Appendix B
The ROW Part of the MCC Model

August 1, 2006

Table B.1
The Countries and Variables in the MCC Model

Quarterly Countries			Local Currency	Trade Share Equations Only		
1	US	United States	U.S. Dollar (mil.)	40	TU	Turkey
2	CA	Canada	Can. Dollar (mil.)	41	PD	Poland
3	JA	Japan	Yen (bil.)	42	RU	Russia
4	AU	Austria	Euro (mil.)	43	UE	Ukraine
5	FR	France	Euro (mil.)	44	EG	Egypt
6	GE	Germany	Euro (mil.)	45	IS	Israel
7	IT	Italy	Euro (mil.)	46	KE	Kenya
8	NE	Netherlands	Euro (mil.)	47	BA	Bangladesh
9	ST	Switzerland	Swiss Franc (bil.)	48	HK	Hong Kong
10	UK	United Kingdom	Pound Sterling (mil.)	49	SI	Singapore
11	FI	Finland	Euro (mil.)	50	VI	Vietnam
12	AS	Australia	Aust. Dollar (mil.)	51	NI	Nigeria
13	SO	South Africa	Rand (mil.)	52	AL	Algeria
14	KO	Rep. of Korea	Won (bil.)	53	IA	Indonesia
Annual Countries				54	IN	Iran
15	BE	Belgium	Euro (mil.)	55	IQ	Iraq
16	DE	Denmark	Den. Kroner (bil.)	56	KU	Kuwait
17	NO	Norway	Nor. Kroner (bil.)	57	LI	Libya
18	SW	Sweden	Swe. Kroner (bil.)	58	UA	United Arab Emirates
19	GR	Greece	Euro (mil.)	59	AO	All Other
20	IR	Ireland	Euro (mil.)			
21	PO	Portugal	Euro (mil.)			
22	SP	Spain	Euro (mil.)			
23	NZ	New Zealand	N.Z. Dollar (mil.)			
24	SA	Saudi Arabia	Riyals (bil.)			
25	VE	Venezuela	Bolivares (bil.)			
26	CO	Colombia	Col. Pesos (bil.)			
27	JO	Jordan	Jor. Dinars (mil.)			
28	SY	Syria	Syr. Pound (mil.)			
29	ID	India	Ind. Rupee (bil.)			
30	MA	Malaysia	Ringgit (mil.)			
31	PA	Pakistan	Pak. Rupee (bil.)			
32	PH	Philippines	Phil. Peso (bil.)			
33	TH	Thailand	Baht (bil.)			
34	CH	China	Yuan (bil.)			
35	AR	Argentina	Arg. Peso (mil.)			
36	BR	Brazil	Reais (mil.)			
37	CE	Chile	Chi. Peso (bil.)			
38	ME	Mexico	New Peso (mil.)			
39	PE	Peru	Nuevos Soles (mil.)			

• The countries that make up the EMU, denoted EU in the model, are AU, FR, GE, IT, NE, FI, BE, IR, PO, SP, GR. (GR begins in 2001.) (Luxembourg, which is also part of the EMU, is not in the model.)
• Prior to 1999:1 the currency is Schillings for AU, Fr. Francs for FR, DM for GE, Lira for IT, Guilders for NE, Markkaa for FI, Bel. Francs for BE, Irish Pounds for IR, Escudes for PO, Pesetas for SP, and Drachmas for GR (prior to 2001:1). The units are in euro equivalents. For example, in 1999:1 the Lira was converted to the euro at 1936.27 Liras per euro, and 1936.27 was used to convert the Lira to its euro equivalent for 1998:4 back.
• The NIPA base year is 2000 for all countries except CA (1997), IT (1995), NE (2001), UK (2002), and AS (2003-2004).

