

**The US Model
Appendix A
July 31, 2014**

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 Nonfinancial Corporate Business (F1) 2b Nonfinancial Noncorporate Business (NN) |
| 3 Financial (b) | 3 Financial Business (B) except Government Sponsored Enterprises (CA) and Monetary Authority (MA) |
| 4 Foreign (r) | 4 Rest of the World (R) |
| 5 Fed. Gov. (g) | 5a Federal Government (US) 5b Government-Sponsored Enterprises (CA) 5c 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 this appendix.
- The abbreviations H, F1, NN, B, R, US, CA, MA, and S are used in Table A.5 in the description of the flow of funds data and, when appropriate, in other tables.

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

| Variable | Eq. | Description | Used in Equations |
|----------|------|--|---|
| AA | 133 | Total net wealth, h, B2009\$. | 1, 2, 3, 5, 6, 7 |
| AA1 | 88 | Total net financial wealth, h, B2009\$. | 133 |
| AA2 | 89 | Total net housing wealth, h, B2009\$. | 4, 133 |
| AB | 73 | Net financial assets, b, B\$. | none |
| AF | 70 | Net financial assets, f, B\$. | none |
| AG | 77 | Net financial assets, g, B\$. | 29 |
| AG1 | exog | Percent of 16+ population 26-55 minus percent 16-25. | 1, 2, 3 |
| AG2 | exog | Percent of 16+ population 56-65 minus percent 16-25. | 1, 2, 3 |
| AG3 | exog | Percent of 16+ population 66+ minus percent 16-25. | 1, 2, 3 |
| AH | 66 | Net financial assets, h, B\$. | 88 |
| AR | 75 | Net financial assets, r, B\$. | none |
| AS | 79 | Net financial assets, s, B\$. | none |
| BO | exog | Bank borrowing from the Fed, B\$. | 125 |
| BR | exog | Total bank reserves, B\$. | 125 |
| CCF1 | 67 | Capital consumption, F1, B\$. | 68 |
| CCG | 150 | Capital consumption, g, B\$. | 68, 69, 76 |
| CCGQ | exog | Capital consumption, g, B2009\$. | 150 |
| CCH | 151 | Capital consumption, h, B\$. | 65, 68, 69 |
| CCHQ | exog | Capital consumption, h, B2009\$. | 151 |
| CCS | 152 | Capital consumption, s, B\$. | 68, 69, 78 |
| CCSQ | exog | Capital consumption, s, B2009\$. | 152 |
| CD | 3 | Consumer expenditures for durable goods, B2009\$. | 27, 34, 51, 52, 58, 60, 61, 65, 96, 97, 116 |
| CDA | exog | Peak to peak interpolation of CD/POP. | 3 |
| CDH | 96 | Capital expenditures, consumer durable goods, h, B\$. | 65, 68 |
| CG | 25 | Capital gains(+) or losses(-) on the financial assets of h, B\$. | 12, 66 |
| CN | 2 | Consumer expenditures for nondurable goods, B2009\$. | 27, 34, 51, 52, 60, 61, 65, 116 |
| COG | exog | Purchases of consumption and investment goods, g, B2009\$. | 60, 61, 76, 104 |
| COS | exog | Purchases of consumption and investment goods, s, B2009\$. | 60, 61, 78, 110 |
| CS | 1 | Consumer expenditures for services, B2009\$. | 27, 34, 51, 52, 60, 61, 65, 116 |
| CTB | exog | Net capital transfers paid, financial corporations, B\$. | 72 |
| CTF1 | exog | Net capital transfers paid, nonfinancial corporations, B\$. | 69 |
| CTGB | exog | Financial stabilization payments, B\$. | 68, 69 |
| CTGMB | exog | Net capital transfers paid, g, less financial stabilization payments, B\$. | 76 |
| CTH | exog | Net capital transfers paid, h, B\$. | 65 |
| CTNN | exog | Net capital transfers paid, noncorporate business, B\$. | 69 |
| CTR | exog | Net capital transfers paid, r, B\$. | 74 |
| CTS | exog | Net capital transfers paid, s, B\$. | 78 |
| CUR | 26 | Currency held outside banks, B\$. | 71, 77 |
| D1G | exog | Personal income tax parameter, g. | 47, 90 |
| D1GM | 90 | Marginal personal income tax rate, g. | 126, 127, 128 |
| D1S | exog | Personal income tax parameter, s. | 48, 91 |
| D1SM | 91 | Marginal personal income tax rate, s. | 126, 127, 128 |
| D2G | exog | Profit tax rate, g. | 12, 17, 49, 121 |
| D2S | exog | Profit tax rate, s. | 12, 17, 50, 121 |
| D3G | exog | Indirect business tax rate, g. | 35, 36, 37, 51 |
| D3S | exog | Indirect business tax rate, s. | 35, 36, 37, 52 |
| D4G | exog | Employee social security tax rate, g. | 53, 126 |
| D5G | exog | Employer social security tax rate, g. | 10, 54 |
| D6G | exog | Capital consumption rate for CCF1, g. | 67 |
| D593 | exog | 1 in 1959:3; 0 otherwise. | 11, 13 |
| D594 | exog | 1 in 1959:4; 0 otherwise. | 11 |
| D601 | exog | 1 in 1960:1; 0 otherwise. | 11 |
| D691 | exog | 1 in 1969:1; 0 otherwise. | 27 |
| D692 | exog | 1 in 1969:2; 0 otherwise. | 27 |
| D714 | exog | 1 in 1971:4; 0 otherwise. | 27 |
| D721 | exog | 1 in 1972:1; 0 otherwise. | 27 |
| D794823 | exog | 1 in 1979:4-1982:3; 0 otherwise. | 30 |

Table A.2 (continued)

| Variable | Eq. | Description | Used in Equations |
|--------------|------|---|---|
| <i>DB</i> | 153 | Net dividends paid, b, B\$. | 64, 68, 69, 99, 115 |
| <i>DBQ</i> | exog | Net dividends paid, b, B2009\$. | 153 |
| <i>DELD</i> | exog | Physical depreciation rate of the stock of durable goods, rate per quarter. | 3, 58 |
| <i>DELH</i> | exog | Physical depreciation rate of the stock of housing, rate per quarter. | 4, 59 |
| <i>DELK</i> | exog | Physical depreciation rate of the stock of capital, rate per quarter. | 92 |
| <i>DF</i> | 18 | Net dividends paid, f, B\$. | 64, 69, 99, 115 |
| <i>DG</i> | exog | Net dividends paid, g, B\$. | 64, 76, 99, 105, 115 |
| <i>DISB</i> | exog | Discrepancy for b, B\$. | 73 |
| <i>DISF</i> | exog | Discrepancy for f, B\$. | 70 |
| <i>DISG</i> | exog | Discrepancy for g, B\$. | 77 |
| <i>DISH</i> | exog | Discrepancy for h, B\$. | 66 |
| <i>DISR</i> | exog | Discrepancy for r, B\$. | 75 |
| <i>DISS</i> | exog | Discrepancy for s, B\$. | 79 |
| <i>DR</i> | 154 | Net dividends paid, r, B\$. | 57, 64, 99, 115 |
| <i>DRQ</i> | exog | Net dividends paid, r, B2009\$. | 154 |
| <i>DS</i> | exog | Net dividends paid, s, B\$. | 64, 78, 99, 112, 115 |
| <i>E</i> | 85 | Total employment, civilian and military, millions. | 86 |
| <i>EX</i> | exog | Exports, B2009\$. | 33, 60, 61, 74 |
| <i>EXPG</i> | 106 | Net expenditures, g, B\$. | 107 |
| <i>EXPS</i> | 113 | Net expenditures, s, B\$. | 114 |
| <i>FA</i> | exog | Farm gross product, B2009\$. | 17, 26, 31 |
| <i>GDP</i> | 82 | Gross Domestic Product, B\$. | 84, 129 |
| <i>GDPD</i> | 84 | GDP price deflator. | 111, 123, 130, 150–169 |
| <i>GDPR</i> | 83 | Gross Domestic Product, B2009\$. | 84, 122, 130 |
| <i>GNP</i> | 129 | Gross National Product, B\$. | 131 |
| <i>GNPD</i> | 131 | GNP price deflator. | none |
| <i>GNPR</i> | 130 | Gross National Product, B2009\$. | 131 |
| <i>GSB</i> | 155 | Gross saving, B, B\$. | 68, 69, 72 |
| <i>GSBQ</i> | exog | Gross saving, B, B2009\$. | 155 |
| <i>GSCA</i> | exog | Gross saving, CA, B\$. | 68, 69, 76 |
| <i>GSMA</i> | exog | Gross saving, MA, B\$. | 68, 69, 76 |
| <i>GSNN</i> | 156 | Gross saving, NN, B\$. | 68 |
| <i>GSNNQ</i> | exog | Gross saving, NN, B2009\$. | 156 |
| <i>HF</i> | 14 | Average number of hours paid per job, f, hours per quarter. | 62, 95, 100, 118 |
| <i>HFF</i> | 100 | Deviation of HF from its peak to peak interpolation. | 15 |
| <i>HFS</i> | exog | Peak to peak interpolation of HF. | 13, 14, 100 |
| <i>HG</i> | exog | Average number of hours paid per civilian job, g, hours per quarter. | 43, 64, 76, 82, 83, 95, 98, 104, 115, 126 |
| <i>HM</i> | exog | Average number of hours paid per military job, g, hours per quarter. | 43, 64, 76, 82, 83, 95, 98, 104, 115, 126 |
| <i>HN</i> | 62 | Average number of non overtime hours paid per job, f, hours per quarter. | 43, 53, 54, 64, 67, 68, 115, 121, 126 |
| <i>HO</i> | 15 | Average number of overtime hours paid per job, f, hours per quarter. | 43, 53, 54, 62, 67, 68, 115, 121, 126 |
| <i>HS</i> | exog | Average number of hours paid per job, s, hours per quarter. | 43, 64, 78, 82, 83, 95, 98, 110, 115, 126 |
| <i>IBTG</i> | 51 | Indirect business taxes, g, B\$. | 34, 52, 61, 76, 82, 105 |
| <i>IBTS</i> | 52 | Indirect business taxes, s, B\$. | 34, 51, 61, 78, 82, 112 |
| <i>IGZ</i> | 157 | Gross investment, g, B\$. | 106 |
| <i>IGZQ</i> | exog | Gross investment, g, B2009\$. | 157 |
| <i>IHB</i> | exog | Residential investment, b, B2009\$. | 27, 60, 61, 72 |
| <i>IHF</i> | exog | Residential investment, f, B2009\$. | 27, 60, 61, 68 |
| <i>IHH</i> | 4 | Residential investment, h, B2009\$. | 27, 34, 59, 60, 61, 65 |
| <i>IHHA</i> | exog | Peak to peak interpolation of IHH/POP. | 4 |

Table A.2 (continued)

| Variable | Eq. | Description | Used in Equations |
|--------------|------|---|--|
| <i>IKB</i> | exog | Nonresidential fixed investment, b, B2009\$. | 27, 60, 61, 72 |
| <i>IKF</i> | 92 | Nonresidential fixed investment, f, B2009\$. | 27, 60, 61, 67, 69 |
| <i>IKG</i> | exog | Nonresidential fixed investment, g, B2009\$. | 60, 61, 76 |
| <i>IKH</i> | exog | Nonresidential fixed investment, h, B2009\$. | 27, 60, 61, 65 |
| <i>IM</i> | 27 | Imports, B2009\$. | 33, 60, 61, 74 |
| <i>INS</i> | exog | Insurance and pension reserves to h from g, B\$. | 65, 76 |
| <i>INTF</i> | exog | Net interest payments, f, B\$. | 64, 68, 69, 99, 115 |
| <i>INTG</i> | 29 | Net interest payments, g, B\$. | 56, 64, 76, 99, 106, 115 |
| <i>INTGR</i> | 56 | Net interest payments, g to r, B\$. | 57, 64, 99, 115 |
| <i>INTS</i> | exog | Net interest payments, s, B\$. | 64, 78, 99, 113, 115 |
| <i>INTZ</i> | 158 | Net interest payments, other, B\$. | 64, 68, 69, 99, 115 |
| <i>INTZQ</i> | exog | Net interest payments, other, B2009\$. | 158 |
| <i>ISZ</i> | 159 | Gross investment, s, B\$. | 113 |
| <i>ISZQ</i> | exog | Gross investment, s, B2009\$. | 159 |
| <i>IVA</i> | exog | Inventory valuation adjustment, B\$. | 68 |
| <i>IVF</i> | 117 | Inventory investment, f, B2009\$. | 68 |
| <i>JF</i> | 13 | Number of jobs, f, millions. | 14, 43, 53, 54, 64, 68, 69, 85, 95, 115, 118, 121 |
| <i>JG</i> | exog | Number of civilian jobs, g, millions. | 43, 64, 76, 82, 83, 85, 95, 98, 104, 115, 126 |
| <i>JHMIN</i> | 94 | Number of worker hours required to produce Y, millions. | 13, 14 |
| <i>JJ</i> | 95 | Ratio of the total number of worker hours paid for to the total population 16 and over. | none |
| <i>JJP</i> | exog | Potential value of JJ. | 98 |
| <i>JM</i> | exog | Number of military jobs, g, millions. | 43, 64, 76, 82, 83, 85, 87, 95, 98, 104, 115 |
| <i>JS</i> | exog | Number of jobs, s, millions. | 43, 64, 78, 82, 83, 85, 95, 98, 110, 115, 126 |
| <i>KD</i> | 58 | Stock of durable goods, B2009\$. | 3 |
| <i>KH</i> | 59 | Stock of housing, h, B2009\$. | 4, 89 |
| <i>KK</i> | 12 | Stock of capital, f, B2009\$. | 92 |
| <i>KKMIN</i> | 93 | Amount of capital required to produce Y, B2009\$. | 12 |
| <i>L1</i> | 5 | Labor force of men 25-54, millions. | 86, 87 |
| <i>L2</i> | 6 | Labor force of women 25-54, millions. | 86, 87 |
| <i>L3</i> | 7 | Labor force of all others, 16+, millions. | 86, 87 |
| <i>LAM</i> | exog | Amount of output capable of being produced per worker hour. | 10, 16, 94, 98 |
| <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. | 85 |
| <i>M1</i> | 81 | Money supply, end of quarter, B\$. | 124 |
| <i>MB</i> | 71 | Net demand deposits and currency, b, B\$. | 73 |
| <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\$. | 81 |
| <i>MF</i> | 17 | Demand deposits and currency, f, B\$. | 70, 71, 81 |
| <i>MG</i> | 160 | Demand deposits and currency, g, B\$. | 71, 77 |
| <i>MGQ</i> | exog | Demand deposits and currency, g, B2009\$. | 160 |
| <i>MH</i> | 161 | Demand deposits and currency, h, B\$. | 66, 71, 81, 88 |
| <i>MHQ</i> | exog | Demand deposits and currency, h, B2009\$. | 161 |
| <i>MR</i> | 162 | Demand deposits and currency, r, B\$. | 71, 75, 81 |
| <i>MRQ</i> | exog | Demand deposits and currency, r, B2009\$. | 162 |
| <i>MS</i> | 163 | Demand deposits and currency, s, B\$. | 71, 79, 81 |
| <i>MSQ</i> | exog | Demand deposits and currency, s, B2009\$. | 163 |
| <i>MUH</i> | exog | Amount of output capable of being produced per unit of capital. | 93 |

Table A.2 (continued)

| Variable | Eq. | Description | Used in Equations |
|----------------|------|---|--|
| <i>NICD</i> | 97 | Net investment in consumer durables, h, B\$. | 65, 68, 69 |
| <i>NNF</i> | exog | Net acquisition of nonproduced nonfinancial assets, f, B\$. | 69 |
| <i>NNG</i> | exog | Net acquisition of nonproduced nonfinancial assets, g, B\$. | 76 |
| <i>NNH</i> | exog | Net acquisition of nonproduced nonfinancial assets, h, B\$. | 65 |
| <i>NNR</i> | exog | Net acquisition of nonproduced nonfinancial assets, r, B\$. | 74 |
| <i>NNS</i> | exog | Net acquisition of nonproduced nonfinancial assets, s, B\$. | 78 |
| <i>PCD</i> | 37 | Price deflator for CD. | 34, 51, 52, 61, 65, 96, 97, 116 |
| <i>PCGDPD</i> | 123 | Percentage change in GDPD, annual rate, percentage points. | none |
| <i>PCGDPR</i> | 122 | Percentage change in GDPR, annual rate, percentage points. | none |
| <i>PCM1</i> | 124 | Percentage change in M1, annual rate, percentage points. | 30 |
| <i>PCN</i> | 36 | Price deflator for CN. | 34, 51, 52, 61, 65, 116 |
| <i>PCS</i> | 35 | Price deflator for CS. | 34, 51, 52, 61, 65, 116 |
| <i>PD</i> | 33 | Price deflator for X - EX + IM (domestic sales). | 12, 30, 35, 36, 37, 38, 39, 40, 41, 42, 55 |
| <i>PEX</i> | 32 | Price deflator for EX. | 33, 61, 74 |
| <i>PF</i> | 10 | Price deflator for non farm sales. | 16, 17, 26, 27, 31, 119 |
| <i>PFA</i> | 191 | Price deflator for farm sales. | 31 |
| <i>PG</i> | 40 | Price deflator for COG. | 61, 76, 104 |
| <i>PH</i> | 34 | Price deflator for CS + CN + CD + IHH inclusive of indirect business taxes. | 1, 2, 3, 4, 6, 7, 8, 88, 89 |
| <i>PIEF</i> | 67 | Before tax profits, f, B\$. | 18, 25, 49, 50, 121, 132 |
| <i>PIEFRET</i> | 132 | Foreign earnings retained abroad, f, B\$. | 57, 69 |
| <i>PIH</i> | 38 | Price deflator for residential investment. | 34, 61, 65, 68, 72 |
| <i>PIK</i> | 39 | Price deflator for nonresidential fixed investment. | 21, 61, 65, 68, 72, 76 |
| <i>PIM</i> | exog | Price deflator for IM. | 10, 27, 33, 61, 74 |
| <i>PIV</i> | 42 | Price deflator for inventory investment, adjusted. | 67, 82 |
| <i>PKH</i> | 55 | Market price of <i>KH</i> . | 89 |
| <i>POP</i> | 120 | Noninstitutional population 16+, millions. | 1, 2, 3, 4, 5, 6, 7, 8, 26, 27, 47, 48, 90, 91 |
| <i>POP1</i> | exog | Noninstitutional population of men 25-54, millions. | 5, 120 |
| <i>POP2</i> | exog | Noninstitutional population of women 25-54, millions. | 6, 120 |
| <i>POP3</i> | exog | Noninstitutional population of all others, 16+, millions. | 7, 120 |
| <i>PROD</i> | 118 | Output per paid for worker hour ("productivity"). | none |
| <i>PS</i> | 41 | Price deflator for COS. | 61, 78, 110 |
| <i>PSI1</i> | exog | Ratio of PEX to PX. | 32 |
| <i>PSI2</i> | exog | Ratio of PCS to (1 + D3G + D3S)PD. | 35 |
| <i>PSI3</i> | exog | Ratio of PCN to (1 + D3G + D3S)PD. | 36 |
| <i>PSI4</i> | exog | Ratio of PCD to (1 + D3G + D3S)PD. | 37 |
| <i>PSI5</i> | exog | Ratio of PIH to PD. | 38 |
| <i>PSI6</i> | exog | Ratio of PIK to PD. | 39 |
| <i>PSI7</i> | exog | Ratio of PG to PD. | 40 |
| <i>PSI8</i> | exog | Ratio of PS to PD. | 41 |
| <i>PSI9</i> | exog | Ratio of PIV to PD. | 42 |
| <i>PSI10</i> | exog | Ratio of WG to WF. | 44 |
| <i>PSI11</i> | exog | Ratio of WM to WF. | 45 |
| <i>PSI12</i> | exog | Ratio of WS to WF. | 46 |
| <i>PSI13</i> | exog | Ratio of gross product of g and s to total employee hours of g and s. | 83 |
| <i>PSI14</i> | exog | Ratio of PKH to PD. | 55 |
| <i>PSI15</i> | exog | Ratio of INTGR to INTG. | 56 |
| <i>PUG</i> | 104 | Purchases of goods and services, g, B\$. | 106 |
| <i>PUS</i> | 110 | Purchases of goods and services, s, B\$. | 113 |
| <i>PX</i> | 31 | Price deflator for total sales. | 12, 25, 32, 33, 61, 72, 82, 119 |
| <i>Q</i> | 164 | Gold and foreign exchange, g, B\$. | 75,77 |
| <i>QQ</i> | exog | Gold and foreign exchange, g _{OB2009} \$. | 164 |

