THE NBER INTERNATIONAL TRANSMISSION MODEL: ESTIMATES AND LESSONS FROM MARK II

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This paper reports results on the current version of the NBER international transmission model. The testing and development of this model is still underway and substantial changes are anticipated. Complete derivations and references for the individual equations will be contained in the planned volume reporting results of the project on "The International Transmission of Inflation through the World Monetary System." This project is a cooperative effort of Arthur E. Gandolfi, James R. Lothian, Anna J. Schwartz, Alan C. Stockman, and the author. It is funded by grants from the National Science Foundation, Scaife Family Trusts, Alex C. Walker Educational and Charitable Foundation, and Relm Foundation. The author acknowledges numerous helpful conversations with his colleagues and assistants on the project and with members of the project Advisory Board and the UCLA Monetary Economics Workshop.

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This paper is the third interim report on work in progress at the NBER aimed at modeling the international transmission of inflation through the world monetary system. It reports on the estimation of the Mark II version of the model described in the second report (Darby, 1978). That description is included here by reference and will not be repeated here.

The Mark II model was proposed for the initial confrontation of the theoretical conceptions with the data set. We had no illusions that no major changes would result from this confrontation. As a result our work has been aimed at maximizing the information obtained as to what an acceptable model would look like. For this reason, relatively simple, on-line, and inexpensive estimation techniques have been used. When we are satisfied with the specification of the model, it will be appropriate to utilize more sophisticated econometric techniques. The Mark II model has proved a very successful learning tool for those who have worked on it and we report those lessons here.

This paper first examines the primarily econometric issues involved in the estimation of the model. Next the estimated equations and alternative forms are discussed. Finally plans for formulation of a Mark III version are presented. It will soon be obvious that this neat separation of issues is more guileful than real.

I. Estimation Methods

The standard two-stage least squares estimator does not exist for the Mark II model because the number of predetermined variables (instruments) exceeds the number of observations. It will be recalled that the first stage consists of obtaining fitted values of the endogenous variables from their reduced-form regression on all the instruments. The second stage is an equation-by-equation OLS estimation of each structural equation with the actual values of the endogenous variables replaced by their fitted values. If the instruments are truly exogenous, they will be independent of the disturbances in the structural equations and so too, the argument goes, will be the fitted values of the endogenous variables. It is this independence of the fitted values from the disturbances which removes the problem of simultaneous equation bias.

Unfortunately the consistency of the 2SLS estimator depends crucially on the number of observations going to infinity while the number of instruments is fixed. Each instrument can be thought of as explaining the structural disturbances for one observation. In the extreme where the number of instruments equals (or exceeds) the number of observations, the fitted values will exactly equal the actual values for the endogenous variables so that 2SLS and OLS are identical and no simultaneous equation bias is removed.

If we wish to reduce simultaneous equation bias, we must restrict our list of instruments to a number less than the number of observations. This involves a tradeoff of less efficiency for less bias which has not been analyzed in the literature. To the extent that the question has been considered at all; judgment appears to be the only guide as to how many and which instruments to use. We plan to examine this issue rigorously in the future and to perform a sensitivity analysis with the final form of the model to determine how our 2SLS estimates converge to OLS estimates as we lengthen our list of instruments.

We have chosen to follow a country-by-country procedure for selecting instrument lists. The first step is to form a basic instrument list for each country consisting of the domestic exogenous and other predetermined variables appearing in the submodel for that country. This basic list is used to obtain fitted values for real income, the price level, and (for the U.S. only) the nominal interest rate.[1] These fitted values are then used as if exogenous wherever they appear as foreign variables in the submodels for other countries. Then each submodel was estimated separately based on an instrument list consisting of the domestic instruments and the fitted rest-of-world variables. Thus each submodel is estimated with an instrument list which has a number of variables less than half the number of observations.

For each country this augmented instrument list resulted in a non-invertible cross-products matrix. We have used the principal components option in the TROLL system to obtain the approximately 20 principal components which explain 100.0 percent of the generalized variance in the instrument list. Having thus extracted virtually all the information in the instrument list, we then carry out 2SLS using these principle components as the right-hand variables (instruments) in estimating the fitted values of the country's endogenous variables in the first stage.

It may be noted that in obtaining the fitted rest-of-world variables

[1] Because of lagged values and identities, certain of the basic instruments had to be deleted in order to obtain a list with a cross-product matrix which the computer could invert. Table 1 divides the basic instrument list for each country into those which were used to estimate these fitted values and those which were excluded. Some other variables were not even included in the basic instrument list because they were by definition linear combinations of included variables.

(instead of using principal components) we judgmentally deleted variables showing high multicollinearity with included variables to obtain an invertible cross-products matrix. This was done because the TROLL package does not permit recovery of first-stage fitted values based on the principal components option. In the current case where both methods essentially span the instrument list, it probably makes no difference which procedure is used. When we reduce the number of instruments to conduct the sensitivity analysis discussed previously, the results will be different in view of the noninvariance of principal components to linear transformations. This is another interesting econometric issue to be explored further.

II. Estimation Results

First-pass estimates of the fixed-exchange-rate Mark II model were made for the entire period 1957-I to 1976-IV. This was the longest available taking account of the required lagged values of some variables. We do not believe that all of the equations were invariant with respect to introduction of free convertibility (generally in 1958) and floating exchange rates (generally during 1971-1973). Nevertheless, we thought it useful to have a set of estimates for the entire period with which alternative subperiod could be compared.

Our results are presented here on an equation-by-equation basis. Money stock definitions depend on which concept appears most consistent with the country's economic institutions as judged by the real income, price level, and reaction function equations (see Table 2).

Price Level Equations

The price level equations[2] are generally very good in terms of standard errors, $\bar{R}^2$'s, and Durbin-Watson statistics as seen in Table 3. The coefficients are generally as predicted by theory, except that the estimated coefficients of price linkedness are all near zero. In response to insightful comments from Guy Stevens, we plan to remove the foreign price level variable from the price level equations and move it to the balance of payments sector as discussed below. This makes the price level equation simply the equality of (short-run) demand for and supply of money. The revised equations are presented in Table 3A.

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[2] Equations (2) and (16) in Darby (1978).

Real Income Equations

The estimated real income equations[3] reported in Table 4 presented some surprises. Basically, these were (1) the relatively small t-statistics on money innovations for most countries other than the United States and (2) the extremely large estimated coefficients of foreign-real-income innovations.

