THE MICHIGAN QUARTERLY
ECONOMETRIC MODEL
OF THE U.S. ECONOMY

August 1985

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Revised, August 1985

Research Seminar in Quantitative Economics
The University of Michigan
A. Wages and Prices

\[
\Delta \ln JCMH = 0.01060 + 0.90480 \times \frac{\Delta \text{WUSMIN}}{JCMH_{-1}} \\
\quad + 0.23637 \times \ln\left(\frac{\text{PC}_{-1}}{\text{PC}_{-3}}\right) + 0.04289 \times \ln\left(\frac{2*\text{REM}_{-1} + \text{JCU}_{-1}}{100}\right) \\
\quad + 0.06167 \times \frac{\text{DTSI}}{JCMH_{-1}} + 0.00911 \times \text{DFRZ1} \\
\quad + 0.28829 \times \frac{\text{RPPEM}_{-2}}{100} \\
\]

\[R^2 = 0.734 \quad \text{S.E.} = 0.0034 \quad \text{D.W.} = 1.97 \quad \text{F.P.} = 1956.4-1983.4\]
\[ \Delta \ln \text{PPNF} = -0.00187 + 0.02232 \times \Delta \ln \text{PFARM}_1 \]
\[ + 0.05166 \times \ln \left( \frac{\text{PCRUDE}_1}{\text{PCRUDE}_3} \right) \]
\[ + 0.00052 \times \sum_{i=5}^{6} \beta_i \times \left( \frac{1}{1-\text{JCU}} \right)_i \]
\[ - 0.0305 \times (\text{DFRZ2} + \text{DFRZ3}) \]
\[ + 0.03448 \times \text{DFROFF} + 0.00793 \times \ln \left( \frac{\text{RAAA}_1}{\text{RAAA}_5} \right) \]
\[ + 0.15958 \left[ \ln \left( \frac{\text{JCMH}_1}{\text{JCMH}_5} \right) - \sum_{i=1}^{4} \frac{\text{QMHT}_i}{4} \right] \]

\[ \beta_i = (0.6, 0.4) \]

\[ R^2 = 0.851 \quad S.E. = 0.032 \quad D.W. = 2.29 \quad F.P. = 1958.3-1983.4 \]
A3 \[ \Delta \ln \text{PCDO} = 0.00054 + 0.31893 \times \Delta \ln \text{PPNF} \]
\[ (0.00089) \quad (0.08792) \]
\[ + 0.18823 \times \frac{\text{DTEX}}{\text{PCDO}_1} + 0.53418 \times \Delta \ln \text{PCDO}_1 \]
\[ (0.15985) \quad (0.07702) \]
\[ R^2 = 0.613 \quad \text{S.E.} = 0.0056 \quad \text{D.W.} = 2.13 \quad \text{F.P.} = 1954.3-1982.4 \]

A4 \[ \Delta \ln \text{PCDA} = 0.00092 + 0.27773 \times \Delta \ln \text{PPNF} \]
\[ (0.00149) \quad (0.12832) \]
\[ + 0.71669 \times \Delta \ln \text{PAUTO} \]
\[ (0.08125) \]
\[ R^2 = 0.561 \quad \text{S.E.} = 0.0093 \quad \text{D.W.} = 2.02 \quad \text{F.P.} = 1955.4-1982.4 \]

A5 \[ \Delta \ln \text{PCDFE} = -0.00190 + 0.32355 \times \Delta \ln \text{PPNF} \]
\[ (0.00062) \quad (0.06541) \]
\[ + 0.22175 \times \Delta \ln \text{PPNF}_1 + 0.12996 \times \frac{\text{DTEX}}{\text{PCDFE}_1} \]
\[ (0.07314) \quad (0.10454) \]
\[ + 0.29251 \times \Delta \ln \text{PCDFE}_1 \]
\[ (0.08474) \]
\[ R^2 = 0.746 \quad \text{S.E.} = 0.0035 \quad \text{D.W.} = 1.96 \quad \text{F.P.} = 1954.3-1982.4 \]
\[ A6 \quad \Delta \ln \text{PCN} = 0.0104 + 0.49630 \times \Delta \ln \text{PPNF} \]
\[ \quad (0.00060) \quad (0.06723) \]
\[ + 0.05940 \times \Delta \ln \text{PFARM} + 0.08693 \times \Delta \ln \text{PM} \]
\[ \quad (0.00614) \quad (0.01996) \]
\[ + 0.07413 \times (1 - \text{DPGAS}) \times \Delta \ln \text{PGAS} \]
\[ \quad (0.01265) \]
\[ - 0.00236 \times \text{DPGAS} + 0.15997 \times \Delta \ln \text{PCN}_{-1} \]
\[ \quad (0.00116) \quad (0.06914) \]
\[ R^2 = 0.871 \quad \text{S.E.} = 0.0034 \quad \text{D.W.} = 2.20 \quad \text{F.P.} = 1954.3-1982.4 \]

\[ A7 \quad \Delta \ln \text{PCS} = -0.0048 + 0.09556 \times \ln \left( \frac{\text{PPNF}}{\text{PPNF}_{-2}} \right) \]
\[ \quad (0.00108) \quad (0.03946) \]
\[ + 0.07174 \times \ln \left( \frac{\text{JCMH}}{\text{JCMH}_{-4}} \right) \]
\[ \quad (0.02934) \]
\[ + 0.00592 \times \ln \left( \frac{\text{PNGAS}}{\text{PNGAS}_{-4}} \right) \]
\[ \quad (0.00293) \]
\[ + 0.45518 \times \Delta \ln \text{PCS}_{-1} \]
\[ \quad (0.08763) \]
\[ R^2 = 0.884 \quad \text{S.E.} = 0.0024 \quad \text{D.W.} = 1.89 \quad \text{F.P.} = 1959.1-1982.4 \]
A8 \[ \Delta \ln \text{PCPI} = -0.00070 + 1.1398 \times \Delta \ln \text{PC} \]
\[\quad \quad \quad (0.00053) \quad (0.04314)\]
\[\quad + 0.00259 \times \Delta \text{RMTG}_1 \]
\[\quad \quad \quad (0.00072)\]
\[\quad - 0.02388 \times \Delta \ln \left(\frac{\text{CDA72} + \text{CDFE72} + \text{CD072}}{\text{C72}}\right) \]
\[\quad \quad \quad (0.01055)\]
\[R^2 = 0.892 \quad \text{S.E.} = 0.0031 \quad \text{D.W.} = 1.92 \quad \text{F.P.} = 1954.3-1982.4\]

A9 \[ \Delta \ln \text{PINC} = 0.00033 + 0.55684 \times \Delta \ln \text{PPNF} \]
\[\quad \quad \quad (0.00123) \quad (0.15709)\]
\[\quad + 0.09359 \times \ln \left(\frac{\text{PCRUDE}}{\text{PCRUDE}_2}\right) \]
\[\quad \quad \quad (0.01791)\]
\[\quad + 0.33328 \times \Delta \ln \text{PINC}_1 \]
\[\quad \quad \quad (0.07588)\]
\[R^2 = 0.724 \quad \text{S.E.} = 0.0078 \quad \text{D.W.} = 2.38 \quad \text{F.P.} = 1954.3-1982.4\]

A10 \[ \Delta \ln \text{PIRC} = -0.01310 + 0.69138 \times \ln \left(\frac{\text{JCMH}}{\text{JCMH}_2}\right) \]
\[\quad \quad \quad (0.00284) \quad (0.08866)\]
\[\quad + 0.00196 \times \sum_{i=1}^{3} \beta_i \times (\text{RAAA}-\text{RCPCD})_{-i} \]
\[\quad \quad \quad (0.00066)\]
\[\quad + 0.11569 \times \Delta \ln \text{PCRUDE} \]
\[\quad \quad \quad (0.03245)\]
\[\beta_i = (0.41, 0.49, 0.10)\]
\[R^2 = 0.512 \quad \text{S.E.} = 0.0091 \quad \text{D.W.} = 2.00 \quad \text{F.P.} = 1954.4-1982.4\]
A11  \( \ln \text{PHOUSN.E} = -0.03317 + 0.08657 \times \ln(\frac{\text{HOUSEX}}{\text{HOUSEX}_4}) \\
\quad + 0.03018 \times \ln(\frac{\text{RCPCD}}{\text{RCPCD}_4}) + 0.59440 \times \ln(\frac{\text{JCMH}}{\text{JCMH}_4}) \\
\quad - 0.01420 \times \text{DSEAS1} + 0.00190 \times \text{DSEAS2} \\
\quad - 0.01545 \times \text{DSEAS3} + 0.79371 \times \ln \text{PHOUSN.E}_1 \\
\text{R}^2 = 0.890 \quad \text{S.E.} = 0.0203 \quad \text{D.W.} = 1.74 \quad \text{F.P.} = 1969.1-1982.4 \)

A12  \( \Delta \ln \text{PG} = 0.00500 + 0.74530 \times \Delta \ln \text{PPNF} \\
\quad + 0.16720 \times \text{DGAY} \times \Delta \ln(\frac{\text{YGWS}}{\text{EGOV}}) \\
\quad + 0.10957 \times \Delta \ln(\frac{\text{GFD} + \text{GFO}}{\text{GFD} + \text{GFO} + \text{GSL}}) \\
\text{R}^2 = 0.660 \quad \text{S.E.} = 0.0052 \quad \text{D.W.} = 1.76 \quad \text{F.P.} = 1954.2-1982.4 \)

A13  \( \text{PIPD} = (\text{IPDQ72} \times \text{PIPDQ} + \text{IPDO72} \times \text{PIPDO} \\
\quad + \text{IPDAG72} \times \text{PIPDAG}) / \text{IBFPD72} \)
A14  $\Delta \ln \text{PIPQ} = - .00072 - .03299 \times \Delta \ln \text{PCRUDE}$
     \hfill \hfill (.00085) \hfill (.02017) \hfill 
     \hfill \hfill + .55621 \times \Delta \ln \text{PPNF} + .61683 \times \Delta \ln \text{PIPQ}_1$
     \hfill \hfill (.09389) \hfill (.05925) \hfill 

$R^2 = .824 \quad \text{S.E.} = .0049 \quad \text{D.W.} = 2.11 \quad \text{F.P.} = 1958.3-1982.4$

A15  $\Delta \ln \text{PIPAG} = - .00027 + .63805 \times \Delta \ln \text{PPNF}$
     \hfill \hfill (.00164) \hfill (.13757) \hfill 
     \hfill \hfill + .51820 \times \Delta \ln \text{PIPAG}_1$
     \hfill \hfill (.07705) \hfill 

$R^2 = .596 \quad \text{S.E.} = .0094 \quad \text{D.W.} = 1.65 \quad \text{F.P.} = 1958.3-1982.4$

