sector is identified by a single letter which is then used as the initial letter in the names of all variables determined in that sector.

SECTOR IDENTIFIER		EQUATIONS BEHAVIORAL	IDENTITY
N	Population and Employment	27	3
I	Investment	20	6
K	Capital Formation	18	24
A	Other Agricultural Variables	3	
X	Production	28	1
U	Material Inputs		34
W	Wages	24	
Z	Incomes	5	5
P	Prices	12	2
C	Consumption	4	2
T	Budget Revenues	5	2
B	Budget Outlays	8	3
E	Exports	14	8
M	Imports	16	5
F	Hard Currency	4	5
G	Aggregate Identities & Balances	1	6
	TOTAL	189	106

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II. Simulation of SOVMOD III:

The model is encoded into a simulation program using the WEFA general model solution system SOLVEM.*/ This program has standard facilities to convert the status of any variable from endogenous to exogenous and to apply additive adjustments to any behavioral variable. In addition it has the facility to exogenize entire BLOCKS of equations. In SOVMOD III the equations have been grouped in the following way:

BLOCK NUMBER	DESCRIPTION	CONSISTING OF SECTORS
1 A	Population and Employment	N
2 B	Capital Formation	K
3 C	Production, Non-Agricultural	X.7-X.23
4 D	Wages, Incomes and Prices	W,Z,P
5 E	Investment	I
6 F	Consumption	C
7 G	State Budget	T,B
8 H	Foreign Sector	E,M,F
9 I	Aggregates	G
10 J	Material Inputs	U
11 K	Agriculture	A,X.1-X.6

Most of the simultaneity in the model occurs in Blocks 1-5 and 10-11; the other four Blocks are virtually post-recursive except for certain import equations (grain and machinery) in Block 8.

SOLVEM also has the facility to allow the user to select different alternatives of an equation or a set of equations, thus establishing different variants of the model. The alternative switches encoded in SOVMOD II are given on the following page where ZERO is the initial default option.

*/ The coding of SOVMOD III was done by Raymond Chien. We are indebted to George Schink and Bill Brown, the developers of SOLVEM, for guidance in using it for this model.

ALTERNATE SWITCH NUMBER	SETTING	ALTERNATIVE	EQUATION NUMBERS
ISECTOR	0	Non-agricultural investment by adding components.	I.1a-6a
	1	Non-agricultural investment by direct function (components by exogenous ratios).	I.1b-6b
IBRANCH	0	Industrial branch investment by direct function.	I.10a-I.20a
	1	Industrial branch investment determined from aggregate level by exogenous shares.	I.10b-I.20b
PROFIT	0	Gross profits, non-residual.	Z.9a
	1	Gross profits, residual income.	Z.9b
CTOTAL	0	Total consumption by adding components.	C.1a,C.6a or C.6b
	1	Total consumption by direct function.	C.1b,C.6b
	2	Total consumption by residual function.	C.1c,C.6b
	0	Consumption components by direct functions.	C.2a-C.5a
CSHARE	1	Consumption components by share functions.	C.2b-C.5b
	2	Output determination of services and share determination of non-services components.	C.2c-C.5c
	0	Industrial output, aggregation identity.	X.19a
XIND	1	Industrial output, no foreign capital stock.	X.19b
	2	Industrial output, foreign and domestic capital stocks.	X.19c
	0	Direct production functions for industrial branches using only primary inputs.	X.7a-X.18a
XFACT	1	Production functions using exogenous material input series from I-O data.	X.7b-X.18b

ALTERNATE SWITCH NUMBER	SETTING	ALTERNATIVE	EQUATION NUMBERS
XFACT(con't)	2	Same production functions as ONE with material inputs determined endogenously with exogenous B matrix.	X.7b-X.18b
	3	Same production functions as ONE with material inputs given endogenously using B matrix determined by Hickman-Lau system.	X.7b-X.18b

Except in the form in which total consumption is residually determined (Alt. 4=TWO), GNP is determined both from the side of production (eq. G.3) and from the side of use (by adding components). The difference is a simulation residual defined in equation G.7.

III. Variables:

Variables in the model are contained in the attached alphabetical list; there are 295 endogenous and 164 exogenous variables.*/ The following naming conventions have been employed. The reader is urged to study these conventions prior to consulting the equations of the model as an understanding of them will greatly facilitate that process.

*/ There are six additional variables presently in SOVMOD III which are vestiges of SOVMOD II and are inoperative in the new model.

SYMBOL		CONVENTION
Initial Symbol		
Sector Symbols		Sector of model (see above list) in which endogenous variable is determined.
Q		Dummy or time trend variables (figures following generally denote year(s), e.g., Q65 is a dummy variable for 1965).
Final Symbol		
9		Exogenous variable other than Q-type.
Embedded or Trailing Symbols		
Industries	I	Industry
	C	Construction
	T	Transport and Communication
	S	Domestic Trade
	G	Government and Services
	A	Agriculture
Industrial Branches	EP	Electro Energy
	CP	Coal Products
	PP	Petroleum Products
	FM	Ferrous Metallurgy
	NF	Nonferrous Metallurgy
	CH	Chemicals and Petrochemicals
	FP	Forest Products
	PA	Paper and Pulp
	CM	Construction Materials
	MB	Machine-Building and Metal-Working
	SG	Soft Goods
	PF	Processed Foods
	NC	Not-Classified Elsewhere (Residual)
Other	*	Current ruble value (always used)
	$	Current dollar value (always used)
	70	1970 Ruble basis (not always used)

NOTE: A variable is exogenous if and only if its name ends in 9 or begins with Q.

Data file management programs developed at WEFA were used to construct maintain and utilize a databank for the model.*/ The structure of the list of variables is largely self-explanatory. The set of model variables is a subset of the complete Soviet data-bank.

IV. Technical Progress Feature:

SOVMOD III has been coded so that the analyst may vary the rate of Hicks-neutral technical progress by sector and branch in a convenient way. The period desired for the variation is defined by setting the exogenous variable QLIM equal to 1 for those years. The magnitude of the variation in technical progress is set by changing the following model coefficients:

BRANCH	TECHNICAL PROGRESS VARIATION COEFFICIENT
Aggregate Industry	1000
EP	878
CP	876
PP	877
FM	879
NF	880
CH	882
MB	883
FP	884
PA	887
CM	881
SG	885
PF	886
Construction	1002
Transport/Communications	1003
Domestic Trade	1004
Services	1005
Total Agriculture	1006
Total Crops	1007
Animal Products	1008
Meat	1009
Grain (official)	1010
Grain (Western)	1011

*/We are indebted to Virginia Long for assistance in setting up these programs for our purposes. The present SOVMOD Databank has evolved through several generations of software under the patient guidance of Betsy Donovan.

If, for example, the analyst wishes to augment the rate of Hicks-neutral technical progress in machine-building and metal-working by 2% over the forecast period 1976-1980, he should set QLIM=1 for 1976-1980 by exogenous assumption and set C(883) = .02. Such an adjustment may be made in the downward direction as well by setting C(883) = -.02.

V. Equations:*/

Equations are arranged by sector in the sector-order given above. Behavioral equations are written in the form used for estimation with the sample mean value of the dependent variable shown in parentheses beneath it. In some cases auxiliary variables have been defined below the equation in which they appear. Such auxiliary variables serve only this presentation purpose and do not have model variable numbers.

Figures in parentheses under coefficients are t-statistics; absence thereof implies extraneous estimate. R^2 is the multiple correlation coefficient (unadjusted for degrees of freedom); S.E. is the standard error of estimate and D.W. the Durbin-Watson statistic; D is the normal variate devised by Durbin to test for first order serial correlation in the presence of a lagged dependent variable.

Final questions were estimabed by ordinary least squares using T.S.P. (Time Series Processor).†/

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*/ In the estimation of SOVMOD III, valuable research assistance was provided by Raymond Chién and Tayyeb Shabbir.

†/ We are indebted to Jean-Pierre LeMaitre, Douglas Bracy and Colin Wordley for assistance in adapting this program to our data files.

D O C U M E N T A T I O N

SERIES LABEL	VAR#	DESCRIPTION	UNITS	SOURCE	PRECISION
AFEED70	410	VALUE OF FEED FED TO LIVESTOCK, 1970 PRICES	B,1970 RUBLES	SAIOER 062475	3
ALVR70	101	VALUE OF PRODUCTIVE LIVESTOCK(END-YR),'70PRICE WGTS	B,1970R	OER76-TRAN	3
ASGR9	408	AREA SOWN TO GRAIN	M,HECTARES	SAIOER75	3
AVCP70	102	VALUE OF AGRICULTURAL CURRENT PURCHASES	B,1970 RUBLES	OER1976	3
BAD*	149	STATE BUDGET EXPENDITURES, ADMINISTRATION	B CUR	NKHOZ	3
BADMIN	424	INDEX OF ADMINISTRATION & MISC, SERVICES (EST, PRICES)	1970=100	OER75	3
BD*9	152	STATE BUDGET EXPENDITURES, DEFENSE	B CUR	NKHOZ	3
BDN*9	153	DEFENSE NONPERSONNEL EXPENDITURES IN CURRENT PRICES	B,CURR,	COHN76	3
BDR*9	429	DEFENSE R&D EXPENDITURES IN CURRENT PRICES	B,CURR,	COHN76	3
BDSR*9	428	CHANGE IN STATE RESERVES: MILITARY PROCUREMENT ESTIMATE	B,CUR,RUBLES	COHN76	1
BDT*	425	DEFENSE AND STATE RESERVES, CURRENT RUBLES	B,CUR,R	COHN76	3
BDT70	426	DEFENSE AND STATE RESERVES, 1970 RUBLES	B,1970R	COHN76-TRAN	3
BF*	146	STATE BUDGET EXPENDITURES, FINANCING THE NATIONAL ECONOMY, TOTA	B CUR	NKHOZ	3
BGN*	151	STATE BUDGET EXPENDITURES, GOVT SPENDING, NATL ACCOUNTS BASIS	B CUR	NKHOZ	3
BNAUK*	148	SCIENCE EXPENDITURES, USSR BUDGET (CURRENT PRICES)	B RUBL	COHN73	3
BRES*	150	STATE BUDGET,EXPENDITURE RESIDUAL	B RUBL	NKHOZ	3
BRESDEV	423	INDEX OF RESEARCH AND DEVELOPMENT (EST, PRICES)	1970=100	OER75	3
BSC*	147	STATE BUDGET EXPENDITURES, SOCIAL AND CULTURAL MEASURES(INCL, S	B CUR	NKHOZ	3
BTRAN*	241	TRANSFER PAYMENTS	B, CUR, RUBLES	JEC76	3
CRD70	137	CONSUMPTION OF DURABLES, 1970 EST, PRICES	B,1970 RUBLES	JEC76	3
CRF70	135	CONSUMPTION OF FOOD, 1970 EST, PRICES	B,1970 RUBLES	JEC76	3
CRND70	136	CONSUMPTION OF SOFT GOODS, 1970 EST, PRICES	B,1970 RUBLES	JEC76	3
CRNS70	224	CONSUMPTION OF NONSERVICES, 1970 EST, PRICES	B,1970 RUBLES	JEC76-TRAN	3
CRS70	138	CONSUMPTION OF SERVICES, 1970 EST, PRICE WEIGHTS	B,1970 RUBLES	JEC76,OER75,TRAN	3
CR70	134	TOTAL CONSUMPTION, 1970 EST, PRICES	B,1970 RUBLES	JEC76,OER75,TRAN	3
ECOCM*	257	EXPORTS TO CMEA OF CATEGORY III AND IV EXCEPT GRAIN	MRB		3
ECUBA$	272	EXPORTS TO CUBA	MSUS	OER	3
EFODW$	262	EXPORTS OF FOOD TO THE DW	MSUS	OER	3
EGRCM*	256	GRAIN EXPORTS TO CMEA	MRB	OER	3
EGRDW$	261	GRAIN EXPORTS TO THE DW	MSUS	OER	3
EGRLDC$	267	GRAIN EXPORTS TO LDC	MSUS	OER	3
EMACH$	269	EXPORTS OF MACHINERY TO CHINA	MSUS	OER	3
EMACM*	255	EXPORTS TO CMEA OF CMEA CATEGORY I COMMODITIES	MRB	INDIANA	3
ENETCM*	259	BALANCE OF TRADE WITH CMEA	MRB		3
ENETDW$	265	ETDW$-MTDW$	MSUS	OER	3
ENETGR	264	NET GRAIN EXPORT BALANCE AT 65 PRICES	CONS,65		3
ENFDW$	260	EXPORTS TO THE DW OTHER THAN FOOD	MSUS	OER	3
EOCH$	270	NONMACHINERY EXPORTS TO CHINA	MSUS	OER	3
EOSC$	268	EXPORTS TO YUGOSLAVIA AND THE FAR-EASTERN SOCIALIST COUNTRIES	MSUS	OER	3
ERMCM*	254	EXPORTS TO CMEA OF CMEA CATEGORY II COMMODITIES	MRB	INDIANA	3
ETCH$	271	TOTAL EXPORTS TO CHINA	MSUS	OER	3
ETCM*	258	TOTAL EXPORTS TO EUROPEAN CMEA(EXCL,YUGOSLAVIA,ALBANIA)	MRB	INDIANA	3
ETDW$	263	TOTAL EXPORTS TO THE DEVELOPED WEST	MSUS	OER	3
ETLDC$	266	TOTAL EXPORTS TO LDC	MSUS	OER	3
ETW$	273	TOTAL EXPORTS TO THE WORLD	MSUS	OER	3
ETW70	274	TOTAL EXPORTS TO THE WORLD IN DOMESTIC CURRENCY	M 1970		3
EUSCM*9	512	UNSPECIFIED EXPORTS TO CMEA	MRB	INDIANA	3
EUSW$9	508	UNSPECIFIED EXPORTS TO THE WORLD	MSUS	OER	3
FCDR$9	550	HARD CURRENCY CREDIT DRAWINGS	MSUS	OER	3
FCREP$	522	CREDIT REPAYMENTS IN HARD CURRENCY	MSUS	OER	3

DOCUMENTATION

SERIES LABEL	VAR#	DESCRIPTION	UNITS	SOURCE	PRECISION
FDEBTS	325	OUTSTANDING DEBT AT THE END OF THE YEAR	MSUS	OER	3
FDHCS	325	HARD CURR,BALANCE OF P,SURPLUS;ENETHCS+GSALES+CDRAWS9+SERTR9-IN	MSUS	OER	3
FGOLD	328	GOLD RESERVES AT THE END OF THE YEAR	TONS	OER	3
FGSALES	327	GOLD SALES	MSUS	OER	3
FINTS	324	INTEREST PAYMENTS IN HARD CURRENCY	MSUS	OER	3
FLQ	329	HARD CURRENCY LIQUIDITY; (FGOLD*PGOLD9-FDEBTS)/MTOWS	NONE	OER73-TRAN	5
FNETHCS	321	HARD CURRENCY BALANCE OF PAYMENTS	MSUS	OER	3
FSERS9	320	HARD CURRENCY BALANCE OF SERVICES AND TRANSFERS	MSUS	OER	3
FSTKS	326	ACCUMULATED HC, HOLDINGS SINCE1959	MSUS		3
GEUSUMS	210	END-USE SUM (EXCLUDING CONSUMPTION,NET EXPORTS)	B,1970R	OER75-TRAN	3
GNMPS	220	SOVIET NET MATERIAL PRODUCT, EST, PRICE 1970 WEIGHTS	B,1970R	OER75-TRAN	3
GNPAS	95	AGRICULTURAL GNP, TOTAL OUTPUT LESS CURRENT PURCHASES	B,1970R	OER75-TRAN	3
GNPCH9	306	GNP OF CHINA	1968=10	JEC	3
GNPNAS	94	NONAGRICULTURAL GNP, EST, PRICE 1970 WEIGHTS	B,1970R	OER75-TRAN	3
GNPS	96	SOVIET GNP,SOVMOD III ; (GNPAS+GNPNAS)/,96264	B,1970R	OER75-TRAN	3
GRESEMS	191	GNP END-USE RESIDUAL = GNPS-GEUSUMS-CR70-,001(ETM70-MTM70)	B,1970R	TRAN	3
GSIMRES	244	ZEROES TO USE AS ACTUAL VALUES FOR SIMULATION RESIDUAL	NONE	NONE	3
IA	13	CAPITAL INVESTMENT IN AGRICULTURE 72R	B 197	TRAN	3
ICAPREP	155	INDEx OF CAPITAL REPAIRS	1970=100	OER75	3
ICRUR	14	CAPITAL INVESTMENT IN CONSTRUCTION	B RUB	NARKHOZ	3
IFAG*9	22	STATE BUDGET FINANCE, AGRICULTURE	B CURR	PRAVDA	3
IFAJ*	227	STATE BUDGET FINANCING OF CENTRALIZED INV,, ADJUSTED	B CUR	TRAN	3
IFIN*9	20	INDUSTRY AND CONSTRUCTION	B CUR	CUR DIG	3
IFTR*9	21	TRANSPORTATION AND COMMUNICATION	B CUR	CUR DIG	3
IHS	16	INVESTMENT IN HOUSING, ADJ TO 1970 PRICES	B RUB	NARKHOZ	3
IICH	6	CAPITAL INVESTMENT, (CHEMICALS AND PETROCHEMICALS)	B 1970	NKHOZ	3
IICM	9	CAPITAL INVESTMENT, (CONSTRUCTION MATERIALS)	B 1970	NKHOZ	3
IICP	3	CAPITAL INVESTMENT, (COAL PRODUCTS)	B 1970	NKHOZ	3
IIEP	2	CAPITAL INVESTMENT, (ELECTROENERGY)	B1970	NKHOZ	3
IIFM	5	CAPITAL INVESTMENT, (FERROUS METALS)	B 1970	NKHOZ	3
IIFP	8	CAPITAL INVESTMENT, (FOREST PRODUCTS(INCL PAPER))	B 1970	NKHOZ	3
IIMB	7	CAPITAL INVESTMENT, (MACHINE BUILDING AND METAL WORKING)	B 1970	NKHOZ	3
IIN	1	CAPITAL INVESTMENT IN INDUSTRY 72R	B 72R	NARKHOZ	3
IINF	12	CAPITAL INVESTMENT,NONFERROUS METALLURGY (RESIDUAL CATEGORY)	B,1970R	NKHOZ,	3
IIPF	11	CAPITAL INVESTMENT, (PROCESSED FOOD INDUSTRY)	B 1970	NKHOZ	3
IIPP	4	CAPITAL INVESTMENT, (PETROLEUM PRODUCTS)	B 1970	NKHOZ	3
IISG	10	CAPITAL INVESTMENT, (LIGHT INDUSTRY)	B 1970	NKHOZ	3
INA	18	INVESTMENT NONAGRICULTURAL	B RUB	TRAN	3
IRCH9	235	BRANCH INVESTMENT SHARE; CHEMICALS & PETROCHEMICALS	NONE	NKH-TRA	3
IRCM9	238	BRANCH INVESTMENT SHARE; CONSTRUCTION MATERIALS	NONE	NKH-TRA	3
IRCP9	231	BRANCH INVESTMENT SHARE; COAL PRODUCTS	NONE	NKH-TRA	3
IREP9	230	BRANCH INVESTMENT SHARE; ELECTROENERGY	NONE	NKH-TRA	3
IRFM9	233	BRANCH INVESTMENT SHARE; FERROUS METALLURGY	NONE	NKH-TRA	3
IRFP9	237	BRANCH INVESTMENT SHARE; FOREST PRODUCTS	NONE	NKH-TRA	3
IRIC9	184	PERCENTAGE NONAGRICULTURAL INVESTMENT, CONSTRUCTION	NONE	TRAN	3
IRIH9	186	PERCENTAGE NONAGRICULTURAL INVESTMENT, HOUSING	NON	TRAN	3
IRII9	183	PERCENTAGE NONAGRICULTURAL INVESTMENT, INDUSTRY	NONE	TRAN	3
IRIS9	187	PERCENTAGE NONAGRICULTURAL INVESTMENT, SERVICES	NON	TRAN	3
IRIT9	185	PERCENTAGE, NON AGRICULTURAL INVESTMENT, TRANSPORT AND COMMUNIC	NONE	TRAN	3
IRMB9	236	BRANCH INVESTMENT SHARE; MACHINE-BUILDING & METAL-WORKING	NONE	NKH-TRA	3

DOCUMENTATION

SERIES LABEL	VAR#	DESCRIPTION	UNITS	SOURCE	PRECISION
IRNF9	234	BRANCH INVESTMENT SHARE; NON-FERROUS (RESIDUAL SHARE)	NONE	NKH-TRA	3
IRPF9	240	BRANCH INVESTMENT SHARE; PROCESSED FOODS	NONE	NKH-TRA	3
IRPP9	232	BRANCH INVESTMENT SHARE; PETROLEUM PRODUCTS	NONE	NKH-TRA	3
IRSG9	239	BRANCH INVESTMENT SHARE; SOFT GOODS	NONE	NKH-TRA	3
ISER	17	CAPITAL INVESTMENT IN SERVICES 72R	B RUB	NARKHOZ	3
ISUM	419	TOTAL ACCUMULATION FUND, FIXED CAPITAL, INVENT, & LIVESTOCK	B,1970R	NKH,GH,OER-TRAN	3
IS70NTA	156	INVENTORY STOCK, END YEAR, NON-TRADE, NON-AGR,, 1970 PRICES	B 197	TRAN	3
IS70T	157	INVENTORY STOCK, END YEAR, DOMESTIC TRADE, 1970 PRICES	B 197	TRAN	3
ITOTAL	19	INVESTMENT, NATIONAL ECONOMY	B RUB	TRAN	3
ITRUB	15	CAPITAL INVESTMENT IN TRANSPORT & COMMUNICATIONS	B RUB	NARKHOZ	3
I70NTA	158	CHANGE IN INV, STOCK, END YEAR AT 1970 PRICES, NON-TRADE NON-AGRI	B 197	TRAN	3
I70T	159	CHANGE IN INV, STOCK, END YEAR AT 1970 PRICES, DOMESTIC TRADE	B 197	TRAN	3
JPS9	98	SUM OF DEVIATIONS FROM MONTHLY PRECIPITATION VALUES	CM	IMS	3
JTM9	99	WEATHER INDEX, WINTER TEMP INDEX FOR SOUTHERN UKRAINE	NONE	D-G	3
KAIR	35	AGRICULTURAL FIXED CAPITAL (MEAN YEAR 1955 PRICES)	B RUB	DIAMON	3
KCOM	39	BASIC FUNDS; TRADE, SUPPLY, OTHER MP(JAN,1), 1955 PRICES	B,1955R	NKH	3
KCR	36	BASIC FUNDS, CONSTRUCTION (JAN 1, 1955 PRICES)	B RUB	TRAN	3
KHA	42	ADJUSTED BASIC FUNDS, HOUSING (JAN 1, 1955 PRICES)	B RUB	TRAN	3
KHBF	38	BASIC FUNDS IN HOUSING (JAN 1, 1955 PRICES)	B RUB	NARKHOZ	3
KIA	41	ADJUSTED BASIC FUNDS, INDUSTRY JAN 1, 1955 PRICES	B RUB	TRAN	3
KICHM	339	IMPORTED WESTERN MACHINERY; CHEMICALS (JAN, 1)	B,1955 RUBLES	DWG76	5
KICH	29	CAPITAL STOCK, CHEMICALS AND PETROCHEMICALS (JAN,1)	B,1955R	COHN 70	3
KICM	32	CAPITAL STOCK, CONSTRUCTION MATERIALS	B,1955R	COHN 70	3
KICP	26	CAPITAL STOCK, COAL PRODUCTS	B,1955R	COHN 70	3
KIEP	25	CAPITAL STOCK, ELECTRIC POWER	B,1955R	COHN 70	3
KIFM	28	CAPITAL STOCK, FERROUS METALS	B,1955R	COHN 70	3
KIFP	31	CAPITAL STOCK, FOREST PRODUCTS	B,1955R	COHN 70	3
KIH629	179	BASIC FUNDS ADJUSTMENT FOR 1962I-H TRANSFER OF HOUSING CAPITAL	B RUB	TRAN	3
KIMBM	340	IMPORTED MACHINERY; METAL-WORKING (JAN, 1)	B,1955 RUBLES	DWG76	5
KIMB	30	CAPITAL STOCK, MACHINE-BUILDING AND METAL-WORKING	B,1955R	COHN 70	3
KIPF	34	CAPITAL STOCK, PROCESSED FOODS	B,1955R	COHN 70	3
KIPPM	331	IMPORTED MACHINERY; PETROLEUM & MINING (JAN, 1)	B,1955 RUBLES	DWG76	5
KIPP	27	CAPITAL STOCK, PETROLEUM PRODUCTS	B,1955R	COHN 70	3
KISG	33	CAPITAL STOCK, SOFT GOODS	B,1955R	COHN 70	3
KITOT	24	CAPITAL STOCK, TOTAL INDUSTRY	B 195	COHN70	3
KIT589	178	BASIC FUNDS ADJUSTMENT FOR 1958 I-T TRANSFER OF RR CAPITAL (AT	B RUB	TRAN	3
KIW	44	IMPORTED WESTERN MACHINERY; INDUSTRY (JAN, 1)	B,1955 RUBLES	DWG76	5
KNCOM	165	NET CHANGE IN BASIC FUNDS, DOMESTIC TRADE	B,1955R	NKH	3
KNOC	163	NET CHANGE IN BASIC FUNDS, CONSTRUCTION	B RUBL	TRAN	3
KNOH	166	NET CHANGE IN BASIC FUNDS, HOUSING	B RUB	TRAN	3
KNOI	162	NET CHANGE IN BASIC FUNDS, INDUSTRY	B RUB	TRAN	3
KNOT	164	NET CHANGE IN BASIC FUNDS, TRANSPORT & COMMUNICATIONS	B RUB	TRAN	3
KNICH	172	NET CHANGE IN BASIC FUNDS; CHEM, & PETROCHEM,	B,1955R	NKH	3
KNICM	175	NET CHANGE IN BASIC FUNDS; CONSTRUCTION MATERIALS	B,1955R	NKH	3
KNICP	169	NET CHANGE IN BASIC FUNDS; COAL PRODUCTS	B,1955R	NKH	3
KNIEP	168	NET CHANGE IN BASIC FUNDS; ELECTROENERGY	B,1955R	NKH	3
KNIFM	171	NET CHANGE IN BASIC FUNDS; FERROUS METALLURGY	B,1955R	NKH	3
KNIFP	174	NET CHANGE IN BASIC FUNDS; FOREST PRODUCTS	B,1955R	NKH	3
KNIMB	173	NET CHANGE IN BASIC FUNDS; MACH,BLDG,&METAL WRKG	B,1955R	NKH	3
KNIPF	177	NET CHANGE IN BASIC FUNDS; PROCESSED FOODS	B,1955R	NKH	3

D O C U M E N T A T I O N

SERIES LABEL	VAR#	DESCRIPTION	UNITS	SOURCE	PRECISION
KNIPP	170	NET CHANGE IN BASIC FUNDS; PETROLEUM PRODUCTS	B,1955R	NKH	3
KNISG	176	NET CHANGE IN BASIC FUNDS; SOFT GOODS	B,1955R	NKH	3
KNSER	167	NET CHANGE IN BASIC FUNDS, SERVICES	B,1955R	NKH	3
KSER	40	BASIC FUNDS, SERVICES (JAN,1)	B,1955R	NKH	3
KSUM	159	BASIC FUNDS, NATIONAL ECONOMY, JULY 1	B,1955R	TRAN	3
KTA	43	ADJUSTED BASIC FUNDS, TRANSPORT AND COMMUNICATION (JAN 1,1955 P	B RUB	TRAN	3
KTCUS	97	RAILROAD CAR UTILIZATION, AVE 24HR DISTANCE PER FREIGHT CAR	KMS/2	SVYAZ10	3
KTR	37	BASIC FUNDS, TRANS & COMM JAN 1,1955 PRICES	B RUB	TRAN	3
KWAL9	109	PERCENT OF KWAL LIVESTOCK BEING FATTENED & YOUNG LIVESTOCK	PERCEN	NARKHOZ	3
MCOCM*	278	IMPORTS FROM CMEA OF CMEA CATEGORY IV COMMODITIES	MRB	INDIANA	3
MCODW$	282	IMPORTS OF FOOD AND MANUF,CONS,GOODS,EXCLUDED GRAIN,FROM THE DW	MSUS	OER	3
MCUBA$	289	IMPORTS FROM CUBA	MSUS	OER	3
MFOCM*	277	IMPORTS FROM CMEA OF CMEA CATEGORY III COMMODITIES	MRB	INDIANA	3
MGRDW$	284	GRAIN IMPORTS FROM THE DW	MSUS	OER	3
MIECH$	302	IMPORTS, WEST, CHEMICAL EQUIPMENT	M,CUR,$	OER74	3
MIEIN$	211	IMPORTS,DEVELOPED WEST,MACHINERY&EQUIPMENT(LESS TRANSPORT EQUIP	MSUS	74JEC	3
MMACM*	276	IMPORTS FROM CMEA OF CMEA CATEGORY I COMMODITIES	MRB	INDIANA	3
MMADW$	281	MACHINERY IMPORTS FROM THE DW	MSUS	OER	3
MNGDW$	280	IMPORTS FROM THE DW OTHER THAN GRAIN	MSUS	OER	3
MOSC$	287	IMPORTS FROM YUGOSLAVIA AND THE FAR EASTERN SOCIALIST COUNTRIES	MSUS	OER	3
MRMCM*	275	IMPORTS FROM CMEA OF CMEA CATEGORY II COMMODITIES	MRB	INDIANA	3
MRMDW$	283	IMPORTS FROM THE DW,OTHER THAN MACHINERY,CONS,,OR UNSPEC,	MSUS	OER	3
MTCH$	288	TOTAL IMPORTS FROM CHINA	MSUS	OER	3
MTCM*	279	TOTAL IMPORTS FROM EUR, CMEA(EXCL,YUGOSLAVIA,ALBANIA)	MRB	INDIANA	3
MTDW$	285	TOTAL IMPORTS FROM THE DEVELOPED WEST	MSUS	OER	3
MTLDC$	286	TOTAL IMPORTS FROM LDC	MSUS	OER	3
MTM100-5*	343	M&E IMPORTS; ALL METAL-WORKING M&E INCL, COMPLETE PLANTS	M, FT, RUBLES	VNTORG	3
MTM120-9*	341	M&E IMPORTS; MINING, METALLURGICAL AND PETROLEUM	M, FT, RUBLES	VNTORG	3
MTW$	290	TOTAL IMPORTS FROM THE WORLD	MSUS	OER	3
MTW70	291	TOTAL IMPORTS FROM THE WORLD IN DOMESTIC CURRENCY	M 1970		3
MUSCM*9	311	UNSPECIFIED IMPORTS FROM CMEA	MRB	INDIANA	3
MUSDW$9	313	UNSPECIFIED IMPORTS FROM THE DW	MSUS	OER	3
MUSW$9	317	UNSPECIFIED IMPORTS FROM THE WORLD	MSUS	OER	3
NAKOL	402	AGRICULTURAL EMPLOYMENT, KOLKHOZY (COLLECTIVE FARMS)	M,PERSO	FDAD75	3
NAPRV	66	AGRICULTURAL EMPLOYMENT, PRIVATE (MAN-YEAR EQUIVALENTS)	M,PERSO	FDAD75	3
NASK	65	AGRICULTURAL EMPLOYMENT, STATE AND COLLECTIVE FARMS	M,PERSO	FDAD75	3
NASOV	401	AGRICULTURAL EMPLOYMENT, SOVKHOZY(STATE FARMS)	M,PERSO	FDAD75	3
NAT	67	AGRICULTURAL EMPLOYMENT, TOTAL	M,PERSO	FDAD75	3
NCM9	294	POPULATION IN THE EUROPEAN CMEA	M	UN	3
NEIND9	74	HIGH ED,ENR,; ALL INDUSTRIAL CATEGORIES	(000)	NKHOZ	3
NEMET9	334	HIGH,ED,ENR ; METALLURGY	(000	NKHOZ	3
NEMIN9	335	HIGH,ED,ENR ; MINING	(000	NKHOZ	3
NETRA9	75	HIGH,ED,ENR ; TRANSPORT	(000)	NKHOZ	3
NIET	72	ENGINEERING-TECHNICAL WORKERS IN INDUSTRY	000 M	NARKHOZ	3
NLDC9	304	POPULATION IN AFRICA,SOUTH AMERICA AND SOUTH ASIA	M	UN	3
NMC	60	EMPLOYMENT, CONSTRUCTION	000 PER	RAPAWY7	3
NMD9	404	MILITARY MANPOWER	M, PERSONS	LEE75	1
NMF	58	EMPLOYMENT FORESTRY	000 PER	RAPAWY7	3
NMG	63	EMPLOYMENT, GOVERNMENT AND SERVICES	000PERS	NMG TRAN	3
NMI	45	EMPLOYMENT, INDUSTRIAL	000 PE	RAPAWY	3