The small money-innovation t-statistics might be due to: (1) the impotence of monetary shocks, (2) the passivity of monetary policy, particularly under fixed exchange rates, (3) errors-in-the-variables due to our construction of the expected log M series, and (4) measurement errors generally. We tested for the third possibility by adding anticipated money to the equation, and concluded that there is some problem with our estimated log M* series for Canada and Japan, but not elsewhere. We will work further on this once the reaction functions are settled. We hope to differentiate between impotence and passivity of monetary policy by contrasting the fixed and floating rate periods as to estimated coefficients and size of innovations, but that work is still in its early stages. Measurement errors are a generally confounding problem for a considerable portion of our countries.

The more serious surprise was the very high foreign-real-income-innovation coefficients. If they were true, this would indicate some channel of influence other than the traditional export demand must be operative. However, we believe that the coefficients reflect correlation among real-income residuals across countries which was not removed by our estimation method. First, Table 4A shows that using real export innovations $\hat{x}$ instead of their proxies $\hat{y}^R$ results in reasonable coefficients. Secondly, Table 4B shows that ending the period at 1971 II eliminates substantial summed $\hat{y}^R$ coefficients for all

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[3] Equations (5) and (17) in Darby (1978).

countries except the United States, Canada, and Netherlands. The period after 1971 II was characterized by widespread price controls which would introduce correlated measurement errors in the deflated instruments and real income. Therefore using fitted real income will not eliminate simultaneous equation bias of this sort. Further, the creation of OPEC may introduce further correlation in the residuals not eliminated by the instruments. Since the problem does appear to be simultaneity bias, we plan to switch to an exports innovation term in the Mark III model with exports explained in the revised balance of payments sector.

We have not yet been able to obtain data on the strike variable for most of our countries. We have therefore excluded it from estimations of the real income equation to date. We currently plan to include it in the Mark III on a where-available basis.

Unemployment Equations

The estimated unemployment equations[4] are presented in Table 5. The Durbin-Watson statistics were unacceptably low. The autocorrelated residuals reflected rather gradual movements in the apparent natural rate of unemployment. Besides demographic factors, these may well reflect unreported changes in the effective definition of unemployment reflected in these data. A revised unemployment rate equation relating the change in the unemployment rate to current and lagged logarithmic changes in real income is presented in Table 5A. This performs well for the United States and passably for the United Kingdom, Canada, and France. For the rest, changes in the unemployment rate appear uncorrelated with past and present changes in real output. This will be explored further, but it may well reflect the tenuousness of the defined unemployment data.

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[4] Equations (5) and (19) in Darby (1978).

Money Supply Reaction Functions

The money supply reaction functions[5] reported in Table 6 display a spurious accuracy. The standard errors do not always compare well to the standard deviation of the change in the growth rate.

Considerable work has been done here which indicates that the reaction functions must be tailored to the individual country's institutions. For example, Germany and Japan show much more substantial and immediate money supply responses to balance of payments surpluses than is the norm. We have found that the current change in the scaled balance of payments enters the reaction function for many nonreserve-currency countries and we are planning to include it as well as lagged changes.[6] Also the moving average error process derived in Darby (1977) and elaborated in John Price's thesis is found to be important for most of the countries. For some countries where the unemployment data is suspect, we are experimenting with the growth rate of real income in lieu of the change in the unemployment rate. We also plan to try U.S. monetary accelerations for the nonreserve countries. The interest rate coefficient apparently reflected the liquidity effect; so following Barro (1977) we have substituted innovations in real government spending as an alternative measure of fiscal pressure. It appears that these changes will provide acceptable reaction functions for our countries, although the United Kingdom may be little improved relative to a random walk in the money supply growth rate.

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[5] Equations (12) and (24) in Darby (1978).

[6] Note however that the current effect is always in the range of 0.2 or less indicating nearly complete initial sterilization.

Interest Rate and Balance of Payments Equations

The interest rate equations[7] and the balance of payments equations[8] are reported in Tables 7 and 8 respectively. We are dissatisfied with them and have adopted a new approach for the Mark III. This new approach is the subject of the next section.

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[7] Equations (11) and (25) in Darby (1978).

[8] Equation (21) in Darby (1978).

III. Moving to the Mark III Model

The specification of price-level, balance-of-payments, and interest-rate equations in the Mark II model has proved to be inadequate. Primarily, this is due to the empirical weakness of the monetary approach to the balance of payments (MABP). The nearly complete current quarter sterilization and barely detectible direct influence of foreign prices on domestic prices means that the price equation de facto sets money supply and money demand equal and that there is no excess money demand to be reflected in balance-of-payments surpluses.

The apparent strength of MABP in previous empirical work seems to this author to reflect nothing more than a spurious explanatory power due to the fallacious assumption that "domestic credit" is exogenous. If total money is what the central bank determines (either directly or via pegged interest rates) with domestic credit variations reflecting sterilization of the balance of pyaments, treating domestic credit as exogenous will give a very good explanation of the balance of payments when combined with the demand for money.

We propose to reformulate these equations in the Mark III so as to be less sensitive to near zero values of the MABP parameters. As already noted, the "price equation" will now simply require equality of money demand and supply. The interest rate equation will be based on aggregate demand equilibrium. The balance of payments will be broken into separate import, export, and capital flow equations with the balance of payments identity requiring asset market equilibrium. The strict MABP results would still be possible if capital and trade flows proved sufficiently responsive to deviations from covered-interest and purchasing power parities. In that case the money supply would adjust via the effect of the current balance of payments in the reaction function. But a lagged specie-flow type adjustment would also be possible. Preliminary work along these lines is encouraging.

It is appropriate to conclude with a word of caution that the encouraging results to date do not necessarily portend future success. Since we find it very hard to conceal our undue optimism and enthusiasm, it is hoped that a sincere request for suggestions for further improvements and tests will suffice.

