

**The US Model**  
**Appendix A**  
**October 31, 2003**

**Table A.1**  
**The Six Sectors of the US Model**

Sector	Corresponding Sector(s) in the Flow of Funds Accounts
1 Household (h)	1 Households and Nonprofit Organizations (H)
2 Firm (f)	2a Nonfarm Nonfinancial Corporate Business (F1) 2b Nonfarm Noncorporate Business (NN) 2c Farm Business (FA)
3 Financial (b)	3a Commercial Banking (B1): (1) U.S.-Chartered Commercial Banks (2) Foreign Banking Offices in U.S. (3) Bank Holding Companies (4) Banks in U.S.-Affiliated Areas 3b Private Nonbank Financial Institutions (B2): (1) Savings Institutions (2) Credit Unions (3) Bank Personal Trusts and Estates (4) Life Insurance Companies (5) Other Insurance Companies (6) Private Pension Funds (7) State and Local Government Employee Retirement Funds (8) Money Market Mutual Funds (9) Mutual Funds (10) Closed-End Funds (11) Issuers of Asset-Backed Securities (12) Finance Companies (13) Mortgage Companies (14) Real Estate Investment Trusts (15) Security Brokers and Dealers (16) Funding Corporations
4 Foreign (r)	4 Rest of the World (R)
5 Fed. Gov. (g)	5a Federal Government (US) 5b Government-Sponsored Enterprises (CA) 5c Federally Related Mortgage Pools 5d Monetary Authority (MA)
6 S & L Gov. (s)	6 State and Local Governments (S)

- The abbreviations h, f, b, r, g, and s are used throughout the book.
- The abbreviations H, F1, NN, FA, B1, B2, R, US, CA, MA, and S are used in Table A.5 in the description of the flow of funds data.

**Table A.2**  
**The Variables in the US Model in Alphabetical Order**

Variable	Eq.	Description
<i>AA</i>	89	Total net wealth, h, B96\$.
<i>AB</i>	73	Net financial assets, b, B\$.
<i>AF</i>	70	Net financial assets, f, B\$.
<i>AG</i>	77	Net financial assets, g, B\$.
<i>AG1</i>	exog	Percent of 16+ population 26-55 minus percent 16-25.
<i>AG2</i>	exog	Percent of 16+ population 56-65 minus percent 16-25.
<i>AG3</i>	exog	Percent of 16+ population 66+ minus percent 16-25.
<i>AH</i>	66	Net financial assets, h, B\$.
<i>AR</i>	75	Net financial assets, r, B\$.
<i>AS</i>	79	Net financial assets, s, B\$.
<i>BO</i>	22	Bank borrowing from the Fed, B\$.
<i>BR</i>	57	Total bank reserves, B\$.
<i>CCB</i>	exog	Capital consumption, b, B96\$.
<i>CCF</i>	21	Capital consumption, f, B\$.
<i>CCG</i>	exog	Capital consumption, g, B\$.
<i>CCH</i>	exog	Capital consumption, h, B\$.
<i>CCS</i>	exog	Capital consumption, s, B\$.
<i>CD</i>	3	Consumer expenditures for durable goods, B96\$.
<i>CDA</i>	exog	Peak to peak interpolation of CD/POP.
<i>CF</i>	68	Cash flow, f, B\$.
<i>CG</i>	25	Capital gains(+) or losses(-) on the financial assets of h, B\$.
<i>CN</i>	2	Consumer expenditures for nondurable goods, B96\$.
<i>COG</i>	exog	Purchases of consumption and investment goods, g, B96\$.
<i>COS</i>	exog	Purchases of consumption and investment goods, s, B96\$.
<i>CS</i>	1	Consumer expenditures for services, B96\$.
<i>CUR</i>	26	Currency held outside banks, B\$.
<i>D1G</i>	exog	Personal income tax parameter, g.
<i>D1GM</i>	90	Marginal personal income tax rate, g.
<i>D1S</i>	exog	Personal income tax parameter, s.
<i>D1SM</i>	91	Marginal personal income tax rate, s.
<i>D2G</i>	exog	Profit tax rate, g.
<i>D2S</i>	exog	Profit tax rate, s.
<i>D3G</i>	exog	Indirect business tax rate, g.
<i>D3S</i>	exog	Indirect business tax rate, s.
<i>D4G</i>	exog	Employee social security tax rate, g.
<i>D5G</i>	exog	Employer social security tax rate, g.
<i>D593</i>	exog	1 in 1959:3; 0 otherwise.
<i>D594</i>	exog	1 in 1959:4; 0 otherwise.
<i>D601</i>	exog	1 in 1960:1; 0 otherwise.
<i>D621</i>	exog	1 in 1962:1; 0 otherwise.
<i>D692</i>	exog	1 in 1969:2; 0 otherwise.
<i>D714</i>	exog	1 in 1971:4; 0 otherwise.
<i>D721</i>	exog	1 in 1972:1; 0 otherwise.
<i>D722</i>	exog	1 in 1972:2; 0 otherwise.
<i>D723</i>	exog	1 in 1972:3; 0 otherwise.
<i>D794823</i>	exog	1 in 1979:4-1982:3; 0 otherwise.
<i>D923</i>	exog	1 in 1992:3; 0 otherwise.
<i>D924</i>	exog	1 in 1992:4; 0 otherwise.
<i>D941</i>	exog	1 in 1994:1; 0 otherwise.
<i>D942</i>	exog	1 in 1994:2; 0 otherwise.
<i>D981</i>	exog	1 in 1998:1; 0 otherwise.
<i>D013</i>	exog	1 in 2001:3; 0 otherwise.
<i>D014</i>	exog	1 in 2001:4; 0 otherwise.
<i>DB</i>	exog	Dividends paid, b, B\$.

Table A.2 (continued)

Variable	Eq.	Description
<i>DELD</i>	exog	Physical depreciation rate of the stock of durable goods, rate per quarter.
<i>DELH</i>	exog	Physical depreciation rate of the stock of housing, rate per quarter.
<i>DELK</i>	exog	Physical depreciation rate of the stock of capital, rate per quarter.
<i>DF</i>	18	Dividends paid, f, B\$.
<i>DISB</i>	exog	Discrepancy for b, B\$.
<i>DISBA</i>	exog	Discrepancy between NIPA and FFA data on capital consumption, nonfinancial corporate business, B\$.
<i>DISF</i>	exog	Discrepancy for f, B\$.
<i>DISG</i>	exog	Discrepancy for g, B\$.
<i>DISH</i>	exog	Discrepancy for h, B\$.
<i>DISR</i>	exog	Discrepancy for r, B\$.
<i>DISS</i>	exog	Discrepancy for s, B\$.
<i>DRS</i>	exog	Dividends received by s, B\$.
<i>E</i>	85	Total employment, civilian and military, millions.
<i>EX</i>	exog	Exports, B96\$.
<i>EXPG</i>	106	Total expenditures, g, B\$.
<i>EXPS</i>	113	Total expenditures, s, B\$.
<i>FA</i>	exog	Farm gross product, B96\$.
<i>FIROW</i>	exog	Payments of factor income to the rest of the world, B\$.
<i>FIROWD</i>	exog	FIROW price deflator.
<i>FIUS</i>	exog	Receipts of factor income from the rest of the world, B\$.
<i>FIUSD</i>	exog	FIUS price deflator.
<i>G1</i>	exog	Reserve requirement ratio.
<i>GDP</i>	82	Gross Domestic Product, B\$.
<i>GDPD</i>	84	GDP price deflator.
<i>GDPR</i>	83	Gross Domestic Product, B96\$.
<i>GNP</i>	129	Gross National Product, B\$.
<i>GNPD</i>	131	GNP price deflator.
<i>GNPR</i>	130	Gross National Product, B96\$.
<i>HF</i>	14	Average number of hours paid per job, f, hours per quarter.
<i>FFF</i>	100	Deviation of HF from its peak to peak interpolation.
<i>HFS</i>	exog	Peak to peak interpolation of HF.
<i>HG</i>	exog	Average number of hours paid per civilian job, g, hours per quarter.
<i>HM</i>	exog	Average number of hours paid per military job, g, hours per quarter.
<i>HN</i>	62	Average number of non overtime hours paid per job, f, hours per quarter.
<i>HO</i>	15	Average number of overtime hours paid per job, f, hours per quarter.
<i>HS</i>	exog	Average number of hours paid per job, s, hours per quarter.
<i>IBTG</i>	51	Indirect business taxes, g, B\$.
<i>IBTS</i>	52	Indirect business taxes, s, B\$.
<i>IGZ</i>	exog	Gross investment, g, B\$.
<i>IHB</i>	exog	Residential investment, b, B96\$.
<i>IHF</i>	exog	Residential investment, f, B96\$.
<i>IHH</i>	4	Residential investment, h, B96\$.
<i>IHHA</i>	exog	Peak to peak interpolation of IHH/POP.
<i>IKB</i>	exog	Nonresidential fixed investment, b, B96\$.
<i>IKF</i>	92	Nonresidential fixed investment, f, B96\$.
<i>IKG</i>	exog	Nonresidential fixed investment, g, B96\$.
<i>IKH</i>	exog	Nonresidential fixed investment, h, B96\$.
<i>IM</i>	27	Imports, B96\$.
<i>INS</i>	exog	Insurance and pension reserves to h from g, B\$.
<i>INTF</i>	19	Net interest payments, f, B\$.
<i>INTG</i>	29	Net interest payments, g, B\$.
<i>INTOTH</i>	exog	Net interest payments, other private business, B\$.
<i>INTROW</i>	exog	Net interest payments, r, B\$.
<i>INTS</i>	exog	Net interest payments, s, B\$.

Table A.2 (continued)

Variable	Eq.	Description
<i>ISZ</i>	exog	Gross investment, s, B\$.
<i>IVA</i>	20	Inventory valuation adjustment, B\$.
<i>IVF</i>	117	Inventory investment, f, B96\$.
<i>JF</i>	13	Number of jobs, f, millions.
<i>JG</i>	exog	Number of civilian jobs, g, millions.
<i>JHMIN</i>	94	Number of worker hours required to produce Y, millions.
<i>JJ</i>	95	Ratio of the total number of worker hours paid for to the total population 16 and over.
<i>JJP</i>	exog	Potential value of JJ.
<i>JM</i>	exog	Number of military jobs, g, millions.
<i>JS</i>	exog	Number of jobs, s, millions.
<i>KD</i>	58	Stock of durable goods, B96\$.
<i>KH</i>	59	Stock of housing, h, B96\$.
<i>KK</i>	12	Stock of capital, f, B96\$.
<i>KKMIN</i>	93	Amount of capital required to produce Y, B96\$.
<i>L1</i>	5	Labor force of men 25-54, millions.
<i>L2</i>	6	Labor force of women 25-54, millions.
<i>L3</i>	7	Labor force of all others, 16+, millions.
<i>LAM</i>	exog	Amount of output capable of being produced per worker hour.
<i>LM</i>	8	Number of "moonlighters": difference between the total number of jobs (establishment data) and the total number of people employed (household survey data), millions.
<i>M1</i>	81	Money supply, end of quarter, B\$.
<i>MB</i>	71	Net demand deposits and currency, b, B\$.
<i>MDIF</i>	exog	Net increase in demand deposits and currency of banks in U.S. possessions plus change in demand deposits and currency of private nonbank financial institutions plus change in demand deposits and currency of federally sponsored credit agencies and mortgage pools minus mail float, U.S. government, B\$.
<i>MF</i>	17	Demand deposits and currency, f, B\$.
<i>MG</i>	exog	Demand deposits and currency, g, B\$.
<i>MH</i>	9	Demand deposits and currency, h, B\$.
<i>MR</i>	exog	Demand deposits and currency, r, B\$.
<i>MS</i>	exog	Demand deposits and currency, s, B\$.
<i>MUH</i>	exog	Amount of output capable of being produced per unit of capital.
<i>PCD</i>	37	Price deflator for CD.
<i>PCGDPD</i>	122	Percentage change in GDPD, annual rate, percentage points.
<i>PCGDPR</i>	123	Percentage change in GDPR, annual rate, percentage points.
<i>PCM1</i>	124	Percentage change in M1, annual rate, percentage points.
<i>PCN</i>	36	Price deflator for CN.
<i>PCS</i>	35	Price deflator for CS.
<i>PD</i>	33	Price deflator for X - EX + IM (domestic sales).
<i>PEX</i>	32	Price deflator for EX.
<i>PF</i>	10	Price deflator for X - FA.
<i>PFA</i>	exog	Price deflator for FA.
<i>PG</i>	40	Price deflator for COG.
<i>PH</i>	34	Price deflator for CS + CN + CD + IHH inclusive of indirect business taxes.
<i>PIEB</i>	exog	Before tax profits, b, B96\$.
<i>PIEF</i>	67	Before tax profits, f, B\$.
<i>PIH</i>	38	Price deflator for residential investment.
<i>PIK</i>	39	Price deflator for nonresidential fixed investment.
<i>PIM</i>	exog	Price deflator for IM.
<i>PIV</i>	42	Price deflator for inventory investment, adjusted.

Table A.2 (continued)

Variable	Eq.	Description
<i>POP</i>	120	Noninstitutional population 16+, millions.
<i>POP1</i>	exog	Noninstitutional population of men 25-54, millions.
<i>POP2</i>	exog	Noninstitutional population of women 25-54, millions.
<i>POP3</i>	exog	Noninstitutional population of all others, 16+, millions.
<i>PROD</i>	118	Output per paid for worker hour ("productivity").
<i>PS</i>	41	Price deflator for COS.
<i>PSI1</i>	exog	Ratio of PEX to PX.
<i>PSI2</i>	exog	Ratio of PCS to (1 + D3G + D3S)PD.
<i>PSI3</i>	exog	Ratio of PCN to (1 + D3G + D3S)PD.
<i>PSI4</i>	exog	Ratio of PCD to (1 + D3G + D3S)PD.
<i>PSI5</i>	exog	Ratio of PIH to PD.
<i>PSI6</i>	exog	Ratio of PIK to PD.
<i>PSI7</i>	exog	Ratio of PG to PD.
<i>PSI8</i>	exog	Ratio of PS to PD.
<i>PSI9</i>	exog	Ratio of PIV to PD.
<i>PSI10</i>	exog	Ratio of WG to WF.
<i>PSI11</i>	exog	Ratio of WM to WF.
<i>PSI12</i>	exog	Ratio of WS to WF.
<i>PSI13</i>	exog	Ratio of gross product of g and s to total employee hours of g and s.
<i>PUG</i>	104	Purchases of goods and services, g, B\$.
<i>PUS</i>	110	Purchases of goods and services, s, B\$.
<i>PX</i>	31	Price deflator for X.
<i>Q</i>	exog	Gold and foreign exchange, g, B\$.
<i>RB</i>	23	Bond rate, percentage points.
<i>RD</i>	exog	Discount rate, percentage points.
<i>RECG</i>	105	Total receipts, g, B\$.
<i>RECS</i>	112	Total receipts, s, B\$.
<i>RM</i>	24	Mortgage rate, percentage points.
<i>RMA</i>	128	After tax mortgage rate, percentage points.
<i>RNT</i>	exog	Rental income, h, B\$.
<i>RS</i>	30	Three-month Treasury bill rate, percentage points.
<i>RSA</i>	130	After tax bill rate, percentage points.
<i>SB</i>	72	Saving, b, B\$.
<i>SF</i>	69	Saving, f, B\$.
<i>SG</i>	76	Saving, g, B\$.
<i>SGP</i>	107	NIA surplus (+) or deficit (-), g, B\$.
<i>SH</i>	65	Saving, h, B\$.
<i>SHRPIE</i>	121	Ratio of after tax profits to the wage bill net of employer social security taxes.
<i>SIFG</i>	54	Employer social insurance contributions, f to g, B\$.
<i>SIFS</i>	exog	Employer social insurance contributions, f to s, B\$.
<i>SIG</i>	103	Total employer and employee social insurance contributions to g, B\$.
<i>SIGG</i>	exog	Employer social insurance contributions, g to g, B\$.
<i>SIHG</i>	53	Employee social insurance contributions, h to g, B\$.
<i>SIHS</i>	exog	Employee social insurance contributions, h to s, B\$.
<i>SIS</i>	109	Total employer and employee social insurance contributions to s, B\$.
<i>SISS</i>	exog	Employer social insurance contributions, s to s, B\$.
<i>SR</i>	74	Saving, r, B\$.
<i>SRZ</i>	116	Saving rate, h.
<i>SS</i>	78	Saving, s, B\$.
<i>SSP</i>	114	NIA surplus (+) or deficit (-), s, B\$.
<i>STAT</i>	exog	Statistical discrepancy, B\$.
<i>STATP</i>	exog	Statistical discrepancy relating to the use of chain type price indices, B96\$.
<i>SUBG</i>	exog	Subsidies less current surplus of government enterprises, g, B\$.
<i>SUBS</i>	exog	Subsidies less current surplus of government enterprises, s, B\$.

Table A.2 (continued)

Variable	Eq.	Description
<i>T</i>	exog	1 in 1952:1, 2 in 1952:2, etc.
<i>TAUG</i>	exog	Progressivity tax parameter in personal income tax equation for g.
<i>TAUS</i>	exog	Progressivity tax parameter in personal income tax equation for s.
<i>TBG</i>	exog	Corporate profit taxes, b to g, B\$.
<i>TBS</i>	exog	Corporate profit taxes, b to s, B\$.
<i>TCG</i>	102	Corporate profit tax receipts, g, B\$.
<i>TCS</i>	108	Corporate profit tax receipts, s, B\$.
<i>TFG</i>	49	Corporate profit taxes, f to g, B\$.
<i>TFS</i>	50	Corporate profit taxes, f to s, B\$.
<i>THG</i>	47	Personal income taxes, h to g, B\$.
<i>THS</i>	48	Personal income taxes, h to s, B\$.
<i>TPG</i>	101	Personal income tax receipts, g, B\$.
<i>TRFH</i>	exog	Transfer payments, f to h, B\$.
<i>TRFR</i>	exog	Transfer payments, f to r, B\$.
<i>TRGH</i>	exog	Transfer payments, g to h, B\$.
<i>TRGR</i>	exog	Transfer payments, g to r, B\$.
<i>TRGS</i>	exog	Transfer payments, g to s, B\$.
<i>TRHR</i>	exog	Transfer payments, h to r, B\$.
<i>TRRSH</i>	111	Total transfer payments, s to h, B\$.
<i>TRSH</i>	exog	Transfer payments, s to h, excluding unemployment insurance benefits, B\$.
<i>U</i>	86	Number of people unemployed, millions.
<i>UB</i>	28	Unemployment insurance benefits, B\$.
<i>UBR</i>	128	Unborrowed reserves, B\$.
<i>UR</i>	87	Civilian unemployment rate.
<i>V</i>	63	Stock of inventories, f, B96\$.
<i>WA</i>	126	After tax wage rate. (Includes supplements to wages and salaries except employer contributions for social insurance.)
<i>WF</i>	16	Average hourly earnings excluding overtime of workers in f. (Includes supplements to wages and salaries except employer contributions for social insurance.)
<i>WG</i>	44	Average hourly earnings of civilian workers in g. (Includes supplements to wages and salaries including employer contributions for social insurance.)
<i>WH</i>	43	Average hourly earnings excluding overtime of all workers. (Includes supplements to wages and salaries except employer contributions for social insurance.)
<i>WLDF</i>	exog	Wage accruals less disbursements, f, B\$.
<i>WLDG</i>	exog	Wage accruals less disbursements, g, B\$.
<i>WLDS</i>	exog	Wage accruals less disbursements, s, B\$.
<i>WM</i>	45	Average hourly earnings of military workers. (Includes supplements to wages and salaries including employer contributions for social insurance.)
<i>WR</i>	119	Real wage rate of workers in f. (Includes supplements to wages and salaries except employer contributions for social insurance.)
<i>WS</i>	46	Average hourly earnings of workers in s. (Includes supplements to wages and salaries including employer contributions for social insurance.)
<i>X</i>	60	Total sales f, B96\$.
<i>XX</i>	61	Total sales, f, B\$.
<i>Y</i>	11	Production, f, B96\$.
<i>YD</i>	115	Disposable income, h, B\$.
<i>YNL</i>	99	After tax nonlabor income, h, B\$.
<i>YS</i>	98	Potential output of the firm sector.
<i>YT</i>	64	Taxable income, h, B\$.