A16  $\Delta \ln \text{PIPQ} = - .00033 + .44251 \times \Delta \ln \text{PPNF}$
     \hfill \hfill (.00104) \hfill (.11121) \hfill 
     \hfill \hfill + .24339 \times \Delta \ln \text{PAUTO}$
     \hfill \hfill (.05927) \hfill 
     \hfill \hfill - .04461 \times \Delta \ln \text{PCRUDE} + .24084 \times \Delta \ln \text{PIPQ}_1$
     \hfill \hfill (.02523) \hfill (.08586) \hfill 

$R^2 = .588 \quad \text{S.E.} = .0060 \quad \text{D.W.} = 2.19 \quad \text{F.P.} = 1958.3-1982.4$
A17 \[ \Delta \ln PX = -0.00179 + 1.1645 \times \Delta \ln PPNF \]
\[ (0.00138) \quad (0.15664) \]
\[ - 0.47742 \times \Delta \ln PPNF_{-1} + 0.06698 \times \Delta \ln PFARM \]
\[ (0.16076) \quad (0.01481) \]
\[ + 0.44674 \times \Delta \ln PX_{-1} \]
\[ (0.08182) \]
\[ R^2 = 0.658 \quad S.E. = 0.0082 \quad D.W. = 2.04 \quad F.P. = 1954.3-1982.4 \]

A18 \[ \ln JEXR = 0.87148 + 0.90945 \times \ln \left( \frac{PFOREIGN}{PPNF} \right) \]
\[ (0.17038) \quad (0.06625) \]
\[ - 0.68343 \times \ln \left( \frac{PFOREIGN}{PPNF} \right)_{-1} + 0.09676 \times \ln (X) \]
\[ (0.07358) \quad (0.03305) \]
\[ + 0.08014 \times \ln \left( \frac{RTB}{REURDR3} \right) + 0.02895 \times D81.2 \]
\[ (0.02734) \quad (0.00661) \]
\[ + 0.80138 \times \ln JEXR_{-1} \]
\[ (0.03877) \]
\[ R^2 = 0.982 \quad S.E. = 0.0130 \quad D.W. = 2.30 \quad F.P. = 1973.1-1982.4 \]
B. Productivity and Employment

\[ \Delta \ln \text{QMH77} = -0.04953 + 0.00987 \times D5467 + 0.00553 \times D6873 \\
- 0.05691 \times \ln \left( \frac{\text{JIPM}}{\text{JCAP}} \right) + 0.59467 \times \Delta \ln \text{GNP72} \\
+ 0.00700 \times \frac{6}{\sum_{i=1}^{6} \beta_i} \times \ln (\text{IBF72} - \text{IPDAG72})_{-1} \]

\[ \beta_i (.1, .15, .25, .25, .15, .1) \]

\[ R^2 = 0.610 \quad \text{S.E.} = 0.0053 \quad \text{D.W.} = 1.98 \quad \text{F.P.} = 1959.3-1983.4 \]

\[ \Delta \ln \text{REM} = -0.00394 + 0.31049 \times \Delta \ln \text{GNP72} \\
+ 0.09684 \times \Delta \ln \text{GNP72}_{-1} \\
+ 0.02471 \times \frac{\sum_{i=1}^{2} \text{RUM}_{-i} + \text{RUM}_{-2}}{2} \times \frac{2}{\sum_{i=1}^{2} \Delta \ln \text{GNP72}_{-i}} \]

\[ -0.07635 \times \Delta \ln \text{QMH77} - 0.00065 \times \text{DVNUP} \\
- 0.00111 \times \text{DVNDOWN} \]

\[ R^2 = 0.767 \quad \text{S.E.} = 0.0024 \quad \text{D.W.} = 1.84 \quad \text{F.P.} = 1954.4-1982.4 \]
B3  

RUG = 0.70221 + (0.01583 - 0.00471 * RUM) * TIME
       (0.19937)  (0.00299)  (0.00052)

+ 0.02889 * RLFSEC * RUM + 0.8832 * μ₁
   (0.00097)

GLS

R² = 0.966  S.E. = 0.084  D.W. = 1.95  F.P. = 1954.3-1982.4
C. Expenditure

\[ C1 \text{ AUTOS} = 1.0550 + 0.06053 \times (\text{YPERM72} - 0.9616 \times \text{YPERM72}_1) \]

\[ \times (0.36396) \times (0.01809) \]

\[ + 0.01831 \times (\text{YT72} - 0.9616 \times \text{YT72}_1) \]

\[ \times (0.01152) \]

\[ - 4.0490 \times \left[ \frac{2 \times \text{PAUTO} \times \text{DAUTO} + \text{PGAS} \times \text{DJGPM} \times \text{JGPM}}{3 \times \text{PC}_1} \right] \]

\[ \times (3.1853) \]

\[ + \frac{(1 - \text{DJGPM}) \times \text{PGAS}}{3 \times \text{PC}_1} - 0.9616 \times \left[ \frac{2 \times \text{PAUTO}_1 \times \text{DAUTO}_1}{3 \times \text{PC}_2} \right] \]

\[ + \frac{\text{PGAS}_1 \times \text{DJGPM}_1 \times \text{JGPM}_1 + (1 - \text{DJGPM}_1) \times \text{PGAS}_1}{3 \times \text{PC}_2} \]

\[ + 0.00001 \times (\Delta \text{JICS}_1 \times \text{YPERM72}) \]

\[ \times (0.00001) \]

\[ - 0.9616 \times \Delta \text{JICS}_2 \times \text{YPERM72}_1 \]

\[ - 0.51946 \times (\text{RUM}_1 - 0.9616 \times \text{RUM}_2) \]

\[ \times (0.15008) \]

\[ + 0.39161 \times \left[ \sum_{i=1}^{3} \frac{(\text{RAAA-RCPCD})_i}{3} \right] \]

\[ \times (0.13634) \]

\[ - 0.9616 \times \sum_{i=2}^{4} \frac{(\text{RAAA-RCPCD})_i}{3} \]

\[ + 0.48721 \times \text{DASTRIKE} - 0.35054 \times \text{DASTRIKE}_1 \]

\[ \times (0.11810) - 0.12119 \]
- .19816 * \left[ RAAA_1 - 100 \ln \left( \frac{PC_1}{PC_5} \right) \right] \\
+ .71125 \times \text{AUTOS}_1 \\
R^2 = .905 \quad \text{S.E.} = .5960 \quad \text{D.W.} = 2.88 \quad \text{F.P.} = 1957.2-1982.4

C2 \quad \Delta \text{CDAN72} = .14322 + (1.0286 + .00333 \times \text{YPERM72}_1) \times \Delta \text{AUTOS} \\
\quad \quad (0.03816) \quad (0.00046) \\
\quad - .54610 \times \Delta (\text{AUTOSIZE} \times \text{AUTOS}) - .3335 \times \mu_1 \\
\quad (0.18680)

GLS

R^2 = .954 \quad \text{S.E.} = .5223 \quad \text{D.W.} = 1.91 \quad \text{F.P.} = 1955.4-1982.4
C3  \[ CDA072 = -2.1423 + 0.19777 \times \text{DASTRIKE} \]
\[(.57739) \quad (.12390)\]
\[+ \left[ 0.00797 + 0.00062 \times \sum_{i=1}^{3} (\text{RAAA-RCPCD})_i \right] \times \text{YPERM72} \]
\[(.00167) \quad (.00008) \quad (.12390) \quad (.03774)\]
\[+ 0.66419 \times \text{DJGPM} \times \frac{2 \times \text{JGPM}}{\text{JGPM}_{-12} + \text{JGPM}_{-16}} \]
\[(.36869) \quad (.03774)\]
\[+ 0.82049 \times \text{CDAO72}^{-1} \]
\[(.03774) \quad (.09190)\]
\[- 0.22787 \times \Delta \text{CDAO72}^{-1} \]
\[(.09190) \quad (.03774)\]

\[ R^2 = 0.993 \quad \text{S.E.} = 0.6743 \quad \text{D.W.} = 1.96 \quad \text{F.P.} = 1958.1-1982.4 \]

C4  \[ CDFE72 = -7.1511 + 0.02046 \times \text{YD72} \]
\[(1.8869) \quad (.00640)\]
\[+ 0.00178 \times \text{HOUSEX} - 0.00150 \times \text{HOUSEX}^{-1} \]
\[(.00058) \quad (.00062)\]
\[+ 0.00396 \times \text{HOUSCOMP} - 0.00330 \times \text{HOUSCOMP}^{-1} \]
\[(.00091) \quad (.00088)\]
\[- 0.23638 \times (\text{RAAA-RCPCD}) + 0.74421 \times \text{CDFE72}^{-1} \]
\[(.06325) \quad (.08524)\]

\[ R^2 = 0.996 \quad \text{S.E.} = 0.6005 \quad \text{D.W.} = 2.06 \quad \text{F.P.} = 1968.2-1982.4 \]
$C_5 \quad CDO72 = 3.4346 + 0.01955 \times YD72 - 0.01653 \times YD72_{-1}$
\[(1.5859) \quad (0.00411) \quad (0.00398)\]

$- 22.375 \times \left[ \frac{PCDO}{PC} - \left( \frac{0.01653}{0.01955} \right) \times \left( \frac{PCDO}{PC}_{-1} \right) \right] \quad \frac{(5.4524)}{(0.00411)} \quad (0.00398)$

$+ 0.85307 \times CDO72_{-1}$
\[(0.05029)\]

$R^2 = 0.997 \quad S.E. = 0.3313 \quad D.W. = 2.14 \quad F.P. = 1954.3-1982.4$

$C_6 \quad CN72 = 59.416 + 0.14471 \times \Delta YD72 + 0.06765 \times YD72_{-1}$
\[(17.589) \quad (0.02410) \quad (0.01866)\]

$- 41.839 \times \left( \frac{PCN}{PC}_{-1} - 139.72 \times \Delta \frac{PCN}{PC} + 0.76158 \times CN72_{-1} \right)$
\[(14.147) \quad (40.605) \quad (0.06584)\]

$R^2 = 0.999 \quad S.E. = 1.762 \quad D.W. = 1.80 \quad F.P. = 1954.3-1982.4$

$C_7 \quad \Delta CS72 = 2.9538 + 0.05673 \times \Delta \frac{YD + TSIP}{PC/100}$
\[(0.17979) \quad (0.01399)\]

$+ 16.536 \times \left( \frac{PCS}{PC}_{-1} \right)$
\[(3.2244)\]

$R^2 = 0.314 \quad S.E. = 1.107 \quad D.W. = 2.09 \quad F.P. = 1954.2-1982.4$
C8  IBFNC72  =  1.6353 + .02235 * (GNP72_1 - GNP72_3) 
       (.66692)  (.00573) 