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TABLE 1

Basic Domestic Instruments List

Country (List name)	Instruments Included in List	Instruments Excluded Due to Multicollinearity
U.S. (idomus)	log M(-1), log P(-1), log y(-1), log y^P(-1), u(-2), u(-3), u(-4), R(-1), R(-2), $\hat{M}$(-1), $\hat{M}$(-2), $\hat{M}$(-3), $\hat{g}$, $\hat{g}$(-1), $\hat{g}$(-2), $\hat{g}$(-3)	log M*, log M(-2), log P*, log P(-2), log P(-3), log P(-4), t
U.K. (idomuk)	log M(-1), log P(-1), log μ, log H(-1), log y(-1), log y^P(1-), u(-2), u(-3), u(-4), R(-1), R(-2), $\hat{M}$(-1), $\hat{M}$(-2), $\hat{M}$(-3), $\hat{g}$, $\hat{g}$(-1), $\hat{g}$(-2), $\hat{g}$(-3), B/H(-2), B/H(-3), log E(-1)	log M*, log M(-2), log P(-2), log P*(-2), log P(-3), log P(-4) log E*, t
Canada (idomca)	log M(-1), log P(-1), log μ, log y(-1), log y^P(-1), u(-2), u(-3), u(-4), R(-1), R(-2), $\hat{M}$(-1), $\hat{M}$(-2), $\hat{M}$(-3), $\hat{g}$, $\hat{g}$(-1), $\hat{g}$(-2), $\hat{g}$(-3), B/H(-2), B/H(-3), log E*, $\hat{E}$(-3)	log M*, log M(-2), log H(-1), log P*, log P(-2), log P(-3), log P(-4), t
France (idomfr)	log M(-1), log P(-1), log μ, log H(-1), log y(-1), u(-2), u(-3), u(-4), R(-1), R(-2), $\hat{M}$(-1), $\hat{M}$(-2), $\hat{M}$(-3), $\hat{g}$, $\hat{g}$(-1), $\hat{g}$(-2), $\hat{g}$(-3), B/H(-2), B/H(-3), log $\hat{E}$*	log M*, log M(-2), log P(-2), log P(-3), log P(-4), log y^P(-1), t
Germany (idomge)	log M(-1), log P(-1), log μ, log H(-1) log y(-1), log y^P(-1), u(-2), u(-3), u(-4), R(-1), R(-2), $\hat{M}$(-1), $\hat{M}$(-2), $\hat{M}$(-3), $\hat{g}$, $\hat{g}$(-1), $\hat{g}$(-2), $\hat{g}$(-3), B/H(-2), B/H(-3), log E(-1), log E(-2)	log M*, log M(-2), log P(-2), log P(-3), log P(-4), t, $\hat{E}$(-6) [this omitted due to start date]
Italy (idomit)	log M(-1), log P(-1), log μ, log y(-1), u(-2), u(-3), u(-4), R(-1), R(-2), $\hat{M}$(-2), $\hat{M}$(-3), $\hat{g}$, $\hat{g}$(-1), $\hat{g}$(-2), $\hat{g}$(-3), B/H(-2), B/H(-3), log E*, $\hat{E}$(-2), $\hat{E}$(-3), $\hat{P}$(-4)	log M*, log M(-2), $\hat{M}$(-1), log H(-1), log P(-2), log P(-3), log P(-4), log y^P(-1), t, $\hat{E}$(-5) [this omitted due to start date]

Japan (idomja)	log M(-1), log P(-1), log μ, log y(-1), u(-2), u(-3), u(-4), R(-1), R(-2), $\hat{M}(-1)$, $\hat{M}(-2)$, $\hat{M}(-3)$, $\hat{g}$, $\hat{g}(-1)$, $\hat{g}(-2)$, $\hat{g}(-3)$, B/H(-2), B/H(-3), $\hat{P}(-3)$, log E(-1), $\hat{E}(-4)$	log M*, log M(-2), log H(-1), log P(-2), log P(-3), log P(-4), log $y^P(-1)$, t
Netherlands (idomne)	log M(-1), log P(-1), log μ, log H(-1), log y(-1), log $y^P(-1)$, u(-2), u(-3), u(-4), R(-1), R(-2), $\hat{M}(-1)$, $\hat{M}(-2)$, $\hat{M}(-3)$, $\hat{g}$, $\hat{g}(-1)$, $\hat{g}(-2)$, $\hat{g}(-3)$, B/H(-2), B/H(-3), log E*, $\hat{E}(-1)$, $\hat{E}(-3)$	log M*, log M(-2), log P*, log P(-2), log P(-3), log P(-4), t, $\hat{E}(-5)$, $\hat{E}(-6)$ [The last two omitted due to start date]

Table 2

Money Stock Definitions for the NBER International Transmission Model

Country	Money Concept	Comments
Canada	M_1	Slightly preferable to M_2 for y and P equations, but not reaction functions.
France	M_2	Tied for y and P equations, but better reaction function.
Germany	M_2	Slightly preferable for y and P equations, preferable for reaction functions.
Italy	M_1	Preferable for y equations and reaction functions.
Japan	M_1	Preferable for y equations and reaction functions
Netherlands	M_2	Slightly preferable for y and P equations, preferable for reaction functions.
United Kingdom	M_1	Tied for y and P equations, slightly preferred for reaction functions.
United States	M_1	Preferable for y equations and reaction functions.

TABLE 3

PRICE LEVEL EQUATIONS (2) AND (16)

Country	Const. β_{j1}	$\log P_j^{Ra}$ T_j	t β_{j2}	$\log y_j$ β_{j3}	R_j β_{j4}	$\log m_{jt-1}^{b}$ β_{j5}	$\hat{M}_j$ β_{j6}	$\hat{M}_{jt-1}$ β_{j7}	$\hat{M}_{jt-2}$ β_{j8}	$\hat{M}_{jt-3}$ β_{j9}	$\bar{R}_2$	S.E.E.	D-W
United States	.353 (2.65)	.016 (2.33)	-.000385 (1.97)	-.0781 (-3.17)	.00342 (4.24)	-.960 (-35.5)	-.759 (-4.05)	-.367 (-4.45)	.0133 (1.57)	-.0160 (-.167)	.99976	.0033	1.78
United Kingdom	1.84 (2.92)	-.070 (-1.39)	.00520 (2.96)	-.809 (-3.17)	.865 (3.77)	-.739 (-7.77)	-.475 (-1.97)	.0784 (.598)	-.142 (-1.12)	-.258 (-1.93)	.99713	.0183	2.00
Germany	-.294 (-2.16)	-.018 (-1.41)	-.0007 (-2.09)	.036 (1.23)	.016 (0.32)	-.991 (-40.10)	-1.114 (-12.53)	-.128 (-2.49)	-.301 (-5.86)	-.287 (-5.24)	.99929	.0063	1.54
Netherlands	-1.05 (-3.73)	.034 (0.91)	-.0027 (-2.50)	.138 (1.96)	.037 (-0.34)	-.818 (-14.74)	-1.19 (-7.76)	-.493 (-5.20)	-.665 (-6.83)	-.313 (-3.43)	.9988	.0115	2.00
Canada	-.112 (-.493)	.006 (.218)	-.00072 (-.948)	-.158 (-2.24)	.189 (1.30)	-.620 (-10.39)	-1.100 (-7.49)	-.295 (-2.64)	-.288 (-2.74)	-.653 (-6.10)	.99768	.0117	2.29
France	.081 (0.26)	.031 (1.19)	-.00001 (-0.02)	-.051 (-0.72)	.550 (6.00)	-.941 (-22.26)	-.616 (-3.09)	-.182 (-1.57)	.032 (0.30)	.027 (0.25)	.99858	.0107	1.29
Italy	-1.772 (-2.64)	.047 (1.02)	-.002 (-2.49)	.083 (1.30)	.359 (1.66)	-.888 (-18.73)	-.962 (-6.75)	-.211 (-2.33)	-.429 (-4.70)	-.227 (-2.37)	.99871	.0116	1.35
Japan	-1.471 (-2.86)	-.113 (-2.70)	-.006 (-5.52)	.113 (2.33)	1.424 (2.99)	-.998 (-17.30)	-1.376 (-7.11)	-.415 (-4.45)	-.394 (-4.10)	-.366 (-3.51)	.99832	.0134	1.44