• B\$ = Billions of dollars.

• B96\$ = Billions of 1996 dollars.

**Table A.3**  
**The Equations of the US Model**

Eq.	LHS Variable	STOCHASTIC EQUATIONS Explanatory Variables
<b>Household Sector</b>		
1	$\log(CS/POP)$	cnst, $AG1, AG2, AG3, \log(CS/POP)_{-1}, \log[YD/(POP \cdot PH)],$ $RSA, \log(AA/POP)_{-1}, T$ [Consumer expenditures: services]
2	$\log(CN/POP)$	cnst, $AG1, AG2, AG3, \log(CN/POP)_{-1}, \Delta \log(CN/POP)_{-1},$ $\log(AA/POP)_{-1}, \log[YD/(POP \cdot PH)], RMA$ [Consumer expenditures: nondurables]
3	$\Delta CD/POP$	cnst, $AG1, AG2, AG3, DELD(KD/POP)_{-1} - (CD/POP)_{-1},$ $(KD/POP)_{-1}, YD/(POP \cdot PH), RMA \cdot CDA, (AA/POP)_{-1}$ [Consumer expenditures: durables]
4	$\Delta IHH/POP$	cnst, $DELH(KH/POP)_{-1} - (IHH/POP)_{-1}, (KH/POP)_{-1},$ $(AA/POP)_{-1}, YD/(POP \cdot PH), RMA_{-1}IHH, RHO = 2$ [Residential investment-h]
5	$\log(L1/POP1)$	cnst, $\log(L1/POP1)_{-1}, \log(AA/POP)_{-1}, UR$ [Labor force-men 25-54]
6	$\log(L2/POP2)$	cnst, $\log(L2/POP2)_{-1}, \log(WA/PH), \log(AA/POP)_{-1}$ [Labor force-women 25-54]
7	$\log(L3/POP3)$	cnst, $\log(L3/POP1)_{-1}, \log(WA/PH), \log(AA/POP)_{-1}, UR$ [Labor force-all others 16+]
8	$\log(LM/POP)$	cnst, $\log(LM/POP)_{-1}, \log(WA/PH), UR$ [Number of moonlighters]
9	$\log[MH/(POP \cdot PH)]$	cnst, $\log[MH_{-1}/(POP_{-1}PH)], \log[YD/(POP \cdot PH)], RSA, T,$ $D981, RHO = 4$ [Demand deposits and currency-h]
<b>Firm Sector</b>		
10	$\log PF$	$\log PF_{-1}, \log[WF(1 + D5G)] - \log LAM, \text{cnst}, \log PIM, UR, T$ [Price deflator for X-FA]
11	$\log Y$	cnst, $\log Y_{-1}, \log X, \log V_{-1}, D593, D594, D601, RHO = 3$ [Production-f]
12	$\Delta \log KK$	$\log(KK/KKMIN)_{-1}, \Delta \log KK_{-1}, \Delta \log Y, \Delta \log Y_{-1}, \Delta \log Y_{-2},$ $\Delta \log Y_{-3}, \Delta \log Y_{-4}, \Delta \log Y_{-5}, RB_{-2}(1 - D2G_{-2} - D2S_{-2}) -$ $100(PD_{-2}/PD_{-6}) - 1, (CG_{-2} + CG_{-3} + CG_{-4})/(PX_{-2}YS_{-2} +$ $PX_{-3}YS_{-3} + PX_{-4}YS_{-4})$ [Stock of capital-f]
13	$\Delta \log JF$	cnst, $\log[JF/(JHMIN/HFS)]_{-1}, \Delta \log JF_{-1}, \Delta \log Y, D593$ [Number of jobs-f]
14	$\Delta \log HF$	cnst, $\log(HF/HFS)_{-1}, \log[JF/(JHMIN/HFS)]_{-1}, \Delta \log Y$ [Average number of hours paid per job-f]
15	$\log HO$	cnst, $HFF, HFF_{-1}, RHO = 1$ [Average number of overtime hours paid per job-f]
16	$\log WF - \log LAM$	$\log WF_{-1} - \log LAM_{-1}, \log PF, \text{cnst}, T, \log PF_{-1}$ [Average hourly earnings excluding overtime-f]
17	$\log(MF/PF)$	cnst, $T, \log(MF_{-1}/PF), \log(X - FA), RS(1 - D2G - D2S)_{-1},$ $D981$ [Demand deposits and currency-f]
18	$\Delta \log DF$	$\log[(PIEF - TFG - TFS)/DF_{-1}]$ [Dividends paid-f]



Table A.3 (continued)

Eq.	LHS Variable	Explanatory Variables
19	$\Delta[INTF/(-AF + 40)]$	cnst, $[INTF/(-AF + 40)]_{-1}$ , $.75(1/400)[.3RS + .7(1/8)(RB + RB_{-1} + RB_{-2} + RB_{-3} + RB_{-4} + RB_{-5} + RB_{-6} + RB_{-7})]$ , $RHO = 1$
20	$IVA$	[Interest payments-f] $(PX - PX_{-1})V_{-1}$ , $RHO = 1$
21	$\Delta \log CCF$	[Inventory valuation adjustment] $\log[(PIK \cdot IKF)/CCF_{-1}]$ , cnst, $D621, D722, D723, D923, D924, D941, D942, D013, D014$ , $RHO = 1$ [Capital consumption-f]
<b>Financial Sector</b>		
22	$BO/BR$	cnst, $(BO/BR)_{-1}$ , $RS, RD$ [Bank borrowing from the Fed]
23	$RB - RS_{-2}$	cnst, $RB_{-1} - RS_{-2}$ , $RS - RS_{-2}$ , $RS_{-1} - RS_{-2}$ , $RHO = 1$ [Bond rate]
24	$RM - RS_{-2}$	cnst, $RM_{-1} - RS_{-2}$ , $RS - RS_{-2}$ , $RS_{-1} - RS_{-2}$ [Mortgage rate]
25	$CG/(PX_{-1} \cdot YS_{-1})$	cnst, $\Delta RB$ , $[\Delta(PIEF - TFG - TFS + PX \cdot PIEB - TBG - TBS)]/(PX_{-1} \cdot YS_{-1})$ [Capital gains or losses on the financial assets of h]
26	$\log[CUR/(POP \cdot PF)]$	cnst, $\log[CUR_{-1}/(POP_{-1}PF)]$ , $\log[(X - FA)/POP]$ , $RSA$ , $RHO = 1$ [Currency held outside banks]
<b>Import Equation</b>		
27	$\log(IM/POP)$	cnst, $\log(IM/POP)_{-1}$ , $\log[(CS+CN+CD+IHH+IKF+IHB+IHF+IKB+IKH)/POP]$ , $\log(PF/PIM)$ , $D691, D692, D714, D721$ , $RHO = 2$ [Imports]
<b>Government Sectors</b>		
28	$\log UB$	cnst, $\log UB_{-1}$ , $\log U$ , $\log WF$ , $RHO = 1$ [Unemployment insurance benefits]
29	$\Delta[INTG/(-AG)]$	cnst, $[INTG/(-AG)]_{-1}$ , $.75(1/400)[.3RS + .7(1/8)(RB + RB_{-1} + RB_{-2} + RB_{-3} + RB_{-4} + RB_{-5} + RB_{-6} + RB_{-7})]$
30	$RS$	cnst, $RS_{-1}$ , $100[(PD/PD_{-1})^4 - 1]$ , $UR$ , $\Delta UR$ , $PCM1_{-1}$ , $D794823 \cdot PCM1_{-1}$ , $\Delta RS_{-1}$ , $\Delta RS_{-2}$ [Three-month Treasury bill rate]

Table A.3 (continued)

IDENTITIES		
Eq.	LHS Variable	Explanatory Variables
31	$PX =$	$[PF(X - FA) + PFA \cdot FA]/X$ [Price deflator for X]
32	$PEX =$	$PSI1 \cdot PX$ [Price deflator for EX]
33	$PD =$	$(PX \cdot X - PEX \cdot EX + PIM \cdot IM)/(X - EX + IM)$ [Price deflator for domestic sales]
34	$PH =$	$(PCS \cdot CS + PCN \cdot CN + PCD \cdot CD + PIH \cdot IHH + IBTG + IBTS)/(CS + CN + CD + IHH)$ [Price deflator for (CS + \$CNS + \$CD\$ + IHH) inclusive of indirect business taxes]
35	$PCS =$	$PSI2(1 + D3G + D3S)PD$ [Price deflator for CS]
36	$PCN =$	$PSI3(1 + D3G + D3S)PD$ [Price deflator for CN]
37	$PCD =$	$PSI4(1 + D3G + D3S)PD$ [Price deflator for CD]
38	$PIH =$	$PSI5 \cdot PD$ [Price deflator for residential investment]
39	$PIK =$	$PSI6 \cdot PD$ [Price deflator for nonresidential fixed investment]
40	$PG =$	$PSI7 \cdot PD$ [Price deflator for COG]
41	$PS =$	$PSI8 \cdot PD$ [Price deflator for COS]
42	$PIV =$	$PSI9 \cdot PD$ [Price deflator for inventory investment]
43	$WH =$	$100[(WF \cdot JF(HN + 1.5HO) + WG \cdot JG \cdot HG + WM \cdot JM \cdot HM + WS \cdot JS \cdot HS - SIGG - SISS)/(JF(HN + 1.5HO) + JG \cdot HG + JM \cdot HM + JS \cdot HS)]$ [Average hourly earnings excluding overtime of all workers]
44	$WG =$	$PSI10 \cdot WF$ [Average hourly earnings of civilian workers-g]
45	$WM =$	$PSI11 \cdot WF$ [Average hourly earnings of military workers]
46	$WS =$	$PSI12 \cdot WF$ [Average hourly earnings of workers-s]
47	$THG =$	$[D1G + ((TAUG \cdot YT)/POP)]YT$ [Personal income taxes-h to g]
48	$THS =$	$[D1S + ((TAUS \cdot YT)/POP)]YT$ [Personal income taxes-h to s]
49	$TFG =$	$D2G(PIEF - TFS)$ [Corporate profits taxes-f to g]
50	$TFS =$	$D2S \cdot PIEF$ [Corporate profits taxes-f to s]
51	$IBTG =$	$[D3G/(1 + D3G)](PCS \cdot CS + PCN \cdot CN + PCD \cdot CD - IBTS)$ [Indirect business taxes-g]
52	$IBTS =$	$[D3S/(1 + D3S)](PCS \cdot CS + PCN \cdot CN + PCD \cdot CD - IBTG)$ [Indirect business taxes-s]
53	$SIHG =$	$D4G[WF \cdot JF(HN + 1.5HO)]$ [Employee social insurance contributions-h to g]
54	$SIFG =$	$D5G[WF \cdot JF(HN + 1.5HO)]$ [Employer social insurance contributions-f to g]
55	none	
56	none	
57	$BR =$	$-G1 \cdot MB$ [Total bank reserves]

Table A.3 (continued)

Eq.	LHS Variable	Explanatory Variables
58	$KD =$	$(1 - DELD)KD_{-1} + CD$ [Stock of durable goods]
59	$KH =$	$(1 - DELH)KH_{-1} + IHH$ [Stock of housing-h]
60	$X =$	$CS + CN + CD + IHH + IKF + EX - IM + COG + COS +$ $IKH + IKB + IKG + IHF + IHB - PIEB - CCB$ [Total sales-f]
61	$XX =$	$PCS \cdot CS + PCN \cdot CN + PCD \cdot CD + PIH \cdot IHH + PIK \cdot IKF +$ $PEX \cdot EX - PIM \cdot IM + PG \cdot COG + PS \cdot COS + PIK(IKH +$ $IKB + IKG) + PIH(IHF + IHB) - PX(PIEB + CCB) - IBTG -$ $IBTS$ [Total nominal sales-f]
62	$HN =$	$HF - HO$ [Average number of non overtime hours paid per job-f]
63	$V =$	$V_{-1} + Y - X$ [Stock of inventories-f]
64	$YT =$	$WF \cdot JF(HN + 1.5HO) + WG \cdot JG \cdot HG + WM \cdot JM \cdot HM +$ $WS \cdot JS \cdot HS + DF + DB - DRS + INTF + INTG + INTS +$ $INTOTH + INTROW + RNT + TRFH - SIGG - SISS$ [Taxable income-h]
65	$SH =$	$YT + CCH - PCS \cdot CS - PCN \cdot CN - PCD \cdot CD - PIH \cdot IHH -$ $PIK \cdot IKH - TRHR - THG - SIHG + TRGH - THS - SIHS +$ $TRSH + UB + INS - WLDF$ [Saving-h]
66	$0 =$	$SH - \Delta AH - \Delta MH + CG - DISH$ [Budget constraint-h; (determines AH)]
67	$PIEF =$	$XX + PIV(V - V_{-1}) - WF \cdot JF(HN + 1.5HO) - RNT -$ $TRFH - TRFR - CCH + SUBG + SUBS - INTF - INTOTH -$ $INTROW - CCF - IVA - STAT - SIFG - SIFS + FIUS -$ $FIROW - CCG - CCS + WLDG + WLDS + DISBA$ [Before tax profits-f]
68	$CF =$	$XX - WF \cdot JF(HN + 1.5HO) - RNT - TRFH - TRFR - CCH +$ $SUBG + SUBS - INTF - INTOTH - INTROW - PIK \cdot IKF -$ $PIH \cdot IHF - SIFG - SIFS + FIUS - FIROW - CCG - CCS +$ $WLDG + WLDS + DISBA$ [Cash flow-f]
69	$SF =$	$CF - TFG - TFS - DF$ [Saving-f]
70	$0 =$	$SF - \Delta AF - \Delta MF - DISF - STAT - WLDF + WLDG +$ $WLDS + DISBA$ [Budget constraint-f; (determines AF)]
71	$0 =$	$\Delta MB + \Delta MH + \Delta MF + \Delta MR + \Delta MG + \Delta MS - \Delta CUR$ [Demand deposit identity; (determines MB)]
72	$SB =$	$PX(PIEB + CCB) - PIK \cdot IKB - PIH \cdot IHB - DB - TBG - TBS$ [Saving-b]
73	$0 =$	$SB - \Delta AB - \Delta MB - \Delta(BR - BO) - DISB$ [Budget constraint-b; (determines AB)]
74	$SR =$	$PIM \cdot IM + TRHR + TRGR + TRFR - PEX \cdot EX + FIROW -$ $FIUS$ [Saving-r]
75	$0 =$	$SR - \Delta AR - \Delta MR + \Delta Q - DISR$ [Budget constraint-r; (determines AR)]
76	$SG =$	$THG + IBTG + TFG + TBG + SIHG + SIFG - PG \cdot COG -$ $WG \cdot JG \cdot HG - WM \cdot JM \cdot HM - INTG - TRGR - TRGH -$ $TRGS - SUBG - INS + SIGG - PIK \cdot IKG + CCG$ [Saving-g]
77	$0 =$	$SG - \Delta AG - \Delta MG + \Delta CUR + \Delta(BR - BO) - \Delta Q - DISG$ [Budget constraint-g; (determines AG unless AG is exogenous)]

Table A.3 (continued)

Eq.	LHS Variable	Explanatory Variables
78	$SS =$	$THS + IBTS + TFS + TBS + SIHS + SIFS + TRGS + DRS - PS \cdot COS - WS \cdot JS \cdot HS - INTS - SUBS - TRSH - UB + SISS + CCS$ [Saving-s]
79	$0 =$	$SS - \Delta AS - \Delta MS - DISS$ [Budget constraint-s; (determines AS)]
80	$0 =$	$\Delta AH + \Delta AF + \Delta AB + \Delta AG + \Delta AS + \Delta AR - CG + DISH + DISF + DISB + DISG + DISS + DISR + STAT + WLDF - WLDG - WLDS - DISBA$ [Asset identity (redundant equation)]
81	$M1 =$	$M1_{-1} + \Delta MH + \Delta MF + \Delta MR + \Delta MS + MDIF$ [Money supply]
82	$GDP =$	$XX + PIV(V - V_{-1}) + IBTG + IBTS + WG \cdot JG \cdot HG + WM \cdot JM \cdot HM + WS \cdot JS \cdot HS + WLDG + WLDS + PX(PIEB + CCB)$ [Nominal GDP]
83	$GDPR =$	$Y + PIEB + CCB + PSI13(JG \cdot HG + JM \cdot HM + JS \cdot HS) + STATP$ [Real GDP]
84	$GDPD =$	$GDP / GDPR$ [GDP price deflator]
85	$E =$	$JF + JG + JM + JS - LM$ [Total employment, civilian and military]
86	$U =$	$L1 + L2 + L3 - E$ [Number of people unemployed]
87	$UR =$	$U / (L1 + L2 + L3 - JM)$ [Civilian unemployment rate]
88	none	
89	$AA =$	$(AH + MH) / PH + (PIH \cdot KH) / PH$ [Total net wealth-h]
90	$D1GM =$	$D1G + (2TAUG \cdot YT) / POP$ [Marginal personal income tax rate-g]
91	$D1SM =$	$D1S + (2TAUS \cdot YT) / POP$ [Marginal personal income tax rate-s]
92	$IKF =$	$KK + (1 - DELK)KK_{-1}$ [Nonresidential fixed investment-f]
93	$KKMIN =$	$Y / MUH$ [Amount of capital required to produce Y]
94	$JHMIN =$	$Y / LAM$ [Number of worker hours required to produce Y]
95	$JJ =$	$(JF \cdot HF + JG \cdot HG + JM \cdot HM + JS \cdot HS) / POP$ [Ratio of the total number of worker hours paid for to the total population 16 and over]
96	none	
97	none	
98	$YS =$	$LAM(JJP \cdot POP - JG \cdot HG - JM \cdot HM - JS \cdot HS)$ [Potential output of the firm sector]
99	$YNL =$	$[1 - D1G - D1S - (TAUG + TAUS)(YT / POP)](RNT + DF + DB - DRS + INTF + INTG + INTS + INTOTH + INTROW + TRFH) + TRGH + TRSH + UB$ [After-tax nonlabor income-h]
100	$HFF =$	$HF - HFS$ [Deviation of HF from its peak to peak interpolation]
101	$TPG =$	$THG$ [Personal income tax receipts-g]
102	$TCG =$	$TFG + TBG$ [Corporate profit tax receipts-g]
103	$SIG =$	$SIHG + SIFG + SIGG$ [Total social insurance contributions to g]
104	$PUG =$	$PG \cdot COG + WG \cdot JG \cdot HG + WM \cdot JM \cdot HM + WLDG$ [Purchases of goods and services-g]
105	$RECG =$	$TPG + TCG + IBTG + SIG$ [Total receipts-g]

Table A.3 (continued)

Eq.	LHS Variable	Explanatory Variables
106	$EXPG =$	$PUG + TRGH + TRGR + TRGS + INTG + SUBG - WLDG - IGZ$ [Total expenditures-g]
107	$SGP =$	$RECG - EXPG$ [NIPA surplus or deficit-g]
108	$TCS =$	$TFS + TBS$ [Corporate profit tax receipts-s]
109	$SIS =$	$SIHS + SIFS + SISS$ [Total social insurance contributions to s]
110	$PUS =$	$PS \cdot COS + WS \cdot JS \cdot HS + WLDS$ [Purchases of goods and services-s]
111	$TRRSH =$	$TRSH + UB$ [Total transfer payments-s to h]
112	$RECS =$	$THS + TCS + IBTS + SIS + TRGS$ [Total receipts-s]
113	$EXPS =$	$PUS + TRRSH + INTS - DRS + SUBS - WLDS - ISZ$ [Total expenditures-s]
114	$SSP =$	$RECS - EXPS$ [NIPA surplus or deficit-s]
115	$YD =$	$WF \cdot JF(HN + 1.5HO) + WG \cdot JG \cdot HG + WM \cdot JM \cdot HM + WS \cdot JS \cdot HS + RNT + DF + DB - DRS + INTF + INTG + INTS + INTOH + INTROW + TRFH + TRGH + TRSH + UB - SIHG - SIHS - THG - THS - TRHR - SIGG - SISS$ [Disposable income-h]
116	$SRZ =$	$(YD - PCS \cdot CS - PCN \cdot CN - PCD \cdot CD)/YD$ [Saving rate-h]
117	$IVF =$	$V - V_{-1}$ [Inventory investment-f]
118	$PROD =$	$Y/(JF \cdot HF)$ [Output per paid for worker hour: "productivity"]
119	$WR =$	$WF/PF$ [Real wage rate of workers in f]
120	$POP$	$= POP1 + POP2 + POP3$ [Noninstitutional population 16 and over]
121	$SHRPIE =$	$[(1 - D2G - D2S)PIEF]/[WF \cdot JF(HN + 1.5HO)]$ [Ratio of after tax profits to the wage bill net of employer social security taxes]
122	$PCGDPR =$	$100[(GDPR/GDPR_{-1})^4 - 1]$ [Percentage change in GDPR]
123	$PCGDPD =$	$100[(GDPD/GDPD_{-1})^4 - 1]$ [Percentage change in GDPD]
124	$PCM1 =$	$100[(M1/M1_{-1})^4 - 1]$ [Percentage change in M1]
125	$UBR =$	$BR - BO$ [Unborrowed reserves]
126	$WA =$	$100[(1 - D1GM - D1SM - D4G)[WF \cdot JF(HN + 1.5HO)] + (1 - D1GM - D1SM)(WG \cdot JG \cdot HG + WM \cdot JM \cdot HM + WS \cdot JS \cdot HS - SIGG - SISS)]/[JF(HN + 1.5HO) + JG \cdot HG + JM \cdot HM + JS \cdot HS]$ [After tax wage rate]
127	$RSA =$	$RS(1 - D1GM - D1SM)$ [After-tax three-month Treasury bill rate]
128	$RMA =$	$RM(1 - D1GM - D1SM)$ [After-tax mortgage rate]
129	$GNP =$	$GDP + FIUS - FIROW$ [Nominal GNP]
130	$GNPR =$	$GDPR + FIUS/FIUSD - FIROW/FIROWD$ [Real GNP]
131	$GNPD =$	$GNP/GNPR$ [GNP price deflator]

**Table A.4**  
**Coefficient Estimates and Test Results**  
**for the US Equations**

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See Chapter 1 for discussion of the tests.