Table B.2
The Variables for a Given Country in Alphabetical Order

Variable	Eq. No.	Description
a_{ij}	L-1	Share of i's merchandise exports to j out of total merchandise imports of j. [See below]
A	I-7	Net stock of foreign security and reserve holdings, end of quarter, in lc. [$A_{-1} + S$. Base value of zero used for the quarter prior to the beginning of the data.]
C	2	Personal consumption in constant lc. [OECD data or IFS96F/CPI]
E	9 or I-14	Exchange rate, average for the period, lc per $. [IFSRF]
EE	I-9	Exchange rate, end of period, lc per $. [IFSAE]
EX	I-2	Total exports (NIPA) in constant lc. [OECD data or (IFS90C or IFS90N)/ PX]
$EXDS$	exog	Discrepancy between NIPA export data and other export data in constant lc. [$EX - PX00(E00 \cdot X00\$ + XS)$.]
$E00$	exog	E in 2000, 2000 lc per 2000 $. [IFSRF in 2000]
F	10	Three-month forward exchange rate, lc per $. [IFSB]
G	exog	Government purchases of goods and services in constant lc. [OECD data or (IFS91F or IFS91FF)/PY] (Denoted GZ for countries CO and TH.)
H	9	Exchange rate, average for the period, lc per DM euro. [E/E_{GE}]
I	3	Gross fixed investment in constant lc. [OECD data or IFS93/PY]
IM	I-1	Total imports (NIPA) in constant lc. [OECD data or IFS98C/PM]
$IMDS$	exog	Discrepancy between NIPA import data and other import data in constant lc. [$IM - PM00(M + MS)$]
J	13	Total employment in thousands. [OECD data or IFS67 or IFS67E or IFS67EY or IFS67EYC]
$JMIN$	I-13	Minimum amount of employment needed to produce Y in thousands. [Y/LAM]
LAM	exog	Computed from peak to peak interpolation of $\log(Y/J)$.
$L1$	14	Labor force in thousands. [OECD data]
M	1	Total merchandise imports (fob) in 2000 lc. [IFS71V/PM]
MS	exog	Other goods, services, and income (debit) in 2000 lc, BOP data. [((IFS78AED+IFS78AHD)E)/PM]
$M00\$A$	I-8	Merchandise imports (fob) from the trade share matrix in 2000 $. [See below]
$M00\$B$	exog	Difference between total merchandise imports and merchandise imports from the trade share matrix in 2000 $ (i.e., imports from countries other than the 44 in the trade share matrix). [$M/E00 - M00\$A$]
$M1$	6	Money supply in lc. [IFS34 or IFS34A.N+IFS34B.N or IFS35L.B or IFS39MAC or IFS59MA or IFS59MC]
NW	I-15	National Wealth in constant lc. [$NW_{-1} + I + V1 + EX - IM$. Base value of zero used for the quarter prior to the beginning of the data.]
PM	I-13	Import price deflator, 2000 = 1.0. [IFS75/100]
PMP	L-4	Import price index from DOT data, 2000 = 1.0. [See below]
$PM00$	exog	PM in the NIPA base year divided by PM in 2000.
POP	exog	Population in millions. [IFS99Z]
$POP1$	exog	Population of labor-force-age in thousands. [OECD data]
$PSI1$	exog	$[(EE + EE_{-1})/2]/E]$
$PSI2$	exog	$[PM/PMP]$
$PW\$$	L-5	World price index, $/2000$. [See below]
PX	11	Export price index, 2000 = 1.0. [IFS74/100. If no IFS74 data for t, then $PX_t = PX\$_t(E_t/E00_t$, where $PX\$_t$ is defined next.]

Table B.2 (continued)

Variable	Eq. No.	Description
$PX\$$	I-16	Export price index, \$/2000\$, 2000 = 1.0. $[(E00 \cdot PX)/E$. If no IFS74 data at all, then $PX\$_t = PX_{USt}$ for all t. If IFS74 data only from t through $t+h$, then for $i > 0$, $PX\$_{t-i} = PX\$_t(PX_{USt-i}/PX_{USt}$ and $PX\$_{t+h+i} = PX\$_{t+h}(PX_{USt+k+i}/PX_{USt}$.
$PX00$	exog	PX in the NIPA base year divided by PX in 2000.
PY	5	GDP or GNP deflator, equals 1.0 in the NIPA base year. [OECD data or (IFS99B/IFS99B.P]
RB	8	Long term interest rate, percentage points. [IFS61]
RS	7	Three-month interest rate, percentage points. [IFS60 or IFS60B or IFS60C or IFS60L or IFS60P]
S	I-6	Total net goods, services, and transfers in lc. Current account balance. [See Table B.7] (Denoted SZ for countries CO and TH.)
$STAT$	exog	Statistical discrepancy in constant lc. $[Y - C - I - G - EX + IM - V1]$
T	exog	Time trend. [For quarterly data, 1 in 1952.1, 2 in 1952.2, etc.; for annual data, 1 in 1952, 2 in 1953, etc.]
TT	exog	Total net transfers in lc. [See Table B.7]
UR	I-10	Unemployment rate. $[(L1 - J)/L1]$
V	I-5	Stock of inventories, end of period, in constant lc. $[V_{-1} + V1$. Base value of zero was used for the period (quarter or year) prior to the beginning of the data.]
$V1$	I-4	Inventory investment in constant lc. [OECD data or IFS93I/PY]
W	12	Nominal wage rate. [IFS65..C or IFS65A or IFS65EY or IFS65UMC]
X	I-3	Final sales in constant lc. $[Y - V1]$ (Denoted XZ for country PE.)
XS	exog	Other goods, services, and income (credit) in 2000 lc. BOP data. [(E(IFS78ADD+IFS78AGD))/PX]
$X00\$$	L-3	Merchandise exports from the trade share matrix in 2000 \$. [See below]
$XX00\$_{ij}$	L-2	Merchandise exports from i to j in 2000\$. [See below]
Y	4	Real GDP or GNP in constant lc. [OECD data or IFS99B.P or IFS99B.R]
YS	exog	Trend value of Y. [From a regression.]
ZZ	I-12	Demand pressure variable. $[\log Y - \log YS]$