       + .00578 * \left[ \frac{TDEPRNC_4 - \frac{1}{60}}{4} \right] * \sum_{i=2}^{5} \beta_i * GNP72_i 

       - 28.702 * \sum_{i=2}^{5} \beta_i * \left( \frac{UCLKNC}{PPNF} \right)_i + .88855 * IBFNC72_1 

       \beta_i = (.4, .3, .2, .1) 

R^2 = .985  S.E. = .9053  D.W. = 1.63  F.P. = 1955.2-1979.4 

C9  IBFPD72  =  IPDQ72 + IPD072 + IPDAG72
\[ C_{10} \quad IPDQ72 = -2.4286 + 0.06743 \sum_{i=2}^{7} GNP72_{-i} \]
\[ - 0.06232 \sum_{i=3}^{6} GNP72_{-i} \]
\[ - 4.8304 \left[ \sum_{i=4}^{9} UCKPDQ_{-i} \right] \]
\[ - \left( \frac{0.06232}{0.06743} \right) \left[ \sum_{i=5}^{10} UCKPDQ_{-i} \right] \]
\[ + 0.06053 \times IBFNC72_{-1} + 0.67566 \times IPDQ72_{-1} \]

\[ R^2 = 0.992 \quad S.E. = 0.4307 \quad D.W. = 1.40 \quad F.P. = 1960.3-1979.4 \]

\[ \Delta IPDONA72 = -0.31920 + 0.05094 \times (GNP72_{-1} - GNP72_{-3}) \]
\[ - 0.73696 \times \Delta RAAA_{-1} + 0.01472 \times (GNP72_{-3} - GNP72_{-5}) \]

\[ R^2 = 0.409 \quad S.E. = 1.359 \quad D.W. = 1.64 \quad F.P. = 1958.3-1983.4 \]
Cl2 \( \text{IPDAG72} = 0.89114 - 3.9128 \times \frac{4}{\text{UckIPDAG}_i} \quad \Sigma \beta_i \times \text{UCKIPDAG} - i \)

\[ + 0.0034 \times \left[ \frac{\text{TDEPRAG}_4 - \frac{1}{6} + \text{TITCR}_4 - 0.7}{4} \right] \times \Sigma \text{GNP72} - i \]

\[ + 0.20933 \times \Delta \text{IPDAG72}_i + 0.74044 \times \text{IPDAG72}_i \]

\( \beta_i = (0.4, 0.3, 0.2, 0.1) \)

\( R^2 = 0.920 \quad \text{S.E.} = 0.3154 \quad \text{D.W.} = 2.03 \quad \text{F.P.} = 1959.1-1982.4 \)

Cl3 \( \text{IPDAU72} = -2.9366 + 0.59678 \times \text{DASTRIKE} \quad \Sigma \text{DASTRIKE}_i \)

\[ - 0.20631 \times \text{DASTRIKE}_i - 0.49776 \times \frac{5}{\text{RAAA-RCPCD}_i} \quad \Sigma \text{RAAA-RCPCD}_i \]

\[ + 0.00260 \times \left[ \frac{\text{TDEPR}_4 - \frac{1}{6} + \text{TITCR}_4 - 0.7}{4} \right] \times \Sigma \text{GNP72} - i \]

\[ + 0.40463 \times \text{IPDAU72}_i \]

\( R^2 = 0.969 \quad \text{S.E.} = 0.6973 \quad \text{D.W.} = 2.12 \quad \text{F.P.} = 1958.2-1983.4 \)
\[ C14 \quad IRC72 = 28.582 + 1.0417 \times \sum_{i=1}^{3} \beta_i \times (RAAA-RCPCD)_{i} \]
\[ + 0.02445 \times \sum_{i=0}^{2} \beta_i \times YD72_{-i} + 0.24089 \times HASSET_{-1} \times 100 \]
\[ - 2.3065 \times D763 + 0.70621 \times IRC72_{-1} \]
\[ + (0.22558 + 0.01062 \times RMTG_{-1}) \times \sum_{i=1}^{3} \beta_i \times PHOUSN.E_{-i} \times 100 \]
\[ \beta_i (0.41, 0.49, 0.10) \]

\[ R^2 = 0.972 \quad S.E. = 1.656 \quad D.W. = 1.96 \quad F.P. = 1970.2-1982.4 \]

\[ C15 \quad \Delta HOUSES = -10.861 + 57.092 \times \Delta IRC72 + 9.9805 \times \Delta IRC72_{-1} \]
\[ - 0.51049 \times \Delta HOUSES_{-1} - 0.22354 \times \Delta HOUSES_{-2} \]
\[ R^2 = 0.543 \quad S.E. = 94.90 \quad D.W. = 2.11 \quad F.P. = 1954.4-1982.4 \]
\[ \ln \text{HOUSEX} = -1.6883 + 1.6386 \cdot 3 \left( \frac{\text{RAAA}-\text{RCPCD}}{400} \right) \]

\[ + 0.92993 \cdot \Delta \ln \text{IRC72} + 0.78201 \cdot \ln \text{YPERM72} \]

\[ - 0.61077 \cdot \ln \left( \frac{1}{\text{PHOUSR.E}_{-1}} \right) + 1.7975 \cdot \text{HASSET} \]

\[ + 0.25322 \cdot \ln \text{HOUSEX}_{-1} + 0.29161 \cdot \ln \text{HOUSEX}_{-2} \]

\[ R^2 = 0.985 \quad \text{S.E.} = 0.0353 \quad \text{D.W.} = 2.08 \quad \text{F.P.} = 1970.2-1982.4 \]

\[ \text{IINVNA72} = -5.7749 - 1.4206 \cdot \text{DM72DOCK} + 1.3037 \cdot \text{DM72DOCK}_{-1} \]

\[ - 0.04960 \cdot \text{SINVNA72}_{-1} \]

\[ + (0.09625 - 0.00074 \cdot \text{RTB}) \cdot (\text{FS72} - \text{SERVE72})_{-1} \]

\[ + 0.06382 \cdot \Delta \ln \text{PCRUDE}_{-1} \cdot (\text{FS72} - \text{SERVE72})_{-1} \]

\[ + 0.71787 \cdot \Delta M72 + 0.57833 \cdot \text{IINVNA72}_{-1} \]

\[ R^2 = 0.687 \quad \text{S.E.} = 4.272 \quad \text{D.W.} = 2.36 \quad \text{F.P.} = 1954.3-1983.4 \]
\[ C18 \quad IINVA72 = 2.2337 - 0.17029 \times IINVA72_{-1} \]
\[ - 0.23432 \times SINVA72_{-1} + 1.1570 \times DASTRIKE_{-1} \]
\[ - 0.35293 \times DASTRIKE_{-1} - 0.10953 \times \Delta CDAN72 \]
\[ + 0.17682 \times (CDAN72 + IPDAU72)_{-1} \]

\[ R^2 = 0.340 \quad S.E. = 1.623 \quad D.W. = 2.03 \quad F.P. = 1954.3-1983.4 \]
\[ \ln \text{MOIL72} = -3.6863 + 2.7362 \times \text{DOILDCON} \]
\[ \quad \quad \quad \quad (1.7062) \quad (1.7809) \]
\[ -0.27789 \times \text{DEMB1} + 0.19890 \times \text{DEMB1}_1 \]
\[ \quad \quad \quad \quad (0.07805) \quad (0.07808) \]
\[ + 1.0321 \times \text{DOILCON} \times \Delta \ln \left( \frac{\text{PMOIL}}{\text{PGAS}} \right)_1 \]
\[ \quad \quad \quad \quad (0.46641) \]
\[ + 0.55786 \times (1 - \text{DOILDCON}) \times \ln \text{GNP} \]
\[ \quad \quad \quad \quad (0.25202) \]
\[ + (1 - 0.76893) \times \text{DOILDCON} \times \ln \text{GNP72} \]
\[ \quad \quad \quad \quad (0.12754) \]
\[ - 2.3 \times \left[ 1 - 0.87858 \times (1 - \text{DOILDCON}) \right] \times \ln \left( \frac{\text{PGAS}}{\text{PPNF}} \right)_1 \]
\[ \quad \quad \quad \quad (0.04231) \]
\[ - 2.3 \times \left[ -0.76893 \times \text{DOILDCON} \right] \times \ln \left( \frac{\text{PGAS}}{\text{PPNF}} \right)_1 \]
\[ \quad \quad \quad \quad (0.12754) \]
\[ + 0.87858 \times (1 - \text{DOILDCON}) \times \ln \text{MOIL72}_1 \]
\[ \quad \quad \quad \quad (0.04231) \]
\[ + 0.76893 \times \text{DOILDCON} \times \ln \text{MOIL72}_1 \]
\[ \quad \quad \quad \quad (0.12754) \]

\[ R^2 = 0.968 \quad \text{S.E.} = 0.0772 \quad \text{D.W.} = 1.96 \quad \text{F.P.} = 1967.3-1982.4 \]
C20 \[ \ln \text{MNOIL72} = -5.1158 - 0.33058 \times \ln \left( \frac{\text{PMNOIL}}{\text{PPNF}} \right) - 1 \]
\[ + \left( 0.92644 \right)^{\ln \text{SINV72}} \times \ln \text{GNP72} \]
\[ + 0.25985 \times \Delta \ln \text{JEXR} + 0.02659 \times \text{DM72DOCK} \]
\[ - 0.00652 \times \text{DM72DOCK}_{-1} + 0.60501 \times \ln \text{MNOIL72}_{-1} \]
\[ R^2 = 0.990 \quad \text{S.E.} = 0.0260 \quad \text{D.W.} = 1.90 \quad \text{F.P.} = 1967.2-1982.4 \]

C21 \[ \text{NETXA72} = 2.6029 + 0.52372 \times \text{NETXA72}_{-1} \]
\[ + 0.09618 \times \text{NETXA72}_{-2} - 0.02587 \times \text{NETXA72}_{-3} \]
\[ - 0.18993 \times \text{NETXA72}_{-4} + 0.17763 \times \text{NETXA72}_{-5} \]
\[ + 0.05606 \times \text{NETXA72}_{-6} + 0.22579 \times \text{NETXA72}_{-7} \]
\[ - 0.80255 \times \text{DIMP} - 0.05494 \times \text{JEXR}_{-2} \]
\[ + 0.06009 \times \text{JEXR}_{-3} - 0.03483 \times \text{JEXR}_{-4} \]
\[ R^2 = 0.904 \quad \text{S.E.} = 0.4656 \quad \text{D.W.} = 2.03 \quad \text{F.P.} = 1968.2-1983.4 \]
D. Income Flows