See Chapter 2 for discussion of the equations.

\* = significant at the 99 percent level.

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**Table A1**  
**Equation 1**  
**LHS Variable is  $\log(CS/POP)$**

RHS Variable	Equation	Coef.	t-stat.	Test	$\chi^2$ Tests		
					$\chi^2$	df	p-value
cnst		0.03431	0.91	Lags	1.07	4	0.8990
AG1		-0.28370	-3.86	RHO	8.17	4	0.0856
AG2		-0.50083	-4.15	Leads +1	6.75	1	0.0094
AG3		0.78975	4.90	Leads +4	9.58	4	0.0482
$\log(CS/POP)_{-1}$		0.80330	19.44	Leads +8	7.79	2	0.0203
$\log[YD/(POP \cdot PH)]$		0.10100	2.87				
RSA		-0.00097	-4.80				
$\log(AA/POP)_{-1}$		0.01747	3.84				
T		0.00032	3.60				
SE	0.00401						
R <sup>2</sup>	1.000						
DW	1.90						
overid (df = 13, p-value = 0.0069)							
$\chi^2$ (AGE) = 32.95 (df = 3, p-value = 0.0000)							
Stability Test				End Test			
AP	$T_1$	$T_2$	$\lambda$	Break	p-value	End	
25.60	1970.1	1979.4	2.26	1977.3	1.0000	1995.1	
25.55	1975.1	1984.4	2.22	1977.3			
20.34	1980.1	1989.4	2.34	1980.1			

Estimation period is 1954.1-2003.3

**Table A2**  
**Equation 2**  
**LHS Variable is  $\log(CN/POP)$**

RHS Variable	Equation	Coef.	t-stat.	Test	$\chi^2$ Tests		
					$\chi^2$	df	p-value
cnst		-0.13382	-1.98	Lags	16.73	4	0.0022
AG1		-0.15303	-1.63	RHO	17.37	4	0.0016
AG2		0.56910	3.78	T	0.03	1	0.8587
AG3		-0.19374	-1.27	Leads +1	3.82	1	0.0506
$\log(CN/POP)_{-1}$		0.78840	22.00	Leads +4	5.79	4	0.2155
$\Delta \log(CN/POP)_{-1}$		0.14033	2.23	Leads +8	2.70	2	0.2587
$\log(AA/POP)_{-1}$		0.03964	4.30				
$\log[YD/(POP \cdot PH)]$		0.10962	4.82				
RMA		-0.00199	-5.01				
SE	0.00612						
R <sup>2</sup>	0.999						
DW	1.89						
overid (df = 13, p-value = 0.1691)							
$\chi^2$ (AGE) = 16.78 (df = 3, p-value = 0.0008)							
Stability Test				End Test			
AP	$T_1$	$T_2$	$\lambda$	Break	p-value	End	
14.52	1970.1	1979.4	2.26	1975.1	0.8077	1995.1	
16.21	1975.1	1984.4	2.22	1981.1			
16.06	1980.1	1989.4	2.34	1981.1			

Estimation period is 1954.1-2003.3

**Table A3**  
**Equation 3**  
**LHS Variable is  $CD/POP - (CD/POP)_{-1}$**

RHS Variable	Equation			$\chi^2$ Tests		
	Coef.	t-stat.	Test	$\chi^2$	df	p-value
cnst	-0.13508	-0.98	Lags	0.55	4	0.9688
AG1	-0.10965	-0.48	RHO	12.24	4	0.0157
AG2	3.21566	5.62	T	5.42	1	0.0200
AG3	-2.19472	-4.14	Leads +1	8.26	1	0.0041
<sup>a</sup>	0.35078	5.62	Leads +4	6.06	4	0.1948
$(KD/POP)_{-1}$	-0.02287	-3.80	Leads +8	11.84	2	0.0027
$YD/(POP \cdot PH)$	0.10597	4.48				
$RMA \cdot CDA$	-0.00562	-3.69				
$(AA/POP)_{-1}$	0.00041	2.50				
SE	0.01512					
R <sup>2</sup>	0.231					
DW	1.99					
overid (df = 9, p-value = 0.0325)						
$\chi^2$ (AGE) = 32.76 (df = 3, p-value = 0.0000)						
			Stability Test		End Test	
AP	T <sub>1</sub>	T <sub>2</sub>	$\lambda$	Break	p-value	End
13.96	1970.1	1979.4	2.26	1979.1	0.0308	1995.1
17.09	1975.1	1984.4	2.22	1980.3		
17.56	1980.1	1989.4	2.34	1980.3		

Estimation period is 1954.1-2003.3

<sup>a</sup>Variable is  $DEL D(KD/POP)_{-1} - (CD/POP)_{-1}$

**Table A4**  
**Equation 4**  
**LHS Variable is  $IHH/POP - (IHH/POP)_{-1}$**

RHS Variable	Equation			$\chi^2$ Tests		
	Coef.	t-stat.	Test	$\chi^2$	df	p-value
cnst	0.33535	4.24	Lags	2.32	3	0.5095
<sup>a</sup>	0.53268	7.91	RHO	0.96	2	0.6174
$(KH/POP)_{-1}$	-0.03263	-3.50	T	5.18	1	0.0229
$YD/(POP \cdot PH)$	0.14032	3.86	Leads +1	0.02	1	0.8910
$RMA_{-1} \cdot IHHA$	-0.02910	-6.29	Leads +4	122.72	4	0.0000
RHO1	0.61439	7.84	Leads +8	2.52	2	0.2835
RHO2	0.23344	3.21				
SE	0.00961					
R <sup>2</sup>	0.371					
DW	1.97					
overid (df = 17, p-value = 0.2626)						
$\chi^2$ (AGE) = 3.95 (df = 3, p-value = 0.2667)						
			Stability Test		End Test	
AP	T <sub>1</sub>	T <sub>2</sub>	$\lambda$	Break	p-value	End
6.80	1970.1	1979.4	2.26	1975.1	0.8000	1995.1
5.59	1975.1	1984.4	2.22	1975.1		
2.53	1980.1	1989.4	2.34	1989.4		

Estimation period is 1954.1-2003.3

<sup>a</sup>Variable is  $DEL H(KH/POP)_{-1} - (IHH/POP)_{-1}$



**Table A5**  
**Equation 5**  
**LHS Variable is  $\log(L1/POP1)$**

RHS Variable	Equation		t-stat.	Test	$\chi^2$ Tests		
	Coef.				$\chi^2$	df	p-value
cnst	0.02022		2.51	Lags	4.38	3	0.2229
$\log(L1/POP1)_{-1}$	0.92783		32.01	RHO	48.34	4	0.0000
$\log(AA/POP)_{-1}$	-0.00540		-2.59	T	4.22	1	0.0399
UR	-0.02247		-1.49				
SE	0.00216						
R <sup>2</sup>	0.989						
DW	2.22						
overid (df = 9, p-value =0.0480)							
				Stability Test		End Test	
AP	T <sub>1</sub>	T <sub>2</sub>	$\lambda$	Break	p-value	End	
6.28	1970.1	1979.4	2.26	1970.2	0.3000	1995.1	
0.31	1975.1	1984.4	2.22	1984.4			
0.93	1980.1	1989.4	2.34	1989.4			

Estimation period is 1954.1-2003.3

**Table A6**  
**Equation 6**  
**LHS Variable is  $\log(L2/POP2)$**

RHS Variable	Equation		t-stat.	Test	$\chi^2$ Tests		
	Coef.				$\chi^2$	df	p-value
cnst	0.03882		2.47	Lags	2.06	3	0.5607
$\log(L2/POP2)_{-1}$	0.99443		183.45	RHO	7.85	4	0.0974
$\log(WA/PH)$	0.01623		2.47	T	0.74	1	0.3887
$\log(AA/POP)_{-1}$	-0.00930		-2.85	Leads +1	0.57	1	0.4492
				Leads +4	3.61	4	0.4619
				Leads +8	3.25	2	0.1965
				log PH	0.54	1	0.4611
SE	0.00575						
R <sup>2</sup>	0.999						
DW	2.14						
overid (df = 14, p-value =0.2901)							
				Stability Test		End Test	
AP	T <sub>1</sub>	T <sub>2</sub>	$\lambda$	Break	p-value	End	
7.57	1970.1	1979.4	2.26	1973.1	0.8385	1995.1	
3.61	1975.1	1984.4	2.22	1976.1			
2.95	1980.1	1989.4	2.34	1987.2			

Estimation period is 1954.1-2003.3

**Table A7**  
**Equation 7**  
**LHS Variable is  $\log(L3/POP3)$**

RHS Variable	Equation		t-stat.	Test	$\chi^2$ Tests		
	Coef.				$\chi^2$	df	p-value
cnst	0.01955		1.27	Lags	4.48	4	0.3453
$\log(L3/POP3)_{-1}$	0.97708		57.15	RHO	2.67	4	0.6149
$\log(WA/PH)$	0.00858		1.30	T	1.18	1	0.2770
$\log(AA/POP)_{-1}$	-0.00709		-1.38	Leads +1	0.03	1	0.8669
UR	-0.12498		-3.35	Leads +8	0.82	2	0.6642
				$\log PH$	0.65	1	0.4202
SE	0.00539						
R <sup>2</sup>	0.986						
DW	2.03						
overid (df = 8, p-value = 0.1796)							
AP	Stability Test			Break	End Test		
	T <sub>1</sub>	T <sub>2</sub>	$\lambda$		p-value	End	
6.56	1970.1	1979.4	2.26	1970.1	0.6615	1995.1	
5.92	1975.1	1984.4	2.22	1979.2			
7.90	1980.1	1989.4	2.34	1989.4			

Estimation period is 1954.1-2003.3

**Table A8**  
**Equation 8**  
**LHS Variable is  $\log(LM/POP)$**

RHS Variable	Equation		t-stat.	Test	$\chi^2$ Tests		
	Coef.				$\chi^2$	df	p-value
cnst	-0.46055		-5.28	Lags	2.92	3	0.4042
$\log(LM/POP)_{-1}$	0.83316		30.06	RHO	5.33	4	0.2548
$\log(WA/PH)$	0.15954		4.45	T	3.56	1	0.0593
UR	-2.90019		-6.12	Leads +1	0.72	1	0.3945
				Leads +4	2.18	4	0.7030
				Leads +8	2.88	2	0.2364
				$\log PH$	2.95	1	0.0857
SE	0.06554						
R <sup>2</sup>	0.931						
DW	1.98						
overid (df = 15, p-value = 0.2192)							
AP	Stability Test			Break	End Test		
	T <sub>1</sub>	T <sub>2</sub>	$\lambda$		p-value	End	
4.48	1970.1	1979.4	2.26	1979.2	1.0000	1995.1	
4.57	1975.1	1984.4	2.22	1980.1			
4.54	1980.1	1989.4	2.34	1989.4			

Estimation period is 1954.1-2003.3

**Table A9**  
**Equation 9**  
**LHS Variable is  $\log[MH/(POP \cdot PH)]$**

RHS Variable	Equation	Coef.	t-stat.	Test	$\chi^2$ Tests		
					$\chi^2$	df	p-value
cnst		0.47565	0.96	<sup>a</sup>	1.48	1	0.2237
$\log[MH_{-1}/(POP_{-1} \cdot PH)]$		0.66185	7.13	Lags	6.01	3	0.1113
$\log[YD/(POP \cdot PH)]$		0.13792	0.31				
RSA		-0.01827	-3.11				
T		-0.00256	-0.80				
D981		-0.11928	-3.16				
RHO1		0.39091	3.48				
RHO2		0.31049	4.14				
RHO3		-0.02735	-0.33				
RHO4		0.27831	3.54				
SE	0.04335						
R <sup>2</sup>	0.966						
DW	1.93						
overid (df = 30, p-value = 0.0283)							
$\chi^2$ (AGE) = 1.53 (df = 3, p-value = 0.6743)							
		Stability Test			End Test		
AP	T <sub>1</sub>	T <sub>2</sub>	$\lambda$	Break	p-value	End	
18.07	1970.1	1979.4	2.26	1979.2	0.0000	1995.1	
24.29	1975.1	1984.4	2.22	1984.1			
25.53	1980.1	1989.4	2.34	1986.1			

Estimation period is 1954.1-2003.3

<sup>a</sup>Variable is  $\log[(MH/(POP \cdot PH))_{-1}]$

**Table A10**  
**Equation 10**  
**LHS Variable is log PF**

RHS Variable	Equation		t-stat.	Test	$\chi^2$ Tests		
	Coef.				$\chi^2$	df	p-value
log $PF_{-1}$	0.88374		85.90	Lags	4.49	4	0.3433
<sup>a</sup>	0.04088		3.27	RHO	5.61	4	0.2301
cnst	-0.02442		-2.34	Leads +1	3.31	1	0.0687
log $PIM$	0.04824		21.76	Leads +4	3.19	4	0.5270
$UR$	-0.18341		-7.92	Leads +8	1.94	2	0.3794
$T$	0.00030		9.84	<sup>b</sup>	0.02	1	0.8954
				$(YS - Y)/YS$	0.00	1	0.9591
SE	0.00331						
R <sup>2</sup>	1.000						
DW	1.79						
overid (df = 8, p-value =0.3071)							
	Stability Test				End Test		
AP	$T_1$	$T_2$	$\lambda$	Break	p-value	End	
12.88	1970.1	1979.4	2.26	1972.2	1.0000	1995.1	
8.65	1975.1	1984.4	2.22	1978.2			
8.08	1980.1	1989.4	2.34	1981.3			

Estimation period is 1954.1-2003.3

<sup>a</sup>Variable is  $\log[WF(1 + D5G)] - \log LAM$

<sup>b</sup>Variable is  $\log[(YS - Y)/YS + .04]$

**Table A11**  
**Equation 11**  
**LHS Variable is log Y**

RHS Variable	Equation		t-stat.	Test	$\chi^2$ Tests		
	Coef.				$\chi^2$	df	p-value
cnst	0.28268		4.10	Lags	0.49	2	0.7810
log $Y_{-1}$	0.32929		7.23	RHO	1.95	1	0.1622
log $X$	0.86245		17.55	$T$	0.15	1	0.6964
log $V_{-1}$	-0.23845		-8.32	Leads +1	1.89	1	0.1697
$D593$	-0.01160		-3.13	Leads +4	2.20	4	0.6993
$D594$	-0.00418		-1.13	Leads +8	1.15	2	0.5616
$D601$	0.00868		2.35				
RHO1	0.41191		5.27				
RHO2	0.31790		4.32				
RHO3	0.19185		2.62				
SE	0.00403						
R <sup>2</sup>	1.000						
DW	2.02						
overid (df = 20, p-value =0.1101)							
	Stability Test				End Test		
AP	$T_1$	$T_2$	$\lambda$	Break	p-value	End	
7.18	1970.1	1979.4	2.26	1973.4	0.9154	1995.1	
6.53	1975.1	1984.4	2.22	1979.4			
5.60	1980.1	1989.4	2.34	1980.2			

Estimation period is 1954.1-2003.3

**Table A12**  
**Equation 12**  
**LHS Variable is  $\Delta \log K K$**

RHS Variable	Equation			Test	$\chi^2$ Tests		
	Coef.	t-stat.			$\chi^2$	df	p-value
cnst	0.00008	0.48		Lags	3.52	5	0.6203
$\log(K K / K K M I N)_{-1}$	-0.00604	-2.34		RHO	0.64	4	0.9582
$\Delta \log K K_{-1}$	0.92961	56.59		T	1.17	1	0.2790
$\Delta \log Y$	0.03780	3.96		Leads +1	0.51	1	0.4749
$\Delta \log Y_{-1}$	0.00694	1.47		Leads +4	2.19	4	0.7006
$\Delta \log Y_{-2}$	0.00600	1.43		Leads +8	4.85	2	0.0886
$\Delta \log Y_{-3}$	0.00803	1.99					
$\Delta \log Y_{-4}$	0.00718	1.84					
$R B A_{-2} - p_{4-2}^e$	-0.00005	-2.76					
$a$	0.00046	2.31					
SE	0.00044						
R <sup>2</sup>	0.970						
DW	1.97						
overid (df = 8, p-value = 0.3555)							
Stability Test					End Test		
AP	$T_1$	$T_2$	$\lambda$	Break	p-value	End	
7.15	1970.1	1979.4	2.26	1977.1	0.2615	1995.1	
8.68	1975.1	1984.4	2.22	1984.4			
9.13	1980.1	1989.4	2.34	1986.1			

Estimation period is 1954.1-2003.3

<sup>a</sup>Variable is  $(CG_{-2} + CG_{-3} + CG_{-4}) / (P X_{-2} Y S_{-2} + P X_{-3} Y S_{-3} + P X_{-4} Y S_{-4})$

**Table A13**  
**Equation 13**  
**LHS Variable is  $\Delta \log J F$**

RHS Variable	Equation			Test	$\chi^2$ Tests		
	Coef.	t-stat.			$\chi^2$	df	p-value
cnst	0.00173	2.73		Lags	3.97	3	0.2648
$\log J F / (J H M I N / H F S)_{-1}$	-0.09124	-5.29		RHO	1.41	4	0.8425
$\Delta \log J F_{-1}$	0.49314	11.87		T	1.57	1	0.2108
$\Delta \log Y$	0.31126	8.90		Leads +1	0.47	1	0.4939
$D 5 9 3$	-0.01520	-4.97		Leads +4	5.86	4	0.2102
				Leads +8	0.56	2	0.7568
SE	0.00296						
R <sup>2</sup>	0.771						
DW	1.95						
overid (df = 16, p-value = 0.3259)							
Stability Test					End Test		
AP	$T_1$	$T_2$	$\lambda$	Break	p-value	End	
3.86	1970.1	1979.4	2.26	1975.2	0.6231	1995.1	
3.90	1975.1	1984.4	2.22	1975.2			
3.12	1980.1	1989.4	2.34	1980.3			