DOCUMENTATION

SERIES LABEL	VAR#	DESCRIPTION	UNITS	SOURCE	PRECISION
NMICH	51	AVERAGE ANNUAL EMPLOYMENT, BRANCH=CHEMICALS & PETROCHEMICALS	000PERS	RAPAMY	3
NMICM	54	AVERAGE ANNUAL EMPLOYMENT, BRANCH=CONSTRUCTION MATERIALS	000PERS	RAPAMY	3
NMICP	47	AVERAGE ANNUAL EMPLOYMENT, BRANCH=COAL PRODUCTS	000PERS	RAPAMY	3
NMIEP	46	AVERAGE ANNUAL EMPLOYMENT, BRANCH=ELECTROENERGY	000PERS	RAPAMY	3
NMIFM	49	AVERAGE ANNUAL EMPLOYMENT, BRANCH=FERROUS METALLURGY	000PERS	RAPAMY	3
NMIFP	53	EMPLOYMENT, FOREST PRODUCTS (EXCL, PAPER)	THOU, P	RAPAMY7	3
NMIMB	52	AVERAGE ANNUAL EMPLOYMENT, BRANCH=MACHINE-BUILDING & METAL-WORK	000PERS	RAPAMY	3
NMINC	57	AVERAGE ANNUAL EMPLOYMENT, BRANCH=NCE (RESIDUAL)	000PERS	RAPAMY	3
NMINF	50	AVERAGE ANNUAL EMPLOYMENT, BRANCH=NON-FERROUS METALLURGY	000PERS	RAPAMY	3
NMIPA	189	ANNUAL EMPLOYMENT, PULP & PAPER	THOUS,P	RAPAMY	3
NMIPF	56	AVERAGE ANNUAL EMPLOYMENT, BRANCH=PROCESSED FOOD	000PERS	RAPAMY	3
NMIPP	48	AVERAGE ANNUAL EMPLOYMENT, BRANCH=PETROLEUM PRODUCTS	000PERS	RAPAMY	3
NMISG	55	AVERAGE ANNUAL EMPLOYMENT, BRANCH=SOFT GOODS (LIGHT INDUSTRY)	000PERS	RAPAMY	3
NMNA	64	EMPLOYMENT, ALL NON-AGRICULTURAL SECTORS	000PERS	RAPAMY	3
NMU	59	EMPLOYMENT,OTHER	000 PE	RAPAMY	3
NMS	62	EMPLOYMENT, TRADE ETC,	000 PE	RAPAMY	3
NMTC	61	EMPLOYMENT, TRANSPORTATION AND COMMUNICATIONS	000PERS	NMG TRAN	3
NPOPAB9	69	POPULATION, ABLE BODIED AGES(16-59/54)	M,PER,	73JEC52	3
NPOPR	71	POPULATION RURAL (END YEAR)	M P	NKH 72,	3
NPOPU	70	POPULATION URBAN (END YEAR)	M PER	NKH 72,	3
NPOP9	68	POPULATION, TOTAL	M	TRAN	3
NTSPA	73	SPECIALISTS,TRED (ENDYEAR),INTERPOLATION WITH LAGGED ENROLLMENT	000PERS	NKH+DG	3
NWE9	301	POPULATION IN WESTERN EUROPE	M	UN	3
PAFC70	122	PRICE FOOD SOLD TO CONS, CO-OPS AT NEGOT PTS,1970=	1970=100	NKH+TRN	3
PENFDW9	296	WORLD IMPORT PRICES WEIGHTED BY SOVIET EXPORTS	1963=10		3
PERMCM9	190	UNIT VALUE PRICE OF ERMCM&	1963=10	HEWETT	3
PFCC	123	CONSUMPTION PRICE, FOOD (FROM PIRFT0 & PAFC70)	1970=1	TRAN	3
PGNP3	307	GNP DEFLATOR; CURRENT RUBLE INCOME MEASURE/REAL GNP	1970=1,	TRAN	0
PGOLD9	319	PRICE OF GOLD	MSUS/TU	ESTIMAT	3
PGR9	299	PRICE INDEX OF WORLD MARKET GRAIN PRICES	1963=10	UN	3
PIA	133	INVESTMENT DEFLATOR, AGRICULTURE	1972=1	NARKHOZ	3
PIC	129	INVESTMENT DEFLATOR, CONSTRUCTION SECTOR	1972=1	NARKHOZ	3
PIHS	132	INVESTMENT DEFLATOR, HOUSING	1972=1	NARKHOZ	3
PII	128	INVESTMENT DEFLATOR, INDUSTRY	1972=	, NARKHO	3
PIRF70	121	INDEX OF STATE RETAIL PRICES FOR FOOD GOODS (DEFLATED)	1970=1	TRAN	3
PIS	131	INVESTMENT DEFLATOR, SERVICES	1972=1	NARKHOZ	3
PIT	130	INVESTMENT DEFLATOR, TRANSPORT AND COMMUNICATIONS	1972=1	NARKHOZ	3
PIWH70	126	INDEX OF WHOLESALE INDUSTRIAL PRICES, HEAVY INDUSTRY (DEFLATED)	1970=	, TRAN	3
PIWL70	125	INDEX OF WHOLESALE INDUSTRIAL PRICES LIGHT AND FOOD INDUSTRY(DE	1970=1	TRAN	3
PMAW9	298	WORLD MARKET PRICES OF MANUFACTURED GOODS	1963=10	UN	3
PMRMCM9	310	UNIT VALUE PRICE OF MRMCM&	1963=10	HEWETT	3
PNF70	120	CONSUMPTION PRICE, NON-FOOD (FROM PINNF)	1970=1	TRAN	3
PRC	124	CONSUMPTION PRICE, TOTAL (FROM PNF&PFCC)	1970=1	TRAN	3
PREX9	212	OFFICIAL EXCHANGE RATE OF THE RUBLE IN DOLLARS	NONE	NKH	3
PRMW9	195	WORLD MARKET PRICES OF PRIMARY PRODUCTS	1963=10	UN	3
PSUGSU9	314	UNIT VALUE PRICES OF SUGAR IMPORTS FROM CUBA	1963=10	OER	3
PSUGW9	316	WORLD SUGAR PRICES	1963=10	UN	3
PTM9	318	SOVIET TRADE WITH WORLD, IMPORTS, OFFICAL PRICE INDEX	1970	0,V,TORG	3
PTW9	194	PRICES OF TOTAL WORLD IMPORTS	1963=10	UN	3
PTX9	309	SOVIET TRADE WITH WORLD, EXPORTS, OFFICAL PRICE INDEX	1970	0,V,TORG	3

D O C U M E N T A T I O N

SERIES LABEL	VAR#	DESCRIPTION	UNITS	SOURCE	PRECISION
PUAF	443	MATERIAL INPUTS DEFLATOR; AGRICULTURE	1970=1.0	GUILL76	4
PUCG	442	MATERIAL INPUTS DEFLATOR; CONSTRUCTION	1970=1.0	GUILL76	4
PUCH	435	MATERIAL INPUTS DEFLATOR;CHEMICALS& PETROCHEMS,	1970=1.0	GUILL76	4
PUCM	438	MATERIAL INPUTS DEFLATOR; CONSTRUCTION MATERIALS	1970=1.0	GUILL76	4
PUCP	431	MATERIAL INPUTS DEFLATOR; COAL PRODUCTS	1970=1.0	GUILL76	4
PUEP	433	MATERIAL INPUTS DEFLATOR; ELECTROENERGY	1970=1.0	GUILL76	4
PUFP	436	MATERIAL INPUTS DEFLATOR; FOREST PRODUCTS	1970=1.0	GUILL76	4
PUMB	434	MATERIAL INPUTS DEFLATOR; MACHINE BUILDING	1970=1.0	GUILL76	4
PUME	430	MATERIAL INPUTS DEFLATER; METALLURGY	1970=1.0	GUILL76	4
PUNC	441	MATERIAL INPUTS DEFLATOR; IND, NEC	1970=1.0	GUILL76	4
PUOB	446	MATERIAL INPUTS DEFLATOR; OTHER BRANCHES	1970=1.0	GUILL76	4
PUPA	437	MATERIAL INPUTS DEFLATOR; PAPER	1970=1.0	GUILL76	4
PUPF	440	MATERIAL INPUTS DEFLATOR; PROCESSED FOODS	1970=1.0	GUILL76	4
PUPP	432	MATERIAL INPUTS DEFLATOR; PETROLEUM PRODUCTS	1970=1.0	GUILL76	4
PUSG	439	MATERIAL INPUTS DEFLATOR; SOFT GOODS	1970=1.0	GUILL76	4
PUTC	444	MATERIAL INPUTS DEFLATOR; TRANSPORT & COMMUNICATION	1970=1.0	GUILL76	4
PUTD	445	MATERIAL INPUTS DEFLATOR; TRADE & DISTRIBUTION	1970=1.0	GUILL76	4
PXCON9	127	PRICE DEFLATOR, CONSTRUCTION ACTIVITY	1972=	, NARKHO	3
PS99	213	IMPORTS, PRICE DEFLATOR, MANUFACTURED GOODS	195	DO WEFA	3
P71GE9	422	EXPORT PRICE INDEX,GERMANY,SITC 7,1,NONELEC MACHINERY	1970=1	NBER	3
QFIN	396	DUMMY, =1 IN 1969 AND 1973	NONE	NONE	
QFYP	23	FIVE-YEAR-PLAN CYCLE (1954-57,62-64,69-71,74-76,ETC,)	NONE	DG	3
QLIM	292	DUMMY TIME TREND FOR TECHNOLOGY CHANGE, 1975=1	NONE	DWG	3
QLT28	161	LOG TIME TREND 1928=0	NONE	TRAN	3
QPL5	203	FIVE YEAR PLAN DUMMY (54-57,63-66,69-71,74-76)	NONE	D=G	3
QPR67	253	PRICE REFORM DUMMY FOR 1967-68	NONE	DWG	3
QSH65	201	DUMMY VARIABLE FOR 1954-1964 (PRIVATE AGRICULTURAL EMPLOYMENT)	NONE	C=H	3
QSH67	252	PRICE REFORM DUMMY;BEFORE 1967=1, 1967=.5,AFTER 1967=0	NONE	NONE	3
QSH68	222	SHIFT VARIABLE FOR 1968 ON =1	NONE	D=G	3
QSH71	421	DUMMY, =1 THRU 1970; =0 AFTER 1970	NONE	NONE	3
QSH72	397	DUMMY, =1 THRU 1971; =0 AFTER 1971	NONE	NONE	
QT50	160	TIME VARIABLE WITH 1950=1 AND 1973=24	NONE	NONE	3
QWREF	226	DUMMY VARIABLE FOR 1967-1969 (WAGE REFORM)	NONE	C=H	3
Q4590	195	DUMMY,SCALED BY VOLUME OF EMACM&,64-65=1,69-70=1,0 OTHERWISE			3
Q5859	249	DUMMY VARIABLE FOR 1958-59	NONE	NONE	3
Q5860	247	DUMMY VARIABLE FOR 1958-60	NONE	NONE	3
Q5861	242	DUMMY VARIABLE FOR 1958-61	NONE	NONE	3
Q59	248	DUMMY VARIABLE FOR 1959	NONE	NONE	3
Q5963	464	DUMMY VARIABLE FOR 1959-1963	NONE	NONE	1
Q6061	465	DUMMY VARIABLE FOR 1960-1961	NONE	NONE	1
Q6064	229	DUMMY VARIABLE FOR 1960-1964	NONE	ONE	3
Q61	216	DUMMY VARIABLE FOR 1961	NONE	NONE	3
Q6162	217	DUMMY VARIABLE FOR 1961-62	NONE	NONE	3
Q6164	199	DUMMY VARIABLE FOR 1961-64			3
Q6165	246	DUMMY VARIABLE FOR 1961-65	NONE	NONE	3
Q62	207	DUMMY VARIABLE FOR 1962	NON	NONE	3
Q6263	200	DUMMY VARIABLE FOR 1962-63			3
Q6264	335	DUMMY VARIABLE FOR 1962-64	NONE	NONE	3
Q63	208	DUMMY VARIABLE FOR 1963	NONE	NONE	3
Q6364	196	DUMMY VARIABLE FOR 1963-64			3

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DOCUMENTATION

SERIES LABEL	VAR#	DESCRIPTION	UNITS	SOURCE	PRECISION
Q6368	243	DUMMY VARIABLE FOR 1963-68	NONE	NONE	3
Q6465	336	DUMMY VARIABLE FOR 1964-65	NONE	NONE	3
Q6466	332	DUMMY VARIABLE FOR 1964-66	NONE	NONE	3
Q6467	250	DUMMY VARIABLE FOR 1964-67	NONE	NONE	3
Q65	209	DUMMY VARIABLE FOR 1965	NONE	NONE	3
Q6566	338	DUMMY VARIABLE FOR 1965-66	NONE	NONE	3
Q6567	219	DUMMY VARIABLE FOR 1965-1967	NONE	NONE	3
Q66	215	DUMMY VARIABLE FOR 1966	NONE	NONE	3
Q6668	219	DUMMY VARIABLE FOR 1966-1968	NONE	ONE	3
Q6669	400	DUMMY VARIABLE FOR 1966-1969	NONE	NONE	
Q6672	398	DUMMY VARIABLE FOR 1966-1972	NONE	NONE	
Q67	225	DUMMY VARIABLE FOR 1967	NONE	NONE	3
Q6768	221	DUMMY VARIABLE FOR 1967-68	NONE	NONE	3
Q68	205	DUMMY VARIABLE FOR 1968, INDUSTRY WAGE	NONE	TRAN	3
Q6869	223	DUMMY VARIABLE FOR 1968-69	NONE	NONE	3
Q6870	197	DUMMY VARIABLE FOR 1968-70			3
Q69	206	DUMMY VARIABLE FOR 1969	NONE	NONE	3
Q69ON	202	DUMMY VARIABLE FOR 1969 ON	NONE	NONE	3
Q70	209	DUMMY VARIABLE FOR 1970	NONE	NONE	3
Q7175	399	DUMMY VARIABLE FOR 1971-1975	NONE	ONE	3
Q73	409	DUMMY FOR 1973	NONE	NONE	
Q74	395	DUMMY VARIABLE FOR 1974	NONE	NONE	
RGXAF9	374	RATIO GVO/X ; AGRICULTURE/FORESTRY		GDG	3
RGXCG9	373	RATIO GVO/X ; CONSTRUCTION		GDG	3
RGXCH9	366	RATIO GVO/X ; CHEMICALS & PETROCHEMICALS		GDG	3
RGXCM9	369	RATIO GVO/X ; CONSTRUCTION MATERIALS		GDG	3
RGXCP9	362	RATIO GVO/X ; COAL PRODUCTS		GDG	3
RGXEP9	364	RATIO GVO/X ; ELECTROENERGY		GDG	3
RGXFP9	367	RATIO GVO/X ; FOREST PRODUCTS (INCL,PAPER)		GDG	3
RGXMB9	365	RATIO GVO/X ; MACHINE BUILDING		GDG	3
RGXME9	361	RATIO GVO/X ; METALLURGY		GDG	3
RGXNC9	372	RATIO GVO/X ; IND NEC		GDG	3
RGXOB9	377	RATIO GVO/X ; OTHER BRANCHES		GDG	3
RGXPA9	368	RATIO GVO/X ; PAPER AND PAPERBOARD	NONE	GDG	3
RGXPF9	371	RATIO GVO/X ; PROCESSED FOODS		GDG	3
RGXPP9	363	RATIO GVO/X ; PETROLEUM PRODUCTS		GDG	3
RGXSG9	370	RATIO GVO/X ; SOFT GOODS		GDG	3
RGXTC9	375	RATIO GVO/X ; TRANSPORT/COMMUNICATIONS		GDG	3
RGXTD9	376	RATIO GVO/X ; DOMESTIC TRADE		GDG	3
RTDP9	245	TAX RATE PROFITS	NONE	NONE	3
RTTD9	218	DEVIATIONS FROM MEAN OF TURNOVER TAX RATE (SMOOTHED)	X	TRAN	3
RTTO9	220	TAX RATE, ADJUSTMENT, OTHER SOCIAL SECTOR	NONE	NONE	3
RXGVA9	228	RATIO VALUE ADDED(CUR, PRICES) /GNP		GDG	3
SAI9	100	INDEX OF AGRICULTURAL INPUTS, SOWN AREA	1965=	,	3
TDP*	139	REVENUES, DEDUCTIONS FROM PROFIT, STATE ENTERPRISES	B RUBL	NKHOZ	3
TDUES*9	406	TRADE UNION AND PARTY DUES	B, CUR, RUBLES	JEC76	3
TINSP*9	407	INSURANCE PREMIUMS	B, CUR, RUBLES	JEC76	3
TOSS*	141	REVENUES , OTHER SOCIAL SECTORS	B RUBL	PRAVDA	3
TP*	144	TOTAL STATE DEDUCTIONS (1973 FIGURES)	B RUBL	73JEC39	3
TPA*9	251	ADJUSTMENT FOR LOCAL TAXES,ADMISSION FEES, AND LOTTERIES	B RUBL	73JEC	3

DOCUMENTATION

SERIES LABEL	VAR#	DESCRIPTION	UNITS	SOURCE	PRECISION
TPOP*	143	REVENUES, POPULATION (INCOME TAXES, STATE BONDS, LOTTERIES ETC)	B RUBL	NKHOZ	3
TR*	145	STATE BUDGET, TOTAL REVENUES (CURRENT RUBLES)	B RUBL	NKHOZ	3
TSD*	142	REVENUES , SOCIAL INSURANCE DEDUCTIONS	B RUBL	NKHOZ	3
TT*	140	REVENUES, TURNOVER TAX	B RUBL	NKHOZ	3
UAF	391	MATERIAL INPUTS; AGRICULTURE	B, 1973 RUBLES	GUILL76	3
UCG	390	MATERIAL INPUTS; CONSTRUCTION	B, 1970 RUBLES	GUILL76	3
UCH	383	MATERIAL INPUTS; CHEMICALS & PETROCHEMICALS	B, 1970 RUBLES	GUILL76	3
UCM	386	MATERIAL INPUTS; CONSTRUCTION MATERIALS	B, 1970 RUBLES	GUILL76	3
UCP	379	MATERIAL INPUTS; COAL PRODUCTS	B, 1970 RUBLES	GUILL76	3
UEP	381	MATERIAL INPUTS; ELECTROENERGY	B, 1970 RUBLES	GUILL76	3
UFP	384	MATERIAL INPUTS; FOREST PRODUCTS	B, 1970 RUBLES	GUILL76	3
UMB	382	MATERIAL INPUTS; MACHINE-BLDG, & METAL-WRKG,	B, 1970 RUBLES	GUILL76	3
UME	378	MATERIAL INPUTS; METALLURGY	B, 1970 RUBLES	GUILL76	3
UNC	389	MATERIAL INPUTS; IND, NEC,	B, 1970 RUBLES	GUILL76	3
UOB	394	MATERIAL INPUTS; OTHER BRANCHES	B, 1970 RUBLES	GUILL76	3
UPA	385	MATERIAL INPUTS; PAPER	B, 1970 RUBLES	GUILL76	3
UPF	388	MATERIAL INPUTS; PROCESSED FOODS	B, 1970 RUBLES	GUILL76	3
UPP	380	MATERIAL INPUTS; PETROLEUM PRODUCTS	B, 1970 RUBLES	GUILL76	3
USG	387	MATERIAL INPUTS; SOFT GOODS	B, 1970 RUBLES	GUILL76	3
UTC	392	MATERIAL INPUTS; TRANSPORT & COMMUNICATION	B, 1970 RUBLES	GUILL76	3
UTD	393	MATERIAL INPUTS; TRADE & DISTRIBUTION	B, 1970 RUBLES	GUILL76	3
WAGA	460	AVERAGE WAGE-STATE AGRICULTURE	RUBLES	NARKHOZ	3
WAGCH	452	AVERAGE WAGE-CHEMICALS	RUBLES	VS1EMP,WAGE FUND	3
WAGCM	455	AVERAGE WAGE-CONSTR MATERIALS	RUBLES	VS1EMP,WAGE FUND	3
WAGCON	459	AVERAGE WAGE-CONSTRUCTION	RUBLES	NARKHOZ	3
WAGCP	448	AVERAGE WAGE-COAL PRODUCTS	RUBLES	VS1EMP,WAGE FUND	3
WAGEP	450	AVERAGE WAGE-ELECTRIC POWER	RUBLES	VS1EMP,WAGE FUND	3
WAGE	463	AVERAGE WAGE-ECONOMY	RUBLES	NARKHOZ	3
WAGFM	447	AVERAGE WAGE-FERROUS METALLURGY	RUBLES	VS1EMP,WAGE FUND	3
WAGFP	453	AVERAGE WAGE-FOREST PRODUCTS	RUBLES	VS1EMP,WAGE FUND	3
WAGI	458	AVERAGE WAGE-INDUSTRY	RUBLES	NARKHOZ	3
WAGMB	451	AVERAGE WAGE-MBMW	RUBLES	VS1EMP,WAGE FUND	3
WAGPF	457	AVERAGE WAGE-PROCESSED FOOD	RUBLES	VS1EMP,WAGE FUND	3
WAGPG	449	AVERAGE WAGE-PETROLEUM & GAS	RUBLES	I-O DATA INT	3
WAGP	454	AVERAGE WAGE-PAPER	RUBLES	VS1EMP,WAG FUN D	3
WAGSG	456	AVERAGE WAGE-SOFT GOODS	RUBLES	VS1EMP,WAGE FUND	3
WAGTC	461	AVERAGE WAGE-TRANS & COMM	RUBLES	NARKHOZ	3
WAGTD	462	AVERAGE WAGE-TRADE & DIST	RUBLES	NARKHOZ	3
WAK*	403	AVERAGE WAGE, COLLECTIVE FARMS	CUR, RUBLES	JEC76-TRAN	1
WAS*	106	AVERAGE WAGE, STATE FARMS	CUR, RUBLES/YR, RUBL	NKHOZ 70JEC82	3
WC*	107	WAGES, CONSTRUCTION			3
WDF*	405	AVERAGE WAGE, MILITARY MANPOWER	RUBLES/YR,	JEC76-TRAN	3
WGS*	110	ANNUAL WAGE RATE, GOVERNMENT & SERVICES	CUR,R, RUBL	NKH 70JEC82	3
WI*	105	WAGES, INDUSTRY			3
WS*	109	WAGES, DOMESTIC TRADE AND DISTRIBUTION	RUBLES	70JEC82	3
WTC*	108	ANNUAL WAGE RATE, TRANSPORT & COMMUNICATIONS	CUR,R,	NKH	3
WTDW9	297	TOTAL IMPORTS OF THE DEV,WEST	1963=10	UN M, B	3
WTLDC9	302	TOTAL IMPORTS OF THE LDC-S	1963=10	UN M,BU	3
WTW	305	TOTAL IMPORTS OF THE WORLD	1963=10	UN M,BU	3
XACN	412	NORMAL CROP OUTPUT	B,1970 RUBLES	OER76-INTERP	3

DOCUMENTATION

SERIES LABEL	VAR#	DESCRIPTION	UNITS	SOURCE	PRECISION
XACTOAL9	103	VALUE OF FEED FED TO LIVESTOCK	M1968	SRI	3
XAGIN	89	NORMAL AGRICULTURAL OUTPUT	B,1970 RUBLES	DER76-INTERP	3
XAGT70	88	TOTAL NET FARM OUTPUT, 1970 PRICES	B,1970 RUBLES	SAIDER 062475	3
XAM	418	NORMAL OUTPUT, MEAT PRODUCTION		DER76-TRAN	3
XAN	415	NORMAL OUTPUT, ANIMAL PRODUCTS TOTAL		DER76-TRAN	3
XANIM70	414	GROSS LIVESTOCK PRODUCTION, 1970 PRICES	B,1970 RUBLES	SAIDER 062475	3
XCROP70	411	VALUE OF TOTAL CROPS, 1970 PRICES	B,1970 RUBLES	SAIDER 062475	3
XCRUR	90	CONSTRUCTION ACTIVITY	B RUB	NARKHOZ	3
XDTR	92	INDEX OF TRADE ACTIVITY	1970=100	DER75	3
XGOLD9	198	GOLD PRODUCTION	TONS	DER	3
XGR	337	GRAIN PRODUCTION	M TONS	DIAMOND	3
XGRCM9	293	GRAIN PRODUCTION IN THE EUROPEAN CMEA	M TONS	FAO	3
XGRLDC9	303	GRAIN PRODUCTION IN THE LDC-S	M TONS	FAO	3
XGRPK	295	SECOND PEAK GRAIN OUTPUT	M TONS	DIAMOND	3
XGRTN	416	NORMAL GRAIN OUTPUT	M,METRIC TONS	DER76-INTERP	3
XGRT	413	SOVIET GRAIN PRODUCTION, GROSS GRAIN AGGREGATE	M,METRIC TONS	SAIDER75	3
XGRWE9	300	GRAIN PRODUCTION IN WESTERN EUROPE	M TONS	FAO	3
XGVOAF	357	INDEX OF AGRICULTURE/FORESTRY GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOCG	356	INDEX OF CONSTRUCTION GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOCH	349	INDEX OF CHEMICALS AND PETROCHEMICALS GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOCM	352	INDEX OF CONSTRUCTION MATERIALS GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOCP	345	INDEX OF COAL PRODUCTS GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOEP	347	INDEX OF ELECTROENERGY GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOFP	350	INDEX OF FOREST PRODUCTS GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOMB	348	INDEX OF MACHINE BUILDING GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOME	344	INDEX OF METALLURGY GVO IN CURRENT PRICES	1966=100	GDG	3
XGVONC	355	INDEX OF IND NEC GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOOB	360	INDEX OF OTHER BRANCHES GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOPA	351	INDEX OF PAPER GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOPF	354	INDEX OF PROCESSED FOODS GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOPP	346	INDEX OF PETROLEUM PRODUCTS GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOSG	353	INDEX OF SOFT GOODS GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOTC	358	INDEX OF TRANSPORT/COMMUNICATIONS GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOTD	359	INDEX OF DOMESTIC TRADE GVO IN CURRENT PRICES	1966=100	GDG	3
XICH	82	CHEMICALS	1970=10	DER74	3
XICM	85	CONSTRUCTION MATERIALS	1970=10	DER74	3
XICP	78	COAL PRODUCTS	1970=10	DER74	3
XIEP	77	ELECTRIC POWER	1970=10	DER74	3
XIFM	80	FERROUS METALS	1970=10	DER74	3
XIFP	84	FOREST PRODUCTS	1970=10	DER74	3
XIMB	83	MACHINERY	1970=1	DER74	3
XINF	81	NONFERROUS METALS	1970=10	DER74	3
XIPA	188	PAPER AND PAPERBOARD	1970=10	DER74	3
XIPF	87	PROCESSED FOODS	1970=10	DER74	3
XIPP	79	PETROLEUM PRODUCTS & GAS	1970=10	DER74	3
XISG	86	SOFT GOODS	1970=10	DER74	3
XIT	76	TOTAL INDUSTRIAL PRODUCTION	1970=10	DER74	3
XMEAT70	417	VALUE OF MEAT PRODUCED, 1970 PRICES	B,1970 RUBLES	SAIDER 062475	3
XSER70	93	INDEX OF SERVICES, 1970 WEIGHTS	1970=100	DER74	3
XSUG9	315	SUGAR PRODUCTION OF CUBA	1000001	FAO	3

DOCUMENTATION

SERIES LABEL	VAR#	DESCRIPTION	UNITS	SOURCE	PRECISION
XTZR	91	TRANS-COMM INDEX, 1970 WEIGHTS, RUBLE SERIES FOR COMM	1970=100	D-G	3
YCMEA9	192	NET MATERIAL PRODUCT IN CONSTANT PRICES, CMEA	1963=10	UNCTAD	3
ZDT*	117	TOTAL AMORTIZATION FUNDS, NATIONAL ECONOMY	B,CUR,R	NKH	0
ZD70	116	REAL DISPOSABLE HOUSEHOLD INCOME	B,1970 RUBLES	TRAN	3
ZFPG*9	119	PLANNED GROSS PROFITS,NATIONAL ECONOMY	B,RUB	RAVDA	0
ZGW*	111	GROSS EARNINGS, WAGE AND SALARY WORKERS	B, CUR, RUBLES	JEC76	3
ZIK60	115	AGRICULTURAL INCOME IN KIND	B,1960 RUBLES	TRAN	3
ZMPA*	181	MILITARY PAY AND ALLOWANCES	B, CUR, RUBLES	JEC76	3
ZPCP*9	182	PROFITS DISTRIBUTED TO COOPERATIVE MEMBERS	B, CUR, RUBLES	JEC76	3
ZPG*	118	ACTUAL GROSS PROFITS, NATIONAL ECONOMY	B RUBL	NKHOZ	0
ZR2*	427	RESIDUAL INCOME * SOVMOD II	B,CUR,R	TRAN	0
ZSAG*	113	NET HOUSEHOLD INCOME FROM AGRICULTURAL SALES	B, CUR, RUBLES	JEC76	3
ZTD*	180	DISPOSABLE HOUSEHOLD MONEY INCOME	B, CUR, RUBLES	JEC76-TRAN	3
ZTG*	110	GROSS HOUSEHOLD MONEY INCOME	B, CUR, RUBLES	JEC76-TRAN	3
ZWK*	112	WAGE PAYMENTS TO COLLECTIVE FARM MEMBERS	B, CUR, RUBLES	JEC76	3

N. POPULATION AND EMPLOYMENT

(N.1) NPOPU Urban Population

$$\frac{100.NPOPU}{NPOP9} = \underset{(54.91)}{} - \underset{(13.73)}{91.8791} + \underset{(23.50)}{38.8772}\ QLT28$$

$$+ \underset{(2.59)}{2.44336}\ \left(\frac{IHS}{IHS_{-1}} - 1.\right)_{-2}$$

$$+ \underset{(5.82)}{2.08339}\ \{WI^*/(WAK^* + 1000.\ ZSAG^*/NAKOL)\}_{-2}$$

$$- \underset{(2.39)}{3.67684}\ \left\{\left(\frac{XAGT70_{-1}}{XAGTN_{-1}} + \frac{XAGT70_{-2}}{XAGTN_{-2}} - 2.\right)/2.\right\}$$

$\bar{R}^2 = 0.998$ S.E. = 0.17 D.W. = 1.85
Sample Period 1960-1974

(N.2) NPOPR Rural Population

$$NPOPR \equiv NPOP9 - NPOPU$$

(N.3) NMNA Nonagricultural Employment

$$\underset{(56.32)}{\frac{.1 * NMNA}{(NPOPU_{-1} + NPOPU)/2}} = \underset{(12.27)}{23.11108}\ QLT28\ (1. - Q69ON)$$

$$+ \underset{(13.01)}{87.085}\ Q69ON + \underset{(1.31)}{18.17}\ \left(\frac{NPOPAB9+NPOPAB9_{-1}}{NPOP9+NPOP9_{-1}}\right)$$

$$+ \underset{(1.41)}{8.79513}\ \left(\frac{WI^*/PRC}{WI^*_{-1}/PRC_{-1}}\right)$$