Table A.2 (continued)

| Variable | Eq. | Description | Used in Equations |
|---------------|------|--|--------------------------|
| <i>RB</i> | 23 | Bond rate, percentage points. | 12,25,29 |
| <i>RECG</i> | 105 | Net receipts, g, B\$. | 107 |
| <i>RECS</i> | 112 | Net receipts, s, B\$. | 114 |
| <i>RM</i> | 24 | Mortgage rate, percentage points. | 128 |
| <i>RMA</i> | 128 | After tax mortgage rate, percentage points. | 2, 3, 4 |
| <i>RNT</i> | 165 | Rental income, h, B\$. | 64, 68, 69, 99, 115 |
| <i>RNTQ</i> | exog | Rental income, h, B2009\$. | 165 |
| <i>RS</i> | 30 | Three-month Treasury bill rate, percentage points. | 17, 23, 24, 29, 127 |
| <i>RSA</i> | 127 | After tax bill rate, percentage points. | 1, 26 |
| <i>SB</i> | 72 | Financial saving, b, B\$. | 73 |
| <i>SF</i> | 69 | Financial saving, f, B\$. | 70 |
| <i>SG</i> | 76 | Financial saving, g, B\$. | 77 |
| <i>SGP</i> | 107 | NIPA surplus (+) or deficit (-), g, B\$. | none |
| <i>SH</i> | 65 | Saving, h, B\$. | 66 |
| <i>SHRPIE</i> | 121 | Ratio of after tax profits to the wage bill net of employer social security taxes. | none |
| <i>SIFG</i> | 54 | Employer social insurance contributions, f to g, B\$. | 67, 68, 76, 103 |
| <i>SIFS</i> | exog | Employer social insurance contributions, f to s, B\$. | 67, 68, 78, 109 |
| <i>SIG</i> | 103 | Total employer and employee social insurance contributions to g, B\$. | 105 |
| <i>SIGG</i> | exog | Employer social insurance contributions, g to g, B\$. | 64, 76, 103, 115, 126 |
| <i>SIHG</i> | 53 | Employee social insurance contributions, h to g, B\$. | 65, 76, 103, 115 |
| <i>SIHS</i> | exog | Employee social insurance contributions, h to s, B\$. | 65, 78, 109, 115 |
| <i>SIS</i> | 109 | Total employer and employee social insurance contributions to s, B\$. | 112 |
| <i>SISS</i> | exog | Employer social insurance contributions, s to s, B\$. | 64, 78, 109, 115, 126 |
| <i>SR</i> | 74 | Financial saving, r, B\$. | 75 |
| <i>SRZ</i> | 116 | Approximate NIPA saving rate, h. | none |
| <i>SS</i> | 78 | Financial saving, s, B\$. | 79 |
| <i>SSP</i> | 114 | NIPA surplus (+) or deficit (-), s, B\$. | none |
| <i>STAT</i> | exog | Statistical discrepancy, B\$. | 68, 69, 80 |
| <i>STATP</i> | exog | Statistical discrepancy relating to the use of chain type price indices, B2009\$. | 83 |
| <i>SUBG</i> | exog | Subsidies less current surplus of government enterprises, g, B\$. | 68, 69, 76, 106 |
| <i>SUBS</i> | exog | Subsidies less current surplus of government enterprises, s, B\$. | 68, 69, 78, 113 |
| <i>T</i> | exog | 1 in 1952:1, 2 in 1952:2, etc. | 10, 14, 16 |
| <i>TAUG</i> | exog | Progressivity tax parameter in personal income tax equation for g. | 47, 90, 99 |
| <i>TAUS</i> | exog | Progressivity tax parameter in personal income tax equation for s. | 48, 91, 99 |
| <i>TFR</i> | exog | Taxes, f to r, B\$. | 18, 25, 74, 101 |
| <i>TBG</i> | 166 | Corporate profit taxes, b to g, B\$. | 68, 69, 76, 102 |
| <i>TBGQ</i> | exog | Corporate profit taxes, b to g, B2009\$. | 166 |
| <i>TBS</i> | exog | Corporate profit taxes, b to s, B\$. | 68, 69, 78, 108 |
| <i>TCG</i> | 102 | Corporate profit tax receipts, g, B\$. | 105 |
| <i>TCS</i> | 108 | Corporate profit tax receipts, s, B\$. | 112 |
| <i>TFA</i> | exog | Corporate profit tax payments, FA, B\$. | 68, 69, 101 |
| <i>TF1</i> | 101 | Corporate profit tax payments, F1, B\$. | 69 |
| <i>TFG</i> | 49 | Corporate profit taxes, f to g, B\$. | 18, 25, 76, 101, 102 |
| <i>TFS</i> | 50 | Corporate profit taxes, f to s, B\$. | 18, 25, 49, 78, 101, 108 |
| <i>THETA1</i> | exog | Ratio of <i>PFA</i> to <i>GDPD</i> . | 111 |
| <i>THETA2</i> | exog | Ratio of <i>CDH</i> to <i>PCD · CD</i> . | 96 |
| <i>THETA3</i> | exog | Ratio of <i>NICD</i> to <i>PCD · CD</i> . | 97 |
| <i>THETA4</i> | exog | Ratio of <i>PIEFRET</i> to <i>PIEF</i> . | 132 |
| <i>THG</i> | 47 | Personal income taxes, h to g, B\$. | 65, 76, 101, 115 |
| <i>THS</i> | 48 | Personal income taxes, h to s, B\$. | 65, 78, 105, 112, 115 |

Table A.2 (continued)

| Variable | Eq. | Description | Used in Equations |
|----------------|------|--|--|
| <i>TRFG</i> | exog | Transfer payments, f to g, B\$. | 68, 69, 76, 105 |
| <i>TRFH</i> | exog | Transfer payments, f to h, B\$. | 64, 68, 69, 99, 115 |
| <i>TRFR</i> | exog | Transfer payments, f to r, B\$. | 68, 69, 74 |
| <i>TRFS</i> | exog | Transfer payments, f to s, B\$. | 68, 69, 78, 112 |
| <i>TRGH</i> | 167 | Transfer payments (net), g to h, B\$. | 65, 76, 99, 106, 115 |
| <i>TRGHQ</i> | exog | Transfer payments (net), g to h, B2009\$. | 167 |
| <i>TRGR</i> | exog | Transfer payments (net), g to r, B\$. | 74, 76, 106 |
| <i>TRGS</i> | 168 | Transfer payments, g to s, B\$. | 76, 78, 106, 112 |
| <i>TRGSQ</i> | exog | Transfer payments, g to s, B2009\$. | 168 |
| <i>TRHR</i> | exog | Transfer payments, h to r, B\$. | 65, 74, 115 |
| <i>TRSH</i> | 169 | Transfer payments, s to h, excluding unemployment insurance benefits, B\$. | 65, 78, 99, 111, 115 |
| <i>TRSHQ</i> | exog | Transfer payments, s to h, excluding unemployment insurance benefits, B2009\$. | 169 |
| <i>U</i> | 86 | Number of people unemployed, millions. | 28, 87 |
| <i>UB</i> | 28 | Unemployment insurance benefits, B\$. | 65, 78, 99, 111, 115 |
| <i>UBR</i> | 128 | Unborrowed reserves, B\$. | none |
| <i>UR</i> | 87 | Civilian unemployment rate. | 5, 7, 8, 10, 30 |
| <i>USAFF</i> | exog | Contributions for government social insurance, U.S.-affiliated areas, B\$. | 65, 74, 76, 80, 99 |
| <i>USOTHER</i> | exog | Net receipts of factor income from the rest of the world not counting net interest receipts, net dividend receipts, and foreign earnings retained abroad, B\$. | 57, 68, 69 |
| <i>USROW</i> | 57 | Net receipts of factor income from the rest of the world, B\$. | 74, 129, 130 |
| <i>V</i> | 63 | Stock of inventories, f, B2009\$. | 11, 82, 117 |
| <i>WA</i> | 126 | After tax wage rate. (Includes supplements to wages and salaries except employer contributions for social insurance.) | 6, 7, 8 |
| <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.) | 10, 11, 28, 43, 44, 45, 46, 53, 54, 64, 68, 69, 99, 121, 126 |
| <i>WG</i> | 44 | Average hourly earnings of civilian workers in g. (Includes supplements to wages and salaries including employer contributions for social insurance.) | 43, 64, 76, 82, 104, 115, 126 |
| <i>WH</i> | 43 | Average hourly earnings excluding overtime of all workers. (Includes supplements to wages and salaries except employer contributions for social insurance.) | none |
| <i>WM</i> | 45 | Average hourly earnings of military workers. (Includes supplements to wages and salaries including employer contributions for social insurance.) | 43, 64, 76, 82, 104, 115, 126 |
| <i>WR</i> | 119 | Real wage rate of workers in f. (Includes supplements to wages and salaries except employer contributions for social insurance.) | none |
| <i>WS</i> | 46 | Average hourly earnings of workers in s. (Includes supplements to wages and salaries including employer contributions for social insurance.) | 43, 64, 78, 82, 110, 115, 126 |
| <i>X</i> | 60 | Total sales, B2009\$. | 11, 17, 26, 31, 33, 63 |
| <i>XX</i> | 61 | Total sales, B\$. | 68, 69, 82 |
| <i>Y</i> | 11 | Total production, B2009\$. | 10, 12, 13, 14, 63, 83, 93, 94, 118 |
| <i>YD</i> | 115 | Disposable income, h, B\$. | 1, 2, 3, 4, 116 |
| <i>YNL</i> | 99 | Before tax nonlabor income, h, B\$. | none |
| <i>YS</i> | 98 | Potential output, B2009\$. | 12, 25 |
| <i>YT</i> | 64 | Taxable income, h, B\$. | 47, 48, 65, 90, 91, 99 |

• B\$ = Billions of dollars.

• B2009\$ = Billions of 2009 dollars.

Table A.3
The Equations of the US Model

| STOCHASTIC EQUATIONS | | |
|-------------------------|----------------------|--|
| Eq. | LHS Variable | Explanatory Variables |
| Household Sector | | |
| 1 | $\log(CS/POP)$ | cnst2, cnst, $AG1$, $AG2$, $AG3$, $\log(CS/POP)_{-1}$, $\log[YD/(POP \cdot PH)]$, RSA , $\log(AA/POP)_{-1}$ [Consumer expenditures: services] |
| 2 | $\log(CN/POP)$ | cnst2, 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 | $\Delta CD/POP$ | cnst2, cnst, $AG1$, $AG2$, $AG3$, $DEL D(KD/POP)_{-1} - (CD/POP)_{-1}$, $(KD/POP)_{-1}$, $YD/(POP \cdot PH)$, $RMA \cdot CDA$, $(AA/POP)_{-1}$ [Consumer expenditures: durables] |
| 4 | $\Delta IHH/POP$ | cnst2, cnst, $DELH(KH/POP)_{-1} - (IHH/POP)_{-1}$, $(KH/POP)_{-1}$, $(AA/POP)_{-1}$, $YD/(POP \cdot PH)$, $RMA_{-1} IHH A$, $(AA2/POP)_{-1}$, $RHO = 2$ [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] |
| Firm Sector | | |
| 10 | $\log PF$ | $\log PF_{-1}$, $\log[WF(1 + D5G)] - \log LAM$, cnst2, TB , cnst, T , $\log PIM$, UR [Price deflator for non farm sales] |
| 11 | $\log Y$ | cnst, $\log Y_{-1}$, $\log X$, $\log V_{-1}$, $D593$, $D594$, $D601$, $RHO = 3$ [Production-f] |
| 12 | $\Delta \log KK$ | cnst2, cnst, $\log(KK/KKMIN)_{-1}$, $\Delta \log KK_{-1}$, $\Delta \log Y$, $\Delta \log Y_{-1}$, $\Delta \log Y_{-2}$, $\Delta \log Y_{-3}$, $\Delta \log Y_{-4}$, $\Delta \log Y_{-5}$, $RB_{-2}(1 - D2G_{-2} - D2S_{-2}) - 100(PD_{-2}/PD_{-6}) - 1$, $(CG_{-2} + CG_{-3} + CG_{-4})/(PX_{-2}YS_{-2} + PX_{-3}YS_{-3} + PX_{-4}YS_{-4})$ [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, $\log(HF/HFS)_{-1}$, $\log[JF/(JHMIN/HFS)]_{-1}$, $\Delta \log Y$, T [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 | $\log WF - \log LAM$ | $\log WF_{-1} - \log LAM_{-1}$, $\log PF$, cnst, T , $\log PF_{-1}$ [Average hourly earnings excluding overtime-f] |
| 17 | $\log(MF/PF)$ | cnst, T , $\log(MF_{-1}/PF)$, $\log(X - FA)$, $RS(1 - D2G - D2S)$ [Demand deposits and currency-f] |
| 18 | $\Delta \log DF$ | $\log[(PIEF - TFG - TFS - TFR)/DF_{-1}]$ [Dividends paid-f] |

Table A.3 (continued)

| Eq. | LHS Variable | Explanatory Variables |
|---------------------------|------------------------------|--|
| Financial Sector | | |
| 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, ΔRB , $[\Delta(PIEF - TFG - TFS - TFR)]/(PX_{-1} \cdot YS_{-1})$ [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] |
| Import Equation | | |
| 27 | $\log(IM/POP)$ | cnst2, cnst, $\log(IM/POP)_{-1}$, $\log[(CS + CN + CD + IHH + IKF + IHB + IHF + IKB + IKH)/POP]$, $\log(PF/PIM)$, $D691$, $D692$, $D714$, $D721$ [Imports] |
| Government Sectors | | |
| 28 | $\log UB$ | cnst, $\log UB_{-1}$, $\log U$, $\log WF$, $RHO = 1$ [Unemployment insurance benefits] |
| 29 | $INTG/(-AG)$ | cnst, $[INTG/(-AG)]_{-1}$, $(1/400)[.4RS + .75(.6)(1/8)(RB + RB_{-1} + RB_{-2} + RB_{-3} + RB_{-4} + RB_{-5} + RB_{-6} + RB_{-7})]$, $RHO = 1$ |
| 30 | RS | cnst, RS_{-1} , $100[(PD/PD_{-1})^4 - 1]$, UR , ΔUR , $PCM1_{-1}$, $D794823 \cdot PCM1_{-1}$, ΔRS_{-1} , ΔRS_{-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 total sales] |
| 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 + CN + 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 | $WH =$ | $100[(WF \cdot JF(HN + 1.5HO) + WG \cdot JG \cdot HG + WM \cdot JM \cdot HM + WS \cdot JS \cdot HS)/(JF(HN + 1.5HO) + JG \cdot HG + JM \cdot HM + JS \cdot HS)]$ [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 | $THG =$ | $[D1G + ((TAUG \cdot YT)/(POP \cdot PH))]YT$ [Personal income taxes-h to g] |
| 48 | $THS =$ | $[D1S + ((TAUS \cdot YT)/(POP \cdot PH))]YT$ [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] |

Table A.3 (continued)

| Eq. | LHS Variable | Explanatory Variables |
|-----|--------------|---|
| 55 | $PKH =$ | $PSI14 \cdot PD$ [Market price of KH] |
| 56 | $INTGR =$ | $PSI15 \cdot INTG$ [Net interest payments, g to r] |
| 57 | $USROW =$ | $-INTGR + DR + PIEFRET + USOTHER$ [Net receipts of factor income from the rest of the world] |
| 58 | $KD =$ | $(1 - DELD)KD_{-1} + CD$ [Stock of durable goods] |
| 59 | $KH =$ | $(1 - DELH)KH_{-1} + IHH$ [Stock of housing-h] |
| 60 | $X =$ | $CS + CN + CD + IHH + IKF + EX - IM + COG + COS + IKH + IKB +$ $IKG + IHF + IHB$ [Total real sales] |
| 61 | $XX =$ | $PCS \cdot CS + PCN \cdot CN + PCD \cdot CD + PIH \cdot IHH + PIK \cdot IKF + PEX \cdot$ $EX - PIM \cdot IM + PG \cdot COG + PS \cdot COS + PIK(IKH + IKB + IKG) +$ $PIH(IHF + IHB) - IBTG - IBTS$ [Total nominal sales] |
| 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 | $YT =$ | $WF \cdot JF(HN + 1.5HO) + WG \cdot JG \cdot HG + WM \cdot JM \cdot HM + WS \cdot JS \cdot HS +$ $RNT + INTZ + INTF + INTG - INTGR + INTS + DF + DB + DR +$ $DG + DS + TRFH - TRHR - SIGG - SISS$ [Taxable income-h] |
| 65 | $SH =$ | $YT - SIHG - SIHS + USAFF - THG - THS - PCS \cdot CS - PCN \cdot CN -$ $PCD \cdot CD + TRGH + TRSH + UB + INS + NICD + CCH - CTH - PIH \cdot$ $IHH - CDH - PIK \cdot IKH - NNH$ [Financial saving-h] |
| 66 | $0 =$ | $SH - \Delta AH - \Delta MH + CG - DISH$ [Budget constraint-h; (determines AH)] |
| 67 | $CCF1 =$ | $D6G(PIK \cdot IKF + PIK_{-1} \cdot IKF_{-1} + PIK_{-2} \cdot IKF_{-2} + PIK_{-3} \cdot IKF_{-3})/4$ [Capital consumption, F1] |
| 68 | $PIEF =$ | $XX + PIV \cdot IVF + SUBS + SUBG + USOTHER - WF \cdot JF(HN + 1.5HO) -$ $RNT - INTZ - INTF - TRFH - NICD - CCH + CDH - TBS - TRFS -$ $CCS - TRFR - DB - GSB - CTGB - GSMA - GSCA - TBG - TRFG -$ $CCG - SIFG - SIFS - GSNN - IVA - CCF1 - TFA - STAT$ [Before tax profits-f] |
| 69 | $SF =$ | $XX + SUBS + SUBG + PIEFRET + USOTHER - WF \cdot JF(HN + 1.5HO) -$ $RNT - INTZ - INTF - TRFH - NICD - CCH + CDH - TBS - TRFS -$ $CCS - TRFR - DB - GSB - CTGB - GSMA - GSCA - TBG - TRFG -$ $CCG - SIFG - SIFS - STAT - DF - TF1 - TFA - PIK \cdot IKF - PIH \cdot$ $IHF - NNF - CTF1 - CTNN$ [Financial saving-f] |
| 70 | $0 =$ | $SF - \Delta AF - \Delta MF - DISF$ [Budget constraint-f; (determines AF)] |