D1 \[ \Delta \ln \text{YPWS} = -0.00232 + 1.0116 \times \Delta \ln \text{JCMH} \]
\[ (0.00129) \quad (0.07574) \]
\[ + 1.1615 \times \Delta \ln \text{GNP72} - 0.77710 \times \Delta \ln \text{QM77} \]
\[ (0.05741) \quad (0.07195) \]
\[ - 0.06469 \times \frac{\text{DTSI}}{\text{JCMH}_1} \]
\[ (0.01824) \]
\[ R^2 = 0.831 \quad \text{S.E.} = 0.0047 \quad \text{D.W.} = 1.97 \quad \text{F.P.} = 1954.2-1982.4 \]

D2 \[ \Delta \ln \text{YOL} = 0.00808 + 0.36075 \times \Delta \ln \text{YPWS} \]
\[ (0.00211) \quad (0.07226) \]
\[ + 0.49557 \times \Delta \ln \text{YOL}_1 \]
\[ (0.06932) \]
\[ R^2 = 0.506 \quad \text{S.E.} = 0.0079 \quad \text{D.W.} = 1.71 \quad \text{F.P.} = 1954.3-1982.4 \]

D3 \[ \Delta \ln \text{YNFP} = 0.00397 + 0.43407 \times \Delta \ln \text{YPWS} \]
\[ (0.00289) \quad (0.14715) \]
\[ + 0.09416 \times \Delta \ln \text{YCP} - 0.10041 \times \ln \left( \frac{\text{RAAA}_1}{\text{RAAA}_3} \right) \]
\[ (0.02620) \]
\[ R^2 = 0.396 \quad \text{S.E.} = 0.0147 \quad \text{D.W.} = 1.57 \quad \text{F.P.} = 1954.4-1982.4 \]
D4 \[ \Delta \ln YFP = -0.01189 + 1.4538 \times \Delta \ln \text{GNP}_{72} + 0.56159 \times D82 \]
\[ \quad + 1.0553 \times \Delta \ln \text{PFARM} + 0.15893 \times \Delta \ln \text{PFARM}_{-1} \]
\[ \quad - 0.13187 \times \ln \left( \frac{\text{RAAA}_-}{\text{RAAA}_-} \right) \]
\[ \quad \left( \frac{\text{RAAA}_-}{\text{RAAA}_-} \right) \]
\[ R^2 = 0.577 \quad \text{S.E.} = 0.0881 \quad \text{D.W.} = 2.31 \quad \text{F.P.} = 1954.3-1982.4 \]

D5 \[ \Delta \text{YPINT} = 0.16633 + 0.15868 \times \Delta \left( \frac{\text{RCPCD} + \text{RCPCD}_{-1}}{2} \right) \]
\[ \quad + 0.75349 \times \frac{\text{RCPCD} + \text{RCPCD}_{-1}}{200} \]
\[ \quad + 0.37595 \times \frac{\text{RCPCD} + \text{RCPCD}_{-1}}{200} \]
\[ R^2 = 0.780 \quad \text{S.E.} = 2.419 \quad \text{D.W.} = 1.73 \quad \text{F.P.} = 1959.3-1982.4 \]
\[ D6 \quad \Delta \ln \text{YUNB} = 0.08888 + 0.21458 \times \Delta \text{RUG} \]
\[ \text{(.27794)} \quad \text{(.01859)} \]
\[ + 0.89119 \times \Delta \ln (\frac{\text{RUM}}{\text{RUG}}) \]
\[ \text{(.24601)} \]
\[ + 0.08719 \times \left[ \ln \left( \frac{\text{JCMH}}{\text{JCMH} - 4} \right) - 1 \right] + 0.56321 \times \text{DUBEXT} \]
\[ \text{(.29602)} \quad \text{(.14286)} \]
\[ R^2 = 0.784 \quad \text{S.E.} = 0.0617 \quad \text{D.W.} = 2.00 \quad \text{F.P.} = 1955.1 - 1982.4 \]

\[ D7. A \quad \Delta (\text{YCP+KCAC}) = -0.78174 + 0.69306 \times \Delta \left[ \frac{\text{PPNF}}{\text{PGNP}} - \frac{\text{YGWS}}{\text{PG}} - \frac{\text{YFP}}{\text{PFARM}} \right] \]
\[ \text{(.30963)} \quad \text{(.02909)} \]
\[ - 0.50191 \times \Delta \left[ \frac{\text{ULC77}}{\text{PGNP}} - \frac{\text{YGWS}}{\text{PG}} - \frac{\text{YFP}}{\text{PFARM}} \right] \]
\[ \text{(.05224)} \]
\[ - 0.01438 \times \Delta \left[ \frac{\text{PCRUDE}}{\text{PGNP}} - \frac{\text{YGWS}}{\text{PG}} - \frac{\text{YFP}}{\text{PFARM}} \right] \]
\[ \text{(.00559)} \]
\[ - 0.09904 \times \sum_{i=1}^{100} (\frac{\text{RAA}}{100} \times \text{IBF})_i \]
\[ \text{(.03641)} \]
\[ R^2 = 0.899 \quad \text{S.E.} = 1.905 \quad \text{D.W.} = 1.71 \quad \text{F.P.} = 1954.3 - 1978.4 \]

\[
\Delta KCA = -0.22339 + \left[ 0.01545 + 0.81227 \times \Delta \ln PIBF \right] \times KCA_{-1} \\
\quad + 0.04219 \times \Delta IBF \\
R^2 = 0.883 \quad S.E. = 1.095 \quad D.W. = 2.67 \quad F.P. = 1954.2-1982.4
\]

D8  \[ \Delta KCAC = -0.04204 + \left[ 0.00695 + 0.20597 \times \Delta \ln PIBF \right] \times KCAC_{-1} \\
\quad + 0.40736 \times \Delta KCA \\
R^2 = 0.983 \quad S.E. = 0.2503 \quad D.W. = 1.71 \quad F.P. = 1954.2-1982.4
\]

D10  \[ YPDIV = -0.17858 + 0.02081 \times (YCBT - TCF - TCSL) \\
\quad + 0.00899 + IVA + 0.97747 \times YPDIV_{-1} \\
R^2 = 0.999 \quad S.E. = 0.6250 \quad D.W. = 1.32 \quad F.P. = 1954.2-1982.4\]
\[ \Delta \text{TIBF} = -0.00661 + (0.01088 + 0.01948 \times \text{DEX65}) \times \Delta \text{GNP} \\
\quad + 1.0623 \times \Delta \text{DTIB} \]
\[ R^2 = 0.733 \quad \text{S.E.} = 0.2978 \quad \text{D.W.} = 2.00 \quad \text{F.P.} = 1954.2-1979.4 \]

\[ \Delta \text{TIBSL} = -0.30339 + 0.06764 \times \Delta \text{C} \\
\quad + 0.17762 \times \ln \text{TIME} - 7.6732 \times \text{DPROP13} \\
\quad + 0.19806 \times \Delta \text{TIBSL}_{-1} \]
\[ R^2 = 0.918 \quad \text{S.E.} = 0.4280 \quad \text{D.W.} = 1.87 \quad \text{F.P.} = 1954.3-1982.4 \]

\[ \Delta \ln \text{TSIF} = 0.00568 + 0.83143 \times \Delta \ln \text{YPWS} \\
\quad - 0.28012 \times \Delta \ln \left(\frac{\text{YPWS}}{\text{WCEIL}}\right) - 0.00707 \times \Delta \text{RUG} \\
\quad + 0.76168 \times \Delta \ln \text{TSIFR} \]
\[ R^2 = 0.906 \quad \text{S.E.} = 0.0122 \quad \text{D.W.} = 2.59 \quad \text{F.P.} = 1954.2-1982.4 \]

\[ \Delta \ln \text{TSIP} = -0.00155 + 1.0434 \times \Delta \ln \text{TSI} \]
\[ R^2 = 0.938 \quad \text{S.E.} = 0.0089 \quad \text{D.W.} = 2.16 \quad \text{F.P.} = 1954.2-1982.4 \]
D15  TCF  =  3.9358 + [ .03068 + .64981 * TCFR
   (.78953)  (.06443)  (.13574)

   + .00017  * Δ (YCBT-TCSL)]  * (YCBT-TCSL)
   (.00006)

   - ( .33607  * TITCR-1) + .20945  * Δ TITCR)  * IBFPD
   (.09282)  (.12216)

   + .6659  * μ-1

GLS

R² = .977  S.E. = 1.011  D.W. = 2.27  F.P. = 1954.3-1982.4

D16  Δ TCSL  =  .06885 + (.01773 + .00037  * TIME)  * Δ YCBT
   (.04606)  (.02413)  (.00024)

R² = .533  S.E. = .4728  D.W. = 2.48  F.P. = 1954.2-1982.4

D17  Δ TPSL  =  .06821 + .02354  * Δ (YP-GTROF-GTRSL-YUNB+TSIP)
   (.08145)  (.00445)

   + .35945  * D674  + .39666  * D711
   (.18176)  (.20247)

R² = .626  S.E. = .5618  D.W. = 1.80  F.P. = 1954.3-1982.4
D18 \[ \Delta \text{TPF} = (1 - D\text{INDEX}) \times \left[ 0.03246 \times \text{DSW.TPF} \times \Delta \text{YPADJ} \\
+ 0.10058 \times (1 - \text{DSW.TPF}) \times \Delta \text{YPADJ} \\
+ 0.00003 \times (2 \times \text{YPADJ}_1 \times \Delta \text{YPADJ} + (\Delta \text{YPADJ})^2) \right] \\
+ D\text{INDEX} \times [0.03246 \times \Delta \text{YPADJ} \\
+ 0.00003 \times \frac{\text{PINDEX}_1}{100} \times \text{YPADJ}_{72-1} \times \Delta \text{YPADJ} \\
+ 0.00003 \times \frac{\text{PINDEX}}{100} \times \text{YPADJ} \times \Delta \text{YPADJ}_{72}] + D\text{TP} \]

D19 \[ \Delta \text{GINTF} = 0.24616 + 0.44014 \times \frac{\text{RG5}}{100} \times \Delta \text{GDEBTP} \\
(0.12929) \ (0.09908) \\
+ 0.23412 \times \Delta \text{GINTF}_1 + 0.11466 \times (\frac{\text{RG5}}{100})_1 \times \Delta \text{GDEBTP}_1 \\
(0.09968) \ (0.12347) \]

\[ R^2 = .368 \quad \text{S.E.} = 1.204 \quad \text{D.W.} = 1.91 \quad \text{F.P.} = 1954.4-1982.4 \]
E. Monetary Sector

E1 \[ \ln \text{M2PLUS} = -0.1073 \ln \text{RG5} + 0.1381 \ln \text{GNP} + 0.8805 \ln \text{M2PLUS}_1 + 0.2403 \Delta \frac{\ln \text{GDEBTP}}{\ln \text{GNP}} + 0.3994 \mu_1 \]