Period and Instrument Lists: 1957 I - 1976 III & I**MK206 for US, UK, CA, IT, JA; 1957 I - 1976 IV & I**M2206 for FR, GE, and NE.

Money Definitions: See Table 1.

t-values in parentheses.

Notes: (a) T_j appears as $T_j (\log P_j^R + \log E_j) + (1-T_j) \log M_j$.

(b) β_{j5} appears as $\beta_{j5} \log (M_{jt-1}/P_{jt-1})$.

Table 3A

REVISED PRICE EQUATIONS (2) AND (16) WITH T = 0

Country	Const. β_{j1}	t β_{j2}	log y_j β_{j3}	R_j β_{j4}	log m_{jt-1}[a] β_{j5}	$\hat{M}_j$ β_{j6}	$\hat{M}_{jt-1}$ β_{j7}	$\hat{M}_{jt-2}$ β_{j8}	$\hat{M}_{jt-3}$ β_{j9}	$\bar{R}^2$	S.E.E.	D-W
United States	.435 (3.16)	.0007 (3.92)	-.101 (-4.29)	.303 (3.17)	-.963 (-34.21)	-.900 (-3.79)	-.404 (-4.76)	.175 (2.03)	-.040 (-.376)	.99975	.00348	1.60
United Kingdom	1.602 (2.76)	.0043 (2.77)	-.678 (-3.02)	.732 (3.65)	-.721 (-8.21)	-.421 (-1.87)	.099 (0.80)	-.115 (-0.96)	-.224 (-1.81)	.99757	.0175	1.92
Germany	-.214 (-1.72)	-.0004 (-1.55)	.016 (.62)	.044 (.98)	-.976 (-46.84)	-1.152 (-12.61)	-.132 (-2.57)	-.303 (-5.89)	-.286 (-5.19)	.99929	.00632	1.55
Netherlands	-1.12 (-4.15)	-.0033 (-3.87)	.176 (3.08)	-.066 (-.63)	-.859 (-25.51)	-1.25 (-9.00)	-.519 (-5.68)	-.694 (-7.48)	-.332 (-3.70)	.99878	.0116	2.07
Canada	-.129 (-.57)	-.0008 (-1.03)	-.151 (-2.18)	.186 (1.34)	-.628 (-11.16)	-1.10 (-7.88)	-.290 (-2.67)	-.285 (-2.80)	-.644 (-6.56)	.99788	.0115	2.31
France	-.119 (-.45)	-.0005 (-.87)	.002 (.04)	.550 (5.96)	-.984 (-44.42)	-.608 (-3.03)	-.173 (-1.49)	.036 (.32)	.041 (.38)	.99856	.0108	1.32
Italy	-1.657 (-2.69)	-.0026 (-3.08)	.099 (1.54)	.482 (2.73)	-.932 (-37.45)	-1.066 (-7.27)	-.192 (-2.19)	-.416 (-4.61)	-.208 (-2.29)	.99877	.0117	1.43
Japan	-1.919 (-4.40)	-.0051 (-5.01)	.072 (1.44)	1.545 (3.40)	-.868 (-26.17)	-1.343 (-6.78)	-.395 (-4.11)	-.346 (-3.59)	-.315 (-2.99)	.99828	.0138	1.36

Period: 1957 I - 1976 IV
Instrument Lists: I**206 for US, UK, CA, IT, JA;
I**M2206 for FR, GE and NE.
Money Definitions: See Table 1.

t-values in parentheses.

Notes: (a) β_{j5} appears as β_{j5} log (M_{jt-1}/P_{jt-1})

TABLE 4

REAL INCOME EQUATIONS (5) AND (17)