Table A.3 (continued)

| Eq. | LHS Variable | Explanatory Variables |
|-----|--------------|---|
| 71 | 0 = | $\Delta MB + \Delta MH + \Delta MF + \Delta MR + \Delta MG + \Delta MS - \Delta CUR$ [Demand deposit identity; (determines MB)] |
| 72 | $SB =$ | $G SB - CTB - PIH \cdot IHB - PIK \cdot IKB$ [Financial saving-b] |
| 73 | 0 = | $SB - \Delta AB - \Delta MB - \Delta(BR - BO) - DISB$ [Budget constraint-b; (determines AB)] |
| 74 | $SR =$ | $-PEX \cdot EX - USROW + PIM \cdot IM + TFR + TRFR + TRHR + TRGR - USAFF - CTR - NNR$ [Financial saving-r] |
| 75 | 0 = | $SR - \Delta AR - \Delta MR + \Delta Q - DISR$ [Budget constraint-r; (determines AR)] |
| 76 | $SG =$ | $GSMA + GSCA + THG + IBTG + TBG + TFG + SIHG + SIFG - DG + TRFG - PG \cdot COG - WG \cdot JG \cdot HG - WM \cdot JM \cdot HM - TRGH - TRGR - TRGS - INTG - SUBG + CCG - INS - USAFF - CTGMB - NNG - PIK \cdot IKG + SIGG$ [Financial 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)] |
| 78 | $SS =$ | $THS + IBTS + TBS + TFS + SIHS + SIFS - DS + TRGS + TRFS - PS \cdot COS - WS \cdot JS \cdot HS - TRSH - UB - INTS - SUBS + CCS - CTS - NNS + SISS$ [Financial saving-s] |
| 79 | 0 = | $SS - \Delta AS - \Delta MS - DISS$ [Budget constraint-s; (determines AS)] |
| 80 | 0 = | $SH + SF + SB + SR + SG + SS + STAT + USAFF$ [Redundant equation—for checking] |
| 81 | $M1 =$ | $M1_{-1} + \Delta MH + \Delta MF + \Delta MR + \Delta MS + MDIF$ [Money supply] |
| 82 | $GDP =$ | $XX + PIV(V - V_{-1}) + IBTG + IBTS + WG \cdot JG \cdot HG + WM \cdot JM \cdot HM + WS \cdot JS \cdot HS$ [Nominal GDP] |
| 83 | $GDPR =$ | $Y + PSI13(JG \cdot HG + JM \cdot HM + JS \cdot HS) + STATP$ [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 | $AA1 =$ | $(AH + MH)/PH$ [Total net financial wealth-h] |
| 89 | $AA2 =$ | $(PKH \cdot KH)/PH$ [Total net housing wealth-h] |
| 90 | $D1GM =$ | $D1G + (2TAUG \cdot YT)/(POP \cdot PH)$ [Marginal personal income tax rate-g] |
| 91 | $D1SM =$ | $D1S + (2TAUS \cdot YT)/(POP \cdot PH)$ [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] |

Table A.3 (continued)

| Eq. | LHS Variable | Explanatory Variables |
|-----|--------------|--|
| 96 | $CDH =$ | $THETA2 \cdot PCD \cdot CD$ [Capital expenditures, consumer durable goods, h] |
| 97 | $NICD =$ | $THETA3 \cdot PCD \cdot CD$ [Net investment in consumer durables, h] |
| 98 | $YS =$ | $LAM(JJP \cdot POP - JG \cdot HG - JM \cdot HM - JS \cdot HS)$ [Potential output] |
| 99 | $YNL =$ | $RNT + INTZ + INTF + INTG - INTGR + INTS + DF + DB + DR +$ $DG + DS + TRFH + TRGH + TRSH + UB$ [Before-tax nonlabor income-h] |
| 100 | $HFF =$ | $HF - HFS$ [Deviation of HF from its peak to peak interpolation] |
| 101 | $TF1 =$ | $TFG + TFS + TFR - TFA$ [Corporate profit tax payments, F1] |
| 102 | $TCG =$ | $TFG + TBG$ [Corporate profit tax receipts-g] |
| 103 | $SIG =$ | $SIHG + SIFG + SIGG$ [Total social insurance contributions to g] |
| 104 | $PUG =$ | $PG \cdot COG + WG \cdot JG \cdot HG + WM \cdot JM \cdot HM$ [Purchases of goods and services-g] |
| 105 | $RECG =$ | $THG + TCG + IBTG + SIG + TRFG - DG$ [Net receipts-g] |
| 106 | $EXPG =$ | $PUG + TRGH + TRGR + TRGS + INTG + SUBG - IGZ$ [Net 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 | $PUS =$ | $PS \cdot COS + WS \cdot JS \cdot HS$ [Purchases of goods and services-s] |
| 111 | $PFA =$ | $THETA1 \cdot GDPD$ [Price deflator for farm sales] |
| 112 | $RECS =$ | $THS + TCS + IBTS + SIS + TRGS + TRFS - DS$ [Net receipts-s] |
| 113 | $EXPS =$ | $PUS + TRSH + UB + INTS + SUBS - ISZ$ [Net expenditures-s] |
| 114 | $SSP =$ | $RECS - EXPS$ [NIPA surplus or deficit-s] |
| 115 | $YD =$ | $WF \cdot JF(HN + 1.5HO) + WG \cdot JG \cdot HG + WM \cdot JM \cdot HM + WS \cdot JS \cdot HS +$ $RNT + INTZ + INTF + INTG - INTGR + INTS + DF + DB + DR +$ $DG + DS + TRFH + TRGH + TRSH + UB - SIHG - SIHS + USAFF -$ $THG - THS - TRHR - SIGG - SISS$ [Disposable income-h] |
| 116 | $SRZ =$ | $(YD - PCS \cdot CS - PCN \cdot CN - PCD \cdot CD)/YD$ [Approximate NIPA 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] |

Table A.3 (continued)

| Eq. | LHS Variable | Explanatory Variables |
|--------------------------------------|--------------|---|
| 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 | $GNP =$ | $GDP + USROW$ [Nominal GNP] |
| 130 | $GNPR =$ | $GDPR + USROW/GDPD$ [Real GNP] |
| 131 | $GNPD =$ | $GNP/GNPR$ [GNP price deflator] |
| 132 | $PIEFRET =$ | $THETA4 \cdot PIEF$ [Foreign earnings retained abroad—f] |
| 133 | $AA =$ | $AA1 + AA2$ [Total net wealth—h] |
| Nominal Variables | | |
| 150 | $CCG =$ | $GDPD \cdot CCGQ$ |
| 151 | $CCH =$ | $GDPD \cdot CCHQ$ |
| 152 | $CCS =$ | $GDPD \cdot CCSQ$ |
| 153 | $DB =$ | $GDPD \cdot DBQ$ |
| 154 | $DR =$ | $GDPD \cdot DRQ$ |
| 155 | $GSB =$ | $GDPD \cdot GSBQ$ |
| 156 | $GSNN =$ | $GDPD \cdot GSNNQ$ |
| 157 | $IGZ =$ | $GDPD \cdot IGZQ$ |
| 158 | $INTZ =$ | $GDPD \cdot INTZQ$ |
| 159 | $ISZ =$ | $GDPD \cdot ISZQ$ |
| 160 | $MG =$ | $GDPD \cdot MGQ$ |
| 161 | $MH =$ | $GDPD \cdot MHQ$ |
| 162 | $MR =$ | $GDPD \cdot MRQ$ |
| 163 | $MS =$ | $GDPD \cdot MSQ$ |
| 164 | $Q =$ | $GDPD \cdot QQ$ |
| 165 | $RNT =$ | $GDPD \cdot RNTQ$ |
| 166 | $TBG =$ | $GDPD \cdot TBGQ$ |
| 167 | $TRGH =$ | $GDPD \cdot TRGHQ$ |
| 168 | $TRGS =$ | $GDPD \cdot TRGSQ$ |
| 169 | $TRSH =$ | $GDPD \cdot TRSHQ$ |
| Variables as a percent of GDP | | |
| 180 | $RECGZGDP =$ | $RECG/GDP$ |
| 181 | $EXPGZGDP =$ | $EXPG/GDP$ |
| 182 | $SGPZGDP =$ | $-SGP/GDP$ |
| 183 | $AGZGDP =$ | $-AG/(4 \cdot GDP)$ |
| 184 | $INTGZGDP =$ | $INTG/GDP$ |
| 185 | $SRZGDP =$ | SR/GDP |
| 186 | $ASZGDP =$ | $-AS/(4 \cdot GDP)$ |
| 187 | $PCGDPR4 =$ | $100 \cdot (GDPR/GDPR_{-4} - 1)$ |
| 188 | $PCGDPD4 =$ | $100 \cdot (GDPD/GDPD_{-4} - 1)$ |

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

See Chapter 1 in Fair (2004) for discussion of the tests.
See Chapter 2 in Fair (2004) for discussion of the equations.

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

| RHS Variable | Equation | Coef. | t-stat. | Test | χ^2 Tests | | |
|--|----------------|----------|-----------|----------|----------------|--------|---------|
| | | | | | χ^2 | df | p-value |
| cnst2 | | 0.02129 | 6.48 | Lags | 17.46 | 4 | 0.0016 |
| cnst | | -0.13411 | -5.92 | RHO | 16.62 | 4 | 0.0023 |
| AG1 | | -0.03249 | -1.49 | Leads +1 | 8.41 | 1 | 0.0037 |
| AG2 | | -0.27436 | -8.27 | Leads +4 | 16.02 | 4 | 0.0030 |
| AG3 | | 0.20174 | 3.63 | Leads +8 | 15.46 | 2 | 0.0004 |
| $\log(CS/POP)_{-1}$ | | 0.83022 | 38.69 | | | | |
| $\log[YD/(POP \cdot PH)]$ | | 0.11182 | 5.08 | | | | |
| RSA | | -0.00112 | -5.09 | | | | |
| $\log(AA/POP)_{-1}$ | | 0.03569 | 6.67 | | | | |
| SE | 0.00370 | | | | | | |
| R ² | 1.000 | | | | | | |
| DW | 1.55 | | | | | | |
| overid (df = 15, p-value = 0.0000) | | | | | | | |
| χ^2 (AGE) = 101.43 (df = 3, p-value = 0.0000) | | | | | | | |
| AP | Stability Test | | | Break | End Test | | |
| | T_1 | T_2 | λ | | p-value | End | |
| 13.85 | 1970.1 | 1979.4 | 2.06 | 1974.2 | 0.9310 | 1995.1 | |
| 11.16 | 1975.1 | 1984.4 | 1.94 | 1975.4 | | | |
| 12.11 | 1980.1 | 1989.4 | 1.92 | 1989.1 | | | |

Estimation period is 1954.1-2014.2

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

| RHS Variable | Equation | Coef. | t-stat. | Test | χ^2 Tests | | |
|---|----------------|----------|-----------|----------|----------------|--------|---------|
| | | | | | χ^2 | df | p-value |
| cnst2 | | -0.01650 | -2.11 | Lags | 28.81 | 4 | 0.0000 |
| cnst | | -0.36352 | -5.25 | RHO | 36.15 | 4 | 0.0000 |
| AG1 | | 0.16093 | 3.23 | T | 0.49 | 1 | 0.4818 |
| AG2 | | 0.12054 | 2.05 | Leads +1 | 12.35 | 1 | 0.0004 |
| AG3 | | -0.36534 | -3.09 | Leads +4 | 10.76 | 4 | 0.0294 |
| $\log(CN/POP)_{-1}$ | | 0.73928 | 17.17 | Leads +8 | 9.13 | 2 | 0.0104 |
| $\Delta \log(CN/POP)_{-1}$ | | 0.20927 | 3.52 | | | | |
| $\log(AA/POP)_{-1}$ | | 0.04640 | 4.43 | | | | |
| $\log[YD/(POP \cdot PH)]$ | | 0.12692 | 4.14 | | | | |
| RMA | | -0.00077 | -1.51 | | | | |
| SE | 0.00657 | | | | | | |
| R ² | 0.999 | | | | | | |
| DW | 1.96 | | | | | | |
| overid (df = 14, p-value = 0.0000) | | | | | | | |
| χ^2 (AGE) = 15.56 (df = 3, p-value = 0.0014) | | | | | | | |
| AP | Stability Test | | | Break | End Test | | |
| | T_1 | T_2 | λ | | p-value | End | |
| 18.32 | 1970.1 | 1979.4 | 2.06 | 1976.1 | 1.0000 | 1995.1 | |
| 18.31 | 1975.1 | 1984.4 | 1.94 | 1976.1 | | | |
| 10.94 | 1980.1 | 1989.4 | 1.92 | 1983.2 | | | |

Estimation period is 1954.1-2014.2

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

| RHS Variable | Equation | Coef. | t-stat. | Test | χ^2 Tests | | |
|---|----------|----------|-----------|----------|----------------|--------|---------|
| | | | | | χ^2 | df | p-value |
| cnst2 | | 0.05255 | 3.40 | Lags | 6.42 | 4 | 0.1702 |
| cnst | | -0.16428 | -2.64 | RHO | 15.33 | 4 | 0.0041 |
| AG1 | | 0.06360 | 0.64 | T | 8.72 | 1 | 0.0031 |
| AG2 | | 2.36085 | 5.75 | Leads +1 | 2.72 | 1 | 0.0991 |
| AG3 | | -1.89387 | -4.79 | Leads +4 | 14.09 | 4 | 0.0070 |
| ^a | | 0.20314 | 4.55 | Leads +8 | 10.55 | 2 | 0.0051 |
| $(KD/POP)_{-1}$ | | -0.02492 | -6.27 | | | | |
| $YD/(POP \cdot PH)$ | | 0.05457 | 5.67 | | | | |
| $RMA \cdot CDA$ | | -0.00878 | -3.49 | | | | |
| $(AA/POP)_{-1}$ | | 0.00063 | 3.87 | | | | |
| SE | 0.01468 | | | | | | |
| R ² | 0.198 | | | | | | |
| DW | 1.96 | | | | | | |
| overid (df = 10, p-value = 0.0000) | | | | | | | |
| χ^2 (AGE) = 70.63 (df = 3, p-value = 0.0000) | | | | | | | |
| Stability Test | | | | | End Test | | |
| AP | T_1 | T_2 | λ | Break | p-value | End | |
| 11.24 | 1970.1 | 1979.4 | 2.06 | 1974.2 | 0.2644 | 1995.1 | |
| 24.64 | 1975.1 | 1984.4 | 1.94 | 1983.2 | | | |
| 25.41 | 1980.1 | 1989.4 | 1.92 | 1985.4 | | | |

Estimation period is 1954.1-2014.2

^aVariable is $DELDD(KD/POP)_{-1} - (CD/POP)_{-1}$

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

| RHS Variable | Equation | Coef. | t-stat. | Test | χ^2 Tests | | |
|--|----------|----------------|-----------|----------|----------------|--------|---------|
| | | | | | χ^2 | df | p-value |
| cnst2 | | 0.12122 | 1.24 | Lags | 5.02 | 3 | 0.1701 |
| cnst | | 0.96090 | 2.34 | RHO | 3.34 | 2 | 0.1883 |
| ^a | | 0.36554 | 7.12 | T | 1.32 | 1 | 0.2501 |
| $(KH/POP)_{-1}$ | | -0.03487 | -3.63 | Leads +1 | 0.17 | 1 | 0.6818 |
| $YD/(POP \cdot PH)$ | | 0.06018 | 1.87 | Leads +4 | 1.26 | 4 | 0.8674 |
| $RMA_{-1} \cdot IHHA$ | | -0.02651 | -5.59 | Leads +8 | 7.09 | 2 | 0.0289 |
| $(AA2/POP)_{-1}$ | | 0.00311 | 3.20 | | | | |
| RHO1 | | 0.59660 | 8.51 | | | | |
| RHO2 | | 0.37128 | 5.27 | | | | |
| SE | 0.01614 | | | | | | |
| R ² | 0.404 | | | | | | |
| DW | 2.03 | | | | | | |
| overid (df = 21, p-value =0.0054) | | | | | | | |
| χ^2 (AGE) = 7.70 (df = 3, p-value = 0.0526) | | | | | | | |
| | | Stability Test | | | End Test | | |
| AP | T_1 | T_2 | λ | Break | p-value | End | |
| 7.51 | 1970.1 | 1979.4 | 2.06 | 1971.1 | 0.0000 | 1995.1 | |
| 14.95 | 1975.1 | 1984.4 | 1.94 | 1984.4 | | | |
| 16.12 | 1980.1 | 1989.4 | 1.92 | 1989.3 | | | |

Estimation period is 1954.1-2014.2

^aVariable is $DELH(KH/POP)_{-1} - (IHH/POP)_{-1}$

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

| RHS Variable | Equation | Coef. | t-stat. | Test | χ^2 Tests | | |
|-----------------------------------|----------|----------------|-----------|--------|----------------|--------|---------|
| | | | | | χ^2 | df | p-value |
| cnst | | 0.01302 | 2.43 | Lags | 7.41 | 3 | 0.0598 |
| $\log(L1/POP1)_{-1}$ | | 0.94679 | 41.13 | RHO | 58.07 | 4 | 0.0000 |
| $\log(AA/POP)_{-1}$ | | -0.00325 | -2.46 | T | 11.57 | 1 | 0.0007 |
| UR | | -0.02161 | -1.68 | | | | |
| SE | 0.00245 | | | | | | |
| R ² | 0.992 | | | | | | |
| DW | 2.22 | | | | | | |
| overid (df = 10, p-value =0.0000) | | | | | | | |
| | | Stability Test | | | End Test | | |
| AP | T_1 | T_2 | λ | Break | p-value | End | |
| 5.14 | 1970.1 | 1979.4 | 2.06 | 1970.1 | 0.0000 | 1995.1 | |
| 2.90 | 1975.1 | 1984.4 | 1.94 | 1983.4 | | | |
| 3.99 | 1980.1 | 1989.4 | 1.92 | 1989.4 | | | |