(N.3) NMNA Nonagricultural Employment, Continued

$$- \underset{(5.00)}{45.94724} \left\{ \frac{(NPOPU+NPOPU_{-1}) + (NPOPU_{-1} + NPOPU_{-2})}{(NPOPU_{-1}+NPOPU_{-2}) + (NPOPU_{-2}+NPOPU_{-3})} \right\}$$

$R^2 = 0.994$ S.E. = 0.24 D.W. = 1.46
Sample Period 1959-1974

(N.4) NMI Industrial Employment

$$\underset{(39.994)}{\frac{100.NMI}{(NMNA)}} = \underset{(20.57)}{0.87296} \left(\frac{100.NMI}{NMNA}\right)_{-1} - \underset{(0.43)}{0.04442} \left(\frac{100.NMC}{NMNA}\right)_{-1}$$

$$+ \underset{(2.71)}{0.37857} \left(\frac{100.NMTC}{NMNA}\right)_{-1}$$

$$- \underset{(3.81)}{1.98480} \left(\frac{100.NMS}{NMNA}\right)_{-1} + \underset{(4.15)}{0.70431} \left(\frac{100.NMG}{NMNA}\right)_{-1}$$

$$- \underset{(2.47)}{1.78871} \left(\frac{INA}{INA_{-1}} - 1.\right)$$

$R^2 = 0.997$ S.E. = 0.097 D.W. = 2.08
Sample Period 1957-1974 D. = 0.17

(N.5) NMC Construction Employment

$$\underset{(11.028)}{\frac{100.NMC}{NMNA}} = \underset{(1.50)}{0.09038} \left(\frac{100.NMI}{NMNA}\right)_{-1} + \underset{(5.03)}{0.73745} \left(\frac{100.NMC}{NMNA}\right)_{-1}$$

$$- \underset{(0.96)}{0.19102} \left(\frac{100.NMTC}{NMNA}\right)_{-1} + \underset{(2.21)}{1.63650} \left(\frac{100.NMS}{NMNA}\right)_{-1}$$

$$- \underset{(2.08)}{0.50138} \left(\frac{100.NMG}{NMNA}\right)_{-1} + \underset{(3.12)}{3.21806} \left(\frac{INA}{INA_{-1}} - 1.\right)$$

(N.5) NMC Construction Employment (Continued)

$R^2 = 0.909$ S.E. = 0.138 D.W. = 2.21
Sample Period 1957-1974 D. = 0.57

(N.6) NMTC Transport and Communications Employment

$$\frac{100.NMTC}{NMNA} = \underset{(12.045)}{} + \underset{(0.88)}{0.02306}\left(\frac{100.NMI}{NMNA}\right)_{-1} + \underset{(0.57)}{0.03637}\left(\frac{100.NMC}{NMNA}\right)_{-1}$$

$$+ \underset{(10.50)}{0.90413}\left(\frac{100.NMTC}{NMNA}\right)_{-1} + \underset{(3.15)}{1.01435}\left(\frac{100.NMS}{NMNA}\right)_{-1}$$

$$- \underset{(3.39)}{0.35525}\left(\frac{100.NMG}{NMNA}\right)_{-1} + \underset{(2.32)}{1.03789}\left(\frac{INA}{INA_{-1}} - 1.\right)$$

$R^2 = 0.989$ S.E. = 0.060 D.W. = 2.01
Sample Period 1957-1974 D. = 0.02

(N.7) NMS Domestic Trade Employment

$$\frac{100.NMS}{NMNA} = \underset{(8.937)}{} + \underset{(1.98)}{0.03509}\left(\frac{100.NMI}{NMNA}\right)_{-1} + \underset{(1.67)}{0.07217}\left(\frac{100.NMC}{NMNA}\right)_{-1}$$

$$- \underset{(2.24)}{0.13088}\left(\frac{100.NMTC}{NMNA}\right)_{-1} + \underset{(3.40)}{0.74102}\left(\frac{100.NMS}{NMNA}\right)_{-1}$$

$$+ \underset{(0.97)}{0.06892}\left(\frac{100.NMG}{NMNA}\right)_{-1} - \underset{(2.30)}{0.69642}\left(\frac{INA}{INA_{-1}} - 1\right)$$

$R^2 = 0.993$ S.E. = 0.041 D.W. = 1.61
Sample Period 1957-1974 D. = 2.19

(N.8) NMG Services Employment

$$\frac{100.NMG}{NMNA} = \underset{(26.370)}{} 0.00386 \underset{(0.14)}{} \left(\frac{100.NMI}{NMNA}\right)_{-1} + 0.12899 \underset{(1.86)}{} \left(\frac{100.NMC}{NMNA}\right)_{-1}$$

$$- 0.01908 \underset{(0.20)}{} \left(\frac{100.NMTC}{NMNA}\right)_{-1} - 0.22907 \underset{(0.65)}{} \left(\frac{100.NMS}{NMNA}\right)_{-1}$$

$$+ 1.04081 \underset{(9.10)}{} \left(\frac{100.NMG}{NMNA}\right)_{-1} - 2.44017 \underset{(5.00)}{} \left(\frac{INA}{INA_{-1}} - 1\right)$$

$R^2 = 0.998$ S.E. = 0.066 D.W. = 2.74
Sample Period 1957-1974 D. = 1.80

(N.9) NMF Forestry Employment

$$\frac{100.NMF}{NMNA} = \underset{(0.600)}{} 0.00904 \underset{(0.95)}{} \left(\frac{100.NMI}{NMNA}\right)_{-1} - 0.06383 \underset{(2.78)}{} \left(\frac{100.NMC}{NMNA}\right)_{-1}$$

$$+ 0.09507 \underset{(3.06)}{} \left(\frac{100.NMTC}{NMNA}\right)_{-1} + 0.22944 \underset{(1.97)}{} \left(\frac{100.NMS}{NMNA}\right)_{-1}$$

$$- 0.08646 \underset{(2.28)}{} \left(\frac{100.NMG}{NMNA}\right)_{-1} + 0.16292 \underset{(1.01)}{} \left(\frac{INA}{INA_{-1}} - 1\right)$$

$R^2 = 0.949$ S.E. = 0.022 D.W. = 1.17
Sample Period 1957-1974

(N.10) NMO Other Branch Employment

$$\frac{100.NMO}{NMNA} = \underset{(1.027)}{-\ 0.02437}\ \left(\frac{100.NMI}{NMNA}\right)_{-1} + \underset{(0.53)}{0.24879}\ \left(\frac{100.NMC}{NMNA}\right)_{-1} + \underset{(2.26)}{0.23239}\ \left(\frac{100.NMTC}{NMNA}\right)_{-1} - \underset{(1.56)}{1.49635}\ \left(\frac{100.NMS}{NMNA}\right)_{-1} + \underset{(2.70)}{0.58977}\ \left(\frac{100.NMG}{NMNA}\right)_{-1} - \underset{(3.25)}{1.00696}\ \left(\frac{INA}{INA_{-1}} - 1\right)$$

$R^2 = 0.906$ S.E. = 0.104 D.W. = 1.19
Sample Period 1957-1974

(N.11) NASOV Annual Employment, State Farms

$$\frac{200.NASOV}{NPOPR+NPOPR_{-1}} = \underset{(7.880)}{-\ 30.91035} + \underset{(17.01)}{10.59870}\ QLT28 - \underset{(21.38)}{3.01564}\ \left(\frac{XAGT70_{-1}}{XAGTN_{-1}} + \frac{XAGT70_{-2}}{XAGTN_{-2}}\right) - 2.)/2.$$

$R^2 = 0.970$ S.E. = 0.256 D.W. = 1.70
Sample Period = 1958-1974

(N.12) NAKOL Annual Employment, Collective Farms

$$\frac{200.NAKOL}{NPOPR+NPOPR_{-1}} = \underset{(17.825)}{15.23652} - \underset{(65.62)}{19.17145}\ QSH72_{-1}\ (QLT28-3.807) - \underset{(11.74)}{0.55980}\ QSH65 + \underset{(1.15)}{4.29917}\ \left(\frac{XAGT70}{XAGTN} - 1.\right) + \underset{(1.47)}{8.61402}\ \left(\frac{XAGT70_{-1}}{XAGTN_{-1}} + \frac{XAGT70_{-2}}{XAGTN_{-2}}\right) - 2.)/2.$$

(N.12) NAKOL Annual Employment, Collective Farms (Continued)

$R^2 = 0.948$ S.E. = 0.585 D.W. = 1.10
Sample Period 1958-1974

(N.13) NAPRV Annual Employment, Private Agriculture

$$\frac{200.NAPRV}{NPOPR+NPOPR_{-1}} = \underset{(10.684)}{10.71520} - \underset{(161.35)}{2.18579}\ QSH72_{-1}\ (QLT28-3.807) - \underset{(7.08)}{0.98828}\ QSH65 + \underset{(1.86)}{1.55859}\ \left(\frac{XAGT70}{XAGTN} - 1.\right)$$

$R^2 = 0.887$ S.E. = 0.168 D.W. = 1.63
Sample Period 1958-1974

(N.14) NASK Annual Employment, State and Collective Farms

NASK ≡ NASOV + NAKOL

(N.15) NAT Total Agricultural Employment

NAT ≡ NASK + NAPRV

(N.16) NMIEP Employment, Electroenergy

$$\frac{100.NMIEP}{NMI} = \underset{(1.896)}{-\ 10.09184} + \underset{(2.83)}{0.04427}\ \left(\frac{100.NMIMB}{NMI}\right)_{-1} + \underset{(5.18)}{1.08600}\ \left(\frac{100.NMIFM}{NMI}\right)_{-1} + \underset{(0.53)}{0.02812}\ \left(\frac{100.NMICM}{NMI}\right)_{-1} + \underset{(1.15)}{0.58897}\ \left(\frac{100.NMIPP}{NMI}\right)_{-1} - \underset{(0.29)}{0.10171}\ \left(\frac{INA}{INA_{-1}} - 1.\right) + \underset{(1.23)}{1.35418}\ QLT28$$

(N.16) NMIEP Employment, Electroenergy (Continued)

$R^2 = 0.974$ S.E. = 0.034 D.W. = 2.02
Sample Period 1957-1974

(N.17) NMICP Employment, Coal Products

$$\frac{100.NMICP}{NMI} = \underset{(4.342)}{24.65546} + \underset{(3.73)}{0.06046}\left(\frac{100.NMIMB}{NMI}\right)_{-1} + \underset{(0.84)}{0.06757}\left(\frac{100.NMIFM}{NMI}\right)_{-1} + \underset{(0.17)}{0.024710}\left(\frac{100.NMICM}{NMI}\right)_{-1} + \underset{(0.25)}{3.19908}\left(\frac{100.NMIPP}{NMI}\right)_{-1} + \underset{(3.37)}{1.82804}\left(\frac{INA}{INA_{-1}} - 1.\right) - \underset{(2.83)}{7.06813}\ QLT28 \quad (3.46)$$

$R^2 = 0.997$ S.E. = 0.063 D.W. = 2.31
Sample Period 1957-1974

(N.18) NMIPP Employment, Petroleum Products

$$\frac{100.NMIPP}{NMI} = \underset{(0.841)}{1.48911} + \underset{(1.39)}{0.01470}\left(\frac{100.NMIMB}{NMI}\right)_{-1} + \underset{(1.26)}{0.01194}\left(\frac{100.NMIFM}{NMI}\right)_{-1} - \underset{(0.19)}{0.00157}\left(\frac{100.NMICM}{NMI}\right)_{-1} + \underset{(0.10)}{0.24956}\left(\frac{100.NMIPP}{NMI}\right)_{-1} + \underset{(1.62)}{0.29014}\left(\frac{INA}{INA_{-1}} - 1.\right) - \underset{(2.77)}{0.39523}\ QLT28 \quad (1.19)$$

$R^2 = 0.926$ S.E. = 0.010 D.W. = 2.94
Sample Period 1957-1974 D. = 2.64

(N.19) NMIFM Employment, Ferrous Metallurgy

$$\frac{100.NMIFM}{NMI} = \underset{(4.426)}{2.27949} + \underset{(0.81)}{0.01082}\left(\frac{100.NMIMB}{NMI}\right)_{-1} + \underset{(5.11)}{0.84345}\left(\frac{100.NMIFM}{NMI}\right)_{-1} + \underset{(1.29)}{0.05374}\left(\frac{100.NMICM}{NMI}\right)_{-1} - \underset{(0.95)}{0.38480}\left(\frac{100.NMIPP}{NMI}\right)_{-1} + \underset{(0.67)}{0.18517}\left(\frac{INA}{INA_{-1}} - 1.\right) - \underset{(0.64)}{0.55554}\,QLT28$$

$R^2 = 0.986$ S.E. = 0.027 D.W. = 2.01
Sample Period 1957-1974 D. = 0.03

(N.20) NMINF Employment, Non Ferrous Metallurgy

$$\frac{100.NMINF}{NMI} = \underset{(2.545)}{13.55024} + \underset{(8.42)}{0.09415}\left(\frac{100.NMIMB}{NMI}\right)_{-1} - \underset{(1.58)}{0.14900}\left(\frac{100.NMIFM}{NMI}\right)_{-1} + \underset{(0.38)}{0.00897}\left(\frac{100.NMICM}{NMI}\right)_{-1} - \underset{(2.22)}{0.51352}\left(\frac{100.NMIPP}{NMI}\right)_{-1} - \underset{(3.17)}{0.49735}\left(\frac{INA}{INA_{-1}} - 1.\right) - \underset{(7.31)}{3.62895}\,QLT28$$

$R^2 = 0.994$ S.E. = 0.015 D.W. = 1.69
Sample Period 1957-1974

(N.21) NMICH Employment, Chemical and Petrochemical

$$\frac{100.NMICH}{NMI} = \underset{(4.367)}{-\ 24.48975}\ \underset{(5.89)}{+\ 0.07709}\ \left(\frac{100.NMIMB}{NMI}\right)_{-1}$$

$$\underset{(8.86)}{+\ 2.16354}\ \left(\frac{100.NMIFM}{NMI}\right)_{-1}\ \underset{(5.69)}{-\ 0.35113}\ \left(\frac{100.NMICM}{NMI}\right)_{-1}$$

$$\underset{(0.60)}{-\ 0.35861}\ \left(\frac{100.NMIPP}{NMI}\right)_{-1}\ \underset{(0.49)}{+\ 0.19999}\ \left(\frac{INA}{INA_{-1}}-1.\right)$$

$$\underset{(4.08)}{+\ 5.22978}\ QLT28$$

$R^2 = 0.998$ S.E. = 0.039 D.W. = 2.03
Sample Period 1957-1974

(N.22) NMIMB Employment, Machine-Building and Metal-Working

$$\frac{100.NMIMB}{NMI} = \underset{(35.527)}{-\ 5.39107}\ \underset{(0.28)}{+\ 0.69292}\ \left(\frac{100.NMIMB}{NMI}\right)_{-1}$$

$$\underset{(0.47)}{+\ 0.53933}\ \left(\frac{100.NMIFM}{NMI}\right)_{-1}\ \underset{(0.31)}{-\ 0.09105}\ \left(\frac{100.NMICM}{NMI}\right)_{-1}$$

$$\underset{(3.11)}{-\ 8.73862}\ \left(\frac{100.NMIPP}{NMI}\right)_{-1}\ \underset{(0.69)}{+\ 1.30840}\ \left(\frac{INA}{INA_{-1}}-1.\right)$$

$$\underset{(1.01)}{+\ 6.08597}\ QLT28$$

$R^2 = 0.998$ S.E. = 0.185 D.W. = 1.98
Sample Period 1957-1974 D. = 0.10

(N.23) NMIFP Employment, Forest Products

$$\frac{100.NMIFP}{NMI} = \underset{(9.494)}{74.54399} + \underset{(9.82)}{0.15354}\left(\frac{100.NMIMB}{NMI}\right)_{-1} - \underset{(5.50)}{2.45279}\left(\frac{100.NMIFM}{NMI}\right)_{-1} + \underset{(4.79)}{0.53978}\left(\frac{100.NMICM}{NMI}\right)_{-1} - \underset{(2.04)}{2.22294}\left(\frac{100.NMIPP}{NMI}\right)_{-1} + \underset{(1.58)}{1.17166}\left(\frac{INA}{INA_{-1}} - 1.\right) - \underset{(7.17)}{16.78932}\,QLT28$$

$R^2 = 0.998$ S.E. = 0.072 D.W. = 1.95
Sample Period 1957-1974

(N.24) NMIPA Employment, Paper and Pulp

$$\frac{100.NMIPA}{NMI} = \underset{(0.795)}{-0.70658} - \underset{(0.58)}{0.00366}\left(\frac{100.NMIMB}{NMI}\right)_{-1} + \underset{(1.59)}{0.11410}\left(\frac{100.NMIFM}{NMI}\right)_{-1} - \underset{(4.38)}{0.07953}\left(\frac{100.NMICM}{NMI}\right)_{-1} + \underset{(2.21)}{0.38651}\left(\frac{100.NMIPP}{NMI}\right)_{-1} - \underset{(0.39)}{0.04584}\left(\frac{INA}{INA_{-1}} - 1.\right) + \underset{(0.95)}{0.35829}\,QLT28$$

$R^2 = 0.869$ S.E. = 0.012 D.W. = 2.27
Sample Period 1957-1974

(N.25) NMICM Employment, Construction Materials

$$\frac{100.NMICM}{NMI} = \underset{(6.403)}{4.890314} - \underset{(0.53)}{0.01524}\left(\frac{100.NMIMB}{NMI}\right)_{-1} - \underset{(1.56)}{0.83764}\left(\frac{100.NMIFM}{NMI}\right)_{-1} + \underset{(6.11)}{0.83163}\left(\frac{100.NMICM}{NMI}\right)_{-1} + \underset{(2.04)}{2.69426}\left(\frac{100.NMIPP}{NMI}\right)_{-1} + \underset{(1.00)}{0.89869}\left(\frac{INA}{INA_{-1}} - 1.\right) - \underset{(0.18)}{0.51361}\,QLT28$$

$R^2 = 0.902$ S.E. = 0.087 D.W. = 2.39
Sample Period 1957-1974 D. = 1.01

(N.26) NMISG Employment, Soft Goods

$$\frac{100.NMISG}{NMI} = \underset{(16.121)}{8.72831} - \underset{(0.52)}{0.37769}\left(\frac{100.NMIMB}{NMI}\right)_{-1} - \underset{(2.07)}{0.80490}\left(\frac{100.NMIFM}{NMI}\right)_{-1} - \underset{(0.82)}{0.18900}\left(\frac{100.NMICM}{NMI}\right)_{-1} + \underset{(0.76)}{8.61730}\left(\frac{100.NMIPP}{NMI}\right)_{-1} + \underset{(3.58)}{2.36205}\left(\frac{INA}{INA_{-1}} - 1.\right) + \underset{(1.44)}{4.91710}\,QLT28 \quad \underset{(0.95)}{}$$

$R^2 = 0.969$ S.E. = 0.159 D.W. = 1.95
Sample Period 1957-1974

(N.27) NMIPF Employment, Processed Foods

$$\frac{100.NMIPF}{NMI} = \underset{(9.380)}{2.16373} + \underset{(0.33)}{0.01298}\left(\frac{100.NMIMB}{NMI}\right)_{-1} + \underset{(3.49)}{1.36013}\left(\frac{100.NMIFM}{NMI}\right)_{-1} - \underset{(2.64)}{0.26066}\left(\frac{100.NMICM}{NMI}\right)_{-1} + \underset{(3.15)}{3.00805}\left(\frac{100.NMIPP}{NMI}\right)_{-1} + \underset{(0.05)}{0.03012}\left(\frac{INA}{INA_{-1}} - 1.\right) - \underset{(0.02)}{0.05106}\,QLT28$$

$R^2 = 0.966$ S.E. = 0.063 D.W. = 1.77
Sample Period 1957-1974

(N.28) NMINC Employment, Industry NCE (Residual Branch)

$$\frac{100.NMINC}{NMI} = \underset{(3.863)}{8.30185} - \underset{(0.25)}{0.76564}\left(\frac{100.NMIMB}{NMI}\right)_{-1} - \underset{(2.12)}{1.93307}\left(\frac{100.NMIFM}{NMI}\right)_{-1} - \underset{(0.99)}{0.51849}\left(\frac{100.NMICM}{NMI}\right)_{-1} - \underset{(1.05)}{6.52880}\left(\frac{100.NMIPP}{NMI}\right)_{-1} - \underset{(1.37)}{7.63250}\left(\frac{INA}{INA_{-1}} - 1.\right) + \underset{(2.36)}{11.08810}\,QLT28$$

$R^2 = 0.793$ S.E. = 0.314 D.W. = 2.08
Sample Period 1957-1974

(N.29) NIET Engineering - Technical Employees in Industry (End Year)

$$\underset{(149.43)}{NIET-NIET_{-1}} = \underset{(13.38)}{0.16841}\ \frac{NEIND9 + NEIND9_{-1} + NEIND9_{-2}}{3.}$$

$$- \underset{(4.68)}{159.08954}\ Q69ON$$

$$+ \underset{(0.68)}{154.93}\ \left\{\frac{2.(NIET_{-1}-NIET_{-2})}{NEIND9_{-1} + NEIND9_{-2}} - 0.13548\right\}$$

$R^2 = 0.726$ S.E. = 32.39 D.W. = 1.26
Sample Period 1960-1974

(N.30) NTSPA Specialists Employed in Transport and Communications

$$\underset{(46.57)}{NTSPA-NTSPA_{-1}} = \underset{(36.28)}{0.48120}\ \left(\frac{NETRA9_{-1} + NETRA9_{-2}}{2}\right)$$

$$+ \underset{(3.11)}{43.69719}\ \left\{\frac{2.*\ (NTSPA_{-1} - NTSPA_{-2})}{NETRA9_{-1} + NETRA9_{-2}} - 0.46308\right\}$$

$R^2 = 0.895$ S.E. = 5.00 D.W. = 1.60
Sample Period 1960-1974

I. Investment

(a) Non-Agricultural Investment, Sector Equations

(I.1a) IIN Capital Investment in Industry

$$\frac{IIN}{IIN_{-1}} - 1. = \underset{(0.075)}{0.05466} - \underset{(5.99)}{0.05963}\ (Q6567-3.*.0625) - \underset{(4.85)}{0.03976}\ (QFIN-2.*.065) + \underset{(1.84)}{0.19254}\ GFI + \underset{(3.54)}{0.17444}\ GPG - \underset{(5.47)}{0.20077}\ GDF$$

$R^2 = 0.850$ S.E. = 0.016 D.W. = 2.25
Sample Period 1959-1974

Where:

$$GFI \equiv \frac{IFAJ*/PII_{-1}}{IFAJ*_{-1}/PII_{-2}} - 1.$$

$$GPG \equiv \frac{ZPG*/PII_{-1}}{ZPG*_{-1}/PII_{-2}} - 1.$$

$$GDF = \frac{BDN*9/PIWH70}{BDN*9_{-1}/PIWH70_{-1}} - 1.$$

(I.2a) ICRUB Capital Investment in Construction

$$\frac{ICRUB}{ICRUB_{-1}} - 1. = \underset{(0.093)}{-\ 0.02885}\ QFYP - \underset{(0.99)}{0.2937} + \underset{(0.62)}{0.04733}\ QSH72 + \underset{(1.18)}{0.29562}\ \left(\frac{XAGT70}{XAGTN} - 1.\right) + \underset{(1.39)}{1.73640}\ GINA$$

$R^2 = 0.666$ S.E. = 0.050 D.W. = 2.85
Sample Period 1961-1974

Where:

$$GINA = \frac{INA}{INA_{-1}} - 1.$$

(I.3a) ITRUB Capital Investment in Transport and Communications

$$\frac{ITRUB}{ITRUB_{-1}} - 1. = \underset{(0.092)}{0.10484} - \underset{(8.43)}{0.04073}\ QFYP - \underset{(2.88)}{0.08481}\ (Q6567-3.*.0625) - \underset{(4.28)}{0.04235}\ (QFIN-2.*.0625) + \underset{(2.24)}{0.15933}\ GFT - \underset{(2.57)}{0.28087}\ GDF - \underset{(4.89)}{}$$

$R^2 = 0.814$ S.E. = 0.024 D.W. = 2.02
Sample Period 1959-1974

Where:

GDF defined above under (I.1a)

$$GFT = \frac{IFTR*9/PIT_{-1}}{IFTR*9_{-1}/PIT_{-2}}$$

(I.4a) IHS Capital Investment in Housing

$$\frac{IHS}{IHS_{-1}} - 1. = \underset{(0.038)}{0.03603} - \underset{(5.45)}{0.00973}\ QSH72\ (QT50-23.) - \underset{(5.44)}{0.14148}\ Q6064 - \underset{(9.70)}{0.03536}\ (Q69-.0625) - \underset{(2.37)}{0.05472}\ GDF - \underset{(1.52)}{}$$

$R^2 = 0.935$ S.E. = 0.014 D.W. = 2.20
Sample Period 1961-1974

GDF defined above under (I.1a)

(I.5a) ISER Capital Investment in Services and Domestic Trade

$$\frac{ISER}{ISER_{-1}} - 1. = \underset{(0.076)}{0.06012} - \underset{(2.31)}{0.07719}\ QSH68 + \underset{(4.58)}{0.86893}\ GINA + \underset{(3.14)}{0.43488}\ \left(\frac{XAGT70}{XAGTN} + \frac{XAGT70_{-1}}{XAGTN_{-1}} - 2.\right)/2. \underset{(2.24)}{}$$

$R^2 = 0.801$ S.E. = 0.030 D.W. = 2.34
Sample Period 1959-1974

GINA defined above under (I.2a)

(I.6a) INA Capital Investment, Total Non-Agricultural

INA ≡ IIN + ICRUB + ITRUB + IHS + ISER

(b) Alternate Investment Model

Total Non-Agricultural Investment determined by equation (I.6b). Sectoral Investment determined by exogenous share variables in equations (I.1b) - (I.5b).

(I.1b) IIN ≡ IRII9*INA/100.

(I.2b) ICRUB ≡ IRIC9*INA/100.

(I.3b) ITRUB ≡ IRIT9*INA/100.

(I.4b) IHS ≡ IRIH9*INA/100.

(I.5b) ISER ≡ IRIS9*INA/100.

(I.6b) INA Total Non-Agricultural Investment

$$\frac{INA}{INA_{-1}} - 1. = \underset{(0.068)}{0.07275} - \underset{(6.90)}{0.01958}\ QFYP - \underset{(1.68)}{0.02834}\ (Q6567-3.*.0625) - \underset{(1.76)}{0.04271}\ (QFIN-2.*.0625) + \underset{(2.74)}{0.12956}\ GPG - \underset{(2.12)}{0.14968}\ GDF - \underset{(3.39)}{}$$

$R^2 = 0.713$ S.E. = 0.020 D.W. = 1.58
Sample Period 1959-1974

GPG and GDF defined above under (I.1a)

(I.7) IA Capital Investment in Agriculture

$$\frac{IA}{IA_{-1}} - 1. = \underset{(0.105)}{} 0.05067 + \underset{(4.67)}{} 0.51408\ GFA - \underset{(5.14)}{} 0.19307\ GDF \underset{(3.84)}{}$$

$$+ \underset{(3.30)}{} 0.31392 \left(\frac{XAGT70}{XAGTN} - 1.\right) - \underset{(1.38)}{} 0.12747 \left(\frac{XAGT70_{-1}}{XAGTN_{-1}} - 1.\right)$$

$R^2 = 0.847$ S.E. = 0.018 D.W. = 2.41
Sample Period 1961-1974

GDF defined above under (I.1a)

Where:

$$GFA = \frac{IFAG*9/PIA_{-1}}{IFAG*9_{-1}/PIA_{-2}} - 1.$$

(I.8) IFAJ* Adjusted Finance for Centralized Capital Investment

$$IFAJ* = IFIN*9 - 4.9\ QSH68_{-1}$$

(I.9) ITOTAL Total New Capital Investment in the National Economy

$$ITOTAL \equiv INA + IA$$

(a) Branch Investment, Direct Functions

(I.10a) IIEP Capital Investment, Electroenergy

$$\frac{IIEP}{IIEP_{-1}} - 1. = \underset{(0.052)}{} 0.02935 + \underset{(3.26)}{} 0.05151\ QFYP - \underset{(3.69)}{} 0.06037\ (Q6869-2*.0625) \underset{(3.00)}{}$$

$$- \underset{(2.17)}{} 0.06243\ (Q74-.0625)$$

$R^2 = 0.644$ S.E. = 0.026 D.W. = 1.75
Sample Period 1959-1974

(I.11a) IICP Capital Investment, Coal Products

$$\frac{IICP}{IICP_{-1}} - 1. = \underset{(0.032)}{} 0.03138 + \underset{(3.12)}{0.04369}\ QFYP - \underset{(3.92)}{0.07639}\ (Q69+Q74 - 2.*.0625) - \underset{(5.96)}{0.29462}\ GDF$$

$R^2 = 0.849$ S.E. = 0.023 D.W. = 1.48
Sample Period 1961-1974

GDF defined above under (I.1a).

(I.12a) IIPP Capital Investment, Petroleum Products

$$\frac{IIPP}{IIPP_{-1}} - 1. = \underset{(0.090)}{} 0.02115 + \underset{(1.15)}{0.05256}\ QFYP - \underset{(4.57)}{0.13867}\ (Q69 - .0625) + \underset{(3.94)}{0.89909}\ GFI - \underset{(3.46)}{0.23682}\ GDF - \underset{(2.11)}{0.06849}\ (Q74 - .0625)$$

$R^2 = 0.804$ S.E. = 0.026 D.W. = 2.26
Sample Period 1961-1974

GFI and GDF defined above under (I.1a).

(I.13a) IIFM Capital Investment, Ferrous Metallurgy

$$\frac{IIFM}{IIFM_{-1}} - 1. = \underset{(0.073)}{} 0.13818 - \underset{(5.30)}{0.12914}\ QFYP - \underset{(3.34)}{0.09812}\ (Q6567-3.*.0625) - \underset{(2.01)}{0.07294}\ (Q69 - .0625) - \underset{(1.04)}{0.15492}\ GDF$$

$R^2 = 0.582$ S.E. = 0.065 D.W. = 2.72
Sample Period 1959-1974

GDF defined above under (I.1a).

(I.14a) IINF Capital Investment, Non-Ferrous Metallurgy and Industry NEC

$$\frac{IINF}{IINF_{-1}} - 1. = \underset{(0.059)}{0.03360} - \underset{(1.29)}{0.08412}\ (Q6567-3*.0625) - \underset{(1.00)}{0.04944}\ (QFIN-2.*.0625) + \underset{(2.16)}{0.41587}\ GPG - \underset{(2.04)}{0.28059}\ GDF$$

$R^2 = 0.458$ S.E. = 0.064 D.W. = 2.80
Sample Period 1959-1974

GPG and GDF defined above under (I.1a).

(I.15a) IICH Capital Investment, Chemicals and Petrochemicals

$$\frac{IICH}{IICH_{-1}} - 1 = \underset{(0.094)}{0.02821} + \underset{(0.97)}{0.16538}\ QSH65 - \underset{(4.13)}{0.13196}\ (Q6567-3.*.0625) + \underset{(3.41)}{0.73257}\ GFI - \underset{(1.72)}{0.39119}\ GDF$$

$R^2 = 0.837$ S.E. = 0.055 D.W. = 2.36
Sample Period 1961-1974

GFI and GDF defined above under (I.1a).