Estimation period is 1954.1-2003.3

**Table A14**  
**Equation 14**  
**LHS Variable is  $\Delta \log HF$**

RHS Variable	Equation		t-stat.	Test	$\chi^2$ Tests		
	Coef.				$\chi^2$	df	p-value
cnst	-0.00322		-5.15	Lags	1.98	3	0.5771
$\log(HF/HFS)_{-1}$	-0.12016		-3.68	RHO	7.85	4	0.0972
$\log JF/(JHMIN/HFS)_{-1}$	-0.01839		-1.15	T	0.00	1	0.9477
$\Delta \log Y$	0.23342		5.67	Leads +1	0.22	1	0.6374
				Leads +4	2.91	4	0.5732
				Leads +8	0.05	2	0.9760
SE	0.00283						
R <sup>2</sup>	0.298						
DW	2.03						
overid (df = 6, p-value = 0.2276)							
		Stability Test			End Test		
AP	T <sub>1</sub>	T <sub>2</sub>	$\lambda$	Break	p-value	End	
12.55	1970.1	1979.4	2.26	1976.2	0.9538	1995.1	
13.18	1975.1	1984.4	2.22	1980.2			
13.42	1980.1	1989.4	2.34	1988.2			

Estimation period is 1954.1-2003.3

**Table A15**  
**Equation 15**  
**LHS Variable is  $\log HO$**

RHS Variable	Equation		t-stat.	Test	$\chi^2$ Tests		
	Coef.				$\chi^2$	df	p-value
cnst	4.04796		16.58	Lags	2.28	2	0.3204
HFF	0.01821		7.92	RHO	2.01	3	0.5701
HFF <sub>-1</sub>	0.00822		3.58	T	7.02	1	0.0081
RHO1	0.98236		59.68				
SE	0.04656						
R <sup>2</sup>	0.959						
DW	1.80						
		Stability Test			End Test		
AP	T <sub>1</sub>	T <sub>2</sub>	$\lambda$	Break	p-value	End	
2.69	1970.1	1979.4	2.38	1979.3	1.0000	1995.1	
5.73	1975.1	1984.4	2.29	1984.1			
6.44	1980.1	1989.4	2.39	1985.3			

Estimation period is 1956.1-2003.3

**Table A16**  
**Equation 16**  
**LHS Variable is  $\log WF - \log LAM$**

RHS Variable	Equation	Coef.	t-stat.	Test	$\chi^2$ Tests		
					$\chi^2$	df	p-value
$\log WF_{-1} - \log LAM_{-1}$		0.93997	42.83	<sup>b</sup> RealWageRes.	0.02	1	0.8900
$\log PF$		0.82710	16.69	Lags	2.60	1	0.1065
cnst		-0.05103	-3.87	RHO	0.95	4	0.9169
$T$		0.00010	2.66	$UR$	0.18	1	0.6716
<sup>a</sup> $\log PF_{-1}$		-0.78066	0.00				
SE	0.00700						
R <sup>2</sup>	0.902						
DW	1.75						
overid (df = 13, p-value = 0.3149)							
				Stability Test		End Test	
AP	$T_1$	$T_2$	$\lambda$	Break	p-value	End	
3.38	1970.1	1979.4	2.26	1972.2	0.6769	1995.1	
2.96	1975.1	1984.4	2.22	1979.2			
2.53	1980.1	1989.4	2.34	1981.1			

Estimation period is 1954.1-2003.3

<sup>a</sup>Coefficient constrained. See the discussion in the text.

<sup>b</sup>Equation estimated with no restrictions on the coefficients.

**Table A17**  
**Equation 17**  
**LHS Variable is  $\log(MF/PF)$**

RHS Variable	Equation	Coef.	t-stat.	Test	$\chi^2$ Tests		
					$\chi^2$	df	p-value
cnst		0.12342	2.22	$\log(MF/PF)_{-1}$	0.00	1	0.9891
$\log(MF_{-1}/PF)$		0.93850	53.26	Lags	1.06	3	0.7867
$\log(X - FA)$		0.03839	3.81	RHO	0.78	4	0.9405
<sup>a</sup>		-0.00485	-2.69	$T$	0.01	1	0.9041
$D981$		0.14192	4.65				
SE	0.03032						
R <sup>2</sup>	0.987						
DW	2.02						
overid (df = 14, p-value = 0.1042)							
				Stability Test		End Test	
AP	$T_1$	$T_2$	$\lambda$	Break	p-value	End	
1.43	1970.1	1979.4	2.26	1975.2	0.0231	1995.1	
2.67	1975.1	1984.4	2.22	1984.4			
4.57	1980.1	1989.4	2.34	1986.2			

Estimation period is 1954.1-2003.3

<sup>a</sup>Variable is  $[RS(1 - D2G - D2S)]_{-1}$

**Table A18**  
**Equation 18**  
**LHS Variable is  $\Delta \log DF$**

RHS Variable	Equation		t-stat.	Test	$\chi^2$ Tests		
	Coef.				$\chi^2$	df	p-value
$a$	0.02747		12.19	$b$ Restriction	2.59	1	0.1076
				Lags	6.62	2	0.0365
				RHO	16.25	4	0.0027
				$T$	2.61	1	0.1062
				cnst	1.21	1	0.2712
SE	0.02250						
R <sup>2</sup>	0.044						
DW	1.65						
overid (df = 7, p-value = 0.1357)							
Stability Test				End Test			
AP	$T_1$	$T_2$	$\lambda$	Break	p-value	End	
4.51	1970.1	1979.4	2.26	1976.1	0.5385	1995.1	
5.25	1975.1	1984.4	2.22	1984.4			
6.43	1980.1	1989.4	2.34	1986.1			

Estimation period is 1954.1-2003.3

$a$ Variable is  $\log[(PIEF - TFG - TFS)/DF]_{-1}$

$b$  $\log DF_{-1}$  added.

**Table A19**  
**Equation 19**  
**LHS Variable is  $\Delta[INTF/(-AF + 40)]$**

RHS Variable	Equation		t-stat.	Test	$\chi^2$ Tests		
	Coef.				$\chi^2$	df	p-value
cnst	0.00016		2.01	$b$ Restriction	0.67	1	0.4148
$a$	0.01459		1.22	Lags	24.39	2	0.0000
RHO1	0.40163		5.99	RHO	3.99	3	0.2624
				$T$	7.42	1	0.0064
SE	0.00068						
R <sup>2</sup>	0.156						
DW	2.00						
Stability Test				End Test			
AP	$T_1$	$T_2$	$\lambda$	Break	p-value	End	
2.24	1970.1	1979.4	2.26	1977.1	0.0000	1995.1	
5.96	1975.1	1984.4	2.22	1983.1			
6.32	1980.1	1989.4	2.34	1983.1			

Estimation period is 1954.1-2003.3

$a$ Variable is  $.75RQ - INTF_{-1}/(-AF_{-1} + 40)$

$b$  $INTF_{-1}/(-AF_{-1} + 40)$  added.



**Table A20**  
**Equation 20**  
**LHS Variable is  $IVA$**

RHS Variable	Equation	Coef.	t-stat.	Test	$\chi^2$ Tests		
					$\chi^2$	df	p-value
$(PX - PX_{-1})V_{-1}$		-0.28205	-4.87	Lags	4.53	2	0.1036
RHO1		0.79007	17.41	RHO	3.90	3	0.2723
				T	0.78	1	0.3779
SE	1.81011						
R <sup>2</sup>	0.695						
DW	2.05						
		Stability Test			End Test		
AP	$T_1$	$T_2$	$\lambda$	Break	p-value	End	
2.89	1970.1	1979.4	2.26	1974.4	0.1385	1995.1	
7.48	1975.1	1984.4	2.22	1981.2			
8.20	1980.1	1989.4	2.34	1989.2			

Estimation period is 1954.1-2003.3

**Table A21**  
**Equation 21**  
**LHS Variable is  $\Delta \log CCF$**

RHS Variable	Equation	Coef.	t-stat.	Test	$\chi^2$ Tests		
					$\chi^2$	df	p-value
$a$		0.05378	6.83	$b$ Restriction	0.69	1	0.4047
cnst		0.00540	2.47	Lags	4.36	2	0.1130
D621		0.05759	5.75	RHO	5.18	3	0.1587
D722		0.05319	5.11	T	0.98	1	0.3220
D723		-0.04609	-4.43				
D923		0.07291	6.98				
D924		-0.07990	-7.61				
D941		0.07289	6.99				
D942		-0.05430	-5.18				
D013		0.04779	4.58				
D014		0.11315	10.85				
RHO1		0.29715	4.35				
SE	0.01042						
R <sup>2</sup>	0.705						
DW	2.04						
		Stability Test			End Test		
AP	$T_1$	$T_2$	$\lambda$	Break	p-value	End	
4.01	1970.1	1979.4	2.26	1974.2	0.2692	1995.1	
3.06	1975.1	1984.4	2.22	1976.2			
1.91	1980.1	1989.4	2.34	1980.1			

Estimation period is 1954.1-2003.3

<sup>a</sup>Variable is  $\log[(PIK \cdot IKF)/CCF_{-1}]$

<sup>b</sup> $\log CCF_{-1}$  added.

**Table A22**  
**Equation 22**  
**LHS Variable is  $BO/BR$**

RHS Variable	Equation		t-stat.	Test	$\chi^2$ Tests		
	Coef.				$\chi^2$	df	p-value
cnst	0.00143		0.48	Lags	10.93	3	0.0121
$(BO/BR)_{-1}$	0.35470		5.22	RHO	29.05	4	0.0000
$RS$	0.00417		1.33	$T$	4.72	1	0.0297
$RD$	-0.00194		-0.66				
SE	0.01904						
$R^2$	0.328						
DW	2.09						
overid (df = 16, p-value =0.1063)							
Stability Test				End Test			
AP	$T_1$	$T_2$	$\lambda$	Break	p-value	End	
9.29	1970.1	1979.4	2.26	1975.1	0.9000	1995.1	
9.30	1975.1	1984.4	2.22	1975.1			
7.73	1980.1	1989.4	2.34	1984.3			

Estimation period is 1954.1-2003.3

**Table A23**  
**Equation 23**  
**LHS Variable is  $RB - RS_{-2}$**

RHS Variable	Equation		t-stat.	Test	$\chi^2$ Tests		
	Coef.				$\chi^2$	df	p-value
cnst	0.22622		4.91	<sup>a</sup> Restriction	0.37	1	0.5439
$RB_{-1} - RS_{-2}$	0.89779		47.54	Lags	0.48	2	0.7874
$RS - RS_{-2}$	0.30053		6.77	RHO	3.78	3	0.2858
$RS_{-1} - RS_{-2}$	-0.23577		-4.47	$T$	4.36	1	0.0368
RHO1	0.22047		3.01	Leads +1	0.00	1	0.9533
				$p_4^e$	1.34	1	0.2472
				$p_8^e$	1.52	1	0.2182
SE	0.26416						
$R^2$	0.958						
DW	1.99						
overid (df = 15, p-value =0.1022)							
Stability Test				End Test			
AP	$T_1$	$T_2$	$\lambda$	Break	p-value	End	
3.43	1970.1	1979.4	2.26	1979.4	0.3769	1995.1	
5.26	1975.1	1984.4	2.22	1983.1			
5.61	1980.1	1989.4	2.34	1983.1			

Estimation period is 1954.1-2003.3

<sup>a</sup> $RS_{-2}$  added.

**Table A24**  
**Equation 24**  
**LHS Variable is  $RM - RS_{-2}$**

RHS Variable	Equation			Test	$\chi^2$ Tests		
	Coef.	t-stat.			$\chi^2$	df	p-value
cnst	0.41675	5.52		<sup>a</sup> Restriction	0.56	1	0.4537
$RM_{-1} - RS_{-2}$	0.86382	36.53		Lags	0.48	2	0.7856
$RS - RS_{-2}$	0.24810	3.74		RHO	1.50	4	0.8275
$RS_{-1} - RS_{-2}$	-0.02401	-0.28		$T$	1.34	1	0.2477
				Leads +1	0.98	1	0.3213
				Leads +4	3.61	4	0.4618
				Leads +8	6.89	2	0.0320
				$p_4^c$	1.00	1	0.3175
				$p_8^c$	1.14	1	0.2849
SE	0.35795						
R <sup>2</sup>	0.893						
DW	1.89						
overid (df = 13, p-value =0.0941)							
Stability Test				End Test			
AP	$T_1$	$T_2$	$\lambda$	Break	p-value	End	
3.61	1970.1	1979.4	2.26	1979.4	0.4154	1995.1	
12.19	1975.1	1984.4	2.22	1983.2			
12.36	1980.1	1989.4	2.34	1983.2			

Estimation period is 1954.1-2003.3

<sup>a</sup>  $RS_{-2}$  added.

**Table A25**  
**Equation 25**  
**LHS Variable is  $CG/(PX_{-1}YS_{-1})$**

RHS Variable	Equation			Test	$\chi^2$ Tests		
	Coef.	t-stat.			$\chi^2$	df	p-value
cnst	0.12200	4.22		Lags	0.65	3	0.8844
$\Delta RB$	-0.21581	-1.81		RHO	1.30	4	0.8608
<sup>a</sup>	3.99863	0.32		$T$	0.12	1	0.7346
				Leads +1	1.50	2	0.4725
				Leads +4	3.60	8	0.8912
				Leads +8	4.72	4	0.3169
				$\Delta RS$	2.18	1	0.1395
SE	0.34939						
R <sup>2</sup>	0.024						
DW	2.04						
overid (df = 17, p-value =0.5018)							
Stability Test				End Test			
AP	$T_1$	$T_2$	$\lambda$	Break	p-value	End	
2.52	1970.1	1979.4	2.26	1974.4	0.0000	1995.1	
2.72	1975.1	1984.4	2.22	1979.1			
2.35	1980.1	1989.4	2.34	1988.1			

Estimation period is 1954.1-2003.3

<sup>a</sup> Variable is  $\Delta[(PIEF - TFG - TFS + PX \cdot PIEB - TBG - TBS)]/(PX_{-1}YS_{-1})$

**Table A26**  
**Equation 26**  
**LHS Variable is  $\log[CUR/(POP \cdot PF)]$**

RHS Variable	Equation		t-stat.	Test	$\chi^2$ Tests		
	Coef.				$\chi^2$	df	p-value
cnst	-0.05242		-7.18	$a$	5.60	1	0.0179
$\log[CUR_{-1}/(POP_{-1}PF)]$	0.96305		130.67	Lags	5.68	3	0.1282
$\log[(X - FA)/POP]$	0.04804		7.29	RHO	3.52	3	0.3185
RSA	-0.00104		-2.12	$T$	0.20	1	0.6504
RHO1	-0.29618		-4.36				
SE	0.01139						
R <sup>2</sup>	0.998						
DW	2.01						
overid (df = 17, p-value = 0.5697)							
Stability Test				End Test			
AP	$T_1$	$T_2$	$\lambda$	Break	p-value	End	
3.49	1970.1	1979.4	2.26	1974.1	0.0000	1995.1	
6.77	1975.1	1984.4	2.22	1984.4			
7.84	1980.1	1989.4	2.34	1984.4			

Estimation period is 1954.1-2003.3

<sup>a</sup>Variable is  $\log[CUR/(POP \cdot PF)]_{-1}$

**Table A27**  
**Equation 27**  
**LHS Variable is  $\log(IM/POP)$**

RHS Variable	Equation		t-stat.	Test	$\chi^2$ Tests		
	Coef.				$\chi^2$	df	p-value
cnst	-3.55649		-7.09	Lags	10.48	3	0.0149
$\log(IM/POP)_{-1}$	0.22284		2.08	RHO	5.55	2	0.0624
$a$	1.78235		7.13	$T$	0.47	1	0.4923
$\log(PF/PIM)$	0.19685		3.49	Leads +1	2.24	1	0.1343
D691	-0.13094		-5.46	Leads +4	4.25	4	0.3726
D692	0.06452		2.23	Leads +8	2.05	2	0.3588
D714	-0.07809		-3.27	$\log PF$	0.01	1	0.9433
D721	0.05868		2.25				
RHO1	0.54287		4.61				
RHO2	0.26079		2.78				
SE	0.02660						
R <sup>2</sup>	0.998						
DW	2.02						
overid (df = 23, p-value = 0.2040)							
Stability Test				End Test			
AP	$T_1$	$T_2$	$\lambda$	Break	p-value	End	
9.51	1973.1	1979.4	1.74	1975.1	0.9308	1995.1	
8.31	1975.1	1984.4	2.22	1975.1			
3.71	1980.1	1989.4	2.34	1980.3			

Estimation period is 1954.1-2003.3

<sup>a</sup>Variable is  $\log[(CS + CN + CD + IHH + IKF + IKH + IKB + IHF + IHB)/POP]$

**Table A28**  
**Equation 28**  
**LHS Variable is log UB**

RHS Variable	Equation		t-stat.	Test	$\chi^2$ Tests		
	Coef.				$\chi^2$	df	p-value
cnst	1.00035		1.78	Lags	7.03	3	0.0710
log $UB_{-1}$	0.25590		3.19	RHO	0.71	3	0.8714
log $U$	1.17647		5.87	$T$	6.47	1	0.0109
log $WF$	0.49050		4.78				
RHO1	0.91814		25.84				
SE	0.06431						
R <sup>2</sup>	0.996						
DW	2.14						
overid (df = 11, p-value = 0.0700)							
Stability Test				End Test			
AP	$T_1$	$T_2$	$\lambda$	Break	p-value	End	
18.11	1970.1	1979.4	2.26	1975.2	0.9538	1995.1	
19.39	1975.1	1984.4	2.22	1980.4			
19.16	1980.1	1989.4	2.34	1980.4			

Estimation period is 1954.1-2003.3

**Table A29**  
**Equation 29**  
**LHS Variable is  $\Delta[INTG/(-AG)]$**

RHS Variable	Equation		t-stat.	Test	$\chi^2$ Tests		
	Coef.				$\chi^2$	df	p-value
cnst	0.00038		3.09	<sup>b</sup> Restriction	25.34	1	0.0000
<sup>a</sup>	0.05758		3.16	Lags	116.34	2	0.0000
				RHO	152.91	4	0.0000
				$T$	2.60	1	0.1068
SE	0.00072						
R <sup>2</sup>	0.048						
DW	1.12						
Stability Test				End Test			
AP	$T_1$	$T_2$	$\lambda$	Break	p-value	End	
3.94	1970.1	1979.4	2.26	1975.1	0.6769	1995.1	
15.97	1975.1	1984.4	2.22	1982.1			
15.97	1980.1	1989.4	2.34	1982.1			

Estimation period is 1954.1-2003.3

<sup>a</sup>Variable is  $.75RQ - [INTG/(-AG)]_{-1}$

<sup>b</sup> $[INTG/(-AG)]_{-1}$  added.

