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**APPENDIX TO PART ONE:
EQUATIONS AND DEFINITIONS OF
VARIABLES FOR THE FRB-MIT-
PENN ECONOMETRIC MODEL,
NOVEMBER, 1969**

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IN what follows, we define the variables and list the equations for a version of the FRB-MIT-Penn Model that was used to generate the simulation results for the analysis by the National Bureau team headed by Professor Victor Zarnowitz. This is also the version of the model used for the analysis reported by Ando and Modigliani in "Econometric Analysis of Stabilization Policies," *Papers and Proceedings of the American Economic Association*, May, 1969.

A substantial revision and reestimation of the model was recently undertaken, the version of the model given below being replaced in the spring of 1970.

The equations are listed as they appear in the coding for computer simulation of the model. The variable on the left of the equality sign is the one for which the equation was normalized. The variables on the right of the equality sign are separated into two groups. The terms between the equality sign and the line of three dots, under the heading "Solve," are the ones that must be solved simultaneously for the model in the current period. The terms to the right of the dotted line under the heading "Constant" contain only exogenous and lagged endogenous variables and constants, and therefore can be taken as given in solving the model for the current period. It should be noted that the form of coding for simulation is not necessarily the form in which the behavior represented by the equation was originally conceptualized and estimated. Thus, for instance, in equation (4), *CON* is listed as the depend-

ent variable, although the theory and estimation were carried out with *CON/N* as dependent (the alphabetical list of definitions begins on page 556). The demand equation for money, equation (87), is expressed with *RTB* as the dependent variable, although the original formulation was with *MD\$/XOBES* as dependent. These alterations for simulation coding will become fairly obvious as the reader becomes familiar with the listing, and he is requested to make the necessary readjustment in order to understand the behavioral hypotheses embodied in each of the equations.

The *a*'s with subscripts represent fixed numerical coefficients. Most of these are estimated from the time series data through a variety of methods, but some of them are fixed a priori in accordance with well-defined theories. The subscripts refer to positions in the coefficient matrix in the simulation program; the numerical values of these coefficients are given at the end of each sector.

R refers to the estimation error of *the previous period* for the equation in which it appears; and, therefore, the coefficient *a* attached to *R* is the autocorrelation coefficient of the error for the equation.

The variables are listed first in their numerical order in the system and then in the alphabetical order of their names. Endogenous variables are given plain numbers, and the number given to a variable corresponds to the number given to the equation explaining that variable. Exogenous variables are given a number preceded by E or AC. The latter are those policy variables which are most commonly used for stabilization, though not all policy variables in the system are given numbers preceded by AC. The special dummy variables are unnumbered. They are mostly associated with strikes that are in the system but not explicitly carried in our data matrix.

Variables that can be measured in monetary units are either in billions of current dollars (denoted by a dollar sign after the name symbol) or in billions of 1958 dollars (without the dollar sign), except for revenues and transfer payments of governments, which are measured in billions of current dollars but have no dollar sign.

All flow variables are expressed at an annual rate. All ratio variables, such as interest rates and the rate of unemployment, are expressed as percentages.

NUMERICAL LIST
MODEL

1	<i>X</i>
2	<i>XOBE</i>
3	<i>XB</i>
4	<i>CON</i>
5	<i>YH</i>
6	<i>EC</i>
7	<i>WC</i>
8	<i>KC</i>
9	<i>YC</i>
10	<i>D - I</i>
11	
12	
13	<i>RH</i>
14	
15	<i>EHS</i>
16	
17	<i>OPD</i>
18	<i>KPS</i>
19	<i>EPS</i>
20	<i>EPD</i>
21	<i>SME</i>
22	<i>OME</i>
23	<i>OUME</i>
24	<i>RPD</i>
25	<i>RTPD</i>
26	<i>XBC</i>
27	<i>RPS</i>
28	<i>RTPS</i>

NOTE: Numbers without
which are at present unoccup

NUMERICAL LISTING OF VARIABLES: FRB-MIT-PENN
MODEL

1	<i>X</i>	Gross output
2	<i>XOBE</i>	GNP, OBE definition
3	<i>XB</i>	Gross private domestic business product
4	<i>CON</i>	Consumption
5	<i>YH</i>	Household product
6	<i>EC</i>	Consumer expenditures on durable goods
7	<i>WC</i>	Depreciation of consumer durable goods
8	<i>KC</i>	Stock of consumer durables, end of period
9	<i>YC</i>	Net imputed rent on consumer durables
10	<i>D - I</i>	Nonfarm inventory investment (1958 dollars)
11		
12		
13	<i>RH</i>	Rent index for residential structures (taken exogenously)
14		
15	<i>EHS</i>	Expenditure on residential construction
16		
17	<i>OPD</i>	New orders for producers' durables
18	<i>KPS</i>	Net stock of producers' structures, end of period
19	<i>EPS</i>	Expenditures on producers' structures
20	<i>EPD</i>	Expenditures on producers' durables
21	<i>SME</i>	Shipment of machinery and equipment
22	<i>OME</i>	Net new orders for machinery and equipment
23	<i>OUME</i>	Unfilled orders for machinery and equipment, end of period
24	<i>RPD</i>	Cost of capital for producers' durables
25	<i>RTPD</i>	Current dollar rent per unit of new producers' durables
26	<i>XBC</i>	Production capacity of producers' durables
27	<i>RPS</i>	Cost of capital for producers' structures
28	<i>RTPS</i>	Current dollar rent per unit of new producers' structures

NOTE: Numbers without definitions or symbols denote vectors in the data matrix which are at present unoccupied.

29	<i>VWPD</i>	Present value of depreciation deduction for producers' durables	54	<i>YLS</i>
30	<i>KPD</i>	Net stock of producers' durables, end of period	55	<i>YNIS</i>
31	<i>VWPS</i>	Present value of depreciation, deduction for producers' structures	56	<i>YPGS</i>
32	<i>VPD</i>	Equilibrium ratio of producers' durables to output, multiplied by a constant	57	<i>YPCS</i>
			58	<i>TCIS</i>
33	<i>VPS</i>	Equilibrium ratio of producers' structures to output, multiplied by a constant	59	<i>TCIF</i>
34	<i>WPDS</i>	Bookkeeping depreciation in producers' durables	60	<i>YPCTS</i>
35	<i>WPS\$</i>	Bookkeeping depreciation in producers' structures	61	<i>YPCS\$</i>
			62	<i>YDV\$</i>
36	<i>EGSC\$</i>	Construction expenditures by state and local government	63	<i>QTXF</i>
			64	<i>TXF</i>
37	<i>EGSO\$</i>	Other expenditures on goods and services by state and local government	65	<i>TIBF</i>
			66	<i>TIBS</i>
38	<i>EGSL\$</i>	Employee compensation by state and local government	67	<i>QTO</i>
39	<i>I</i>	Stock of nonfarm business inventory multiplied by 4.0, end of period	68	<i>TO</i>
			69	<i>QTU</i>
40	<i>XBNF</i>	Nonfarm business product and product of households	70	<i>TU</i>
			71	<i>QGB</i>
41	<i>YCR\$</i>	Corporate retained profits		
42	<i>QEIM</i>	Natural log of imports (<i>EIM</i> , 43)	72	<i>GB</i>
43	<i>EIM</i>	Imports	73	<i>GSP</i>
44	<i>ECO</i>	Personal consumption expenditures		
45	<i>EGS\$</i>	State and local government expenditure on goods and services	74	<i>YPS</i>
			75	<i>QYTF\$</i>
46	<i>XB\$</i>	Gross private domestic business product		
47	<i>YH\$</i>	Income originating in households	76	<i>YTF\$</i>
48	<i>XOBES</i>	GNP, OBE definition		
49	<i>EPDS</i>	Expenditures on producers' durables	77	<i>TPF</i>
50	<i>EPS\$</i>	Expenditures on producers' structures	78	<i>TPS</i>
51	<i>ECOS</i>	Personal consumption expenditures		
52	<i>EC\$</i>	Consumer expenditures on durables	79	<i>YD\$</i>
53	<i>XBNF\$</i>	Nonfarm business product and products of households	80	<i>YSS</i>

deduction for pro-	54	<i>YLS</i>	Labor income, nonfarm business sector
ables, end of period	55	<i>YNIS</i>	National income, OBE definition
n, deduction for pro-	56	<i>YPG\$</i>	Total profit after depreciation and before income taxes, nonfarm business sector
ers' durables to out-	57	<i>YPCS</i>	Net profits before income taxes of corporations
nt	58	<i>TCIS</i>	Corporate income tax liability, state and local government
ers' structures to out-	59	<i>TCIF</i>	Corporate income tax liability, federal government
nt	60	<i>YPCT\$</i>	Net corporate profits after taxes
in producers' dura-	61	<i>YPCCS</i>	Cash flow of corporations after taxes
in producers' struc-	62	<i>YDV\$</i>	Corporate dividends
by state and local	63	<i>QTXF</i>	Natural log of federal excise taxes (<i>TXF</i> , 64)
ds and services by	64	<i>TXF</i>	Federal excise taxes
y state and local gov-	65	<i>TIBF</i>	Federal indirect business taxes
inventory multiplied	66	<i>TIBS</i>	State and local government indirect business taxes
ct and product of	67	<i>QTO</i>	Natural log of OASI contributions (<i>TO</i> , 68)
(<i>M</i> , 43)	68	<i>TO</i>	OASI contributions
enditures	69	<i>QTU</i>	Natural log of unemployment insurance contribution (<i>TU</i> , 70)
ent expenditure on	70	<i>TU</i>	Unemployment insurance contribution
usiness product	71	<i>QGB</i>	Natural log of unemployment insurance benefits (<i>GB</i> , 72)
eholds	72	<i>GB</i>	Unemployment insurance benefits
s' durables	73	<i>GSP</i>	State and local government transfer payments to persons
s' structures	74	<i>YPS</i>	Personal income
penditures	75	<i>QYTF\$</i>	Natural log of taxable income for federal personal income taxes ($1 - YTF\$ / YPS$) (76, 74)
n durables	76	<i>YTF\$</i>	Taxable income for federal personal income taxes
ct and products of	77	<i>TPF</i>	Federal personal income tax liability
	78	<i>TPS</i>	State and local government personal income tax and nontax payments
	79	<i>YDS</i>	Disposable personal income
	80	<i>YSS</i>	Gross national product net of federal taxes and transfers

81	<i>TSC</i>	State and local government contributions to social insurance	107	<i>RSL</i>
82	<i>EGSN\$</i>	Net state and local government expenditures	108	<i>RMS</i>
83	<i>QMC\$</i>	Natural log of currency outside banks (<i>MC\$</i> , 84)	109	<i>RCD</i>
84	<i>MC\$</i>	Currency outside banks	110	<i>QMPTA\$</i>
85				
86	<i>MDS</i>	Demand deposits adjusted at all commercial banks	111	<i>MTPA\$</i>
87	<i>RTB</i>	Treasury bill rate	112	<i>MCDAS</i>
88	<i>RCP</i>	Commercial paper rate		
89	<i>MDS\$</i>	Adjusted net demand deposit at all member banks	113	<i>MCDS</i>
90	<i>MRUS</i>	Unborrowed reserves at all member banks	114	<i>MTMS</i>
91	<i>RCB</i>	Corporate bond rate	115	<i>MFR\$</i>
92	<i>RCL</i>	Commercial loan rate	116	<i>QMSL\$</i>
93	<i>DCL\$</i>	Commercial and industrial loans at all commercial banks	117	<i>MSL\$</i>
94			118	<i>QMMSS</i>
95				
96			119	<i>MMSS</i>
97			120	<i>QMIS\$</i>
98	<i>QJMSB</i>	Natural log of blowup factor to convert net adjusted demand deposits at member banks to those at all commercial banks (<i>JMSB</i> , 99)	121	<i>MISS</i>
99	<i>JMSB</i>	Blowup factor to convert net adjusted demand deposits at member banks to those at all commercial banks	122	<i>MT\$</i>
100	<i>VG\$</i>	Residual in net worth identity, billions of dollars	123	<i>YD</i>
101	<i>YSG\$</i>	State and local government income	124	<i>LU</i>
102	<i>KSL</i>	Stock of capital owned by state and local government	125	<i>LE+LA</i>
103	<i>RSLG</i>	Municipal bond rate	126	<i>RDP</i>
104	<i>RM</i>	Mortgage rate	127	<i>RCH1</i>
105	<i>ZINT</i>	Interpolation variable for the passbook savings equation	128	<i>RCH3</i>
106	<i>RTP</i>	Effective rate on passbook savings deposits at commercial banks	129	<i>PXB</i>
			130	<i>POBE</i>
			131	<i>PC</i>
			132	<i>PCON</i>
			133	<i>PPD</i>
			134	<i>PRS</i>
			135	<i>PS</i>

Contributions to so-	107	<i>RSL</i>	Effective rate on savings and loan association shares
ent expenditures	108	<i>RMS</i>	Effective rate on deposits at mutual savings banks
side banks (<i>MC\$</i> ,	109	<i>RCD</i>	Rate on certificate of deposits
	110	<i>QMPTAS</i>	Natural log of passbook savings at member banks, seasonally adjusted (<i>MTPAS</i> , 111)
at all commercial	111	<i>MTPAS</i>	Passbook savings at member banks, seasonally adjusted
	112	<i>MCDAS</i>	Nonpassbook savings deposits of public at member banks seasonally adjusted
osit at all member	113	<i>MCDS</i>	Nonpassbook savings deposits of public at member banks
member banks	114	<i>MTMS</i>	Total time deposits at member banks
	115	<i>MFR\$</i>	Free reserves at all member banks
	116	<i>QMSL\$</i>	Natural log of savings and loan association shares (<i>MSL\$</i> , 117)
loans at all commer-	117	<i>MSL\$</i>	Savings and loan association shares
	118	<i>QMMS\$</i>	Natural log of mutual savings bank deposits (<i>MMS\$</i> , 119)
	119	<i>MMS\$</i>	Mutual savings bank deposits
	120	<i>QMIS\$</i>	Natural log of life insurance reserves (<i>MIS\$</i> , 121)
or to convert net ad-	121	<i>MIS\$</i>	Life insurance reserves
at member banks to	122	<i>MT\$</i>	Time deposits at all commercial banks
anks (<i>JMSB</i> , 99)	123	<i>YD</i>	Disposable personal income
net adjusted demand	124	<i>LU</i>	Unemployment
to those at all com-	125	<i>LE+LA</i>	Total employment including armed forces
	126	<i>RDP</i>	Dividend-price ratio
ity, billions of dollars	127	<i>RCH1</i>	Cost of capital for single family dwellings
nt income	128	<i>RCH3</i>	Cost of capital for multifamily dwellings
by state and local	129	<i>PXB</i>	Implicit price deflator for <i>XB</i> (3)
	130	<i>POBE</i>	Implicit deflator of <i>XOBE</i> (2)
	131	<i>PC</i>	Implicit price deflator for <i>EC</i> (6)
the passbook savings	132	<i>PCON</i>	Implicit price deflator for <i>CON</i> (4)
	133	<i>PPD</i>	Implicit price deflator for <i>EPD</i> (20)
ok savings deposits at	134	<i>PRS</i>	Implicit price deflator for <i>EHS</i> (15)
	135	<i>PS</i>	Implicit price deflator for <i>EGS</i> (45)