(I.16a) IIMB Capital Investment, Machine-Building and Metal-Working

$$\frac{IIMB}{IIMB_{-1}} - 1. = \underset{(0.102)}{0.03686} - \underset{(1.27)}{0.03133}\ (Q6567-3.*.0625) + \underset{(1.97)}{0.08004}\ (Q70 - .0625) + \underset{(3.00)}{0.37440}\ GPG + \underset{(1.40)}{0.26604}\ \left(\frac{IIMB}{IIMB_{-1}} - 1\right)_{-1}$$

$R^2 = 0.714$ S.E. = 0.035 D.W. = 2.28
Sample Period 1961-1974 D. = 0.75

GPG defined above under (I.1a)

(I.17a) IIFP Capital Investment, Forest Products

$$\frac{IIFP}{IIFP_{-1}} - 1. = \underset{(0.053)}{} 0.08938 - \underset{(6.91)}{0.13170}\ (Q6567-3.*.0625) \underset{(5.67)}{}$$

$$- \underset{(4.86)}{0.10780}\ (QFIN + Q74 - 3.*.0625) - \underset{(4.33)}{0.31721}\ GDF$$

$$- \underset{(2.25)}{0.32203}\ \left(\frac{IIFP}{IIFP_{-1}} - 1.\right)_{-1}$$

$R^2 = 0.812$ S.E. = 0.033 D.W. = 2.91
Sample Period 1959-1974 D. = 2.22

GDF defined above under (I.1a).

(I.18a) IICM Capital Investment, Construction Materials

$$\frac{IICM}{IICM_{-1}} - 1. = \underset{(0.041)}{} 0.00092 - \underset{(0.02)}{0.07839}\ (Q6264-3.*0.0625) \underset{(2.37)}{}$$

$$+ \underset{(4.01)}{0.15350}\ (Q6869 - 2.*.0625) + \underset{(1.08)}{0.64446}\ \left(\frac{INA}{INA_{-1}} - 1.\right)$$

$R^2 = 0.750$ S.E. = 0.047 D.W. = 2.47
Sample Period 1961-1974

(I.19a) IISG Capital Investment, Soft Goods

$$\frac{IISG}{IISG_{-1}} - 1. = \underset{(0.094)}{} 0.14023 - \underset{(7.53)}{0.10800}\ (QFIN + Q74 - 3.*0.0625) \underset{(4.41)}{}$$

$$+ \underset{(0.99)}{0.10268}\ GPG + \underset{(4.26)}{0.16611}\ (Q66 - .0625)$$

$$- \underset{(2.75)}{0.20767}\ GDF - \underset{(3.93)}{0.40822}\ \left(\frac{IISG}{IISG_{-1}} - 1.\right)_{-1}$$

$R^2 = 0.867$ S.E. = 0.036 D.W. = 1.21
Sample Period 1959-1974 D. = 1.74

GPG and GDF defined above under (I.1a).

(I.20a) IIPF Capital Investment, Processed Foods

$$\frac{IIPF}{IIPF_{-1}} - 1. = \underset{(3.71)}{0.05281} - \underset{(1.57)}{0.04234}\ (Q6567 - 3.*.0625)$$

(0.048)

$$- \underset{(1.16)}{0.04223}\ (Q69 - .0625) + \underset{(2.59)}{0.27581}\ GPG$$

$$- \underset{(5.99)}{0.46106}\ GDF$$

$R^2 = 0.823$ S.E. = 0.035 D.W. = 2.15
Sample Period 1961-1974

GPG and GDF defined above under (I.1a).

(b) Branch Investment, Share Equations

(I.10b) IIEP ≡ IREP9*IIN

(I.11b) IICP ≡ IRCP9*IIN

(I.12b) IIPP ≡ IRPP9*IIN

(I.13b) IIFM ≡ IRFM9*IIN

(I.14b) IINF ≡ IRNF9*IIN

(I.15b) IICH ≡ IRCH9*IIN

(I.16b) IIMB ≡ IRMB9*IIN

(I.17b) IIFP ≡ IRFP9*IIN

(I.18b) IICM ≡ IRCM9*IIN

(I.19b) IISG ≡ IRSG9*IIN

(I.20b) IIPF ≡ IRPF9*IIN

(I.21) I70T Change in Inventories, Domestic Trade

$$I70T = \underset{(2.249)}{-\ 2.27542} \underset{(1.66)}{-\ 0.50968}\ IS70T_{-1} \underset{(6.01)}{+\ 0.39720}\ XILT^* \underset{(5.51)}{}$$

$$\underset{(2.06)}{+\ 0.14637}\ (XILT - CRND70 - CRD70)$$

$$\underset{(1.72)}{-\ 0.06053}\ (XAGT70_{-1} - XAGTN_{-1})$$

$$\underset{(2.69)}{-\ 0.37225}\ \left(\frac{100.BDN^*9}{PIWH70} - \frac{100.BDN^*9_{-1}}{PIWH70_{-1}} - 0.48824\right)$$

$R^2 = 0.824$ S.E. = 0.443 D.W. = 2.49
Sample Period 1958-1972

Where: $XILT = 0.27291\ XISG + 0.39034\ XIPF$,

and:

$$X^* \equiv X_{-1}\left(.1\ \frac{X_{-1}}{X_{-2}} + .4\ \frac{X_{-2}}{X_{-3}} + .4\ \frac{X_{-3}}{X_{-4}} + .1\ \frac{X_{-4}}{X_{-5}}\right),$$

a projection based on four previous growth rates.

(I.22) IS70T Stock of Inventories, Domestic Trade (End Year)

$$IS70T \equiv IS70T_{-1} + I70T$$

(I.23) I70NTA Change in Inventories, Non-Trade, Non-Agriculture

$$I70NTA = \underset{(6.156)}{2.37632} \underset{(1.33)}{-\ 0.41277}\ IS70NTA_{-1} \underset{(2.46)}{+\ 0.47275}\ XIH^* \underset{(2.58)}{}$$

$$\underset{(1.45)}{-\ 0.84795}\ (XIH^* - XIH - .2342) \underset{(2.95)}{+\ 5.60397}\ Q66$$

$R^2 = 0.692$ S.E. = 1.811 D.W. = 1.51
Sample Period 1958-1972

(I.23) I70NTA Change in Inventories, Non-Trade, Non-Agriculture (Continued)

Where: XIH = 1.71449 XIT - 0.27291 XISG - 0.39034 XIPF

and: XIH* defined under (I.21) above.

(I.24) IS70NTA Stock of Inventories, Non-Trade, Non-Agricultural (End-Year)

$$IS70NTA = IS70NTA_{-1} + I70NTA$$

(I.25) ICAPREP Capital Repair: Index

$$\underset{(2.811)}{\frac{18.611\ ICAPREP}{KSUM}} = \underset{(208.8)}{2.76293} - \underset{(8.39)}{0.01728}\ (QT50-22.)\ QSH71 - \underset{(3.51)}{0.09793}\ Q62 - \underset{(6.81)}{0.12222}\ Q6870$$

$R^2 = 0.945$ S.E. = 0.025 D.W. = 1.64
Sample Period 1960-1973

(I.26) ISUM Total Investment, National Economy

$$ISUM \equiv ITOTAL + .18611\ ICAPREP + I70NTA + I70T + (ALVR70 - ALVR70_{-1})$$

K CAPITAL

(K.1) KITOT Industrial Basic Funds (Capital Stock) (Jan. 1)

$$KITOT_{+1} \equiv KITOT + KNDI$$

(K.2) KIA Adjusted Industrial Basic Funds (Jan. 1)

$$KIA_{+1} \equiv KITOT_{+1} - KIT589 - KIH629$$

(K.3) KNDI Industrial Capital Formation

$$\underset{(23.120)}{KNDI} + 0.05\ KITOT = \underset{(2.51)}{1.29293}\ (QFYP-0.4375) + \underset{(0.40)}{0.1275}\ IIN$$

$$+ \underset{(18.70)}{0.3274}\ IIN_{-1} + \underset{(2.04)}{0.3728}\ IIN_{-2}$$

$$+ \underset{(1.49)}{0.2637}\ IIN_{-3}$$

$R^2 = .986$ S.E. = 1.006 D.W. = 1.86
Sample Period 1959-1974

Distributed Lag: Quadratic, 4-Period, Zero-constrained in 5th Period.

(K.4) KCR Construction Basic Funds (Jan. 1)

$KCR_{+1} \equiv KCR + KNDC$

(K.5) KNDC Construction Capital Formation

$$KNDC + 0.06\ KCR = \underset{(2.178)}{0.27781}\ (QPL5-0.47) + \underset{(31.82)}{1.02686}\ ICRUB$$
$$\underset{(1.82)}{}$$

$R^2 = .934$ S.E. = 0.313 D.W. = 2.21
Sample Period 1958-1974

(K.6) KTR Transport and Communications Basic Funds (Jan. 1)

$KTR_{+1} \equiv KTR + KNDT$

(K.7) KTA Adjusted Transport and Communications Basic Funds (Jan. 1)

$KTA_{+1} \equiv KTR_{+1} + KIT589$

(K.8) KNDT Transport and Communications Capital Formation

$$KNDT + 0.025\ KTR = \underset{(7.844)}{2.50957}\ (Q65-0.0625) + \underset{(51.07)}{0.61852}\ (ITRUB+ITRUB_{-1})$$
$$\underset{(3.79)}{}$$

$R^2 = .938$ S.E. = 0.640 D.W. = 1.09
Sample Period 1959-1974

(K.9) KTCUS Freight Car Utilization Rate

$$KTCUS = \underset{(242.8)}{182.420}\ QSH65 + \underset{(36.86)}{3.97245}\ QSH65 * QT50 \quad (9.79)$$

$$+ \underset{(47.56)}{233.239}\ (1.- QSH65) + \underset{(4.13)}{0.97800}\ (1.-QSH65) * QT50$$

$$- \underset{(3.35)}{15.84557}\ \left(\frac{BDN*9/PIWH70}{BDN*9_{-1}/PIWH70_{-1}} - 1.\right)$$

$R^2 = 0.982$ S.E. = 2.15 D.W. = 2.28
Sample Period 1958-1974

(K.10.) KCOM Basic Funds, Domestic Trade (Jan. 1)

$$KCOM_{+1} \equiv KCOM + KNCOM$$

(K.11) KNCOM Capital Formation, Domestic Trade

$$KNCOM + \underset{(2.367)}{0.02}\ KCOM = \underset{(7.36)}{3.51814}\ Q65 + \underset{(6.24)}{2.06880}\ (Q68-Q69)$$

(K.11) KNCOM Capital Formation, Domestic Trade, Continued

$$+ \underset{(18.25)}{0.102886}\ (ISER_{-1} + ISER_{-2})$$

$R^2 = 0.903$ S.E. = 0.469 D.W. = 1.43
Sample Period 1960-1974

(K.12) KHBF Basic Funds, Housing (Jan. 1)

$$KHBF_{+1} \equiv KHBF + KNDH$$

(K.13) KNDH Housing Capital Formation

$$\underset{(10.945)}{KNDH} + 0.02\ KHBF = - \underset{(1.36)}{0.62710}\ (QFYP-0.467) + \underset{(8.83)}{7.74913}\ Q62$$

$$+ \underset{(49.31)}{0.45700}\ (IHS + IHS_{-1}) - \underset{(7.21)}{6.45250}\ (Q74-0.067)$$

$R^2 = 0.925$ S.E. = 0.811 D.W. = 2.60
Sample Period 1960-1974

(K.14) KHA Adjusted Housing Basic Funds (Jan. 1)

$$KHA_{+1} \equiv KHBF_{+1} + \frac{7.84}{1.74} KIH\ 629$$

(K.15) KSER Basic Funds, Services (Jan. 1)

$$KSER_{+1} \equiv KSER + KNSER$$

(K.16) KNSER Services Capital Formation

$$KNSER + 0.02\ KSER = \underset{(9.168)}{0.84631}\ (QFYP - 0.467) + \underset{(0.94)}{4.32465}\ Q63 - \underset{(2.17)}{2.81349}\ (QFIN_{-1} - 0.133) + \underset{(24.39)}{0.49679}\ (ISER_{-3} + ISER_{-4})$$

$R^2 = 0.875$ S.E. = 1.469 D.W. = 1.19
Sample Period 1960-1974

(K.17) KAIR Agricultural Basic Funds (excl. Productive Livestock) (mid-year)

$$KAIR - \underset{(6.45)}{0.95}\ KAIR_{-1} = \underset{(2.65)}{0.55756}\ QPL7 + \underset{(48.16)}{0.67846}\ \left(\frac{IA+IA_{-1}}{2}\right)$$

$R^2 = .976$ S.E. = 0.430 D.W. = 1.82
Sample Period 1957-1972

(K.18) KIW Industrial Capital, Western Machinery (End Year Value)

$$KIW \equiv 0.95\ KIW_{-1} + 0.0712\ (MIEIN\$/PREX9.P71GE9)_{-1}$$

(K.19) KIEP Basic Funds, Electroenergy (Jan. 1)

$$KIEP_{+1} \equiv KIEP + KNIEP$$

(K.20) KNIEP Capital Formation, Electroenergy

$$KNIEP + \underset{(3.476)}{0.04}\ KIEP = -\underset{(0.43)}{0.12905}\ (QFYP - 0.4375) + \underset{(2.16)}{2.07170}\ IIEP$$

$$-\underset{(2.26)}{1.47324}\ (IIEP_{-1} + IIEP_{-2})$$

$$+\underset{(3.33)}{1.22625}\ (IIEP_{-3} + IIEP_{-4})$$

$R^2 = 0.898$ S.E. = 0.459 D.W. = 2.80
Sample Period 1959-1974

(K.21) KICP Basic Funds, Coal Products (Jan. 1)

$$KICP_{+1} \equiv KICP + KNICP$$

(K.22) KNICP Capital Formation, Coal Products

$$KNICP + 0.03\ KICP = \underset{(4.04)}{0.12458}\ (QFYP - 0.4375) - \underset{(4.85)}{0.30790}\ Q68$$

$$\underset{(0.812)}{} + \underset{(54.31)}{0.19906}\ (IICP + IICP_{-1} + IICP_{-2})$$

$R^2 = 0.893$ S.E. = 0.060 D.W. = 2.38
Sample Period 1959-1973

(K.23) KIPP Basic Funds, Petroleum Products (Jan. 1)

$$KIPP_{+1} \equiv KIPP + KNIPP$$

(K.24) KNIPP Capital Formation, Petroleum Products

$$KNIPP - 0.025\ KIPP = \underset{(1.90)}{-0.36390}\ (QFYP - 0.4375)$$

$$\underset{(1.564)}{} - \underset{(2.31)}{0.56143}\ (Q6567 - 0.1875)$$

$$+ \underset{(20.19)}{0.20093}\ (IIPP + IIPP_{-1} + IPP_{-2})$$

$R^2 = 0.861$ S.E. = 0.344 D.W. = 1.56
Sample Period 1959-1974

(K.25) KIFM Basic Funds, Ferrous Metallurgy (Jan.1)

$$KIFM = KIFM + KNIFM$$

(K.26) KNIFM Capital Formation, Ferrous Metallurgy

$$KNIFM + \underset{(2.316)}{0.05}\ KIFM = \underset{(33.36)}{0.41777}\ (IIFM + IIFM_{-1} + IIFM_{-2})$$

$R^2 = 0.824$ S.E. = 0.287 D.W. = 2.68
Sample Period 1959-1974

(K.27) KICH Basic Funds, Chemicals and Petrochemicals (Jan. 1)

$$KICH_{+1} \equiv KICH + KNICH$$

(K.28) KNICH Capital Formation, Chemicals and Petrochemicals

$$KNICH + \underset{(2.152)}{0.04}\ KICH = \underset{(3.14)}{0.68586}\ (QFYP - 0.4375) + \underset{(20.99)}{0.58158}\ (IICH_{-1} + IICH_{-2})$$

$R^2 = 0.823$ S.E. = 0.433 D.W. = 2.35
Sample Period 1959-1974

(K.29) KIMB Basic Funds, Machine-Building and Metal-Working (Jan. 1)

$$KIMB_{+1} \equiv KIMB + KNIMB$$

(K.30) KNIMB Capital Formation, Machine-Building and Metal-Working

$$KNIMB + 0.05\ KIMB = \underset{(4.952)}{} \underset{(1.47)}{0.27786}\ (QFYP - 0.4275) + \underset{(2.11)}{0.81632}\ (Q66 - 0.0625) + \underset{(59.06)}{0.59136}\ (IIMB + IIMB_{-1})$$

$R^2 = 0.978$ S.E. = 0.364 D.W. = 1.85
Sample Period 1959 - 1974

(K.31) KIFP Basic Funds, Forest Products (Jan. 1)

$$KIFP_{+1} \equiv KIFP + KNIFP$$

(K.32) KNIFP Capital Formation, Forest Products

$$KNIFP + 0.045\ KIFP = \underset{(1.068)}{} \underset{(2.10)}{0.15823}\ (QFYP - 0.4375) + \underset{(29.76)}{0.45471}\ (IIFP + IIFP_{-1})$$

$R^2 = 0.841$ S.E.= 0.149 D.W. = 1.32
Sample Period 1959-1974

(K.33) KICM Basic Funds, Construction Materials (Jan.1)

$$KICM_{+1} \equiv KICM + KNICM$$

(K.34) KNICM Capital Formation, Construction Materials

$$KNICM + 0.04\ KICM = -\underset{(6.87)}{1.25157}\ (Q70 - 0.0625)$$

(1.372)

$$+\underset{(2.02)}{0.4167}\ IICM$$

$$+\underset{(22.87)}{0.3131}\ IICM_{-1} + \underset{(1.80)}{0.2092}\ IICM_{-2}$$

$$+\underset{(0.93)}{0.1048}\ IICM_{-3}$$

$R^2 = 0.897$ S.E. 0.171 D.W. = 1.71
Sample Period 1959-1974

Distributed Lag estimation: Quadratic, 4-Period, Zero-Constrained in 5th Period.

(K.35) KISG Basic Funds, Soft Goods (Jan. 1)

$$KISG_{+1} \equiv KISG + KNISG$$

(K.36) KNISG Capital Formation, Soft Goods

$$KNISG + 0.05\ KISG = \underset{(1.06)}{0.6133}\ IISG + \underset{(1.53)}{0.3529}\ IISG_{-1}$$

(1.046)

$$+\underset{(0.35)}{0.1485}\ IISG_{-2}$$

(K.36) KNISG Capital Formation, Soft Goods, Continued

$R^2 = 0.857$ S.E. = 0.162 D.W. = 2.13
Sample Period 1959-1974

Distributed Lag estimation: Quadratic, 3-Period, Zero Constrained in 4th Period.

(K.37) KIPF Basic Funds, Processed Foods (Jan. 1)

$KIPF_{+1} \equiv KIPF + KNIPF$

(K.38) KNIPF Capital Formation, Processed Foods

$$KNIPF + \underset{(1.852)}{0.05}\ KIPF = \underset{(6.01)}{0.94467}\ (Q61 - Q62) + \underset{(0.39)}{0.1405}\ IIPF + \underset{(3.46)}{0.4867}\ IIPF_{-1} + \underset{(1.68)}{0.4399}\ IIPF_{-2}$$

$R^2 = 0.903$ S.E. = 0.221 D.W. = 1.58
Sample Period 1959 - 1974

Distributed Lag estimation: Quadratic, 3-Period, Zero-constrained in 4th Period.

(K.39) KSUM Basic Funds, National Economy (Mean Year)

$$KSUM \equiv KAIR + \tfrac{1}{2}\ (KIA + KCR + KTA + KCOM + KHA + KSER)_{+1} + \tfrac{1}{2}\ (KIA + KCR + KTA + KCOM + KHA + KSER)$$

(K.40) KIPPM Basic Funds: Petroleum Products, Machinery Imports

$$KIPPM \equiv 0.95\ KIPPM_{-1} + .0712\ (MFM120\text{-}9*/P71GE9)_{-1}$$

(K.41) KICHW Basic Funds: Chemicals and Petrochemicals, Western Machinery Imports

$$KICHW \equiv 0.95\ KICHW_{-1} + .0712\ (MIECH\$/PREX9.P71GE9)_{-1}$$

(K.42) KIMBM Basic Funds: Machine-Building, Machinery Imports

$$KIMBM \equiv 0.95\ KIMBM_{-1} + .0712\ (MTM100\text{-}5*/P71GE9)_{-1}$$

A. Agricultural Variables

(A.1) ALVR70 Value of Productive Livestock (End-Year)

$$\frac{ALVR70}{ALVR70_{-1}} - 0.95 = \underset{(0.0784)}{1.55785} - \underset{(3.24)}{0.67837}\ QLT28 + \underset{(2.34)}{0.01668}\ KWAL9_{-1} + \underset{(2.84)}{2.05350}\ \frac{AFEED70}{ALVR70_{-1}}$$

$R^2 = 0.470$ S.E. = 0.039 D.W. = 2.10
Sample Period 1959-1974

(A.2) AVCP70 Value of Agricultural Current Purchases

$$\frac{100.AVCP70}{XAGTN} = \underset{(9.99)}{2.50195} + \underset{(8.91)}{0.42954}\ QT50 + \underset{(1.86)}{2.08567}\ \left(\frac{XAGT70}{XAGTN} - 1.\right)$$

$R^2 = 0.988$ S.E. = 0.25 D.W. = 1.13
Sample Period 1959-1974

(A.3) AFEED70 Value of Feed Fed to Livestock

$$100.\ \frac{AFEED70}{ALV} = \underset{(7.980)}{-12.15528} + \underset{(2.83)}{5.58824}\ QLT28 + \underset{(4.43)}{6.60336}\ \left(\frac{XCROP70}{XACN} + \frac{XCROP70_{-1}}{XACN_{-1}} - 2.\right)$$

$R^2 = 0.850$ S.E. = 0.496 D.W. = 1.75
Sample Period 1959-1974

Where: $ALV = ALVR70_{-1} + ALVR70$

X. Production

(X.1) XAGT70 Total Agricultural Output (Two-Stage Determination)

(i) Normal Output: Linked Second-Peak XAGT70

$$ln\ XAGTN - 0.30\ ln\ NAT - .03\ ln\ ALVR70 - .12\ ln\ AVCP70 \quad (2.813)$$

$$= 1.95612 + 0.21378\ ln\ KAIR \quad (51.14) \quad (22.51)$$

$R^2 = 0.973$ S.E. = 0.015 D.W. = 0.71
Sample Period 1959-1974

Actual Output: Fitted Values for XAGTN used in Second-stage

(ii) $ln\ XAGT70 - ln\ XAGTN = -0.02514 + 0.09505\ JPS9 + 0.66702\ JTW9$
$\quad (-0.016) \quad (3.08) \quad (4.89) \quad (3.91)$

$R^2 = 0.790$ S.E. = 0.032 D.W. = 1.98
Sample Period 1959-1974

XAGT70

Accuracy of Fit: 0.972
Mean Abs. Error: 1.49 B. 1970 Rubles
Largest Error: -3.99 B. 1970 Rubles (1974)

(X.2) XCROP70 Value of Total Crops

Normal Output: Linked Second-Peak XCROP70

(i) $ln\ XACN - 0.30\ ln\ NAT = 1.23866$
$\quad (2.382) \quad (9.23)$

$$+ 0.17318\ ln\ KAIR + 0.23230\ ln\ AVCP70 \quad (2.19) \quad (2.44)$$

$R^2 = 0.995$ S.E. = 0.012 D.W. = 0.91
Sample Period 1959-1974

Actual Output: Fitted XACN used in Second-stage Estimation

(ii) ln XCROP70 - ln XACN = - 0.04463 + 0.09866 JPS9
(-0.0355) (2.85) (2.64)

+ 0.55969 ln JTW9
(1.71)

R^2 = 0.485 S.E. = 0.061 D.W. = 2.39
Sample Period 1959-1974

XCROP70

Accuracy of Fit: 0.892
Mean Absolute Errors: 1.49 B. 1970 Rubles
Largest Error: -4.28 B. 1970 Rubles (1974)

(X.3) XANIM70 Gross Livestock Production

Normal Output: First-stage Estimation

(i) ln XAN = 0.95622 + 0.51808 ln ALV
(3.854) (1.97) (3.84)

+ 5.17423 $\frac{\text{AFEED70}}{\text{ALV}}$
(8.37)

R^2 = 0.937 S.E. = 0.046 D.W. = 1.76
Sample Period 1959-1974

Where: $\text{ALV} = \frac{\text{ALVR70}_{-1} + \text{ALVR70}}{2.}$

Actual Output: Residuals of (i) used in Second-stage Estimation

(ii) ln XANIM70 - ln XAN = 0.00746 + 0.20561 $(\frac{\text{XGRT}}{\text{XGRTN}} - 1.)$
(0.00) (0.72) (2.04)

R^2 = 0.229 S.E. = 0.039 D.W. = 1.62
Sample Period 1959-1974

XANIM70

Accuracy of Fit: 0.948
Mean Absolute Error: 1.55 B. 1970 Rubles
Largest Sample Error: -3.90 B. 1970 Rubles (1973)

(X.4) XMEAT70 Value of Meat Produced

Normal Output: First-stage Estimation

(i) ln XAM = - 1.64513 + 1.09080 ln ALV + 3.26202 $\frac{AFEED70}{ALV}$
(3.238) (2.67) (6.38)

R^2 = 0.916 S.E. = 0.058 D.W. = 2.06
Sample Period 1959-1974

Where: $ALV = \frac{ALVR70_{-1} + ALVR70}{2.}$

Actual Output: Residuals of (i) used in Second-stage Estimation

(ii) ln XMEAT70 - ln XAM = - 0.01023 - 0.31995 $(\frac{XCROP70}{XACN} - 1.)$
(0.00) (0.76) (1.91)

R^2 = 0.207 S.E. = 0.050 D.W. = 1.65
Sample Period 1959-1974

XMEAT70

Accuracy of Fit: 0.948
Mean Absolute Error: 0.805 B. 1970 Rubles
Largest Sample Error: -2.78 B. 1970 Rubles (1964)

(X.5) XGRT Total Grain Production (Official Series)

Normal Output (Interpolated Second-peak series)

(i) ln XGRTN - 0.30 ln $[\frac{NASK+NASK_{-1}+NASK_{-2}}{3.}]$ = 0.53238
(4.063) (1.75)

+ 0.36430 ln ASGR9 + 0.43005 ln KAIR
(6.15) (48.60)

R^2 = 0.995 S.E. = .013 D.W. = 1.18
Sample Period 1959-1973

Actual Output (Fitted values used for XGRTN)

(ii) ln XGRT - ln XGRTN = - 0.03595 + 0.10922 JPS9
(-0.042) (2.17) (2.73)

+ 1.30996 JTW9 - 0.16894 Q65
(4.01) (2.60)

R^2 = 0.781 S.E. = 0.061 D.W. = 1.91
Sample Period 1959-1973

Fit Statistic for XGRT: 0.938
Mean Absolute Error: 6.2 M. Metric Tons

(X.6) XGR Net Grain Production (Western Estimate)

Capacity Output: Linked Second-Peak XGR

(i) ln XGRPK = - 0.24857 + 0.53782 ln KAIR
(4.629) (0.18) (13.10)

+ 0.83028 ln NASK
(2.25)

R^2 = 0.989 S.E. = 0.020 D.W. = 0.37
Sample Period 1959-1973

Actual Output: Fitted values of (i) used in Regression

(ii) ln XGR - ln XGRPK = - 0.07125 + 0.11648 JPS9
(-.079) (4.27) (2.94)

+ 1.50461 JTW9 - 0.19986 Q65
(4.58) (3.06)

R^2 = 0.820 S.E. = 0.061 D.W. = 2.72
Sample Period 1959-1973

(X.7) .EP Branch Output: Electroenergy

(a) Primary Factors

$$(XIEP/XIEP_{-1}-1) - 0.03 = \underset{(7.53)}{0.69574}\ (NMIEP/NMIEP_{-1}-1.)$$
(0.063)

$$+ \underset{(7.18)}{0.28360}\ (KIEP/KIEP_{-1}-1) - \underset{(3.48)}{0.04202}\ Q66$$

$R^2 = 0.761$ S.E. = 0.011 D.W. = 1.57
Sample Period 1959-1974 Fit = 0.9995

(b) Material Inputs

$$(XIEP/XIEP_{-1}-1) = \underset{(5.82)}{0.89931}\ (NMIEP/NMIEP_{-1}-1.)$$
(0.094)

$$+ \underset{(4.19)}{0.29315}\ (KIEP/KIEP_{-1}-1.)$$

$$+ \underset{(1.28)}{0.05127}\ (UEP/UEP_{-1}-1.) + \underset{(3.69)}{0.03123}\ QSH68$$

$R^2 = 0.546$ S.E. = 0.015 D.W. = 1.90
Sample Period 1960-1972 Fit = 0.9987

(X.8) XICP Branch Output: Coal Products

(a) Primary Factors

$$(XICP/XICP_{-1}-1.) - 0.01 = \underset{(1.68)}{0.18342}\ (NMICP/NMICP_{-1}-1.)$$
(0.014)

$$+ \underset{(6.93)}{0.34038}\ (KICP/KICP_{-1}-1) - \underset{(3.42)}{0.02939}\ Q61$$

$R^2 = 0.488$ S.E. = 0.008 D.W. = 2.11
Sample Period 1960-1974 Fit = 0.9954

(b) Material Inputs

$$(XICP/XICP_{-1}-1.) = \underset{(0.024)}{0.17498}\ \underset{(1.17)}{(NMICP/NMICP_{-1}-1)} + \underset{(4.96)}{0.46738}\ (KICP/KICP_{-1}-1.) + \underset{(0.69)}{0.04753}\ (UCP/UCP_{-1}-1.) - \underset{(2.82)}{0.03066}\ Q61$$

$R^2 = 0.396$ S.E. = 0.010 D.W. = 1.90
Sample Period 1960-1972 Fit = 0.9919

(X.9) XIPP Branch Output: Petroleum Products

(a) Primary Factors

$$(XIPP/XIPP_{-1}-1) - \underset{(0.081)}{.373}\ (NMIPP/NMIPP_{-1}-1) = \underset{(6.10)}{0.46455}\ \left(\frac{KIPP-KIPPM}{KIPP_{-1}-KIPPM_{-1}}-1.\right) + \underset{(1.53)}{0.09537}\ (KIPPM/KIPPM_{-1}-1.) + \underset{(3.72)}{0.04830}\ Q5963$$

$R^2 = 0.550$ S.E. = 0.018 D.W. = 2.34
Sample Period 1959-1974 Fit = .9971

(b) Material Inputs

$$(XIPP/XIPP_{-1}-1.) - \underset{(0.083)}{.373}\ (.604)(NMIPP/NMIPP_{-1}-1.) = \underset{(3.63)}{0.42862}\ \left(\frac{KIPP-KIPPM}{KIPP_{-1}-KIPPM_{-1}}-1.\right) + \underset{(1.16)}{0.07810}\ (KIPPM/KIPPM_{-1}-1.) + \underset{(1.79)}{0.14335}\ (UPP/UPP_{-1}-1.) + \underset{(3.95)}{0.04774}\ Q5963$$

$R^2 = 0.594$ S.E. = 0.016 D.W. = 2.75
Sample Period 1960-1972 Fit = .9978

(X.10) XIFM Branch Output: Ferrous Metallurgy

(a) Primary Factors

$$(XIFM/XIFM_{-1}-1.) - \underset{(0.042)}{0.02} = \underset{(3.18)}{1.05757}\ (NMIFM/NMIFM_{-1}-1.) + \underset{(1.91)}{0.16381}\ (KIFM/KIFM_{-1}-1.)$$

$R^2 = 0.453$ S.E. = 0.017 D.W. = 1.96
Sample Period 1959-1974 Fit = 0.9977

(b) Material Inputs

$$(XIFM/XIFM_{-1}-1.) - \underset{(0.042)}{0.02} = \underset{(3.58)}{0.81606}\ (NMIFM/NMIFM_{-1}-1.) + \underset{(0.42)}{0.03550}\ (KIFM/KIFM_{-1}-1.) + \underset{(2.64)}{0.26690}\ (UME/UME_{-1}-1.)$$

$R^2 = 0.738$ S.E. = 0.010 D.W. = 2.70
Sample Period 1960-1972 Fit = 0.9982

(X.11) XINF Branch Output: Nonferrous Metallurgy

(a) Primary Factors

$$(XINF/XINF_{-1}-1.) - \underset{(0.056)}{0.02} = \underset{(1.72)}{0.60945}\ (NMINF/NMINF_{-1}-1.) + \underset{(3.83)}{0.32526}\ (KIFM/KIFM_{-1}-1.) + \underset{(3.99)}{0.03195}\ Q6670$$

$R^2 = 0.090$ S.E. = 0.016 D.W. = 2.01
Sample Period 1959-1974 Fit = 0.9981

(b) Material Inputs

$$(XINF/XINF_{-1}-1.) - 0.02 = \underset{(0.058)}{} \; 0.38023 \underset{(1.16)}{} (NMINF/NMINF_{-1}-1.)$$

$$+ \underset{(2.65)}{0.29229} (KIFM/KIFM_{-1}-1.)$$

$$+ \underset{(0.71)}{0.10963} (UME/UME_{-1}-1.) + \underset{(3.58)}{0.02934} Q6670$$

R^2 = .361 S.E. = 0.014 D.W. = 2.53
Sample Period 1960-1972 Fit = 0.9984

(X.12) XICH Branch Output: Chemicals and Petrochemicals

(a) Primary Factors

$$(XICH/XICH_{-1}-1.) - \underset{(0.077)}{.359} (NMICH/NMICH_{-1}-1.)$$

$$= \underset{(4.45)}{0.19157} \left(\frac{KICH-KICHW}{KICH_{-1}-KICHW_{-1}} - 1.\right)$$

$$+ \underset{(3.51)}{0.08902} (KICHW/KICHW_{-1}-1.) + \underset{(5.78)}{0.04736} (1.-QSH65)$$

R^2 = -0.194 S.E. = 0.022 D.W. = 2.37
Sample Period 1959-1974 Fit = .9984

(b) Material Inputs

$$(XICH/XICH_{-1}-1.) - \underset{(0.091)}{.359} \; (.399) (NMICH/NMICH_{-1}-1.)$$

$$= \underset{(2.22)}{0.21184} \left(\frac{KICH-KICHW}{KICH_{-1}-KICHW_{-1}} - 1.\right)$$

$$+ \underset{(2.52)}{0.09884} (KICHW/KICHW_{-1}-1.)$$

$$+ \underset{(0.67)}{0.12845} (UCH/UCH_{-1}-1.) + \underset{(3.66)}{0.04166} (1.-QSH65)$$

(b) Material Inputs (con't.)