**Table A30**  
**Equation 30**  
**LHS Variable is *RS***

RHS Variable	Equation		Test	$\chi^2$ Tests		
	Coef.	t-stat.		$\chi^2$	df	p-value
cnst	0.74821	4.91	Lags	6.14	4	0.1887
$RS_{-1}$	0.91523	48.30	RHO	5.61	4	0.2299
$100 \cdot [(PD/PD_{-1})^4 - 1]$	0.08141	4.56	$T$	0.21	1	0.6474
$UR$	-11.95046	-3.92	Leads +1	0.52	2	0.7709
$\Delta UR$	-78.40861	-5.97	Leads +4	4.86	8	0.7723
$PCM1_{-1}$	0.01047	1.83	Leads +8	2.54	4	0.6371
$D794823 \cdot PCM1_{-1}$	0.21446	9.45	$p_4^e$	0.26	1	0.6100
$\Delta RS_{-1}$	0.21595	3.85	$p_8^e$	1.59	1	0.2076
$\Delta RS_{-2}$	-0.33344	-6.54				
SE	0.47481					
$R^2$	0.971					
DW	1.83					
overid (df = 12, p-value = 0.0840)						
Stability test (1954.1-1979.3 versus 1982.4-2003.3): Wald statistic is 15.08 (8 degrees of freedom, p-value = .0576.)						
End Test: p-value = 0.9231, End = 1995.1						
Estimation period is 1954.1-2003.3						

**Table A.5**  
**The Raw Data Variables for the US Model**

NIPA Data				
No.	Variable	Table	Line	Description
R1	GDP	1.1	1	Gross Domestic Product
R2	CDZ	1.1	3	Personal Consumption Expenditures, Durable Goods
R3	CNZ	1.1	4	Personal Consumption Expenditures, Nondurable Goods
R4	CSZ	1.1	5	Personal Consumption Expenditures, Services
R5	IKZ	1.1	8	Nonresidential Fixed Investment
R6	IHZ	1.1	11	Residential Fixed Investment
R7	IVZ	1.1	12	Change in Private Inventories
R8	EXZ	1.1	14	Exports
R9	IMZ	1.1	17	Imports
R10	PURGZ	1.1	21	Consumption Expenditures and Gross Investment, Federal Government
R11	PURSZ	1.1	24	Consumption Expenditures and Gross Investment, S&L
R12	GDPGR	1.2	1	Real Gross Domestic Product
R13	CD	1.2	3	Real Personal Consumption Expenditures, Durable Goods
R14	CN	1.2	4	Real Personal Consumption Expenditures, Nondurable Goods
R15	CS	1.2	5	Real Personal Consumption Expenditures, Services
R16	IK	1.2	8	Real Nonresidential Fixed Investment
R17	IH	1.2	11	Real Residential Fixed Investment
R18	IV	1.2	12	Real Change in Private Inventories
R19	EX	1.2	14	Real Exports
R20	IM	1.2	17	Real Imports
R21	PURG	1.2	21	Real Federal Government Purchases
R22	PURS	1.2	24	Real State and Local Government Purchases
R23	FAZ	1.7	6	Farm Gross Domestic Product
R24	PROGZ	1.7	11	Federal Government Gross Domestic Product
R25	PROSZ	1.7	12	State and Local Government Domestic Gross Product
R26	FA	1.8	6	Real Farm Gross Domestic Product
R27	PROG	1.8	11	Real Federal Government Gross Domestic Product
R28	PROS	1.8	12	Real State and Local Government Gross Domestic Product
R29	FIUS	1.9	2	Receipts of Factor Income from the Rest of the World
R30	FIROW	1.9	3	Payments of Factor Income to the Rest of the World
R31	CCT	1.9	6	Private Consumption of Fixed Capital
R32	TRF	1.9	14	Business Transfer Payments
R33	STAT	1.9	15	Statistical Discrepancy
R34	WLDF	1.9	21	Wage Accruals less Disbursements
R35	DPER	1.9	23	Personal Dividend Income
R36	TRFH	1.9	25	Business Transfer Payments to Persons
R37	FIUSR	1.10	2	Real Receipts of Factor Income from the Rest of the World
R38	FIOWR	1.10	3	Real Payments of Factor Income to the Rest of the World
R39	COMPT	1.14	2	Compensation of Employees
R40	SIT	1.14	7	Employer Contributions for Social Insurance
R41	DC	1.14	25	Dividends
R42	PIECB	1.16	10	Profits Before Tax, Corporate Business
R43	DCB	1.16	13	Dividends, Corporate Business
R44	IVA	1.16	15	Inventory Valuation Adjustment, Corporate Business
R45	CCADCB	1.16	16	Capital Consumption Adjustment, Corporate Business
R46	INTF1	1.16	17	Net Interest, Corporate Business
R47	PIECBN	1.16	28	Profits Before Tax, Nonfinancial Corporate Business
R48	TCBN	1.16	29	Profits Tax Liability, Nonfinancial Corporate Business
R49	DCBN	1.16	31	Dividends, Nonfinancial Corporate Business

Table A.5 (continued)

No.	Variable	Table	Line	Description
R50	CCADCBN	1.16	34	Capital Consumption Adjustment, Nonfinancial Corporate Business
R51	PRI	2.1	10	Proprietors' Income with Inventory Valuation and Capital Consumption Adjustments
R52	RNT	2.1	13	Rental Income of Persons with Capital Consumption Adjustment
R53	PII	2.1	15	Personal Interest Income
R54	UB	2.1	18	Government Unemployment Insurance Benefits
R55	IPP	2.1	28	Interest Paid by Persons
R56	TRHR	2.1	29	Personal Transfer Payments to Rest of the World (net)
R57	TPG	3.2	2	Personal Tax and Nontax Receipts, Federal Government (see below for adjustments)
R58	TCG	3.2	5	Corporate Profits Tax Accruals, Federal Government
R59	IBTG	3.2	8	Indirect Business Tax and Nontax Accruals, Federal Government
R60	SIG	3.2	12	Contributions for Social Insurance, Federal Government
R61	CONGZ	3.2	14	Consumption Expenditures, Federal Government
R62	TRGH	3.2	16	Transfer Payments (net) to Persons, Federal Government (see below for adjustments)
R63	TRGR	3.2	17	Transfer Payments (net) to Rest of the World, Federal Government
R64	TRGS	3.2	18	Grants in Aid to State and Local Governments, Federal Government
R65	INTG	3.2	19	Net Interest Paid, Federal Government
R66	SUBG	3.2	24	Subsidies less Current Surplus of Government Enterprises, Federal Government
R67	WLDG	3.2	27	Wage Accruals less Disbursements, Federal Government
R68	TPS	3.3	2	Personal Tax and Nontax Receipts, State and Local Government (S&L)
R69	TCS	3.3	6	Corporate Profits Tax Accruals, S&L
R70	IBTS	3.3	7	Indirect Business Tax and Nontax Accruals, S&L
R71	SIS	3.3	11	Contributions for Social Insurance, S&L
R72	CONSZ	3.3	14	Consumption Expenditures, S&L
R73	TRRSH	3.3	15	Transfer Payments to Persons, S&L
R74	INTS	3.3	16	Net Interest Paid, S&L
R75	SUBS	3.3	20	Subsidies Less Current Surplus of Government Enterprises, S&L
R76	WLDS	3.3	23	Wage Accruals less Disbursements, S&L
R77	COMPIL	3.7b	8	Compensation of Employees, Military, Federal Government
R78	SIHGA	3.14	3	Personal Contributions for Social Insurance to the Federal Government, annual data only
R79	SIQGA	3.14	5	Government Employer Contributions for Social Insurance to the Federal Government, annual data only
R80	SIFGA	3.14	6	Other Employer Contributions for Social Insurance to the Federal Government, annual data only
R81	SIHSA	3.14	14	Personal Contributions for Social Insurance to the S&L Governments, annual data only
R82	SIQSA	3.14	16	Government Employer Contributions for Social Insurance to the S&L Governments, annual data only
R83	SIFSA	3.14	17	Other Employer Contributions for Social Insurance to the S&L Governments, annual data only
R84	IVFAZ	5.10	2	Change in Farm Private Inventories
R85	IVFA	5.11	2	Real Change in Farm Private Inventories
R86	INTPRIA	8.20	61	Net Interest, Sole Proprietorships and Partnerships, annual data only
R87	INTROWA	8.20	63	Net Interest, Rest of the World, annual data only



Table A.5 (continued)

No.	Variable	Code	Flow of Funds Data Description
R88	CDDCF	10302000	Change in Demand Deposits and Currency, F1
R89	NFIF	10500005	Net Financial Investment, F1
R90	IHFZ	105012003	Residential Construction, F1
R91	ACR	105030003	Access Rights from Federal Government
R92	PIEF	106060005	Profits before Tax, F1
R93	CCNF	106300015	Depreciation Charges, NIPA, F1
R94	DISF1	107005005	Discrepancy, F1
R95	CDDCNN	113020003	Change in Demand Deposits and Currency, NN
R96	NFINN	115000005	Net Financial Investment, NN
R97	IHNN	115012003	Residential Construction, NN
R98	CCNN	116300005	Consumption of Fixed Capital, NN. Also, Current Surplus = Gross Saving, NN
R99	CDDCFA	133020003	Change in Demand Deposits and Currency, FA
R100	NFIFA	135000005	Net Financial Investment, FA
R101	CCFAT	136300005	Consumption of Fixed Capital, FA
R102	PIEFA	136060005	Corporate Profits, FA
R103	CCADFA	136310103	Capital Consumption Adjustment, FA
R104	CDDCH1	153020005	Change in Checkable Deposits and Currency, H
R105	MVCE,	154090005	Total Financial Assets of Households.
R106	CCE		MVCE is the market value of the assets. CCE is the change in assets excluding capital gains and losses
R107	NFIH1	155000005	Net Financial Investment, H
R108	CCHFF	156300005	Total Consumption of Fixed Capital, H
R109	CCCD	156300103	Consumption of Fixed Capital, Consumer Durables, H
R110	DISH1	157005005	Discrepancy, H
R111	IKH1	165013005	Nonresidential Fixed Investment, Nonprofit Institutions
R112	NFIS	215000005	Net Financial Investment, S
R113	CCS	206300003	Consumption of Fixed Capital, S
R114	DISS1	217005005	Discrepancy, S
R115	CDDCS	213020005	Change in Demand Deposits and Currency, S
R116	CGLDR	263011005	Change in Gold and SDR's, R
R117	CDDCR	263020005	Change in U.S. Demand Deposits, R
R118	CFXUS	263111005	Change in U.S. Official Foreign Exchange and Net IMF Position
R119	NFIR	265000005	Net Financial Investment, R
R120	PIEF2	266060005	Corporate Profits of Foreign Subsidiaries, F1
R121	DISR1	267005005	Discrepancy, R
R122	CGLDFXUS	313011005	Change in Gold, SDR's, and Foreign Exchange, US
R123	CDDCUS	313020005	Change in Demand Deposits and Currency, US
R124	INS	313154015	Insurance and Pension Reserves, US
R125	NFIUS	315000005	Net Financial Investment, US
R126	CCG	316300003	Consumption of Fixed Capital, US
R127	DISUS	317005005	Discrepancy, US
R128	CDDCCA	403020003	Change in Demand Deposits and Currency, CA
R129	NIACA	404090005	Net Increase in Financial Assets, CA
R130	NILCA	404190005	Net Increase in Liabilities, CA
R131	IKCAZ	405013005	Fixed Nonresidential Investment, CA
R132	GSCA	406000105	Gross Saving, CA
R133	DISCA	407005005	Discrepancy, CA
R134	NIDDLB2=		Net Increase in Liabilities in the form of Checkable Deposits, B2
R135		443127005	NIDDLZ1
R136		+473127003	NIDDLZ2
R137	CBRB2	443013053	Change in Reserves at Federal Reserve, B2

Table A.5 (continued)

No.	Variable	Code	Description
R138	IHBZ	645012205	Residential Construction, Multi Family Units, Reits
R139	CDDCB2=		Change in Demand Deposits and Currency, B2
R140		793020005	CDDCFS
		-NIDDAB1	
		-CDDCCA	
R141	NIAB2=		Net Increase in Financial Assets, B2
R142		444090005	NIAZ1
R143		+474090005	NIAZ2
R144		+604090005	NIAZ3
R145		+544090005	NIAZ4
R146		+514090005	NIAZ5
R147		+574090005	NIAZ6
R148		+224090005	NIAZ7
R149		+634000005	NIAZ8
R150		+654090005	NIAZ9
R151		+554090005	NIAZ10
R152		+674190005	NIAZ11
R153		+614090005	NIAZ12
R154		+623065003	NIAZ13
R155		+644090005	NIAZ14
R156		+664090005	NIAZ15
R157		+504090005	NIAZ16
R158	NILB2=		Net Increase in Liabilities, B2
R159		444190005	NILZ1
R160		+474190005	NILZ2
R161		+604090005	NILZ3
R162		+544190005	NILZ4
R163		+514190005	NILZ5
R164		+573150005	NILZ6
R165		+223150005	NILZ7
R166		+634000005	NILZ8
R167		+653164005	NILZ9
R168		+554090005	NILZ10
R169		+674190005	NILZ11
R170		+614190005	NILZ12
R171		+624190005	NILZ13
R172		+644190005	NILZ14
R173		+664190005	NILZ15
R174		+504190005	NILZ16
R175	IKB2Z=		Nonresidential Fixed Investment, B2
R176		795013005	IKFCZ
		-IKB1Z	
		-IKCAZ	
		-IKMAZ	
R177	DISB2=		Discrepancy, B2
R178		447005005	DISZ1
R179		+477005005	DISZ2
R180		+607005005	DISZ3
R181		+547005005	DISZ4
R182		+517005005	DISZ5
R183		+657005005	DISZ9
R184		+677005005	DISZ11
R185		+617005005	DISZ12
R186		+647005005	DISZ14
R187		+667005005	DISZ15

Table A.5 (continued)

No.	Variable	Code	Description
R188	GSB2=		Gross Saving, B2
R189		446000105	GSZ1
R190		+476000105	GSZ2
R191		+546000105	GSZ4
R192		+516000105	GSZ5
R193		+576330063	GSZ6
R194		+226330063	GSZ7
R195		+656006003	GSZ9
R196		+676330023	GSZ11
R197		+616000105	GSZ12
R198		+646000105	GSZ14
R199		+666000105	GSZ15
R200	CGLDFXMA	713011005	Change in Gold and Foreign Exchange, MA
R201	CFRLMA	713068003	Change in Federal Reserve Loans to Domestic Banks, MA
R202	NILBRMA	713113000	Change in Member Bank Reserves, MA
R203	NIDDLRMA	713122605	Change in Liabilities in the form of Demand Deposits and Currency due to Foreign of the MA
R204	NIDDLGMA	713123105	Change in Liabilities in the form of Demand Deposits and Currency due to U.S. Government of the MA
R205	NILCMA	713125005	Change in Liabilities in the form of Currency Outside Banks of the MA
R206	NIAMA	714090005	Net Increase in Financial Assets, MA
R207	NILMA	714190005	Net Increase in Liabilities, MA
R208	IKMAZ	715013005	Fixed Nonresidential Investment, MA
R209	GSMA	716000105	Gross Savings, MA
R210	DISMA	717005005	Discrepancy, MA
R211	CVCBRB1	723020005	Change in Vault Cash and Member Bank Reserves, U.S. Chartered Commercial Banks
R212	NILVCMA	723025000	Change in Liabilities in the form of Vault Cash of Commercial Banks of the MA
R213	NIDDAB1	743020003	Net increase in Financial Assets in the form of Demand Deposits and Currency of Banks in U.S. Possessions
R214	CBRB1A	753013003	Change in Reserves at Federal Reserve, Foreign Banking Offices in U.S.
R215	NIDDLB1	763120005	Net Increase in Liabilities in the form of Checkable Deposits, B1
R216	NIAB1	764090005	Net Increase in Financial Assets, B1
R217	NILB1	764190005	Net Increase in Liabilities, B1
R218	IKB1Z	765013005	Nonresidential Fixed Investment, B1
R219	GSB1	766000105	Gross Saving, B1
R220	DISB1	767005005	Discrepancy, B1
R221	MAILFLT1	903023105	Mail Float, U.S. Government
R222	MAILFLT2	903029205	Mail Float, Private Domestic Nonfinancial
R223	CTRH	155400263	Net Capital Transfers, Immigrants' transfers received by persons
R224	CTHG	315400153	Net Capital Transfers, Estate and gift taxes paid by persons, federal
R225	CTHS	205400153	Net Capital Transfers, Estate and gift taxes paid by persons, state and local
R226	CTGS	205400313	Net Capital Transfers, Federal investment grants to state and local governments
R227	CTGR	265400313	Net Capital Transfers, Capital transfers paid to the rest of the world, federal
R228	CTGF	105400313	Net Capital Transfers, Investment grants to business, federal

Table A.5 (continued)

Interest Rate Data		
No.	Variable	Description
R229	RS	Three-Month Treasury Bill Rate (secondary market), percentage points. [BOG. Quarterly average.]
R230	RM	Conventional Mortgage Rate, percentage points. [BOG. Quarterly average.]
R231	RB	Moody's Aaa Corporate Bond Rate, percentage points. [BOG. Quarterly average.]
R232	RD	Discount Window Borrowing Rate, percentage points. [BOG. Quarterly average.]
Labor Force and Population Data		
No.	Variable	Description
R233	CE	Civilian Employment, SA in millions. [BLS. Quarterly average. See the next page for adjustments.]
R234	U	Unemployment, SA in millions. [BLS. Quarterly average. See the next page for adjustments.]
R235	CL1	Civilian Labor Force of Males 25-54, SA in millions. [BLS. Quarterly average. See the next page for adjustments.]
R236	CL2	Civilian Labor Force of Females 25-54, SA in millions. [BLS. Quarterly average. See the next page for adjustments.]
R237	AF	Total Armed Forces, millions. [Computed from population data from the U.S. Census Bureau. Quarterly average.]
R238	AF1	Armed Forces of Males 25-54, millions. [Computed from population data from the U.S. Census Bureau. Quarterly average.]
R239	AF2	Armed Forces of Females 25-54, millions. [Computed from population data from the U.S. Census Bureau. Quarterly average.]
R240	CPOP	Total civilian noninstitutional population 16 and over, millions. [BLS. Quarterly average. See the next page for adjustments.]
R241	CPOP1	Civilian noninstitutional population of males 25-54, millions. [BLS. Quarterly average. See the next page for adjustments.]
R242	CPOP2	Civilian noninstitutional population of females 25-54, millions. [BLS. Quarterly average. See the next page for adjustments.]
R243	JF	Employment, Total Private Sector, All Persons, SA in millions. [BLS, unpublished, "Basic Industry Data for the Economy less General Government, All Persons."]
R244	HF	Average Weekly Hours, Total Private Sector, All Persons, SA. [BLS, unpublished, "Basic Industry Data for the Economy less General Government, All Persons."]
R245	HO	Average Weekly Overtime Hours in Manufacturing, SA. [BLS. Quarterly average.]
R246	JQ	Total Government Employment, SA in millions. [BLS. Quarterly average.]
R247	JG	Federal Government Employment, SA in millions. [BLS. Quarterly average.]
R248	JHQ	Total Government Employee Hours, SA in millions of hours per quarter. [BLS, Table B10. Quarterly average.]

- BLS = Website of the Bureau of Labor Statistics
- BOG = Website of the Board of Governors of the Federal Reserve System
- SA = Seasonally adjusted
- For the construction of variables R249, R251, R253, R257, and R258 on the next page, the annual observation for the year was used for each quarter of the year.

Table A.5 (continued)

Adjustments to the Raw Data		
No.	Variable	Description
R249	SIHG =	[SIHGA/(SIHGA + SIHSA)](SIG + SIS - SIT) [Employee Contributions for Social Insurance, h to g.]
R250	SIHS =	SIG + SIS - SIT - SIHG [Employee Contributions for Social Insurance, h to s.]
R251	SIFG =	[SIFGA/(SIFGA + SIQGA)](SIG - SIHG) [Employer Contributions for Social Insurance, f to g.]
R252	SIGG =	SIG - SIHG - SIFG [Employer Contributions for Social Insurance, g to g.]
R253	SIFS =	[SIFSA/(SIFSA + SIQSA)](SIS - SIHS) [Employer Contributions for Social Insurance, f to s.]
R254	SISS =	SIS - SIHS - SIFS [Employer Contributions for Social Insurance, s to s.]
R255	TBG =	[TCG/(TCG + TCS)](TCG + TCS - TCBN) [Corporate Profit Tax Accruals, b to g.]
R256	TBS =	TCG + TCS - TCBN - TBG [Corporate Profit Tax Accruals, b to s.]
R257	INTPRI =	[PII/(PII annual)]INTPRIA [Net Interest Payments, Sole Proprietorships and Partnerships.]
R258	INTROW =	[PII/(PII annual)]INTROWA [Net Interest Payments of r.]
	TPG =	TPG from raw data - TAXADJ
	TRGH =	TRGH from raw data - TAXADJ [TAXADJ: 1968:3 = 1.525, 1968:4 = 1.775, 1969:1 = 2.675, 1969:2 = 2.725, 1969:3 = 1.775, 1969:4 = 1.825, 1970:1 = 1.25, 1970:2 = 1.25, 1970:3 = 0.1, 1975:2 = -7.8.]
R259	POP =	CPOP + AF [Total noninstitutional population 16 and over, millions.]
R260	POP1 =	CPOP1 + AF1 [Total noninstitutional population of males 25-54, millions.]
R261	POP2 =	CPOP2 + AF2 [Total noninstitutional population of females 25-54, millions.]