GLS

\[ R^2 = 0.999 \quad \text{S.E.} = 0.0055 \quad \text{D.W.} = 2.08 \quad \text{F.P.} = 1959.3-1982.4 \]

E2 \[ \ln \text{RTB} = -0.7639 + 1.6857 \ln \text{RDIS} + 0.8988 \ln \text{RDIS}_1 - 1.4422 \ln \text{MBASE} + 1.0078 \ln \text{M2PLUS} + 0.5994 \Delta \ln \text{GDEBTP} + 0.3815 \ln \text{RTB}_1 \]

\[ R^2 = 0.981 \quad \text{S.E.} = 0.0676 \quad \text{D.W.} = 1.71 \quad \text{F.P.} = 1959.2-1982.4 \]
E3  \[ \Delta \text{MBASE} = .18774 + .04443 \times \text{DSEAS1} \]
\[ (.07632) \quad (.07925) \]
\[ + .11937 \times \text{DSEAS2} - .07304 \times \text{DSEAS3} \]
\[ (.07835) \quad (.07800) \]
\[ + .87418 \times \text{FDCUR} + .20111 \times \Delta (\text{RTB} - \text{RDIS}) \]
\[ (.04697) \quad (.07072) \]
\[ R^2 = .797 \quad \text{S.E.} = .4384 \quad \text{D.W.} = 2.33 \quad \text{F.P.} = 1959.2-1982.4 \]

E4  \[ \Delta \text{GDEBTP} = .45838 + 4.5526 \times \text{DUM75} - (1 + .28925 \times \text{DSEAS1} \]
\[ (.44364) \quad (.76182) \]
\[ - .29872 \times \text{DSEAS2} + .13896 \times \text{DSEAS3}) \times \frac{\text{NIASF}}{4} \]
\[ (.11064) \quad (.10318) \]
\[ - (1 - 3.2634 \times \text{DSEAS1} + 3.8545 \times \text{DSEAS2} \]
\[ (.97057) \quad (.87688) \]
\[ + 1.6882 \times \text{DSEAS3}) \times \text{FDCUR} - 2.1076 \times \text{DSEAS1} \]
\[ (1.0026) \quad (1.0452) \]
\[ - 4.2848 \times \text{DSEAS2} + 4.0353 \times \text{DSEAS3} \]
\[ (.97891) \quad (1.1781) \]
\[ + \Delta \text{GCBDD} + \Delta \text{GOLD} + \Delta \text{TCO} + \Delta \text{SDR} \]
\[ R^2 = .934 \quad \text{S.E.} = 3.463 \quad \text{D.W.} = 2.02 \quad \text{F.P.} = 1959.2-1982.4 \]
E5  \[ \Delta \text{GCBDD} = 1.4539 + 0.18129 \times \text{DSEAS1} + 0.38165 \times \text{DSEAS2} \]
\[ (0.48613) \quad (0.29235) \quad (0.28725) \]
\[ - 0.05738 \times \text{DSEAS3} - 0.19532 \times \text{GCBDD}_1 \]
\[ (0.28773) \quad (0.06522) \]
\[ R^2 = 0.136 \quad S.E. = 1.620 \quad D.W. = 2.47 \quad F.P. = 1959.2-1982.4 \]

E6  \[ \text{RG5} = 0.00924 + 0.00351 \times \text{DSEAS1} + 0.04904 \times \text{DSEAS2} \]
\[ (0.04674) \quad (0.02825) \quad (0.02836) \]
\[ + 0.06798 \times \text{DSEAS3} + 0.04736 \times \text{RTB}_1 \]
\[ (0.02813) \quad (0.03094) \]
\[ + 0.21942 \times \Delta \text{RTB} + 0.13232 \times \text{RAAA}_2 \]
\[ (0.02897) \quad (0.03234) \]
\[ - 0.00866 \times \ln \left( \frac{\text{PPNF}}{\text{PPNF}_2} \right) - \ln \left( \frac{\text{PPNF}_2}{\text{PPNF}_4} \right) \times 200 \]
\[ (0.01017) \]
\[ + 1.0398 \times \Delta \text{RAAA} + 0.81592 \times \text{RG5}_1 \]
\[ (0.07713) \quad (0.05531) \]
\[ R^2 = 0.997 \quad S.E. = 0.1704 \quad D.W. = 1.87 \quad F.P. = 1955.1-1982.4 \]
E7  RAAA =  \( 0.17011 + 0.30306 \times RTB - 0.20812 \times RTB_{-1} \) 
\( (0.05664) \quad (0.02276) \quad (0.03438) \)

\[ + 0.04025 \times RTB_{-2} + 0.00321 \times DSEAS1 + 0.03039 \times DSEAS2 \]
\( (0.02582) \quad (0.03527) \quad (0.03530) \)

\[ + 0.01092 \times DSEAS3 + 0.02488 \times \ln \left( \frac{PPNF}{PPNF_{-2}} \right) \times 200 \]
\( (0.03506) \quad (0.01055) \)

\[ + 0.86136 \times RAAA_{-1} \]
\( (0.02071) \)

\( R^2 = 0.995 \quad S.E. = 0.2148 \quad D.W. = 1.55 \quad F.P. = 1954.3-1982.4 \)

E8  RCP =  \( 0.40013 + 0.93350 \times RCD + 0.6269 \times \mu_{-1} \) 
\( (0.06469) \quad (0.00894) \)

\( GLS \)

\( R^2 = 0.994 \quad S.E. = 0.0910 \quad D.W. = 2.03 \quad F.P. = 1963.1-1979.4 \)

E8' RCP =  \( 5.7865 + 1.0301 \times RTB - 0.48010 \times RTB_{-1} \) 
\( (1.3301) \quad (0.03788) \quad (0.08607) \)

\[ - 0.06910 \times DSEAS1 + 0.07194 \times DSEAS2 + 0.04028 \times DSEAS3 \]
\( (0.03665) \quad (0.03647) \quad (0.03690) \)

\[ + 1.6878 \times DSPRD - 5.6875 \times \frac{PPNF}{PPNF_{-4}} + 0.54373 \times RCP_{-1} \]
\( (0.15855) \quad (1.3443) \quad (0.05874) \)

\( R^2 = 0.993 \quad S.E. = 0.2038 \quad D.W. = 1.53 \quad F.P. = 1955.1-1979.4 \)
E9  \[ RCD = -0.10519 + 1.1341 \times RTB - 0.41820 \times RTB_{-1} \]
\[
\text{(.07789)} \quad \text{(.03222)} \quad \text{(.10073)}
\]
\[+ 1.9078 \times \text{DSPRD} - 0.03733 \times \ln \left( \frac{\text{PPNF}}{\text{PPNF}_{-4}} \right) \] 
\[
\text{(.21919)} \quad \text{(.01802)}
\]
\[- 0.17105 \times \text{DSEAS}_1 + 0.06688 \times \text{DSEAS}_2 + 0.09783 \times \text{DSEAS}_3 \]
\[
\text{(.05549)} \quad \text{(.05790)} \quad \text{(.05459)}
\]
\[+ 0.40786 \times \text{RCD}_{-1} \]
\[
\text{(.07730)}
\]
\[ R^2 = 0.994 \quad \text{S.E.} = 0.2791 \quad \text{D.W.} = 2.20 \quad \text{F.P.} = 1963.2-1982.4 \]

E10  \[ RMTG = 0.24785 + 0.99897 \times \text{RAAA} - 0.94207 \times \text{RAAA}_{-1} \]
\[
\text{(.08404)} \quad \text{(.06586)} \quad \text{(.10932)}
\]
\[+ 0.09651 \times \text{RAAA}_{-2} - 0.10905 \times (\text{RAAA} - \text{RCPCD}) \]
\[
\text{(.07358)} \quad \text{(.02661)}
\]
\[+ 0.04376 \times (\text{RAAA} - \text{RCPCD})_{-1} + 0.84291 \times \text{RMTG}_{-1} \]
\[
\text{(.02584)} \quad \text{(.04540)}
\]
\[ R^2 = 0.996 \quad \text{S.E.} = 0.2037 \quad \text{D.W.} = 1.85 \quad \text{F.P.} = 1954.3-1982.4 \]
\[ \ln \left( \frac{M_{1PLUS}}{M_{2PLUS}} \right) = 0.00610 - 0.00410 \times RTB - 0.00215 \times \Delta RTB_{-1} \]
\[ + 0.00194 \times RTB_{-2} + 1.1658 \times \ln \left( \frac{M_{1PLUS}}{M_{2PLUS}} \right)_{-1} \]
\[ - 0.00247 \times D66 - 0.17148 \times \ln \left( \frac{M_{1PLUS}}{M_{2PLUS}} \right)_{-2} \]

\[ R^2 = 0.999 \quad S.E. = 0.0061 \quad D.W. = 1.97 \quad F.P. = 1959.3-1982.4 \]
F. Output Composition

\[ F_1 \quad \Delta \text{SERVE}72 = 1.6111 + 0.90483 \times \Delta \text{CS}72 \]
\[ (.47495) \quad (.13210) \]
\[ + 0.04112 \times \Delta (\text{GNP}72 - \text{CS}72 - \text{YGWS}72) \]
\[ (.01570) \]
\[ - 0.08909 \times \Delta \text{SERVE}72_{-1} + 0.23833 \times \Delta \text{YGWS}72 \]
\[ (.07860) \quad (.13665) \]

\[ R^2 = 0.371 \quad \text{S.E.} = 1.801 \quad \text{D.W.} = 1.96 \quad \text{F.P.} = 1954.3-1982.4 \]

\[ F_2 \quad \text{JIPM} = -11.993 + 0.12336 \times \text{FSMF}72 \]
\[ (1.3328) \quad (.01471) \]
\[ + 0.06884 \times \text{CN}72 + 0.12658 \times \text{FSNMF}72 \]
\[ (.01253) \quad (.01710) \]
\[ + (0.02999 - 0.00096 \times \sum_{i=1}^{4} \text{INV}72_{-i}) \times \Delta (\text{FS}72-\text{SERVE}72) \]
\[ (.01788) \quad (.00031) \]
\[ + 0.13103 \times \text{INV}72 + 0.38142 \times \text{JIPM}_{-1} \]
\[ (.01501) \quad (.05407) \]

\[ R^2 = 0.999 \quad \text{S.E.} = 0.8871 \quad \text{D.W.} = 1.63 \quad \text{F.P.} = 1955.1-1983.4 \]
F3 \[ \Delta \ln JCAP = 0.03376 - 0.00446 \times D5864 - 0.00222 \times D7074 \]
\[\text{(.00584)} \quad \text{(.00069)} \quad \text{(.00036)}\]
\[+ \left[ 0.01482 + 0.00146 \times \frac{\text{JCU}_1 + \text{JCU}_2}{2} \right] \]
\[\text{(.00388)} \quad \text{(.00117)} \quad \text{(.00584)} \quad \text{(.00069)} \quad \text{(.00036)}\]
* \[ \frac{1}{\sum \beta_i} \times \ln(\text{IBFNC72} + \text{IPDQ72})_{-i} \]
- \[0.01922 \times \ln \text{JCAP}_{-1} \]
\[\text{(.00212)} \quad \text{(.00212)} \quad \text{(.00212)} \]
\[\beta_i \ (.7, .3)\]

\[R^2 = .841\quad \text{S.E.} = .0013\quad \text{D.W.} = 1.35\quad \text{F.P.} = 1958.4-1983.4\]