R^2 = 0.061 S.E. = 0.026 D.W. = 2.51
Sample Period 1960-1972 Fit = .9973

(X.13) XIMB Branch Output: Machine Building and Metal Working

(a) Primary Factors

$$(XIMB/XIMB_{-1}-1.) = \underset{(8.79)}{1.14460}\ (NMIMB/NMIMB_{-1}-1.)$$

$$\underset{(0.079)}{} + \underset{(1.38)}{0.09865}\ \left(\frac{KIMB-KIMBM}{KIMB_{-1}-KIMBM_{-1}}-1.\right)$$

$$+ \underset{(4.24)}{0.20557}\ (KIMBM/KIMBM_{-1}-1) - \underset{(9.67)}{0.04838}\ Q6365$$

$$+ \underset{(3.88)}{0.02026}\ QSH72$$

R^2 = 0.889 S.E. = 0.007 D.W. = 2.82
Sample Period 1959-1974 Fit = 0.9999

(b) Material Inputs

$$(XIMB/XIMB_{-1}-1.) - \underset{(0.055)}{0.200}\ (UMB/UMB_{-1}-1.)$$

$$= \underset{(3.23)}{0.71779}\ (NMIMB/NMIMB_{-1}-1.)$$

$$+ \underset{(0.95)}{0.11254}\ \left(\frac{KIMB-KIMBM}{KIMB_{-1}-KIMBM_{-1}}-1.\right)$$

$$+ \underset{(1.85)}{0.16577}\ (KIMBM/KIMBM_{-1}-1.) - \underset{(4.35)}{0.03822}\ Q6365$$

R^2 = 0.607 S.E. = 0.011 D.W. = 1.76
Sample Period 1960-1972 Fit = 0.9986

(X.14) XIFP Branch Output: Forest Products

(a) Primary Factors

$$(XIFP/XIFP_{-1}-1.) - .02 = \underset{(.011)}{} \underset{(0.99)}{0.48620}\ (NMIFP/NMIFP_{-1}-1.)$$

$$+ \underset{(5.64)}{0.23734}\ (KIFP/KIFP_{-1}-1.) - \underset{(3.17)}{0.02825}\ Q6566$$

$$- \underset{(4.28)}{0.04533}\ Q6061$$

R^2 = .684 S.E. = 0.012 D.W. = 2.21
Sample Period 1960-1974 Fit = 0.9956

(b) Material Inputs

$$(XIFP/XIFP_{-1}-1.) = \underset{(0.031)}{} \underset{(2.30)}{0.44927}\ [.553\ (UFP/UFP_{-1}-1.)$$

$$+ .447\ (.63)(NMIFP/NMIFP_{-1}-1.)]$$

$$+ \underset{(4.48)}{0.34219}\ (KIFP/KIFP_{-1}-1.) - \underset{(2.61)}{0.02855}\ Q6566$$

$$- \underset{(4.06)}{0.04670}\ Q6061$$

R^2 = .612 S.E. = 0.014 D.W. = 1.65
Sample Period 1960-1972 Fit = .9907

(X.15) XIPA Branch Output: Paper and Pulp

(a) Primary Factors

$$(XIPA/XIPA_{-1}-1.) - 0.02 = \underset{(0.045)}{} \underset{(1.21)}{0.32433}\ (NMIPA/NMIPA_{-1}-1.)$$

$$+ \underset{(2.55)}{0.28065}\ (KIFP/KIFP_{-1}-1.) + \underset{(2.63)}{0.04916}\ Q6566$$

$$+ \underset{(1.29)}{0.01071}\ QSH68$$

R^2 = .574 S.E. = 0.017 D.W. = 2.88
Sample Period 1959-1974 Fit = 0.9979

(b) Material Inputs

$$(XIPA/XIPA_{-1}-1.) = \underset{(0.069)}{0.16648}\ (NMIPA/NMIPA_{-1}-1.) + \underset{(4.32)}{0.39275}\ (KIFP/KIFP_{-1}-1.) + \underset{(4.88)}{0.31019}\ (UPA/UPA_{-1}-1.) + \underset{(3.25)}{0.04943}\ Q6566$$

$R^2 = 0.760$ S.E. = 0.014 D.W. = 2.80
Sample Period 1960-1972 Fit = 0.9987

(X.16) XICM Branch Output: Construction Materials

(a) Primary Factors

$$(XICM/XICM_{-1}-1.) - \underset{(0.059)}{0.59}\ (NMICM/NMICM_{-1}-1.) = + \underset{(3.03)}{0.17619}\ (KICM/KICM_{-1}-1.) + \underset{(5.13)}{0.05121} - \underset{(2.06)}{0.01853}\ QFYP - \underset{(2.95)}{0.04105}\ Q6869$$

$R^2 = 0.732$ S.E. = 0.018 D.W. = 1.30
Sample Period 1959-1974 Fit = .9975

(b) Material Inputs

$$(XICM/XICM_{-1}-1.) - \underset{(0.064)}{0.59}\ (.482)(NMICM/NMICM_{-1}-1.) = \underset{(1.53)}{0.20626}\ (KICM/KICM_{-1}-1.) + \underset{(1.15)}{0.17136}\ (UCM/UCM_{-1}-1.) + \underset{(1.39)}{0.02966}$$

$R^2 = 0.233$ S.E. = 0.029 D.W. = 1.26
Sample Period 1960-1972 Fit =

(X.17) XISG Branch Output: Softgoods

(a) Primary Factors

$$\ln XISG = \underset{(4.356)}{-\ 4.73048} + \underset{(2.97)}{0.92123}\ \ln NMISG_{(4.60)} + \underset{(4.11)}{0.21945}\ \ln KISG + \underset{(3.12)}{0.22810}\ \ln XAGT70_{-1} - \underset{(7.47)}{0.08337}\ Q6567$$

$R^2 = 0.996$ S.E. = 0.017 D.W. = 2.00
Sample Period 1958-1974 Fit = 0.996

(b) Material Inputs

$$\ln XISG = \underset{(4.335)}{-\ 8.31346} + \underset{(2.37)}{1.43480}\ \ln NMISG_{(3.36)} + \underset{(0.19)}{0.03341}\ \ln KISG + \underset{(1.14)}{0.16128}\ \ln USG - \underset{(3.49)}{0.06931}\ Q6567$$

$R^2 = 0.991$ S.E. = 0.024 D.W. = 1.24
Sample Period 1959-1972 Fit = 0.992

(X.18) XIPF Branch Output: Processed Foods

(a) Primary Factors

$$(XIPF/XIPF_{-1}-1.) - \underset{(0.045)}{0.01} = \underset{(1.91)}{0.63866}\ (NMIPF/NMIPF_{-1}-1.) + \underset{(0.91)}{0.10178}\ (KIPF/KIPF_{-1}-1.) + \underset{(1.67)}{0.02025}\ \left(\frac{XAGT70}{XAGTN}\right)_{-1}$$

$R^2 = 0.304$ S.E. = 0.022 D.W. = 3.00
Sample Period 1959-1974

(b) Material Inputs

$$(XIPF/XIPF_{-1}-1.) = \underset{(0.054)}{} 0.86264 \underset{(2.74)}{} (NMIPF/NMIPF_{-1}-1.)$$

$$+ 0.12126 \underset{(1.23)}{} (KIPF/KIPF_{-1}-1.)$$

$$+ 0.17662 \underset{(2.76)}{} (UPF/UPF_{-1}-1.)$$

$R^2 = 0.379$ S.E. = 0.021 D.W. = 1.84
Sample Period 1960-1972 Fit = 0.995

(X.19) XIT Industrial Output

(a) Aggregation Identity

$$XIT \equiv 0.062\ XIEP + 0.060\ XICP + 0.056\ XIPP + 0.073\ XIFM$$
$$+ 0.038\ XINF + 0.067\ XICM + 0.062\ XICH + 0.315\ XIMB$$
$$+ 0.069\ XIFP + 0.011\ XIPA + 0.099\ XISG + 0.090\ XIPF$$

(b) Aggregate Production Function, No Foreign Capital Term

$$(XIT/XIT_{-1}-1.) = \underset{(0.065)}{0.33664}\ (0.845\ \frac{NMI}{NMI_{-1}} + \underset{(3.24)}{0.155}\ \frac{NIET}{NIET_{-1}} - 1.)$$

$$+ \underset{(15.46)}{0.57337}\ (KIA/KIA_{-1}-1.)$$

$$+ \underset{(7.27)}{0.09348}\ (\frac{XAGT70}{XAGTN} + \frac{XAGT70_{-1}}{XAGTN_{-1}} - 2.)$$

$R^2 = 0.709$ S.E. = 0.005 D.W. 2.32
Sample Period 1960-1974 Fit = 0.9997

(c) Aggregate Production Function, Capital Disaggregation

$$ln\ XIT - \underset{(0.781)}{0.37}\ (0.845\ ln\ (NMI-NIET) + .155\ ln\ NIET) =$$

$$- \underset{(3.11)}{1.44177} + \underset{(3.62)}{0.41735}\ ln\ (KIA-KIW) + \underset{(1.06)}{0.11497}\ ln\ KIW$$

$$- \underset{(3.66)}{0.03522}\ Q6466 + \underset{(0.98)}{0.07159}\ (\frac{XAGT70}{XAGTN} - 1.)$$

$R^2 = 0.997$ S.E. = 0.014 D.W. = 0.58
Sample Period 1960-1974 Fit = 0.9974

(X.20) XCRUB Construction Activity, State Enterprises

$$ln\ XCRUB = \underset{(3.506)}{-\ 7.37635} + \underset{(8.09)}{1.08493}\ ln\ NMC + \underset{(9.66)}{0.06917}\ ln\ (\frac{KCR_{-1} + KCR}{2.})$$

$$+ \underset{(5.74)}{0.23345}\ ln\ XICM - \underset{(2.43)}{0.01867}\ QFIN$$

$R^2 = 0.999$ S.E. = 0.009 D.W. = 2.45
Sample Period 1958-1974

(X.21) XT7R Transport and Communications Output Index

$$\underset{(4.29)}{ln\ XT7R} = \underset{(4.29)}{-\ 3.30713} + \underset{(3.82)}{0.74248}\ ln\ \left(\frac{KTA_{+1} + KTA}{2.}\right) + \underset{(1.28)}{0.15759}\ ln\ \left(\frac{NTSPA + NTSPA_{-1}}{2.}\right) + \underset{(3.87)}{0.62861}\ ln\ KTCUS$$

$R^2 = 0.999$ S.E. = 0.012 D.W. = 1.07
Sample Period 1958-1974

(X.22) XDTR Domestic Trade

$$\underset{(4.408)}{ln\ XDTR} = \underset{(4.408)}{-\ 3.25146} + \underset{(1.52)}{0.29108}\ ln\ NMS + \underset{(3.20)}{1.15236}\ ln\ \left[\frac{0.27291(XISG+XISG_{-1}) + 0.39034(XIPF+XIPF_{-1})}{2.(0.27291+0.39034)}\right]$$

$R^2 = 0.998$ S.E. = 0.015 D.W. = 0.81
Sample Period 1961-1974

(X.23) XSER70 Services

$$\underset{(4.461)}{ln\ XSER70} = \underset{(4.461)}{-\ 4.71028} + \underset{(84.72)}{0.98524}\ [\underset{(165.)}{0.8752}\ ln\ NMG + 0.1248\ ln\ \left(\frac{KSER_{+1}+KSER+KHBF_{+1}+KHBF}{2.}\right)]$$

$R^2 = 0.9995$ S.E. = 0.005 D.W. = 0.37
Sample Period 1960-1974

W. WAGES

(W.1) WI* Average Wage, Industry

$$\underset{(0.063)}{DVWI - DVWI_{-1}} = \underset{(2.59)}{0.20052}\ (28.3776 - DVWI_{-1}) + \underset{(0.33)}{0.02466}$$

$$+ \underset{(6.55)}{1.68906}\ (QWREF - 2.*.0625)$$

$$+ \underset{(2.94)}{0.87915}\ (Q61 - .0625)$$

$R^2 = 0.845$ S.E. = 0.281 D.W. = 1.24
Sample Period 1960-1973

Where

$$DVWI = \frac{WI^*/PRC_{-1}}{171.449\ XIT/NMI}$$

$\frac{\text{(real wage)}}{\text{(average product)}}$

(W.2) WAS* Average Wage, State Farms

$$\underset{(0.779)}{DVWA - DVWA_{-1}} = \underset{(3.12)}{0.41095}\ (DHWA - DVWA_{-1}) + \underset{(0.93)}{0.45859}$$

$R^2 = 0.411$ S.E. = 1.930 D.W. = 1.77
Sample Period 1959-1974

Where

$$DVWA = \frac{10.WAS^*/PRC_{-1}}{(XAGTN_{-1}/NAT_{-1})}$$

$\frac{\text{(real wage)}}{\text{(average product)}}$

and

$$\underset{(56.191)}{DHWA} = \underset{(60.57)}{61.11470} + \underset{(7.32)}{1.75075}\ (1.-QSH68)(QT50-19.)$$

$R^2 = 0.793$ S.E. = 3.009 D.W. = 0.68
Sample Period 1959-1974

(W.3) WAK* Average Wage, Collective Farms

$$DVWA - DVWA_{-1} = \underset{(1.559)}{0.84175}\ (DHWA-DVWA_{-1}) + \underset{(5.22)}{\ }\ \underset{(0.45)}{0.24676}$$

$R^2 = 0.661$ S.E. = 1.923 D.W. = 2.48
Sample Period 1959-1974

Where

$$DVWA = \frac{10.WAK^*/PRC_{-1}}{(XAGT70_{-1}/NAT_{-1})}$$

$$\frac{\text{(real wage)}}{\text{(average product)}_{-1}}$$

and

$$DHWA = \underset{(32.73)}{41.67122} + \underset{(62.50)}{3.18046}\ (1.-QSH68)\ \underset{(20.13)}{(QT50-19.)}$$

$R^2 = 0.967$ S.E. = 1.989 D.W. = 2.01
Sample Period 1959-1974

(W.4) WC* Average Wage, Construction

$$\frac{WC^*}{WI^*} = \underset{(234.98)}{1.10835} + \underset{(12.17)}{0.01052}\ (QT50-20.)(1.- Q690N)$$

(1.0675)

$R^2 = 0.908$ S.E. = 0.014 D.W. = 1.55
Sample Period 1958-1974

(W.5) WTC* Average Wage, Transport and Communications

$$\frac{WTC^*}{WI^*} = \underset{(516.04)}{1.00722}\ \left(\frac{WTC^*}{WI^*}\right)_{-1} + \underset{(4.42)}{0.02539}\ (Q6162 - 2.*.0625)$$

(0.981)

$R^2 = 0.941$ S.E. = 0.008 D.W. = 1.71
Sample Period 1959-1974 D. = 0.58

(W.6) WS* Average Wage, Trade and Distribution

$$\frac{WS^*}{WGS^*} = \underset{(387.15)}{1.00315} \left(\frac{WS^*}{WGS^*}\right)_{-1} + \underset{(3.63)}{0.02056} \; (Q6668 - 3.*.0625)$$

(0.855)

$R^2 = 0.893$ S.E. = 0.009 D.W. = 1.59
Sample Period 1959-1974 D. = 0.82

(W.7) WGS* Average Wage, Government and Services

$$\frac{WGS^*}{WI^*} = \underset{(259.03)}{0.98983} \left(\frac{WGS^*}{WI^*}\right)_{-1} + \underset{(7.56)}{0.09364} \; Q65$$

(0.978)

$R^2 = 0.889$ S.E. = 0.012 D.W. = 1.63
Sample Period 1959-1974 D. = 0.74

Supplemental Wage Equations

These equations determine the monthly money wage variables which are used in the Hickman-Lau functions. Sample Period 1959-1972 for Equations (W.8)-(W.24).

(W.8) WAGI* Industry

$$\frac{WAGI^*}{WI^*} = \underset{(0.1000)}{0.1004} \quad \underset{(1166.)}{}$$

$R^2 = 0.225$ S.E. = 0.0003 D.W. = 0.88

(W.9) WAGA* Agriculture

$$\frac{WAGA^*}{WAS^*} = \underset{(0.0835)}{0.08355} \quad \underset{(545.)}{}$$

$R^2 = -0.009$ S.E. = 0.0006 D.W. = 2.26

(W.10) WAGCON* Construction

$$\frac{WAGCON^*}{WC^*} = \underset{(0.0841)}{0.08329} + \underset{(4.64)}{0.001856}\ QSH65 \quad \underset{(318.)}{}$$

$R^2 = 0.644$ S.E. = 0.0007 D.W. = 2.02

(W.11) WAGTC* Transport and Communications

$$\frac{WAGTC^*}{WTC^*} = \underset{(0.0833)}{0.083255} \quad \underset{(434.)}{}$$

$R^2 = 0.031$ S.E. = .0007 D.W. = 1.08

(W.12) WAGTD* Domestic Trade

$$\frac{WAGTD^*}{WS^*} = \underset{(0.0832)}{0.08334} - \underset{(1446.)}{0.000388}\ QSH68 \quad \underset{(4.40)}{}$$

$R^2 = 0.643$ S.E. = .0002 D.W. = 1.79

(W.13) WAGE* Economy Average

$$\frac{WAGE^*}{WI^*} = \underset{(.0778)}{.07675} + \underset{(4.34.)}{.03217}\ Q69 - \underset{(64.3)}{0.0030}\ QSH65 \quad \underset{(11.5)}{}$$

$R^2 = 0.998$ S.E. = .0005 D.W. = .714

BRANCH WAGES (W.14) - (W.24)

Define API - Average Industrial Productivity

API = XIT/NMI

Define TR - Time Trend 1950 = -18 1968 on = 0

TR = (1-QSH68) * (QT50-19.)

Define TSH - Shift Variable 1 to 1967 1968 on = 0

TSH = 1.-QSH68

(W.14) WAGFM* Ferrous Metallurgy

$$\frac{WAGFM^*}{WAGI^*} = \underset{(1.2055)}{.05544} + \underset{(.208)}{.04718}\ (XIFM/NMIFM)/API - \underset{(4.15)}{.02117}\ TR \quad \underset{(9.6)}{}$$

$R^2 = .951$ S.E. = .0108 D.W. = 2.20

(W.15) WAGCP* Coal Products

$$\frac{WAGCP^*}{WAGI^*} = \underset{(81.9)}{1.7903} - \underset{(4.48)}{.11490}\ TSH - \underset{(1.21)}{.00469}\ TR$$

$R^2 = .864$ S.E. = .0301 D.W. = 1.74

(W.16) WAGPG* Petroleum & Gas

$$\frac{WAGPG^*}{WAGI^*} = \underset{(951)}{1.0279} - \underset{(37.5)}{.00898}\ TR$$

(1.0568)

$R^2 = .992$ S.E. = .0028 D.W. = 1.27

(W.17) WAGEP* Electric Power

$$\frac{WAGEP^*}{WAGI^*} = \underset{(380)}{1.0295} - \underset{(4.72)}{.00373}\ TR - \underset{(12.3)}{.08779}\ Q5960$$

(1.0290)

$R^2 = .941$ S.E. = .0069 D.W. = 1.34

(W.18) WAGMB* Machine Building & Metal Working

$$\frac{WAGMB^*}{WAGI^*} = \underset{(5.45)}{.47923} + \underset{(6.01)}{.19898}\ (XIMB/NMIMB)/API + \underset{(3.76)}{.00441}\ TR$$

(1.0132)

$R^2 = .82$ S.E. = .0061 D.W. = 1.11

(W.19) WAGCH* Chemicals

$$\frac{WAGCH^*}{WAGI^*} = \underset{(246)}{1.0293} - \underset{(2.92)}{.00271}\ TR$$

(1.0380)

$R^2 = .417$ S.E. = .0110 D.W. = 1.72

(W.20) WAGFP* Forest Products

$$\frac{WAGFP^*}{WAGI^*} = \underset{(4.10)}{.69099} + \underset{(1.89)}{.02636}\ (XIFP/NMIFP)/API + \underset{(10.2)}{.00996}\ TR$$

(.9805)

$R^2 = .906$ S.E. = .1089 D.W. = 1.40

(W.21) WAGP* Paper

$$\frac{WAGP^*}{WAGI^*} = \underset{(156)}{.97465} - \underset{(4.50)}{.00621}\ TR$$

(.9946)

R^2 = .628 S.E. = .0164 D.W. = 1.22

(W.22) WAGCM* Construction Materials

$$\frac{WAGCM^*}{WAGI^*} = \underset{(9.97)}{.85587} + \underset{(1.34)}{.00696}\ (XICM/NMICM)/API + \underset{(1.14)}{.00181}\ TR + \underset{(9.11)}{.06498}\ Q7072$$

(.9718)

R^2 = .966 S.E. = .0072 D.W. = 1.30

(W.23) WAGSG* Soft Goods

$$\frac{WAGSG^*}{WAGI^*} = \underset{(8.75)}{.60873} + \underset{(2.40)}{.02719}\ (XISG/NMISG)/API + \underset{(5.08)}{.00495}\ TR - \underset{(4.48)}{.03348}\ Q5960$$

(.7598)

R^2 = .924 S.E. = .0070 D.W. = .823

(W.24) WAGPF* Processed Foods

$$\frac{WAGPF^*}{WAGI^*} = \underset{(306)}{.88688} + \underset{(8.27)}{.00699}\ TR - \underset{(4.07)}{.03112}\ Q5960$$

(.86)

R^2 = .957 S.E. = .0073 D.W. = 1.91

Z. INCOMES

(Z.1) ZGW* Gross Earnings, State Employees

$$ZGW^* = \underset{(102.18)}{1.02077}\ ZWH^*_{(621.13)}$$

$R^2 = 1.000$ S.E. = 0.72 D.W. = 0.38
Sample Period 1958-1972

Where: $ZWH^* \equiv (NMI \cdot WI^* + NMC \cdot WC^* + NMTC \cdot WTC^* + NMS \cdot WS^* + NMG \cdot WGS^* + 1000.\ NASOV \cdot WAS^*)/10.^6$

(Z.2) ZWK* Collective Farm Wage Payments

$$ZWK^* \equiv NAKOL.WAK^*$$

(Z.3) ZSAG* Income from Sale of Farm Products

$$\underset{(1.968)}{ln\ ZSAG^* = -\ 4.24559} + \underset{(8.39)}{0.71561}\ (ln\ PAFC70 + ln\ XAGT70)_{(12.30)}$$

$$- \underset{(4.59)}{1.27292}\ \left(\frac{XAGT70}{XAGTN} - 1\right) - \underset{(2.85)}{0.18380}\ Q69$$

$R^2 = .922$ S.E. = 0.061 D.W. = 1.97
Sample Period 1958-1974

(Z.4) ZMPA* Military Pay and Allowances

$$ZMPA^* \equiv NMD9.WDF^*$$

(Z.5) ZTG* Gross Household Money Income

$$ZTG^* \equiv ZGW^* + ZWK^* + ZSAG^* + ZMPA^* + BTRAN^* + ZPCP^*9$$

(Z.6) ZTD* Disposable Household Money Income

$$ZTD^* \equiv ZTG^* - TAXES^* - TDUES^*9 - TINSP^*9$$

(Z.7) ZIK60 Agricultural Income in Kind

$$100.\ \frac{ZIK60}{XAGTN} \equiv \underset{(18.12)}{\underset{(55.17)}{18.81209} + \underset{(4.88)}{24.31700}}\ \left(\frac{XAGT70}{XAGTN} - 1.\right)$$

$R^2 = 0.725$ S.E. = 1.03 D.W. = 2.12
Sample Period 1956-1966

(Z.8) ZD70 Real Disposable Household Income

$$ZD70 \equiv 100.ZTD^*/PRC + ZIK60/0.76$$

(Z.9) Gross Profits, National Economy

(a) Non-Residual Version

$$\underset{(1.110)}{ZPG^*/ZPG^*_{-1}} = \underset{(67.40)}{1.05012} + \underset{(6.16)}{0.16708}\ Q6668 + \underset{(2.87)}{0.12411}\ Q70 + \underset{(1.65)}{0.32122}\ \left(\frac{XAGT70}{XAGTN} - 1.\right) + \underset{(2.64)}{0.06636}\ QSH65$$

$R^2 = 0.817$ S.E. = 0.038 D.W. = 3.01
Sample Period 1959-1974

(b) Residual Version

$$ZPG^* = 0.9363\ GNP3.PGNP3 - ZD70.PRC/100. - ZDT^* - TOSS^* - TPOP^*$$

(Z.10) Amoritization Funds, National Economy

$$\underset{(1.119)}{ZDT^*/ZDT^*_{-1}} = \underset{(1.88)}{0.53466} + \underset{(2.00)}{0.52239}\ KSUM/KSUM_{-1} + \underset{(33.79)}{0.26786}\ Q63 + \underset{(1.59)}{0.01935}\ (QSH67-QSH67_{-1})$$

$R^2 = 0.994$ S.E. = 0.007 D.W. = 1.32
Sample Period 1959-1974

P. PRICES

(P.1) PNF70 State Retail Price, Non-Food Goods

$$\frac{PNF70}{1+RTTD9} - \left(\frac{PNF70}{1+RTTD9}\right)_{-1} = \underset{(0.287)}{-\ 0.10904} + \underset{(0.48)}{1.56521}\ Q6668 + \underset{(1.48)}{0.30613}\ \left(PWIQN - \left(\frac{PNF70}{1+RTTD9}\right)_{-1}\right)$$

$R^2 = 0.683$ S.E. = 0.727 D.W. = 1.39
Sample Period 1960-1973

Where

PWIQN ≡ K.WIQN (marked-up industrial wage)

$$WIQN = \frac{WI^*}{17144.9\ XIT/NMI}$$

$$K = \underset{(4.77)}{2.78220} + \underset{(1.59)}{0.25912}\ QLT28 - \underset{(3.91)}{0.14517}\ QSH68$$

Estimated over sample period 1959-1973

(P.2) PIRF70 State Retail Price, Food Goods

$$\frac{PIRF70}{1+RTTD9} - \left(\frac{PIRF70}{1+RTTD9}\right)_{-1} = \underset{(1.087)}{0.72739} + \underset{(3.01)}{1.72614}\ Q6668 + \underset{(2.87)}{0.25991}\ (.85\ PWIQN + .15\ PAFC70_{-1} - \left(\frac{PIRF70}{1+RTTD9}\right)_{-1})$$

$R^2 = 0.610$ S.E. = 0.800 D.W. = 2.41
Sample Period 1960-1973

(P.3) PAFC70 "Negotiated" Agricultural Price

(Food sold by collective farms to consumer cooperatives.)

$$PAFC70/PAFC70_{-1} = \underset{(46.27)}{1.05715} + \underset{(1.82)}{.09017}\ Q69 - \underset{(1.85)}{0.1527}\ \frac{MGRDW\$}{PGR9} - \underset{(2.21)}{0.45472}\ \left(\frac{XAGT70_{-1}}{XAGTN_{-1}} - 1.\right)$$

$R^2 = 0.521$ S.E. = 0.045 D.W. = 2.26
Sample Period 1961-1974

(P.4) PFCC Consumption Price, Food

$$PFCC \equiv .875\ PIRF70 + .125\ PAFC70$$

(P.5) PRC Consumption Price, Total

$$PRC \equiv .60\ PFCC + .40\ PNF70$$

(P.6) PIWL70 Wholesale Price, Light Industry

$$PIWL70 - PIWL70_{-1} = \underset{(0.74)}{-\ 0.23590} - \underset{(2.19)}{1.82417}\ Q67 + \underset{(3.55)}{2.95478}\ Q73 + \underset{(1.38)}{.09382}\ (PWIQN - PIWL70_{-1})$$

(0.162)

$R^2 = .676$ S.E. = .798 D.W. = 2.06
Sample Period 1960-1973

(P.7) PIWH70 Wholesale Price, Heavy Industry

$$PIWH70 - PIWH70_{-1} = \underset{(1.57)}{-\ 0.56813} - \underset{(3.04)}{3.97732}\ Q61 + \underset{(10.86)}{14.20453}\ Q67$$

(0.162)

$R^2 = .924$ S.E. = 1.256 D.W. = 1.22
Sample Period 1960-1973

(P.8) PII Investment Deflator, Industry

PII = 0.81500 PXCON9 + 0.20588 PIWH70
(87.9) (13.42) (3.73)

R^2 = .934 S.E. = 1.62 D.W. = 0.36
Sample Period 1957-1972

(P.9) PIC Investment Deflator, Construction

PIC = 0.32125 PXCON9 + 0.68619 PIWH70
(91.1) (2.40) (5.64)

R^2 = .727 S.E. = 3.56 D.W. = 2.13
Sample Period 1957-1972

(P.10) PIT Investment Deflator, Transport and Communications

PIT = 0.67878 PXCON9 + 0.32086 PIWH70
(87.0) (4.10) (2.13)

R^2 = .699 S.E. = 4.40 D.W. = 0.34
Sample Period 1957-1972

(P.11) PIS Investment Deflator, Government, Trade, Services, etc. (excl. Housing)

PIS = 0.78015 PXCON9 + 0.24469 PIWH70
(88.6) (11.04) (3.81)