Estimation period is 1954.1-2014.2

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

| RHS Variable | Equation | | t-stat. | Test | χ^2 Tests | | |
|----------------------------------|-----------------------|-----------------------|-----------|-----------|----------------|----|---------|
| | Coef. | | | | χ^2 | df | p-value |
| cnst | 0.00356 | | 0.15 | Lags | 5.81 | 3 | 0.1214 |
| $\log(L2/POP2)_{-1}$ | 0.99012 | | 144.39 | RHO | 6.51 | 4 | 0.1639 |
| $\log(WA/PH)$ | 0.00467 | | 0.66 | <i>T</i> | 5.01 | 1 | 0.0252 |
| $\log(AA/POP)_{-1}$ | -0.00161 | | -0.33 | Leads +1 | 0.26 | 1 | 0.6118 |
| | | | | Leads +4 | 2.06 | 4 | 0.7246 |
| | | | | Leads +8 | 0.14 | 2 | 0.9328 |
| | | | | $\log PH$ | 3.42 | 1 | 0.0645 |
| SE | 0.00567 | | | | | | |
| R ² | 0.999 | | | | | | |
| DW | 1.94 | | | | | | |
| overid (df = 0, p-value =9.9000) | | | | | | | |
| | Stability Test | | | | End Test | | |
| AP | <i>T</i> ₁ | <i>T</i> ₂ | λ | Break | p-value | | End |
| 13.55 | 1970.1 | 1979.4 | 2.06 | 1973.1 | 1.0000 | | 1995.1 |
| 10.86 | 1975.1 | 1984.4 | 1.94 | 1976.1 | | | |
| 9.48 | 1980.1 | 1989.4 | 1.92 | 1980.2 | | | |

Estimation period is 1954.1-2014.2

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

| RHS Variable | Equation | | t-stat. | Test | χ^2 Tests | | |
|----------------------------------|-----------------------|-----------------------|-----------|-----------|----------------|----|---------|
| | Coef. | | | | χ^2 | df | p-value |
| cnst | 0.04455 | | 2.48 | Lags | 6.03 | 4 | 0.1967 |
| $\log(L3/POP3)_{-1}$ | 0.96690 | | 66.22 | RHO | 4.28 | 4 | 0.3692 |
| $\log(WA/PH)$ | 0.02855 | | 2.79 | <i>T</i> | 0.28 | 1 | 0.5967 |
| $\log(AA/POP)_{-1}$ | -0.01535 | | -2.78 | Leads +1 | 0.00 | 1 | 0.9918 |
| <i>UR</i> | -0.13429 | | -4.35 | Leads +4 | 2.75 | 4 | 0.6013 |
| | | | | Leads +8 | 3.33 | 2 | 0.1896 |
| | | | | $\log PH$ | 0.17 | 1 | 0.6794 |
| SE | 0.00521 | | | | | | |
| R ² | 0.987 | | | | | | |
| DW | 2.09 | | | | | | |
| overid (df = 9, p-value =0.0822) | | | | | | | |
| | Stability Test | | | | End Test | | |
| AP | <i>T</i> ₁ | <i>T</i> ₂ | λ | Break | p-value | | End |
| 5.63 | 1970.1 | 1979.4 | 2.06 | 1971.3 | 0.4368 | | 1995.1 |
| 4.08 | 1975.1 | 1984.4 | 1.94 | 1979.2 | | | |
| 7.47 | 1980.1 | 1989.4 | 1.92 | 1989.4 | | | |

Estimation period is 1954.1-2014.2

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

| RHS Variable | Equation | | t-stat. | Test | χ^2 Tests | | |
|-----------------------------------|-----------------------|-----------------------|-----------|-----------|----------------|--------|---------|
| | Coef. | | | | χ^2 | df | p-value |
| cnst | -0.36678 | | -5.34 | Lags | 4.66 | 3 | 0.1982 |
| $\log(LM/POP)_{-1}$ | 0.86284 | | 36.26 | RHO | 6.77 | 4 | 0.1484 |
| $\log(WA/PH)$ | 0.03422 | | 2.33 | <i>T</i> | 5.95 | 1 | 0.0147 |
| <i>UR</i> | -1.70402 | | -5.77 | Leads +1 | 0.13 | 1 | 0.7212 |
| | | | | Leads +4 | 3.59 | 4 | 0.4639 |
| | | | | Leads +8 | 0.79 | 2 | 0.6741 |
| | | | | $\log PH$ | 6.17 | 1 | 0.0130 |
| SE | 0.04607 | | | | | | |
| R ² | 0.938 | | | | | | |
| DW | 2.05 | | | | | | |
| overid (df = 16, p-value =0.4934) | | | | | | | |
| | Stability Test | | | | End Test | | |
| AP | <i>T</i> ₁ | <i>T</i> ₂ | λ | Break | p-value | End | |
| 6.78 | 1970.1 | 1979.4 | 2.06 | 1978.1 | 0.2414 | 1995.1 | |
| 6.87 | 1975.1 | 1984.4 | 1.94 | 1978.1 | | | |
| 7.60 | 1980.1 | 1989.4 | 1.92 | 1989.4 | | | |

Estimation period is 1954.1-2014.2

Table A10
Equation 10
LHS Variable is $\log PF$

| RHS Variable | Equation | | t-stat. | Test | χ^2 Tests | | |
|----------------------------------|-----------------------|-----------------------|-----------|---------------|----------------|--------|---------|
| | Coef. | | | | χ^2 | df | p-value |
| $\log PF_{-1}$ | 0.90484 | | 77.62 | Lags | 2.15 | 4 | 0.7080 |
| ^a | 0.04793 | | 4.58 | RHO | 3.23 | 4 | 0.5203 |
| cnst2 | 0.00234 | | 0.39 | Leads +1 | 0.80 | 1 | 0.3699 |
| <i>TB</i> | -0.00012 | | -6.71 | Leads +4 | 2.46 | 4 | 0.6513 |
| cnst | 0.00494 | | 0.29 | Leads +8 | 1.83 | 2 | 0.3998 |
| <i>T</i> | 0.00025 | | 6.81 | ^b | 0.20 | 1 | 0.6587 |
| $\log PIM$ | 0.03934 | | 14.15 | $(YS - Y)/YS$ | 0.07 | 1 | 0.7849 |
| <i>UR</i> | -0.17343 | | -8.99 | | | | |
| SE | 0.00355 | | | | | | |
| R ² | 1.000 | | | | | | |
| DW | 1.82 | | | | | | |
| overid (df = 8, p-value =0.2265) | | | | | | | |
| | Stability Test | | | | End Test | | |
| AP | <i>T</i> ₁ | <i>T</i> ₂ | λ | Break | p-value | End | |
| 14.60 | 1970.1 | 1979.4 | 2.06 | 1978.2 | 0.8161 | 1995.1 | |
| 14.47 | 1975.1 | 1984.4 | 1.94 | 1978.2 | | | |
| 11.52 | 1980.1 | 1989.4 | 1.92 | 1980.1 | | | |

Estimation period is 1954.1-2014.2

^aVariable is $\log[WF(1 + D5G)] - \log LAM$

^bVariable is $\log[(YS - Y)/YS + .04]$

Table A11
Equation 11
LHS Variable is log Y

| RHS Variable | Equation | Coef. | t-stat. | Test | χ^2 Tests | | |
|-----------------------------------|----------|----------------|-----------|----------|----------------|--------|---------|
| | | | | | χ^2 | df | p-value |
| cnst | | 0.30924 | 3.82 | Lags | 1.47 | 2 | 0.4790 |
| log Y_{-1} | | 0.36036 | 8.72 | RHO | 2.55 | 1 | 0.1102 |
| log X | | 0.79874 | 18.24 | T | 0.81 | 1 | 0.3688 |
| log V_{-1} | | -0.20995 | -8.96 | Leads +1 | 0.95 | 1 | 0.3289 |
| $D593$ | | -0.00987 | -2.84 | Leads +4 | 7.98 | 4 | 0.0922 |
| $D594$ | | -0.00405 | -1.20 | Leads +8 | 1.57 | 2 | 0.4550 |
| $D601$ | | 0.00840 | 2.43 | | | | |
| RHO1 | | 0.38650 | 5.40 | | | | |
| RHO2 | | 0.39984 | 6.04 | | | | |
| RHO3 | | 0.16343 | 2.38 | | | | |
| SE | 0.00379 | | | | | | |
| R ² | 1.000 | | | | | | |
| DW | 2.04 | | | | | | |
| overid (df = 20, p-value =0.0155) | | | | | | | |
| | | Stability Test | | | End Test | | |
| AP | T_1 | T_2 | λ | Break | p-value | End | |
| 10.70 | 1970.1 | 1979.4 | 2.06 | 1970.1 | 1.0000 | 1995.1 | |
| 10.11 | 1975.1 | 1984.4 | 1.94 | 1982.4 | | | |
| 9.60 | 1980.1 | 1989.4 | 1.92 | 1982.4 | | | |

Estimation period is 1954.1-2014.2

Table A12
Equation 12
LHS Variable is $\Delta \log KK$

| RHS Variable | Equation | | t-stat. | Test | χ^2 Tests | | |
|----------------------------------|-----------------------|-----------------------|-----------|----------|-----------------|--------|---------|
| | Coef. | | | | χ^2 | df | p-value |
| cnst2 | -0.00038 | | -3.23 | Lags | 14.28 | 5 | 0.0139 |
| cnst | 0.00067 | | 2.96 | RHO | 5.03 | 4 | 0.2839 |
| $\log(KK/KKMIN)_{-1}$ | -0.00684 | | -2.72 | <i>T</i> | 4.14 | 1 | 0.0419 |
| $\Delta \log KK_{-1}$ | 0.90118 | | 55.69 | Leads +1 | 0.00 | 1 | 0.9547 |
| $\Delta \log Y$ | 0.01011 | | 1.15 | Leads +4 | 1.00 | 4 | 0.9099 |
| $\Delta \log Y_{-1}$ | 0.01147 | | 2.45 | Leads +8 | 1.02 | 2 | 0.5990 |
| $\Delta \log Y_{-2}$ | 0.00421 | | 0.99 | | | | |
| $\Delta \log Y_{-3}$ | 0.00394 | | 0.98 | | | | |
| $\Delta \log Y_{-4}$ | 0.00652 | | 1.65 | | | | |
| $RBA_{-2} - p_{4-2}^e$ | 0.00000 | | -0.25 | | | | |
| <i>a</i> | 0.00084 | | 4.19 | | | | |
| SE | 0.00044 | | | | | | |
| R ² | 0.978 | | | | | | |
| DW | 1.72 | | | | | | |
| overid (df = 9, p-value =0.0195) | | | | | | | |
| Stability Test | | | | | End Test | | |
| AP | <i>T</i> ₁ | <i>T</i> ₂ | λ | Break | <i>p</i> -value | End | |
| 8.63 | 1970.1 | 1979.4 | 2.06 | 1974.4 | 0.7241 | 1995.1 | |
| 12.30 | 1975.1 | 1984.4 | 1.94 | 1982.3 | | | |
| 12.52 | 1980.1 | 1989.4 | 1.92 | 1982.3 | | | |

Estimation period is 1954.1-2014.2

^aVariable is $(CG_{-2} + CG_{-3} + CG_{-4}) / (PX_{-2}YS_{-2} + PX_{-3}YS_{-3} + PX_{-4}YS_{-4})$

Table A13
Equation 13
LHS Variable is $\Delta \log JF$

| RHS Variable | Equation | | t-stat. | Test | χ^2 Tests | | |
|-----------------------------------|-----------------------|-----------------------|-----------|----------|-----------------|--------|---------|
| | Coef. | | | | χ^2 | df | p-value |
| cnst | 0.00020 | | 0.37 | Lags | 12.63 | 3 | 0.0055 |
| $\log JF/(JHMIN/HFS)_{-1}$ | -0.03402 | | -2.95 | RHO | 14.83 | 4 | 0.0051 |
| $\Delta \log JF_{-1}$ | 0.60792 | | 15.60 | <i>T</i> | 0.26 | 1 | 0.6121 |
| $\Delta \log Y$ | 0.26445 | | 6.16 | Leads +1 | 5.05 | 1 | 0.0247 |
| <i>D593</i> | -0.01814 | | -5.23 | Leads +4 | 9.67 | 4 | 0.0463 |
| | | | | Leads +8 | 2.64 | 2 | 0.2667 |
| SE | 0.00335 | | | | | | |
| R ² | 0.714 | | | | | | |
| DW | 2.17 | | | | | | |
| overid (df = 17, p-value =0.0123) | | | | | | | |
| Stability Test | | | | | End Test | | |
| AP | <i>T</i> ₁ | <i>T</i> ₂ | λ | Break | <i>p</i> -value | End | |
| 13.73 | 1970.1 | 1979.4 | 2.06 | 1978.1 | 0.7586 | 1995.1 | |
| 13.68 | 1975.1 | 1984.4 | 1.94 | 1978.1 | | | |
| 9.32 | 1980.1 | 1989.4 | 1.92 | 1980.1 | | | |

Estimation period is 1954.1-2014.2

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

| RHS Variable | Equation | Coef. | t-stat. | Test | χ^2 Tests | | |
|-----------------------------------|----------|----------------|-----------|----------|----------------|--------|---------|
| | | | | | χ^2 | df | p-value |
| cnst | | -0.00396 | -5.78 | Lags | 16.51 | 3 | 0.0009 |
| $\log(HF/HFS)_{-1}$ | | -0.17390 | -5.88 | RHO | 12.77 | 4 | 0.0125 |
| $\log JF/(JHMIN/HFS)_{-1}$ | | -0.02558 | -2.65 | Leads +1 | 1.13 | 1 | 0.2877 |
| $\Delta \log Y$ | | 0.18619 | 4.36 | | | | |
| T | | 0.00001 | 4.58 | Leads +8 | 4.40 | 2 | 0.1107 |
| SE | 0.00266 | | | | | | |
| R ² | 0.370 | | | | | | |
| DW | 2.01 | | | | | | |
| overid (df = 6, p-value = 0.0045) | | | | | | | |
| | | Stability Test | | | End Test | | |
| AP | T_1 | T_2 | λ | Break | p-value | End | |
| 12.49 | 1970.1 | 1979.4 | 2.06 | 1978.2 | 1.0000 | 1995.1 | |
| 12.15 | 1975.1 | 1984.4 | 1.94 | 1978.2 | | | |
| 8.95 | 1980.1 | 1989.4 | 1.92 | 1980.3 | | | |

Estimation period is 1954.1-2014.2

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

| RHS Variable | Equation | Coef. | t-stat. | Test | χ^2 Tests | | |
|----------------|----------|----------------|-----------|--------|----------------|--------|---------|
| | | | | | χ^2 | df | p-value |
| cnst | | 3.94221 | 36.69 | Lags | 7.87 | 2 | 0.0195 |
| FFF | | 0.01772 | 8.09 | RHO | 8.05 | 3 | 0.0449 |
| FFF_{-1} | | 0.00801 | 3.66 | T | 4.85 | 1 | 0.0276 |
| RHO1 | | 0.97041 | 58.61 | | | | |
| SE | 0.04671 | | | | | | |
| R ² | 0.958 | | | | | | |
| DW | 1.65 | | | | | | |
| | | Stability Test | | | End Test | | |
| AP | T_1 | T_2 | λ | Break | p-value | End | |
| 2.32 | 1970.1 | 1979.4 | 2.17 | 1975.2 | 1.0000 | 1995.1 | |
| 5.59 | 1975.1 | 1984.4 | 2.01 | 1984.2 | | | |
| 6.38 | 1980.1 | 1989.4 | 1.96 | 1985.3 | | | |

Estimation period is 1956.1-2014.2

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

| RHS Variable | Equation | Coef. | t-stat. | Test | χ^2 Tests | | |
|-----------------------------------|----------|----------|-----------|---------------------|----------------|--------|---------|
| | | | | | χ^2 | df | p-value |
| $\log WF_{-1} - \log LAM_{-1}$ | | 0.93759 | 51.77 | b RealWageRes. | 0.82 | 1 | 0.3662 |
| $\log PF$ | | 0.78539 | 10.81 | Lags | 0.07 | 1 | 0.7876 |
| cnst | | -0.04879 | -3.63 | RHO | 0.46 | 4 | 0.9773 |
| T | | 0.00004 | 1.73 | UR | 4.81 | 1 | 0.0283 |
| ${}^a \log PF_{-1}$ | | -0.73362 | 0.00 | | | | |
| SE | 0.00782 | | | | | | |
| R ² | 0.967 | | | | | | |
| DW | 1.95 | | | | | | |
| overid (df = 13, p-value =0.0143) | | | | | | | |
| Stability Test | | | | End Test | | | |
| AP | T_1 | T_2 | λ | Break | p-value | End | |
| 2.45 | 1970.1 | 1979.4 | 2.06 | 1970.1 | 0.1149 | 1995.1 | |
| 2.28 | 1975.1 | 1984.4 | 1.94 | 1979.2 | | | |
| 2.37 | 1980.1 | 1989.4 | 1.92 | 1985.4 | | | |

Estimation period is 1954.1-2014.2

^aCoefficient constrained. See the discussion in the text.

^bEquation estimated with no restrictions on the coefficients.