136	<i>PHC</i>	Construction cost index	162	<i>GDSS</i>
137			163	<i>WCCAS</i>
138	<i>VCNS</i>	Net worth of households	164	
139	<i>LMHT</i>	Man-hours private domestic nonfarm business sector, including proprietors	165	<i>YNNPS</i>
140	<i>D-1S</i>	Nonfarm inventory investment	166	<i>YRTS</i>
141	<i>PPS</i>	Implicit price deflator for <i>EPS</i> (19)	167	<i>YIIS</i>
142	<i>LH</i>	Total hours per man in nonfarm private domestic business and household sectors	168	<i>PI</i>
143	<i>LF+LA</i>	Labor force, including armed forces	169	<i>WCO\$</i>
144			170	
145	<i>QLMHT</i>	Natural log of man-hours private domestic nonfarm business sector, including proprietors (<i>LMHT</i> , 139)	171	<i>UPC</i>
146	<i>QLH</i>	Natural log of total hours per man in nonfarm private domestic business and household sectors (<i>LH</i> , 142)	172	<i>UPCON</i>
147	<i>LEBT</i>	Employment, private domestic nonfarm business sector, including proprietors	173	<i>UPPD</i>
148	<i>LE</i>	Total civilian employment	174	<i>UPPS</i>
149			175	<i>UPS</i>
150	<i>ULU</i>	Unemployment rate	176	<i>UPHC</i>
151			177	<i>UPRS</i>
152	<i>PL</i>	Employee compensation rate in nonfarm private domestic business	178	<i>UPI</i>
153	<i>QYPC\$</i>	Natural log of net profits before income taxes of corporations (<i>YPC\$</i> , 57)	179	
154	<i>QPXB*</i>	Natural log of price deflator for nonfarm business product (<i>PXB*</i> , 189)	180	
155	<i>TSS</i>	Current surplus of state and local government enterprises	181	<i>QHS1\$</i>
156	<i>PXBNF</i>	Implicit deflator for <i>XBNF</i> (40)	182	<i>HS1\$</i>
157	<i>MTPS</i>	Passbook savings at member banks	183	<i>QHS3\$</i>
158	<i>PCO</i>	Implicit price deflator for <i>ECO</i> (44)	184	<i>HS3\$</i>
159	<i>IVAS</i>	Inventory valuation adjustment	185	<i>D-DSL</i>
160			186	<i>KH1</i>
161	<i>GDSF</i>	Net deficit of federal government	187	<i>KH3</i>
			188	<i>PHCA</i>
			189	<i>PXB*</i>
			E1	<i>EEX</i>
			E2	<i>EGF</i>
			E3	<i>YRW</i>
			E4	<i>EGFL\$</i>
			E5	<i>N</i>

	162	<i>GDSS</i>	Net deficit of state and local government
	163	<i>WCCA\$</i>	Capital consumption allowance, total
	164		
nonfarm business	165	<i>YNNP\$</i>	Net national product
	166	<i>YRT\$</i>	Rental income of persons
ent	167	<i>YII\$</i>	Interest income
PS (19)	168	<i>PI</i>	Price deflator for stock of inventories
nonfarm private do-	169	<i>WCO\$</i>	Corporate capital consumption allowances
old sectors	170		
d forces	171	<i>UPC</i>	Exogenous
	172	<i>UPCON</i>	Exogenous
ivate domestic non-	173	<i>UPPD</i>	Exogenous
cluding proprietors	174	<i>UPPS</i>	Exogenous
	175	<i>UPS</i>	Exogenous
per man in nonfarm	176	<i>UPHC</i>	Exogenous
s and household	177	<i>UPRS</i>	Exogenous
	178	<i>UPI</i>	Exogenous
	179		
estic nonfarm busi-	180		
riety	181	<i>QHS1\$</i>	$\ln (HS1\$ / ((N - N20) * (NS/NA) * PHCA))$, \ln $(182 / (E5 - E17) * (E88) * (188))$
	182	<i>HS1\$</i>	Housing starts, single dwelling units
te in nonfarm private	183	<i>QHS3\$</i>	$\ln (HS3\$ / ((N - N20) * (1 - NS/NA) * PHCA))$ $= \ln (184 / (E5 - E17) * (1 - E88) * (188))$
before income taxes	184	<i>HS3\$</i>	Housing starts, multifamily dwelling units
)	185	<i>D - DSL</i>	Flow of funds into savings and loan associa- tions and mutual savings banks
or for nonfarm busi-	186	<i>KH1</i>	Stock of single family houses
	187	<i>KH3</i>	Stock of multifamily houses
nd local government	188	<i>PHCA</i>	Construction cost adjusted
	189	<i>PXB*</i>	Price deflator for nonfarm business product
F (40)	E1	<i>EEX</i>	Exports
per banks	E2	<i>EGF</i>	Federal government expenditures on goods and services
ECO (44)			
ment	E3	<i>YRW</i>	Income originating in the rest of the world
	E4	<i>EGFL\$</i>	Compensation of federal government employees
rmment	E5	<i>N</i>	Population

E6			E34	<i>GFI</i>
E7			E35	<i>GFP</i>
E8				
E9	<i>UWPS</i>	Rate of depreciation of producers' structures		
E10	<i>TIME</i>	Time, 1 in 1947-1	E36	<i>GFG</i>
E11	<i>UDC</i>	Desired proportion of debt in corporate capital		
E12	<i>UWPD</i>	Depreciation rate for producers' durable equipment	E37	<i>TUIB</i>
E13	<i>ZLNG</i>	Dummy variable for long amendment on depreciation basis	E38	<i>GSI</i>
E14	<i>D - IF</i>	Farm inventory investment	E39	<i>JS2</i>
E15	<i>WAPD</i>	Proportion of new equipment depreciated using accelerated depreciation method	E40	<i>JS3</i>
E16	<i>WAPS</i>	Proportion of new structures depreciated using accelerated depreciation method	E41	<i>JS4</i>
E17	<i>N20/N</i>	Ratio of population under 20 to total population	E42	<i>JCD</i>
E18	<i>GFS</i>	Federal grants-in-aid to state and local governments	E43	<i>JMSA</i>
E19	<i>EGPD+</i>	Federal government defense procurement expenditures, led one period	E44	<i>MGFS</i>
E20	<i>NDI</i>	Number of man-hours idle (>10 million) due to major strikes	E45	
E21	<i>WPIF</i>	Wholesale price index for rest of world	E46	<i>JCLS</i>
E22	<i>JCAA</i>	Dummy variable for Canadian auto agreement	E47	
E23	<i>YRWS</i>	Income originating in rest of the world	E48	
E24	<i>TCDF</i>	Federal customs duties	E49	
E25	<i>JOA</i>	Dummy variable for OASI coverage change	E50	<i>JCDS</i>
E26	<i>JOB</i>	Dummy variable for OASI coverage change		
E27	<i>JOC</i>	Dummy variable for OASI coverage change	E51	
E28	<i>JOD</i>	Dummy variable for OASI coverage change	E52	
E29	<i>TUIC</i>	Ratio of covered to total labor force	E53	
E30	<i>L26U</i>	Percentage of unemployed who are unemployed twenty-six weeks or less	E54	<i>JMT</i>
E31			E55	<i>PGE</i>
E32	<i>TEGF</i>	Federal estate and gift taxes	E56	<i>PYH</i>
E33	<i>GBFC</i>	Unemployment benefits beyond twenty-six weeks paid by federal government 1958-1961	E57	<i>LA</i>
			E58	<i>N16</i>
			E59	<i>JR1</i>
			E60	<i>JR2</i>
			E61	<i>JR3</i>

	E34	<i>GFI</i>	Federal government interest payments
	E35	<i>GFP</i>	Federal government transfer payment to persons other than unemployment insurance benefits
ducers' structures	E36	<i>GFG</i>	Federal government subsidies less surpluses of government enterprises
in corporate capital	E37	<i>TUIB</i>	Maximum weekly benefits payable under unemployment insurance system
ers' durable equip-	E38	<i>GS1</i>	State and local government interest payments
amendment on de-	E39	<i>JS2</i>	Seasonal dummy variable for the second quarter
	E40	<i>JS3</i>	Seasonal dummy variable for the third quarter
at depreciated using	E41	<i>JS4</i>	Seasonal dummy variable for the fourth quarter
ethod	E42	<i>JCD</i>	Dummy variable for the development of CD's
s depreciated using	E43	<i>JMSA</i>	Seasonal adjustment factor for <i>MDS</i>
ethod	E44	<i>MGFS</i>	U.S. government deposits at all commercial banks
D to total population	E45		
te and local govern-	E46	<i>JCLS</i>	Seasonal adjustment factor for commercial loans
se procurement ex-	E47		
e (>10 million) due	E48		
	E49		
rest of world	E50	<i>JCDS</i>	Seasonal adjustment factor for nonpassbook time deposits at all member banks
dian auto agreement	E51		
of the world	E52		
coverage change	E53		
coverage change	E54	<i>JMT</i>	Blowup factor to convert time deposits at all member banks to those at all commercial banks
coverage change	E55	<i>PGE</i>	Implicit deflator for compensation of government employees
labor force	E56	<i>PYH</i>	Implicit deflator for <i>YH</i>
who are unemployed	E57	<i>LA</i>	Armed forces
	E58	<i>N16</i>	Total noninstitutional population over 16
es	E59	<i>JR1</i>	Productivity time trend for man-hours equation
beyond twenty-six	E60	<i>JR2</i>	Productivity time trend for man-hours equation
ernment 1958-1961	E61	<i>JR3</i>	Productivity time trend for man-hours equation

E62			E93	<i>PFM</i>
E63	<i>TT60</i>	Decreasing time trend, 59 in 1947-I, 1 in 1961-II, 0 thereafter	E94	
E64	<i>LEO</i>	Employment not otherwise classified	AC1	<i>UTC</i>
E65	<i>XBF\$</i>	Farm business output	AC2	<i>TCPD</i>
E66	<i>XBF</i>	Farm business output	AC3	<i>UTXF</i>
E67	<i>JTPS</i>	Seasonal adjustment factor for passbook savings deposits at member banks	AC4	<i>UTO</i>
E68	<i>LPRI</i>	Number of males employed ages 25-65, millions	AC5	<i>UTU</i>
E69	<i>JIC</i>	Dummy variable for 1964 automobile strike	AC6	<i>UTPF</i>
E70	<i>JSTK</i>	Dummy variable for 1962 stock market crash	AC7	<i>ZRD</i>
E71	<i>YRC\$</i>	Interest paid by consumers	AC8	<i>ZRT</i>
E72	<i>YFT\$</i>	Personal transfer payment to foreigners	AC9	<i>ZDRA</i>
E73	<i>YCRW\$</i>	Corporate profits originating in the rest of the world	AC10	<i>ZMS</i>
E74			AC11	<i>ZDR</i>
E75	<i>PEGF</i>	Price deflator for federal purchases of goods and services	AC12	<i>JL</i>
E76	<i>TOSI</i>	Contribution to social insurance other than OASI and unemployment insurance	AC13	<i>TEX</i>
E77	<i>YSD\$</i>	Statistical discrepancy	AC14	<i>ZCT</i>
E78	<i>GFR</i>	Government transfers to rest of world	AC15	<i>RCDC</i>
E79	<i>YBT\$</i>	Business transfer payments	AC16	
E80	<i>YPF\$</i>	Proprietors' income in agriculture	AC17	
E81			AC18	<i>SLPD</i>
E82	<i>YLAG\$</i>	Compensation of employees, agriculture	AC19	<i>SLPS</i>
E83	<i>JT1</i>	Strike dummy, man-hours equation	AC20	
E84	<i>JT2</i>	Strike dummy, man-hours equation		
E85	<i>JT3</i>	Strike dummy, man-hours equation		
E86	<i>JT4</i>	Strike dummy, man-hours equation		
E87	<i>UTP</i>	Property tax rate used in housing equation		
E88	<i>NS/NA</i>	Proportion of persons expected to live in single-family houses		
E89	<i>RFVA</i>	Average FHA-VA ceilings on mortgage rate		
E90	<i>EHF\$</i>	Expenditure on residential houses, farm		
E91				
E92	<i>PWM</i>	Raw materials price, imports		

The following variables have yet been assigned a position:

C(I)
JIA

E93	<i>PFM</i>	Raw materials price, farm
E94		
AC1	<i>UTC</i>	Marginal rate of corporate income tax
AC2	<i>TCPD</i>	Effective rate of tax credit on investment in producers' durables
AC3	<i>UTXF</i>	Index of federal excise-tax rate
AC4	<i>UTO</i>	OASI contribution rate, total
AC5	<i>UTU</i>	Unemployment insurance contribution rate
AC6	<i>UTPF</i>	Effective rate of federal personal income tax
AC7	<i>ZRD</i>	Implicit reserve requirement against net demand deposits at all member banks on call date
AC8	<i>ZRT</i>	Implicit reserve requirement against time deposits at member banks
AC9	<i>ZDRA</i>	Federal Reserve discount rate
AC10	<i>ZMS</i>	Unborrowed reserves at member banks plus currency outside of banks
AC11	<i>ZDR</i>	Federal Reserve discount rate for the first fifteen days of the quarter
AC12	<i>JL</i>	Legal reserve change dummy variable
AC13	<i>TEX</i>	Per capita exemption for federal personal income tax
AC14	<i>ZCT</i>	Ceiling rate on passbook saving deposits
AC15	<i>RCDC</i>	Ceiling rate on single maturity time deposits of one hundred thousand dollars or more
AC16		
AC17		
AC18	<i>SLPD</i>	Service life of producers' durable equipment for tax purposes
AC19	<i>SLPS</i>	Service life of producers' structures for tax purposes
AC20		

The following variables appear in the coding sheets but have not yet been assigned a position in the data matrix:

<i>C(I)</i>	Denotes a residual used to satisfy an identity
<i>JIA</i>	Dummy variable for 1959 steel strike

	<i>JIB</i>	Dummy variable for dock strike	20	<i>EPD</i>
	<i>JID</i>	Time trend variable	50	<i>EPS\$</i>
			19	<i>EPS</i>
			E33	<i>GBFC</i>
ALPHABETICAL LISTING OF VARIABLES: FRB-MIT-PENN MODEL				
	<i>C(I)</i>	Denotes a residual used to satisfy an identity	72	<i>GB</i>
4	<i>CON</i>	Consumption	161	<i>GDSF</i>
93	<i>DCL\$</i>	Commercial and industrial loans at all commercial banks	162	<i>GDSS</i>
			E36	<i>GFG</i>
185	<i>D - DSL</i>	Flow of funds into savings and loan associations and MSB	E34	<i>GFI</i>
			E35	<i>GFP</i>
E14	<i>D - IF</i>	Farm inventory investment		
140	<i>D - IS</i>	Nonfarm inventory investment		
10	<i>D - I</i>	Nonfarm inventory investment (1958 dollars)	E78	<i>GFR</i>
51	<i>ECO\$</i>	Personal consumption expenditures	E18	<i>GFS</i>
44	<i>ECO</i>	Personal consumption expenditures		
52	<i>EC\$</i>	Consumer expenditures on durables	E38	<i>GSI</i>
6	<i>EC</i>	Consumer expenditures on durables	73	<i>GSP</i>
E1	<i>EEX</i>	Exports		
E4	<i>EGFL\$</i>	Compensation of federal government employees	182	<i>HS1\$</i>
E2	<i>EGF</i>	Federal government expenditures on goods and services	184	<i>HS3\$</i>
			159	<i>IVAS</i>
E19	<i>EGPD+</i>	Federal government defense procurement expenditures, led one period	39	<i>I</i>
36	<i>EGSC\$</i>	Construction expenditures by state and local government	E22	<i>JCAA</i>
			E50	<i>JCDS</i>
38	<i>EGSL\$</i>	Employee compensation by state and local government	E42	<i>JCD</i>
82	<i>EGSN\$</i>	Net state and local government expenditures	E46	<i>JCLS</i>
37	<i>EGSO\$</i>	Other expenditures on goods and services by state and local government	E69	<i>JIC</i>
45	<i>EGS\$</i>	State and local government expenditure on goods and services	AC12	<i>JL</i>
			E43	<i>JMSA</i>
E90	<i>EHF\$</i>	Expenditure on residential houses, farm	99	<i>JMSB</i>
15	<i>EH\$</i>	Expenditure on residential construction		
43	<i>EIM</i>	Imports		
49	<i>EPD\$</i>	Expenditures on producers' durables	E54	<i>JMT</i>