Country	Const. α_{j1}	y_j^{Pa} α_{j2}	$\hat{M}_j$ α_{j3}	$\hat{M}_{jt-1}$ α_{j4}	$\hat{M}_{jt-2}$ α_{j5}	$\hat{M}_{jt-3}$ α_{j6}	$\hat{g}_j$ α_{j7}	$\hat{g}_{jt-1}$ α_{j8}	$\hat{g}_{jt-2}$ α_{j9}	$\hat{g}_{jt-3}$ α_{j10}	$\hat{y}_j^{Rb}$ α_{j11}	$\hat{y}_{jt-1}^{R}$ α_{j12}	$\hat{y}_{jt-2}^{R}$ α_{j13}	$\hat{y}_{jt-3}^{R}$ α_{j14}	$\bar{R}^2$	S.E.E.	D-W
United States	.0078 (8.15)	.0778 (2.36)	1.0583 (3.19)	.3178 (1.50)	.0046 (.02)	.7532 (3.20)	.0103 (.20)	.1025 (1.89)	.0354 (.70)	.0216 (.41)	.4397 (3.06)	.1416 (.93)	.3697 (2.52)	-.0990 (-.63)	.99834	.0084	1.74
United Kingdom	.0054 (3.39)	.2801 (3.25)	-.1104 (-.74)	-.0036 (-.04)	-.0590 (-.62)	-.1157 (-1.29)	.1688 (3.32)	.0325 (.54)	.1105 (1.93)	.0043 (.08)	.3340 (1.57)	.3688 (1.72)	.3405 (1.59)	.1606 (.75)	.99229	.0138	2.12
Canada	.0106 (7.85)	.0987 (1.61)	.2330 (1.74)	.1664 (1.58)	.0362 (.36)	.0827 (.85)	.0589 (1.06)	-.1314 (-2.33)	.0084 (.16)	-.0049 (-.09)	.1940 (.96)	.2262 (1.15)	.5742 (2.80)	-.1160 (-.54)	.99827	.0118	2.48
France	.0125 (6.23)	.0989 (1.38)	-.0713 (-.18)	.1737 (.90)	-.0207 (-.11)	-.1815 (-1.02)	.0823 (2.24)	-.00061 (-.02)	.0492 (1.26)	.0371 (.92)	.0492 (.18)	.5550 (2.00)	.0415 (.14)	.5446 (1.96)	.99692	.0177	2.27
Germany	.0105 (6.88)	.0429 (1.01)	.1733 (.65)	.0327 (.26)	-.1115 (-.94)	-.0019 (-.02)	-.0326 (-1.12)	.0021 (.07)	-.00075 (-.03)	.0076 (.27)	.4331 (1.65)	.2005 (.79)	.1176 (.50)	.5000 (2.12)	.99721	.0135	2.02
Italy	.0095 (3.94)	-.0354 (-.49)	-.3691 (-1.15)	.1696 (1.08)	.2992 (1.87)	-.1088 (-.69)	-.0210 (-1.30)	-.0209 (-1.26)	.0039 (.24)	.0014 (.09)	.0783 (.24)	.7783 (2.08)	.1105 (.32)	-.1809 (-.48)	.99415	.0208	1.77
Japan	.0208 (12.13)	.0019 (.05)	.2700 (.90)	.0040 (.04)	.2655 (2.37)	.0295 (.25)	.0412 (1.06)	-.0547 (-1.25)	.0484 (1.34)	-.0437 (-1.24)	.5107 (2.07)	-.2574 (-1.02)	.7944 (3.15)	-.1850 (-.72)	.99918	.0152	1.69
Netherlands	.0093 (6.67)	.1270 (2.53)	.4071 (2.86)	.1849 (1.93)	.0383 (.41)	.0881 (.95)	.0479 (1.42)	-.0328 (-.99)	.0218 (.69)	.0041 (.13)	.6273 (3.11)	.3143 (1.61)	.3040 (1.55)	.1720 (.86)	.99812	.0121	1.99

Period: 1957 II - 1976 IV.
Instrument Lists: I**206F1 for US, UK, CA, IT, JA
I**M2F1 for FR, GE, NE.

Money Definitions: See Table 1.

t-values in parentheses.

Notes: (a) α_{j2} appears as $\alpha_{j2} \log y^P_{jt-1} + (1-\alpha_{j2}) \log y_{jt-1}$

(b) $\hat{y}_j^R$'s are based on treating foreign fitted real income as exogenous data series.

TABLE 4A

EXPORT INNOVATION ($\hat{x}_j$) VERSION OF REAL INCOME EQUATIONS

Country	Const. α_{j1}	y_j^{Pa} α_{j2}	$\hat{M}_j$ α_{j3}	$\hat{M}_{jt-1}$ α_{j4}	$\hat{M}_{jt-2}$ α_{j5}	$\hat{M}_{jt-3}$ α_{j6}	$\hat{g}_j$ α_{j7}	$\hat{g}_{jt-1}$ α_{j8}	$\hat{g}_{jt-2}$ α_{j9}	$\hat{g}_{jt-3}$ α_{j10}	$\hat{x}_j^b$ α_{j11}	$\hat{x}_{jt-1}$ α_{j12}	$\hat{x}_{jt-2}$ α_{j13}	$\hat{x}_{jt-3}$ α_{j14}	$\bar{R}^2$	S.E.E.	D-W
United States	.0081	.1450	1.1288	.5324	.0295	.9186	-.0284	.0868	.0308	.0802	.0579	.0632	.0276	-.0039	.99835	.0084	1.99
	(8.51)	(3.15)	(3.44)	(2.54)	(.13)	(4.12)	(-.53)	(1.59)	(.61)	(1.51)	(2.66)	(2.80)	(1.11)	(-.16)			
United Kingdom	.0052	.2402	-.0434	.0922	-.0203	-.0709	.1386	-.0118	.1026	-.0023	.1158	.0911	-.0157	.0507	.99413	.0122	2.20
	(3.77)	(2.96)	(-.32)	(1.06)	(-.25)	(-.90)	(2.83)	(-.22)	(1.97)	(-.04)	(3.65)	(3.11)	(-.52)	(1.71)			
Canada	.0110	.0236	.2681	.2062	.0832	.1422	-.0331	-.1319	.0286	-.0332	.1111	.0018	-.0233	.0745	.99843	.0113	2.50
	(8.57)	(.41)	(1.98)	(2.17)	(.89)	(1.56)	(-.64)	(-2.32)	(.52)	(-.63)	(3.67)	(.06)	(-.79)	(2.57)			
France	.0127	.0786	-.0451	.1635	.1115	-.0224	.0275	.0074	.0604	.0304	.0934	-.0466	.0249	.0625	.99773	.0154	2.22
	(7.34)	(1.24)	(-.14)	(1.03)	(.72)	(-.15)	(.80)	(.21)	(1.76)	(.83)	(4.01)	(-1.95)	(1.03)	(2.63)			
Germany	.0108	-.0195	.2309	.0697	-.0350	.0581	-.0394	.0329	-.0124	.0047	.1568	.0226	-.0192	.0296	.99795	.0117	1.99
	(8.15)	(-.54)	(1.20)	(.70)	(-.35)	(.58)	(-1.62)	(1.32)	(-.52)	(.19)	(5.58)	(.73)	(-.68)	(1.08)			
Italy	.0087	-.0637	.0725	.2439	.2849	-.0749	-.0099	-.0292	-.0015	.00028	.0546	-.0205	.0181	.0190	.99522	.0191	1.61
	(3.99)	(-1.01)	(.29)	(1.71)	(1.96)	(-.51)	(-.66)	(-1.99)	(-.10)	(.02)	(2.53)	(-.94)	(.83)	(.90)			
Japan	.0205	-.0036	.2265	.0545	.2076	.1976	.0249	-.0106	.0280	-.0448	.0055	.0247	.0074	.0185	.99908	.0162	1.99
	(11.24)	(-.09)	(.77)	(.44)	(1.59)	(1.54)	(.66)	(-.26)	(.68)	(-1.13)	(.24)	(1.08)	(.39)	(.97)			
Netherlands	.0097	.0844	.4689	.0620	-.0375	-.0072	.0176	-.0034	.0210	.0436	.0739	.0107	.0315	.0150	.99802	.0124	1.83
	(6.85)	(1.65)	(2.94)	(.64)	(-.38)	(-.07)	(.49)	(-.10)	(.61)	(1.30)	(3.33)	(.50)	(1.48)	(.67)			

Period: 1957 I to 1976 IV
Instrument Lists: I**206E1 for US, UK, CA, IT, JA.
I**M2E1 for FR, GE, NE.
Money Definitions: See Table 1.

t-values in parentheses.