R^2 = .899 S.E. = 1.88 D.W. = 0.36
Sample Period 1957-1972

(P.12) PIHS Investment Deflator, Housing

PIHS = 0.82329 PXCON9 + 0.19220 PIWH70
(87.3) (19.76) (5.08)

R^2 = .971 S.E. = 1.11 D.W. = 0.53
Sample Period 1957-1972

(P.13) PIA Investment Deflator, Agriculture

PIA = 0.34481 PXCON9 + 0.06897 PIWH70 + 58.03934
(93.5) (22.19) (3.00) (30.86)

R^2 = .983 S.E. = 0.410 D.W. = 1.16
Sample Period 1957-1972

(P.14) PGNP3 GNP Deflator

PGNP3 = 0.77346 + 0.01086 QT50 - 0.13101 QPR67
(0.881) (23.66) (7.58) (8.68)

R^2 = 0.989 S.E. = 0.013 D.W. = 1.70
Sample Period 1958-1974

Actual PGNP defined by the identity:

$$PGNP = GNP^{-1} \left(ZD70.\frac{PRC}{100.} + ZPG^* + ZDT^* + TOSS^* + TPOP^*\right)/.9363$$

C. CONSUMPTION

(C.1) CR70 Total Consumption

(C.1a) Identity Determination

$$CR70 \equiv CRF70 + CRND70 + CRD70 + CRS70$$

(C.1b) Direct Determination

$$\frac{CR70}{ZD70} = \underset{(1.279)}{1.14566} - \underset{(5.76)}{0.60556}\ (QLT28-3.8067)\ QSH72_{-1} - \underset{(3.09)}{0.39815}\ \frac{ZD70}{ZD70_{-1}} + \underset{(4.44)}{1.20099}\ \left(\frac{.27291\ XISG + .39034\ XIPF}{ZD70}\right)$$

$R^2 = 0.986$ S.E. = 0.015 D.W. = 1.84
Sample Period 1956-1974

(C.1c) Residual Determination

$$CR70 \equiv GNP3 - GEUSUM3 - .001\ (ETW70-MTW70) - GRESEM3$$

(C.2) CRF70 Food Consumption

(C.2a) Direct Determination

$$\frac{CRF70}{ZD70} = \underset{(0.706)}{1.56793} - \underset{(5.45)}{0.33992}\ \frac{ZD70}{ZD70_{-1}} - \underset{(3.34)}{0.95585}\ \frac{PFCC}{PNF70} + \underset{(4.24)}{0.30920}\ \frac{XAGT70}{ZD70} + \underset{(2.28)}{1.13451}\ \frac{0.39034XIPF}{ZD70}$$

(C.2a) Direct Determination (Continued)

$R^2 = 0.987$ S.E. = 0.013 D.W. = 1.37
Sample Period 1956-1974

(C.2b) Share Determination

$$\frac{CRF70}{CR70} = \underset{(0.547)}{} \underset{(4.78)}{0.74592} \left(\frac{CRF70}{CR70}\right)_{-1} + \underset{(0.93)}{0.33304} \left(\frac{CRND70}{CR70}\right)_{-1}$$

$$+ \underset{(1.58)}{0.55263} \left(\frac{CRD70}{CR70}\right)_{-1} + \underset{(2.06)}{0.96972} \left(\frac{CRS70}{CR70}\right)_{-1}$$

$$- \underset{(1.51)}{0.21494} \frac{PFCC}{PNF70} + \underset{(0.08)}{0.00443} \frac{1.71449XIT}{ZD70}$$

$$+ \underset{(0.96)}{0.18438} \frac{100BDN*9/PIWH70}{ZD70} + \underset{(1.32)}{0.07783} \frac{XAGT70_{-1}}{ZD70}$$

$R^2 = 0.978$ S.E. = 0.005 D.W. = 2.42
Sample Period 1957-1974 D. = 1.19

(C.2c) Share Determination, Non-Services

$$\frac{CRF70}{CRNS70} = \underset{(0.671)}{} \underset{(7.38)}{1.03912} \left(\frac{CRF70}{CRNS70}\right)_{-1} + \underset{(1.38)}{0.65294} \left(\frac{CRND70}{CRNS70}\right)_{-1}$$

$$+ \underset{(1.00)}{0.31635} \left(\frac{CRD70}{CRDS70}\right)_{-1} - \underset{(1.23)}{0.19691} \frac{PFCC}{PNF70}$$

$$- \underset{(1.49)}{0.54820} \frac{0.27291XISG}{ZD70} + \underset{(0.98)}{0.05976} \frac{XAGT70}{ZD70}$$

$$+ \underset{(2.40)}{0.44571} \frac{100.BDN*9/PIWH70}{ZD70}$$

(C.2c) Share Determination, Non-Services (Continued)

$R^2 = 0.978$ S.E. = 0.006 D.W. = 2.24
Sample Period 1957-1974 D. = 0.63

(C.3) CRND70 Softgoods

(C.3a) Direct Determination

$$\frac{CRND70}{ZD70} = \underset{(0.232)}{-\ 0.04455} + \underset{(0.57)}{0.08357}\ \frac{PFCC}{PNF70} + \underset{(1.68)}{1.29545}\ \frac{\underset{(6.02)}{0.27291}\ XISG}{ZD70}$$

$R^2 = 0.854$ S.E. = 0.006 D.W. = 1.38
Sample Period 1956-1974

(C.3b) Share Determination

$$\frac{CRND70}{CR70} = \underset{(0.184)}{0.21046}\ \underset{(2.16)}{\left(\frac{CRF70}{CR70}\right)_{-1}} + \underset{(3.37)}{0.74858}\ \left(\frac{CRND70}{CR70}\right)_{-1}$$

$$- \underset{(1.17)}{0.25518}\ \left(\frac{CRD70}{CR70}\right)_{-1} - \underset{(1.72)}{0.50359}\ \left(\frac{CRS70}{CR70}\right)_{-1}$$

$$+ \underset{(1.50)}{0.13329}\ \frac{PFCC}{PNF70} - \underset{(1.94)}{0.06441}\ \frac{1.71449\ XIT}{ZD70}$$

$$- \underset{(0.33)}{0.03876}\ \frac{100.BDN*9/PIWH70}{ZD70} - \underset{(1.07)}{0.03929}\ \frac{XAGT70_{-1}}{ZD70}$$

$R^2 = 0.895$ S.E. = 0.003 D.W. = 2.25
Sample Period 1957-1974 D. = 1.59

(C.3c) Share Determination, Non-Services

$$\frac{CRND70}{CRNS70} = \underset{(0.225)}{} \; \underset{(0.03)}{0.00327} \left(\frac{CRF70}{CRNS70}\right)_{-1} + \underset{(1.19)}{0.38969} \left(\frac{CRND70}{CRNS70}\right)_{-1}$$

$$- \underset{(0.41)}{0.09038} \left(\frac{CRD70}{CRNS70}\right)_{-1} + \underset{(1.07)}{0.11796} \frac{PFCC}{PNF70}$$

$$+ \underset{(1.69)}{0.42829} \frac{0.27291\ XISG}{ZD70} - \underset{(0.98)}{0.04094} \frac{XAGT70_{-1}}{ZD70}$$

$$- \underset{(1.38)}{0.17759} \frac{100.BDN*9/PIWH70}{ZD70}$$

$R^2 = 0.859$ S.E. = 0.004 D.W. = 1.90
Sample Period 1957-1974 D. = *

(C.4) CRD70 Durables

(C.4a) Direct Determination

$$\frac{CRD70}{ZD70} = \underset{(0.105)}{1.55588} + \underset{(3.91)}{1.42781} \frac{QT50}{100.} - \underset{(4.23)}{0.48443}\ QLT28 \quad \underset{(3.87)}{}$$

$$+ \underset{(5.20)}{0.51143} \frac{0.40624\ XIMB}{ZD70} - \underset{(2.20)}{0.11888} \frac{100.BDN*9/PIWH70}{ZD70}$$

$R^2 = 0.975$ S.E. = 0.003 D.W. = 1.09
Sample Period 1957-1974

(C.4b) Share Determination

$$\frac{CRD70}{CR70} = \underset{(0.084)}{} 0.016681 \underset{(0.18)}{} \left(\frac{CRF70}{CR70}\right)_{-1} + 0.03548 \underset{(0.17)}{} \left(\frac{CRND70}{CR70}\right)_{-1}$$

$$+ 0.75690 \underset{(3.68)}{} \left(\frac{CRD70}{CR70}\right)_{-1} - 0.13078 \underset{(0.47)}{} \left(\frac{CRS70}{CR70}\right)_{-1}$$

$$+ 0.060524 \underset{(0.72)}{} \frac{PFCC}{PNF70} + 0.001138 \underset{(0.04)}{} \frac{1.71449\ XIT}{ZD70}$$

$$- 0.23548 \underset{(2.10)}{} \frac{100\ BDN*9/PIWH70}{ZD70} - 0.02052 \underset{(0.59)}{} \frac{XAGT70_{\ 1}}{ZD70}$$

$R^2 = 0.988$ S.E. = 0.003 D.W. = 2.02
Sample Period 1957-1974 D. = 0.09

(C.4c) Share Determiniation, Non-Services

$$\frac{CRD70}{CRNS70} = \underset{(0.103)}{} - 0.04239 \underset{(0.51)}{} \left(\frac{CRF70}{CRNS70}\right)_{-1} - 0.04267 \underset{(0.15)}{} \left(\frac{CRND70}{CRNS70}\right)_{-1}$$

$$+ 0.77406 \underset{(4.13)}{} \left(\frac{CRD70}{CRNS70}\right)_{-1} + 0.07896 \underset{(0.83)}{} \frac{PFCC}{PNF70}$$

$$+ 0.11990 \underset{(0.55)}{} \frac{0.27291\ XISG}{ZD70} - 0.01881 \underset{(0.52)}{} \frac{XAGT70_{-1}}{ZD70}$$

$$- 0.26811 \underset{(2.44)}{} \frac{100.BDN*9/PIWH70}{ZD70}$$

$R^2 = 0.987$ S.E. = 0.004 D.W. = 2.17
Sample Period 1957-1974 D. = 0.59

(C.5) CRS70 Services

(C.5a) Direct Determination

$$\frac{CRS70}{ZD70} = \underset{(0.237)}{0.08595} - \underset{(1.58)}{0.17694}\ \frac{QT50}{100.} + \underset{(1.05)}{0.04295}\ (QLT28-3.8067)\ \underset{(0.73)}{(1.-QSH68)}$$

$$+ \underset{(7.36)}{0.72225}\ \frac{.43868\ XSER70}{ZD70}$$

$R^2 = 0.973$ S.E. = 0.004 D.W. = 1.13
Sample Period 1956-1974

(C.5b) Share Determination

$$\frac{CRS70}{CR70} = \underset{(0.185)}{.02695}\ \underset{(0.48)}{\left(\frac{CRF70}{CR70}\right)_{-1}} - \underset{(0.92)}{0.11714}\ \left(\frac{CRND70}{CR70}\right)_{-1}$$

$$- \underset{(0.43)}{0.05431}\ \left(\frac{CRD70}{CR70}\right)_{-1} + \underset{(3.94)}{0.66464}\ \left(\frac{CRS70}{CR70}\right)_{-1}$$

$$+ \underset{(0.41)}{0.02112}\ \frac{PFCC}{PNF70} + \underset{(3.08)}{0.05884}\ \frac{1.71449\ XIT}{ZD70}$$

$$+ \underset{(1.31)}{0.08986}\ \frac{100.BDN*9/PIWH70}{ZD70} - \underset{(0.85)}{0.01802}\ \frac{XAGT70_{-1}}{ZD70}$$

$R^2 = 0.949$ S.E. = 0.002 D.W. = 3.24
Sample Period 1957-1974 D. = 3.77

(C.5c) Supply Determination

$$\underset{(32.53)}{CRS70} = \underset{(71.78)}{0.92528}\ (.43868\ XSER70) - \underset{(0.75)}{0.35615}$$

$R^2 = 0.997$ S.E. = 0.51 D.W. = 0.76
Sample Period 1956-1974

(C.6) CRNS70 Consumption, Non-Services

(C.6a) Income Determination

$$\underset{(1.042)}{\frac{CRNS70}{ZD70}} = \underset{(3.10)}{0.28946} + \underset{(7.43)}{0.73564}\ \frac{XAGT70_{-1}}{ZD70} + \underset{(2.97)}{1.04188}\ \left(\frac{.27291\ XISG + .39034\ XIPF}{ZD70}\right)$$

$R^2 = 0.955$ S.E. = 0.022 D.W. = 1.67
Sample Period 1956-1974

(C.6b) Residual or Identity Determination

$$CRNS70 \equiv CR70 - CRS70$$

T. BUDGET REVENUES

$$DDF \equiv \frac{BD^{*}9}{BGN^{*}}$$ Defense Share

$$DPRC \equiv \frac{PRC}{PRC_{-1}} - 1.$$ Consumption Price Deflator, Rate of Change

$$ZW^{*} \equiv ZGW^{*} + ZWK^{*}$$ Money Wage Income

(T.1) TDP* Deductions from Gross Profits

$$\frac{TDP^{*}}{ZPG^{*}} = \underset{(80.92)}{1.02975}\ RTDP9 + \underset{(2.87)}{1.22629}\ (DDF-0.1275) - \underset{(3.33)}{0.08761}\ Q6768 \quad \underset{(0.718)}{}$$

$R^2 = 0.844$ S.E. = 0.034 D.W. = 1.30
Sample Period 1958-1974

(T.2) TT* Turnover Tax

$$\frac{TT^{*}}{ZW^{*}} = \underset{(49.80)}{0.67775}\ (1. - QSH68) + \underset{(76.48)}{0.32344}\ QSH68 \quad \underset{(0.392)}{}$$

$$- \underset{(18.76)}{0.01781}\ (1. - QSH68) * QT50 + \underset{(3.88)}{0.85416}\ DPRC_{-1}$$

$$- \underset{(4.03)}{0.63475}\ (DDF - 0.1275)$$

$R^2 = 0.987$ S.E. = 0.008 D.W. = 2.32
Sample Period 1958-1974

(T.3) TOSS* Other Revenues from Social Sector (including Social Insurance Deductions)

$$\frac{TOSS^*}{ZPG^*} = \underset{(0.608)}{0.54012} + \underset{(26.89)}{0.14276}\ Q6165 + \underset{(6.01)}{0.30279}\ Q5860 - \underset{(11.68)}{0.06603}\ Q6672 - \underset{(2.90)}{}$$

$R^2 = 0.969$ S.E. = 0.028 D.W. = 2.96
Sample Period 1958-1974

(T.4) TSD* Social Insurance Deductions

$$\frac{TSD^*}{ZW^*} = \underset{(0.057)}{0.05730} - \underset{(491.00)}{0.001283}\ Q6768 - \underset{(4.15)}{}$$

$R^2 = 0.592$ S.E. = 0.004 D.W. = 0.72
Sample Period 1961-1974

(T.5) TPOP* Taxes on the Population

$$\frac{TPOP^*}{ZW^*} = \underset{(0.092)}{0.09226} + \underset{(97.64)}{0.01759}\ Q5859 - \underset{(7.30)}{0.01203}\ Q6467 - \underset{(6.57)}{}$$

$R^2 = 0.896$ S.E. = 0.003 D.W. = 1.39
Sample Period 1958-1974

(T.6) TAXES* Personal Taxes (for Disposable Income)

$$TAXES^* \equiv TPOP^* + TAX^*9$$

(T.7) TR* Total Revenues, State Budget

$$TR^* \equiv TDP^* + TT^* + TOSS^* + TPOP^*$$

B. STATE BUDGET OUTLAYS

$DDF \equiv \frac{BD^{*}9}{BGN^{*}} - 0.126$ — Defense Share, Deviation from Mean

$DWG \equiv \frac{WGS^{*}}{WGS^{*}_{-1}} - 1.03433$ — Rate of Change of Government Wage, Deviation from Mean

Q6768 — Industrial Price Reform Dummy

Q65 — Governmental Financial Reorganization

(B.1) BF* Financing of the National Economy

$$\frac{BF^{*}}{BF^{*}_{-1}} = \underset{(119.64)}{1.06561} - \underset{(3.50)}{0.11691}\,(Q61-0.0625) + \underset{(2.74)}{0.06702}\,Q6768 + \underset{(3.67)}{0.12259}\,Q70$$

(1.082)

$R^2 = 0.747$ S.E. = 0.032 D.W. = 2.86
Sample Period 1959-1974

(B.2) BSC* Social and Cultural Measures (including Science)

$$\frac{BSC^{*}}{BSC^{*}_{-1}} = \underset{(376.86)}{1.08271} + \underset{(7.09)}{0.56345}\,DWG - \underset{(3.04)}{0.01749}\,Q7175$$

(1.078)

$R^2 = 0.830$ S.E. = 0.010 D.W. = 1.68
Sample Period 1959-1974

(B.3) BNAUK* Science

$$\frac{BNAUK^*}{BNAUK^*_{-1}} = \underset{(134.69)}{1.05050} - \underset{(8.24)}{0.008985}\ (QT50-23.)\ QSH72$$

(1.102)

$R^2 = 0.829$ S.E. = 0.019 D.W. = 2.50
Sample Period 1959-1974

(B.4) BAD* Administration

$$\frac{BAD^*}{BAD^*_{-1}} = \underset{(122.16)}{1.02362} + \underset{(5.41)}{1.23163}\ DWG + \underset{(2.83)}{0.04589}\ Q6669$$

(1.038)

$R^2 = 0.751$ S.E. = 0.028 D.W. = 2.81
Sample Period 1960-1974

(B.5) BRES* Expenditure Residual

$$\frac{BRES^*}{BRES^*_{-1}} = \underset{(33.83)}{1.06512} - \underset{(4.48)}{0.41976}\ (Q63+Q67-0.133)$$

(1.065)

$$+ \underset{(6.06)}{0.56826}\ (Q63_{-1} + Q69 - 0.133)$$

$R^2 = 0.848$ S.E. = .122 D.W. = 1.22
Sample Period 1960-1974

(B.6) BGN* Total Expenditures

$$BGN^* \equiv BF^* + BSC^* + BAD^* + BRES^* + BD^*9$$

(B.7) BTRAN* Transfer Payments (for Disposable Income)

$$\frac{BTRAN^*}{BTRAN^*_{-1}} = \underset{(1.076)}{1.08962} + \underset{(142.71)}{0.58739}\ DWG + \underset{(2.90)}{0.45132}\ \left(\frac{XAGT70}{XAGTN} - \underset{(3.88)}{1.}\right)$$

$R^2 = 0.698$ S.E. = 0.025 D.W. = 2.55
Sample Period 1959-1974

(B.8) BRESDEV Index of Research and Development Expenditures (Science from Budgetory and Non-Budgetory Financing)

$$\frac{BRESDEV}{BRESDEV_{-1}} - 1. = \underset{(0.109)}{0.24665} - \underset{(12.52)}{0.000757}\ QT50 - \underset{(6.54)}{0.05106}\ (Q6567 + Q68)$$
$$\qquad\qquad\qquad

(B.11) BDT70 Defense and State Reserves, 1970 Rubles

$$BDT70 \equiv \frac{5.320}{3.8} NMD9 + BDSR*9$$

$$+ 100.BDN*9/PIWH70$$

$$+ BDR*9/(.2 \frac{WGS*}{1572.} + .8 \frac{PIWH70}{100.})$$

E. Exports

(E.1) ERMCM* Export of Raw Materials and Semifabricates to CMEA

$$100\,\frac{ERMCM^*}{PERMCM9} = \underset{(3098)}{-\,937.22} + \underset{(3.63)}{30.983}\ YCMEA9 - \underset{(1.26)}{13.364}\ \{100\ (\frac{PRMW9}{PTW9} - \frac{PRMW9_{-1}}{PTW9_{-1}}) - (PERMCM9 - PERMCM9_{-1})\}$$

$R^2 = 0.964$ S.E. = 195 D.W. = 1.23
Sample Period 1961-1973

(E.2) EMACM* Exports of Machinery, to CMEA

$$EMACM^* = \underset{(2674)}{-\,712.392} + \underset{(10.65)}{0.658452}\ ERMCM^* - \underset{(4.65)}{125.552}\ Q4590 \quad \underset{(26.57)}{}$$

$R^2 = 0.985$ S.E. = 66 D.W. = 1.51
Sample Period 1960-1973

(E.3) EGRCM* Exports of Grain, to CMEA

$$\frac{EGRCM^*}{NPOP9} = \underset{(1.09)}{2.06403} + \underset{(10.97)}{2.45125}\ *\ (\frac{XGR}{NPOP9} - \frac{XGRCM9}{NCM9}) + \underset{(3.80)}{3.3278}\ (\frac{XGR_{-1}}{NPOP9_{-1}} - \frac{XGRCM9_{-1}}{NCM9_{-1}}) + \underset{(2.99)}{2.23734}\ \frac{GRSTK}{NPOP9}$$

$R^2 = 0.808$ S.E. = 0.14 D.W. = 2.29
Sample Period 1960-1972

Where:

$$GRSTK \equiv \sum_{I=1}^{3} (XGR_{-I} - XGRPK_{-I})$$

(E.4) ECOCM* Exports of Consumption Goods; other than Grain

$$\underset{(254.)}{ECOCM^*} = \underset{(2.19)}{164.554} + \underset{(1.85)}{4.51039}\ XAGT70_{-1} - \underset{(1.60)}{3.78446}\ XGRCM9$$

$R^2 = 0.239$ S.E. = 38 D.W. = 1.03
Sample Period 1960-1973

(E.5) ETCM* Total Exports to CMEA

$$ETCM^* \equiv ERMCM^* + EMACM^* + EGRCM^* + ECOCM^* + EUSCM^*9$$

(E.6) ENETCM* Balance of Trade with CMEA

$$ENETCM^* \equiv ETCM^* - MTCM^*$$

(E.7) ENFDW$ Non-food Exports to the Developed West

$$\frac{ENFDW\$}{ENFDW\$_{-1}} - 1. = \underset{(1.86)}{-0.07584} + \underset{(1.29)}{0.27125}\left(\frac{MTDW\$ - ENETDW\$_{-1}}{MTDW\$_{-1}} - 1.\right) + \underset{(2.80)}{1.27199}\left(\frac{WTDW9 \cdot PENFDW9}{WTDW9_{-1} \cdot PENFDW9_{-1}} - 1.\right)$$

$R^2 = .820$ S.E. = 0.083 D.W. = 1.34
Sample Period 1961-1973

(E.8) EGRDW$ Grain Exports to the DW

$$\underset{(0.217)}{\frac{100\ EGRDW\$}{PGR9\ NPOP9}} = \underset{(5.99)}{1.73703} - \underset{(4.92)}{3.88386}\ \frac{XGRWE9}{NWE9} + \underset{(4.74)}{2.06302}\ \frac{GRSTK}{NPOP9}$$

$R^2 = 0.786$ S.E. = 0.091 D.W. = 1.98
Sample Period 1960-1972

Where:

GRSTK is defined below (E.3)

(E.9) EFODW$ Export of Food other than Grain to the DW

$$EFODW\$ = \underset{(86.5)}{-\ 132.72} + \underset{(3.28)}{3.22044}\ XAGT70_{-1} \quad \underset{(5.48)}{}$$

$R^2 = 0.714$ S.E. = 21 D.W. = 1.29
Sample Period 1960-1973

(E.10) ETDW$ Total Exports to the Developed West

$$ETDW\$ \equiv ENFDW\$ + EGRDW\$ + EFODW\$$$

(E.11) ENETGR Net Balance of Grain Trade

$$ENETGR \equiv 1.1111\ EGRCM^* + \frac{100.}{PGR9}\ (EGRDW\$ + EGRLDC\$ - MGRDW\$)$$

(E.12) ENETDW$ Balance of Trade with the DW

$$ENETDW\$ \equiv ETDW\$ - MTDW\$$$

(E.13) ETLDC$ Total Exports to the Less Developed Countries

$$ETLDC\$ = \underset{(1035)}{-\ 137.601} + \underset{(1.54)}{0.213556}\ *\ WTLDC9 \quad \underset{(3.63)}{}$$

$$+\ \underset{(1.51)}{0.339775}\ *\ ETLDC\$_{-1}$$

$R^2 = 0.954$ S.E. = 93 D.W. = 2.07
Sample Period 1961-1973 D. = 0.22

(E.14) EGRLDC$ Exports of Grain to the LDC's

$$\frac{EGRLDC\$\ *\ 100}{NPOP9\ *\ PGR9} = \underset{(0.33)}{2.47943} + \underset{(2.09)}{1.42838}\ *\ \frac{GRSTK}{NPOP9} \quad \underset{(2.42)}{}$$

$$-\ \underset{(1.76)}{9.95524}\ *\ \frac{XGRLDC9_{-1}}{NLDC9_{-1}}$$

$R^2 = 0.404$ S.E. = 0.12 D.W. = 1.57
Sample Period 1960-1972

(E.14) EGRLDC$ Exports of Grain to the LDC's (Continued)

Where GRSTK defined below (E.3).

(E.15) EOSC$ Exports to Yugoslavia and the Far Eastern Socialist Countries

$$\underset{(690)}{EOSC\$ = -174.24} + \underset{(2.94)}{4.26099} * \underset{(2.69)}{WT9} + \underset{(1.44)}{0.38366} * EOSC\$_{-1}$$

$R^2 = 0.970$ S.E. = 62 D.W. = 1.80
Sample Period 1961-1973 D. = 1.35

(E.16) EMACH$ Exports of Machinery to China

$$\underset{(44)}{EMACH\$ = 17.40668} + \underset{(0.48)}{0.35579}\ GNPCH9 - \underset{(2.84)}{39.3286}\ Q6870$$

$R^2 = 0.509$ S.E. = 20 D.W. = 1.80
Sample Period 1962-1972

(E.17) EOCH$ Exports of Other than Machinery to China

$$\underset{(88)}{EOCH\$ = -9.2943} + \underset{(0.56)}{0.48417}\ EMACH\$ + \underset{(7.20)}{0.66898}\ EOCH\$_{-1}$$

$R^2 = 0.898$ S.E. = 28 D.W. = 2.83
Sample Period 1961-1973 D. = 1.66

(E.18) ETCH$ Total Exports to China

ETCH$ = EMACH$ + EOCH$

(E.19) ECUBA$ Exports to Cuba

$$ECUBA\$ = -12.8513 + 3.71639\ WT9 + 37.719\ Q6263$$
$$(0.26) \quad (12.38) \quad (0.96)$$

$R^2 = 0.948$ S.E. = 46 D.W. = 0.93
Sample Period 1961-1973

(E.20) ETW$ Exports to the World

$$ETW\$ \equiv ETDW\$ + ETCM^* PREX9 + ETCH\$ + EOSC\$ + ECUBA\$ + ETLDC\$ + EUSW\$9$$

(E.21) ETW70 Exports to the World at Domestic Constant Prices

$$ETW70 \equiv 1.5 \frac{100\ ETW\$}{PREX9\ PTX9}$$

M. Imports

(M.1) MRMCM* Imports of Raw Materials and Semifabricates from CMEA

$$\frac{100\ MRMCM^*}{PMRMCM9} = \underset{(13.02)}{502.182} + \underset{(5.81)}{0.073422}\ \frac{100ERMCM^*}{PERMCM9} + \underset{(1.97)}{0.13713}\ DEVMMACM^*_{-1}$$

(717)

$R^2 = 0.755$ S.E. = 42 D.W. = 1.61
Sample Period 1960-1973

Where:

DEVMMACM* = {MMACM* - (-983.61 + 179.55 QT50)}

(M.2) MMACM* Imports of Machinery from CMEA

$$MMACM^* = \underset{(4.88)}{-756.457} + \underset{(19.09)}{1.09900}\ ERMCM^* + \underset{(3.10)}{1.71429}\ DEVEMACM^*_{-1}$$

(2150)

$R^2 = 0.972$ S.E. = 145 D.W. = 1.47
Sample Period 1960-1973

Where:

DEVEMACM* = {EMACM* - (-915.905 + 109.89 QT50)}

(M.3) MFOCM* Imports of Food from CMEA

$$MFOCM^* = \underset{(1.99)}{-296.915} + \underset{(2.26)}{5.15949}\ CRF70 + \underset{(2.21)}{0.50700}\ MFOCM^*_{-1}$$

(400)

$R^2 = 0.968$ S.E. = 34 D.W. = 2.38
Sample Period 1960-1973 D. = 1.38

(M.4) MCOCM* Imports of Manufactured Consumer Goods from CMEA

$$\underset{(1059)}{MCOCM^*} = \underset{(1.37)}{-\ 211.75} + \underset{(1.22)}{12.3971}\ CRND70$$

$$+\ \underset{(1.41)}{0.18248}\ ENETCM^*_{-1} + \underset{(3.93)}{0.86325}\ MCOCM^*_{-1}$$

$R^2 = 0.985$ S.E. = 59 D.W. = 1.89
Sample Period 1960-1973 D. = 0.36

(M.5) MTCM* Total Imports from CMEA

$$MTCM^* \equiv MRMCM^* + MMACM^* + MFOCM^* + MCOCM^* + MUSCM^*9$$

(M.6) MNGDW$ Imports other than Grain from the Developed West

$$\frac{MNGDW\$}{P599} = \underset{(18.249)}{-\ 22.17793} + \underset{(4.83)}{0.44185}\ XIT + \underset{(10.04)}{3.74336}\ \underset{(3.04)}{FLQ_{-1}}$$

$R^2 = 0.954$ S.E. = 1.604 D.W. = 1.74
Sample Period 1961-1973

(M.7) MMADW$ Total Machinery Imports from the Developed West

$$ln\ \frac{100.MMADW\$}{P71GE9_{-1}\ IIN} = \underset{(3.715)}{3.72053} + \underset{(64.18)}{0.21729}\ ln\ FLQ_{-1}$$

$$-\ \underset{(0.82)}{0.07814}\ Q6466 + \underset{(2.47)}{0.32515}\ QSH68$$

$R^2 = 0.671$ S.E. = 0.110 D.W. = 2.37
Sample Period 1961-1973

(M.8) MCODW$ Imports of Consumer Goods other than Grain from the DW

$$\frac{MCODW\$}{MNGDW\$-MUSDW\$9} = \underset{(0.0732)}{-\ 0.09594} + \underset{(1.55)}{1.54632}\ \frac{CR70-CR70_{-1}}{CR70_{-1}} + \underset{(2.07)}{1.25745}\ \frac{CRD70}{CR70} - \underset{(1.11)}{0.12083}\ \frac{MGRDW\$}{MTDW\$}$$

$R^2 = 0.501$ S.E. = 0.038 D.W. = 1.21
Sample Period 1960-1973

(M.9) MRMDW$ Imports of Raw Materials from the DW

$$MRMDW\$ \equiv MNGDW\$ - MMADW\$ - MCODW\$ - MUSDW\$9$$

(M.10) MGRDW$ Imports of Grain from the Developed West

$$\frac{100.MGRDW\$}{PGR9 \cdot GRAVE} + \underset{(1.552)}{\left\{\frac{100.MGRDW\$}{PGR9 \cdot GRAVE}\right\}_{-1}} = \underset{(1.51)}{-\ 2.39634} + \underset{(1.90)}{0.14315}\ QT50 - \underset{(3.42)}{19.79195}\ \frac{GRSTK}{GRAVE}$$

$R^2 = 0.545$ S.E. = 0.925 D.W. = 2.08
Sample Period 1961-1973

Where:

$$GRAVE \equiv XGR + XGR_{-1} + XGR_{-2}$$

$$GRSTK \equiv \sum_{i=1}^{3} (XGR_{-i} - XGRPK_{-i})$$

(M.11) MTDW$ Total Imports from the Developed West

$$MTDW\$ \equiv MNGDW\$ + MGRDW\$$$

(M.12) MTLDC$ Total Imports from the Less Developed Countries

$$MTLDC\$ = \underset{(1064)}{-\ 99.3283}\ \underset{(1.43)}{+\ 0.507074}\ ETLDC\$\ \underset{(2.66)}{+\ 1538.13}\ \left\{\frac{PRMW9}{PMAW9} - \frac{PRMW9_{-1}}{PMAW9_{-1}}\right\}$$

$$\underset{(1.86)}{-\ 136.922}\ Q67\ \underset{(3.23)}{+\ 0.674961}\ MTLDC\$_{-1}$$