like	20	<i>EPD</i>	Expenditures on producers' durables
	50	<i>EPSS</i>	Expenditures on producers' structures
	19	<i>EPS</i>	Expenditures on producers' structures
FRB-MIT-PENN	E33	<i>GBFC</i>	Unemployment benefits beyond twenty-six weeks paid by federal government 1958-61
	72	<i>GB</i>	Unemployment insurance benefits
satisfy an identity	161	<i>GDSF</i>	Net deficit of federal government
	162	<i>GDSS</i>	Net deficit of state and local government
loans at all com-	E36	<i>GFG</i>	Federal government subsidies less surpluses of government enterprises
and loan associa-	E34	<i>GFI</i>	Federal government interest payments
	E35	<i>GFP</i>	Federal government transfer payment to persons other than unemployment insurance benefits
ent	E78	<i>GFR</i>	Government transfers to rest of world
ent (1958 dollars)	E18	<i>GFS</i>	Federal grants-in-aid to state and local government
aditures	E38	<i>GS1</i>	State and local government interest payments
aditures	73	<i>GSP</i>	State and local government transfer payments to persons
durables	182	<i>HS1\$</i>	Housing starts, single dwelling units
durables	184	<i>HS3\$</i>	Housing starts, multifamily dwelling units
ernment employees	159	<i>IVAS</i>	Inventory valuation adjustment
itures on goods and	39	<i>I</i>	Stock of nonfarm business inventory multiplied by 4.0, end of period
ense procurement	E22	<i>JCAA</i>	Dummy variable for Canadian auto agreement
by state and local	E50	<i>JCDS</i>	Seasonal adjustment factor for nonpassbook time deposits at all member banks
by state and local	E42	<i>JCD</i>	Dummy variable for the development of CD's
ment expenditures	E46	<i>JCLS</i>	Seasonal adjustment factor for commercial loans
ds and services by	E69	<i>JIC</i>	Dummy variable for 1964 automobile strike
nt expenditure on	AC12	<i>JL</i>	Legal reserve change dummy variable
houses, farm	E43	<i>JMSA</i>	Seasonal adjustment factor for <i>MD\$</i>
construction	99	<i>JMSB</i>	Blowup factor to convert net adjusted demand deposits at member banks to those at all commercial banks
durables	E54	<i>JMT</i>	Blowup factor to convert time deposits at all

		member banks to those at all commercial banks	E68	<i>LPRI</i>
E25	<i>JOA</i>	Dummy variable for OASI coverage change	124	<i>LU</i>
E26	<i>JOB</i>	Dummy variable for OASI coverage change	E30	<i>L26U</i>
E27	<i>JOC</i>	Dummy variable for OASI coverage change		
E28	<i>JOD</i>	Dummy variable for OASI coverage change	112	<i>MCDAS</i>
E59	<i>JR1</i>	Productivity time trend for man-hours equation		
E60	<i>JR2</i>	Productivity time trend for man-hours equation	113	<i>MCDS</i>
E61	<i>JR3</i>	Productivity time trend for man-hours equation		
E70	<i>JSTK</i>	Dummy variable for 1962 stock market crash	84	<i>MC\$</i>
E39	<i>JS2</i>	Seasonal dummy variable for the second quarter	86	<i>MD\$</i>
E40	<i>JS3</i>	Seasonal dummy variable for the third quarter	89	<i>MD\$</i>
E41	<i>JS4</i>	Seasonal dummy variable for the fourth quarter		
E67	<i>JTPS</i>	Seasonal adjustment factor for passbook savings deposits at member banks	115	<i>MFR\$</i>
			E44	<i>MGF\$</i>
E83	<i>JT1</i>	Strike dummy, man-hours equation		
E84	<i>JT2</i>	Strike dummy, man-hours equation	121	<i>MISS</i>
E85	<i>JT3</i>	Strike dummy, man-hours equation	119	<i>MM\$</i>
E86	<i>JT4</i>	Strike dummy, man-hours equation	90	<i>MRUS</i>
8	<i>KC</i>	Stock of consumer durables, end of period	117	<i>MSLS</i>
186	<i>KH1</i>	Stock of single-family houses	114	<i>MTMS</i>
187	<i>KH3</i>	Stock of multifamily houses	111	<i>MTPAS</i>
30	<i>KPD</i>	Net stock of producers' durables, end of period		
18	<i>KPS</i>	Net stock of producers' structures, end of period	157	<i>MTP\$</i>
102	<i>KSL</i>	Stock of capital owned by state and local government	122	<i>MT\$</i>
			E20	<i>NDI</i>
E57	<i>LA</i>	Armed forces		
147	<i>LEBT</i>	Employment, private domestic nonfarm business sector, including proprietors	E88	<i>NS/NA</i>
125	<i>LE+LA</i>	Total employment including armed forces,	E5	<i>N</i>
E64	<i>LEO</i>	Employment not otherwise classified	E58	<i>N16</i>
148	<i>LE</i>	Total civilian employment	E17	<i>N20/N</i>
143	<i>LF+LA</i>	Labor force, including armed forces	22	<i>OME</i>
142	<i>LH</i>	Total hours per man in nonfarm private domestic business and household sectors	17	<i>OPD</i>
			23	<i>OUME</i>
139	<i>LMHT</i>	Man-hours private domestic nonfarm business sector, including proprietors	131	<i>PC</i>

at all commercial	E68	<i>LPRI</i>	Number of males employed ages 25-65, millions
SI coverage change	124	<i>LU</i>	Unemployment
SI coverage change	E30	<i>L26U</i>	Percentage of unemployed who are unemployed twenty-six weeks or less
SI coverage change	112	<i>MCDAS</i>	Nonpassbook savings deposits of public at member banks, seasonally adjusted
SI coverage change	113	<i>MCD\$</i>	Nonpassbook savings deposits of public at member banks
man-hours equation	84	<i>MC\$</i>	Currency outside banks
man-hours equation	86	<i>MDS</i>	Demand deposits adjusted at all commercial banks
man-hours equation	89	<i>MDS\$</i>	Adjusted net demand deposit at all member banks
stock market crash	115	<i>MFR\$</i>	Free reserves at all member banks
for the second	E44	<i>MGF\$</i>	U.S. government deposits at all commercial banks
for the third quarter	121	<i>MIS\$</i>	Life insurance reserves
for the fourth quarter	119	<i>MMS\$</i>	Mutual savings bank deposits
for passbook sav-	90	<i>MRU\$</i>	Unborrowed reserves at all member banks
ings	117	<i>MSL\$</i>	Savings and loan association shares
equation	114	<i>MTM\$</i>	Total time deposits at member banks
equation	111	<i>MTPAS</i>	Passbook savings at member banks, seasonally adjusted
equation	157	<i>MTP\$</i>	Passbook savings at member banks
equation	122	<i>MT\$</i>	Time deposits at all commercial banks
equation	E20	<i>NDI</i>	Number of man-hours idle (>10 million) due to major strikes
es, end of period	E88	<i>NS/NA</i>	Proportion of persons expected to live in single-family houses
ses	E5	<i>N</i>	Population
es	E58	<i>N16</i>	Total noninstitutional population over 16
variables, end of period	E17	<i>N20/N</i>	Ratio of population under 20 to total population
structures, end of period	22	<i>OME</i>	Net new orders for machinery and equipment
state and local govern-	17	<i>OPD</i>	New orders for producers' durables
ment	23	<i>OUME</i>	Unfilled orders for machinery and equipment, end of period
domestic nonfarm busi-	131	<i>PC</i>	Implicit price deflator for <i>EC</i> (16)
ness proprietors			
ing armed forces			
e classified			
ned forces			
nfarm private domes-			
d sectors			
tic nonfarm business			
ors			

158	<i>PCO</i>	Implicit price deflator for <i>ECO</i> (44)	83	<i>QMCS</i>
132	<i>PCON</i>	Implicit price deflator for <i>CON</i> (4)		
E75	<i>PEGF</i>	Price deflator for federal purchases of goods and services	120	<i>QMIS\$</i>
E93	<i>PFM</i>	Raw materials price, farm	118	<i>QMMS\$</i>
E55	<i>PGE</i>	Implicit deflator for compensation of government employees	110	<i>QMPTA\$</i>
188	<i>PHCA</i>	Construction cost adjusted	116	<i>QMSL\$</i>
136	<i>PHC</i>	Construction cost index		
168	<i>PI</i>	Price deflator for stock of inventories	154	<i>QPXB*</i>
152	<i>PL</i>	Employee compensation rate in nonfarm private domestic business	67	<i>QTO</i>
130	<i>POBE</i>	Implicit deflator of <i>XOBE</i> (2)	69	<i>QTU</i>
133	<i>PPD</i>	Implicit price deflator for <i>EPD</i> (20)		
141	<i>PPS</i>	Implicit price deflator for <i>EPS</i> (19)	63	<i>QTXF</i>
134	<i>PRS</i>	Implicit price deflator for <i>EH\$</i> (15)	153	<i>QYPC\$</i>
135	<i>PS</i>	Implicit price deflator for <i>EGS</i> (45)		
E92	<i>PWM</i>	Raw materials price, imports	75	<i>QYTF\$</i>
156	<i>PXBNF</i>	Implicit deflator for <i>XBNF</i> (40)	91	<i>RCB</i>
189	<i>PXB*</i>	Price deflator for nonfarm business product	AC15	<i>RCDC</i>
129	<i>PXB</i>	Implicit price deflator for <i>XB</i> (3)		
E56	<i>PYH</i>	Implicit deflator for <i>YH</i> (5)	109	<i>RCD</i>
42	<i>QEIM</i>	Natural log of imports (<i>EIM</i> , 43)	127	<i>RCH1</i>
71	<i>QGB</i>	Natural log of unemployment insurance benefits (<i>GB</i> , 72)	128	<i>RCH3</i>
181	<i>QHS1\$</i>	$\ln (HS1\$ / ((N - N20) * (NS/NA) * PHCA))$, $\ln (182 / (E5 - E17) * (E88) * (188))$	92	<i>RCL</i>
183	<i>QHS3\$</i>	$\ln (HS3\$ / ((N - N20) * (1 - NS/NA) * PHCA)) = \ln (184 / (E5 - E17) * (1 - E88) * (188))$	88	<i>RCP</i>
98	<i>QJMSB</i>	Natural log of blowup factor to convert net adjusted demand deposits at member banks to those at all commercial banks (<i>JMSB</i> , 99)	126	<i>RDP</i>
146	<i>QLH</i>	Natural log of total hours per man in nonfarm private domestic business and household sectors (<i>LH</i> , 142)	E89	<i>RFVA</i>
145	<i>QLMHT</i>	Natural log of man-hours private domestic nonfarm business sector, including proprietors (<i>LMHT</i> , 139)	13	<i>RH</i>
			108	<i>RMS</i>
			104	<i>RM</i>
			24	<i>RPD</i>
			27	<i>RPS</i>
			103	<i>RSLG</i>
			107	<i>RSL</i>
			87	<i>RTB</i>

CO (44)	83	<i>QMC\$</i>	Natural log of currency outside banks (<i>MC\$</i> , 84)
ON (4)	120	<i>QMIS\$</i>	Natural log of life insurance reserves (<i>MIS\$</i> , 121)
purchases of goods	118	<i>QMMS\$</i>	Natural log of mutual savings bank deposits (<i>MMS\$</i> , 119)
ensation of govern-	110	<i>QMPTA\$</i>	Ln (<i>MPTA\$</i>)
	116	<i>QMSL\$</i>	Natural log of savings and loan association shares (<i>MSL\$</i> , 117)
inventories	154	<i>QPXB*</i>	Natural log of price deflator for nonfarm business product (<i>PXB*</i> , 189)
e in nonfarm private	67	<i>QTO</i>	Natural log of OASI contributions (<i>TO</i> , 68)
(2)	69	<i>QTU</i>	Natural log of unemployment insurance contribution (<i>TU</i> , 70)
PD (20)	63	<i>QTXF</i>	Natural log of federal excise taxes (<i>TXF</i> , 64)
PS (19)	153	<i>QYPC\$</i>	Natural log of net profits before income taxes of corporations (<i>YPC\$</i> , 57)
H\$ (15)	75	<i>QYTF\$</i>	Ln ($1 - YTF$ / YP$$) (76, 74)
GS (45)	91	<i>RCB</i>	Corporate bond rate
ts	AC15	<i>RCDC</i>	Ceiling rate on single maturity time deposits of one hundred thousand dollars or more
(40)	109	<i>RCD</i>	Rate on certificate of deposits
business product	127	<i>RCHI</i>	Cost of capital for single family dwellings
CB (3)	128	<i>RCH3</i>	Cost of capital for multifamily dwellings
M, 43)	92	<i>RCL</i>	Commercial loan rate
ent insurance bene-	88	<i>RCP</i>	Commercial paper rate
S/NA)*PHCA)), ln	126	<i>RDP</i>	Dividend-price ratio
88))	E89	<i>RFVA</i>	Average FHA-VA ceilings on mortgage rate
-NS/NA)*PHCA))	13	<i>RH</i>	Rent index for residential structures
E88)*(188))	108	<i>RMS</i>	Effective rate on deposits at mutual savings banks
or to convert net ad-	104	<i>RM</i>	Mortgage rate
t member banks to	24	<i>RPD</i>	Cost of capital for producers' durables
ns (JMSB, 99)	27	<i>RPS</i>	Cost of capital for producers' structures
per man in nonfarm	103	<i>RSLG</i>	Municipal bond rate
and household sec-	107	<i>RSL</i>	Effective rate on savings and loan association shares
private domestic non-	87	<i>RTB</i>	Treasury bill rate
cluding proprietors			

25	<i>RTPD</i>	Current dollar rent per unit of new producers' durables	E29	<i>TUIC</i>
			70	<i>TU</i>
28	<i>RTPS</i>	Current dollar rent per unit of new producers' structures	64	<i>TXF</i>
			E11	<i>UDC</i>
106	<i>RTP</i>	Effective rate on passbook savings deposits at commercial banks	150	<i>ULU</i>
			172	<i>UPCON</i>
AC18	<i>SLPD</i>	Service life of producers' durable equipment for tax purposes	171	<i>UPC</i>
			176	<i>UPHC</i>
AC19	<i>SLPS</i>	Service life of producers' structures for tax purposes	178	<i>UPI</i>
			173	<i>UPPD</i>
21	<i>SME</i>	Shipment of machinery and equipment	174	<i>UPPS</i>
E24	<i>TCDF</i>	Federal customs duties	177	<i>UPRS</i>
59	<i>TCIF</i>	Corporate income tax liability, federal government	175	<i>UPS</i>
			AC1	<i>UTC</i>
58	<i>TCIS</i>	Corporate income tax liability, state and local government	AC4	<i>UTO</i>
			AC6	<i>UTPF</i>
AC2	<i>TCPD</i>	Effective rate of tax credit on investment in producers' durables	E87	<i>UTP</i>
			AC5	<i>UTU</i>
E32	<i>TEGF</i>	Federal estate and gift taxes	AC3	<i>UTXF</i>
AC13	<i>TEX</i>	Per capita exemption for federal personal income tax	E12	<i>UWPD</i>
65	<i>TIBF</i>	Federal indirect business taxes	E9	<i>UWPS</i>
66	<i>TIBS</i>	State and local indirect business taxes	138	<i>VCN\$</i>
E10	<i>TIME</i>	Time, 1 in 1947-1	100	<i>VG\$</i>
E76	<i>TOSI</i>	Contribution to social insurance other than OASI and unemployment insurance	32	<i>VPD</i>
68	<i>TO</i>	OASI contributions	33	<i>VPS</i>
77	<i>TPF</i>	Federal personal income tax liability		
78	<i>TPS</i>	State and local government personal income tax and nontax payments	29	<i>VWPD</i>
81	<i>TSC</i>	State and local government contributions to social insurance	31	<i>VWPS</i>
155	<i>TSS</i>	Current surplus of state and local government enterprises	E15	<i>WAPD</i>
E63	<i>TT60</i>	Decreasing time trend, 59 in 1947-I, 1 in 1961-II, 0 thereafter	E16	<i>WAPS</i>
E37	<i>TUIB</i>	Maximum weekly benefits payable under unemployment insurance system	163	<i>WCCAS</i>
			169	<i>WCOS</i>