F4 \[ \Delta GAUTO72 = -0.01557 + 1.0603 \times \Delta \text{CDAN72} \]
\[\text{(.01470)} \quad \text{(.01082)}\]
\[+ .97370 \times \Delta \text{IPDAU72} \]
\[\text{(.02845)}\]
\[+ .03274 \times \text{DASTRIKE} + 1.0162 \times \text{INVA72} \]
\[\text{(.03257)} \quad \text{(.00529)}\]
\[+ 1.0069 \times \text{NETXA72} \]
\[\text{(.03681)}\]

\[R^2 = .999\quad \text{S.E.} = .1563\quad \text{D.W.} = 2.18\quad \text{F.P.} = 1954.2-1983.4\]
G. Miscellaneous Definitions

G1  \[ \text{ULC77} = \frac{\text{JCMH}}{\text{QMH77}} \times 100 \]

G2  \[ \text{RUM} = 100 - \text{REM} \]

G3  \[ \text{GTRP} = \text{GTROF} + \text{GTRSL} + \text{YUNB} \]

G4  \[ \text{YP} = \text{YPWS} + \text{YGWS} + \text{YOL} + \text{YFP} + \text{YNFP} + \text{YPRENT} + \text{YPDIV} + \text{YPINT} \]
\[ + \text{GTRP} + \text{BTRP} - \text{TSIP} \]

G5  \[ \text{YD} = \text{YP} - \text{TP} \]

G6  \[ \text{YD72} = \frac{\text{YD}}{\text{PC}} \times 100 \]

G7  \[ \text{YPERM72} = \sum_{i=0}^{5} \beta_i \times \left[ \text{YD72}_{-i} + \left( \frac{\text{TPNS} - \text{GTRP}}{\text{PC}/100} \right)_{-i} \right] \]
\[ \beta_i (0.271, 0.217, 0.173, 0.139, 0.111, 0.089) \]

G8  \[ \text{YT72} = \text{YD72} + \left( \frac{\text{TPNS} - \text{GTRP}}{\text{PC}/100} \right) - \text{YPERM72} \]

G9  \[ \text{RHSAVE} = \frac{\left( \text{YD} - \text{C} - \text{HINT} - \text{HTRF} \right)}{\text{YD}} \times 100 \]

G10 \[ \text{YCBT} = \text{YCP} - \text{IVA} - \text{KCCA} \]

G11.A \[ \text{STAT} = \text{GNP} - \text{KCA} - \text{TIBF} - \text{TIBSL} - \text{WALD} + \text{SLCSF} + \text{SLCSSL} - \text{YCP} \]
\[ - \text{TSI} + \text{YPDIV} + \text{GTRP} - \text{NINT} + \text{YPINT} - \text{YP} \]

G11.B \[ \text{STAT} \text{ is exogenous} \]
G12  \( TIB = TIBF + TIBSL \)

G13  \( TSI = TSIF + TSISL \)

G14  \( TC = TCF + TCSL \)

G15  \( \text{NIASF} = TPF + TCF + TIBF + TSIF - (\text{GFD} + \text{GFO} + \text{GTROF} + \text{YUNB} \\
\quad + \text{GTRF} + \text{GAID} + \text{GINTF} + \text{SLCSF} - \text{GWALDF}) \)

G16  \( \text{NIASSL} = TPSL + TCSL + TIBSL + TSISL + \text{GAID} - (\text{GSL} + \text{GTRSL} + \text{GINTSL} \\
\quad + \text{SLCSSL} - \text{GWALDSL} - \text{GDIVSL}) \)

G17  \( \text{CDA72} = \text{CDAN72} + \text{CDAO72} \)

G18  \( \text{C72} = \text{CDA72} + \text{CDFE72} + \text{CDO72} + \text{CN72} + \text{CS72} \)

G19  \( C = \frac{\text{PCDA}}{100} \times \text{CDA72} + \frac{\text{PCDFE}}{100} \times \text{CDFE72} + \frac{\text{PCDO}}{100} \times \text{CDO72} \\
\quad + \frac{\text{PCN}}{100} \times \text{CN72} + \frac{\text{PCS}}{100} \times \text{CS72} \)

G20  \( \text{PC} = \frac{C}{\text{C72}} \times 100 \)

G21  \( \text{JCMHD} = \frac{\text{JCMH}}{\text{PC}} \times 100 \)

G22  \( \text{IBF72} = \text{IBFPD72} + \text{IBFNC72} \)

G23  \( \text{IBFNC} = \text{IBFNC72} \times \frac{\text{PINC}}{100} \)

G24  \( \text{IBFPD} = \text{IBFPD72} \times \frac{\text{PIPD}}{100} \)
G25  \[ \text{IBF} = \text{IBFPD} + \text{IBFNC} \]

G26  \[ \text{PIBF} = \frac{\text{IBF}}{\text{IBF72}} \times 100 \]

G27  \[ \text{UCKNC} = \text{PINC} \times \left( \frac{\text{RAAA}}{100} + .06 \right) \]

G28  \[ \text{UCKIPDAG} = \frac{\text{PIPDAG}}{\text{PFARM}} \times \left( \frac{\text{RAAA}}{100} + \frac{1}{6} \right) \]

\[
\begin{align*}
\text{G29} \quad \text{UCKPDQ} &= \text{PIPDQ} \times \\
& \quad \left[ \frac{\text{RAAA}/100 - \left( \frac{\text{PPNF}_{-1}}{\text{PPNF}_{-5}} - 1 \right) + \frac{1}{6}}{1 - \frac{1}{\text{TITCR}}} \times \left( \frac{\text{TDEPRQ} - \frac{1}{6} + \left( \frac{\text{PPNF}_{-1}}{\text{PPNF}_{-5}} - 1 \right)}{\text{TITCR}} \right) \right. \\
& \quad \left. \quad \left. + \text{TITCR} \times \frac{1}{6} \right) \\
& \quad \left. + \text{TITCR} \times \frac{5}{6} \times \left( \frac{1}{24} \sum_{i=0}^{24} \left( \frac{\text{PPNF}_{-1}}{\text{PPNF}_{-5}} \right)^i \right) \right]
\end{align*}
\]

G30  \[ \text{IRC} = \text{IRC72} \times \frac{\text{PIRC}}{100} \]

G31  \[ \text{HOUSCOMP} = \sum_{i=0}^{2} \beta_i \times \text{HOUSES}_{-i} \]

\[ \beta_i(.41, .49, .10) \]
\[
G32 \quad \text{HASEST} = .5 \times \ln \left( \frac{\text{PHOUSEX}}{\text{PHOUSEX}_{-8}} \right) - \frac{1}{8} \times \frac{8}{i=1} \frac{\text{RCPCD}_{-i}}{100}
\]

\[
G33 \quad \text{IINV} = \text{IINV72} \times \frac{\text{PIINV}}{100}
\]

\[
G34 \quad \text{SINV72} = \text{SINV72}_{-1} + \text{IINV72}
\]

\[
G35 \quad \text{M72} = \text{MOIL72} + \text{MNOIL72}
\]

\[
G36 \quad \text{PMNOIL} = \frac{\text{PFOREIGN}}{\text{JEXR}} \times 100
\]

\[
G37 \quad \text{PM} = \text{PMOIL} \times \frac{\text{MOIL72}}{\text{M72}} + \text{PMNOIL} \times \frac{\text{MNOIL72}}{\text{M72}}
\]

\[
G38 \quad \text{M} = \text{M72} \times \frac{\text{PM}}{100}
\]

\[
G39 \quad \text{X} = \text{X72} \times \frac{\text{PX}}{100}
\]

\[
G40 \quad \text{GNP72} = \text{C72} + \text{IBF72} + \text{IRC72} + \text{IINV72} + \frac{\text{GFD} + \text{GFO} + \text{GSL}}{\text{PG/100}}
\]

\[
\quad + \text{X72} - \text{M72}
\]

\[
G41 \quad \text{GNP} = \text{C} + \text{IBF} + \text{IRC} + \text{IINV} + \text{GFD} + \text{GFO} + \text{GSL} + \text{X} - \text{M}
\]

\[
G42 \quad \text{PGNP} = \frac{\text{GNP}}{\text{GNP72}} \times 100
\]

\[
G43 \quad \text{FS72} = \text{GNP72} - \text{IINV72}
\]

\[
G44 \quad \text{FS} = \text{GNP} - \text{IINV}
\]
G45 \[ \text{FSMF72} = \text{CDA72} + \text{CDFE72} + \text{CDO72} + \text{IBFPD72} \]
\[ + \text{X72} - \text{M72} + \left( \frac{\text{GFO} + \text{GFD} + \text{GSL}}{\text{PG/100}} \right) \]
\[ - \text{EGOV} \times 8.709 \]

G46 \[ \text{FSNMF72} = \text{FS72} - \text{SERVE72} - \text{CN72} - \text{FSMF72} \]

G47 \[ \text{GNPERM72} = \sum_{i=0}^{4} \beta_i \times \text{GNP72}_{-i} \]
\[ \beta_i = (.297, .238, .190, .153, .122) \]

G48 \[ \text{GDEBTM} = \frac{\text{GINTF}}{4} \times \left[ \frac{1}{15} \sum_{i=0}^{15} \frac{1}{(1 + \frac{\text{RG5}}{400})^i} \right] + \frac{\text{GDEBTP}}{(1 + \frac{\text{RG5}}{400})^{15}} \]

G49 \[ \text{MBASE} = (1 + \frac{\text{RBASE}}{100})^{.25} \times \text{MBASE}_{-1} \]

G50 \[ \text{RM2PLUS} = \left[ \left( \frac{\text{M2PLUS}}{\text{M2PLUS}_{-1}} \right)^4 - 1 \right] \times 100 \]

G51 \[ \text{RCPCD} = \text{RCP from 1954.1-1962.4} \]
\[ \text{RCD from 1963.1-present} \]

G52 \[ \text{RPPERM} = \sum_{i=1}^{8} \beta_i \times 100 \times \Delta \ln \text{PC}_{-i} \]
\[ \beta_i = (.241, .192, .154, .123, .098, .079, .063, .05) \]