$R^2 = 0.989$ S.E. = 67 D.W. = 2.04
Sample Period 1960-1973 D. = 0.11

(M.13) MOSC$ Total Imports from Yugoslavia and the Far Eastern Socialist Countries

$$MOSC\$ = \underset{(418)}{95.07715}\ \underset{(2.50)}{+\ 0.46756}\ EOSC\$$$

$R^2 = 0.888$ S.E. = 57 D.W. = 0.76
Sample Period 1961-1973

(M.14) MTCH$ Imports from China

$$MTCH\$ = \underset{(259)}{-3.81454}\ \underset{(0.30)}{+\ 1.03969}\ ETCH\$\ \underset{(23.99)}{+\ 212.664}\ Q6164$$

$R^2 = 0.987$ S.E. = 31 D.W. = 3.01
Sample Period 1960-1972

(M.15) MCUBA$ Imports from Cuba

$$100.\ \frac{MCUBA\$}{PSUGSU9} = \underset{(311)}{347.80}\ \underset{(2.10)}{+\ 5.31084}\ XSUG9_{-1}\ \underset{(2.83)}{-\ 0.86734}\ WT9\ \underset{(1.69)}{-\ 213.32}\ \frac{PSUGW9}{PSUGSU9}$$

$R^2 = 0.519$ S.E. = 81 D.W. = 2.81
Sample Period 1960-1973

(M.16) MTW$ Imports from the World

$$MTW\$ \equiv MTDW\$ + MTCM^* PREX9 + MTLDC\$ + MOSC\$ + MCUBA\$ + MUSW\$9$$

(M.17) MTW70 Imports from the World at Constant Domestic Prices

$$MTW70 \equiv 2.00 \frac{100MTW\$}{PREX9\ PTM9}$$

(M.18) MIEIN$ Imports from Developed West, Machinery and Equipment (less Transport Equipment)

$$ln \frac{100.*MIEIN\$}{IIN*P71GE9}_{-1} = \underset{(3.465)}{3.48565} + \underset{(55.88)}{0.17595}\ ln\ FLQ_{-1} - \underset{(3.33)}{0.34055}\ Q6466 + \underset{(2.60)}{0.36836}\ QSH68$$

$R^2 = 0.844$ S.E. = 0.118 D.W. = 2.27
Sample Period 1961-1973

(M.19) MTM100-5* Machinery Imports, Total, FTN10: Metal-Working (Including Complete Plants, FTN105)

$$ln \frac{100.MTM100-5^*}{IIMB^*P71GE9}_{-1} = \underset{(4.016)}{3.95284} + \underset{(92.63)}{0.27371}\ ln\ FLQ_{-1} + \underset{(4.23)}{0.36289}\ Q70 + \underset{(2.91)}{0.31255}\ QSH68 + \underset{(2.68)}{0.05595}\ QSH68\ (QT50\text{-}19.)$$

$R^2 = 0.797$ S.E. = 0.113 D.W. = 2.15
Sample Period 1961-1973

(M.20) MTM120-9* Machinery Imports, Total, FTN12: Mining, Metallurgy and Petroleum

$$ln \frac{100.MTM120\text{-}9^*}{IIPP^*P71GE9_{-1}} = \underset{(4.283)}{4.36190} + \underset{(37.67)}{0.09478}\ ln\ FLQ_{-1} + \underset{(1.45)}{0.16944}\ QFYP + \underset{(2.60)}{0.12421}\ QSH68 - \underset{(1.07)}{0.13378}\ QSH68\ (QT50\text{-}19.) \underset{(4.86)}{}$$

$R^2 = 0.909$ S.E. = 0.109 D.W. = 2.45
Sample Period 1961-1973

(M.21) MIECH$ Machinery Imports, West, Chemical Equipment

$$ln \frac{100.MIECH\$}{IICH^*P71GE9_{-1}} = \underset{(4.454)}{4.74708} + \underset{(46.90)}{0.35898}\ ln\ FLQ_{-1} - \underset{(3.62)}{0.47803}\ QFYP + \underset{(1.55)}{0.33654}\ QSH68$$

$R^2 = 0.667$ S.E. = 0.221 D.W. = 2.41
Sample Period 1961-1973

F. Hard Currency

(F.1) FNETHC Hard Currency Balance of Trade

$$FNETHC\$ = \underset{(-434)}{-60.7808} + \underset{(1.45)}{1.21162}\ ENETDW\$ \quad (14.32)$$

$R^2 = 0.945$ S.E. = 123 D.W. = 2.12
Sample Period 1960-1973

(F.2) FCREP$ Credit Repayments

$$FCREP\$ = \underset{(246)}{0.73024} + \underset{(0.05)}{0.28217}\ FCDR\$9_{-1} + \underset{(3.10)}{0.68156}\ FCREP\$_{-1} \quad (2.90)$$

$R^2 = 0.976$ S.E. = 28 D.W. = 1.26
Sample Period 1960-1973

(F.3) FDEBT$ Outstanding Debt

$$FDEBT\$ \equiv FDEBT\$_{-1} + FCDR\$9 - FCREP\$$$

(F.4) FINT$ Interest Payments

$$FINT\$ = \underset{(41.9)}{-4.0578} + \underset{(5.32)}{0.055122}\ (FDEBT\$ + FDEBT\$_{-1})/2 \quad (76.97)$$

$R^2 = 0.998$ S.E. = 1.6 D.W. = 1.96
Sample Period 1960-1972

(F.5) FDHC$ Hard Currency Inflow (Balance of Payments)

$$FDHC\$ \equiv FNETHC\$ + FSER\$9 + FCDR\$9 + FGSALE\$ - FINT\$ - FCREP\$$$

(F.6) FSTK$ Hard Currency Holdings

$$FSTK\$ \equiv FSTK\$_{-1} + FDHC\$$$

(F.7) FGSALE$ Gold Sales

$$FGSALE\$ = \underset{(261)}{\underset{(3.49)}{263.274} - \underset{(1.00)}{0.14013}\ \frac{FNETHC\$ + FNETHC\$_{-1}}{2}} - \underset{(4.24)}{0.45661}\ (FSTK\$ - FGSALE\$)$$

$R^2 = 0.828$ S.E. = 141 D.W. = 2.27
Sample Period 1961-1973

(F.8) FGOLD Gold Reserves

$$FGOLD \equiv FGOLD_{-1} + XGOLD9 - \frac{FGSALE\$}{PGOLD9}$$

(F.9) FLQ Liquidity Ratio

$$FLQ = \frac{FGOLD\ PGOLD9 - FDEBT\$}{MTDW\$}$$

G. AGGREGATE IDENTITIES AND BALANCES

(G.1) GNPA3 Gross National Product, Agriculture

$$GNPA3 \equiv \frac{.71826}{.74122} (XAGT70 - AVCP70)$$

(G.2) GNPNA3 Gross National Product, Non-Agricultural Sectors

$$GNPNA3 \equiv 1.71449\ XIT + \frac{.25379}{.438}\ XCRUB + .31581\ XT7R$$

$$+ .17065\ XDTR + .43868\ XSER70 + \frac{5.320}{3.8}\ NMD9$$

(G.3) GNP3 Gross National Product

$$GNP3 \equiv (GNPA3 + GNPNA3)/.96264$$

(G.4) GNMP3 Net Material Products

$$GNMP3 \equiv 1.71449\ XIT + \frac{.25379}{.438}\ XCRUB + \frac{.71826}{.74122} (XAGT70-AVCP70)$$

$$+ .31581\ (.734)\ XDTR + .17065\ (.1264)\ XDTR$$

(G.5) GEUSUM3 GNP End-Use, Excluding Net Exports and Consumption

$$GEUSUM3 \equiv ISUM + BDSR*9 + .09971\ BADMIN + .09927\ BRESDEV$$

$$+ \frac{5.320}{3.8}\ NMD9$$

(G.6) GRESEM3 End- Use Residual

(Note: Actual Values used for GRESEM3 defined by

$$GRESEM3 \equiv GNP3 - .001\ (ETW70-MTW70) - GEUSUM3 - CR70\ )$$

$$GRESEM3 = \underset{(2.690)}{2.21834} + \underset{(1.95)}{0.47610}\ (XAGT70 - XAGTN)_{(2.03)}$$

$$- \underset{(2.70)}{0.68756}\ (XAGT70_{-1} - XAGTN_{-1})$$

(G.6) GRESEM3 End-Use Residual (Continued)

R^2 = 0.475 S.E. = 4.008 D.W. = 1.78
Sample Period 1960-1973

(G.7) GSIMRES Simulation Residual GNP Category

GSIMRES ≡ GNP3 - GEUSUM3 - CR70 - GRESEM3 - .001 (ETW70-MTW70)

NOTE: Actual values for GSIMRES are identically zero. Solution values represent the difference between "production" and "end use" determinations of GNP when consumption is not obtained by residual identity.

DOCUMENTATION

SERIES LABEL	VAR#	DESCRIPTION	UNITS	SOURCE	PRECISION
AFEED70	410	VALUE OF FEED FED TO LIVESTOCK, 1970 PRICES	B,1970 RUBLES	SAIOER 062475	3
ALVR70	101	VALUE OF PRODUCTIVE LIVESTOCK(END-YR),'70PRICE WGTS	B,1970R	OER76-TRAN	3
ASGR#	408	AREA SOWN TO GRAIN	M,HECTARES	SAIOER75	3
AVCP70	102	VALUE OF AGRICULTURAL CURRENT PURCHASES	B,1970 RUBLES	OER1976	3
B&D#	149	STATE BUDGET EXPENDITURES, ADMINISTRATION	B CUR	NKHOZ	3
B&DMIN	424	INDEX OF ADMINISTRATION & MISC, SERVICES (EST, PRICES)	1970=100	OER75	3
BD#9	152	STATE BUDGET EXPENDITURES, DEFENSE	B CUR	NKHOZ	3
BDN#9	153	DEFENSE NONPERSONNEL EXPENDITURES IN CURRENT PRICES	B,CURR,	COHN74	3
BDR#9	429	DEFENSE R&D EXPENDITURES IN CURRENT PRICES	B,CURR,	COHN74	3
BDSR#9	428	CHANGE IN STATE RESERVES: MILITARY PROCUREMENT ESTIMATE	B,CUR,RUBLES	COHN76	1
BDT#	425	DEFENSE AND STATE RESERVES, CURRENT RUBLES	B,CUR,R	COHN76	3
BDT70	426	DEFENSE AND STATE RESERVES, 1970 RUBLES	B,1970R	COHN76-TRAN	3
BE#	146	STATE BUDGET EXPENDITURES, FINANCING THE NATIONAL ECONOMY, TOTA	B CUR	NKHOZ	3
BGN#	151	STATE BUDGET EXPENDITURES, GOVT SPENDING, NATL ACCOUNTS BASIS	B CUR	NKHOZ	3
BNAUK#	148	SCIENCE EXPENDITURES, USSR BUDGET (CURRENT PRICES)	B RUBL	COHN73	3
BRES#	150	STATE BUDGET,EXPENDITURE RESIDUAL	B RUBL	NKHOZ	3
BRESDEV	423	INDEX OF RESEARCH AND DEVELOPMENT (EST, PRICES)	1970=100	OER75	3
BSC#	147	STATE BUDGET EXPENDITURES, SOCIAL AND CULTURAL MEASURES(INCL, S	B CUR	NKHOZ	3
BTRAN#	241	TRANSFER PAYMENTS	B, CUR, RUBLES	JEC76	3
CRD70	137	CONSUMPTION OF DURABLES, 1970 EST, PRICES	B,1970 RUBLES	JEC76	3
CRF70	135	CONSUMPTION OF FOOD, 1970 EST, PRICES	B,1970 RUBLES	JEC76	3
CRND70	136	CONSUMPTION OF SOFT GOODS, 1970 EST,PRICES	B,1970 RUBLES	JEC76	3
CRNS70	224	CONSUMPTION OF NONSERVICES, 1970 EST, PRICES	B,1970 RUBLES	JEC76-TRAN	3
CRS70	138	CONSUMPTION OF SERVICES, 1970 EST, PRICE WEIGHTS	B,1970 RUBLES	JEC76,OER75,TRAN	3
CR70	134	TOTAL CONSUMPTION, 1970 EST, PRICES	B,1970 RUBLES	JEC76,OER75,TRAN	3
ECOCM#	257	EXPORTS TO CMEA OF CATEGORY III AND IV EXCEPT GRAIN	MRB		3
ECUBA$	272	EXPORTS TO CUBA	MSUS	OER	4
EFODA$	262	EXPORTS OF FOOD TO THE DM	MSUS	OER	3
EGRCM#	256	GRAIN EXPORTS TO CMEA	MRB	OER	3
EGRDA$	261	GRAIN EXPORTS TO THE DM	MSUS	OER	3
EGRLDC$	267	GRAIN EXPORTS TO LDC	MSUS	OER	3
EMACH$	269	EXPORTS OF MACHINERY TO CHINA	MSUS	OER	3
EMACM#	255	EXPORTS TO CMEA OF CMEA CATEGORY I COMMODITIES	MRB	INDIANA	3
ENETCM#	259	BALANCE OF TRADE WITH CMEA	MRB		3
ENETDA$	265	ETDA$-MTDA$	MSUS	OER	3
ENETGR	264	NET GRAIN EXPORT BALANCE AT 63 PRICES	CONS,63		3
ENFDA$	260	EXPORTS TO THE DM OTHER THAN FOOD	MSUS	OER	3
EOCH$	270	NONMACHINERY EXPORTS TO CHINA	MSUS	OER	3
EOSC$	268	EXPORTS TO YUGOSLAVIA AND THE FAR-EASTERN SOCIALIST COUNTRIES	MSUS	OER	3
ERMCM#	254	EXPORTS TO CMEA OF CMEA CATEGORY II COMMODITIES	MRB	INDIANA	3
ETCH$	271	TOTAL EXPORTS TO CHINA	MSUS	OER	3
ETCM#	258	TOTAL EXPORTS TO EUROPEAN CMEA(EXCL,YUGOSLAVIA,ALBANIA)	MRB	INDIANA	3
ETDA$	263	TOTAL EXPORTS TO THE DEVELOPED WEST	MSUS	OER	3
ETLDC$	266	TOTAL EXPORTS TO LDC	MSUS	OER	3
ETA$	273	TOTAL EXPORTS TO THE WORLD	MSUS	OER	3
ETW70	274	TOTAL EXPORTS TO THE WORLD IN DOMESTIC CURRENCY	M 1970		3
EUSCM#9	312	UNSPECIFIED EXPORTS TO CMEA	MRB	INDIANA	3
EUSA$9	309	UNSPECIFIED EXPORTS TO THE WORLD	MSUS	OER	3
FCDR$9	330	HARD CURRENCY CREDIT DRAWINGS	MSUS	OER	3
FCREP$	322	CREDIT REPAYMENTS IN HARD CURRENCY	MSUS	OER	3

DOCUMENTATION

SERIES LABEL	VAR#	DESCRIPTION	UNITS	SOURCE	PRECISION
FDEBTS	323	OUTSTANDING DEBT AT THE END OF THE YEAR	MSUS	OER	3
FDHCS	325	HARD CURR,BALANCE OF P,SURPLUS;ENETHCS+GSALES+CDRAWS9+SERTR9-IN	MSUS	OER	3
FGOLD	328	GOLD RESERVES AT THE END OF THE YEAR	TONS	OER	3
FGSALES	327	GOLD SALES	MSUS	OER	3
FINTS	324	INTEREST PAYMENTS IN HARD CURRENCY	MSUS	OER	3
FLQ	329	HARD CURRENCY LIQUIDITY; (FGOLD*PGOLD9-FDEBTS)/MIOMS	NONE	OER73-TRAN	5
FNETHCS	321	HARD CURRENCY BALANCE OF PAYMENTS	MSUS	OER	3
FSERS9	320	HARD CURRENCY BALANCE OF SERVICES AND TRANSFERS	MSUS	OER	3
FSTKS	326	ACCUMULATED HC, HOLDINGS SINCE1959	MSUS		3
GEUSUMS	210	END-USE SUM (EXCLUDING CONSUMPTION,NET EXPORTS)	B,1970R	OER75-TRAN	3
GNMP3	420	SOVIET NET MATERIAL PRODUCT, EST, PRICE 1970 WEIGHTS	B,1970R	OER75-TRAN	3
GNPA3	95	AGRICULTURAL GNP, TOTAL OUTPUT LESS CURRENT PURCHASES	B,1970R	OER75-TRAN	3
GNPCH9	306	GNP OF CHINA	1968=10	JEC	3
GNPNA3	98	NONAGRICULTURAL GNP, EST, PRICE 1970 WEIGHTS	B,1970R	OER75-TRAN	3
GNP3	96	SOVIET GNP,SOVMOD III : (GNPA3+GNPNA3)/.96269	B,1970R	OER75-TRAN	3
GRESEM3	191	GNP END-USE RESIDUAL = GNP3-GEUSUM3-CR70-.001(ETM70-MTM70)	B,1970R	TRAN	3
GSIMRES	294	ZEROES TO USE AS ACTUAL VALUES FOR SIMULATION RESIDUAL	NONE	NONE	3
IA	13	CAPITAL INVESTMENT IN AGRICULTURE 72R	B 197	TRAN	3
ICAPREP	155	INDEX OF CAPITAL REPAIRS	1970=100	OER75	3
ICRUB	14	CAPITAL INVESTMENT IN CONSTRUCTION	B RUB	NARKHOZ	3
IFAG*9	22	STATE BUDGET FINANCE, AGRICULTURE	B CURR	PRAVDA	3
IFAJ*	227	STATE BUDGET FINANCING OF CENTRALIZED INV,, ADJUSTED	B CUR	TRAN	3
IFIN*9	20	INDUSTRY AND CONSTRUCTION	B CUR	CUR DIG	3
IFTR*9	21	TRANSPORTATION AND COMMUNICATION	B CUR	CUR DIG	3
IHS	16	INVESTMENT IN HOUSING, ADJ TO 1970 PRICES	B RUB	NARKHOZ	3
IICH	6	CAPITAL INVESTMENT, (CHEMICALS AND PETROCHEMICALS)	B 1970	NKHOZ	3
IICM	9	CAPITAL INVESTMENT, (CONSTRUCTION MATERIALS)	B 1970	NKHOZ	3
IICP	3	CAPITAL INVESTMENT, (COAL PRODUCTS)	B 1970	NKHOZ	3
IIEP	2	CAPITAL INVESTMENT, (ELECTROENERGY)	B1970	NKHOZ	3
IIFM	5	CAPITAL INVESTMENT, (FERROUS METALS)	B 1970	NKHOZ	3
IIFP	8	CAPITAL INVESTMENT, (FOREST PRODUCTS(INCL PAPER))	B 1970	NKHOZ	3
IIMB	7	CAPITAL INVESTMENT, (MACHINE BUILDING AND METAL WORKING)	B 1970	NKHOZ	3
IIN	1	CAPITAL INVESTMENT IN INDUSTRY 72R	B 72R	NARKHOZ	3
IINF	12	CAPITAL INVESTMENT,NONFERROUS METALLURGY (RESIDUAL CATEGORY)	B,1970R	NKHOZ,	3
IIPF	11	CAPITAL INVESTMENT, (PROCESSED FOOD INDUSTRY)	B 1970	NKHOZ	3
IIPP	4	CAPITAL INVESTMENT, (PETROLEUM PRODUCTS)	B 1970	NKHOZ	3
IISG	10	CAPITAL INVESTMENT, (LIGHT INDUSTRY)	B 1970	NKHOZ	3
INA	18	INVESTMENT NONAGRICULTURAL	B RUB	TRAN	3
IRCH9	235	BRANCH INVESTMENT SHARE; CHEMICALS & PETROCHEMICALS	NONE	NKH-TRA	3
IRCM9	238	BRANCH INVESTMENT SHARE; CONSTRUCTION MATERIALS	NONE	NKH-TRA	3
IRCP9	231	BRANCH INVESTMENT SHARE; COAL PRODUCTS	NONE	NKH-TRA	3
IREP9	230	BRANCH INVESTMENT SHARE; ELECTROENERGY	NONE	NKH-TRA	3
IRFM9	233	BRANCH INVESTMENT SHARE; FERROUS METALLURGY	NONE	NKH-TRA	3
IRFP9	237	BRANCH INVESTMENT SHARE; FOREST PRODUCTS	NONE	NKH-TRA	3
IRIC9	184	PERCENTAGE NONAGRICULTURAL INVESTMENT, CONSTRUCTION	NONE	TRAN	3
IRIH9	186	PERCENTAGE NONAGRICULTURAL INVESTMENT, HOUSING	NON	TRAN	3
IRII9	183	PERCENTAGE NONAGRICULTURAL INVESTMENT, INDUSTRY	NONE	TRAN	3
IRIS9	187	PERCENTAGE NONAGRICULTURAL INVESTMENT, SERVICES	NON	TRAN	3
IRIT9	185	PERCENTAGE, NON AGRICULTURAL INVESTMENT, TRANSPORT AND COMMUNIC	NONE	TRAN	3
IRMB9	236	BRANCH INVESTMENT SHARE; MACHINE-BUILDING & METAL-WORKING	NONE	NKH-TRA	3

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DOCUMENTATION

SERIES LABEL	VAR#	DESCRIPTION	UNITS	SOURCE	PRECISION
IRNFQ	230	BRANCH INVESTMENT SHARE; NON-FERROUS (RESIDUAL SHARE)	NONE	NKH-TRA	3
IRPFQ	240	BRANCH INVESTMENT SHARE; PROCESSED FOODS	NONE	NKH-TRA	3
IRPPQ	232	BRANCH INVESTMENT SHARE; PETROLEUM PRODUCTS	NONE	NKH-TRA	3
IRSGQ	239	BRANCH INVESTMENT SHARE; SOFT GOODS	NONE	NKH-TRA	3
ISER	17	CAPITAL INVESTMENT IN SERVICES 72R	B RUB	NARKHOZ	3
ISUM	919	TOTAL ACCUMULATION FUND, FIXED CAPITAL, INVENT, & LIVESTOCK	B,1970R	NKH,GH,OER-TRAN	3
IS70NTA	156	INVENTORY STOCK, END YEAR, NON-TRADE, NON-AGR,, 1970 PRICES	B 197	TRAN	3
IS70T	157	INVENTORY STOCK, END YEAR, DOMESTIC TRADE, 1970 PRICES	B 197	TRAN	3
ITOTAL	19	INVESTMENT, NATIONAL ECONOMY	B RUB	TRAN	3
ITRUB	15	CAPITAL INVESTMENT IN TRANSPORT & COMMUNICATIONS	B RUB	NARKHOZ	3
I70NTA	158	CHANGE IN INV, STOCK, END YEAR AT 1970 PRICES, NON-TRADE NON-AGRI	B 197	TRAN	3
I70T	159	CHANGE IN INV, STOCK, END YEAR AT 1970 PRICES, DOMESTIC TRADE	B 197	TRAN	3
JPSQ	98	SUM OF DEVIATIONS FROM MONTHLY PRECIPITATION VALUES	CM	IMS	3
JTWQ	99	WEATHER INDEX, WINTER TEMP INDEX FOR SOUTHERN UKRAINE	NONE	D-G	3
KAIR	35	AGRICULTURAL FIXED CAPITAL (MEAN YEAR 1955 PRICES)	B RUB	DIAMON	5
KCOM	39	BASIC FUNDS; TRADE, SUPPLY, OTHER MP(JAN,1), 1955 PRICES	B,1955R	NKH	3
KCR	36	BASIC FUNDS, CONSTRUCTION (JAN 1, 1955 PRICES)	B RUB	TRAN	3
KHA	42	ADJUSTED BASIC FUNDS, HOUSING (JAN 1, 1955 PRICES)	B RUB	TRAN	3
KHBF	38	BASIC FUNDS IN HOUSING (JAN 1, 1955 PRICES)	B RUB	NARKHOZ	3
KIA	41	ADJUSTED BASIC FUNDS, INDUSTRY JAN 1, 1955 PRICES	B RUB	TRAN	5
KICHK	339	IMPORTED WESTERN MACHINERY; CHEMICALS (JAN, 1)	B,1955 RUBLES	DWG76	5
KICH	29	CAPITAL STOCK, CHEMICALS AND PETROCHEMICALS (JAN,1)	B,1955R	COHN 70	3
KICM	32	CAPITAL STOCK, CONSTRUCTION MATERIALS	B,1955R	COHN 70	3
KICP	26	CAPITAL STOCK, COAL PRODUCTS	B,1955R	COHN 70	3
KIEP	25	CAPITAL STOCK, ELECTRIC POWER	B,1955R	COHN 70	3
KIFM	28	CAPITAL STOCK, FERROUS METALS	B,1955R	COHN 70	3
KIFP	31	CAPITAL STOCK, FOREST PRODUCTS	B,1955R	COHN 70	3
KIH629	179	BASIC FUNDS ADJUSTMENT FOR 1962I-H TRANSFER OF HOUSING CAPITAL	B RUB	TRAN	3
KIMBM	340	IMPORTED MACHINERY; METAL-WORKING (JAN, 1)	B,1955 RUBLES	DWG76	5
KIMB	30	CAPITAL STOCK, MACHINE-BUILDING AND METAL-WORKING	B,1955R	COHN 70	3
KIPF	34	CAPITAL STOCK, PROCESSED FOODS	B,1955R	COHN 70	3
KIPPM	331	IMPORTED MACHINERY; PETROLEUM & MINING (JAN, 1)	B,1955 RUBLES	DWG76	5
KIPP	27	CAPITAL STOCK, PETROLEUM PRODUCTS	B,1955R	COHN 70	3
KISG	33	CAPITAL STOCK, SOFT GOODS	B,1955R	COHN 70	3
KITOT	24	CAPITAL STOCK, TOTAL INDUSTRY	B 195	COHN70	3
KIT589	178	BASIC FUNDS ADJUSTMENT FOR 1958 I-T TRANSFER OF RR CAPITAL (AT	B RUB	TRAN	3
KIW	44	IMPORTED WESTERN MACHINERY; INDUSTRY (JAN, 1)	B,1955 RUBLES	DWG76	5
KNCOM	165	NET CHANGE IN BASIC FUNDS, DOMESTIC TRADE	B,1955R	NKH	3
KNDC	163	NET CHANGE IN BASIC FUNDS, CONSTRUCTION	B RUBL	TRAN	3
KNDH	166	NET CHANGE IN BASIC FUNDS, HOUSING	B RUB	TRAN	3
KNDI	162	NET CHANGE IN BASIC FUNDS, INDUSTRY	B RUB	TRAN	3
KNDT	164	NET CHANGE IN BASIC FUNDS, TRANSPORT & COMMUNICATIONS	B RUB	TRAN	3
KNICH	172	NET CHANGE IN BASIC FUNDS; CHEM, & PETROCHEM,	B,1955R	NKH	3
KNICM	175	NET CHANGE IN BASIC FUNDS; CONSTRUCTION MATERIALS	B,1955R	NKH	3
KNICP	169	NET CHANGE IN BASIC FUNDS; COAL PRODUCTS	B,1955R	NKH	3
KNIEP	168	NET CHANGE IN BASIC FUNDS; ELECTROENERGY	B,1955R	NKH	3
KNIFM	171	NET CHANGE IN BASIC FUNDS; FERROUS METALLURGY	B,1955R	NKH	3
KNIFP	174	NET CHANGE IN BASIC FUNDS; FOREST PRODUCTS	B,1955R	NKH	3
KNIMB	173	NET CHANGE IN BASIC FUNDS; MACH,BLDG,&METAL WRKG	B,1955R	NKH	3
KNIPF	177	NET CHANGE IN BASIC FUNDS; PROCESSED FOODS	B,1955R	NKH	3

DOCUMENTATION

SERIES LABEL	VAR#	DESCRIPTION	UNITS	SOURCE	PRECISION
KNIPP	170	NET CHANGE IN BASIC FUNDS; PETROLEUM PRODUCTS	B,1955R	NKH	3
KNISG	176	NET CHANGE IN BASIC FUNDS; SOFT GOODS	B,1955R	NKH	3
KNSER	167	NET CHANGE IN BASIC FUNDS, SERVICES	B,1955R	NKH	3
KSER	40	BASIC FUNDS, SERVICES (JAN,1)	B,1955R	NKH	3
KSUM	154	BASIC FUNDS, NATIONAL ECONOMY, JULY 1	B,1955R	TRAN	3
KTA	43	ADJUSTED BASIC FUNDS, TRANSPORT AND COMMUNICATION (JAN 1,1955 P	B RUB	TRAN	3
KTCUS	97	RAILROAD CAR UTILIZATION, AVE 24HR DISTANCE PER FREIGHT CAR	KMS/2	SVYAZIO	3
KTR	37	BASIC FUNDS, TRANS & COMM JAN 1,1955 PRICES	B RUB	TRAN	3
KWAL9	104	PERCENT OF KWAS LIVESTOCK BEING FATTENED & YOUNG LIVESTOCK	PERCEN	NARKHOZ	3
MCOC%*	278	IMPORTS FROM CMEA OF CMEA CATEGORY IV COMMODITIES	MRB	INDIANA	3
MCOD%$	282	IMPORTS OF FOOD AND MANUF,CONS,GOODS,EXCLUDED GRAIN,FROM THE DW	M$US	OER	3
MCUBA$	289	IMPORTS FROM CUBA	M$US	OER	3
MFOC%*	277	IMPORTS FROM CMEA OF CMEA CATEGORY III COMMODITIES	MRB	INDIANA	3
MGRD%$	284	GRAIN IMPORTS FROM THE DW	M$US	OER	3
MIECH$	342	IMPORTS, WEST, CHEMICAL EQUIPMENT	M,CUR,$	OER74	3
MIFIN$	211	IMPORTS,DEVELOPED WEST,MACHINERY&EQUIPMENT(LESS TRANSPORT EQUIP	M$US	73JEC	3
MMAC%*	276	IMPORTS FROM CMEA OF CMEA CATEGORY I COMMODITIES	MRB	INDIANA	3
MMAD%$	281	MACHINERY IMPORTS FROM THE DW	M$US	OER	3
MNGD%$	280	IMPORTS FROM THE DW OTHER THAN GRAIN	M$US	OER	3
MOSC$	287	IMPORTS FROM YUGOSLAVIA AND THE FAR EASTERN SOCIALIST COUNTRIES	M$US	OER	3
MRMC%*	275	IMPORTS FROM CMEA OF CMEA CATEGORY II COMMODITIES	MRB	INDIANA	3
MRMD%$	283	IMPORTS FROM THE DW,OTHER THAN MACHINERY,CONS,,OR UNSPEC,	M$US	OER	3
MTCH$	288	TOTAL IMPORTS FROM CHINA	M$US	OER	3
MTCM*	279	TOTAL IMPORTS FROM EUR, CMEA(EXCL,YUGOSLAVIA,ALBANIA)	MRB	INDIANA	3
MTDW$	285	TOTAL IMPORTS FROM THE DEVELOPED WEST	M$US	OER	3
MTLDC$	286	TOTAL IMPORTS FROM LDC	M$US	OER	3
MTM100-5*	343	M&E IMPORTS; ALL METAL-WORKING M&E INCL, COMPLETE PLANTS	M, FT, RUBLES	VNTORG	3
MTM120-9*	341	M&E IMPORTS; MINING, METALLURGICAL AND PETROLEUM	M, FT, RUBLES	VNTORG	3
MTW$	290	TOTAL IMPORTS FROM THE WORLD	M$US	OER	3
MTW70	291	TOTAL IMPORTS FROM THE WORLD IN DOMESTIC CURRENCY	M 1970		3
MUSCM*9	311	UNSPECIFIED IMPORTS FROM CMEA	MRB	INDIANA	3
MUSD%$9	313	UNSPECIFIED IMPORTS FROM THE DW	M$US	OER	3
MUS%$9	317	UNSPECIFIED IMPORTS FROM THE WORLD	M$US	OER	3
NAKOL	402	AGRICULTURAL EMPLOYMENT, KOLKHOZY (COLLECTIVE FARMS)	M,PERSO	FDAD75	3
NAPRV	66	AGRICULTURAL EMPLOYMENT, PRIVATE (MAN-YEAR EQUIVALENTS)	M,PERSO	FDAD75	3
NASK	65	AGRICULTURAL EMPLOYMENT, STATE AND COLLECTIVE FARMS	M,PERSO	FDAD75	3
NASOV	401	AGRICULTURAL EMPLOYMENT, SOVKHOZY(STATE FARMS)	M,PERSO	FDAD75	3
NAT	67	AGRICULTURAL EMPLOYMENT, TOTAL	M,PERSO	FDAD75	3
NCM9	294	POPULATION IN THE EUROPEAN CMEA	M	UN	3
NEIND9	74	HIGH ED,ENR,; ALL INDUSTRIAL CATEGORIES	(000)	NKHOZ	3
NEMET9	334	HIGH,ED,ENR ; METALLURGY	(000	NKHOZ	3
NEMIN9	335	HIGH,ED,ENR ; MINING	(000	NKHOZ	3
NETRA9	75	HIGH,ED,ENR ; TRANSPORT	(000)	NKHOZ	3
NIET	72	ENGINEERING-TECHNICAL WORKERS IN INDUSTRY	000 M	NARKHOZ	3
NLDC9	304	POPULATION IN AFRICA,SOUTH AMERICA AND SOUTH ASIA	M	UN	3
NMC	60	EMPLOYMENT, CONSTRUCTION	000 PER	RAPAWY7	3
NMD9	404	MILITARY MANPOWER	M, PERSONS	LEE75	1
NMF	58	EMPLOYMENT FORESTRY	000 PER	RAPAWY7	3
NMG	63	EMPLOYMENT, GOVERNMENT AND SERVICES	000PERS	NMG TRAN	3
NMI	45	EMPLOYMENT, INDUSTRIAL	000 PE	RAPAWY	3