Table A.5 (continued)

Variable	Adjustments to Labor Force and Population Data				
	1952:1– 1971:4	1952:1– 1972:4	1973:1	1952:1– 1977:4	1970:1–1989:4
POP	1.00547	1.00009	1.00006	-	1.0058886-.0000736075TPOP90
POP1	0.99880	1.00084	1.00056	-	1.0054512 -.00006814TPOP90
POP2	1.00251	1.00042	1.00028	-	1.00091654-.000011457TPOP90
(CE+U)	1.00391	1.00069	1.00046	1.00239	1.0107312-.00013414TPOP90
CL1	0.99878	1.00078	1.00052	1.00014	1.00697786-.00008722TPOP90
CL2	1.00297	1.00107	1.00071	1.00123	-
CE	1.00375	1.00069	1.00046	1.00268	1.010617-.00013271TPOP90

• TPOP90 is 79 in 1970:1, 78 in 1970:2, ..., 1 in 1989:3, 0 in 1989:4.

Variable	1990:1–1998:4
POP	1.0014883-.0000413417TPOP99
POP1	.99681716 +.000088412TPOP99
POP2	1.0045032 -.00012509TPOP99
(CE+U)	1.00041798-.000011611TPOP99
CL1	.9967564+.0000901TPOP99
CL2	1.004183-.00011619TPOP99
CE	1.00042068-.000011686TPOP99

• TPOP99 is 35 in 1990:1, 34 in 1990:2, ..., 1 in 1998:3, 0 in 1998:4.

Variable	1990:1–1999:4
POP	1.0165685-.00041421TPOP2000
POP1	1.0188400 -.00047100TPOP2000
POP2	1.0195067 -.00048767TPOP2000
(CE+U)	1.0156403-.00039101TPOP2000
CL1	1.0208284-.00052071TPOP2000
CL2	1.0151172-.00037793TPOP2000
CE	1.0156827-.00039207TPOP2000

• TPOP2000 is 39 in 1990:1, 38 in 1990:2, ..., 1 in 1999:3, 0 in 1999:4.

Variable	1993:1–2002:4
POP	1.0043019-.00010755TPOP2003
POP1	1.0046539 -.00011635TPOP2003
POP2	1.0043621 -.00010905TPOP2003
(CE+U)	1.0042240-.00010560TPOP2003
CL1	1.0046137-.00011534TPOP2003
CL2	1.0042307-.00010577TPOP2003
CE	1.0041995-.00010499TPOP2003

• TPOP2003 is 39 in 1993:1, 38 in 1993:2, ..., 1 in 2002:3, 0 in 2002:4.

**Table A.5 (continued)**  
**The Raw Data Variables in Alphabetical Order**

Var.	No.	Var.	No.	Var.	No.	Var.	No.	Var.	No.
ACR	R91	CTHG	R224	HF	R244	NIAZ11	R152	POP1	R260
AF	R237	CTHS	R225	HO	R245	NIAZ12	R153	POP2	R261
AF1	R238	CTRH	R223	IBTG	R59	NIAZ13	R154	PRI	R51
AF2	R239	CVCBRB1	R211	IBTS	R70	NIAZ14	R155	PROG	R27
CBRB1A	R214	DC	R41	IH	R17	NIAZ15	R156	PROGZ	R24
CBRB2	R137	DCB	R43	IHBZ	R138	NIAZ16	R157	PROS	R28
CCADCB	R45	DCBN	R49	IHFZ	R90	NIAZ2	R143	PROSZ	R25
CCADCBN	R50	DISB1	R220	IHNN	R97	NIAZ3	R144	PURG	R21
CCADFA	R103	DISB2	R177	IHZ	R6	NIAZ4	R145	PURGZ	R10
CCCD	R109	DISCA	R133	IK	R16	NIAZ5	R146	PURS	R22
CCE	R106	DISF1	R94	IKB1Z	R218	NIAZ6	R147	RB	R231
CCFAT	R101	DISH1	R110	IKB2Z	R175	NIAZ7	R148	RD	R232
CCG	R126	DISMA	R210	IKCAZ	R131	NIAZ8	R149	RM	R230
CCHFF	R108	DISR1	R121	IKFCZ	R176	NIAZ9	R150	RNT	R52
CCNF	R93	DISS1	R114	IKH1	R111	NIDDAB1	R213	RS	R229
CCNN	R98	DISUS	R127	IKMAZ	R208	NIDDLB1	R215	SIFG	R251
CCS	R113	DISZ1	R178	IKZ	R5	NIDDLB2	R134	SIFGA	R80
CCT	R31	DISZ11	R184	IM	R20	NIDDLGMA	R204	SIFS	R253
CD	R13	DISZ12	R185	IMZ	R9	NIDDLRMA	R203	SIFSA	R83
CDDCB2	R139	DISZ14	R186	INS	R124	NIDDLZ1	R135	SIGG	R252
CDDCCA	R128	DISZ15	R187	INTF1	R46	NIDDLZ2	R136	SIHG	R249
CDDCF	R88	DISZ2	R179	INTG	R65	NILB1	R217	SIHGA	R78
CDDCFA	R99	DISZ3	R180	INTPRI	R257	NILB2	R158	SIHS	R250
CDDCFS	R140	DISZ4	R181	INTPRIA	R86	NILBRMA	R202	SIHSA	R81
CDDCH1	R104	DISZ5	R182	INTROW	R258	NILCA	R130	SIQGA	R79
CDDCNN	R95	DISZ9	R183	INTROWA	R87	NILCMA	R205	SIQSA	R82
CDDCR	R117	DPER	R35	INTS	R74	NILMA	R207	SIS	R71
CDDCS	R115	EX	R19	IPP	R55	NILVCMA	R212	SISS	R254
CDDCUS	R123	EXZ	R8	IV	R18	NILZ1	R159	SIT	R40
CDZ	R2	FA	R26	IVA	R44	NILZ10	R168	STAT	R33
CE	R233	FAZ	R23	IVFA	R85	NILZ11	R169	SUBG	R66
CFRLMA	R201	FIROW	R30	IVZ	R7	NILZ12	R170	SUBS	R75
CFXUS	R118	FIROWR	R38	JG	R247	NILZ13	R171	TBG	R255
CGLDFXMA	R200	FIUSR	R37	JHQ	R248	NILZ14	R172	TBS	R256
CGLDFXUS	R122	GDP	R1	JQ	R246	NILZ15	R173	TCG	R58
CGLDR	R116	GDPR	R12	MAILFLT1	R221	NILZ16	R174	TCS	R69
CL1	R235	GSB1	R219	MAILFLT2	R222	NILZ2	R160	TPG	R57
CL2	R236	GSB2	R188	MVCE	R105	NILZ3	R161	TPS	R68
CN	R14	GSCA	R132	NFIF	R89	NILZ4	R162	TRF	R32
CNZ	R3	GSMA	R209	NFIFA	R100	NILZ5	R163	TRFH	R36
COMPML	R77	GSZ1	R189	NFIH1	R107	NILZ6	R164	TRGH	R62
COMPT	R39	GSZ11	R196	NFINN	R96	NILZ7	R165	TRGR	R63
CONGZ	R61	GSZ12	R197	NFIR	R119	NILZ8	R166	TRGS	R64
CONSZ	R72	GSZ14	R198	NFIS	R112	NILZ9	R167	TRHR	R56
CPOP	R240	GSZ15	R199	NFIUS	R125	PIECB	R42	TRRSR	R73
CPOP1	R241	GSZ2	R190	NIAB1	R216	PIECBN	R47	U	R234
CPOP2	R242	GSZ4	R191	NIAB2	R141	PIEF	R92	UB	R54
CS	R15	GSZ5	R192	NIACA	R129	PIEF2	R120	WLDF	R34
CTGF	R228	GSZ6	R193	NIAMA	R206	PIEFA	R102	WLDG	R67
CTGR	R227	GSZ7	R194	NIAZ1	R142	PII	R53	WLDS	R76
CTGS	R226	GSZ9	R195	NIAZ10	R151	POP	R259		

**Table A.6**  
**Links Between the National Income and Product Accounts**  
**and the Flow of Funds Accounts**  
**Receipts from i to j: (i,j = h, f, b, r, g, s)**

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fh =	COMPT - PROGZ - PROSZ - (SIT - SIGG - SISS) - SUBG - SUBS + PRI + RNT + INTF + TRFH + DC - DRS - (DCB - DCBN) + INTOTH + INTROW + CCHFF - CCCD - WLDF + WLDG + WLDS
bh =	DCB - DCBN
gh =	PROGZ - SIGG - WLDG + TRGH + INS + INTG + SUBG
sh =	PROSZ - SISS - WLDS + TRRSH + INTS + SUBS
hf =	CSZ + CNZ + CDZ - IBTG - IBTS - IMZ - FIROW - [GSB1 + GSB2 + (DCB - DCBN) + TBG + TBS] + (IHZ - IHFZ - IHBZ - IHNN) + IKH1
bf =	IHBZ + IKB1Z + IKB2Z
rf =	EXZ + FIUS
gf =	PURGZ - PROGZ + IKMAZ + IKCAZ - CCG
sf =	PURSZ - PROSZ - CCS
hb =	GSB1 + GSB2 + (DCB - DCBN) + TBG + TBS
hr =	IMZ + TRHR + FIROW
fr =	TRFR
gr =	TRGR
hg =	TPG + IBTG + SIHG
fg =	TCG - TBG + SIFG
bg =	TBG
gg =	SIGG
hs =	TPS + IBTS + SIHS
fs =	TCS - TBS + SIFS + DRS
bs =	TBS
gs =	TRGS
ss =	SISS

**Saving of the Sectors**

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SH =	fh + bh + gh + sh - (hf + hb + hr + hg + hs)
SF =	hf + bf + rf + gf + sf - (fh + fg + fs + fr)
SB =	hb - (bh + bf + bs + bg)
SR =	hr + gr - rf + fr
SG =	hg + fg + bg - (gh + gf + gr + gs)
SS =	hs + fs + bs + gs - (sh + sf)

**Checks**

---

0 =	SH + SF + SB + SR + SG + SS
SH =	NFIH1 + DISH1 - CTRH + CTHG + CTHS
SF =	NFIF + DISF1 + NFIFA + NFINN + STAT - CCADFA + ACR + WLDF - WLDG - WLDS - DISBA - CTGF
SB =	NIAB1 - NILB1 + NIAB2 - NILB2 + DISB1 + DISB2
SR =	NFIR + DISR1 + CTRH - CTGR
SG =	NFIUS + NIACA - NILCA + NIAMA - NILMA + DISUS + DISCA + DISMA - GSMA - GSCA - ACR + CTGF + CTGR - CTHG + CTGS
SS =	NFIS1 + DISS1 - CTHS - CTGS
0 =	-NIDDLB1 + NIDDAB1 + CDDCB2 - NIDDLB2 + CDDCF + MAILFLT1 + MAILFLT2 + CDDCUS + CDDCCA - NIDDLRMA - NIDDLGMA + CDDCH1 + CDDCFA + CDDCNN + CDDCR + CDDCS - NILCMA
0 =	CVCBRB1 + CBRB1A + CBRB2 - NILBRMA - NILVCMA
0 =	CGLDR - CFXUS + CGLDFXUS + CGLDFXMA

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• See Table A.5 for the definitions of the raw data variables.



**Table A.7**  
**Construction of the Variables for the US Model**

Variable	Construction
<i>AA</i>	Def., Eq. 89.
<i>AB</i>	Def., Eq. 73. Base Period=1971:4, Value=248.176
<i>AF</i>	Def., Eq. 70. Base Period=1971:4, Value=-388.975
<i>AG</i>	Def., Eq. 77. Base Period=1971:4, Value=-214.587
<i>AH</i>	Def., Eq. 66. Base Period=1971:4, Value=2222.45
<i>AR</i>	Def., Eq. 75. Base Period=1971:4, Value=-18.359
<i>AS</i>	Def., Eq. 79. Base Period=1971:4, Value=-160.5
<i>BO</i>	Sum of CFRLMA. Base Period=1971:4, Value=.039
<i>BR</i>	Sum of CVCBRB1. Base Period=1971:4, Value=35.329
<i>CCB</i>	[GSB1+GSB2-(PIECB-PIECBN)-(DCB-DCBN)-TBG-TBS]/P X.
<i>CCF</i>	CCNF+CCNN+CCFAT
<i>CCG</i>	CCG
<i>CCH</i>	CCHFF-CCCD
<i>CCS</i>	CCS
<i>CD</i>	CD
<i>CDA</i>	Peak to peak interpolation of <i>CD/POP</i> . Peak quarters are 1953:1, 1955:3, 1960:2, 1963:2, 1965:4, 1968:3, 1973:2, 1978:4, 1985:1, 1988:4, 1994:1, 1995:4, and 2000:3.
<i>CF</i>	Def., Eq. 68
<i>CG</i>	$MVCE - MVCE_{-1} - CCE$
<i>CN</i>	CN
<i>COG</i>	PURG-PROG
<i>COS</i>	PURS-PROS
<i>CS</i>	CS
<i>CUR</i>	Sum of NILCMA. Base Period=1971:4, Value=53.521
<i>D1G</i>	Def., Eq. 47
<i>D1GM</i>	Def., Eq. 90
<i>D1S</i>	Def., Eq. 48
<i>D1SM</i>	Def., Eq. 91
<i>D2G</i>	Def., Eq. 49
<i>D2S</i>	Def., Eq. 50
<i>D3G</i>	Def., Eq. 51
<i>D3S</i>	Def., Eq. 52
<i>D4G</i>	Def., Eq. 53
<i>D5G</i>	Def., Eq. 55
<i>DB</i>	DCB-DCBN
<i>DELD</i>	Computed using NIPA asset data
<i>DELH</i>	Computed using NIPA asset data
<i>DELK</i>	Computed using NIPA asset data
<i>DF</i>	DC-(DCB-DCBN)
<i>DISB</i>	DISB1+DISB2
<i>DISBA</i>	GSB1+GSB2-(PIECB-PIECBN)-(DCB-DCBN)-TBG-TBS-CCT+(CCHFF-CCCD) +CCNF+CCNN+CCFAT-CCADCB
<i>DISF</i>	DISF1-CCADFA+ACR-CTGF
<i>DISG</i>	DISUS+DISCA+DISMA-GSCA-GSMA-ACR+CTGF+CTGR-CTHG+CTGS
<i>DISH</i>	DISH1-CTRH+CTHG+CTHS
<i>DISR</i>	DISR1+CTRH-CTGR
<i>DISS</i>	DISS1-CTHS-CTGS
<i>DRS</i>	DC-DPER
<i>E</i>	CE+AF
<i>EX</i>	EX
<i>EXPG</i>	Def., Eq. 106
<i>EXPS</i>	Def., Eq. 113

Table A.7 (continued)

Variable	Construction
<i>FA</i>	FA
<i>FIROW</i>	FIROW
<i>FIROWD</i>	FIROW/FIROWR
<i>FIUS</i>	FIUS
<i>FIUSD</i>	FIUS/FIUSR
<i>G1</i>	Def., Eq. 57
<i>GDP</i>	Def., Eq. 82, or GDP
<i>GDPD</i>	Def., Eq. 84
<i>GDPR</i>	GDPR
<i>GNP</i>	Def., Eq. 129
<i>GNPD</i>	Def., Eq. 131
<i>GNPR</i>	Def., Eq. 130
<i>HF</i>	13-HF
<i>FFF</i>	Def., Eq. 100
<i>HFS</i>	Peak to peak interpolation of <i>HF</i> . The peaks are 1952:4, 1960:3, 1966:1, 1977:2, and 1990:1. Flat end.
<i>HG</i>	JHQ/JQ
<i>HM</i>	520
<i>HN</i>	Def., Eq. 62
<i>HO</i>	13-HO. Constructed values for 1952:1-1955:4.
<i>HS</i>	JHQ/JQ
<i>IBTG</i>	IBTG
<i>IBTS</i>	IBTS
<i>IGZ</i>	PURGZ-CONGZ
<i>IHB</i>	IHBZ/(IHZ/IH)
<i>IHF</i>	(IHFZ+IHNN)/(IHZ/IH)
<i>IHH</i>	(IHZ-IHFZ-IHBZ-IHNN)/(IHZ/IH)
<i>IHHA</i>	Peak to peak interpolation of <i>IHH/POP</i> . Peak quarters are 1955:2, 1963:4, 1978:3, 1986:3, 1994:2, and 2000:1.
<i>IKB</i>	(IKB1Z+IKB2Z)/(IKZ/IK)
<i>IKF</i>	(IKZ-IKH1-IKB1Z-IKB2Z)/(IKZ/IK)
<i>IKG</i>	((IKCAZ+IKMAZ)/(IKZ/IK)
<i>IKH</i>	IKH1/(IKZ/IK)
<i>IM</i>	IM
<i>INS</i>	INS
<i>INTF</i>	INTF1+INTPRI
<i>INTG</i>	INTG
<i>INTOTH</i>	PII-INTF1-INTG-INTS-IPP-INTROW-INTPRI
<i>INTROW</i>	INTROW
<i>INTS</i>	INTS
<i>ISZ</i>	PURSZ-CONSZ
<i>IVA</i>	IVA
<i>IVF</i>	IV
<i>JF</i>	JF
<i>JG</i>	JG
<i>JHMIN</i>	Def., Eq. 94
<i>JJ</i>	Def., Eq. 95
<i>JJP</i>	Peak to peak interpolation of <i>JJ</i> . The peaks are 1952:4, 1955:4, 1959:3, 1969:1, 1973:3, 1979:3, 1985:4, 1990:1, 1995:1, and 2000:2. Flat end.
<i>JM</i>	AF
<i>JS</i>	JQ-JG

Table A.7 (continued)

Variable	Construction
<i>KD</i>	Def., Eq. 58. Base Period=1952:1, Value=276.24, Dep. Rate=DELD
<i>KH</i>	Def., Eq. 59. Base Period=1952:1, Value=1729.44, Dep. Rate=DELH
<i>KK</i>	Def., Eq. 92. Base Period=1952:1, Value=1803.81, Dep. Rate=DELK
<i>KKMIN</i>	Def., Eq. 93
<i>L1</i>	CL1+AF1
<i>L2</i>	CL2+AF2
<i>L3</i>	Def., Eq. 86
<i>LAM</i>	Computed from peak to peak interpolation of $\log[Y/(JF \cdot HF)]$ . Peak quarters are 1955:2, 1966:1, 1973:1, 1992:4, and 2003:1.
<i>LM</i>	Def., Eq. 85
<i>M1</i>	Def., Eq. 81. Base Period=1971:4, Value=250.218
<i>MB</i>	Def., Eq. 71. Also sum of -NIDDLB1+CDDCF5-CDDCCA-NIDDLZ1-NIDDLZ2. Base Period=1971:4, Value=-191.73
<i>MDIF</i>	CDDCF5-MAILFLT1
<i>MF</i>	Sum of CDDCF+MAILFLT1+MAILFLT2+CDDCFA+CDDCNN, Base Period= 1971:4, Value=84.075
<i>MG</i>	Sum of CDDCUS+CDDCCA-NIDDLRMA-NIDDLGMA, Base Period=1971:4, Value=10.526
<i>MH</i>	Sum of CDDCH1. Base Period=1971:4, Value=125.813
<i>MR</i>	Sum of CDDCR. Base Period=1971:4, Value=12.723
<i>MS</i>	Sum of CDDCS. Base Period=1971:4, Value=12.114
<i>MUH</i>	Peak to peak interpolation of $Y/KK$ . Peak quarters are 1953:2, 1955:3, 1959:2, 1962:3, 1965:4, 1969:1, 1973:1, 1977:3, 1981:1, 1984:2, 1988:4, 1993:4, 1998:1. Flat beginning; flat end.
<i>PCD</i>	CDZ/CD
<i>PCGNPD</i>	Def., Eq. 122
<i>PCGNPR</i>	Def., Eq. 123
<i>PCM1</i>	Def., Eq. 124
<i>PCN</i>	CNZ/CN
<i>PCS</i>	CSZ/CS
<i>PD</i>	Def., Eq. 33
<i>PEX</i>	EXZ/EX
<i>PF</i>	Def., Eq. 31
<i>PFA</i>	FAZ/FA
<i>PG</i>	(PURGZ-PROGZ)/(PURG-PROG)
<i>PH</i>	Def., Eq. 34
<i>PIEB</i>	(PIECB-PIECBN)/PX.
<i>PIEF</i>	Def., Eq. 67, or PIEF1+PIEF2+PIEFA (for checking only)
<i>PIH</i>	IHZ/IH
<i>PIK</i>	IKZ/IK
<i>PIM</i>	IMZ/IM
<i>PIV</i>	IVZ/IV, with the following adjustments: 1954:4 = .2917, 1959:3 = .2945, 1971:4 = .3802, 1975:3 = .5694, 1975:4 = .5694, 1979:4 = .9333, 1980:2 = .7717, 1982:3 = .8860, 1983:3 = .8966, 1987:3 = .9321, 1991:3 = .9315, 1992:1 = .9177, 2000:2 = 1.0000, 2003:1 = 1.0000
<i>POP</i>	POP
<i>POP1</i>	POP1
<i>POP2</i>	POP2
<i>POP3</i>	POP-POP1-POP2