Ratio of covered to total labor force	E29	<i>TUIC</i>	Ratio of covered to total labor force
Unemployment insurance contribution	70	<i>TU</i>	Unemployment insurance contribution
Federal excise taxes	64	<i>TXF</i>	Federal excise taxes
Desired proportion of debt in corporate capital	E11	<i>UDC</i>	Desired proportion of debt in corporate capital
Unemployment rate	150	<i>ULU</i>	Unemployment rate
Exogenous	172	<i>UPCON</i>	Exogenous
Exogenous	171	<i>UPC</i>	Exogenous
Exogenous	176	<i>UPHC</i>	Exogenous
Exogenous	178	<i>UPI</i>	Exogenous
Exogenous	173	<i>UPPD</i>	Exogenous
Exogenous	174	<i>UPPS</i>	Exogenous
Exogenous	177	<i>UPRS</i>	Exogenous
Exogenous	175	<i>UPS</i>	Exogenous
Marginal rate of corporate income tax	AC1	<i>UTC</i>	Marginal rate of corporate income tax
OASI contribution rate, total	AC4	<i>UTO</i>	OASI contribution rate, total
Effective rate of federal personal income tax	AC6	<i>UTPF</i>	Effective rate of federal personal income tax
Property tax rate used in housing equation	E87	<i>UTP</i>	Property tax rate used in housing equation
Unemployment insurance contribution rate	AC5	<i>UTU</i>	Unemployment insurance contribution rate
Index of federal excise-tax rate	AC3	<i>UTXF</i>	Index of federal excise-tax rate
Depreciation rate for producers' durable equipment	E12	<i>UWPD</i>	Depreciation rate for producers' durable equipment
The rate of depreciation of producers' structures	E9	<i>UWPS</i>	The rate of depreciation of producers' structures
Net worth of households, trillions of dollars	138	<i>VCN\$</i>	Net worth of households, trillions of dollars
Residual in net worth identity, billions of dollars	100	<i>VG\$</i>	Residual in net worth identity, billions of dollars
Equilibrium ratio of producers' durables to output, multiplied by a constant	32	<i>VPD</i>	Equilibrium ratio of producers' durables to output, multiplied by a constant
Equilibrium ratio of producers' structures to output, multiplied by a constant	33	<i>VPS</i>	Equilibrium ratio of producers' structures to output, multiplied by a constant
Present value of depreciation deduction for producers' durables	29	<i>VWPD</i>	Present value of depreciation deduction for producers' durables
Present value of depreciation deduction for producers' structures	31	<i>VWPS</i>	Present value of depreciation deduction for producers' structures
Proportion of new equipment depreciated using accelerated depreciation method	E15	<i>WAPD</i>	Proportion of new equipment depreciated using accelerated depreciation method
Proportion of new structures depreciated using accelerated depreciation method	E16	<i>WAPS</i>	Proportion of new structures depreciated using accelerated depreciation method
Capital consumption allowance, total	163	<i>WCCAS</i>	Capital consumption allowance, total
Corporate capital consumption allowances	169	<i>WCO\$</i>	Corporate capital consumption allowances

7	<i>WC</i>	Depreciation of consumer durable goods	E80	<i>YPF\$</i>
34	<i>WPDS</i>	Bookkeeping depreciation in producers' durables	56	<i>YPG\$</i>
E21	<i>WPIF</i>	Wholesale price index for rest of world	74	<i>YPS</i>
35	<i>WPS\$</i>	Bookkeeping depreciation in producers' structures	E71	<i>YRC\$</i>
			166	<i>YRT\$</i>
26	<i>XBC</i>	Production capacity of producers' durables	E23	<i>YRW\$</i>
E65	<i>XBFS</i>	Farm business output	E3	<i>YRW</i>
E66	<i>XBF</i>	Farm business output	E77	<i>YSD\$</i>
53	<i>XBNF\$</i>	Nonfarm business product and households' output	101	<i>YSG\$</i>
			80	<i>YSS</i>
40	<i>XBNF</i>	Nonfarm business product and product of households	76	<i>YTF\$</i>
46	<i>XB\$</i>	Gross private domestic business product		
3	<i>XB</i>	Gross private domestic business product	AC14	<i>ZCT</i>
48	<i>XOBES</i>	GNP, OBE definition	AC9	<i>ZDRA</i>
2	<i>XOBE</i>	GNP, OBE definition	AC11	<i>ZDR</i>
1	<i>X</i>	Gross output		
E79	<i>YBT\$</i>	Business transfer payments	105	<i>ZINT</i>
41	<i>YCR\$</i>	Corporate retained profits		
E73	<i>YCRW\$</i>	Corporate profits originating in the rest of the world	E13	<i>ZLNG</i>
9	<i>YC</i>	Net imputed rent on consumer durables	AC10	<i>ZMS</i>
79	<i>YD\$</i>	Disposable personal income		
62	<i>YDV\$</i>	Corporate dividends	AC7	<i>ZRD</i>
123	<i>YD</i>	Disposable personal income		
E72	<i>YFT\$</i>	Personal transfer payment to foreigners	AC8	<i>ZRT</i>
47	<i>YH\$</i>	Income originating in households		
5	<i>YH</i>	Household product		
167	<i>YIIS</i>	Interest income		
E82	<i>YLAG\$</i>	Compensation of employees, agriculture		
54	<i>YL\$</i>	Labor income, nonfarm business sector		
55	<i>YNI\$</i>	National income, OBE definition		
165	<i>YNNPS</i>	Net national product		
61	<i>YPCC\$</i>	Cash flow of corporations after taxes		
57	<i>YPC\$</i>	Net profits before income taxes of corporations		
60	<i>YPCT\$</i>	Net corporate profits after taxes		

The following variables
yet been assigned a po

C(I)
JIA
JIB
JID

OR			
urable goods	E80	<i>YPF\$</i>	Proprietors' income in agriculture
n in producers' dura-	56	<i>YPG\$</i>	Total profit after depreciation and before income taxes, nonfarm business sector
rest of world	74	<i>YPS</i>	Personal income
n in producers' struc-	E71	<i>YRC\$</i>	Interest paid by consumers
roducers' durables	166	<i>YRT\$</i>	Rental income of persons
	E23	<i>YRW\$</i>	Income originating in rest of the world
	E3	<i>YRW</i>	Income originating in the rest of the world
t and households' out-	E77	<i>YSD\$</i>	Statistical discrepancy
duct and product of	101	<i>YSG\$</i>	State and local government income
business product	80	<i>YS\$</i>	Gross national product net of federal taxes and transfers
business product	76	<i>YTF\$</i>	Taxable income for federal personal income taxes
	AC14	<i>ZCT</i>	Ceiling rate on passbook saving deposits
	AC9	<i>ZDRA</i>	Federal reserve discount rate
	AC11	<i>ZDR</i>	Federal reserve discount rate for the first fifteen days of the quarter
nts	105	<i>ZINT</i>	Interpolation variable for the passbook savings equation
ts	E13	<i>ZLNG</i>	Dummy variable for long amendment on depreciation basis
ating in the rest of the	AC10	<i>ZMS</i>	Unborrowed reserves at member banks plus currency outside of banks
nsurer durables	AC7	<i>ZRD</i>	Implicit reserve requirement against net demand deposits at all members banks on call date
ome	AC8	<i>ZRT</i>	Implicit reserve requirement against time deposits at member banks
ome			
ent to foreigners			
ouseholds			

The following variables appear in the coding sheets but have not yet been assigned a position in the data matrix:

employees, agriculture	<i>C(I)</i>	Denotes a residual used to satisfy an identity
business sector	<i>JIA</i>	Dummy variable for 1959 steel strike
definition	<i>JIB</i>	Dummy variable for dock strike
ns after taxes	<i>JID</i>	Time trend variable
ne taxes of corporations		
fter taxes		

I. FINAL DEMAND EQUATIONS

A. CONSUMPTION SECTOR

	Normalization	Solve	Constant
(4)	CON	$= a_1 * YD + a_{176} * (VCN / (.01 * PCON))$	$+ N(a_1 * YD_{-1} / N_{-1} + \dots + a_{176} * YD_{-11} / N_{-11} + a_{177} * (VCN_{-1} / .01 * PCON_{-1} * N_{-1}) + \dots + a_{479} * (VCN_{-3} / .01 * PCON_{-3}) + a_{480} R_4)$
(6)	EC	$= a_{491} * YD + CON(a_{495}(PC/PCON) * (.225 + .01RCB) + a_{495} + a_{494} * JIC + a_{496}(PC_{-1}/PCON_{-1}) * (.225 + .01RCB_{-1}) + \dots + a_{500}(PC_{-5}/PCON_{-5}) * (.225 + .01RCB_{-5}))$	$+ a_{492} * KC_{-1} + a_{17} N + a_{18} R_6 * CON$
(7)	WC	$= .05625 * EC$	$+ .225 * KC_{-1}$
(8)	KC	$= .25 * (EC - WC)$	$+ KC_{-1}$
(9)	YC	$= .0379 * (EC / 8.0)$	$+ .0379 * KC_{-1}$
(5)	YH	$= (a_1 * CON + a_{15} * YD + a_{16} + a_{495} R_5) * (PCON / PYH)$	

B. INVESTMENT IN EQUIPMENT AND PLANTS

1. Equipment

	Normalization	Solve	Constant
(17)	OPD	$= .01 * (a_{43} * VPD_{-1} * XB)$	$+ .01((a_{44} * VPD_{-9} * XB_{-1}) + (a_{45} * VPD_{-8} * XB_{-2}) + \dots + (a_{53} * VPD_{-11} * XB_{-10}) + a_{60} * VPD_{-1} * XB_{-1} + a_{61} * VPD_{-2} * XB_{-2} + \dots + a_{70} * VPD_{-11} * XB_{-11})$
(20)	EPD	$= (a_{94} + a_{100}(OUME_{-1}/SME_{-1})) * OPD$	$+ (a_{95} + a_{101}(OUME_{-3}/SME_{-3})) * OPD_{-1} + \dots + (a_{99} + a_{105}(OUME_{-6}/SME_{-6})) * OPD_{-5}$
(24)	RPD	$= (1.0 - UDC * AC_1) * (a_{112} * RCB + a_{113} * RDP)$	$+ a_{114}(1.0 - UDC * AC_1)$
(25)	RTPD	$= .01 * RPD * (1.0 - AC_1) * (1.0 - ZLNG) / (1.0 - AC_1) - ZLNG * AC_2 * (1.0 - AC_2 * (1.0 - ZLNG)) / (1.0 - AC_1)$	$AC_1 = UTC$ $AC_2 = TPCPD$
(29)	VWPD	$= (1.0 - WAPD) * (1.0 - EXP(-.01 * RPD * AC_{18})) / (.01 * RPD * AC_{18}) + 2.0 * WAPD * (1.0 - (1.0 - EXP(-.01 * RPD * AC_{18})) / (.01 * RPD * AC_{18}))$	$AC_{18} = SLPD$

1. Equipment

Normalization	Solve	Constant
(17) OPD	$= .01*(a_{43}*VPD_{-1}*XB)$	$+ .01((a_{44}*VPD_{-2}*XB_{-1}) + (a_{45}*VPD_{-3}*XB_{-2}) + \dots + (a_{53}*VPD_{-11}*XB_{-10}) + (a_{60}*VPD_{-1}*XB_{-1}) + a_{61}*VPD_{-2}*XB_{-2} + \dots + a_{70}*VPD_{-11}*XB_{-11})$
(20) EPD	$= (a_{94} + a_{100}(OUME_{-1}/SME_{-1}))*OPD$	$+ (a_{95} + a_{101}(OUME_{-2}/SME_{-2}))*OPD_{-1} + \dots + (a_{99} + a_{105}(OUME_{-6}/SME_{-6}))*OPD_{-5}$
(24) RPD	$= (1.0 - UDC*AC_1)*(a_{112}*RCB + a_{113}*RDP)$	$+ a_{114}(1.0 - UDC*AC_1)$
(25) RTPD	$= 0.1*PPD(.01*RDP + UWPD)*(1.0 - AC_1)*VWPD - ZLNG*AC_2*(1.0 - AC_2)*(1.0 - ZLNG)/(1.0 - AC_1)$	$AC_1 = UTC$ $AC_2 = TCPD$
(29) VWPD	$= (1.0 - WAPD)(1.0 - EXP(-.01*RPD*AC_{18}))/(.01*RPD*AC_{18}) + 2.0*WAPD*(1.0 - (1.0 - EXP(-.01*RPD*AC_{18}))/(.01*RPD*AC_{18}))/(.01*RPD*AC_{18})$	$AC_{18} = SLPD$
(30) KPD	$= .25EPD$	
(32) VPD	$= ((.01*PXB)/(0.1*RTPD))*a_{128}*EXP(a_{129}*(TIME - 46.5))$	
(34) WPD\$	$= (.01*PPD*UWPD*KPD_{-1})/4.0$	$+ KPD_{-1}*(1.0 - UWPD/4.0)$

2. Plants

Normalization	Solve	Constant
(19) EPS	$=$	$= .01(a_{77}VPS_{-1}*XB_{-1} + \dots + a_{87}VPS_{-11}*XB_{-11}) + a_{93}*KPS_{-1} + a_{99}R_{18}$
(18) KPS	$= .25EPS$	$+ KPS_{-1}*(1.0 - .25*UWPS)$
(27) RPS	$= (1.0 - UDC*AC_1)*(a_{126}*RCB + a_{127}*RDP)$	$+ (1.0 - UDC*AC_1)*a_{411}$
(28) RTPS	$= 0.1*PPS(.01*RPS + UWPS)*(1.0 - AC_1)*VWPS - ZLNG*AC_{17}*(1.0 - AC_{17}*(1.0 - ZLNG))/(1.0 - AC_1)$	$AC_{17} = TCPS$

NOTE: Numerical values for coefficients begin p. 588. (continued)

I. FINAL DEMAND EQUATIONS (continued)

B. INVESTMENT IN EQUIPMENT AND PLANTS (continued)
 2. Plants (continued)

	Normalization	Solve	Constant
(31)	$WVPS$	$= (1.0 - WVPS) * (1.0 - EXP(-0.1 * RPS * AC_{19})) / (0.1 * RPS * AC_{19}) + 2.0 * WVPS * (1.0 - (1.0 - EXP(-0.1 * RPS * AC_{19})) / (0.1 * RPS * AC_{19})) / (0.1 * RPS * AC_{19})$	$AC_{19} = SLPS$
(33)	VPS	$= ((0.1 * P * X * B) / (0.1 * R * T * P * S)) * a_{100} * EXP(a_{131} * TIME - 46.5)$	
(35)	$WPSS$	$= (0.1 * PPS * UWPS * KPS_{-1}) / 4.0$	

3. Supplementary Equations

	Normalization	Solve	Constant
(21)	SME	$= a_{106} * EPD * (PPD * 0.1)$	$+ a_{107} + a_{108} * R_{21}$
(22)	OME	$= a_{109} * OPD * (PPD * 0.1)$	$+ a_{110} + a_{111} * R_{22}$
(23)	$OUME$	$= .25 * OME - .25 * SME$	$+ OUME_{-1}$
(26)	XBC	$=$	$+ a_{115} * XBC_{-1} + \dots + a_{125} * XBC_{-11} + (1.0 - a_{21}) * XBC_{-1}$