DOCUMENTATION

SERIES LABEL	VAR#	DESCRIPTION	UNITS	SOURCE	PRECISION
NMICH	51	AVERAGE ANNUAL EMPLOYMENT, BRANCH=CHEMICALS & PETROCHEMICALS	000PERS	RAPAMY	3
NMICM	50	AVERAGE ANNUAL EMPLOYMENT, BRANCH=CONSTRUCTION MATERIALS	000PERS	RAPAMY	3
NMICP	47	AVERAGE ANNUAL EMPLOYMENT, BRANCH=COAL PRODUCTS	000PERS	RAPAMY	3
NMIEP	46	AVERAGE ANNUAL EMPLOYMENT, BRANCH=ELECTROENERGY	000PERS	RAPAMY	3
NMIFM	49	AVERAGE ANNUAL EMPLOYMENT, BRANCH=FERROUS METALLURGY	000PERS	RAPAMY	3
NMIFP	53	EMPLOYMENT, FOREST PRODUCTS (EXCL, PAPER)	THOU, P	RAPAMY?	3
NMIMH	52	AVERAGE ANNUAL EMPLOYMENT, BRANCH=MACHINE-BUILDING & METAL-WORK	000PERS	RAPAMY	3
NMINC	57	AVERAGE ANNUAL EMPLOYMENT, BRANCH=NCE (RESIDUAL)	000PERS	RAPAMY	3
NMINM	50	AVERAGE ANNUAL EMPLOYMENT, BRANCH=NON-FERROUS METALLURGY	000PERS	RAPAMY	3
NMIPA	189	ANNUAL EMPLOYMENT, PULP & PAPER	THOUS,P	RAPAMY	3
NMIPF	56	AVERAGE ANNUAL EMPLOYMENT, BRANCH=PROCESSED FOOD	000PERS	RAPAMY	3
NMIPP	48	AVERAGE ANNUAL EMPLOYMENT, BRANCH=PETROLEUM PRODUCTS	000PERS	RAPAMY	3
NMISG	55	AVERAGE ANNUAL EMPLOYMENT, BRANCH=SOFT GOODS (LIGHT INDUSTRY)	000PERS	RAPAMY	3
NMNA	64	EMPLOYMENT, ALL NON-AGRICULTURAL SECTORS	000PERS	RAPAMY	3
NMO	59	EMPLOYMENT,OTHER	000 PE	RAPAMY	3
NMS	62	EMPLOYMENT, TRADE ETC,	000 PE	RAPAMY	3
NMTC	61	EMPLOYMENT, TRANSPORTATION AND COMMUNICATIONS	000PERS	NMG TRAN	3
NPOPARQ	69	POPULATION, ABLE BODIED AGES(16-59/54)	M,PER,	73JEC52	3
NPOPR	71	POPULATION RURAL (END YEAR)	M P	NKH 72,	3
NPOPU	70	POPULATION URBAN (END YEAR)	M PER	NKH 72,	3
NPOPW	68	POPULATION, TOTAL	M	TRAN	3
NTSPA	73	SPECIALISTS,TRCO (ENDYEAR),INTERPOLATION WITH LAGGED ENROLLMENT	000PERS	NKH+DG	3
NWEW	301	POPULATION IN WESTERN EUROPE	M	UN	3
PAFC70	122	PRICE FOOD SOLD TO CONS, CO-OPS AT NEGOT P'S,1970W	1970=100	NKH+TRN	3
PENFDWQ	296	WORLD IMPORT PRICES WEIGHTED BY SOVIET EXPORTS	1963=10		3
PERMCMQ	190	UNIT VALUE PRICE OF ERMCM&	1963=10	HEWETT	3
PFCC	123	CONSUMPTION PRICE, FOOD (FROM PIRF70 & PAFC70)	1970=1	TRAN	3
PGNP3	307	GNP DEFLATOR; CURRENT RUBLE INCOME MEASURE/REAL GNP	1970=1,	TRAN	4
PGOLDQ	319	PRICE OF GOLD	MSUS/TU	ESTIMAT	3
PGRQ	299	PRICE INDEX OF WORLD MARKET GRAIN PRICES	1963=10	UN	3
PIA	133	INVESTMENT DEFLATOR, AGRICULTURE	1972=1	NARKHOZ	3
PIC	129	INVESTMENT DEFLATOR, CONSTRUCTION SECTOR	1972=1	NARKHOZ	3
PIHS	132	INVESTMENT DEFLATOR, HOUSING	1972=1	NARKHOZ	3
PII	128	INVESTMENT DEFLATOR, INDUSTRY	1972=	, NARKHO	3
PIRF70	121	INDEX OF STATE RETAIL PRICES FOR FOOD GOODS (DEFLATED)	1970=1	TRAN	3
PIS	131	INVESTMENT DEFLATOR, SERVICES	1972=1	NARKHOZ	3
PIT	130	INVESTMENT DEFLATOR, TRANSPORT AND COMMUNICATIONS	1972=1	NARKHOZ	3
PIWH70	126	INDEX OF WHOLESALE INDUSTRIAL PRICES, HEAVY INDUSTRY (DEFLATED)	1970=	, TRAN	3
PIWL70	125	INDEX OF WHOLESALE INDUSTRIAL PRICES LIGHT AND FOOD INDUSTRY(DE	1970=1	TRAN	3
PMAWQ	298	WORLD MARKET PRICES OF MANUFACTURED GOODS	1963=10	UN	3
PMRMCMQ	310	UNIT VALUE PRICE OF MRMCM&	1963=10	HEWETT	3
PNF70	120	CONSUMPTION PRICE, NON-FOOD (FROM PIRNF)	1970=1	TRAN	3
PPC	124	CONSUMPTION PRICE, TOTAL (FROM PNF&PFCC)	1970=1	TRAN	3
PREXQ	212	OFFICIAL EXCHANGE RATE OF THE RUBLE IN DOLLARS	NONE	NKH	3
PRMWQ	195	WORLD MARKET PRICES OF PRIMARY PRODUCTS	1963=10	UN	3
PSUGSUQ	314	UNIT VALUE PRICES OF SUGAR IMPORTS FROM CUBA	1963=10	OER	3
PSUGWQ	316	WORLD SUGAR PRICES	1963=10	UN	3
PTMQ	318	SOVIET TRADE WITH WORLD, IMPORTS, OFFICAL PRICE INDEX	1970	0,V,TORG	3
PTWQ	194	PRICES OF TOTAL WORLD IMPORTS	1963=10	UN	3
PTXQ	309	SOVIET TRADE WITH WORLD, EXPORTS, OFFICAL PRICE INDEX	1970	0,V,TORG	3

DOCUMENTATION

SERIES LABEL	VAR#	DESCRIPTION	UNITS	SOURCE	PRECISION
PUAF	443	MATERIAL INPUTS DEFLATOR: AGRICULTURE	1970=1,0	GUILL76	4
PUCG	442	MATERIAL INPUTS DEFLATOR: CONSTRUCTION	1970=1,0	GUILL76	4
PUCH	435	MATERIAL INPUTS DEFLATOR:CHEMICALS& PETROCHEMS,	1970=1,0	GUILL76	4
PUCM	438	MATERIAL INPUTS DEFLATOR: CONSTRUCTION MATERIALS	1970=1,0	GUILL76	4
PUCP	431	MATERIAL INPUTS DEFLATOR: COAL PRODUCTS	1970=1,0	GUILL76	4
PUEP	433	MATERIAL INPUTS DEFLATOR: ELECTROENERGY	1970=1,0	GUILL76	4
PUFP	436	MATERIAL INPUTS DEFLATOR: FOREST PRODUCTS	1970=1,0	GUILL76	4
PUMB	434	MATERIAL INPUTS DEFLATOR: MACHINE BUILDING	1970=1,0	GUILL76	4
PUME	430	MATERIAL INPUTS DEFLATER: METALLURGY	1970=1,0	GUILL76	4
PUNC	441	MATERIAL INPUTS DEFLATOR: IND, NEC	1970=1,0	GUILL76	4
PUOB	446	MATERIAL INPUTS DEFLATOR: OTHER BRANCHES	1970=1,0	GUILL76	4
PUPA	437	MATERIAL INPUTS DEFLATOR: PAPER	1970=1,0	GUILL76	4
PUPF	440	MATERIAL INPUTS DEFLATOR: PROCESSED FOODS	1970=1,0	GUILL76	4
PUPP	432	MATERIAL INPUTS DEFLATOR: PETROLEUM PRODUCTS	1970=1,0	GUILL76	4
PUSG	439	MATERIAL INPUTS DEFLATOR: SOFT GOODS	1970=1,0	GUILL76	4
PUTC	444	MATERIAL INPUTS DEFLATOR: TRANSPORT & COMMUNICATION	1970=1,0	GUILL76	4
PUTD	445	MATERIAL INPUTS DEFLATOR: TRADE & DISTRIBUTION	1970=1,0	GUILL76	4
PXCON9	127	PRICE DEFLATOR, CONSTRUCTION ACTIVITY	1972=	, NARKHO	3
P599	213	IMPORTS, PRICE DEFLATOR, MANUFACTURED GOODS	195	00 WEFA	3
P71GE9	422	EXPORT PRICE INDEX,GERMANY,SITC 7,1,NONELEC MACHINERY	1970=1	NBER	3
QFIN	396	DUMMY, =1 IN 1969 AND 1973	NONE	NONE	
QFYP	23	FIVE-YEAR-PLAN CYCLE (1954-57,62-64,69-71,74-76,ETC,)	NONE	DG	3
QLIM	292	DUMMY TIME TREND FOR TECHNOLOGY CHANGE, 1975=1	NONE	DWG	3
QLT28	161	LOG TIME TREND 1928=0	NONE	TRAN	3
QPL5	203	FIVE YEAR PLAN DUMMY (54-57,63-66,69-71,74-76)	NONE	D=G	3
QPR67	253	PRICE REFORM DUMMY FOR 1967-68	NONE	DWG	3
QSH65	201	DUMMY VARIABLE FOR 1954-1964 (PRIVATE AGRICULTURAL EMPLOYMENT)	NONE	C=H	3
QSH67	252	PRICE REFORM DUMMY:BEFORE 1967=1, 1967=,5,AFTER 1967=0	NONE	NONE	3
QSH68	222	SHIFT VARIABLE FOR 1968 ON =1	NONE	D=G	3
QSH71	421	DUMMY, =1 THRU 1970; =0 AFTER 1970	NONE	NONE	3
QSH72	397	DUMMY, =1 THRU 1971; =0 AFTER 1971	NONE	NONE	
QT50	160	TIME VARIABLE WITH 1950=1 AND 1973=24	NONE	NONE	3
QWREF	226	DUMMY VARIABLE FOR 1967-1969 (WAGE REFORM)	NONE	C=H	3
Q4590	195	DUMMY,SCALED BY VOLUME OF EMACH8,64-65=1,69-70=1,8,0 OTHERWISE			3
Q5859	249	DUMMY VARIABLE FOR 1958-59	NONE	NONE	3
Q5860	247	DUMMY VARIABLE FOR 1958-60	NONE	NONE	3
Q5861	242	DUMMY VARIABLE FOR 1958-61	NONE	NONE	3
Q59	248	DUMMY VARIABLE FOR 1959	NONE	NONE	3
Q5963	464	DUMMY VARIABLE FOR 1959-1963	NONE	NONE	1
Q6061	465	DUMMY VARIABLE FOR 1960-1961	NONE	NONE	1
Q6064	229	DUMMY VARIABLE FOR 1960-1964	NONE	ONE	3
Q61	216	DUMMY VARIABLE FOR 1961	NONE	NONE	3
Q6162	217	DUMMY VARIABLE FOR 1961-62	NONE	NONE	3
Q6164	199	DUMMY VARIABLE FOR 1961-64			3
Q6165	246	DUMMY VARIABLE FOR 1961-65	NONE	NONE	3
Q62	207	DUMMY VARIABLE FOR 1962	NON	NONE	3
Q6263	200	DUMMY VARIABLE FOR 1962-63			3
Q6264	335	DUMMY VARIABLE FOR 1962-64	NONE	NONE	3
Q63	208	DUMMY VARIABLE FOR 1963	NONE	NONE	3
Q6364	196	DUMMY VARIABLE FOR 1963-64			3

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SERIES LABEL	VAR#	DESCRIPTION	UNITS	SOURCE	PRECISION
Q6368	243	DUMMY VARIABLE FOR 1963-68	NONE	NONE	3
Q6465	336	DUMMY VARIABLE FOR 1964-65	NONE	NONE	3
Q6466	332	DUMMY VARIABLE FOR 1964-66	NONE	NONE	3
Q6467	250	DUMMY VARIABLE FOR 1964-67	NONE	NONE	3
Q65	204	DUMMY VARIABLE FOR 1965	NONE	NONE	3
Q6566	338	DUMMY VARIABLE FOR 1965-66	NONE	NONE	3
Q6567	210	DUMMY VARIABLE FOR 1965-1967	NONE	NONE	3
Q66	215	DUMMY VARIABLE FOR 1966	NONE	NONE	3
Q6668	219	DUMMY VARIABLE FOR 1966-1968	NONE	ONE	3
Q6669	400	DUMMY VARIABLE FOR 1966-1969	NONE	NONE	
Q6672	398	DUMMY VARIABLE FOR 1966-1972	NONE	NONE	
Q67	225	DUMMY VARIABLE FOR 1967	NONE	NONE	3
Q6768	221	DUMMY VARIABLE FOR 1967-68	NONE	NONE	3
Q68	205	DUMMY VARIABLE FOR 1968, INDUSTRY WAGE	NONE	TRAN	3
Q6869	223	DUMMY VARIABLE FOR 1968-69	NONE	NONE	3
Q6870	197	DUMMY VARIABLE FOR 1968-70			3
Q69	206	DUMMY VARIABLE FOR 1969	NONE	NONE	3
Q69ON	202	DUMMY VARIABLE FOR 1969 ON	NONE	NONE	3
Q70	209	DUMMY VARIABLE FOR 1970	NONE	NONE	3
Q7175	399	DUMMY VARIABLE FOR 1971-1975	NONE	ONE	3
Q73	409	DUMMY FOR 1973	NONE	NONE	
Q74	395	DUMMY VARIABLE FOR 1974	NONE	NONE	
RGXAF9	374	RATIO GVO/X ; AGRICULTURE/FORESTRY		GDG	3
RGXCG9	373	RATIO GVO/X ; CONSTRUCTION		GDG	3
RGXCH9	366	RATIO GVO/X ; CHEMICALS & PETROCHEMICALS		GDG	3
RGXCM9	369	RATIO GVO/X ; CONSTRUCTION MATERIALS		GDG	3
RGXCP9	362	RATIO GVO/X ; COAL PRODUCTS		GDG	3
RGXEP9	364	RATIO GVO/X ; ELECTROENERGY		GDG	3
RGXFP9	367	RATIO GVO/X ; FOREST PRODUCTS (INCL,PAPER)		GDG	3
RGXMB9	365	RATIO GVO/X ; MACHINE BUILDING		GDG	3
RGXME9	361	RATIO GVO/X ; METALLURGY		GDG	3
RGXNC9	372	RATIO GVO/X ; IND NEC		GDG	3
RGXOB9	377	RATIO GVO/X ; OTHER BRANCHES		GDG	3
RGXPA9	368	RATIO GVO/X ; PAPER AND PAPERBOARD	NONE	GDG	3
RGXPF9	371	RATIO GVO/X ; PROCESSED FOODS		GDG	3
RGXPP9	363	RATIO GVO/X ; PETROLEUM PRODUCTS		GDG	3
RGXSG9	370	RATIO GVO/X ; SOFT GOODS		GDG	3
RGXTC9	375	RATIO GVO/X ; TRANSPORT/COMMUNICATIONS		GDG	3
RGXTD9	376	RATIO GVO/X ; DOMESTIC TRADE		GDG	3
RTOP9	245	TAX RATE PROFITS	NONE	NONE	3
RTTD9	218	DEVIATIONS FROM MEAN OF TURNOVER TAX RATE (SMOOTHED)	%	TRAN	3
RTTO9	220	TAX RATE, ADJUSTMENT, OTHER SOCIAL SECTOR	NONE	NONE	3
RXGVA9	228	RATIO VALUE ADDED(CUR, PRICES) /GNP		GDG	3
SAI9	100	INDEX OF AGRICULTURAL INPUTS, SOWN AREA	1965=	,	3
TOP*	139	REVENUES, DEDUCTIONS FROM PROFIT, STATE ENTERPRISES	B RUBL	NKHOZ	3
TDUES*9	406	TRADE UNION AND PARTY DUES	B, CUR, RUBLES	JEC76	3
TINSP*9	407	INSURANCE PREMIUMS	B, CUR, RUBLES	JEC76	3
TOSS*	141	REVENUES , OTHER SOCIAL SECTORS	B RUBL	PRAVDA	3
TP*	144	TOTAL STATE DEDUCTIONS (1973 FIGURES)	B RUBL	73JEC39	3
TPA*9	251	ADJUSTMENT FOR LOCAL TAXES,ADMISSION FEES, AND LOTTERIES	B RUBL	73JEC	3

D O C U M E N T A T I O N

SERIES LABEL	VAR#	DESCRIPTION	UNITS	SOURCE	PRECISION
TROP*	143	REVENUES, POPULATION (INCOME TAXES, STATE BONDS, LOTTERIES ETC)	B RUBL	NKHOZ	3
TR*	145	STATE BUDGET, TOTAL REVENUES (CURRENT RUBLES)	B RUBL	NKHOZ	3
TSD*	142	REVENUES , SOCIAL INSURANCE DEDUCTIONS	B RUBL	NKHOZ	3
TT*	140	REVENUES, TURNOVER TAX	B RUBL	NKHOZ	3
UAF	391	MATERIAL INPUTS; AGRICULTURE	B, 1973 RUBLES	GUILL76	3
UCG	390	MATERIAL INPUTS; CONSTRUCTION	B, 1970 RUBLES	GUILL76	3
UCH	383	MATERIAL INPUTS; CHEMICALS & PETROCHEMICALS	B, 1970 RUBLES	GUILL76	3
UCM	386	MATERIAL INPUTS; CONSTRUCTION MATERIALS	B, 1970 RUBLES	GUILL76	3
UCP	379	MATERIAL INPUTS; COAL PRODUCTS	B, 1970 RUBLES	GUILL76	3
UEP	381	MATERIAL INPUTS; ELECTROENERGY	B, 1970 RUBLES	GUILL76	3
UFP	384	MATERIAL INPUTS; FOREST PRODUCTS	B, 1970 RUBLES	GUILL76	3
UMA	382	MATERIAL INPUTS; MACHINE-BLDG, & METAL-WRKG,	B, 1970 RUBLES	GUILL76	3
UME	378	MATERIAL INPUTS; METALLURGY	B, 1970 RUBLES	GUILL76	3
UNC	389	MATERIAL INPUTS; IND, NEC,	B, 1970 RUBLES	GUILL76	3
UOR	394	MATERIAL INPUTS; OTHER BRANCHES	B, 1970 RUBLES	GUILL76	3
UPA	385	MATERIAL INPUTS; PAPER	B, 1970 RUBLES	GUILL76	3
UPF	388	MATERIAL INPUTS; PROCESSED FOODS	B, 1970 RUBLES	GUILL76	3
UPP	380	MATERIAL INPUTS; PETROLEUM PRODUCTS	B, 1970 RUBLES	GUILL76	3
USG	387	MATERIAL INPUTS; SOFT GOODS	B, 1970 RUBLES	GUILL76	3
UTC	392	MATERIAL INPUTS; TRANSPORT & COMMUNICATION	B, 1970 RUBLES	GUILL76	3
UTD	393	MATERIAL INPUTS; TRADE & DISTRIBUTION	B, 1970 RUBLES	GUILL76	3
WAGA	460	AVERAGE WAGE-STATE AGRICULTURE	RUBLES	NARKHOZ	3
WAGCH	452	AVERAGE WAGE-CHEMICALS	RUBLES	VS1EMP,WAGE FUND	3
WAGCM	455	AVERAGE WAGE-CONSTR MATERIALS	RUBLES	VS1EMP,WAGE FUND	3
WAGCON	459	AVERAGE WAGE-CONSTRUCTION	RUBLES	NARKHOZ	3
WAGEP	448	AVERAGE WAGE-COAL PRODUCTS	RUBLES	VS1EMP,WAGE FUND	3
WAGEP	450	AVERAGE WAGE-ELECTRIC POWER	RUBLES	VS1EMP,WAGE FUND	3
WAGE	463	AVERAGE WAGE-ECONOMY	RUBLES	NARKHOZ	3
WAGFM	447	AVERAGE WAGE-FERROUS METALLURGY	RUBLES	VS1EMP,WAGE FUND	3
WAGFP	453	AVERAGE WAGE-FOREST PRODUCTS	RUBLES	VS1EMP,WAGE FUND	3
WAGI	458	AVERAGE WAGE-INDUSTRY	RUBLES	NARKHOZ	3
WAGMM	451	AVERAGE WAGE-MBMM	RUBLES	VS1EMP,WAGE FUND	3
WAGPF	457	AVERAGE WAGE-PROCESSED FOOD	RUBLES	VS1EMP,WAGE FUND	3
WAGPG	449	AVERAGE WAGE-PETROLEUM & GAS	RUBLES	I-O DATA INT	3
WAGP	454	AVERAGE WAGE-PAPER	RUBLES	VS1EMP,WAG FUN D	3
WAGSG	456	AVERAGE WAGE-SOFT GOODS	RUBLES	V81EMP,WAGE FUND	3
WAGTC	461	AVERAGE WAGE-TRANS & COMM	RUBLES	NARKHOZ	3
WAGTD	462	AVERAGE WAGE-TRADE & DIST	RUBLES	NARKHOZ	3
WAK*	403	AVERAGE WAGE, COLLECTIVE FARMS	CUR, RUBLES	JEC76-TRAN	1
WAS*	106	AVERAGE WAGE, STATE FARMS	CUR, RUBLES/YR,	NKHOZ	3
WC*	107	WAGES, CONSTRUCTION	RUBL	70JEC82	3
WDF*	405	AVERAGE WAGE, MILITARY MANPOWER	RUBLES/YR,	JEC76-TRAN	3
WGS*	110	ANNUAL WAGE RATE, GOVERNMENT & SERVICES	CUR,R,	NKH	3
WI*	105	WAGES, INDUSTRY	RUBL	70JEC82	3
WS*	109	WAGES, DOMESTIC TRADE AND DISTRIBUTION	RUBLES	70JEC82	3
WTC*	108	ANNUAL WAGE RATE, TRANSPORT & COMMUNICATIONS	CUR,R,	NKH	3
WTDW9	297	TOTAL IMPORTS OF THE DEV,WEST	1963=10	UN M, B	3
WTLDC9	302	TOTAL IMPORTS OF THE LDC-S	1963=10	UN M,BU	3
WT9	305	TOTAL IMPORTS OF THE WORLD	1963=10	UN M,BU	3
XACN	412	NORMAL CROP OUTPUT	B,1970 RUBLES	OER76-INTERP	1

DOCUMENTATION

SERIES LABEL	VAR#	DESCRIPTION	UNITS	SOURCE	PRECISION
XACTOAL9	103	VALUE OF FEED FED TO LIVESTOCK	M1968	SRI	3
XAGIN	89	NORMAL AGRICULTURAL OUTPUT	B,1970 RUBLES	DER76-INTERP	3
XAGT70	88	TOTAL NET FARM OUTPUT, 1970 PRICES	B,1970 RUBLES	SAIDER 062475	3
XAM	418	NORMAL OUTPUT, MEAT PRODUCTION		DER76-TRAN	3
XAN	415	NORMAL OUTPUT, ANIMAL PRODUCTS TOTAL		DER76-TRAN	3
XANIM70	414	GROSS LIVESTOCK PRODUCTION, 1970 PRICES	B,1970 RUBLES	SAIDER 062475	3
XCROP70	411	VALUE OF TOTAL CROPS, 1970 PRICES	B,1970 RUBLES	SAIDER 062475	3
XCRUB	90	CONSTRUCTION ACTIVITY	B RUB	NARKHOZ	3
XDTR	92	INDEX OF TRADE ACTIVITY	1970=100	DER75	3
XGOLD9	198	GOLD PRODUCTION	TONS	OER	3
XGR	337	GRAIN PRODUCTION	M TONS	DIAMOND	3
XGRCM9	293	GRAIN PRODUCTION IN THE EUROPEAN CMEA	M TONS	FAO	3
XGRLDC9	303	GRAIN PRODUCTION IN THE LDC-S	M TONS	FAO	3
XGRPK	295	SECOND PEAK GRAIN OUTPUT	M TONS	DIAMOND	3
XGRTN	416	NORMAL GRAIN OUTPUT	M,METRIC TONS	DER76-INTERP	3
XGRT	413	SOVIET GRAIN PRODUCTION, GROSS GRAIN AGGREGATE	M,METRIC TONS	SAIDER75	3
XGRWE9	300	GRAIN PRODUCTION IN WESTERN EUROPE	M TONS	FAO	3
XGVOAF	357	INDEX OF AGRICULTURE/FORESTRY GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOCG	356	INDEX OF CONSTRUCTION GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOCH	349	INDEX OF CHEMICALS AND PETROCHEMICALS GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOCM	352	INDEX OF CONSTRUCTION MATERIALS GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOCP	345	INDEX OF COAL PRODUCTS GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOEP	347	INDEX OF ELECTROENERGY GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOFP	350	INDEX OF FOREST PRODUCTS GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOMB	348	INDEX OF MACHINE BUILDING GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOME	344	INDEX OF METALLURGY GVO IN CURRENT PRICES	1966=100	GDG	3
XGVONC	355	INDEX OF IND NEC GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOOB	360	INDEX OF OTHER BRANCHES GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOPA	351	INDEX OF PAPER GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOPF	354	INDEX OF PROCESSED FOODS GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOPP	346	INDEX OF PETROLEUM PRODUCTS GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOSG	353	INDEX OF SOFT GOODS GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOTC	358	INDEX OF TRANSPORT/COMMUNICATIONS GVO IN CURRENT PRICES	1966=100	GDG	3
XGVOTD	359	INDEX OF DOMESTIC TRADE GVO IN CURRENT PRICES	1966=100	GDG	3
XICH	82	CHEMICALS	1970=10	DER74	3
XICM	85	CONSTRUCTION MATERIALS	1970=10	DER74	3
XICP	78	COAL PRODUCTS	1970=10	DER74	3
XIEP	77	ELECTRIC POWER	1970=10	DER74	3
XIFM	80	FERROUS METALS	1970=10	DER74	3
XIFP	84	FOREST PRODUCTS	1970=10	DER74	3
XIMB	83	MACHINERY	1970=1	DER74	3
XINF	81	NONFERROUS METALS	1970=10	DER74	3
XIPA	188	PAPER AND PAPERBOARD	1970=10	DER74	3
XIPF	87	PROCESSED FOODS	1970=10	DER74	3
XIPP	79	PETROLEUM PRODUCTS & GAS	1970=10	DER74	3
XISG	86	SOFT GOODS	1970=10	DER74	3
XIT	76	TOTAL INDUSTRIAL PRODUCTION	1970=10	DER74	3
XMEAT70	417	VALUE OF MEAT PRODUCED, 1970 PRICES	B,1970 RUBLES	SAIDER 062475	3
XSER70	93	INDEX OF SERVICES, 1970 WEIGHTS	1970=100	DER74	3
XSUG9	315	SUGAR PRODUCTION OF CUBA	1000001	FAO	3

DOCUMENTATION

SERIES LABEL	VAR#	DESCRIPTION	UNITS	SOURCE	PRECISION
XT7R	91	TRANS-COMM INDEX, 1970 WEIGHTS, RUBLE SERIES FOR COMM	1970=100	D=G	3
YCMEA9	192	NET MATERIAL PRODUCT IN CONSTANT PRICES, CMEA	1963=10	UNCTAD	3
ZDT*	117	TOTAL AMORTIZATION FUNDS, NATIONAL ECONOMY	B,CUR,R	NKH	0
ZD70	116	REAL DISPOSABLE HOUSEHOLD INCOME	B,1970 RUBLES	TRAN	3
ZFPG*9	119	PLANNED GROSS PROFITS,NATIONAL ECONOMY	B,RUB	RAVDA	0
ZGW*	111	GROSS EARNINGS, WAGE AND SALARY WORKERS	B, CUR, RUBLES	JEC76	3
ZIK60	115	AGRICULTURAL INCOME IN KIND	B,1960 RUBLES	TRAN	3
ZMPA*	181	MILITARY PAY AND ALLOWANCES	B, CUR, RUBLES	JEC76	3
ZPCP*9	182	PROFITS DISTRIBUTED TO COOPERATIVE MEMBERS	B, CUR, RUBLES	JEC76	3
ZPG*	118	ACTUAL GROSS PROFITS, NATIONAL ECONOMY	B RUBL	NKHOZ	0
ZR2*	427	RESIDUAL INCOME * SOVMOD II	B,COR,R	TRAN	0
ZSAG*	113	NET HOUSEHOLD INCOME FROM AGRICULTURAL SALES	B, CUR, RUBLES	JEC76	3
ZTD*	180	DISPOSABLE HOUSEHOLD MONEY INCOME	B, CUR, RUBLES	JEC76-TRAN	3
ZTG*	114	GROSS HOUSEHOLD MONEY INCOME	B, CUR, RUBLES	JEC76-TRAN	3
ZWK*	112	WAGE PAYMENTS TO COLLECTIVE FARM MEMBERS	B, CUR, RUBLES	JEC76	3