Table A.7 (continued)

Variable	Construction
<i>PROD</i>	Def., Eq. 118
<i>PS</i>	$(PURSZ-PROSZ)/(PURS-PROS)$
<i>PSI1</i>	Def., Eq. 32
<i>PSI2</i>	Def., Eq. 35
<i>PSI3</i>	Def., Eq. 36
<i>PSI4</i>	Def., Eq. 37
<i>PSI5</i>	Def., Eq. 38
<i>PSI6</i>	Def., Eq. 39
<i>PSI7</i>	Def., Eq. 40
<i>PSI8</i>	Def., Eq. 41
<i>PSI9</i>	Def., Eq. 42
<i>PSI10</i>	Def., Eq. 44
<i>PSI11</i>	Def., Eq. 45
<i>PSI12</i>	Def., Eq. 46
<i>PSI13</i>	$(PROG+PROS)/(JHQ + 520AF)$
<i>PUG</i>	Def., Eq. 104 or PURGZ
<i>PUS</i>	Def., Eq. 110 or PURSZ
<i>PX</i>	$(CDZ+CNZ+CSZ+IHZ+IKZ+PURGZ-PROGZ+PURSZ-PROSZ+EXZ-IMZ-IBTG-IBTS)/(CD+CN+CS+IH+IK+PURG-PROG+PURS-PROS+EX-IM)$
<i>Q</i>	Sum of CGLDFXUS+CGLDFXMA. Base Period=1971:4, Value=12.265
<i>RB</i>	RB
<i>RD</i>	RD
<i>RECG</i>	Def., Eq. 105
<i>RECS</i>	Def., Eq. 112
<i>RM</i>	RM
<i>RMA</i>	Def., Eq. 128
<i>RNT</i>	RNT
<i>RS</i>	RS
<i>RSA</i>	Def., Eq. 130
<i>SB</i>	Def., Eq. 72
<i>SF</i>	Def., Eq. 69
<i>SG</i>	Def., Eq. 76
<i>SGP</i>	Def., Eq. 107
<i>SH</i>	Def., Eq. 65
<i>SHRPIE</i>	Def., Eq. 121
<i>SIFG</i>	SIFG
<i>SIFS</i>	SIFS
<i>SIG</i>	SIG
<i>SIGG</i>	SIGG
<i>SIHG</i>	SIHG
<i>SIHS</i>	SIHS
<i>SIS</i>	SIS
<i>SISS</i>	SISS
<i>SR</i>	Def., Eq. 74
<i>SRZ</i>	Def., Eq. 116
<i>SS</i>	Def., Eq. 78
<i>SSP</i>	Def., Eq. 114
<i>STAT</i>	STAT
<i>STATP</i>	Def., Eq. 83
<i>SUBG</i>	SUBG
<i>SUBS</i>	SUBS

Table A.7 (continued)

Variable	Construction
<i>T</i>	1 in 1952:1, 2 in 1952:2, etc.
<i>TAUG</i>	Determined from a regression. See the discussion in the text
<i>TAUS</i>	Determined from a regression. See the discussion in the text
<i>TBG</i>	TBG
<i>TBS</i>	TBS
<i>TCG</i>	TCG
<i>TCS</i>	TCS
<i>TFG</i>	Def., Eq. 102
<i>TFS</i>	Def., Eq. 108
<i>THG</i>	Def., Eq. 101
<i>THS</i>	TPS
<i>TPG</i>	TPG
<i>TRFH</i>	TRFH
<i>TRFR</i>	TRF-TRFH
<i>TRGH</i>	TRGH
<i>TRGR</i>	TRGR
<i>TRGS</i>	TRGS
<i>TRHR</i>	TRHR
<i>TRRSH</i>	TRRSH
<i>TRSH</i>	Def., Eq. 111
<i>U</i>	(CE+U)-CE
<i>UB</i>	UB
<i>UBR</i>	Def., Eq. 125
<i>UR</i>	Def., Eq. 87
<i>V</i>	Def., Eq. 117. Base Period=1996:4, Value=1251.9
<i>WA</i>	Def., Eq. 126
<i>WF</i>	[COMPT-(PROGZ-WLDG)-(PROSZ-WLDS)-(SIT-SIGG-SISS)+PRI]/ [JF(HF + .5HO)]
<i>WG</i>	(PROGZ-COMPIL-WLDG)/[JG(JHQ/JQ)]
<i>WH</i>	Def., Eq. 43
<i>WLDF</i>	WLDF
<i>WLDG</i>	WLDG
<i>WLDS</i>	WLDS
<i>WM</i>	COMPIL/(520AF)
<i>WR</i>	Def., Eq. 119
<i>WS</i>	(PROSZ-WLDS)/[(JQ-JG)(JHQ/JQ)]
<i>X</i>	Def., Eq. 60
<i>XX</i>	Def., Eq. 61
<i>Y</i>	Def., Eq. 63
<i>YD</i>	Def., Eq. 115
<i>YNL</i>	Def., Eq. 99
<i>YS</i>	Def., Eq. 98
<i>YT</i>	Def., Eq. 64

• The variables in the first column are the variables in the model. They are defined by the identities in Table A.3 or by the raw data variables in Table A.5. A right hand side variable in this table is a raw data variable unless it is in italics, in which case it is a variable in the model. Sometimes the same letters are used for both a variable in the model and a raw data variable.

**Table A.8**  
**Solution of the Model Under Alternative Monetary Assumptions**

There are five possible assumptions that can be made with respect to monetary policy in the US model. In the standard version monetary policy is endogenous; it is explained by equation 30—the interest rate rule. Under alternative assumptions, where monetary policy is exogenous, equation 30 is dropped and some of the other equations are rearranged for purposes of solving the model. For example, in the standard version equation 125 is used to solve for the level of nonborrowed reserves,  $UBR$ :

$$UBR = BR - BO \quad (125)$$

When, however, the level of nonborrowed reserves is set exogenously, the equation is rearranged and used to solve for total bank reserves,  $BR$ :

$$BR = UBR + BO \quad (125)$$

The following shows the arrangement of the equations for each of the five monetary policy assumptions. The variable listed is the one that is put on the left hand side of the equation and “solved for.”

Eq. No.	<i>RS</i> Eq.30	<i>RS</i> exog	<i>M1</i> exog	<i>UBR</i> exog	<i>AG</i> exog
9	<i>MH</i>	<i>MH</i>	<i>RSA</i>	<i>RSA</i>	<i>RSA</i>
30	<i>RS</i>	Out	Out	Out	Out
57	<i>BR</i>	<i>BR</i>	<i>BR</i>	<i>MB</i>	<i>MB</i>
71	<i>MB</i>	<i>MB</i>	<i>MB</i>	<i>MH</i>	<i>MH</i>
77	<i>AG</i>	<i>AG</i>	<i>AG</i>	<i>AG</i>	<i>BR</i>
81	<i>M1</i>	<i>M1</i>	<i>MH</i>	<i>M1</i>	<i>M1</i>
125	<i>UBR</i>	<i>UBR</i>	<i>UBR</i>	<i>BR</i>	<i>UBR</i>
127	<i>RSA</i>	<i>RSA</i>	<i>RS</i>	<i>RS</i>	<i>RS</i>

**Table A.9**  
**First Stage Regressors for the US model for 2SLS**

Eq.	First Stage Regressors
1	cnst, $AG1$ , $AG2$ , $AG3$ , $\log(CS/POP)_{-1}$ , $\log[YD/(POP \cdot PH)]_{-1}$ , $RSA_{-1}$ , $\log(AA/POP)_{-1}$ , $T$ , $\log(1 - D1GM - D1SM - D4G)_{-1}$ , $\log(IM/POP)_{-1}$ , $\log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP]$ , $\log(PIM/PF)_{-1}$ , $\log[YNL/(POP \cdot PH)]_{-1}$ , $100[(PD/PD_{-1})^4 - 1]_{-1}$ , $\log[(COG + COS)/POP]$ , $\log[(TRGH + TRSH)/(POP \cdot PH_{-1})]$ , $RS_{-2}$ , $RB_{-1}$ , $\log(Y/POP)_{-1}$ , $\log(V/POP)_{-1}$ , $UR_{-1}$
2	cnst, $AG1$ , $AG2$ , $AG3$ , $\log(CN/POP)_{-1}$ , $\Delta \log(CN/POP)_{-1}$ , $\log(AA/POP)_{-1}$ , $\log[YD/(POP \cdot PH)]_{-1}$ , $RMA_{-1}$ , $\log(1 - D1GM - D1SM - D4G)_{-1}$ , $\log(IM/POP)_{-1}$ , $\log(EX/POP)_{-1}$ , $\log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP]$ , $\log(PIM/PF)_{-1}$ , $\log[YNL/(POP \cdot PH)]_{-1}$ , $100[(PD/PD_{-1})^4 - 1]_{-1}$ , $\log[(COG + COS)/POP]$ , $\log[(TRGH + TRSH)/(POP \cdot PH_{-1})]$ , $RS_{-1}$ , $RS_{-2}$ , $\log(V/POP)_{-1}$ , $UR_{-1}$
3	cnst, $AG1$ , $AG2$ , $AG3$ , $(KD/POP)_{-1}$ , $DEL(DKD/POP)_{-1} - (CD/POP)_{-1}$ , $YD/(POP \cdot PH)$ , $(RMA \cdot CDA)_{-1}$ , $(AA/POP)_{-1}$ , $\log(1 - D1GM - D1SM - D4G)_{-1}$ , $\log(IM/POP)_{-1}$ , $\log(EX/POP)_{-1}$ , $\log(PIM/PF)_{-1}$ , $\log[YNL/(POP \cdot PH)]_{-1}$ , $\log[(COG + COS)/POP]$ , $\log[(TRGH + TRSH)/(POP \cdot PH_{-1})]$ , $\log(Y/POP)_{-1}$ , $\log(V/POP)_{-1}$ , $UR_{-1}$
4	cnst, $(KH/POP)_{-1}$ , $[YD/(POP \cdot PH)]_{-1}$ , $RMA_{-1}IHHA$ , $[YD/(POP \cdot PH)]_{-2}$ , $RMA_{-2}IHHA_{-1}$ , $RMA_{-3}IHHA_{-2}$ , $(KH/POP)_{-2}$ , $(KH/POP)_{-3}$ , $\Delta(IHH/POP)_{-1}$ , $\Delta(IHH/POP)_{-2}$ , $DELH(KH/POP)_{-1} - (IHH/POP)_{-1}$ , $DELH_{-1}(KH/POP)_{-2} - (IHH/POP)_{-2}$ , $DELH_{-2}(KH/POP)_{-3} - (IHH/POP)_{-3}$ , $\log(1 - D1GM - D1SM - D4G)_{-1}$ , $\log(IM/POP)_{-1}$ , $\log(EX/POP)_{-1}$ , $\log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP]$ , $\log[YNL/(POP \cdot PH)]_{-1}$ , $100[(PD/PD_{-1})^4 - 1]_{-1}$ , $\log[(COG + COS)/POP]$ , $\log[(TRGH + TRSH)/(POP \cdot PH_{-1})]$
5	cnst, $\log(L1/POP1)_{-1}$ , $\log(AA/POP)_{-1}$ , $UR_{-1}$ , $\log(1 - D1GM - D1SM - D4G)_{-1}$ , $\log(IM/POP)_{-1}$ , $\log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP]$ , $\log(PIM/PF)_{-1}$ , $\log[YNL/(POP \cdot PH)]_{-1}$ , $100[(PD/PD_{-1})^4 - 1]_{-1}$ , $\log[(COG + COS)/POP]$ , $\log(Y/POP)_{-1}$ , $\log(V/POP)_{-1}$
6	cnst, $\log(L2/POP2)_{-1}$ , $\log(WA/PH)_{-1}$ , $\log(AA/POP)_{-1}$ , $T$ , $\log(1 - D1GM - D1SM - D4G)_{-1}$ , $\log(IM/POP)_{-1}$ , $\log(EX/POP)_{-1}$ , $\log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP]$ , $\log(PIM/PF)_{-1}$ , $\log[YNL/(POP \cdot PH)]_{-1}$ , $\log[(COG + COS)/POP]$ , $\log[(TRGH + TRSH)/(POP \cdot PH_{-1})]$ , $RS_{-1}$ , $RS_{-2}$ , $RB_{-1}$ , $\log(Y/POP)_{-1}$ , $\log(V/POP)_{-1}$
7	cnst, $\log(L3/POP1)_{-1}$ , $\log(WA/PH)_{-1}$ , $\log(AA/POP)_{-1}$ , $UR_{-1}$ , $\log(1 - D1GM - D1SM - D4G)_{-1}$ , $\log(IM/POP)_{-1}$ , $\log(EX/POP)_{-1}$ , $\log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP]$ , $\log(PIM/PF)_{-1}$ , $100[(PD/PD_{-1})^4 - 1]_{-1}$ , $\log[(TRGH + TRSH)/(POP \cdot PH_{-1})]$ , $\log(Y/POP)_{-1}$
8	cnst, $\log(LM/POP)_{-1}$ , $\log(WA/PH)_{-1}$ , $UR_{-1}$ , $\log(1 - D1GM - D1SM - D4G)_{-1}$ , $\log(IM/POP)_{-1}$ , $\log(EX/POP)_{-1}$ , $\log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP]$ , $\log(PIM/PF)_{-1}$ , $\log[YNL/(POP \cdot PH)]_{-1}$ , $100[(PD/PD_{-1})^4 - 1]_{-1}$ , $\log[(COG + COS)/POP]$ , $\log[(TRGH + TRSH)/(POP \cdot PH_{-1})]$ , $RS_{-1}$ , $RS_{-2}$ , $RB_{-1}$ , $\log(Y/POP)_{-1}$ , $\log(V/POP)_{-1}$ , $\log(AA/POP)_{-1}$

Table A.9 (continued)

Eq.	First Stage Regressors
9	$\text{cnst}, \log[MH_{-1}/(POP_{-1}PH)]_{-1}, \log[YD/(POP \cdot PH)]_{-1}, RSA_{-1}, T, D981, \log[MH_{-1}/(POP_{-1}PH)]_{-2}, \log[MH_{-1}/(POP_{-1}PH)]_{-3}, \log[MH_{-1}/(POP_{-1}PH)]_{-4}, \log[YD/(POP \cdot PH)]_{-2}, \log[YD/(POP \cdot PH)]_{-3}, \log[YD/(POP \cdot PH)]_{-4}, \log[YD/(POP \cdot PH)]_{-5}, RSA_{-2}, RSA_{-3}, RSA_{-4}, RSA_{-5}, \log[MH_{-1}/(POP_{-1}PH_{-1})], D981_{-1}, D981_{-2}, D981_{-3}, D981_{-4}, \log(1 - D1GM - D1SM - D4G)_{-1}, \log(IM/POP)_{-1}, \log(EX/POP)_{-1}, \log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP], \log(PIM/PF)_{-1}, \log[YNL/(POP \cdot PH)]_{-1}, 100[(PD/PD_{-1})^4 - 1]_{-1}, \log(COG + COS)/POP, \log[(TRGH + TRSH)/(POP \cdot PH_{-1})], RB_{-1}, UR_{-1}, \log(Y/POP)_{-1}, \log(V/POP)_{-1}, \log(AA/POP)_{-1}$
10	$\log PF_{-1}, \log[WF(1 + D5G)] - \log LAM_{-1}, \text{cnst}, \log(PIM/PF)_{-1}, UR_{-1}, T, \log(1 - D1GM - D1SM - D4G)_{-1}, \log(IM/POP)_{-1}, \log(EX/POP)_{-1}, \log[YNL/(POP \cdot PH)]_{-1}, \log(COG + COS)/POP, \log[(TRGH + TRSH)/(POP \cdot PH_{-1})], \log(Y/POP)_{-1}, \log(AA/POP)_{-1}$
11	$\text{cnst}, \log Y_{-1}, \log V_{-1}, D593, D594, D601, \log Y_{-2}, \log Y_{-3}, \log Y_{-4}, \log V_{-2}, \log V_{-3}, \log V_{-4}, D601_{-1}, D601_{-2}, D601_{-3}, T, \log(1 - D1GM - D1SM - D4G)_{-1}, \log(IM/POP)_{-1}, \log(EX/POP)_{-1}, \log(PIM/PF)_{-1}, \log[YNL/(POP \cdot PH)]_{-1}, 100[(PD/PD_{-1})^4 - 1]_{-1}, \log(COG + COS)/POP, \log[(TRGH + TRSH)/(POP \cdot PH_{-1})], RS_{-1}, RB_{-1}, UR_{-1}$
12	$\text{cnst}, \log KK_{-1}, \log KK_{-2}, \log Y_{-1}, \log Y_{-2}, \log Y_{-3}, \log Y_{-4}, \log Y_{-5}, \log(KK/KKMIN)_{-1}, RB_{-2}(1 - D2G_{-2} - D2S_{-2}) - 100(PD_{-2}/PD_{-6}) - 1, (CG_{-2} + CG_{-3} + CG_{-4})/(PX_{-2}YS_{-2} + PX_{-3}YS_{-3} + PX_{-4}YS_{-4}), \log(1 - D1GM - D1SM - D4G)_{-1}, \log(EX/POP)_{-1}, \log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP], \log[YNL/(POP \cdot PH)]_{-1}, \log[(TRGH + TRSH)/(POP \cdot PH_{-1})], UR_{-1}, \log(AA/POP)_{-1}$
13	$\text{cnst}, \log[JF/(JHMIN/HFS)]_{-1}, \Delta \log JF_{-1}, \Delta \log Y_{-1}, D593, \log(1 - D1GM - D1SM - D4G)_{-1}, \log(IM/POP)_{-1}, \log(EX/POP)_{-1}, \log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP], \log(PIM/PF)_{-1}, \log[YNL/(POP \cdot PH)]_{-1}, 100[(PD/PD_{-1})^4 - 1]_{-1}, \log(COG + COS)/POP, \log[(TRGH + TRSH)/(POP \cdot PH_{-1})], RS_{-1}, RS_{-2}, RB_{-1}, \log(Y/POP)_{-1}, \log(V/POP)_{-1}, UR_{-1}, \log(AA/POP)_{-1}$
14	$\text{cnst}, \log(HF/HFS)_{-1}, \log[JF/(JHMIN/HFS)]_{-1}, \Delta \log Y_{-1}, \log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP], \log(PIM/PF)_{-1}, 100[(PD/PD_{-1})^4 - 1]_{-1}, RS_{-1}, RS_{-2}, UR_{-1}$
16	$\log WF_{-1} - \log LAM_{-1} - \log PF_{-1}, \text{cnst}, T, \log(1 - D1GM - D1SM - D4G)_{-1}, \log(EX/POP)_{-1}, \log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP], \log(PIM/PF)_{-1}, \log[YNL/(POP \cdot PH)]_{-1}, \log(COG + COS)/POP, \log[(TRGH + TRSH)/(POP \cdot PH_{-1})], RS_{-1}, RS_{-2}, RB_{-1}, \log(Y/POP)_{-1}, \log(V/POP)_{-1}, UR_{-1}, \log PF_{-1} - [\beta_1/(1 - \beta_2)] \log PF_{-2}$
17	$\text{cnst}, T, \log(MF/PF)_{-1}, \log(X - FA)_{-1}, RS(1 - D2G - D2S)_{-1}, D981, T, \log(1 - D1GM - D1SM - D4G)_{-1}, \log(IM/POP)_{-1}, \log(EX/POP)_{-1}, \log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP], \log(PIM/PF)_{-1}, \log[YNL/(POP \cdot PH)]_{-1}, 100[(PD/PD_{-1})^4 - 1]_{-1}, \log(COG + COS)/POP, RS_{-2}, RB_{-1}, \log(Y/POP)_{-1}, \log(V/POP)_{-1}, UR_{-1}$
18	$\text{cnst}, \log[(PIEF - TFG - TFS)/DF_{-1}]_{-1}, \log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP], \log(PIM/PF)_{-1}, 100[(PD/PD_{-1})^4 - 1]_{-1}, RS_{-1}, RS_{-2}, UR_{-1}$