Construction of variables related to the trade share matrix:

The raw data are:

$XX\$_{ij}$	Merchandise exports from i to j in \$, $i, j = 1, ..., 58$ [DOT data. 0 value used if no data]
$X\$_i$	Total merchandise exports (fob) in \$. $i = 1, ..., 39$ [IFS70/E or IFS70D]

The constructed variables are:

$XX\$_{i59} =$	$X\$_i - \sum_{j=1}^{58} XX\$_{ij}, i = 1, ..., 39$
$XX00\$_{ij} =$	$XX\$_{ij}/PX\$_i, i = 1, ..., 39, j = 1, ..., 59$ and $i = 40, ..., 58, j = 1, ..., 58$
$M00\$A_i =$	$\sum_{j=1}^{58} XX00\$_{ji}, i = 1, ..., 58$; $M00\$A_{59} = \sum_{j=1}^{39} XX00\$_{j59}$
$a_{ij} =$	$XX00\$_{ij}/M00\$A_j, i = 1, ..., 39, j = 1, ..., 59$ and $i = 40, ..., 58, j = 1, ..., 58$
$X00\$_i =$	$\sum_{j=1}^{59} XX00\$_{ij}, i = 1, ..., 39$; $X00\$_i = \sum_{j=1}^{58} XX00\$_{ij}, i = 40, ..., 58$
$PMP_i =$	$(E_i/E00_i) \sum_{j=1}^{58} a_{ji} PX\$_j, i = 1, ..., 39$
$PW\$_i =$	$(\sum_{j=1}^{58} PX\$_j X00\$_j)/(\sum_{j=1}^{58} X00\$_j), i = 1, ..., 39$ An element in this summation is skipped if $j = i$. This summation also excludes the oil exporting countries, which are SA, VE, NI, AL, IA, IN, IQ, KU, LI, UA.

- Variables available for trade share only countries are $M00\$A$, $PX\$$, $X00\$$.
- lc = local currency
- IFSxxxxx = variable number xxxxx from the IFS data

Table B.2 (continued)
The EU Variables

Variable	Eq. No.	Description
E	9	Exchange rate, average for the period, euro per $. [IFSRF]
PY	[ ]	GDP deflator. [$(\sum_{i=1}^{6} PY_i Y_i)/Y_{EU}$, where the summation is for $i =$ GE, AU, FR, IT, NE, FI.]
RB	8	Long term interest rate, percentage points. [IFS61]
RS	7	Three-month interest rate, percentage points. [IFS60]
Y	[ ]	Real GDP in constant euros. [$Y_{GE} + \sum_{i=1}^{5} [Y_i/(E00_i/E00_{GE})]$, where the summation is for $i =$ AU, FR, IT, NE, FI.]
YS	[ ]	Trend value of Y_{EU}. [$YS_{GE} + \sum_{i=1}^{5} [YS_i/(E00_i/E00_{GE})]$, where the summation is for $i =$ AU, FR, IT, NE, FI.]
ZZ	I-18	Demand pressure variable. [$\log Y_{EU} - \log YS_{EU}$]