G53 \[ \text{JCU} = \frac{\text{JIPM}}{\text{JCAP}} \]
G54  $Q_{MHT} = 0.5 \times \sum_{i=1}^{8} \left[ -0.04953 + 0.00987 \times D_{5467} + 0.0053 \times D_{6873} \
- 0.05691 \times \ln \left( \frac{J_{IPM}}{J_{CAP}} \right) \
+ 0.59467 \times (\Delta \ln \text{GNP}_{72}) \
+ 0.00700 \times \sum_{j=1}^{6} \beta_j \times \ln(\text{IBF}_{72} - \text{IPDAG}_{72})_{-j} \right]_i$

$\beta_j = (0.1, 0.15, 0.25, 0.25, 0.15, 0.1)$

$\frac{J_{IPM}}{J_{CAP}} = \frac{1983.4}{\sum_{i=1955.3}^{114} J_{IPM}_{i}}$

$(\Delta \ln \text{GNP}_{72}) = \frac{1983.4}{\sum_{i=1955.3}^{114} (\Delta \ln \text{GNP}_{72})_i}$

G55  $N_{INT} = Y_{PINT} - (G_{INTF} - G_{INTFF}) - G_{INTSL} - H_{INT}$

G56  $T_P = T_{PF} + T_{PSL}$

G57  $Y_{PADJ} = Y_P - G_{TROF} - G_{TRSL} - Y_{UNB} + T_{SIP}$

G58  $Y_{PADJ72} = Y_{PADJ}/P_{C} \times 100$

G59  $Y_{GWS72} = \frac{Y_{GWS}}{P_{G}} \times 100$

G60  $I_{PDO72} = I_{PDONA72} + I_{PDAU72}$

G61  $S_{INVNA72} = S_{INVNA72-1} + I_{INVNA72}$

G62  $S_{INVA72} = S_{INVA72-1} + I_{INVA72}$

G63  $I_{INVA72} = I_{INVNA72} + I_{INVA72}$
G64 \[ \text{REURDR3} = \frac{\text{RTB}}{\text{JUS.EUR}} \]
NOTATION

Most variables are denoted by a suggestive mnemonic. The following rules are followed throughout: i) the same mnemonic is used to represent current and constant dollar expenditure variables, except that the constant dollar version ends with "72", ii) price deflators are represented by a leading "P" followed by the category mnemonic, iii) all mnemonics for consumption expenditure variables begin with a "C", iv) all mnemonics for investment expenditure variables begin with an "I", v) all mnemonics for a dummy variable begin with a "D", vi) all mnemonics for tax variables or tax rates begin with "T", vii) all mnemonics beginning with "R" represent variables scaled in percentage point units.

In the following list, a variable preceded by * is endogenous to the Michigan Model.

*AUTOS Units of retail new car sales; millions of units, SAAR.
AUTOSIZE Ratio of the number of small car sales (domestic and foreign) to total new car sales.
BTRP Business transfer payments, billions of current dollars.
*C Personal consumption expenditures, total; billions of current dollars.
*CDAN72 Personal consumption expenditures, new automobiles; billions of 1972 dollars.
*CDAO72 CDA72 minus CDAN72, billions of 1972 dollars.
*CDA72 Personal consumption expenditures, motor vehicles and parts; billions of 1972 dollars.
*CDFE72 Personal consumption expenditures, furniture and household equipment; billions of 1972 dollars.
*CDO72 Personal consumption expenditures, durable goods except motor vehicles and parts, and furniture and household equipment; billions of 1972 dollars.
*CN72 Personal consumption expenditures, nondurable goods; billions of 1972 dollars.
*CS72 Personal consumption expenditures, services; billions of 1972 dollars.
*C72 Personal consumption expenditures, total; billions of 1972 dollars.
DASTRIKE Dummy variable for auto strikes, values defined in the Appendix.
DATE Quarterly calendar date.
DAUTO: Dummy variable to reflect 1975 auto rebates and reaction to higher auto prices in 1974; equals .90 in 1974.2 and 1974.3, .95 in 1975.1 and 1975.2, equals 1.0 otherwise.

DEMB1: Dummy variable for oil embargo; equals 1.0 in 1974.1, zero otherwise.

DEX65: Dummy variable for the change in federal excise tax law, equals 1 from 1954.1-1964.1, 0 otherwise.

DPROFF: Dummy variable for removal of price controls; equals .25 in 1974.2-1975.1, 0 otherwise.

DFRZ1: Dummy variable to reflect price freeze and Phase II effects on prices and compensation.

DFRZ2: DFRZ1 equals -1.0 in 1971.4

DFRZ3: DFRZ2 equals .5 in 1971.3, 1.0 in 1971.4 equals zero otherwise

DFRZ3: DFRZ3 equals 1.0 in 1972.2-1972.4

DGPAY: Dummy variable to reflect government pay increases, values defined in the Appendix.

DIMP: Dummy variable in the NETXA72 equation; equals 0 1954.1-1977.4, 1 otherwise.

DINDEX: Dummy variable for the indexation of the federal personal income tax; equals 0 1954.1 - 1984.4, 1 otherwise.

DJGPM: Dummy variable to reflect increased consumer awareness of gas mileage in the cost of running a new car, equals zero from 1954.1 to 1974.4, 1 otherwise.

DM72DOCK: Dummy variable for dock strikes, values defined in the Appendix.

DOILCON: Dummy variable to reflect the period of controlled domestic oil prices before the oil embargo; equals 1.0 1967.1-1973.4, zero otherwise.

DOILDCON: Dummy variable to reflect the period since the decontrol of domestic oil prices; equal 0 1967.1-1980.4, 1.0 otherwise.

DPGAS: Dummy variable for availability of PGAS series, equals 1 from 1954.1 to 1957.1, zero otherwise.

DPROP13: Dummy variable for the effect of Proposition 13 on state and local indirect business taxes; equals 1 in 1978.3, 0 otherwise.

DSEAS1: Dummy variable equal to 1 in the first quarter, -1 in the fourth quarter, zero otherwise.
DSEAS2 Dummy variable equal to 1 in the second quarter, -1 in the fourth quarter, zero otherwise.

DSEAS Dummy variable equal to 1 in the third quarter, -1 in the fourth quarter, zero otherwise.

DSPRD Dummy variable for anomaly in spread between RCP and RTB; equals 1.0 in 1974.2 and 1974.3, zero otherwise.

DSW.TPF Dummy variable to switch value of a coefficient in the TPF equation.

DTCF Revenue effect of federal tax law changes on federal corporate taxes, billions of current dollars.

DTEX Dummy variable to reflect direct price effects of changes in excise tax laws in 1965, values defined in the Appendix.

DTIB Dummy variable to reflect changes in indirect business taxes, values defined in the Appendix.

DTP Dummy variable to reflect changes in personal taxes, values defined in the Appendix.

DTSI Dummy variable which assumes values equal to the revenue effect of changes in social insurance tax law, values defined in the Appendix.

DUBEXT Dummy variable for the extension of unemployment benefits beyond 20 weeks, values defined in the Appendix.

DUM75 Dummy variable in GDEBTP equation; equals 0 in 1954.1-1974.4, 1 otherwise.

DVNDOWN Dummy variable to reflect effects of wind-down of Vietnam War on employment; equals 1.0 in 1970.1-1972.2, zero otherwise.

DVNUP Dummy variable to reflect effects of Vietnam War build-up on employment; equals 1.0 in 1965.3-1966.4, zero otherwise.

D5467 Dummy variable for change in trend growth of productivity; equals 1 in 1954.1-1967.4, 0 otherwise.

D5864 Dummy variable in JCAP equation; equals 1 in 1958.1-1964.4, 0 otherwise.

D66 Dummy variable in M1PLUS equation; equals 0 in 1954.1-1965.4, 1 otherwise.

D674 Dummy variable for state income tax law changes; equals 0 in 1954.1-1967.3, 1 otherwise.

D6873 Dummy variable for change in trend growth of productivity; equals 1 in 1968.1-1973.4, 0 otherwise.
D7074 Dummy variable in JCAP equation; equals 1 in 1970.1-1974.2, 0 otherwise.

D711 Dummy variable for state personal income tax law changes; equals 0 in 1954.1-1970.4, 1 otherwise.

D763 Dummy variable for IRC72 equation; equals 1 in 1976.3, 0 otherwise.

D81.2 Dummy variable in JEXR equation; equals 0 1954.1-1981.1, 1.0 thereafter.

D82 Dummy variable in the YFP equation; equals -1.0 in 1982.2, 1.0 in 1982.4 and zero otherwise.

EGOV Government employment, including armed forces; millions of persons.

*FDCUR Change from previous quarter in currency held by the public plus unborrowed reserves plus extended credit, billions of current dollars, SA.

*FS Final sales, billions of current dollars.

*FSMF72 Final sales of manufactured goods, billions of 1972 dollars.

*FSNMF72 Final sales of non-manufactured goods, billions of 1972 dollars.

*FS72 Final sales; billions of 1972 dollars.

GAID Grants-in-aid to state and local governments, billions of dollars.

*GAUTO72 Gross auto product, billions of 1972 dollars.

*GCBDD U.S. government deposits except demand deposits at Federal Reserve Banks, N.S.A., average for last month of the quarter.

*GDEBTM Market value of federal debt held by private investors, billions of current dollars, N.S.A.

*GDEBTP Gross public debt of the U.S. Treasury held by private investors, billions of current dollars N.S.A., last day of quarter.

GDIVSL Dividends received by government, billions of current dollars.

GFD Federal defense purchases of goods and services, billions of current dollars.

GFO Federal nondefense purchases of goods and services, billions of current dollars.
**GINTF** Net interest paid by federal government, billions of current dollars.

**GINTFF** Interest paid by government to foreigners, billions of current dollars.

**GINSL** Net interest paid by state and local government, billions of current dollars.

**GNP** Gross national product, billions of current dollars.

**GNPERM72** "Permanent" GNP, billions of 1972 dollars.

**GNP72** Gross national product, billions of 1972 dollars.

**GOLD** Gold stock, billions of current dollars N.S.A., last day of quarter.

**GSL** State and local government purchases of goods and services, billions of current dollars.

**GTRF** Federal government transfer payments to foreigners, billions of current dollars.

**GTROF** GTRP minus YUNB minus GTRSL, billions of current dollars.

**GTRP** Government transfer payments to persons, total; billions of current dollars.

**GTRSL** State and local government transfer payments to persons, billions of current dollars.

**GWALDF** Government wage accruals less disbursements, federal; billions of current dollars.

**GWALDSL** Government wage accruals less disbursements, state and local; billions of current dollars.

**HASSET** The value of housing units as an asset measured by the inflation rate for existing housing prices less the interest rate.