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

| RHS Variable | Equation | Coef. | t-stat. | Test | χ^2 Tests | | |
|-----------------------------------|----------|----------|-----------|--------------------|----------------|--------|---------|
| | | | | | χ^2 | df | p-value |
| cnst | | 0.27622 | 3.33 | $\log(MF/PF)_{-1}$ | 1.32 | 1 | 0.2506 |
| $\log(MF_{-1}/PF)$ | | 0.92546 | 46.89 | Lags | 2.75 | 3 | 0.4318 |
| $\log(X - FA)$ | | 0.02769 | 3.65 | RHO | 7.03 | 4 | 0.1341 |
| a | | -0.00587 | -3.28 | T | 0.86 | 1 | 0.3549 |
| SE | 0.03817 | | | | | | |
| R ² | 0.980 | | | | | | |
| DW | 1.77 | | | | | | |
| overid (df = 14, p-value =0.0578) | | | | | | | |
| Stability Test | | | | End Test | | | |
| AP | T_1 | T_2 | λ | Break | p-value | End | |
| 1.74 | 1970.1 | 1979.4 | 2.06 | 1975.2 | 0.1379 | 1995.1 | |
| 2.46 | 1975.1 | 1984.4 | 1.94 | 1984.4 | | | |
| 4.27 | 1980.1 | 1989.4 | 1.92 | 1986.1 | | | |

Estimation period is 1954.1-2014.2

^aVariable is $[RS(1 - D2G - D2S)]$

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

| RHS Variable | Equation | | t-stat. | Test | χ^2 Tests | | |
|----------------------------------|----------|----------------|-----------|-----------------|----------------|--------|---------|
| | Coef. | | | | χ^2 | df | p-value |
| a | 0.02476 | | 4.23 | b Restriction | 0.61 | 1 | 0.4333 |
| | | | | Lags | 0.13 | 2 | 0.9381 |
| | | | | RHO | 0.94 | 4 | 0.9184 |
| | | | | T | 0.70 | 1 | 0.4037 |
| | | | | cnst | 0.01 | 1 | 0.9227 |
| SE | 0.07323 | | | | | | |
| R ² | 0.027 | | | | | | |
| DW | 2.64 | | | | | | |
| overid (df = 8, p-value =0.8656) | | | | | | | |
| | | Stability Test | | | End Test | | |
| AP | T_1 | T_2 | λ | Break | p-value | End | |
| 1.31 | 1970.1 | 1979.4 | 2.06 | 1979.4 | 0.0000 | 1995.1 | |
| 1.72 | 1975.1 | 1984.4 | 1.94 | 1980.2 | | | |
| 1.91 | 1980.1 | 1989.4 | 1.92 | 1980.2 | | | |

Estimation period is 1954.1-2014.2

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

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

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

| RHS Variable | Equation | | t-stat. | Test | χ^2 Tests | | |
|-----------------------------------|----------|----------------|-----------|-----------------|----------------|--------|---------|
| | Coef. | | | | χ^2 | df | p-value |
| cnst | 0.20518 | | 4.74 | a Restriction | 0.05 | 1 | 0.8303 |
| $RB_{-1} - RS_{-2}$ | 0.91491 | | 57.55 | Lags | 0.12 | 2 | 0.9417 |
| $RS - RS_{-2}$ | 0.32268 | | 5.93 | RHO | 7.61 | 3 | 0.0548 |
| $RS_{-1} - RS_{-2}$ | -0.26898 | | -4.23 | T | 6.72 | 1 | 0.0095 |
| RHO1 | 0.20554 | | 3.09 | Leads +1 | 0.03 | 1 | 0.8701 |
| | | | | Leads +4 | 14.45 | 4 | 0.0060 |
| | | | | p_4^c | 0.82 | 1 | 0.3661 |
| | | | | p_8^c | 1.09 | 1 | 0.2974 |
| SE | 0.27372 | | | | | | |
| R ² | 0.964 | | | | | | |
| DW | 2.03 | | | | | | |
| overid (df = 16, p-value =0.1510) | | | | | | | |
| | | Stability Test | | | End Test | | |
| AP | T_1 | T_2 | λ | Break | p-value | End | |
| 4.28 | 1970.1 | 1979.4 | 2.06 | 1979.4 | 0.3333 | 1995.1 | |
| 5.94 | 1975.1 | 1984.4 | 1.94 | 1982.3 | | | |
| 6.07 | 1980.1 | 1989.4 | 1.92 | 1982.3 | | | |

Estimation period is 1954.1-2014.2

a RS_{-2} added.

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

| RHS Variable | Equation | | t-stat. | Test | χ^2 Tests | | |
|-----------------------------------|----------|--------|-----------|--------------------------|----------------|--------|---------|
| | Coef. | | | | χ^2 | df | p-value |
| cnst | 0.38530 | | 5.73 | ^a Restriction | 0.06 | 1 | 0.8137 |
| $RM_{-1} - RS_{-2}$ | 0.87742 | | 43.44 | Lags | 0.17 | 2 | 0.9177 |
| $RS - RS_{-2}$ | 0.31795 | | 4.03 | RHO | 2.36 | 4 | 0.6706 |
| $RS_{-1} - RS_{-2}$ | -0.12257 | | -1.19 | T | 2.71 | 1 | 0.0994 |
| | | | | Leads +1 | 0.09 | 1 | 0.7703 |
| | | | | Leads +4 | 0.53 | 4 | 0.9702 |
| | | | | Leads +8 | 2.09 | 2 | 0.3523 |
| | | | | p_4^e | 0.71 | 1 | 0.3985 |
| | | | | p_8^e | 0.73 | 1 | 0.3912 |
| SE | 0.34893 | | | | | | |
| R ² | 0.906 | | | | | | |
| DW | 1.86 | | | | | | |
| overid (df = 14, p-value =0.0988) | | | | | | | |
| Stability Test | | | | End Test | | | |
| AP | T_1 | T_2 | λ | Break | p-value | End | |
| 4.86 | 1970.1 | 1979.4 | 2.06 | 1979.4 | 0.3448 | 1995.1 | |
| 13.25 | 1975.1 | 1984.4 | 1.94 | 1984.4 | | | |
| 13.38 | 1980.1 | 1989.4 | 1.92 | 1984.4 | | | |

Estimation period is 1954.1-2014.2
^a RS_{-2} added.

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

| RHS Variable | Equation | | t-stat. | Test | χ^2 Tests | | |
|-----------------------------------|----------|--------|-----------|-------------|----------------|--------|---------|
| | Coef. | | | | χ^2 | df | p-value |
| cnst | 0.10745 | | 4.85 | Lags | 2.66 | 3 | 0.4475 |
| ΔRB | -0.12806 | | -1.16 | RHO | 2.09 | 4 | 0.7194 |
| ^a | 13.81902 | | 1.30 | T | 0.19 | 1 | 0.6634 |
| | | | | Leads +1 | 2.66 | 2 | 0.2643 |
| | | | | Leads +4 | 2.64 | 8 | 0.9550 |
| | | | | Leads +8 | 3.40 | 4 | 0.4934 |
| | | | | ΔRS | 2.47 | 1 | 0.1159 |
| SE | 0.30856 | | | | | | |
| R ² | 0.018 | | | | | | |
| DW | 1.85 | | | | | | |
| overid (df = 17, p-value =0.3460) | | | | | | | |
| Stability Test | | | | End Test | | | |
| AP | T_1 | T_2 | λ | Break | p-value | End | |
| 1.94 | 1970.1 | 1979.4 | 2.06 | 1974.4 | 0.0000 | 1995.1 | |
| 2.59 | 1975.1 | 1984.4 | 1.94 | 1981.2 | | | |
| 4.21 | 1980.1 | 1989.4 | 1.92 | 1989.4 | | | |

Estimation period is 1954.1-2014.2
^aVariable is $\Delta[(PIEF - TFG - TFS - TFR)]/(PX_{-1}YS_{-1})$

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

| RHS Variable | Equation | | t-stat. | Test | χ^2 Tests | | |
|--------------------------------------|----------------|--------|-----------|----------|----------------|----|---------|
| | Coef. | | | | χ^2 | df | p-value |
| cnst | -0.05542 | | -7.05 | α | 5.24 | 1 | 0.0220 |
| $\log[CUR_{-1}/(POP_{-1} \cdot PF)]$ | 0.95987 | | 138.97 | Lags | 6.64 | 3 | 0.0845 |
| $\log[(X - FA)/POP]$ | 0.04738 | | 7.31 | RHO | 15.48 | 3 | 0.0014 |
| <i>RSA</i> | -0.00127 | | -2.56 | <i>T</i> | 4.87 | 1 | 0.0273 |
| RHO1 | -0.09453 | | -1.46 | | | | |
| SE | 0.01009 | | | | | | |
| R ² | 0.999 | | | | | | |
| DW | 1.98 | | | | | | |
| overid (df = 17, p-value =0.0943) | | | | | | | |
| | Stability Test | | | | End Test | | |
| AP | T_1 | T_2 | λ | Break | p-value | | End |
| 18.69 | 1970.1 | 1979.4 | 2.06 | 1977.3 | 0.6897 | | 1995.1 |
| 20.53 | 1975.1 | 1984.4 | 1.94 | 1982.2 | | | |
| 20.52 | 1980.1 | 1989.4 | 1.92 | 1982.2 | | | |

Estimation period is 1954.1-2014.2

^aVariable is $\log[CUR/(POP \cdot PF)]_{-1}$

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

| RHS Variable | Equation | | t-stat. | Test | χ^2 Tests | | |
|-----------------------------------|----------------|--------|-----------|-----------|----------------|----|---------|
| | Coef. | | | | χ^2 | df | p-value |
| cnst2 | 0.03588 | | 2.67 | Lags | 9.27 | 3 | 0.0260 |
| cnst | -0.91588 | | -5.66 | RHO | 24.16 | 4 | 0.0001 |
| $\log(IM/POP)_{-1}$ | 0.80116 | | 25.15 | <i>T</i> | 6.71 | 1 | 0.0096 |
| ^a | 0.41315 | | 5.58 | Leads +1 | 3.08 | 1 | 0.0795 |
| $\log(PF/PIM)$ | 0.08603 | | 5.12 | Leads +4 | 10.49 | 4 | 0.0330 |
| <i>D691</i> | -0.11842 | | -4.25 | Leads +8 | 3.52 | 2 | 0.1717 |
| <i>D692</i> | 0.13758 | | 4.87 | $\log PF$ | 0.01 | 1 | 0.9220 |
| <i>D714</i> | -0.08700 | | -3.14 | | | | |
| <i>D721</i> | 0.09852 | | 3.52 | | | | |
| SE | 0.02755 | | | | | | |
| R ² | 0.999 | | | | | | |
| DW | 1.62 | | | | | | |
| overid (df = 14, p-value =0.0018) | | | | | | | |
| | Stability Test | | | | End Test | | |
| AP | T_1 | T_2 | λ | Break | p-value | | End |
| 5.35 | 1973.1 | 1979.4 | 1.62 | 1975.3 | 0.8621 | | 1995.1 |
| 6.63 | 1975.1 | 1984.4 | 1.94 | 1984.2 | | | |
| 7.38 | 1980.1 | 1989.4 | 1.92 | 1984.2 | | | |

Estimation period is 1954.1-2014.2

^aVariable 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 | χ^2 Tests | | |
|------------------------------------|----------|--------|-----------|----------|----------------|--------|---------|
| | Coef. | | | | χ^2 | df | p-value |
| cnst | 0.49162 | | 0.98 | Lags | 5.42 | 3 | 0.1434 |
| log UB_{-1} | 0.20753 | | 2.15 | RHO | 3.14 | 3 | 0.3711 |
| log U | 1.31437 | | 5.02 | T | 0.26 | 1 | 0.6139 |
| log WF | 0.42903 | | 6.44 | | | | |
| RHO1 | 0.90300 | | 26.89 | | | | |
| SE | 0.06727 | | | | | | |
| R ² | 0.997 | | | | | | |
| DW | 2.27 | | | | | | |
| overid (df = 12, p-value = 0.1850) | | | | | | | |
| Stability Test | | | | End Test | | | |
| AP | T_1 | T_2 | λ | Break | p-value | End | |
| 12.46 | 1970.1 | 1979.4 | 2.06 | 1975.2 | 0.0575 | 1995.1 | |
| 11.92 | 1975.1 | 1984.4 | 1.94 | 1975.2 | | | |
| 9.16 | 1980.1 | 1989.4 | 1.92 | 1983.1 | | | |

Estimation period is 1954.1-2014.2

Table A29
Equation 29
LHS Variable is INTG/(-AG)

| RHS Variable | Equation | | t-stat. | Test | χ^2 Tests | | |
|---------------------|----------|--------|-----------|--------------------------|----------------|--------|---------|
| | Coef. | | | | χ^2 | df | p-value |
| cnst | 0.00144 | | 5.06 | ^b Restriction | 34.28 | 2 | 0.0000 |
| $(INTG/(-AG))_{-1}$ | 0.80405 | | 23.38 | Lags | 34.28 | 2 | 0.0000 |
| ^a | 0.15933 | | 5.69 | RHO | 90.40 | 3 | 0.0000 |
| RHO1 | 0.23355 | | 3.17 | T | 40.97 | 1 | 0.0000 |
| SE | 0.00051 | | | | | | |
| R ² | 0.988 | | | | | | |
| DW | 2.09 | | | | | | |
| Stability Test | | | | End Test | | | |
| AP | T_1 | T_2 | λ | Break | p-value | End | |
| 28.57 | 1970.1 | 1979.4 | 2.06 | 1979.2 | 0.0000 | 1995.1 | |
| 30.73 | 1975.1 | 1984.4 | 1.94 | 1980.3 | | | |
| 32.94 | 1980.1 | 1989.4 | 1.92 | 1989.4 | | | |

Estimation period is 1954.1-2014.2

^aVariable is $(.4 * (RS/400) + .75 * .6 * (1/8) * (1/400) * (RB + RB_{-1} + RB_{-2} + RB_{-3} + RB_{-4} + RB_{-5} + RB_{-6} + RB_{-7}))$

Table A30
Equation 30
LHS Variable is *RS*

| RHS Variable | Equation | Coef. | t-stat. | Test | χ^2 Tests | | |
|--|----------|-----------|---------|----------|----------------|----|---------|
| | | | | | χ^2 | df | p-value |
| cnst | | 0.69627 | 4.66 | Lags | 7.96 | 4 | 0.0932 |
| RS_{-1} | | 0.91865 | 51.62 | RHO | 8.78 | 4 | 0.0668 |
| $100 \cdot [(PD/PD_{-1})^4 - 1]$ | | 0.06675 | 3.94 | T | 0.84 | 1 | 0.3597 |
| UR | | -10.80791 | -3.58 | Leads +1 | 0.82 | 2 | 0.6651 |
| ΔUR | | -69.58646 | -5.21 | Leads +4 | 3.59 | 8 | 0.8921 |
| $PCM1_{-1}$ | | 0.01281 | 2.55 | Leads +8 | 3.92 | 4 | 0.4168 |
| $D794823 \cdot PCM1_{-1}$ | | 0.21243 | 9.56 | p_4^e | 0.38 | 1 | 0.5390 |
| ΔRS_{-1} | | 0.26558 | 4.86 | p_8^e | 5.50 | 1 | 0.0190 |
| ΔRS_{-2} | | -0.31458 | -6.28 | | | | |
| SE | 0.47622 | | | | | | |
| R ² | 0.972 | | | | | | |
| DW | 1.80 | | | | | | |
| overid (df = 12, p-value =0.1534) | | | | | | | |
| Stability test (1954.1-1979.3 versus 1982.4-2008.3): Wald statistic is 14.90 (8 degrees of freedom, p-value = .0659) | | | | | | | |
| End Test: p-value = 0.9818, End = 1995.1 | | | | | | | |
| Estimation period is 1954.1-2008.3 | | | | | | | |

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

| NIPA Data | | | | |
|-----------|----------|-------|------|--|
| No. | Variable | Table | Line | Description |
| R1 | GDPR | 1.1.3 | 1 | Real gross domestic product |
| R2 | CD | 1.1.3 | 4 | Real personal consumption expenditures, durable goods |
| R3 | CN | 1.1.3 | 5 | Real personal consumption expenditures, nondurable goods |
| R4 | CS | 1.1.3 | 6 | Real personal consumption expenditures, services |
| R5 | IK | 1.1.3 | 9 | Real nonresidential fixed investment |
| R6 | IH | 1.1.3 | 13 | Real residential fixed investment |
| R7 | EX | 1.1.3 | 16 | Real exports |
| R8 | IM | 1.1.3 | 19 | Real imports |
| R9 | PURG | 1.1.3 | 23 | Real consumption expenditures and gross investment, federal government |
| R10 | PURS | 1.1.3 | 26 | Real consumption expenditures and gross investment, S&L |
| R11 | GDP | 1.1.5 | 1 | Gross domestic product |
| R12 | CDZ | 1.1.5 | 4 | Personal consumption expenditures, durable goods |
| R13 | CNZ | 1.1.5 | 5 | Personal consumption expenditures, nondurable goods |
| R14 | CSZ | 1.1.5 | 6 | Personal consumption expenditures, services |
| R15 | IKZ | 1.1.5 | 9 | Nonresidential fixed investment |
| R16 | IHZ | 1.1.5 | 13 | Residential fixed investment |
| R17 | IVZ | 1.1.5 | 14 | Change in private inventories |
| R18 | EXZ | 1.1.5 | 16 | Exports |
| R19 | IMZ | 1.1.5 | 19 | Imports |
| R20 | PURGZ | 1.1.5 | 23 | Consumption expenditures and gross investment, federal government |
| R21 | PURSZ | 1.1.5 | 26 | Consumption expenditures and gross investment, S&L |
| R22 | FA | 1.3.3 | 4 | Real farm gross domestic product |
| R23 | FAZ | 1.3.5 | 4 | Farm gross domestic product |
| R24 | FIUS | 1.7.5 | 2 | Income receipts from the rest of the world |
| R25 | FIROW | 1.7.5 | 3 | Income payments to the rest of the world |
| R26 | STAT | 1.7.5 | 15 | Statistical discrepancy |
| R28 | DC | 1.1.2 | 16 | Net dividends, Total |
| R29 | TRFR | 1.1.2 | 24 | Business current transfer payments to the rest of the world (net) |
| R30 | DCB | 1.1.4 | 14 | Net dividends, corporate business |
| R31 | INTF1 | 1.1.4 | 25 | Net interest and miscellaneous payments, nonfinancial corporate business |
| R32 | TCBN | 1.1.4 | 28 | Taxes on corporate income, nonfinancial corporate business |
| R33 | DCBN | 1.1.4 | 30 | Net dividends, nonfinancial corporate business |
| R34 | IVA | 1.1.4 | 35 | Inventory valuation adjustment, corporate business |
| R35 | COMPT | 2.1 | 2 | Compensation of employees, received |
| R36 | SIT | 2.1 | 8 | Employer contributions for government social insurance |
| R37 | PRI | 2.1 | 9 | Proprietors' income with inventory valuation and capital consumption adjustments |
| R38 | RNT | 2.1 | 12 | Rental income of persons with capital consumption adjustment |
| R39 | PII | 2.1 | 14 | Personal interest income |
| R40 | UB | 2.1 | 21 | Government unemployment insurance benefits |
| R41 | TRFH | 2.1 | 24 | Other current transfer receipts from business (net) |
| R42 | IPP | 2.1 | 30 | Personal interest payments |
| R43 | TRHR | 2.1 | 33 | Personal current transfer payments to the rest of the world (net) |