Notes: (a) α_{j2} appears as $\alpha_{j2} \log y_{j+1}^{P} + (1 - \alpha_{j2}) \log y_{jt-1}$.

(b) $\hat{x}_j$'s are treated as exogenous.

TABLE 4B

REAL INCOME EQUATIONS (5) AND (17) FOR TRUNCATED PERIOD

Country	Const. α_{j1}	y_j^{Pa} α_{j2}	$\hat{M}_j$ α_{j3}	$\hat{M}_{jt-1}$ α_{j4}	$\hat{M}_{jt-2}$ α_{j5}	$\hat{M}_{jt-3}$ α_{j6}	$\hat{g}_j$ α_{j7}	$\hat{g}_{jt-1}$ α_{j8}	$\hat{g}_{jt-2}$ α_{j9}	$\hat{g}_{jt-3}$ α_{j10}	$\hat{y}_j^{Rb}$ α_{j11}	$\hat{y}_{jt-1}^R$ α_{j12}	$\hat{y}_{jt-2}^R$ α_{j13}	$\hat{y}_{jt-3}^R$ α_{j14}	$\bar{R}^2$	S.E.E.	D-W
United States	.0067	.0468	1.3819	.0222	.0718	.9549	-.0096	.1141	.0390	-.0152	.3465	.1714	.5301	-.1281	.99729	.0088	2.06
	(5.03)	(1.12)	(2.78)	(.07)	(.24)	(2.81)	(-.14)	(1.62)	(.57)	(-.21)	(1.70)	(.78)	(2.43)	(-.62)			
United Kingdom	.0067	.2461	-.0152	.0339	.0199	-.0351	.1465	.0417	.0929	.0171	-.1653	.1401	-.0350	.3018	.9919	.0113	2.16
	(4.24)	(2.53)	(-.12)	(.36)	(.21)	(-.38)	(2.81)	(.73)	(1.60)	(.29)	(-.70)	(.60)	(-.15)	(1.29)			
Canada	.0102	.0985	.1717	.1510	.0053	-.0092	.0445	-.0904	.0041	-.0176	.3905	.0882	.6551	-.2440	.99656	.0123	2.41
	(5.44)	(1.30)	(.85)	(1.03)	(.04)	(-.07)	(.62)	(-1.17)	(.06)	(-.25)	(1.34)	(.30)	(2.14)	(-.84)			
France	.0169	.3317	-.1229	.1306	-.1265	.2552	.0919	.0146	.0666	.0594	-.1558	.1774	-.1972	.4041	.99451	.0183	2.20
	(6.30)	(2.93)	(-.28)	(.36)	(-.38)	(.80)	(2.09)	(.33)	(1.38)	(1.22)	(-.40)	(.46)	(-.54)	(1.07)			
Germany	.0131	.0848	.5846	-.0924	-.2454	.1965	.0490	.0150	-.0047	-.0265	.0550	.1805	.0285	.4086	.99588	.0133	1.76
	(5.94)	(1.10)	(1.83)	(-.51)	(-1.33)	(1.09)	(-1.39)	(.40)	(-.16)	(-.86)	(.18)	(.60)	(.08)	(1.25)			
Italy	.0159	.1824	.1667	.1333	.0869	.0859	-.0046	-.0078	-.0020	.0238	.1918	.1098	.0776	-.0093	.99645	.0133	2.41
	(6.99)	(2.02)	(.70)	(.82)	(.52)	(.50)	(-.36)	(-.62)	(-.16)	(1.88)	(.58)	(.33)	(.24)	(-.03)			
Japan	.0255	.0563	-.0472	.0562	.2672	.2276	.0317	-.0622	.0741	-.0386	-.1092	-.8091	.6183	-.2499	.99886	.0141	2.25
	(12.46)	(1.00)	(-.21)	(.45)	(2.14)	(1.63)	(.48)	(-.79)	(1.13)	(-.52)	(-.29)	(-2.39)	(1.71)	(-.78)			
Netherlands	.0118	.0767	.3886	.3262	.2546	.1902	.0476	-.0402	-.00076	-.00005	.3519	.0468	.5079	.3297	.99696	.0116	2.02
	(6.49)	(1.22)	(1.55)	(2.23)	(1.77)	(1.46)	(1.31)	(-1.10)	(-.02)	(.001)	(1.26)	(.18)	(1.67)	(1.12)			

Period: 1957 II - 1971 II
Instrument Lists: I**206F2 for US, UK, CA, IT, JA.
I**M2F1 for FR, GE, NE.
Money Definitions: See Table 1

t-values in parentheses.

Notes: (a) α_{j2} appears as $\alpha_{j2} \log y^P_{jt-1} + (1-\alpha_{j2}) \log y_{jt-1}$

(b) $\hat{y}^R_j$'s are based on treating foreign fitted real income as exogenous data series.

TABLE 5

UNEMPLOYMENT EQUATIONS (7) AND (19)

Country	Const. γ_{j1}	t γ_{j2}	Log (y_j/y_j^P) γ_{j3}	$\bar{R}^2$	S.E.E.	D-W
United States	.0481 (32.9)	.000094 (3.44)	-.361 (-18.2)	.821	.00557	.32
United Kingdom	.00778 (6.55)	.000306 (13.7)	-.228 (-9.46)	.777	.00653	.56
Germany	.0273 (18.8)	-.000188 (-6.88)	-.379 (-22.7)	.866	.00501	1.01
Netherlands	-.00135 (-.703)	.000381 (10.6)	-.234 (-7.45)	.614	.00687	.20
Canada	.0482 (20.44)	.000151 (3.41)	-.421 (-9.19	.467	.00851	.49
France	-.0046 (-5.98)	.00035 (24.15)	-.1808 (-15.78)	.916	.0030	1.15
Italy	.060 (25.42)	-.00044 (-9.88)	-.220 (-7.739)	.601	.0085	.29
Japan	.008 (16.24)	.00007 (7.61)	-.038 (-9.35)	.655	.0019	.27