Table A.9 (continued)

Eq.	First Stage Regressors
22	$\text{cnst, } (BO/BR)_{-1}, RS_{-1}, RD_{-1}, T, \log(1 - D1GM - D1SM - D4G)_{-1}, \log(IM/POP)_{-1},$ $\log(EX/POP)_{-1}, \log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP], \log(PIM/PF)_{-1},$ $\log[YNL/(POP \cdot PH)]_{-1}, 100[(PD/PD_{-1})^4 - 1]_{-1}, \log[(COG + COS)/POP],$ $\log[(TRGH + TRSH)/(POP \cdot PH_{-1})], RS_{-2}, RB_{-1}, \log(Y/POP)_{-1}, \log(V/POP)_{-1},$ $UR_{-1}, \log(AA/POP)_{-1}$
23	$\text{cnst, } RB_{-1}, RB_{-2}, RS_{-1}, RS_{-2}, RS_{-3}, \log(1 - D1GM - D1SM - D4G)_{-1},$ $\log(IM/POP)_{-1}, \log(EX/POP)_{-1}, \log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP],$ $\log(PIM/PF)_{-1}, \log[YNL/(POP \cdot PH)]_{-1}, 100[(PD/PD_{-1})^4 - 1]_{-1}, \log[(COG +$ $COS)/POP], \log[(TRGH + TRSH)/(POP \cdot PH_{-1})], \log(Y/POP)_{-1}, \log(V/POP)_{-1},$ $\log(AA/POP)_{-1}, UR_{-1}$
24	$\text{cnst, } RM_{-1}, RS_{-1}, RS_{-2}, \log(1 - D1GM - D1SM - D4G)_{-1}, \log(IM/POP)_{-1},$ $\log(EX/POP)_{-1}, \log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP], \log(PIM/PF)_{-1},$ $\log[YNL/(POP \cdot PH)]_{-1}, 100[(PD/PD_{-1})^4 - 1]_{-1}, \log[(COG + COS)/POP],$ $\log[(TRGH + TRSH)/(POP \cdot PH_{-1})], \log(Y/POP)_{-1}, \log(V/POP)_{-1},$ $\log(AA/POP)_{-1}, UR_{-1}$
25	$\text{cnst, } \Delta RB_{-1}, [(\Delta(PIEF - TFG - TFS + PX \cdot PIEB - TBG - TBS))/(PX_{-1} \cdot$ $YS_{-1})]_{-1}, T, \log(1 - D1GM - D1SM - D4G)_{-1}, \log(IM/POP)_{-1}, \log(EX/POP)_{-1},$ $\log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP], \log(PIM/PF)_{-1}, \log[YNL/(POP \cdot PH)]_{-1},$ $100[(PD/PD_{-1})^4 - 1]_{-1}, \log[(COG + COS)/POP], \log[(TRGH + TRSH)/(POP \cdot$ $PH_{-1})], RS_{-1}, RS_{-2}, RB_{-1}, \log(Y/POP)_{-1}, \log(V/POP)_{-1}, UR_{-1}, \log(AA/POP)_{-1}$
26	$\text{cnst, } \log[CUR_{-1}/(POP_{-1}PF)_{-1}], \log[(X - FA)/POP]_{-1}, RSA_{-1},$ $\log[CUR_{-1}/(POP_{-1}PF_{-1})], T, \log(1 - D1GM - D1SM - D4G)_{-1}, \log(IM/POP)_{-1},$ $\log(EX/POP)_{-1}, \log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP], \log(PIM/PF)_{-1},$ $\log[YNL/(POP \cdot PH)]_{-1}, 100[(PD/PD_{-1})^4 - 1]_{-1}, \log[(COG + COS)/POP],$ $\log[(TRGH + TRSH)/(POP \cdot PH_{-1})], RS_{-2}, RB_{-1}, \log(Y/POP)_{-1}, \log(V/POP)_{-1},$ $UR_{-1}, \log(AA/POP)_{-1}$
27	$\text{cnst, } \log(IM/POP)_{-1}, \log[(CS + CN + CD + IHH + IKF + IHB + IHF +$ $IKB + IKH)/POP]_{-1}, \log(PF/PIM)_{-1}, D691, D692, D714, D721, \log(IM/POP)_{-2},$ $\log(IM/POP)_{-3}, \log[(CS + CN + CD + IHH + IKF + IHB + IHF + IKB +$ $IKH)/POP]_{-2}, \log[(CS + CN + CD + IHH + IKF + IHB + IHF + IKB +$ $IKH)/POP]_{-3}, \log(PF/PIM)_{-2}, \log(PF/PIM)_{-3}, D692_{-1}, D692_{-2}, D721_{-1},$ $D721_{-2}, \log(1 - D1GM - D1SM - D4G)_{-1}, \log(EX/POP)_{-1}, \log[(JG \cdot HG + JM \cdot$ $HM + JS \cdot HS)/POP], \log[YNL/(POP \cdot PH)]_{-1}, 100[(PD/PD_{-1})^4 - 1]_{-1}, \log[(COG +$ $COS)/POP], \log[(TRGH + TRSH)/(POP \cdot PH_{-1})], RS_{-1}, RB_{-1}, \log(Y/POP)_{-1},$ $\log(V/POP)_{-1}, UR_{-1}, \log(AA/POP)_{-1}$
28	$\text{cnst, } \log UB_{-1}, \log U_{-1}, \log WF_{-1}, \log UB_{-2}, \log(1 - D1GM - D1SM - D4G)_{-1},$ $\log(IM/POP)_{-1}, \log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP], \log(PIM/PF)_{-1},$ $\log[YNL/(POP \cdot PH)]_{-1}, 100[(PD/PD_{-1})^4 - 1]_{-1}, \log[(COG + COS)/POP],$ $\log[(TRGH + TRSH)/(POP \cdot PH_{-1})], RS_{-1}, RS_{-2}$
30	$\text{cnst, } RS_{-1}, 100[(PD/PD_{-1})^4 - 1]_{-1}, UR_{-1}, \Delta UR_{-1}, PCM1_{-1}, D794823 \cdot$ $PCM1_{-1}, \Delta RS_{-1}, \Delta RS_{-2}, T, \log(1 - D1GM - D1SM - D4G)_{-1}, \log(IM/POP)_{-1},$ $\log(EX/POP)_{-1}, \log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP], \log(PIM/PF)_{-1},$ $\log[YNL/(POP \cdot PH)]_{-1}, \log[(COG + COS)/POP], \log[(TRGH + TRSH)/(POP \cdot$ $PH_{-1})], \log(Y/POP)_{-1}, \log(V/POP)_{-1}, \log(AA/POP)_{-1}$

**Table A.10**  
**Variables Used in Each Equation**

<b>Var.</b>	<b>Eq.</b>	<b>Used in Equation:</b>	<b>Var.</b>	<b>Eq.</b>	<b>Used in Equation:</b>
AA	89	1, 2, 3, 4, 5, 6, 7	D942	exog	21
AB	73	80	D981	exog	9, 17
AF	70	19, 80	D013	exog	21
AG	77	29, 80	D014	exog	21
AG1	exog	1, 2, 3	DB	exog	64, 72, 99, 115
AG2	exog	1, 2, 3	DELD	exog	3, 58
AG3	exog	1, 2, 3	DELH	exog	4, 59
AH	66	80, 89	DELK	exog	92
AR	75	80	DF	18	64, 69, 99, 115
AS	79	80	DISB	exog	73, 80
BO	22	73, 77, 125	DISBA	exog	67, 70, 80
BR	57	22, 73, 77, 125	DISF	exog	70, 80
CCB	exog	60, 61, 72, 82, 83	DISG	exog	77, 80
CCF	21	67	DISH	exog	66, 80
CCG	exog	67, 68, 76	DISR	exog	75, 80
CCH	exog	65, 67, 68	DISS	exog	79, 80
CCS	exog	67, 68, 77	DRS	exog	64, 78, 99, 113, 115
CD	3	27, 34, 51, 52, 58, 60, 61, 65, 116	E	85	86
CDA	exog	3	EX	exog	33, 60, 61, 74
CF	68	69	EXPG	106	107
CG	25	12, 66, 80	EXPS	113	114
CN	2	27, 34, 51, 52, 60, 61, 65, 116	FA	exog	17, 26, 31
COG	exog	60, 61, 76, 104	FIROW	exog	67, 68, 74, 129, 130
COS	exog	60, 61, 78, 110	FIROWD	exog	130
CS	1	27, 34, 51, 52, 60, 61, 65, 116	FIUS	exog	67, 68, 74, 129, 130
CUR	26	71, 77	FIUSD	exog	130
D1G	exog	47, 90, 99	G1	exog	57
D1GM	90	126, 127, 128	GDP	82	84, 129
D1S	exog	48, 91, 99	GDPD	84	123
D1SM	91	126, 127, 128	GDPD	83	84, 122, 130
D2G	exog	12, 17, 49, 121	GNP	129	131
D2S	exog	12, 17, 50, 121	GNPD	131	-
D3G	exog	35, 36, 37, 51	GNPR	130	131
D3S	exog	35, 36, 37, 52	HF	14	62, 95, 100, 118
D4G	exog	53, 126	HFF	100	15
D5G	exog	10, 54	HFS	exog	13, 14, 100
D593	exog	11, 13	HG	exog	43, 64, 76, 82, 83, 95, 98, 104, 115, 126
D594	exog	11	HM	exog	43, 64, 76, 82, 83, 95, 98, 104, 115, 126
D601	exog	11	HN	62	43, 53, 54, 64, 67, 68, 115, 121, 126
D621	exog	21	HO	15	43, 53, 54, 62, 64, 67, 68, 115, 121, 126
D691	exog	27	HS	exog	43, 64, 78, 82, 83, 95, 98, 110, 115, 126
D692	exog	27	IBTG	51	34, 52, 61, 76, 82, 105
D714	exog	27	IBTS	52	34, 51, 61, 78, 82, 112
D721	exog	27	IGZ	exog	106
D722	exog	21	IHB	exog	27, 60, 61, 72
D723	exog	21	IHF	exog	27, 60, 61, 68
D794823	exog	30	IHH	4	27, 34, 59, 60, 61, 65
D923	exog	21	IHHA	exog	4
D924	exog	21	IKB	exog	27, 60, 61, 72
D941	exog	21	IKF	92	21, 27, 60, 61, 68

Table A.10 (continued)

Var.	Eq.	Used in Equation:	Var.	Eq.	Used in Equation:
<i>IKG</i>	exog	60, 61, 76	<i>PIEB</i>	exog	25, 60, 61, 72, 82, 83
<i>IKH</i>	exog	27, 60, 61, 65	<i>PIEF</i>	67	18, 49, 25, 50, 121
<i>IM</i>	27	33, 60, 61, 74	<i>PIH</i>	38	34, 61, 65, 68, 72, 89
<i>INS</i>	exog	65, 76	<i>PIK</i>	39	21, 61, 65, 68, 72, 76
<i>INTF</i>	19	64, 67, 68, 99, 115	<i>PIM</i>	exog	10, 27, 33, 61, 74
<i>INTG</i>	29	64, 76, 99, 106, 115	<i>PIV</i>	42	67, 82
<i>INTOTH</i>	exog	64, 67, 68, 99, 115	<i>POP</i>	120	1, 2, 3, 4, 5, 6, 7, 8, 9, 26, 27, 47, 48, 90, 91
<i>INTROW</i>	exog	64, 67, 68, 99, 115	<i>POP1</i>	exog	5, 120
<i>INTS</i>	exog	64, 78, 99, 113, 115	<i>POP2</i>	exog	6, 120
<i>ISZ</i>	exog	113	<i>POP3</i>	exog	7, 120
<i>IVA</i>	20	67	<i>PROD</i>	118	-
<i>IVF</i>	117	-	<i>PS</i>	41	61, 78, 110
<i>JF</i>	13	14, 43, 53, 54, 64, 67, 68, 85, 95, 115, 118,	<i>PSI1</i>	exog	32
<i>JG</i>	exog	43, 64, 76, 82, 83, 85, 95, 98, 104, 115, 126	<i>PSI2</i>	exog	35
<i>JHMIN</i>	94	13, 14	<i>PSI3</i>	exog	36
<i>JJ</i>	95	96, 97	<i>PSI4</i>	exog	37
<i>JJP</i>	exog	96, 97, 98	<i>PSI5</i>	exog	38
<i>JM</i>	exog	43, 64, 76, 82, 83, 85, 87, 95, 98, 104, 115	<i>PSI6</i>	exog	39
<i>JS</i>	exog	43, 64, 78, 82, 83, 85, 95, 98, 110, 115, 126	<i>PSI7</i>	exog	40
<i>KD</i>	58	3	<i>PSI8</i>	exog	41
<i>KH</i>	59	4, 89	<i>PSI9</i>	exog	42
<i>KK</i>	12	92	<i>PSI10</i>	exog	44
<i>KKMIN</i>	93	12	<i>PSI11</i>	exog	45
<i>L1</i>	5	86, 87	<i>PSI12</i>	exog	46
<i>L2</i>	6	86, 87	<i>PSI13</i>	exog	83
<i>L3</i>	7	86, 87	<i>PUG</i>	104	106
<i>LAM</i>	exog	10, 16, 94, 98	<i>PUS</i>	110	113
<i>LM</i>	8	85	<i>PX</i>	31	12, 20, 25, 32, 33, 61, 72, 82, 119
<i>M1</i>	81	124	<i>Q</i>	exog	75, 77
<i>MB</i>	71	57, 73	<i>RB</i>	23	12, 19, 25, 29
<i>MDIF</i>	exog	81	<i>RD</i>	exog	22
<i>MF</i>	17	70, 71, 81	<i>RECG</i>	105	107
<i>MG</i>	exog	71, 77	<i>RECS</i>	112	114
<i>MH</i>	9	66, 71, 81, 89	<i>RM</i>	24	128
<i>MR</i>	exog	71, 75, 81	<i>RMA</i>	128	2, 3, 4
<i>MRS</i>	exog	68, 76	<i>RNT</i>	exog	64, 67, 68, 99, 115
<i>MS</i>	exog	71, 79, 81	<i>RS</i>	30	17, 22, 23, 24, 29, 127
<i>MUH</i>	exog	93	<i>RSA</i>	130	1, 9, 26
<i>PCD</i>	37	34, 51, 52, 61, 65, 116	<i>SB</i>	72	73
<i>PCGDPD</i>	122	-	<i>SF</i>	69	70
<i>PCGDPR</i>	123	30	<i>SG</i>	76	77
<i>PCM1</i>	124	30	<i>SGP</i>	107	-
<i>PCN</i>	36	34, 51, 52, 61, 65, 116	<i>SH</i>	65	66
<i>PCS</i>	35	34, 51, 52, 61, 65, 116	<i>SHRPIE</i>	121	-
<i>PD</i>	33	12, 30, 35, 36, 37, 38, 39, 40, 41, 42	<i>SIFG</i>	54	67, 68, 76, 103
<i>PEX</i>	32	33, 61, 74	<i>SIFS</i>	exog	67, 68, 78, 109
<i>PF</i>	10	16, 17, 26, 27, 31, 119	<i>SIG</i>	103	105
<i>PFA</i>	exog	31	<i>SIGG</i>	exog	43, 64, 76, 103, 115, 126
<i>PG</i>	40	61, 76, 104	<i>SIHG</i>	53	65, 76, 103, 115
<i>PH</i>	34	1, 2, 3, 4, 6, 7, 8, 9, 89	<i>SIHS</i>	exog	65, 78, 109, 115

Table A.10 (continued)

Var.	Eq.	Used in Equation:	Var.	Eq.	Used in Equation:
<i>SIS</i>	109	112	<i>TRGS</i>	exog	76, 78, 106, 112
<i>SISS</i>	exog	43, 64, 78, 109, 115, 126	<i>TRHR</i>	exog	65, 74, 115
<i>SR</i>	74	75	<i>TRRSH</i>	111	113
<i>SRZ</i>	116	-	<i>TRSH</i>	exog	65, 78, 99, 111, 115
<i>SS</i>	78	79	<i>U</i>	86	28, 87
<i>SSP</i>	114	-	<i>UB</i>	28	65, 78, 99, 111, 115
<i>STAT</i>	exog	67, 70, 80	<i>UBR</i>	128	-
<i>STATP</i>	exog	83	<i>UR</i>	87	5, 7, 8, 10, 30
<i>SUBG</i>	exog	67, 68, 76, 106	<i>V</i>	63	11, 20, 67, 82, 117
<i>SUBS</i>	exog	67, 68, 78, 113	<i>WA</i>	126	6, 7, 8
<i>T</i>	exog	1, 9, 10, 16	<i>WF</i>	16	10, 28, 43, 44, 45, 46, 53, 54, 64, 67, 68, 11
<i>TAUG</i>	exog	47, 90, 99	<i>WG</i>	44	43, 64, 76, 82, 104, 115, 126
<i>TAUS</i>	exog	48, 91, 99	<i>WH</i>	43	-
<i>TBG</i>	exog	25, 72, 76, 102	<i>WLDF</i>	exog	65, 68, 70
<i>TBS</i>	exog	25, 72, 78, 108	<i>WLDG</i>	exog	82, 104, 106
<i>TCG</i>	102	105	<i>WLDS</i>	exog	82, 110, 113
<i>TCS</i>	108	112	<i>WM</i>	45	43, 64, 76, 82, 104, 115, 126
<i>TFG</i>	49	18, 25, 69, 76, 102	<i>WR</i>	119	-
<i>TFS</i>	50	18, 25, 49, 69, 78, 108	<i>WS</i>	46	43, 64, 78, 82, 110, 115, 126
<i>THG</i>	47	65, 76, 101, 115	<i>X</i>	60	11, 17, 26, 31, 33, 63
<i>THS</i>	48	65, 78, 112, 115	<i>XX</i>	61	67, 68, 82
<i>TPG</i>	101	105	<i>Y</i>	11	10, 12, 13, 14, 63, 83, 93, 94, 118
<i>TRFH</i>	exog	64, 67, 68, 99, 115	<i>YD</i>	115	1, 2, 3, 4, 9, 116
<i>TRFR</i>	exog	67, 68, 74	<i>YNL</i>	99	-
<i>TRGH</i>	exog	65, 76, 99, 106, 115	<i>YS</i>	98	12, 25
<i>TRGR</i>	exog	74, 76, 106	<i>YT</i>	64	47, 48, 65, 90, 91, 99