C. HOUSING

	Normalization	Solve	Constant
(181)	$\ln(HSIS)$	$= a_{571} \ln(CON) + a_{572} \ln(RCH)$	$+ a_{582} \ln(RCH)_{-1} + \dots + a_{584} \ln(RCH)_{-3}$ $+ a_{585} \ln(D - DSL)_{-1} + \dots + a_{587} \ln(D - DSL)_{-3}$ $+ a_{575} \ln(PCONIPHCA)_{-1} + \dots$ $+ a_{581} \ln(PCONIPHCA)_{-7} + a_{588} (TIME - 4.0)$ $+ a_{586} + a_{589} \ln(KHI) / I$ $- N20 / N * NS / NA * N * (0.001)_{-1} + a_{591} * R_{181}$
(183)	$\ln(HSS3)$	$= a_{592} \ln(100.0 * RHPHCA) + a_{593} \ln(RCH)$ $+ a_{594} \ln(D - DSL)$	$+ a_{595} \ln(RCH)_{-1} + \dots + a_{601} \ln(RCH)_{-7}$ $+ a_{592} \ln(100.0 * RHPHCA)_{-1} + \dots$ $+ a_{604} \ln(100.0 * RHPHCA)_{-3} + a_{605} \ln(D - DSL)_{-1}$ $+ \dots + a_{609} \ln(D - DSL)_{-5} + a_{610} (TIME - 4.0)$ $+ a_{611} \ln(D - DSL)_{-7} + a_{612} \ln(D - DSL)_{-9} + a_{613} \ln(D - DSL)_{-11}$

Normalization	Solve
(21) SME	$= a_{106}EPD*(PPD*.01)$
(22) OME	$= a_{108}OPD*(PPD*.01)$
(23) OUME	$= .25OME - .25SME$
(26) XBC	$=$

C. HOUSING

Normalization	Solve	Constant
---------------	-------	----------

- (181) $\ln(HS1\$)$ $= a_{571} \ln(CON/1001*N) + a_{572} \ln(RCHI)$
- (183) $\ln(HS3\$)$ $= a_{592} \ln(100.0RHH/PHCA) + a_{593} \ln(RCH3)$
 $+ a_{594} \ln(D-DSL)$
- (182) $HS1\$$ $= EXP(\ln(HS1\$)) * (1.0 - N20/N) * NS/NA * N * PHCA * .001$
- (184) $HS3\$$ $= EXP(\ln(HS3\$)) * (1.0 - N20/N) * (1.0 - NS/NA) * N * .001 * PHCA$
- (15) $EH\$$ $= a_{613}(HS1\$ + HS3\$)$
- (127) $RCHI$ $= (1.0 - UTPF*.01) * (a_{557}RM + a_{558}RCB)$
- (128) $RCH3$ $= a_{561}RM + a_{562}RCB$
- (186) KHI $= a_{547} * (a_{548} + a_{549} * (TIME - 4.0)) / (4.0 * PRS * .01)$
- (187) $KH3$ $= a_{565} * (a_{566} + a_{567} * (TIME - 4.0)) / (4.0 * PRS * .01)$
- (188) $PHCA$ $= \frac{PHC * PHCA_{-1}}{PHC_{-1}}$

(continued)

I. FINAL DEMAND EQUATIONS (concluded)

D. STATE AND LOCAL GOVERNMENT EXPENDITURE

	Normalization	Solve	Constant
(36)	EGSC\$	$= [a_{700} + a_{701} * \left[\frac{YSS}{N * POBE * 00001} \right] + \dots$ $+ a_{712} * \left[\frac{YSS}{N * POBE * 00001} \right]_{-12}$ $+ a_{713} * \left[\frac{YSS}{N * POBE * 00001} \right] (RSLG) + \dots$ $+ a_{715} * \left[\frac{YSS}{N * POBE * 00001} \right] * (RSLG_{-3})$ $+ a_{716} * \left[\frac{YSS}{N * POBE * 00001} \right] \left[\frac{100(PS - PS_{-4})}{PS_{-4}} \right] + \dots$ $+ a_{725} * \left[\frac{YSS}{N * POBE * 00001} \right]_{-9} \left[\frac{100(PS_{-9} - PS_{-13})}{PS_{-13}} \right]$ $+ a_{727} * \left[\frac{YSS}{N * POBE * 00001} \right] * \left[\frac{PS}{POBE} \right]$ $+ a_{728} * \left[\frac{YSS}{N * POBE * 00001} \right] (N20/N)$ $+ a_{729} * \left[\frac{KSL_{-1}}{N} \right] * PS * 0001 * N$	$+ a_{726} * GFS$
(102)	KSL	$= .25 * EGSC$ / (.01 * PS)$	$+ .9956 * KSL_{-1}$
(37)	EGSO\$	$= (a_{161} * YSS / (.01 * POBE) + a_{162} * (YSS / (.01 * POBE))) * (PS / POBE) + a_{163} * (YSS / (.01 * POBE)) * N20 / N$ $+ a_{164} * (.001 * N) + a_{168} * (.001 * N) * R_{37} * (.01 * PS)$	$+ a_{165} * GFS$
(38)	EGSL\$	$= (a_{168} * YSS / (.01 * POBE) + a_{169} * (YSS / (.01 * POBE))) * (PS / POBE) + a_{170} * (YSS / (.01 * POBE)) * N20 / N$ $+ a_{171} * (.001 * N) + a_{172} * (.001 * N) * R_{38} * (.01 * PS)$	$+ a_{173} * GFS$
(45)	EG\$	$= EGSC$ + EGSO$ + EGSL$$	

$$\begin{aligned}
& + a_{725} \left[\frac{YSS}{N * POBE * .00001} \right]_{-9} \left[\frac{100(P_{-9} - P_{-13})}{PS_{-13}} \right] \\
& + a_{727} \left[\frac{YSS}{N * POBE * .00001} \right] * \left[\frac{PS}{POBE} \right] \\
& + a_{728} \left[\frac{YSS}{N * POBE * .00001} \right] (N20/N) \\
& + a_{729} \left[\frac{KSL_{-1}}{N} \right] * PS * .0001 * N
\end{aligned}$$

$$\begin{aligned}
(102) \quad KSL &= .25 * EGSC\$ / (.01 * PS) && + .9956 KSL_{-1} \\
(37) \quad EGSO\$ &= (a_{162} * YSS / (.01 * POBE) + a_{162} * (YSS / (.01 * POBE))) * (PS / POBE) && + a_{165} * GFS \\
&+ a_{163} * (YSS / (.01 * POBE)) * N20 / N && \\
&+ a_{164} * (.001 * N) + a_{166} * (.001 * N) * R_{37} * (.01 * PS) && \\
(38) \quad EGSL\$ &= (a_{168} * YSS / (.01 * POBE) + a_{169} * (YSS / (.01 * POBE))) * (PS / POBE) && + a_{173} * GFS \\
&+ a_{171} * (.001 * N) + a_{172} * (.001 * N) * R_{38} * (.01 * PS) && \\
(45) \quad EG\$ &= EGSC\$ + EGSL\$ + EGSO\$ && \\
(82) \quad EGSN\$ &= EGSL\$ + EGSO\$ + GSP\$ - TSC && + GSI - .70 * GFS
\end{aligned}$$

E. INVENTORY INVESTMENT

Normalization	Solve	Constant
(39) I	$= a_{177} * ECO + a_{186} * OPD$	$+ a_{178} * ECO_{-1} + a_{179} * ECO_{-2} + a_{180} * I_{-1} + a_{181} * I_{-2}$ $+ a_{182} * EGD\$ + a_{183} * EGD\$_{-1} + a_{184} * NDI + a_{185} * NDI_{-1}$ $+ a_{187} * OPD_{-1} + \dots + a_{191} * OPD_{-5}$
(10) $D-I$	$= I$	$- I_{-1}$

F. IMPORTS

Normalization	Solve	Constant
(42) $\ln(E/M)$	$= a_{192} * \ln(XOBE) + a_{193} * \ln(1.0 / (1 - XB / XBC))$	$+ a_{194} + a_{195} * JCAA + a_{196} * \ln(JID) + a_{198} * JIA + a_{189} * JIB$
(43) EIM	$= EXP(.01 * \ln(EIM))$	

II. DISTRIBUTION OF INCOME

A. DEFINITION OF OUTPUTS

	Normalization	Solve	Constant
(1)	X	$= CON + EC + EH\$(.01*PRS) + EPD + I + EPS$ $+ EG\$(.01*PS) - EIM$	$+ EEX + EGF - I_{-1} + D-IF$
(2)	$XOBE$	$= X - YC - WC$	
(3)	XB	$= XOBE - EGSL\$(.01*PGE) - YH$	$- YRW - EGFL\$(.01*PGE)$
(40)	$XBNF$	$= XB + YH$	$- XBF$
(44)	ECO	$= CON + EC - YC - WC$	

B. NET NATIONAL PRODUCT AND NATIONAL INCOME

	Normalization	Solve	Constant
(165)	$YNNP\$\$	$= XOBE\$\ - WCCA\$\$	
(55)	$YNI\$\$	$= YNNP\$\ - TIBS - TIBF - TSS$	$- YBT\$\ - YSD\$\ + GFG$

C. LABOR INCOME

	Normalization	Solve	Constant
(54)	$YL\$\$	$= (.01*PL)*LMHT$	

D. NONLABOR INCOME

	Normalization	Solve	Constant
(56)	$YPG\$\$	$= YNI\$\ - YL\$\ - EGSL\$\ - YRT\$\ - YII\$\$	$- YLAG\$\ - EGFL\$\ - YPF\$\$

E. CORPORATE PROFITS, CASH FLOWS AND DIVIDENDS

	Normalization	Solve	Constant

$$(165) \text{ YNNP\$} = \text{XOBES\$} - \text{WCCAS\$}$$

$$(55) \text{ YNI\$} = \text{YNNP\$} - \text{TIBS\$} - \text{TIBF\$} - \text{TSS}$$

C. LABOR INCOME

Solve

Constant

Normalization

$$(54) \text{ YL\$} = (.01 * \text{PL}) * \text{LMHT}$$

D. NONLABOR INCOME

Solve

Constant

$$(56) \text{ YPG\$} = \text{YNI\$} - \text{YL\$} - \text{EGSL\$} - \text{YRT\$} - \text{YI\$}$$

$$- \text{YLAG\$} - \text{EGFL\$} - \text{YPF\$}$$

E. CORPORATE PROFITS, CASH FLOWS AND DIVIDENDS

Solve

Constant

$$(153) \ln(\text{YPC\$}) = \alpha_{482} \ln(\text{YPG\$}) + \alpha_{443} \ln(\text{XB/XBC}) + \alpha_{444} \ln(\text{XB/XBC})_{-1} + \alpha_{445} \text{TIME} + \alpha_{446} + \alpha_{441} R_{153}$$

$$(57) \text{ YPC\$} = \text{EXP}(.01 * \ln \text{YPC\$})$$

$$(60) \text{ YPCT\$} = \text{YPC\$} - \text{TCIF} - \text{TCIS}$$

$$(61) \text{ YPCC\$} = \text{YPCT\$} + \text{WCO\$}$$

$$(169) \text{ WCO\$} = \text{WCCAS\$} - .04 * \text{PRS}(\alpha_{548} * \text{KHI}_{-1} + \alpha_{568} * \text{KH3}_{-1}) + \text{C}(169)$$

$$(62) \text{ YDV\$} = \alpha_{505} \text{YPCC\$} + \alpha_{206} + \alpha_{208} \text{YPCC\$}_{-1} + \dots + \alpha_{215} \text{YPCC\$}_{-k} + \alpha_{408} R_{62}$$

$$(41) \text{ YCR\$} = \text{YPC\$} - \text{YDV\$} - \text{TCIF} - \text{TCIS} - \text{IVAS}$$

F. PERSONAL INCOME AND DISPOSABLE INCOME

Solve

Constant

$$(74) \text{ YP\$} = \text{YNI\$} - \text{YPC\$} - \text{TO} - \text{TU} + \text{YDV\$} + \text{GB} + \text{GSP} - \text{TOSI} + \text{GSI} + \text{GFI} + \text{GFP} + \text{YRC\$} + \text{YBT\$}$$

$$(79) \text{ YD\$} = \text{YP\$} - \text{TPF} - \text{TPS} + .01 * \text{RCB} * (\text{KC}_{-1} * \text{PC} + \text{EC}) / 8.0 - \text{TEGF} - \text{YRC\$}$$

(continued)

II. DISTRIBUTION OF INCOME (concluded)

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G. INVENTORY VALUATION ADJUSTMENT

	Solve	Constant
(159) $IVAS$	$= a_{507} * PI + a_{508} * PI * I_{-1}$	$- a_{508} * PI * I_{-1} - a_{507} * PI_{-1} + a_{509}$
(140) $D-I\$$	$= .01 * I * PI + IVAS$	$- I_{-1} * .01 * PI_{-1}$

H. SAVING AND NET-WORTH IDENTITY

	Solve	Constant
(138) $VCN\$$	$= .05 * (YDV\$ / RDP)$	$+ VCN\$_{-1} + (.25 * (YD\$_{-1} - CON_{-1} * .01 * PCON_{-1}))$ $+ .01 * (PRS_{-1} - PRS_{-2}) * (KHI_{-2} + KH3_{-2})$ $+ .01 * (PC_{-1} - PC_{-2}) * KC_{-2} - 50.0 * YDV\$_{-2} / RDP_{-2}$ $+ VG\$_{-1} * .001$

I. MISCELLANEOUS ITEMS

	Solve	Constant
(80) $YS\$$	$= XOBES - TCIF - TIBF - TO - TPF - TU + GB$	$+ GFI + GFP + GFG - TEGF - TOSI$
(166) $YRT\$$	$= .0414 * RH * KHI_{-1} * C(166)$	
(167) YIS	$= EXOGENOUS$	
(163) $WCCA\$$	$= (WPD\$ + WPS\$) * 4.0 + .04 * PRS * (t_{516} * KHI_{-1})$ $+ a_{508} * KH3_{-1}$	$+ C(163)$

III. TAXES AND TRANSFERS

A. CORPORATE INCOME TAXES

	Solve	Constant
(58) $TCIS$	$= a_{167} * YPC\$ - IVAS + a_{168} * EGSN\$$	
(59) $TCIF$	$= a_{169} * AC * YPC\$ + a_{170} * AC * E * RDP$	$+ a_{169} + a_{170} * R_{58}$

	Normalization	Solve
(80)	YS\$	$= XOBES - TCIF - TIBF - TO - TPF - TU + GB + GFI + GFP + GFG - TEGF - TOSI$
(166)	YRT\$	$= .0414 * RH * KHI_{-1} * C(166)$
(167)	YII\$	$= EXOGENOUS$
(163)	WCCA\$	$= (WPD$ + WPSS) * 4.0 + .04 * PRS * (a_{506} * KHI_{-1} + C(163) + a_{508} * KH3_{-1})$

III. TAXES AND TRANSFERS

A. CORPORATE INCOME TAXES

	Normalization	Solve	Constant
(58)	TCIS	$= a_{197}(YPC$ - IVA$) + a_{108}EGSN$$	$+ a_{199} + a_{200}R_{5K}$
(59)	TCIF	$= a_{202} * AC_1 * YPC$ + a_{203} * AC_2 * EPD$$	$+ a_{201} + a_{207}R_{50}$ $AC_1 = UTC$

B. INDIRECT BUSINESS TAXES

	Normalization	Solve	Constant
(63)	$\ln TXF$	$= a_{216} \ln ECO$$	$+ a_{217} \ln (AC_3) + a_{218} + a_{107}R_{6A}$ $AC_3 = UTXF$
(64)	TXF	$= EXP(.01 \ln TXF)$	
(65)	TIBF	$= TXF$	$+ TCDF$
(66)	TIBS	$= a_{219}YS$ + a_{220}EGSN$$	$+ (a_{223} + a_{224}(YS$_{-1} / (.001 * N_{-1})) + a_{225}(EGSN$_{-1} / (.001 * N_{-1}) + a_{221} * R_{6B}) * (.001 * N)$