Period: 1957 I - 1976 III
Instrument Lists: I**MK206
t-values in parentheses

TABLE 5A

CHANGE IN UNEMPLOYMENT RATE REGRESSED ON DISTRIBUTED LAG OF REAL INCOME GROWTH

$$\Delta u_j = \gamma_{j1} + \sum_{i=0}^{7} \gamma_{j,2+i}\,\Delta \log y_{j,t-i}$$

Country	Const. γ_{j1}	$\Delta\log y_j$ γ_{j2}	$\Delta\log y_{jt-1}$ γ_{j3}	$\Delta\log y_{jt-2}$ γ_{j4}	$\Delta\log y_{jt-3}$ γ_{j5}	$\Delta\log y_{jt-4}$ γ_{j6}	$\Delta\log y_{jt-5}$ γ_{j7}	$\Delta\log y_{jt-6}$ γ_{j8}	$\Delta\log y_{jt-7}$ γ_{j9}	$\bar{R}^2$	S.E.E.	D-W
United States	.004 (10.49)	-.172 (-5.57)	-.193 (-7.74)	-.052 (-2.20)	-.069 (-2.97)	.061 (2.61)	.022 (0.91)	-.043 (-1.75)	-.040 (-1.80)	.8068	.00187	1.49
United Kingdom	.002 (6.25)	-.114 (-4.89)	-.024 (-1.69)	-.054 (-3.84)	-.055 (-3.84)	-.028 (-1.96)	-.020 (-1.46)	-.019 (-1.34)	.004 (.26)	.2673	.00178	1.57
Germany	.003 (3.33)	-.230 (-4.66)	-.039 (-1.29)	-.058 (-2.02)	-.0006 (-.02)	.041 (1.41)	-.040 (-1.38)	.008 (.26)	.036 (1.31)	.0588	.00362	2.49
Netherlands	.002 (4.91)	-.092 (-4.04)	-.027 (-1.83)	-.016 (-1.18)	-.014 (-1.00)	-.015 (-1.09)	-.002 (-.14)	.004 (.25)	.002 (.14)	.1094	.00169	1.15
Canada	.002 (1.65)	-.131 (-2.29)	-.079 (-2.19)	-.044 (-1.17)	-.004 (-.10)	-.051 (-1.37)	.005 (.13)	.103 (3.06)	.046 (1.44)	.1328	.00385	1.65
France	.002 (6.26)	-.045 (-4.00)	-.032 (-5.15)	-.022 (-3.43)	-.016 (-2.52)	-.004 (-.66)	-.008 (-1.28)	-.002 (-.25)	.006 (1.13)	.3519	.000974	1.76
Italy	.001 (1.06)	-.004 (-.12)	-.050 (-1.44)	-.014 (-.42)	-.031 (-.92)	-.043 (-1.27)	.0009 (.03)	.004 (.11)	-.016 (-.48)	-.0244	.00405	2.04
Japan	.0006 (1.97)	-.023 (-2.16)	.0001 (.02)	-.002 (-.30)	-.006 (-.80)	-.004 (-.51)	-.006 (-.85)	-.0004 (-.06)	.014 (1.93)	-.0619	.000948	2.01

Period: 1957 I - 1976 IV.
Instrument Lists: I**M2206.

t-values in parentheses.

TABLE 6

MONEY SUPPLY REACTION FUNCTIONS (12) AND (24)

Country	Const. η_{j1}	$\Delta^2 R_j$ η_{j2}	$\Delta^2 P_{jt-2}$ η_{j3}	$\Delta^2 u_{jt-2}$ η_{j4}	$\Delta(B_j/H_j)_{t-2}$ η_{j5}	$\bar{R}^2$	S.E.E.	D-W
United States	.000126 (.197)	.003 (2.57)	-.0246 (-.156)	.289 (1.57)	---	.99953	.00568	2.14
United Kingdom	.000684 (.275)	-.797 (-3.41)	-.0948 (-.752)	-3.30 (-2.17)	.0202 (.574)	.99528	.0220	2.81
Germany	-.00047 (.21)	-.123 (-0.63)	.0016 (.005)	-.414 (-0.78)	.036 (-1.38)	.99859	.0202	3.08
Netherlands	.00102 (.445)	.374 (1.68)	-.095 (-0.65)	.266 (0.15)	.0123 (0.34)	.99876	.0206	2.98
Canada	.00046 (.204)	-.3856 (-1.17)	-.086 (-.935)	-.0019 (-.321)	-.1104 (-2.24)	.99757	.020	2.51
France	.00049 (0.31)	-.421 (-2.37)	-.414 (-2.25)	-1.82 (-1.06)	.110 (2.26)	.99949	.0143	2.54
Italy	.00017 (.07)	.129 (.23)	.152 (.77)	-.517 (-1.21)	.167 (1.77)	.99933	.0214	3.04
Japan	.000015 (.007)	-4.420 (-1.74)	-.158 (-.904)	-2.516 (-1.34)	-.065 (-1.31)	.99958	.0200	2.62

Period and Instrument Lists: 1957 I - 1976 III and I**MK206 for US, UK, CA, IT, JA;
1957 I - 1976 IV and I**M2206 for FR, GE, and NE.

Money Definitions: See Table 1

t-values in parentheses.

TABLE 7

INTEREST RATE EQUATIONS (25) AND (11)