Table A.5 (continued)

| No. | Variable | Table | Line | Description |
|-----|----------|--------|------|---|
| R44 | THG | 3.2 | 3 | Personal current taxes, federal government (see below for adjustments) |
| R45 | RECTXG | 3.2 | 4 | Taxes on production and imports, federal government |
| R46 | TCG | 3.2 | 7 | Taxes on corporate income, federal government |
| R47 | TRG | 3.2 | 10 | Taxes from the rest of the world, federal government |
| R48 | SIG | 3.2 | 11 | Contributions for government social insurance, federal government |
| R49 | RECINTG | 3.2 | 13 | Interest receipts, federal government |
| R50 | RECDIVG | 3.2 | 14 | Dividends, federal government |
| R51 | RECRRG | 3.2 | 15 | Rents and royalties, federal government |
| R52 | TRFG | 3.2 | 17 | Current transfer receipts from business, federal government |
| R53 | TRHG | 3.2 | 18 | Current transfer receipts from persons, federal government |
| R54 | SURPG | 3.2 | 19 | Current surplus of government enterprises, federal government |
| R55 | CONGZ | 3.2 | 21 | Consumption expenditures, federal government |
| R56 | TRGHPAY | 3.2 | 24 | Government social benefits to persons, federal government (see below for adjustments) |
| R57 | TRGR1 | 3.2 | 25 | Government social benefits to the rest of the world, federal government |
| R58 | TRGS | 3.2 | 27 | Grants in aid to state and local governments, federal government |
| R59 | TRGR2 | 3.2 | 28 | Other current transfer payments to the rest of the world (net), federal government |
| R60 | PAYINTG | 3.2 | 29 | Interest payments, federal government |
| R61 | INTGR | 3.2 | 31 | Interest payments, federal government to the rest of the world |
| R62 | SUBSG | 3.2 | 32 | Subsidies, federal government |
| R64 | CCG | 3.2 | 44 | Consumption of fixed capital, Federal Government |
| R65 | THS | 3.3 | 3 | Personal current taxes, S&L |
| R66 | RECTXS | 3.3 | 6 | Taxes on production and imports, S&L |
| R67 | TCS | 3.3 | 10 | Taxes on corporate income, S&L |
| R68 | SIS | 3.3 | 11 | Contributions for government social insurance, S&L |
| R69 | RECINTS | 3.3 | 13 | Interest receipts, S&L |
| R70 | RECDIVS | 3.3 | 14 | Dividends, S&L |
| R71 | RECRRS | 3.3 | 15 | Rents and royalties, S&L |
| R72 | TRFS | 3.3 | 18 | Current transfer receipts from business (net), S&L |
| R73 | TRHS | 3.3 | 19 | Current transfer receipts from persons, S&L |
| R74 | SURPS | 3.3 | 20 | Current surplus of government enterprises, S&L |
| R75 | CONSZ | 3.3 | 22 | Consumption expenditures, S&L |
| R76 | TRRSHPAY | 3.3 | 23 | Government social benefit payments to persons, S&L |
| R77 | PAYINTS | 3.3 | 24 | Interest payments, S&L |
| R78 | SUBSS | 3.3 | 27 | Subsidies, S&L |
| R80 | CCS | 3.3 | 39 | Consumption of fixed capital, S&L |
| R81 | PROG | 3.10.3 | 15 | Real compensation of general government employees, federal |
| R82 | PROS | 3.10.3 | 50 | Real compensation of general government employees, S&L |
| R83 | PROGZ | 3.10.5 | 15 | Compensation of general government employees, federal |
| R84 | COMPML | 3.10.5 | 26 | Compensation of general government employees, defense |
| R85 | PROSZ | 3/10/5 | 50 | Compensation of general government employees, S&L |
| R86 | TTRFR | 4.1 | 28 | Current taxes and transfer payments to the rest of the world from business (net) |
| R88 | IV | 5.7.6 | 1 | Real change in private inventories |

Table A.5 (continued)

| No. | Variable | Table | Line | Description |
|------------|-----------------|--------------|-------------|---|
| R89 | SIHGA | 3.14 | 3 | Employee and self-employed contributions for social insurance to the federal government, annual data only |
| R90 | SIQGA | 3.14 | 5 | Government employer contributions for social insurance to the federal government, annual data only |
| R91 | SIFGA | 3.14 | 6 | Other employer contributions for social insurance to the federal government, annual data only |
| R92 | SIHSA | 3.14 | 18 | Employee and self-employed contributions for social insurance to the S&L governments, annual data only |
| R93 | SIQSA | 3.14 | 20 | Government employer contributions for social insurance to the S&L governments, annual data only |
| R94 | SIFSA | 3.14 | 21 | Other employer contributions for social insurance to the S&L governments, annual data only |

- For Tables 1.1.3, 1.3.3, and 3.10.3, the respective raw data variable was created by multiplying the quantity index for a given quarter by the nominal value of the variable in 2009 and then dividing by 100.
- For Table 5.7.6, there is an “A” table and a “B” table. The “A” table is used for data prior to 1998:1, and the “B” table is used for data from 1998:1 on.
- S&L = State and Local Governments.
- R89–R94: Same value for all four quarters of the year. See variables R210–R215 for construction of variables SIHG, SIHS, SIFG, SIGG, SIFS, SISS.

Table A.5 (continued)

| Flow of Funds Data | | | |
|--------------------|----------|-----------|--|
| No. | Variable | Code | Description |
| R95 | CDDCF | 103020005 | Change in checkable deposits and currency, F1, F.102 |
| R96 | NFIF1 | 105000005 | Net lending (+) or net borrowing (-), F1, F.102 |
| R97 | IHF1 | 105012005 | Residential investment, F1, F.6 |
| R98 | NNF | 105420005 | Net acquisition of nonproduced nonfinancial assets, F1, F.6 |
| R99 | CTF1 | 105440005 | Net capital transfers paid, F1, F.9 |
| R100 | PIEFRET | 106000065 | Foreign earnings retained abroad, F1, F.102 |
| R101 | PIEF1X | 106060005 | Profits before tax, F1, F.102 |
| R103 | TF1 | 106231005 | Taxes on corporate income, F1, F.102 |
| R104 | CCF1 | 106300015 | Capital consumption allowances, F1, F.102 |
| R105 | DISF1 | 107005005 | Discrepancy, F1, F.102 |
| R106 | CDDCNN | 113020005 | Change in checkable deposits and currency, NN, F.103 |
| R107 | NFINN | 115000005 | Net lending (+) or net borrowing (-), NN, F.103 |
| R108 | IHNN | 115012005 | Residential Investment, NN, F.6 |
| R109 | IKNN | 115013005 | Nonresidential fixed investment, NN, F.6 |
| R110 | IVNN | 115020005 | Change in inventories, NN, F.103 (only for testing) |
| R111 | CTNN | 115440005 | Net capital transfers paid, NN, F.9 |
| R112 | GSNN | 116300005 | Gross saving, NN, F.103 |
| R117 | CDDCH1 | 153020005 | Change in checkable deposits and currency, H, F.100, line 20 |
| R118 | MVCE, | 154090005 | Total financial assets of Households, H, F.100. |
| R119 | CCE | | MVCE is the market value of the assets. CCE is the change in assets excluding capital gains and losses |
| R120 | NFIH1 | 155000005 | Net lending (+) or net borrowing (-), H, F.100 |
| R121 | REALEST | 155035005 | Real estate, H, stock variable, Table B.100, line 3 |
| R122 | CDH | 155111003 | Capital expenditures, consumer durable goods, H, F.100 |
| R123 | NICD | 155111005 | Net investment in consumer durables, H, F.100 |
| R124 | NNH | 155420003 | Net acquisition of nonproduced nonfinancial assets, H, F.6 |
| R125 | CTH | 155440005 | Net capital transfers paid, H, F.9 |
| R126 | CCH | 156300005 | Consumption of fixed capital, H, F.100 |
| R127 | USAFF | 156600075 | Contributions for government social insurance, U.S.-affiliated areas, US, F.105 |
| R128 | DISH1 | 157005005 | Discrepancy, H, F.100 |
| R129 | IKH1 | 165013005 | Nonresidential fixed investment, H, F.6 |
| R131 | NNS | 205420003 | Net acquisition of nonproduced nonfinancial assets, S, F.6 |
| R132 | CTS | 205440005 | Net capital transfers paid, S, F.9 |
| R133 | CDDCS | 213020005 | Change in checkable deposits and currency, S, F.104 |
| R134 | NFIS | 215000005 | Net lending (+) or net borrowing (-), S, F.104 |
| R135 | DISS1 | 217005005 | Discrepancy, S, F.104 |
| R136 | CGLDR | 263011005 | Change in U.S. official reserve assets, R, F.200 |
| R137 | CDDCR | 263020005 | Change in U.S. checkable deposits and currency, R, F.106 |
| R138 | CFXUS | 263111005 | Change in U.S. official reserve assets, R, F.106 |
| R139 | NFIR | 265000005 | Net lending (+) or net borrowing (-), R, F.106 |
| R140 | NNR | 265420005 | Net acquisition of nonproduced nonfinancial assets, R, F.6 |
| R141 | CTR | 265440005 | Net capital transfers paid, R, F.9 |
| R142 | DISR1 | 267005005 | Discrepancy, R, F.106 |
| R143 | CGLDFXUS | 313011005 | Change in U.S. official reserve assets, US, F.105 |
| R144 | CDDCUS | 313020005 | Change in checkable deposits and currency, US, F.105 |
| R145 | CSDRUS | 313111303 | Change in SDR allocations, US, F.105 |
| R146 | INS | 313154015 | Insurance and pension reserves, US, F.105 |
| R147 | NFIUS | 315000005 | Net lending (+) or net borrowing (-), US, F.105 |
| R148 | CTGB | 315410093 | Capital transfers paid by US, financial stabilization payments, F.9 (only for testing) |
| R149 | NNG | 315420003 | Net acquisition of nonproduced nonfinancial assets, US, F.6 |
| R150 | CTGMB | 315440005 | Net capital transfers paid, US, F.105 |
| R151 | DISUS | 317005005 | Discrepancy, US, F.105 |

Table A.5 (continued)

| No. | Variable | Code | Description |
|------------|-----------------|-------------|---|
| R152 | CDDCCA | 403020005 | Change in checkable deposits and currency, CA, F.123 |
| R153 | NIACA | 404090005 | Net acquisition of financial assets, CA, F.123 |
| R154 | NILCA | 404190005 | Net increase in liabilities, CA, F.123 |
| R155 | IKCAZ | 405013005 | Fixed nonresidential investment, CA, F.123 |
| R156 | GSCA | 406000105 | Gross saving, CA, F.123 |
| R157 | DISCA | 407005005 | Discrepancy, CA, F.123 |
| R160 | NIDDLZ2 | 473127003 | Net change in liabilities of credit unions of checkable deposits and currency, F.204 |
| R162 | IHBZ | 645012063 | Residential investment, B, F.6 |
| R163 | CGLDFXMA | 713011005 | Change in U.S. official reserve assets, MA, F.108 |
| R164 | CFRLMA | 713068705 | Change in federal reserve loans to domestic banks, MA, F.108 |
| R165 | NILBRMA | 713113003 | Change in depository institution reserves, MA, F.108 |
| R175 | CBR | 713113003 | Change in reserves at Federal Reserve, private depository institutions, F.110 |
| R166 | NIDDLRMA | 713122605 | Net increase in liabilities in the form of checkable deposits and currency of the MA due to the rest of the world, F.108 |
| R167 | NIDDLGMA | 713123005 | Net increase in liabilities in the form of checkable deposits and currency of the MA due to the federal government, F.108 |
| R168 | NIDDLGMA | 713124003 | Net increase in liabilities in the form of checkable deposits and currency of the MA due to government-sponsored enterprises, F.108 |
| R169 | NILCMA | 713125005 | Net increase in liabilities in the form of currency outside banks of the MA, F.108 |
| R170 | NIAMA | 714090005 | Net acquisition of in financial assets, MA, F.108 |
| R171 | NILMA | 714190005 | Net increase in liabilities, MA, F.108 |
| R172 | IKMAZ | 715013005 | Fixed nonresidential investment, MA, F.108 |
| R173 | GSMA | 716000105 | Gross savings, MA, F.108 |
| R174 | DISMA | 717005005 | Discrepancy, MA, F.108 |
| R176 | NILVCMA | 763025005 | Net increase in liabilities in the form of vault cash of commercial banks of the MA, F.108 |
| R178 | CVC | 763025005 | Change in vault cash, private depository institutions, F.109 |
| R179 | NIDDLCB3 | 743127003 | Net change in liabilities in the form of checkable deposits and currency, banks in U.S.-affiliated Areas, F.204 |
| R180 | CBRB1A | 753013003 | Change in reserves at federal reserve, foreign banking offices in U.S., F.111 |
| R181 | NIDDLCB2 | 753127005 | Net change in liabilities in the form of checkable deposits and currency, foreign banking offices in U.S., F.204 |
| R177 | NIDDLCB1 | 763127005 | Net change in liabilities in the form of checkable deposits and currency, U.S.-chartered depository institutions, F.204 |
| R182 | CDDCFS | 793020005 | Net change in assets in the form of checkable deposits and currency of financial sectors, F.204 |
| R183 | NFIBB | 795000005 | Net lending (+) or net borrowing (-), B, F.107 |
| R184 | IKBMACA | 795013005 | Nonresidential fixed investment, B, F.107 |
| R185 | CTB | 795440005 | Net capital transfers paid, B, F.9 |
| R186 | GSBBCT | 796000105 | Gross saving less net capital transfers paid, B, F.107 |
| R187 | DISBB | 797005005 | Discrepancy, B, F.107 |
| R188 | MAILFLT1 | 903023005 | Mail Float, US, F.12 |
| R189 | MAILFLT3 | 903028003 | Mail Float, S, F.12 |
| R190 | MAILFLT2 | 903029200 | Mail Float, private domestic, F.12 |

Table A.5 (continued)

| Interest Rate Data | | |
|--|-----------------|--|
| No. | Variable | Description |
| R191 | RS | Three-month treasury bill rate (secondary market), percentage points. [BOG. Quarterly average.] |
| R192 | RM | Conventional mortgage rate, percentage points. [BOG. Quarterly average.] |
| R193 | RB | Moody's Aaa corporate bond rate, percentage points. [BOG. Quarterly average.] |
| Labor Force and Population Data | | |
| No. | Variable | Description |
| R194 | CE | Civilian employment, SA in millions. [BLS. Quarterly average. See the next page for adjustments.] |
| R195 | U | Unemployment, SA in millions. [BLS. Quarterly average. See the next page for adjustments.] |
| R196 | CL1 | Civilian labor force of males 25-54, SA in millions. [BLS. Quarterly average. See the next page for adjustments.] |
| R197 | CL2 | Civilian labor force of females 25-54, SA in millions. [BLS. Quarterly average. See the next page for adjustments.] |
| R198 | AF | Total armed forces, millions. [Computed from population data from the U.S. Census Bureau. Quarterly average.] |
| R199 | AF1 | Armed forces of males 25-54, millions. [Computed from population data from the U.S. Census Bureau. Quarterly average.] |
| R200 | AF2 | Armed forces of females 25-54, millions. [Computed from population data from the U.S. Census Bureau. Quarterly average.] |
| R201 | CPOP | Total civilian noninstitutional population 16 and over, millions. [BLS. Quarterly average. See the next page for adjustments.] |
| R202 | CPOP1 | Civilian noninstitutional population of males 25-54, millions. [BLS. Quarterly average. See the next page for adjustments.] |
| R203 | CPOP2 | Civilian noninstitutional population of females 25-54, millions. [BLS. Quarterly average. See the next page for adjustments.] |
| R204 | JF | Employment, total private sector, all persons, SA in millions. [BLS, unpublished, "Basic industry data for the economy less general government, all persons."] |
| R205 | HF | Average weekly hours, total private sector, all persons, SA. [BLS, unpublished, "Basic industry data for the economy less general government, all persons."] |
| R206 | HO | Average weekly overtime hours in manufacturing, SA. [BLS. Quarterly average.] |
| R207 | JQ | Total government employment, SA in millions. [BLS. Quarterly average.] |
| R208 | JG | Federal government employment, SA in millions. [BLS. Quarterly average.] |
| R209 | JHQ | Total government employee hours, SA in millions of hours per quarter. [BLS, Table B10. Quarterly average.] |

Table A.5 (continued)

| Adjustments to the Raw Data | | |
|------------------------------------|-----------------|--|
| No. | Variable | Description |
| R210 | SIHG = | [SIHGA/(SIHGA + SIHSA)](SIG + SIS - SIT) [Employee contributions for social insurance, h to g.] |
| R211 | SIHS = | SIG + SIS - SIT - SIHG [Employee contributions for social insurance, h to s.] |
| R212 | SIFG = | [SIFGA/(SIFGA + SIQGA)](SIG - SIHG) [Employer contributions for social insurance, f to g.] |
| R213 | SIGG = | SIG - SIHG - SIFG [Employer contributions for social insurance, g to g.] |
| R214 | SIFS = | [SIFSA/(SIFSA + SIQSA)](SIS - SIHS) [Employer contributions for social insurance, f to s.] |
| R215 | SISS = | SIS - SIHS - SIFS [Employer contributions for social insurance, s to s.] |
| R216 | TBG = | [TCG/(TCG + TCS)](TCG + TCS - TCBN) [Corporate profit tax accruals, b to g.] |
| R217 | TBS = | TCG + TCS - TCBN - TBG [Corporate profit tax accruals, b to s.] |
| | THG = | THG from raw data - TAXADJ |
| | TRGHPAY = | TRGHPAY from raw data - TAXADJ [TAXADJ (annual rate): 1968:3 = 6.1, 1968:4 = 7.1, 1969:1 = 10.7, 1969:2 = 10.9, 1969:3 = 7.1, 1969:4 = 7.3, 1970:1 = 5.0, 1970:2 = 5.0, 1970:3 = 0.4, 1975:2 = -31.2, 2008.2 = -199.4, 2008.3 = -57.0, 2009.2 = -152.0, 2009.3 = -239.0, 2009.4 = -249.0, 2010.1 = -231.0, 2010.2 = -256.0, 2010.3 = -266.0, 2010.4 = -15.0, 2011.1 = -53.0, 2011.2 = -74.0, 2011.3 = -99.0.] |
| R218 | POP = | CPOP + AF [Total noninstitutional population 16 and over, millions.] |
| R219 | POP1 = | CPOP1 + AF1 [Total noninstitutional population of males 25-54, millions.] |
| R220 | POP2 = | CPOP2 + AF2 [Total noninstitutional population of females 25-54, millions.] |

- 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 R210, R212, and R214, the annual observation for the year was used for each quarter of the year.

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.

| Variable | 1994:1–2003:4 |
|----------|-----------------------------|
| POP | .9974832+.00006292TPOP2004 |
| POP1 | .9982816 +.00004296TPOP2004 |
| POP2 | .9966202 +.00008450TPOP2004 |
| (CE+U) | .9970239+.00007440TPOP2004 |
| CL1 | .9977729+.00004454TPOP2004 |
| CL2 | .9959602+.00010000TPOP2004 |
| CE | .9970481+.00007380TPOP2004 |

• TPOP2004 is 39 in 1994:1, 38 in 1994:2, ..., 1 in 2003:3, 0 in 2003:4.