C. PERSONAL INCOME TAXES

	Normalization	Solve	Constant
(75)	$\ln \left(1 - \frac{YTF$}{YPS} \right)$	$= a_{249} \ln YPS$	$- a_{249} \ln N + a_{250} \ln (AC_{13}) + a_{251}$ $AC_{13} = TEX$

(continued)

III. TAXES AND TRANSFERS (concluded)

C. PERSONAL INCOME TAXES (continued)

Normalization	Solve	Constant
(76) $YTF\$$	$= (-EXP \left(\ln \left(1 - \frac{YTF\$}{YP\$} \right) \right) + 1) * YP\$$	
(77) TPF	$= AC_6 * YTF\$ / 100.0$	$AC_6 = UPTF$
(78) TPS	$= a_{252} * YP\$ + a_{253} * EGSN\$$	$+ a_{255} * N * .001$

D. CONTRIBUTIONS TO SOCIAL INSURANCE

Normalization	Solve	Constant
(67) $\ln(TO)$	$= a_{226} \ln YP\$$	$+ a_{227} * JOA + a_{228} * JOB + a_{229} * JOC + a_{230} * JOD + a_{231} + a_{232} \ln(AC_4)$
(68) TO	$= EXP(\ln TO)$	$AC_4 = UTO$
(69) $\ln(TU)$	$= a_{233} \ln YP\$$	$+ a_{234} \ln(TUIC) + a_{235} + a_{236} \ln(AC_5)$
(70) TU	$= EXP(\ln TU)$	$AC_5 = UTU$
(81) TSC	$= a_{257} * EGSLS$	$+ a_{417} + a_{256} * R_{81}$

E. TRANSFER PAYMENTS

Normalization	Solve	Constant
(71) $\ln GB$	$= a_{237} \ln(LU)$	
(72) GB	$= EXP(.01 * \ln GB)$	$+ a_{238} \ln(TUIC) + a_{239} \ln(TUIB) + a_{240} \ln(L26U) + a_{241} + a_{400} * R_{71}$
(73) GSP	$= (a_{242} * YS\$) / (1 * POBE)$	

$$\begin{aligned}
 (68) \quad TO &= EXP(\ln TO) \\
 (69) \quad \ln TU &= a_{233} \ln YP\$ \\
 (70) \quad TU &= EXP(\ln TU) \\
 (81) \quad TSC &= a_{257} * EGS\$ \\
 &+ a_{234} \ln (TUIIC) + a_{235} + a_{236} \ln (AC_s) \quad AC_s = UTU \\
 &+ a_{417} + a_{556} R_{81}
 \end{aligned}$$

E. TRANSFER PAYMENTS

	Normalization	Solve	Constant
(71)	$\ln GB$	$= a_{237} \ln (LU)$	$+ a_{238} \ln (TUIIC) + a_{239} \ln TUIB + a_{240} \ln (L26U)$ $+ a_{241} + a_{409} R_{71}$
(72)	GB	$= EXP(0.01 * \ln GB)$	
(73)	GSP	$= (a_{242} YS\$ / (.01 * POBE))$ $+ a_{243} (LE + L4 / N) YS\$ / (.01 * POBE) + a_{246}$ $+ a_{247} R_{73} * (.00001 * N * PS)$	$+ a_{245} GFS$
(155)	TSS	$= a_{501} * YS\$ + a_{502} * EGSN\$$	$+ a_{505} + a_{506} * YS\$_{-1} + a_{503} R_{155}$

F. NET DEFICIT OF GOVERNMENT

	Normalization	Solve	Constant
(161)	$GDSF$	$= TPF + TCIF + T + TO + TU - GB$	$+ TEGF + TOSI - EGF\$ - GFP - GFS - GFI$ $- GFG - GFR$
(162)	$GDSS$	$= TPS + TCIS + TIBS + TSC - EGS\$ - GSP + TSS$	$+ GFS - GSI$

IV. LABOR MARKET

A. DEMAND FOR MAN-HOURS AND HOURS/MAN AND EMPLOYMENT

Normalization	Solve	Constant
(139) $LMHT$	$= EXP(.01 * \ln LMHT)$	
(145) $\ln(LMHT)$	$= \ln(XBNF) + a_{458} \ln(XB/XBC) + a_{459} \ln(ULU)$ $+ a_{460} \ln(XBNF)$	$- a_{460} \ln(XBNF_{-1}) + a_{461} JR1 + a_{462} JR2 + a_{463} JR3$ $+ a_{468} JT1 + a_{469} JT2 + a_{470} JT3 + a_{471} JT4 + a_{486}$ $+ a_{465} R_{145}$
(142) LH	$= EXP(.01 * \ln(LH))$	
(146) $\ln(LH)$	$= a_{486} \ln(LMHT)$	$- a_{486} \ln(LMHT_{-1}) + a_{487} \ln(LH_{-1}) + a_{473} TT60$ $+ a_{474} + a_{475} R_{146}$
(147) $LEBT/LH$	$= LMHT/LH$	
(148) LE	$= LEBT$	$+ LEO$
(125) $(LE+LA)$	$= LE$	$+ LA$

B. SUPPLY OF LABOR AND UNEMPLOYMENT

Normalization	Solve	Constant
(143) $LF+LA$	$= a_{447} * (LE+LA) * \left(1.0 - \frac{LPR1}{N16}\right)$	$N16 * (a_{448} * \frac{(LE+LA)_{-1} * \left(1.0 - \frac{LPR1}{N16}\right)_{-1}}{N16_{-1}} + \dots + a_{455} * \frac{(LE+LA)_{-k} * \left(1.0 - \frac{LPR1}{N16}\right)_{-k}}{N16_{-k}} + a_{456}$ $+ a_{457} * \ln(TIME + 88.0) + a_{487} * \left(1.0 - \frac{LPR1}{N16}\right)$ $+ a_{445} R_{143}$
(124) LU	$= (LF+LA) - (LE+LA)$	
(150) ULU	$= (LU/(LF+LA)) * 100.0$	

V. PRICES

A. THE WAGE RATE

Normalization	Solve	Constant
(152) PL	$= (a_{633}/(ULU + ULU_{-1}) + a_{636} * YPCC)/(YPCC_{-1} + YPCC_{-2}) * PL_{-2}$	$(1.0 + a_{637} * (PCON_{-2} - PCON_{-4}) / (PCON_{-4} + a_{638} + a_{639} R_{152})) * PL_{-2} + a_{640} (UTO - UTO_{-3}) * PL_{-2}$

B. THE GENERAL PRICE LEVEL

$$(143) \quad LF+LA = a_{447} * (LE+LA) * \left(1.0 - \frac{LPRI}{N16}\right)$$

$$(124) \quad LU = (LF+LA) - (LE+LA)$$

$$(150) \quad ULU = (LU)/(LF+LA) * 100.0$$

$$N16 * (a_{448} * \frac{(LE+LA)^{-1} * \left(1.0 - \frac{LPRI}{N16}\right)^{-1}}{N16^{-1}} + \dots + a_{455} * \frac{LPRI}{N16^{-N}}) + a_{456} \\ + a_{457} * \ln(TIME + 88.0) + a_{457} * \left(1.0 - \frac{LPRI}{N16}\right) \\ + a_{455} * R_{143}$$

V. PRICES

A. THE WAGE RATE

Normalization	Solve	Constant
(152) PL	$= (a_{635}/(ULU + ULU_{-1}) + a_{636} * YPCC\$)/(YPCC\$_{-1} + YPCC\$_{-2}) * PL_{-2}$	$(1.0 + a_{637} * (PCON_{-2} - PCON_{-4})/PCON_{-4} + a_{638} + a_{639} * R_{152}) * PL_{-2} + a_{640} * (UTO - UTO_{-2}) * PL_{-2}$

B. THE GENERAL PRICE LEVEL

Normalization	Solve	Constant
(154) QPXB	$= \ln(PL) - a_{621} \ln(PL) + a_{622} (OUME/SME) * EXP(.002698(TIME - 80.0)) + a_{624} (\ln XBNF - \ln LMHT)$	$+ a_{625} + a_{621} * QPXB_{-1} + a_{627} \Delta \ln(31.91 * PWM + 68.09 * PFM) + a_{628} [(OUME/SME) * EXP(.002698(TIME - 80))]_{-1} + a_{629} JSI + a_{630} JS2 + a_{631} JS3 + a_{632} TIME$

$$(189) \quad PXB* = EXP(QPXB)/(1.0 - (TIBF/XB\$))$$

C. ALL OTHER PRICES ARE DEFINED IN TERMS OF PROPORTIONALITY TO THE GENERAL PRICE AND THESE PROPORTIONALITIES ARE TAKEN AS EXOGENOUS IN THE CURRENT VERSION OF THE MODEL, AS FOLLOWS:

Normalization	Solve	Constant
(156) PXBNF	$= 100.0 * (.01 * PXB * (XBNF - YH) + YH\$)/(XBNF$	
(129) PYB	$= 100.0 * (XBNF\$ - YH\$ + XBF\$)/(XBNF - YH + XBF)$	

(continued)

V. PRICES (concluded)

C. ALL OTHER PRICES ARE DEFINED IN TERMS OF PROPORTIONALITY TO THE GENERAL PRICE AND THESE PROPORTIONALITIES ARE TAKEN AS EXOGENOUS IN THE CURRENT VERSION OF THE MODEL, AS FOLLOWS: (continued)

	Normalization	Solve	Constant
(130)	POBE	$= \frac{100.0*(XB\$ + EGSL\$ + YH\$ + YRW\$ + EGFL\$)}{(XB + (EGSL/PGE) + YH + (EGFL/PGE) + YRW)}$	
(131)	PC	= UPC*PXBNF	
(171)	UPC	= EXOGENOUS	
(132)	PCON	= UPCON*PXBNF	
(172)	UPCON	= EXOGENOUS	
(158)	PCO	$= PCON*(ECO - EC + WC + .0379*(KC_{-1} + EC(8.0))ECO - PC*(-EC + WC + .01*RCB*(KC_{-1} + EC(8.0)))/ECO$	
(133)	PPD	= UPPD*PXBNF	
(173)	UPPD	= EXOGENOUS	
(134)	PRS	= UPRS*PXBNF	
(177)	UPRS	= EXOGENOUS	
(135)	PS	= UPS*PXBNF	
(175)	UPS	= EXOGENOUS	
(136)	PHC	= UPHC*PXBNF	
(176)	UPHC	= EXOGENOUS	
(141)	PPS	= UPPS*PXBNF	
(174)	UPPS	= EXOGENOUS	
(168)	PI	= UPI*PXBNF	
(178)	UPI	= EXOGENOUS	

(133) PPD = UPPD*PXBNF
 (173) UPPD = EXOGENOUS
 (134) PRS = UPRS*PXBNF
 (177) UPRS = EXOGENOUS
 (135) PS = UPS*PXBNF
 (175) UPS = EXOGENOUS

(136) PHC = UPHC*PXBNF
 (176) UPHC = EXOGENOUS
 (141) PPS = UPPS*PXBNF
 (174) UPPS = EXOGENOUS
 (168) PI = UPI*PXBNF
 (178) UPI = EXOGENOUS

D. TRANSFORMATION BETWEEN THE CURRENT DOLLAR VARIABLES AND REAL VARIABLES

	Normalization	Solve	Constant
(46)	$XB\$$	$= XB*(PXB*.01)$	
(47)	$YH\$$	$= YH*(PYH*.01)$	
(48)	$XOBE\$$	$= XOBE*(POBE*.01)$	
(49)	$EPD\$$	$= EPD*(PPD*.01)$	
(50)	$EPS\$$	$= EPS*(PPS*.01)$	
(51)	$ECO\$$	$= ECO*(PCO*.01)$	
(52)	$EC\$$	$= EC*(PC*.01)$	
(53)	$XBINF\$$	$= XBINF*(PXBINF*.01)$	
(123)	YD	$= YD\$(.01*PCON)$	

VI. FINANCIAL SECTOR

A. MONEY MARKET

1. Demand for Currency

	Normalization	Solve	Constant
(83)	$\ln MC\$$	$= (1.0 - a_{258}) \ln ECO\$ + a_{259} \ln RTP$	$+ a_{260} + a_{258}(\ln MC\$)_{-1} + a_{261}R_{63}$
(84)	$MC\$$	$= EXP(.01 * \ln MC\$)$	

2. Demand for Demand Deposits

	Normalization	Solve	Constant
(87)	RTB	$= a_{262} * MD\$ / XOBES\$ + a_{263} * RTD$ $+ a_{264} * (.01 * POBE * N) / XOBES\$ + a_{265} * MD\$_{-1} / XOBES\$$	$+ a_{266} + a_{267}R_{87}$
(86)	$MD\$$	$= (MD\$ * JMSB * JMSA)$	$- MGF\$ * JMSA$

3. Demand for Free Reserves

	Normalization	Solve	Constant
(115)	$MFR\$$	$= a_{268} * (1.0 - AC_7) * MRU\$ + a_{274} * \left(\sum_{i=1}^4 .25MD\$_{-i} \right) * RTB$ $+ a_{277} * AC_7 * DCL\$ * JCLS$	$- a_{268} * (1.0 - AC_7) * MRU\$_{-1} + a_{268} * ((AC_8$ $- AC_{8,-1}) * MTM\$_{-1} + (AC_7 - AC_{7,-1}) * MD\$_{-1})$ $+ (a_{270} + a_{271} * JS1 + a_{272} * JS2 + a_{273} * JS3$ $+ a_{275} * ZDRA) * \left(\sum_{i=1}^4 .25MD\$_{-i} \right) + a_{276} * MFR\$_{-1}$

$$- a_{277} * AC_7 * DCL\$_{-1} * JCLS_{-1}$$

$$+ a_{278} R_{115} \left(\sum_{i=1}^4 .25MD\$_{-i} \right)$$

4. Relation Between the Treasury Bill Rate and Commercial Paper Rate

	Normalization	Solve	Constant
(88)	RCP	$= (a_{279} - a_{280}) RTB$	

	Solve	Constant
(115) $MFR\$$	$= a_{268} * (1.0 - AC_7) * MRUS + a_{274} * \left(\sum_{i=1}^4 .25MDSS_{-i} \right) * RTB$ $+ a_{277} * AC_7 * DCL\$ * JCLS$	$- a_{268} * (1.0 - AC_7) * MRUS_{-1} + a_{269} * (AC_7 * AC_{8,-1}) * MTMS_{-1} + (AC_7 - AC_{7,-1}) * MDSS_{-1}$ $+ (a_{270} + a_{271} * JS1 + a_{272} * JS2 + a_{273} * JS3$ $+ a_{275} * ZDRA) * \left(\sum_{i=1}^4 .25MDSS_{-i} \right) + a_{276} * MFR\$_{-1}$
4. Relation Between the Treasury Bill Rate and Commercial Paper Rate		
(88) RCP	$= (a_{279} - a_{280}) * RTB$	$- a_{277} * AC_7 * DCL\$_{-1} * JCLS_{-1}$ $+ a_{278} * R_{115} * \left(\sum_{i=1}^4 .25MDSS_{-i} \right)$
5. Reserve and Commercial Bank Balance Sheet Identities		
(89) $MDSS$	$= (MRUS - MFR\$ - AC_8 * MTMS) / AC_7$	Constant
(90) $MRUS$	$= -MC\$$	$+ a_{280} * RTB_{-1} + a_{281} * JCD + a_{410}$
6. Supplementary Equations		
(98) $\ln(JMSB)$	$= a_{323} * \ln(MDSS)$	Constant
(99) $JMSB$	$= EXP(.01 * \ln(JMSB))$	$+ a_{324} + a_{325} * JS2 + a_{326} * JS3 + a_{327} * JS4$ $+ a_{328} * \ln(MDSS)_{-1} + a_{329} * \ln(JMSB)_{-1}$

$AC_{10} = ZMS$

(continued)