Country	Const. δ_{j0}	$\Delta \log P^{*a}$ δ_{j1}	$\hat{M}_j$ δ_{j2}	$\hat{M}_{jt-1}$ δ_{j3}	$\hat{M}_{jt-2}$ δ_{j4}	$\hat{M}_{jt-3}$ δ_{j5}	$\hat{g}_j$ δ_{j6}	$\hat{g}_{jt-1}$ δ_{j7}	$\hat{g}_{jt-2}$ δ_{j8}	$\hat{g}_{jt-3}$ δ_{j9}	$\hat{y}^R$ δ_{j10}	$\hat{y}^R_{t-1}$ δ_{j11}	$\hat{y}^R_{t-2}$ δ_{j12}	$\hat{y}^R_{t-3}$ δ_{j13}	R_1 δ_{j14}	$\Delta \log E^{*b}$ δ_{j15}	B_j/H_j δ_{j16}	$\bar{R}^2$	S.E.E.	D-W
United States	.0161 (6.21)	.735 (13.3)	-.119 (-.345)	-.0690 (-.336)	-.157 (-.672)	-.0432 (-.189(	-.0626 (-1.18)	-.0238 (-.444)	.00092 (.0180)	-.0022 (-.428)	.321 (2.63)	.378 (3.16)	.343 (2.94)	.110 (.950)	--	--	--	.750	.00848	1.10
United Kingdom	.00690 (1.15)	.310 (3.52)	-.447 (-3.20)	-.227 (-2.60)	-.237 (-2.46)	-.237 (-2.49)	-.0344 (-.690)	.0103 (.186)	-.0307 (-.590)	-.092 (-1.68)	-.0057 (-.023)	.134 (.50)	.278 (.919)	.110 (.432)	.630 (3.83)	.277 (1.65)	-.103 (-2.73)	.741	.0126	1.64
Germany	-.0213 (-1.74)	.803 (2.57)	-.436 (-1.18)	-.387 (-1.86)	-.287 (-1.40)	.0814 (.354)	.0845 (1.49)	.0419 (.893)	-.00102 (-.0208)	-.0349 (-.667)	-.236 (-.588)	.124 (.293)	.287 (.691)	-.315 (-.820)	.694 (3.47)	.0347 (.735)	.269 (3.25)	.304	.0215	1.66
Nether-lands	.00715 (.984)	-.0399 (-.206)	.270 (1.19)	-.00120 (-.0117)	-.0507 (-.495)	-.130 (-1.315)	.0370 (.986)	-.000474 (-.0135)	.0536 (1.51)	.0475 (1.36)	-.464 (-2.18)	-.454 (-2.25)	.0388 (.173)	.238 (.974)	.716 (4.40)	-.0158 (-.537)	.0665 (1.17)	.480	.0129	1.12
Canada	.008 (1.94)	.299 (3.74)	-.585 (-3.95)	-.200 (-2.08)	-.130 (-1.36)	-.061 (-.605)	-.125 (-2.32)	-.035 (-.674)	.026 (.496)	.051 (1.01)	.131 (.656)	-.328 (-1.72)	-.357 (-1.92)	-.286 (-1.48)	.603 (6.20)	-.001 (-.014)	-.017 (-.268)	.646	.0109	1.31
France	-.028 (-1.69)	-.716 (2.92)	-.922 (-.182)	-.206 (-.96)	-.022 (-.098)	0.056 (-.26)	.009 (.17)	-.005 (-.11)	-.134 (-2.20)	-.030 (-.60)	.360 (.78)	.297 (.58)	.379 (.82)	-.330 (-.70)	1.04 (5.74)	.0006 (.01)	.241 (1.70)	.215	.0221	1.61
Italy	.040 (5.74)	.211 (2.73)	-.315 (-1.59)	-.036 (-.32)	-.046 (-.42)	.082 (.74)	.008 (.71)	-.002 (-.13)	.017 (1.51)	-.012 (-1.06)	-.167 (-.659)	-.064 (-2.8)	.125 (.48)	-.537 (-2.23)	.269 (1.91)	.110 (2.74)	.066 (.73)	.363	.0142	.76
Japan	.081 (46.95)	.073 (1.77)	-.181 (-1.74)	-.084 (-2.05)	-.037 (-.97)	-.085 (-2.10)	-.006 (-.42)	.005 (.24)	-.006 (-.36)	-.005 (-.39)	-.156 (-.154)	-.228 (-.268)	-.187 (-2.14)	-.155 (-2.02)	-.137 (-2.70)	.044 (1.77)	.041 (1.37)	.368	.0047	1.19

Period: 1957 I - 1976 III
Instrument Lists: I**MK206
Money Definitions: M_1 used for all countries

t-values in parentheses.

Notes: (a) δ_{jI} appears as δ_{j1} $4[(\log P_{jt+1})^* - \log P_j]$

(b) δ_{j15} appears as δ_{j15} $4[(\log E_{jt+1})^* - \log E_j]$

TABLE 8

SCALED BALANCE OF PAYMENTS EQUATIONS (21)

Country	Const. w_{jo}	$\Delta \log H_j$ w_{j1}	Q w_{j2}	$\text{Log}(M_j/P_j)$ w_{j3}	t w_{j4}	Log Y_j w_{j5}	R_j w_{j6}	$\hat{M}_j$ w_{j7}	$\hat{M}_{jt-1}$ w_{j8}	$\hat{M}_{jt-2}$ w_{j9}	$\hat{M}_{jt-3}$ w_{10}	$\bar{R}^2$	S.E.E.	D-W
United Kingdom	2.41 (.785)	-1.38 (-1.55)	.164 (.766)	.327 (.622)	.00695 (8.14)	-.892 (-.704)	-.174 (-.607)	-.899 (-.966)	-.567 (-.100)	-.191 (-.336)	-.444 (.678)	-.0387	.0779	1.02
Germany	-1.52 (-1.06)	1.01 (3.40)	-.104 (-.909)	-.512 (-1.53)	-.00224 (-.832)	.635 (1.48)	-.727 (-.911)	-.798 (-1.10)	-.582 (-1.16)	-.288 (-.596)	.232 (.520)	.286	.0529	2.26
Nether-lands	-.364 (-.415)	.317 (1.05)	-.177 (-1.26)	.0449 (.0761)	-.00418 (-1.17)	.144 (.302)	.506 (.373)	1.66 (2.50)	.157 (.450)	.455 (1.13)	.272 (.756)	.210	.0468	1.97
Canada	1.078 (1.34)	-2.143 (-2.26)	-.006 (-.060)	-.138 (-.461)	.005 (1.80)	-.216 (-.82)	-.958 (-1.74)	.096 (.167)	.133 (.264)	.192 (.439)	.031 (.064)	-.170	.0416	1.72
France	.248 (.22)	-.320 (-1.75)	.281 (3.81)	-.082 (-1.29)	.002 (.59)	-.049 (-.20)	-.005 (-1.75)	-.050 (-.103)	.104 (.378)	-.111 (-.43)	.104 (.40)	.267	.0287	1.74
Italy	7.241 (3.65)	-.522 (-2.10)	-.432 (-2.92)	-.064 (-.94)	.004 (1.81)	-.375 (-2.22)	.507 (.870)	.370 (1.04)	.451 (1.71)	.440 (1.71)	.478 (1.83)	.144	.0295	1.08
Japan	-4.320 (-2.23)	.849 (1.30)	.794 (3.47)	.066 (.43)	.007 (1.44)	-.158 (-.71)	4.138 (2.27)	1.922 (2.80)	.523 (1.50)	.100 (.29)	.559 (1.55)	.128	.0449	1.59

Period: 1957 I - 1976 III
Instrument Lists: I**MK206
Money Definitions: M_1 used for all countries

t-values in parentheses.