**HINT** Interest paid by consumers to business, billions of current dollars.

**HOUSCOMP** Housing completions, thousands of units, SAAR.

**HOUSES** Private housing starts, thousands of units, SAAR.

**HOUSEX** Sales of existing single family homes, thousands of units, SAAR.

**HTRF** Personal transfers to foreigners, billions of current dollars.

**IBF** Business fixed investment, billions of current dollars.
Nonresidential fixed investment, structures; billions of current dollars.

Nonresidential fixed investment, structures; billions of 1972 dollars.

Nonresidential fixed investment, producers' durable equipment; billions of current dollars.

Nonresidential fixed investment, producers' durable equipment; billions of 1972 dollars.

Business fixed investment, billions of 1972 dollars.

Change in business inventories, billions of current dollars.

Change in business inventories, new autos; billions of 1972 dollars.

Change in business inventories, except new autos; billions of 1972 dollars.

Change in business inventories, billions of 1972 dollars.

Nonresidential fixed investment, producers' durable equipment in agriculture; billions of 1972 dollars.

Nonresidential fixed investment, producers' durable equipment in new autos; billions of 1972 dollars.

Nonresidential fixed investment, producers' durable equipment except in agriculture, production and new autos; billions of 1972 dollars.

Nonresidential fixed investment, producers' durable equipment except in agriculture and production; billions of 1972 dollars.

Nonresidential fixed investment, producers' durable equipment in production; billions of 1972 dollars.

Residential construction expenditures, billions of current dollars.

Residential construction expenditures, billions of 1972 dollars.

Inventory valuation adjustment for corporate profits, billions of current dollars.

Index of available capacity in manufacturing, 1977=100.

Compensation per manhour, private nonfarm sector; index, 1977 = 100.
Real compensation per manhour; JCMH deflated by personal consumption expenditures implicit deflator.

Federal Reserve Board index of capacity utilization in Manufacturing, expressed as index between zero and unity (based on 1967 output = 1.0).

Index of trade-weighted exchange value of the dollar against currencies of other G-10 countries plus Switzerland, March 1973=100.

Index of gallons per mile for new cars, 1967 = 1.0.

Index of consumer sentiment, February 1960 = 100.

Manufacturing index of industrial production, 1977 = 100.

Ratio of the 3 month treasury bill rate to the 3 month eurodollar rate.

Total capital consumption allowances with capital consumption adjustments, billions of current dollars.

Corporate capital consumption allowances with capital consumption adjustments, billions of current dollars.

Corporate capital consumption adjustment, billions of current dollars.

Imports of goods and services, billions of current dollars.

Monetary base, adjusted by the Federal Reserve for changes in reserve requirements; billions of current dollars, S.A., average for last month of quarter.

Non-petroleum imports of goods and services, billions of 1972 dollars.

Petroleum and products imports, billions of 1972 dollars.

M1 plus total savings at all depository institutions (billions of $'s; S.A. average for last month of quarter), where M1 equals currency plus demand deposits at commercial banks plus other checkable deposits at all depository institutions including Now accounts, ATS, credit union share drafts and demand deposits at mutual savings banks.

M2 plus short term treasury securities (billions of $'s; S.A. average for last month of quarter), where M2 equals M1 plus savings and small denomination time deposits at all depository institutions, overnight RP's at commercial banks, overnight Eurodollars held by U.S. residents, and money market mutual fund shares. Short term treasury securities are defined as
U.S. Treasury Bills and coupons with remaining maturity of less than 18 months held by the nonbank public less such securities held by money market mutual funds.

*M72 Imports of goods and services, billions of 1972 dollars.

*NETXA72 Net exports of auto product, billions of 1972 dollars.

*NIASF Federal government budget surplus (National Income and Product Accounts Basis), billions of current dollars.

*NIASSL State and local government budget surplus (National Income and Product Accounts Basis), billions of current dollars.

*NINT Net interest, billions of current dollars.

PAUTO CPI-W: new cars, 1967 = 100, S.A.

*PC Personal consumption expenditures implicit deflator, 1972 = 100.

*PCDA Personal consumption expenditures implicit deflator, motor vehicles and parts; 1972 = 100.

*PCDFE Personal consumption expenditures implicit deflator, furniture and household equipment; 1972 = 100.

*PCDO Personal consumption expenditures implicit deflator, durables excluding motor vehicles and parts and furniture and household equipment; 1972 = 100.

*PCN Personal consumption expenditures implicit deflator, non-durable goods; 1972 = 100.

*PCPI CPI-U: all items, 1967 = 100, N.S.A.

PCRUDE Producer price index for crude materials less agricultural products; 1967 = 100, S.A.

*PCS Personal consumption expenditures implicit deflator, services; 1972 = 100.

PFARM Gross farm product implicit deflator, 1972 = 100.

PFOREIGN Implicit deflator for goods and services imported by the U.S. and denominated in foreign currencies; equals PMNOIL * JEXR/100.

*PG Government purchases of goods and services implicit deflator, 1972 = 100.

PGAS CPI-W: Motor fuel, motor oil, coolant, and other products; 1967 = 100.
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>PGNP</td>
<td>Gross national product implicit deflator, 1972 = 100.</td>
</tr>
<tr>
<td>PHOUSEX</td>
<td>Median price for existing single family home sales, thousands of dollars.</td>
</tr>
<tr>
<td>PHOUSN.E</td>
<td>Ratio of the median price of a new home to the median price of an existing home.</td>
</tr>
<tr>
<td>*PIBF</td>
<td>Business fixed investment implicit deflator, 1972 = 100.</td>
</tr>
<tr>
<td>PIINV</td>
<td>Inventory investment implicit deflator, calculated as 100 times the ratio of current dollar to constant dollar inventory investment; 1972 = 100.</td>
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<td>*PINC</td>
<td>Implicit price deflator business fixed, investment nonresidential structures; 1972 = 100.</td>
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<td>Price level used to &quot;price-up&quot; real adjusted gross income for income tax purposes under indexing, 1972=100.</td>
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<td>Implicit price deflator, nonresidential fixed investment, producers' durable equipment in agriculture; 1972 = 100.</td>
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<td>Implicit price deflator, nonresidential fixed investment, producers' durable equipment except in agriculture and production; 1972 = 100.</td>
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<td>*PIPDQ</td>
<td>Implicit price deflator, nonresidential fixed investment, producers' durable equipment in production; 1972 = 100.</td>
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<td>*PIRC</td>
<td>Residential construction expenditures implicit deflator, 1972 = 100.</td>
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<td>*PM</td>
<td>Import implicit deflator, 1972 = 100.</td>
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<td>*PMNOIL</td>
<td>Non-petroleum imports of goods and services implicit deflator, 1972=100.</td>
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<td>Imports of petroleum and products implicit deflator, 1972=100.</td>
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<td>Producer price index for gas fuels; 1967=100 N.S.A.</td>
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<td>Private nonfarm GNP implicit deflator, 1972 = 100.</td>
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<td>*PX</td>
<td>Export implicit deflator, 1972 = 100.</td>
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<td>*QMHT</td>
<td>Trend growth rate of productivity.</td>
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<td>*QMH77</td>
<td>Output per hour, private nonfarm sector; index 1977 = 100.</td>
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<td>Corporate Aaa bond interest rate, percent.</td>
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<td>RBASE</td>
<td>Growth rate of the monetary base, percent annual rate.</td>
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<td>*RCD</td>
<td>90 day certificate of deposit rate, percent.</td>
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<td>*RCP</td>
<td>Interest rate on 4-0 month prime commercial paper, percent.</td>
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<td>*RCPCD</td>
<td>RCP from 1954.1 to 1962.4 and RCD from 1963.1 to present, percent.</td>
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<td>RDIS</td>
<td>Discount rate, Federal Reserve Bank of New York; percent.</td>
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<td>*REM</td>
<td>Percentage employment rate, males 20 years and over.</td>
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<td>*REURDR3</td>
<td>Three month Eurodollar rate, percent.</td>
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<td>*RG5</td>
<td>Yield on U.S. government taxable securities, 5 year issues, percent.</td>
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<td>*RHSAVE</td>
<td>Personal savings rate, percent.</td>
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<td>RLFSEC</td>
<td>Share of the labor force which is not males twenty and over.</td>
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<td>*RMTG</td>
<td>Secondary market yield on FHA mortgages, percent.</td>
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<td>*RM2PLUS</td>
<td>Growth rate of M2PLUS, percent annual rate.</td>
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<td>*RPPERM</td>
<td>&quot;Permanent&quot; rate of inflation, quarterly rate percent.</td>
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<td>Reserve requirement on demand deposits, percent.</td>
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<td>*RTB</td>
<td>90 Day Treasure bill rate, daily average of market yield; percent.</td>
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<td>*RUG</td>
<td>Global unemployment rate, percent.</td>
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<td>*RUM</td>
<td>Unemployment rate, males 20 years and over; percent.</td>
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<td>Allowance for Special Drawing Rights, billions of current dollars, N.S.A., last day of quarter.</td>
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<td>Services component of real GNP, billions of 1972 dollars.</td>
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<td>Four times the stock of business inventories, new autos; billions of 1972 dollars, end of quarter.</td>
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<td>Tax depreciation rate for agricultural equipment.</td>
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<td>Tax depreciation rate for non-residential structures.</td>
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<td>TITCR</td>
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<td>*YCBT</td>
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<td>Corporate profits with inventory valuation adjustment and capital consumption adjustment; billions of current dollars.</td>
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<td>Disposable personal income, billions of current dollars.</td>
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<td>*YFP</td>
<td>Farm proprietors' income with inventory valuation and capital consumption adjustments, billions of current dollars.</td>
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<td>YGWS</td>
<td>Government wage and salary disbursements, including military; billions of current dollars.</td>
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*YGWS72  Government wage and salary disbursements, including military; billions of 1972 dollars.

*YNFP  Nonfarm proprietors' income with inventory valuation and capital consumption adjustments, billions of current dollars.

*YOL  Other labor income, billions of current dollars.

*YP  Personal income, billions of current dollars.

*YPADJ  Adjusted gross income, billions of current dollars.

*YPADJ72  Adjusted gross income, billions of 1972 dollars.

*YPDIV  Corporate dividend payments to persons, billions of current dollars.

*YPERM72  Permanent disposable income, billions of 1972 dollars.

*YPINT  Personal interest income, billions of current dollars.

YPRENT  Rental income of persons with capital consumption adjustment, billions of current dollars.

*YPWS  Private wages and salaries, billions of current dollars.

*YT72  Transitory income, billions of 1972 dollars.

*YUNB  Total unemployment benefits paid, billions of current dollars.
This appendix notes only non-zero values of dummy variables. All unspecified values may be assumed to be zero.

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