Table A.5 (continued)

| Variable | 1996:1–2005:4 |
|-----------------|------------------------------|
| POP | .9997054+.000007365TPOP2006 |
| POP1 | .9994935+.0000126625TPOP2006 |
| POP2 | .9994283+.0000142925TPOP2006 |
| (CE+U) | .9991342+.000021645TPOP2006 |
| CL1 | .9987934+.000030165TPOP2006 |
| CL2 | .9986564+.00003359TPOP2006 |
| CE | .9991385+.0000215375TPOP2006 |

• TPOP2006 is 39 in 1996:1, 38 in 1996:2, ..., 1 in 2005:3, 0 in 2005:4.

| Variable | 1997:1–2006:4 |
|-----------------|-------------------------------|
| POP | 1.0013950-.000034875TPOP2007 |
| POP1 | 1.0009830-.000024575TPOP2007 |
| POP2 | 1.0016647-.0000416175TPOP2007 |
| (CE+U) | 1.0010684-.00002671TPOP2007 |
| CL1 | 1.0008882-.000022205TPOP2007 |
| CL2 | 1.0013202-.000033005TPOP2007 |
| CE | 1.0010474-.0000261855TPOP2007 |

• TPOP2007 is 39 in 1997:1, 38 in 1997:2, ..., 1 in 2006:3, 0 in 2006:4.

| Variable | 1998:1–2007:4 |
|-----------------|------------------------------|
| POP | .9968047+.0000798825TPOP2008 |
| POP1 | .9958060+.00010485TPOP2008 |
| POP2 | .9976944+.00005764TPOP2008 |
| (CE+U) | .9958557+.0001036075TPOP2008 |
| CL1 | .9948031+.0001299225TPOP2008 |
| CL2 | .9969464+.00007634TPOP2008 |
| CE | .9959135+.0001021625TPOP2008 |

• TPOP2008 is 39 in 1998:1, 38 in 1998:2, ..., 1 in 2007:3, 0 in 2007:4.

| Variable | 1999:1–2008:4 |
|-----------------|------------------------------|
| POP | .9979450+.000051375TPOP2009 |
| POP1 | .9973640+.0000659TPOP2009 |
| POP2 | .9984844+.00003789TPOP2009 |
| (CE+U) | .9970910+.000072725TPOP2009 |
| CL1 | .9964462+.000088845TPOP2009 |
| CL2 | .9977695+.0000557625TPOP2009 |
| CE | .9971608+.00007098TPOP2009 |

• TPOP2009 is 39 in 1999:1, 38 in 1999:2, ..., 1 in 2008:3, 0 in 2008:4.

| Variable | 2000:1–2009:4 |
|-----------------|------------------------------|
| POP | .9989110+.000027225TPOP2010 |
| POP1 | .9978610+.000053475TPOP2010 |
| POP2 | .9989019+.0000274525TPOP2010 |
| (CE+U) | .9983693+.0000407675TPOP2010 |
| CL1 | .9974105+.0000647375TPOP2010 |
| CL2 | .9989507+.0000262325TPOP2010 |
| CE | .9982313+.0000442175TPOP2010 |

• TPOP2010 is 39 in 2000:1, 38 in 2000:2, ..., 1 in 2009:3, 0 in 2009:4.

Table A.5 (continued)

| Variable | 2001:1–2010:4 |
|--|-------------------------------|
| POP | .9985474+.000036315TPOP2011 |
| POP1 | .9989740+.000025650TPOP2011 |
| POP2 | .9970233+.000074418TPOP2011 |
| (CE+U) | .9967092+.000082270TPOP2011 |
| CL1 | .9956715+.000108213TPOP2011 |
| CL2 | .9971304+.000071740TPOP2011 |
| CE | .9966082+.000084795TPOP2011 |
| <ul style="list-style-type: none"> • TPOP2011 is 39 in 2001:1, 38 in 2001:2, ..., 1 in 2010:3, 0 in 2010:4. | |
| Variable | 2002:1–2011:4 |
| POP | 1.0062764-.000156910TPOP2012 |
| POP1 | .9899101+.00002522475TPOP2012 |
| POP2 | 1.0051234-.000128085TPOP2012 |
| (CE+U) | 1.0016822-.000042055TPOP2012 |
| CL1 | .9889798+.000275505TPOP2012 |
| CL2 | 1.0041332-.00010333TPOP2012 |
| CE | 1.0015354-.000038385TPOP2012 |
| <ul style="list-style-type: none"> • TPOP2012 is 39 in 2002:1, 38 in 2002:2, ..., 1 in 2011:3, 0 in 2011:4. | |
| Variable | 2003:1–2012:4 |
| POP | 1.0005648-.00001412TPOP2013 |
| POP1 | 1.0003568-.00000892TPOP2013 |
| POP2 | 1.0007278-.000018195TPOP2013 |
| (CE+U) | 1.0008780-.00002195TPOP2013 |
| CL1 | 1.0006285-.0000157125TPOP2013 |
| CL2 | 1.0012289-.0000307225TPOP2013 |
| CE | 1.0008877-.0000221925TPOP2013 |
| <ul style="list-style-type: none"> • TPOP2013 is 39 in 2003:1, 38 in 2003:2, ..., 1 in 2012:3, 0 in 2012:4. | |

Table A.5 (continued)
The Raw Data Variables in Alphabetical Order Matched to R Numbers Above

| Var. | No. | Var. | No. | Var. | No. | Var. | No. |
|----------|------|----------|------|----------|------|----------|------|
| AF | R198 | | | MAILFLT3 | R189 | RECRRG | R51 |
| AF1 | R199 | DISBB | R187 | MVCE | R118 | RECRRS | R71 |
| AF2 | R200 | DISCA | R157 | NFIBB | R183 | RECTXG | R45 |
| CBRB1A | R180 | | | | | RECTXS | R66 |
| | | DISF1 | R105 | NFIF1 | R96 | RM | R192 |
| | | DISH1 | R128 | NFIH1 | R120 | RNT | R38 |
| CCE | R119 | DISMA | R174 | NFINN | R107 | RS | R191 |
| CCF1 | R104 | DISR1 | R142 | NFIR | R139 | SIFG | R212 |
| CCG | R64 | DISS1 | R135 | NFIS | R134 | SIFGA | R91 |
| CCH | R126 | DISUS | R151 | NFIUS | R147 | SIFS | R214 |
| CCS | R80 | EX | R7 | NIACA | R153 | SIFSA | R94 |
| CD | R2 | EXZ | R18 | NIAMA | R170 | SIG | R48 |
| CDDCCA | R152 | FA | R22 | NICD | R123 | SIGG | R213 |
| CDDCF | R95 | FAZ | R23 | CVC | R178 | SIHGA | R89 |
| | | FIROW | R25 | NIDDLCB1 | R177 | SIHSA | R92 |
| CDDCFS | R182 | FIUS | R24 | NIDDLCB2 | R181 | SIHG | R210 |
| CDDCH1 | R117 | GDP | R11 | NIDDLCB3 | R179 | SIHS | R211 |
| CDDCNN | R106 | GDPR | R1 | NIDDLGMA | R168 | SIQGA | R90 |
| CDDCR | R137 | GSBBCT | R186 | NIDDLGMA | R167 | SIQSA | R93 |
| CDDCS | R133 | GSCA | R156 | NIDDLRMA | R166 | SIS | R68 |
| CDDCUS | R144 | | | | | SISS | R215 |
| CDH | R122 | GSMA | R173 | NIDDLZ2 | R160 | SIT | R36 |
| CDZ | R12 | GSNN | R112 | NILBRMA | R165 | STAT | R26 |
| CE | R194 | HF | R205 | NILCA | R154 | SUBSG | R62 |
| CFRLMA | R164 | HO | R206 | NILCMA | R169 | SUBSS | R78 |
| CFXUS | R138 | IH | R6 | NILMA | R171 | SURPG | R54 |
| CGLDFXMA | R163 | IHBZ | R162 | NILVMA | R176 | SURPS | R74 |
| CGLDFXUS | R143 | IHF1 | R97 | NNF | R98 | TBG | R216 |
| CGLDR | R136 | IHNN | R108 | NNG | R149 | TBS | R217 |
| CL1 | R196 | IHZ | R16 | NNH | R124 | TCBN | R32 |
| CL2 | R197 | IK | R5 | NNR | R140 | TCG | R46 |
| CN | R3 | IKBMACA | R184 | NNS | R131 | TCS | R67 |
| CNZ | R13 | IKCAZ | R155 | PAYINTG | R60 | TF1 | R103 |
| COMPML | R84 | | | PAYINTS | R77 | THG | R44 |
| COMPT | R35 | IKH1 | R129 | PIEF1X | R101 | THS | R65 |
| CONGZ | R55 | IKMAZ | R172 | PIEFRET | R100 | TRFG | R52 |
| CONSZ | R75 | IKNN | R109 | PII | R39 | TRFH | R41 |
| CPOP | R201 | IKZ | R15 | POP | R218 | TRFR | R29 |
| CPOP1 | R202 | IM | R8 | POP1 | R219 | TRFS | R72 |
| CPOP2 | R203 | IMZ | R19 | POP2 | R220 | TRG | R47 |
| CS | R4 | INS | R146 | PRI | R37 | TRGHPAY | R56 |
| CSDRUS | R145 | INTF1 | R31 | PROG | R81 | TRGR1 | R57 |
| CSZ | R14 | INTGR | R61 | PROGZ | R83 | TRGR2 | R59 |
| CTB | R185 | IPP | R42 | PROS | R82 | TRGS | R58 |
| CTF1 | R99 | IV | R88 | PROSZ | R85 | TRHG | R53 |
| CTGB | R148 | IVA | R34 | PURG | R9 | TRHR | R43 |
| CTGMB | R150 | | | PURGZ | R20 | TRHS | R73 |
| CTH | R125 | IVNN | R110 | PURS | R10 | TRRSHPAY | R76 |
| CTNN | R111 | IVZ | R17 | PURSZ | R21 | TTRFR | R86 |
| CTR | R141 | JF | R204 | RB | R193 | U | R195 |
| CTS | R132 | JG | R208 | REALEST | R121 | UB | R40 |
| CBR | R175 | JHQ | R209 | RECDIVG | R50 | USAFF | R127 |
| DC | R28 | JQ | R207 | RECDIVS | R70 | | |
| DCB | R30 | MAILFLT1 | R188 | RECINTG | R49 | | |
| DCBN | R33 | MAILFLT2 | R190 | RECINTS | R69 | | |

Table A.6
Links Between the National Income and Product Accounts
and the Flow of Funds Accounts

Flow of Funds Data (raw data variables)

SH = NFIH1 + DISH1
SF = NFIF1 + DISF1 + NFINN
SB = NFIBB + DISBB - NIAMA + NILMA - DISMA - NIACA + NILCA - DISCA
SR = NFIR + DISR1
SG = NFIUS + DISUS + NIACA - NILCA + DISCA + NIAMA - NILMA + DISMA
SS = NFIS + DISS1

Variables in the Model on the Right Hand Side

SHTEST = YT - SIHG - SIHS + USAFF - THG - THS - PCS*CS - PCN·CN - PCD·CD + TRGH + TRSH + UB + INS
+ NICD + CCH - CTH - PIH·IHH - CDH - PIK·IKH - NNH
SFTEST = XX + SUBS + SUBG + USOTHER + PIEFRET - WF·JF(HN + 1.5*HO) - RNT - INTZ - INTF - TRFH -
NICD - CCH + CDH - TBS - TRFS - CCS - TRFR - DB - GSB - CTGB - GSMA - GSCA - TBG - TRFG -
CCG - SIFG - SIFS - STAT - DF - TF1 - TFA - PIK·IKF - PIH·IHF - NNF - CTF1 - CTNN
SBTEST = GSB - CTB - PIH·IHB - PIK·IKB
SRTEST = - PEX·EX - USROW + PIM·IM + TFR + TRFR + TRHR + TRGR - USAFF - CTR - NNR
SGTEST = GSMA + GSCA + THG + IBTG + TBG + TFG + SIHG + SIFG - DG + TRFG - PG·COG - WG·JG·HG -
WM·JM·HM - TRGH - TRGR - TRGS - INTG - SUBG + CCG - INS - USAFF - CTGMB - NNG - PIK·IKG
SSTEST = THS + IBTS + TBS + TFS + SIHS + SIFS - DS + TRGS + TRFS - PS·COS - WS·JS·HS - TRSH - UB - INTS
- SUBS + CCS - CTS - NNS

Tests

0 = SH + SF + SB + SR + SG + SS + STAT + USAFF
0 = SH - SHTEST
0 = SF - SFTEST
0 = SB - SBTEST
0 = SR - SRTEST
0 = SG - SGTEST
0 = SS - SSTEST
0 = -NIDDLCB1 - NIDDLCB2 - NIDDLCB3 - NIDDLZ2 + CDDCFS + CDDCF + MAILFLT1 + MAILFLT2
+ CDDCUS - NIDDLRMA - NIDDLGMA + CDDCH1 + CDDCNN + CDDCR + CDDCS - NILCMA +
MAILFLT3 - NIDDLCMA
0 = CBR + CVC - NILBRMA - NILVCMA
0 = CGLDR - CFXUS + CGLDFXUS + CGLDFXMA - CSDRUS

• 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 (raw data variables on right hand side) |
|----------|--|
| AA | Def., Eq. 133. |
| AA1 | Def., Eq. 88. |
| AA2 | Def., Eq. 89. |
| AB | Def., Eq. 73. Base Period=1971:4, Value=29.425 |
| AF | Def., Eq. 70. Base Period=1971:4, Value=-303.993 |
| AG | Def., Eq. 77. Base Period=1971:4, Value=-513.731 |
| AH | Def., Eq. 66. Base Period=1971:4, Value=2735.512 |
| AR | Def., Eq. 75. Base Period=1971:4, Value=-18.702 |
| AS | Def., Eq. 79. Base Period=1971:4, Value=-161.8 |
| BO | Sum of CFRLMA. Base Period=1971:4, Value=.039 |
| BR | Sum of CBR+CVC. Base Period=1971:4, Value=35.329 |
| CCF1 | CCF1 |
| CCG | CCG |
| CCGQ | CCG/GDPD |
| CCH | CCH |
| CCHQ | CCH/GDPD |
| CCS | CCS |
| CCSQ | CCS/GDPD |
| CD | CD |
| CDA | Peak to peak interpolation of CD/POP . 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, 2000:3, 2007:2, 2012:1, and 2013:3. |
| CDH | CDH |
| CG | $MVCE - MVCE_{-1} - CCE$ |
| CN | CN |
| COG | PURG-PROG |
| COS | PURS-PROS |
| CS | CS |
| CTB | CTB |
| CTF1 | CTF1 |
| CTGB | CTBS |
| CTGMB | CTGMB |
| CTH | CTH |
| CTNN | CTNN |
| CTR | CTR |
| CTS | CTS |
| CUR | Sum of NILCMA. Base Period=1971:4, Value=53.521 |
| D1G | Def., Eq. 47 |
| D1GM | Def., Eq. 90 |
| D1S | Def., Eq. 48 |
| D1SM | Def., Eq. 91 |
| D2G | Def., Eq. 49 |
| D2S | Def., Eq. 50 |
| D3G | Def., Eq. 51 |
| D3S | Def., Eq. 52 |
| D4G | Def., Eq. 53 |
| D5G | Def., Eq. 55 |
| D6G | Def., Eq. 67 |
| DB | DCB-DCBN |
| DBQ | DB/GDPD |
| DELD | Computed using NIPA asset data |
| DELH | Computed using NIPA asset data |
| DELK | Computed using NIPA asset data |
| DF | DCBN |

Table A.7 (continued)

| Variable | Construction (raw data variables on right hand side) |
|--------------|--|
| <i>DG</i> | -RECDIVG |
| <i>DISB</i> | DISBB-DISMA-DISCA |
| <i>DISF</i> | DISF1 |
| <i>DISG</i> | DISUS+DISCA+DISMA |
| <i>DISH</i> | DISH1 |
| <i>DISR</i> | DISR1 |
| <i>DISS</i> | DISS1 |
| <i>DR</i> | DC-DCB |
| <i>DRQ</i> | DR/ <i>GDPD</i> |
| <i>DS</i> | -RECDIVS |
| <i>E</i> | CE+AF |
| <i>EX</i> | EX |
| <i>EXPG</i> | Def., Eq. 106 |
| <i>EXPS</i> | Def., Eq. 113 |
| <i>FA</i> | FA |
| <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>GSB</i> | GSB |
| <i>GSBQ</i> | GSB/ <i>GDPD</i> |
| <i>GSCA</i> | GSCA |
| <i>GSMA</i> | GSMA |
| <i>GSNN</i> | GSNN |
| <i>GSNNQ</i> | GSNN/ <i>GDPD</i> |
| <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, 1990:1, 2000:1, 2001:4, and 2004:2. 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> | RECTXG+RECRRG |
| <i>IBTS</i> | RECTXS+RECRRS |
| <i>IGZ</i> | PURGZ-CONGZ |
| <i>IGZQ</i> | IGZ/ <i>GDPD</i> |
| <i>IHB</i> | IHBZ/(IHZ/IH) |
| <i>IHF</i> | (IHF1+IHNN)/(IHZ/IH) |
| <i>IHH</i> | (IHZ-IHF1-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, 2004:2, 2006:2, and 2007:4. Flat end. |
| <i>IKB</i> | (IKBMACA-IKMAZ-IKCAZ)/(IKZ/IK) |
| <i>IKF</i> | (IKZ-IKH1-IKBMACA)/(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 |
| <i>INTG</i> | PAYINTG-RECINTG |
| <i>INTGR</i> | INTGR |

Table A.7 (continued)

| Variable | Construction (raw data variables on right hand side) |
|---------------|--|
| <i>INTS</i> | PAYINTS-RECINTS |
| <i>INTZ</i> | PII-IPP-INTF1-(PAYINTG-RECINTG)+INTGR-(PAYINTS-RECINTS) |
| <i>INTZQ</i> | INTZ/GDPD |
| <i>ISZ</i> | PURSZ-CONSZ |
| <i>ISZQ</i> | ISZ/GDPD |
| <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, 2000:2, and 2003:2. Flat end. |
| <i>JM</i> | AF |
| <i>JS</i> | JQ-JG |
| <i>KD</i> | Def., Eq. 58. Base Period=1952:1, Value=255.5, Fixed Assets Table 1.2, line 15, 2009 = 100. 2009 dollar value in Fixed Asset Table 1.1, line 15, is 4588.1. Dep. Rate=DELD |
| <i>KH</i> | Def., Eq. 59. Base Period=1952:1, Value=2517.7, Fixed Assets Table 1.2, line 8, 2009 = 100. 2009 dollar value in Fixed Asset Table 1.1, line 8, is 15708.5. Dep. Rate=DELH |
| <i>KK</i> | Def., Eq. 92. Base Period=1952:1, Value=2501.9, Fixed Asset Table 1.2, line 4, 2009 = 100. 2009 dollar value in Fixed Assets Table 1.1, line 4, is 18152.8. 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 2010.4 |
| <i>LM</i> | Def., Eq. 85 |
| <i>M1</i> | Def., Eq. 81. Base Period=1971:4, Value=240.964 |
| <i>MB</i> | Def., Eq. 71. Also sum of -NIDDLCB1-NIDDLCB2-NIDDLCB3-NIDDLZ2+CDDCFS-CDDCCA. Base Period=1971:4, Value=-197.969 |
| <i>MDIF</i> | CDDCFS-MAILFLT1 |
| <i>MF</i> | Sum of CDDCF+MAILFLT1+MAILFLT2+CDDCNN+MAILFLT3, Base Period= 1971:4, Value=84.075 |
| <i>MG</i> | Sum of CDDCUS+CDDCCA-NIDDLRMA-NIDDLGMA-NIDDLCA, Base Period=1971:4, Value=10.526 |
| <i>MGQ</i> | MG/GDPD |
| <i>MH</i> | Sum of CDDCH1. Base Period=1971:4, Value=132.050 |
| <i>MHQ</i> | MH/GDPD |
| <i>MR</i> | Sum of CDDCR. Base Period=1971:4, Value=12.725 |
| <i>MRQ</i> | MR/GDPD |
| <i>MS</i> | Sum of CDDCS. Base Period=1971:4, Value=12.114 |
| <i>MSQ</i> | MS/GDPD |
| <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, 2006:1, 2013.4. Flat beginning. |
| <i>NICD</i> | NICD |
| <i>NNF</i> | NNF |
| <i>NNG</i> | NNG |
| <i>NNH</i> | NNH |
| <i>NNR</i> | NNR |
| <i>NNS</i> | NNS |
| <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 |