VI. FINANCIAL SECTOR (continued)

B. TERM STRUCTURE EQUATION FOR CORPORATE BOND RATE

Normalization	Solve	Constant
(91) R_{CB}	$= a_{282}R_{CP}$	$+ a_{283}R_{CP_{-1}} + \dots + a_{300}R_{CP_{-18}} + a_{400} + a_{401}R_{91}$

C. COMMERCIAL LOAN MARKET

Normalization	Solve	Constant
(92) R_{CL}	$= a_{302}DCL\$(MD\$ + MT\$ - DCL\$) + a_{303}R_{CB}$ $+ a_{304}(MCD\$(MD\$ + MT\$))$	$+ (a_{305}AC_{11} + (a_{306} - a_{305})AC_{11,-1} - a_{305}AC_{11,-2})$ $+ a_{307}R_{CL,-1} + a_{308}JS2 + a_{309}JS3 + a_{310}JS4 + a_{311}AC_{11} = ZDR$
(93) $DCL\$$	$= a_{312}(D - I\$) + a_{313}EPD\$ - .25*(a_{315}EPD\$ + a_{316}(XBNF\$ - YH\$ - (D - I\$) + (a_{318}(RTB - RCL) + a_{410}*(R_{CB} - RCL))*(XBNF\$ - YH\$ - XBNF\$_{-1} + YH\$_{-1}) + a_{319}WCO\$$	$+ a_{315}2.5*(D - I\$_{-1} + FPD\$_{-1} + EPS\$_{-1} - WCO\$_{-1})$ $+ (1 - a_{315})DCL\$_{-1} + a_{315}DCL\$_{-2}$ $+ (a_{317} - a_{316})*(XBNF\$_{-1} - YH\$_{-1} - (D - I\$_{-1}) - a_{317}*(XBNF\$_{-2} - YH\$_{-2} - (D - I\$_{-2}))$

D. MUNICIPAL BOND RATE

Normalization	Solve	Constant
(103) R_{SLG}	$= a_{170}R_{CB} + a_{172}DCL\$/MT\$$	$+ a_{169} + a_{171}R_{CB_{-1}} + a_{173}R_{103}$

E. DETERMINATION OF MORTGAGE RATE

Normalization	Solve	Constant
(104) R_M	$= a_{560}R_{CB}$	$+ a_{551}R_{CB_{-1}} + a_{552}R_{CB_{-2}} + a_{553}R_{CB_{-3}} + a_{554}JCD_{-3}$ $+ a_{555} + a_{556}R_{104}$

F. TIME DEPOSITS AT COMMERCIAL BANKS
I. Passbook Savings Accounts

$$\begin{aligned}
 (93) \quad DCL\$ &= a_{315}D + a_{316}(RTB - RCL) + a_{116}RCB \\
 &- YH\$ - (D-I)\$ + (a_{316}*(RTB - RCL) + a_{116}RCB) \\
 &- RCL)*(XBNF\$ - YH\$ - XBNF\$_{-1} + YH\$_{-1}) \\
 &+ a_{317}WCO\$ \\
 &+ (1 - a_{315})DCL\$_{-1} \\
 &+ (a_{317} - a_{316})*(XBNF\$_{-1} - YH\$_{-1} - (D-I)\$_{-1}) \\
 &- a_{317}*(XBNF\$_{-2} - YH\$_{-2} - (D-I)\$_{-2})
 \end{aligned}$$

D. MUNICIPAL BOND RATE

Normalization	Solve	Constant
(103) RSLG	$= a_{170}RCB + a_{172}DCL\$/MT\$$	$+ a_{1769} + a_{1771}RCB_{-1} + a_{1773}R_{103}$

E. DETERMINATION OF MORTGAGE RATE

Normalization	Solve	Constant
(104) RM	$= a_{1550}RCB$	$+ a_{1551}RCB_{-1} + a_{1552}RCB_{-2} + a_{1553}RCB_{-3} + a_{1554}JCD_{-3}$ $+ a_{1555} + a_{1556}R_{104}$

F. TIME DEPOSITS AT COMMERCIAL BANKS

1. Passbook Savings Accounts

Normalization	Solve	Constant
(106) RTP	$= a_{1350}RM + a_{1351}ZINT$	$+ a_{1352}RTP_{-1} + a_{1415}$
(107) MTP\$	$= MTP\$ * JTPS$	
(105) ZINT	$=$	$= .5333(AC_{14} - AC_{14,-1} + ZINT_{-1})$ $AC_{14} = ZCT$
(110) ln (MTP\$)	$= a_{1363} \ln RTP + a_{1364} \ln RSL + a_{1365} \ln RCB$ $+ a_{1366} \ln (.01 * PCON) + (1.0 - a_{1367}) \ln (VCN\$ * 1000)$	$+ a_{1368} \ln MTP\$_{-1} + a_{1369} \ln (.01 * PCON_{-1}) + a_{1370}$
(111) MTP\$	$= EXP(.01 * \ln MTP\$)$	

2. Nonpassbook Time Deposits

Normalization	Solve	Constant
(109) RCD	$= a_{1380}RTB$	$+ a_{1381}RCD_{-1} + a_{1382}$
(112) MCDA\$	$= EXOGENOUS$	
(113) MCDS\$	$= JCDS * MCDA\$$	

(continued)

VI. FINANCIAL SECTOR (concluded)

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F. TIME DEPOSITS AT COMMERCIAL BANKS (continued)

3. Accounting Identity

Normalization	Solve	Constant
(114) $MTM\$$	$= MCD\$ + MTP\$$	
(122) $MT\$$	$= JMT * MTM\$$	

G. SAVINGS AND LOAN ASSOCIATIONS

Normalization	Solve	Constant
(107) RSL	$= a_{353}RTP + a_{354}RM$	$+ a_{355}RSL_{-1} + a_{356}$
(116) $\ln MSL\$$	$= a_{374} \ln RTP + a_{375} \ln RSL + a_{376} \ln RCB$ $+ a_{377} \ln (.01 * PCON) + (1.0 - a_{378}) \ln (VCN\$ * 1000)$	$+ a_{379} \ln MSL\$_{-1} + a_{380} \ln (.01 * PCON_{-1}) + a_{381}$
(117) $MSL\$$	$= EXP(.01 * \ln MSL\$)$	

H. MUTUAL SAVINGS BANKS

Normalization	Solve	Constant
(108) RMS	$= a_{357}RSL$	$+ a_{358}RMS_{-1} + a_{359}$
(118) $\ln MMSS$	$= a_{382} \ln RSL + a_{383} \ln RMS + a_{384} \ln RCB + (a_{385}$ $+ a_{386} + a_{387}) \ln (VCN\$ * 1000) + (a_{388}$ $+ a_{389}) \ln (.01 * PCON)$	$+ a_{390} \ln MMSS_{-1} + a_{391} \ln N + a_{392} \ln (.01 * PCON)$ $+ a_{393}$
(119) $MMSS$	$= EXP(.01 * \ln MMSS)$	

I. LIFE INSURANCE RESERVES

Normalization	Solve	Constant
(120) $\ln MIS\$$	$= a_{394} \ln RCP + (1.0 - a_{395}) \ln (VCN\$ * 1000)$ $+ a_{396} \ln (.01 * PCON)$	$+ a_{397} \ln MIS\$_{-1} + a_{398} \ln (.01 * PCON_{-1}) + a_{399}$
(121) $MIS\$$	$= EXP(.01 * \ln MIS\$)$	

Normalization

$$\begin{aligned}
 (108) \text{ RMS} &= a_{357}RSL \\
 (118) \text{ In MMSS} &= a_{382} \ln RSL + a_{383} \ln RMS + a_{384} \ln RCB + (a_{385} \\
 &\quad + a_{386} + a_{387}) \ln (VCN\$ * 1000) + (a_{388} \\
 &\quad + a_{389}) \ln (.01 * PCON) \\
 (119) \text{ MMSS} &= EXP(.01 * \ln MMSS) \\
 &\quad + a_{358}RMS_{-1} + a_{359} \\
 &\quad + a_{390} \ln MMSS_{-1} + a_{391} \ln N + a_{392} \ln (.01 * PCON) \\
 &\quad + a_{393}
 \end{aligned}$$

I. LIFE INSURANCE RESERVES

Normalization	Solve	Constant
(120) In MISS	$= a_{394} \ln RCP + (1.0 - a_{395}) \ln (VCN\$ * 1000) + a_{396} \ln (.01 * PCON)$	$+ a_{397} \ln MISS_{-1} + a_{398} \ln (.01 * PCON_{-1}) + a_{399}$
(121) MISS	$= EXP(.01 * \ln MISS)$	

J. DIVIDEND PRICE RATIO

Normalization	Solve	Constant
(126) RDP	$= a_{425} * RCB$	$+ a_{426} * RCB_{-1} + a_{427} * RCB_{-2} + a_{428} * RCB_{-3} + a_{429} * RCB_{-4}$ $+ a_{430} * RCB_{-5} + a_{431} * RCB_{-6} + (-a_{432} - a_{433} - a_{434}$ $- a_{435} - a_{436} - a_{437} - \dots - a_{441}) + a_{432}(PCO_{-1}/PCO_{-5})$ $+ \dots + a_{441}(PCO_{-13}/PCO_{-14}) + a_{421}JSTK$ $+ a_{422} \frac{1.0}{(TIME - 3.0)} + a_{423} + a_{434}R_{126}$

K. SAVINGS FLOWS FOR HOUSING STARTS

Normalization	Solve	Constant
(185) D-DSL	$= 1.12(MSL\$_{-1} + MMSS_{-1} - MSL\$_{-12} - MMSS_{-12})$	$- 11.0 * (MSL\$_{-1} + MMSS_{-1})$ $1.12(MSL\$_{-1} + MMSS_{-1} - MSL\$_{-12} - MMSS_{-12})$

NUMERICAL VALUES FOR COEFFICIENTS
(TABLE I)

I. A.

(4)	$a_1 = .0794$	$a_8 = .0448$
	$a_{476} = 37.9982$	$a_9 = .0372$
	$a_{404} = .0954$	$a_{10} = .0289$
	$a_2 = .0764$	$a_{11} = .0199$
	$a_3 = .0728$	$a_{12} = .0103$
	$a_4 = .0686$	$a_{477} = 17.1962$
	$a_5 = .0636$	$a_{478} = 2.1265$
	$a_6 = .0580$	$a_{479} = .000$
	$a_7 = .0517$	$a_{480} = .6055$
(6)	$a_{491} = .3588$	$a_{498} = -.0011$
	$a_{495} = -.0008$	$a_{499} = -.0009$
	$a_{493} = .2119$	$a_{500} = -.0005$
	$a_{494} = -.0030$	$a_{492} = -.3312$
	$a_{496} = -.0010$	$a_{17} = -.2612$
	$a_{497} = -.0011$	$a_{18} = .6342$
(5)	$a_{14} = .0791$	$a_{16} = -6.4838$
	$a_{15} = -.0168$	$a_{405} = .4435$

B. 1.

(17)	$a_{43} = 11.3460$	$a_{61} = -10.1810$
	$a_{44} = 10.4400$	$a_{62} = -8.9030$
	$a_{45} = 9.4480$	$a_{63} = -7.7250$
	$a_{46} = 8.3890$	$a_{64} = -6.6330$
	$a_{47} = 7.2780$	$a_{65} = -5.6080$
	$a_{48} = 6.1580$	$a_{66} = -4.6350$
	$a_{49} = 5.0250$	$a_{67} = -3.7000$
	$a_{50} = 3.9080$	$a_{68} = -2.7830$
	$a_{51} = 2.8250$	$a_{69} = -1.8720$
	$a_{52} = 1.8000$	$a_{70} = -.9500$
	$a_{53} = .8510$	
	$a_{60} = -11.5750$	

CIENTS

= .0448
 = .0372
 = .0289
 = .0199
 = .0103
 = 17.1962
 = 2.1265
 = .000
 = .6055
 = -0.0011
 = -0.0009
 = -0.0005
 = -0.3312
 = -0.2612
 = .6342
 = -6.4838
 = .4435
 = -10.1810
 = -8.9030
 = -7.7250
 = -6.6330
 = -5.6080
 = -4.6350
 = -3.7000
 = -2.7830
 = -1.8720
 = -0.9500

$$\begin{array}{ll}
 (20) \quad a_{94} = .6475 & a_{98} = .0090 \\
 a_{100} = -.7150 & a_{102} = .2122 \\
 a_{95} = .2555 & a_{103} = .3562 \\
 a_{101} = -.1448 & a_{104} = .2862 \\
 a_{96} = .0598 & a_{99} = .0302 \\
 a_{97} = -.0018 & a_{105} = .0044
 \end{array}$$

$$\begin{array}{ll}
 (24) \quad a_{112} = 2.1010 \\
 a_{113} = 1.3775 \\
 a_{114} = 3.5539
 \end{array}$$

$$\begin{array}{ll}
 (32) \quad a_{128} = 1.0000 \\
 a_{129} = 0.0
 \end{array}$$

2.

$$\begin{array}{ll}
 (19) \quad a_{77} = .3512 & a_{84} = .3183 \\
 a_{78} = .5328 & a_{85} = .2865 \\
 a_{79} = .5822 & a_{86} = .2457 \\
 a_{80} = .5537 & a_{87} = .1647 \\
 a_{81} = .4894 & a_{93} = -.2067 \\
 a_{82} = .4190 & a_{92} = .5792 \\
 a_{83} = .3602
 \end{array}$$

$$\begin{array}{ll}
 (27) \quad a_{126} = .0263 \\
 a_{127} = .7258 \\
 a_{411} = -1.8330
 \end{array}$$

$$\begin{array}{ll}
 (33) \quad a_{130} = .4500 \\
 a_{131} = -.0029
 \end{array}$$

3.

$$\begin{array}{ll}
 (21) \quad a_{106} = .8941 \\
 a_{107} = 7.2440 \\
 a_{108} = .7693
 \end{array}$$

$$\begin{array}{ll}
 (22) \quad a_{109} = .8941 \\
 a_{110} = 7.2440 \\
 a_{111} = .7693
 \end{array}$$

(26)	$a_{115} = 0.0$	$a_{121} = .0025$	(12)
	$a_{116} = -.0004$	$a_{122} = .0020$	(18)
	$a_{117} = .0013$	$a_{123} = .0022$	(18)
	$a_{118} = .0023$	$a_{124} = .0008$	(18)
	$a_{119} = .0028$	$a_{125} = .0002$	(18)
	$a_{120} = .0028$	$a_{21} = .0400$	(18)

C.