Table A.7 (continued)

| Variable | Construction (raw data variables on right hand side) |
|----------------|---|
| <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>PIEF</i> | Def., Eq. 67, or PIEF1X |
| <i>PIEFRET</i> | PIEFRET |
| <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 = .2797, 1959:3 = .2449, 1970:1 = .2814, 1971:4 = .2756, 1975:3 = .4265, 1975:4 = .4265, 1983:2 = .7211, 1983:3 = .7211, 1986:4 = .6857, 1987:3 = .7400, 1992:1 = .9053, 1993:3 = .8685, 1996:1 = 1.1245, 2002:1 = .7752, 2003:2 = .8390, 2003:3 = .8390, 2012:4 = 1.1700, 2013:1 = 1.1700 |
| <i>PKH</i> | REALEST/KH |
| <i>POP</i> | POP |
| <i>POP1</i> | POP1 |
| <i>POP2</i> | POP2 |
| <i>POP3</i> | POP-POP1-POP2 |
| <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>PSI14</i> | Def., Eq. 55 |
| <i>PSI15</i> | Def., Eq. 56 |
| <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-CSDRUS. Base Period=1971:4, Value=13.985 |
| <i>QQ</i> | Q/GDPD |
| <i>RB</i> | RB |
| <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>RNTQ</i> | RNT/GDPD |
| <i>RS</i> | RS |
| <i>RSA</i> | Def., Eq. 127 |
| <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 |

Table A.7 (continued)

| Variable | Construction (raw data variables on right hand side) |
|---------------|--|
| <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> | SUBSG - SURPG |
| <i>SUBS</i> | SUBSS - SURPS |
| <i>T</i> | 1 in 1952:1, 2 in 1952:2, etc. |
| <i>TAUG</i> | Determined from a regression. See the discussion in Section 6.3.4. The subperiods are: 1952.1-1953.4, 1954.1-1963.4, 1964.1-1964.1, 1964.2-1964.4, 1965.1-1965.4, 1966.1-1967.4, 1968.1-1970.4, 1971.1-1971.4, 1972.1-1972.4, 1973.1-1973.4, 1974.1-1975.1, 1975.2-1976.4, 1977.1-1978.2, 1978.3-1981.3, 1981.4-1982.2, 1982.3-1983.2, 1983.3-1984.4, 1985.1-1985.1, 1985.2-1985.2, 1985.3-1987.1, 1987.2-1987.2, 1987.3-1987.4, 1988.1-1988.4, 1989.1-1989.4, 1990.1-1990.4, 1991.1-1991.4, 1992.1-1995.1, 1995.2-1996.1, 1996.2-1996.4, 1997.1-1997.4, 1998.1-1998.4, 1999.1-1999.4, 2000.1-2001.2, 2001.3-2001.3, 2001.4-2001.4, 2002.1-2002.4, 2003.1-2003.2, 2003.3-2003.3, 2003.4-2004.4, 2005.1-2005.4, 2006.1-2006.4, 2007.1-2007.4, 2008.1-2008.3, 2008.4-2008.4, 2009.1-2009.1, 2009.2-2009.2, 2009.3-2010.1, 2010.2-2010.3, 2010.4-2010.4, 2011.1-2011.3, 2011.4-2012.4, 2013.1-2014.2. |
| <i>TAUS</i> | Determined from a regression. See the discussion in Section 6.3.3. The subperiods are: 1952.1-1958.4, 1959.1-1966.4, 1967.1-1971.4, 1972.1-2001.2, 2001.3-2004.4, 2005.1-2007.4, 2008.1-2008.1, 2008.2-2008.2, 2008.3-2012.4, 2013.1-2014.2. |
| <i>TFR</i> | TTRFR - TRFR |
| <i>TBG</i> | TBG |
| <i>TBGQ</i> | TBG/ <i>GDPD</i> |
| <i>TBS</i> | TBS |
| <i>TCG</i> | TCG |
| <i>TCS</i> | TCS |
| <i>TFA</i> | TFA |
| <i>TF1</i> | TF1 |
| <i>TFG</i> | Def., Eq. 102 |
| <i>TFS</i> | Def., Eq. 108 |
| <i>TF1</i> | TF1 |
| <i>THETA1</i> | PFA/ <i>GDPD</i> |
| <i>THETA2</i> | CDH/(PCD-CD) |
| <i>THETA3</i> | NICD/(PCD-CD) |
| <i>THETA4</i> | PIEFRET/PIEF |
| <i>THG</i> | THG |
| <i>THS</i> | THS |
| <i>TRFG</i> | TRFG |
| <i>TRFH</i> | TRFH |
| <i>TRFR</i> | TRF-TRFH |
| <i>TRFS</i> | TRFS |
| <i>TRGH</i> | TRGHPAY - TRHG |
| <i>TRGHQ</i> | TRGH/ <i>GDPD</i> |
| <i>TRGR</i> | TRGR1 + TRGR2 - TRG |
| <i>TRGS</i> | TRGS |
| <i>TRGSQ</i> | TRGS/ <i>GDPD</i> |
| <i>TRHR</i> | TRHR |

Table A.7 (continued)

| Variable | Construction (raw data variables on right hand side) |
|----------------|--|
| <i>TRSH</i> | Def., Eq. 111 |
| <i>TRSHQ</i> | $TRSH/GDPD$ |
| <i>U</i> | $(CE+U)-CE$ |
| <i>UB</i> | UB |
| <i>UBR</i> | Def., Eq. 125 |
| <i>UR</i> | Def., Eq. 87 |
| <i>USAFF</i> | USAFF |
| <i>USOTHER</i> | Def., Eq. 57 |
| <i>USROW</i> | FIUS-FIROW |
| <i>V</i> | Def., Eq. 117. Base Period=1996:4, Value=1517.3, Fixed Assets Table 5.8.6A |
| <i>WA</i> | Def., Eq. 126 |
| <i>WF</i> | $WF=[COMPT-PROGZ-PROSZ-(SIT-SIGG-SISS) +PRI]/[JF(HF+.5HO)]$ |
| <i>WG</i> | $(PROGZ-COMPML)/[JG(JHQ/JQ)]$ |
| <i>WH</i> | Def., Eq. 43 |
| <i>WM</i> | $COMPML/(520AF)$ |
| <i>WR</i> | Def., Eq. 119 |
| <i>WS</i> | $PROSZ/[(JQ-JG)(JHQ/JQ)]$ |
| <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.9
First Stage Regressors for the US model for 2SLS

| Eq. | First Stage Regressors |
|-----|--|
| 1 | $\text{cnst2, cnst, } AG1, AG2, AG3, \log(CS/POP)_{-1}, \log[YD/(POP \cdot PH)]_{-1}, RSA_{-1}, \log(AA/POP)_{-1}, T, \log(1 - D1GM - D1SM - D4G)_{-1}, \log(IM/POP)_{-1}, \log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP], \log(PIM/PF)_{-1}, \log[YNL/(POP \cdot PH)]_{-1}, 100[(PD/PD_{-1})^4 - 1]_{-1}, \log[(COG + COS)/POP], \log[(TRGH + TRSH)/(POP \cdot PH_{-1})], RS_{-2}, RB_{-1}, \log(Y/POP)_{-1}, \log(V/POP)_{-1}, UR_{-1}, \log[YD/(POP \cdot PH)]$ |
| 2 | $\text{cnst2, cnst, } AG1, AG2, AG3, \log(CN/POP)_{-1}, \Delta \log(CN/POP)_{-1}, \log(AA/POP)_{-1}, \log[YD/(POP \cdot PH)]_{-1}, RMA_{-1}, \log(1 - D1GM - D1SM - D4G)_{-1}, \log(IM/POP)_{-1}, \log(EX/POP)_{-1}, \log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP], \log(PIM/PF)_{-1}, \log[YNL/(POP \cdot PH)]_{-1}, 100[(PD/PD_{-1})^4 - 1]_{-1}, \log[(COG + COS)/POP], \log[(TRGH + TRSH)/(POP \cdot PH_{-1})], RS_{-1}, RS_{-2}, \log(V/POP)_{-1}, UR_{-1}, RS_{-1}, RS_{-2}, T$ |
| 3 | $\text{cnst2, cnst, } AG1, AG2, AG3, (KD/POP)_{-1}, DELD(KD/POP)_{-1} - (CD/POP)_{-1}, YD/(POP \cdot PH), (RMA \cdot CDA)_{-1}, (AA/POP)_{-1}, \log(1 - D1GM - D1SM - D4G)_{-1}, \log(IM/POP)_{-1}, \log(EX/POP)_{-1}, \log(PIM/PF)_{-1}, \log[YNL/(POP \cdot PH)]_{-1}, \log[(COG + COS)/POP], \log[(TRGH + TRSH)/(POP \cdot PH_{-1})], \log(Y/POP)_{-1}, \log(V/POP)_{-1}, T$ |
| 4 | $\text{cnst2, cnst, } (KH/POP)_{-1}, [YD/(POP \cdot PH)]_{-1}, RMA_{-1}IHHA, [YD/(POP \cdot PH)]_{-2}, RMA_{-2}IHHA_{-1}, RMA_{-3}IHHA_{-2}, (KH/POP)_{-2}, (KH/POP)_{-3}, \Delta(IHH/POP)_{-1}, \Delta(IHH/POP)_{-2}, DELH(KH/POP)_{-1} - (IHH/POP)_{-1}, DELH_{-1}(KH/POP)_{-2} - (IHH/POP)_{-2}, DELH_{-2}(KH/POP)_{-3} - (IHH/POP)_{-3}, \log(1 - D1GM - D1SM - D4G)_{-1}, \log(IM/POP)_{-1}, \log(EX/POP)_{-1}, \log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP], \log[YNL/(POP \cdot PH)]_{-1}, 100[(PD/PD_{-1})^4 - 1]_{-1}, \log[(COG + COS)/POP], \log[(TRGH + TRSH)/(POP \cdot PH_{-1})], (AA2/POP)_{-1}, (AA2/POP)_{-2}, (AA2/POP)_{-3}$ |
| 5 | $\text{cnst, } \log(L1/POP1)_{-1}, \log(AA/POP)_{-1}, UR_{-1}, \log(1 - D1GM - D1SM - D4G)_{-1}, \log(IM/POP)_{-1}, \log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP], \log(PIM/PF)_{-1}, \log[YNL/(POP \cdot PH)]_{-1}, 100[(PD/PD_{-1})^4 - 1]_{-1}, \log[(COG + COS)/POP], \log(Y/POP)_{-1}, \log(V/POP)_{-1}, T$ |
| 6 | $\text{cnst, } \log(AA/POP)_{-1}, \log(WA/PH)_{-1}, T$ |
| 7 | $\text{cnst, } \log(L3/POP1)_{-1}, \log(WA/PH)_{-1}, \log(AA/POP)_{-1}, UR_{-1}, \log(1 - D1GM - D1SM - D4G)_{-1}, \log(IM/POP)_{-1}, \log(EX/POP)_{-1}, \log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP], \log(PIM/PF)_{-1}, 100[(PD/PD_{-1})^4 - 1]_{-1}, \log[(TRGH + TRSH)/(POP \cdot PH_{-1})], \log(Y/POP)_{-1}, T$ |
| 8 | $\text{cnst, } \log(LM/POP)_{-1}, \log(WA/PH)_{-1}, UR_{-1}, \log(1 - D1GM - D1SM - D4G)_{-1}, \log(IM/POP)_{-1}, \log(EX/POP)_{-1}, \log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP], \log(PIM/PF)_{-1}, \log[YNL/(POP \cdot PH)]_{-1}, 100[(PD/PD_{-1})^4 - 1]_{-1}, \log[(COG + COS)/POP], \log[(TRGH + TRSH)/(POP \cdot PH_{-1})], RS_{-1}, RS_{-2}, RB_{-1}, \log(Y/POP)_{-1}, \log(V/POP)_{-1}, \log(AA/POP)_{-1}, T$ |

Table A.9 (continued)

| Eq. | First Stage Regressors |
|-----|---|
| 10 | $\log PF_{-1}, \log[WF(1 + D5G)] - \log LAM]_{-1}, \text{cnst2}, \text{cnst}, TB, T, \log(PIM/PF)_{-1}, UR_{-1}, \log(1 - D1GM - D1SM - D4G)_{-1}, \log(IM/POP)_{-1}, \log(EX/POP)_{-1}, \log[YNL/(POP \cdot PH)]_{-1}, \log[(COG + COS)/POP], \log[(TRGH + TRSH)/(POP \cdot PH_{-1})], \log(Y/POP)_{-1}, \log(AA/POP)_{-1}$ |
| 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 | $\text{cnst2}, \text{cnst}, \log KK_{-1}, \log KK_{-2}, \log Y_{-1}, \log Y_{-2}, \log Y_{-3}, \log Y_{-4}, \log Y_{-5}, \log(KK/KKMIN)_{-1}, RB_{-2}(1 - D2G_{-2} - D2S_{-2}) - 100(PD_{-2}/PD_{-6}) - 1, (CG_{-2} + CG_{-3} + CG_{-4})/(PX_{-2}YS_{-2} + PX_{-3}YS_{-3} + PX_{-4}YS_{-4}), \log(1 - D1GM - D1SM - D4G)_{-1}, \log(EX/POP)_{-1}, \log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP], \log[YNL/(POP \cdot PH)]_{-1}, \log[(TRGH + TRSH)/(POP \cdot PH_{-1})], UR_{-1}, \log(AA/POP)_{-1}, T$ |
| 13 | $\text{cnst}, \log[JF/(JHMIN/HFS)]_{-1}, \Delta \log JF_{-1}, \Delta \log Y_{-1}, D593, \log(1 - D1GM - D1SM - D4G)_{-1}, \log(IM/POP)_{-1}, \log(EX/POP)_{-1}, \log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP], \log(PIM/PF)_{-1}, \log[YNL/(POP \cdot PH)]_{-1}, 100[(PD/PD_{-1})^4 - 1]_{-1}, \log[(COG + COS)/POP], \log[(TRGH + TRSH)/(POP \cdot PH_{-1})], RS_{-1}, RS_{-2}, RB_{-1}, \log(Y/POP)_{-1}, \log(V/POP)_{-1}, UR_{-1}, \log(AA/POP)_{-1}, T$ |
| 14 | $\text{cnst}, \log(HF/HFS)_{-1}, \log[JF/(JHMIN/HFS)]_{-1}, \Delta \log Y_{-1}, T, \log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP], \log(PIM/PF)_{-1}, 100[(PD/PD_{-1})^4 - 1]_{-1}, RS_{-1}, RS_{-2}, UR_{-1}$ |
| 17 | $\text{cnst}, T, \log(MF/PF)_{-1}, \log(X - FA)_{-1}, RS(1 - D2G - D2S)_{-1}, T, \log(1 - D1GM - D1SM - D4G)_{-1}, \log(IM/POP)_{-1}, \log(EX/POP)_{-1}, \log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP], \log(PIM/PF)_{-1}, \log[YNL/(POP \cdot PH)]_{-1}, 100[(PD/PD_{-1})^4 - 1]_{-1}, \log[(COG + COS)/POP], RS_{-2}, RB_{-1}, \log(Y/POP)_{-1}, \log(V/POP)_{-1}, UR_{-1}$ |
| 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 |
|-----|---|
| 23 | $\text{cnst}, RB_{-1}, RB_{-2}, RS_{-1}, RS_{-2}, RS_{-3}, \log(1 - D1GM - D1SM - D4G)_{-1}, \log(IM/POP)_{-1},$ $\log(EX/POP)_{-1}, \log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP], \log(PIM/PF)_{-1}, \log[YNL/(POP \cdot$ $PH)_{-1}], 100[(PD/PD_{-1})^4 - 1]_{-1}, \log[(COG + COS)/POP], \log[(TRGH + TRSH)/(POP \cdot$ $PH_{-1})], \log(Y/POP)_{-1}, \log(V/POP)_{-1}, \log(AA/POP)_{-1}, UR_{-1}, T$ |
| 24 | $\text{cnst}, RM_{-1}, RS_{-1}, RS_{-2}, \log(1 - D1GM - D1SM - D4G)_{-1}, \log(IM/POP)_{-1}, \log(EX/POP)_{-1},$ $\log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP], \log(PIM/PF)_{-1}, \log[YNL/(POP \cdot PH)_{-1}],$ $100[(PD/PD_{-1})^4 - 1]_{-1}, \log[(COG + COS)/POP], \log[(TRGH + TRSH)/(POP \cdot PH_{-1})],$ $\log(Y/POP)_{-1}, \log(V/POP)_{-1}, \log(AA/POP)_{-1}, UR_{-1}, T$ |
| 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 | $\text{cnst2}, \text{cnst}, \log(IM/POP)_{-1}, \log[(CS + CN + CD + IHH + IKF + IHB + IHF + IKB +$ $IKH)/POP]_{-1}, \log(PF/PIM)_{-1}, D691, D692, D714, D721, \log(1 - D1GM - D1SM - D4G)_{-1},$ $\log(EX/POP)_{-1}, \log[(JG \cdot HG + JM \cdot HM + JS \cdot HS)/POP], \log[YNL/(POP \cdot PH)_{-1}],$ $100[(PD/PD_{-1})^4 - 1]_{-1}, \log[(COG + COS)/POP], \log[(TRGH + TRSH)/(POP \cdot PH_{-1})], RS_{-1},$ $RB_{-1}, \log(Y/POP)_{-1}, \log(V/POP)_{-1}, UR_{-1}, \log(AA/POP)_{-1}, T$ |
| 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}, T |
| 30 | $\text{cnst}, RS_{-1}, 100[(PD/PD_{-1})^4 - 1]_{-1}, UR_{-1}, \Delta UR_{-1}, PCM1_{-1}, D794823 \cdot PCM1_{-1}, \Delta RS_{-1},$ $\Delta RS_{-2}, T, \log(1 - D1GM - D1SM - D4G)_{-1}, \log(IM/POP)_{-1}, \log(EX/POP)_{-1}, \log[(JG \cdot HG +$ $JM \cdot HM + JS \cdot HS)/POP], \log(PIM/PF)_{-1}, \log[YNL/(POP \cdot PH)_{-1}], \log[(COG + COS)/POP],$ $\log[(TRGH + TRSH)/(POP \cdot PH_{-1})], \log(Y/POP)_{-1}, \log(V/POP)_{-1}, \log(AA/POP)_{-1}$ |