(181)	$a_{571} = 2.1213$	$a_{576} = .1541$	D.
	$a_{572} = -.8447$	$a_{577} = .7927$	(3)
	$a_{573} = .0600$	$a_{578} = 1.1656$	
	$a_{574} = -1.9201$	$a_{579} = 1.2728$	
	$a_{582} = -0.9502$	$a_{580} = 1.1142$	
	$a_{583} = -0.8445$	$a_{581} = .6900$	
	$a_{584} = -0.5278$	$a_{588} = .0050$	
	$a_{585} = .0590$	$a_{589} = 10.7379$	
	$a_{586} = .0486$	$a_{590} = -2.1213$	
	$a_{587} = .0290$	$a_{591} = .6465$	
	$a_{575} = -.7501$		
(183)	$a_{592} = -1.8011$	$a_{603} = 2.8911$	
	$a_{593} = -.7765$	$a_{604} = 2.3934$	
	$a_{594} = .0622$	$a_{605} = .1157$	
	$a_{595} = -.4423$	$a_{606} = .1436$	
	$a_{596} = -.1759$	$a_{607} = .1460$	
	$a_{597} = .0228$	$a_{608} = .1229$	
	$a_{598} = .1538$	$a_{609} = .0742$	
	$a_{599} = .2170$	$a_{610} = .0050$	(37)
	$a_{600} = .2124$	$a_{611} = 4.4551$	
	$a_{601} = .1401$	$a_{612} = -3.5173$	
	$a_{602} = 1.4929$	$a_{613} = .6114$	(38)
(15)	$a_{614} = 2.0771$	$a_{617} = .7631$	
	$a_{615} = .0184$	$a_{618} = 2.9980$	
	$a_{616} = 1.6145$	$a_{619} = .3247$	
(127)	$a_{557} = .7000$	$a_{559} = 80.000$	
	$a_{558} = .3000$	$a_{560} = -1.1400$	

.0025
 .0020
 .0022
 .0008
 .0002
 .0400

$$\begin{array}{lll}
 (128) & a_{561} = & .9500 & a_{563} = & -2.4400 \\
 & a_{562} = & .0500 & a_{564} = & 80.000 \\
 (186) & a_{547} = & .8500 & a_{549} = & .0408 \\
 & a_{548} = & 2.9658 & a_{546} = & .9933 \\
 (187) & a_{565} = & .1500 & a_{568} = & .9950 \\
 & a_{566} = & 2.9658 & a_{569} = & .6667 \\
 & a_{567} = & .0408 & a_{570} = & .3333
 \end{array}$$

D.

$$\begin{array}{lll}
 (36) & a_{700} = & -61.9952 & a_{716} = & .0001 \\
 & a_{701} = & -.0085 & a_{717} = & .0001 \\
 & a_{702} = & -.0043 & a_{718} = & .0001 \\
 & a_{703} = & -.0007 & a_{719} = & .0001 \\
 & a_{704} = & .0023 & a_{720} = & .0001 \\
 & a_{705} = & .0046 & a_{721} = & .0001 \\
 & a_{706} = & .0063 & a_{722} = & .0001 \\
 & a_{707} = & .0073 & a_{723} = & .0001 \\
 & a_{708} = & .0077 & a_{724} = & .0001 \\
 & a_{709} = & .0075 & a_{725} = & .0001 \\
 & a_{710} = & .0066 & a_{726} = & .3763 \\
 & a_{711} = & .0050 & a_{727} = & -.0537 \\
 & a_{712} = & .0028 & a_{728} = & .2341 \\
 & a_{713} = & -.0011 & a_{729} = & -.0482 \\
 & a_{714} = & -.0006 & & \\
 & a_{715} = & -.0002 & &
 \end{array}$$

$$\begin{array}{lll}
 (37) & a_{161} = & .0250 & a_{164} = & -25.0807 \\
 & a_{162} = & -.0098 & a_{166} = & .6000 \\
 & a_{163} = & .0231 & a_{165} = & .2815
 \end{array}$$

$$\begin{array}{lll}
 (38) & a_{168} = & -.0705 & a_{171} = & 51.4739 \\
 & a_{169} = & .0607 & a_{172} = & .5000 \\
 & a_{170} = & .0926 & a_{173} = & .4310
 \end{array}$$

.1541
 .7927
 1.1656
 1.2728
 1.1142
 .6900
 .0050
 10.7379
 -2.1213
 .6465

 = 2.8911
 = 2.3934
 = .1157
 = .1436
 = .1460
 = .1229
 = .0742
 = .0050
 = 4.4551
 = -3.5173
 = .6114
 = .7631
 = 2.9980
 = .3247
 = 80.000
 = -1.1400

E.

(39)	$a_{177} =$	$-.1380$	$a_{184} =$	-27.6000
	$a_{186} =$	$-.0200$	$a_{185} =$	27.6000
	$a_{178} =$	$.7110$	$a_{187} =$	$.2340$
	$a_{179} =$	$-.5730$	$a_{188} =$	$.1170$
	$a_{180} =$	1.4240	$a_{189} =$	$.0040$
	$a_{181} =$	$-.4240$	$a_{190} =$	$-.1110$
	$a_{182} =$	$.3870$	$a_{191} =$	$-.2240$
	$a_{183} =$	$-.3870$		

F.

(42)	$a_{192} =$	1.0148	$a_{196} =$	$.0817$
	$a_{193} =$	$.1349$	$a_{488} =$	$.0751$
	$a_{194} =$	-3.3794	$a_{489} =$	$.0518$
	$a_{195} =$	$-.0170$		
(169)	$a_{546} =$	$.0050$		
	$a_{568} =$	$.0067$		

NUMERICAL VALUES FOR COEFFICIENTS
(TABLE II)

II. E.

(153)	$a_{482} =$	$.9638$	$a_{445} =$	$.0019$
	$a_{443} =$	$.3867$	$a_{446} =$	$-.0316$
	$a_{444} =$	$-.1059$	$a_{481} =$	$.9090$
(62)	$a_{205} =$	$.0623$	$a_{212} =$	$.0203$
	$a_{206} =$	$.2151$	$a_{213} =$	$.0137$
	$a_{208} =$	$.0518$	$a_{214} =$	$.0070$
	$a_{209} =$	$.0426$	$a_{215} =$	0.0
	$a_{210} =$	$.0345$	$a_{408} =$	$.2570$
	$a_{211} =$	$.0272$		
(169)	$a_{546} =$	$.0067$		
	$a_{568} =$	$.0050$		

G.

(159)

I.

(163)

NUMERICAL

III. A.

(58)

(59)

B.

(63)

(66)

C.

(75)

(78)

G.

$$\begin{aligned} (159) \quad a_{507} &= 0.0 \\ a_{508} &= -0.0103 \\ a_{509} &= -0.0513 \end{aligned}$$

I.

$$\begin{aligned} (163) \quad a_{546} &= .0067 \\ a_{568} &= .0050 \end{aligned}$$

NUMERICAL VALUES FOR COEFFICIENTS
(TABLE III)

III. A.

$$\begin{aligned} (58) \quad a_{197} &= .0150 & a_{199} &= -0.3599 \\ a_{198} &= .0277 & a_{200} &= .4792 \\ (59) \quad a_{202} &= .8908 & a_{204} &= -1.6475 \\ a_{203} &= -0.1786 & a_{207} &= .8971 \end{aligned}$$

B.

$$\begin{aligned} (63) \quad a_{216} &= .5995 \\ a_{217} &= 1.0000 \\ a_{218} &= .7653 \\ a_{167} &= .6300 \\ (66) \quad a_{219} &= .0322 & a_{223} &= 13.6903 \\ a_{220} &= .1314 & a_{224} &= .0167 \\ a_{221} &= .95 & a_{225} &= .1573 \end{aligned}$$

C.

$$\begin{aligned} (75) \quad a_{249} &= -0.3225 \\ a_{250} &= .2751 \\ a_{251} &= -2.1074 \\ (78) \quad a_{252} &= .0187 \\ a_{253} &= .1629 \\ a_{255} &= -30.8473 \end{aligned}$$

-27.6000
27.6000
.2340
.1170
.0040
-.1110
-.2240

.0817
.0751
.0518

CIENTS

= .0019
= -.0316
= .9090
= .0203
= .0137
= .0070
= 0.0
= .2570

D.

(67)	$a_{226} =$	.8611	$a_{230} =$	-.1169
	$a_{227} =$	-.2642	$a_{231} =$	-4.5190
	$a_{228} =$	-.2751	$a_{232} =$	1.0000
	$a_{229} =$	-.1045		
(69)	$a_{233} =$	.5412	$a_{235} =$	-6.9292
	$a_{234} =$	.9974	$a_{236} =$	1.0000
(81)	$a_{257} =$	.0780		
	$a_{417} =$	1.1956		
	$a_{256} =$	.9500		

E.

(71)	$a_{237} =$	1.3956	$a_{240} =$	.8480
	$a_{238} =$	1.0000	$a_{241} =$	-9.7437
	$a_{239} =$	.2443	$a_{409} =$	.6341
(73)	$a_{242} =$	.0207	$a_{246} =$	4.6314
	$a_{243} =$	-.0315	$a_{247} =$	.9022
	$a_{245} =$	.0257		
(155)	$a_{501} =$	-.0010	$a_{505} =$	1.2159
	$a_{502} =$	.0133	$a_{506} =$	.0029
	$a_{503} =$	.9500		

NUMERICAL VALUES FOR COEFFICIENTS
(TABLE IV)

IV. A.

(145)	$a_{458} =$	-.4360	$a_{468} =$	-.0044
	$a_{459} =$	-.0293	$a_{469} =$	-.0058
	$a_{460} =$	-.2750	$a_{470} =$	-.0033
	$a_{461} =$	-.0079	$a_{471} =$	-.0025
	$a_{462} =$	-.0059	$a_{486} =$	-.9629
	$a_{463} =$	-.0066	$a_{465} =$	.6022

(14)

(14)

NUMER

V. A.

(15)

B.

(15)

NUMER

VI. A.

(83)

(146)	$a_{466} =$	.2986	$a_{474} =$	.2525
	$a_{467} =$	.6362	$a_{475} =$	0.0
	$a_{473} =$	.0003		
(143)	$a_{447} =$	.2695	$a_{454} =$	-.0116
	$a_{448} =$	.1905	$a_{455} =$	0.0
	$a_{449} =$	.1244	$a_{456} =$	.8369
	$a_{450} =$	.0714	$a_{457} =$	.0510
	$a_{451} =$	.0312	$a_{485} =$	.5868
	$a_{452} =$	.0040	$a_{487} =$	-1.0526
	$a_{453} =$	-.0103		

NUMERICAL VALUES FOR COEFFICIENTS
(TABLE V)

V. A.

(152)	$a_{635} =$	.2185	$a_{638} =$	-.0324
	$a_{636} =$	.0542	$a_{639} =$	.5288
	$a_{637} =$	.4238	$a_{640} =$	.3261

B.

(154)	$a_{621} =$	.7472	$a_{627} =$	-.0512
	$a_{622} =$	.0806	$a_{628} =$	-.0390
	$a_{624} =$	-.1090	$a_{629} =$	0.0
	$a_{625} =$	-.0409	$a_{630} =$	-.0013
	$a_{621} =$	.7472	$a_{631} =$	-.0012
			$a_{632} =$	-.0016

NUMERICAL VALUES FOR COEFFICIENTS
(TABLE VI)

VI. A. 1.

(83)	$a_{258} =$	.8117	$a_{260} =$	-.4013
	$a_{259} =$	-.0467	$a_{261} =$	.7518

= -.1169
= -4.5190
= 1.0000
= -6.9292
= 1.0000

= .8480
= -9.7437
= .6341
= 4.6314
= .9022
= 1.2159
= .0029

CIENTS

3 = -.0044
9 = -.0058
0 = -.0033
1 = -.0025
6 = -.9629
5 = .6022

2.

$$(87) \begin{array}{ll} a_{262} = -212.5539 & a_{265} = 139.9768 \\ a_{263} = -2.0931 & a_{266} = 27.1245 \\ a_{264} = -6.1365 & a_{267} = .6821 \end{array}$$

$$(115) \begin{array}{ll} a_{268} = .6573 & a_{274} = -.0016 \\ a_{269} = -.3464 & a_{275} = .0013 \\ a_{270} = .0027 & a_{276} = .6484 \\ a_{271} = -.0020 & a_{277} = -.5124 \\ a_{272} = -.0023 & a_{278} = .2271 \\ a_{273} = -.0022 & \end{array}$$

4.

$$(88) \begin{array}{ll} a_{279} = 1.0486 & a_{281} = -.2346 \\ a_{280} = .3331 & a_{410} = .5463 \end{array}$$

6.

$$(98) \begin{array}{ll} a_{323} = -.0946 & a_{327} = -.0008 \\ a_{324} = -.3326 & a_{328} = .1765 \\ a_{325} = -.0028 & a_{329} = .6514 \\ a_{326} = -.0010 & \end{array}$$

B.

$$(91) \begin{array}{ll} a_{282} = .3082 & a_{293} = .0371 \\ a_{283} = -.0328 & a_{294} = .0323 \\ a_{284} = .0121 & a_{295} = .0286 \\ a_{285} = .0413 & a_{296} = .0257 \\ a_{286} = .0581 & a_{297} = .0228 \\ a_{287} = .0657 & a_{298} = .0186 \\ a_{288} = .0665 & a_{299} = .0117 \\ a_{289} = .0630 & a_{300} = 0.0 \\ a_{290} = .0571 & a_{400} = 1.1709 \\ a_{291} = .0500 & a_{401} = .7364 \\ a_{292} = .0432 & \end{array}$$

C.

(92)

(93)

D.

(103)

E.

(104)

F. 1.

(106)

(110)

2.

(109)

C.

139.9768	(92) $a_{302} =$	1.9060	$a_{307} =$	.7274
27.1245	$a_{303} =$	.1884	$a_{308} =$	.0582
.6821	$a_{304} =$	-2.1317	$a_{309} =$	.0527
-.0016	$a_{305} =$	.2636	$a_{310} =$	.0457
.0013	$a_{306} =$	.1304	$a_{311} =$	.0063
.6484	(93) $a_{312} =$	.2018	$a_{318} =$	.0175
-.5124	$a_{313} =$	.0861	$a_{416} =$	.0583
.2271	$a_{315} =$	-.3187	$a_{314} =$	-.3057
	$a_{316} =$	.0495	$a_{317} =$	-.0246

D.

-.2346	(103) $a_{769} =$	-.8332	$a_{772} =$	1.7044
.5463	$a_{770} =$	.8661	$a_{773} =$	.5000
	$a_{771} =$	-.1624		

E.

-.0008	(104) $a_{551} =$	.2204	$a_{554} =$	-.2273
.1765	$a_{552} =$	.1728	$a_{555} =$	2.9001
.6514	$a_{553} =$	.0993	$a_{556} =$	.7000

F. 1.

.0371	(106) $a_{350} =$	.0486	$a_{352} =$	.9650
.0323	$a_{351} =$	.4243	$a_{415} =$	.1590
.0286	(110) $a_{363} =$	.1230	$a_{367} =$	.9125
.0257	$a_{364} =$	.000	$a_{368} =$	.9125
.0228	$a_{365} =$	-.1334	$a_{369} =$	-.9125
.0186	$a_{366} =$	.9125	$a_{370} =$	-.1986

2.

1.1709	(109) $a_{360} =$	.9485
.7364	$a_{361} =$	.2143
	$a_{362} =$	-.3110

G.

(107)	$a_{353} =$	.0742	$a_{355} =$	.8581
	$a_{354} =$	.0815	$a_{356} =$	-.1195
(116)	$a_{374} =$	-.0040	$a_{378} =$	.9529
	$a_{375} =$	.1002	$a_{379} =$	.9529
	$a_{376} =$	-.0400	$a_{380} =$	-.9529
	$a_{377} =$	.9529	$a_{381} =$	-.2018

H.

(108)	$a_{357} =$	.1568		
	$a_{358} =$	.8581		
	$a_{359} =$	-.0673		
(118)	$a_{382} =$	-.0230	$a_{388} =$	.9982
	$a_{383} =$	.0937	$a_{389} =$	.0653
	$a_{384} =$	-.0497	$a_{390} =$	.9982
	$a_{385} =$	1.0000	$a_{391} =$	.0653
	$a_{386} =$	-.9982	$a_{392} =$	-.9982
	$a_{387} =$	-.0653	$a_{393} =$	-.1669

I.

(120)	$a_{394} =$	-.0117	$a_{397} =$	.9297
	$a_{395} =$	.9297	$a_{398} =$	-.9297
	$a_{396} =$	.9297	$a_{399} =$	-.1798

J.

(126)	$a_{425} =$	.2291	$a_{436} =$	-5.6400
	$a_{426} =$	.2192	$a_{437} =$	-4.6700
	$a_{427} =$	.1980	$a_{438} =$	-3.4500
	$a_{428} =$	.1655	$a_{439} =$	-2.1600
	$a_{429} =$	.1217	$a_{440} =$	-.9800
	$a_{430} =$	.0666	$a_{441} =$	.0900
	$a_{431} =$	0.0	$a_{442} =$	.4991
	$a_{432} =$	-3.1400	$a_{422} =$	169.0089
	$a_{433} =$	-5.1000	$a_{423} =$	-3.9299
	$a_{434} =$	-6.0300	$a_{484} =$	.7883
	$a_{435} =$	-6.1500		