Table B.3
The Equations for a Given Country

STOCHASTIC EQUATIONS

Eq.	LHS Variable	Explanatory Variables
1	$\log(IM/POP)$	cnst, $\log(IM/POP)_{-1}$, $\log(PY/PM)$, $\log[(C+I+G)/POP]$ [Total Imports (NIPA), constant lc]
2	$\log(C/POP)$	cnst, $\log(C/POP)_{-1}$, RS or RB, $\log(Y/POP)$, $[A/(PY \cdot YS)]_{-1}$ [Consumption, constant lc]
3	$\log I$	cnst, $\log I_{-1}$, $\log Y$, RS or RB [Fixed Investment, constant lc]
4	$\log Y$	$\log Y_{-1}$, $\log X$, $\log V_{-1}$ [Real GDP, constant lc]
5	$\log PY$	cnst, $\log PY_{-1}$, $\log W - \log LAM$, $\log PM$, ZZ, T [GDP Price Deflator, base year = 1.0]
6	$\log[M1/(POP \cdot PY)]$	cnst, $\log[M1/(POP \cdot PY)]_{-1}$ or $\log[M1_{-1}/(POP_{-1}PY)]$, RS, $\log(Y/POP)$ [Money Supply, lc]
7	RS	cnst, RS_{-1}, $100[(PY/PY_{-1})^4 - 1]$, ZZ, RS_{GE}, RS_{US} [Three-Month Interest Rate, percentage points]
8	$RB - RS_{-2}$	cnst, $RB_{-1} - RS_{-2}$, $RS - RS_{-2}$, $RS_{-1} - RS_{-2}$ [Long Term Interest Rate, percentage points]
9	$\Delta \log E$	cnst, $\log(PY/PY_{US} - \log E_{-1}$, $.25 \log[(1 + RS/100)/(1 + RS_{US}/100)]$ [Exchange Rate, lc per \$] [For all countries but AU, FR, IT, NE, ST, UK, FI, BE, DE, NO, SW, GR, IR, PO, and SP]
9	$\Delta \log H$	cnst, $\log(PY/PY_{GE} - \log H_{-1}$, $.25 \log[(1 + RS/100)/(1 + RS_{GE}/100)]$ [Exchange Rate, lc per DM] [For countries AU, FR, IT, NE, ST, UK, FI, BE, DE, NO, SW, GR, IR, PO, and SP]
10	$\log F$	$\log EE$, $.25 \log[(1 + RS/100)/(1 + RS_{US}/100)]$ [Three-Month Forward Rate, lc per \$]
11	$\log PX - \log[PW\$(E/E00)]$	$\log PY - \log[PW\$(E/E00)]$ [Export Price Index, 2000 = 1.0]
12	$\log W - \log LAM$	cnst, $\log W_{-1} - \log LAM_{-1}$, $\log PY$, ZZ, T, $\log PY_{-1}$, [Nominal Wage Rate, base year = 1.0]
13	$\Delta \log J$	cnst, T, $\log(J/JMIN)_{-1}$, $\Delta \log Y$, $\Delta \log Y_{-1}$ [Employment, thousands]
14	$\log(L1/POP1)$	cnst, T, $\log(L1/POP1)_{-1}$, $\log(W/PY)$, UR [Labor Force, thousands]

Table B.3 (continued)

IDENTITIES

Eq.	LHS Variable	Explanatory Variables
I-1	$M =$	$(IM - IMDS)/PM00 - MS$ [Merchandise Imports, 2000 lc]
I-2	$EX =$	$PX00(E00 \cdot X00\$ + XS) + EXDS$ [Total Exports (NIPA), constant lc]
I-3	$X =$	$C + I + G + EX - IM + STAT$ [Final Sales, constant lc]
I-4	$V1 =$	$Y - X$ [Inventory Investment, constant lc]
I-5	$V =$	$V_{-1} + V1$ [Inventory Stock, constant lc]
I-6	$S =$	$PX(E00 \cdot X00\$ + XS) - PM(M + MS) + TT$ [Current Account Balance, lc]
I-7	$A =$	$A_{-1} + S$ [Net Stock of Foreign Security and Reserve Holdings, lc]
I-8	$M00\$A =$	$M/E00 - M00\$B$ [Merchandise Imports from the Trade Share Calculations, 2000 $]
I-9	$EE =$	$2PSI1 \cdot E - EE_{-1}$ [Exchange Rate, end of period, lc per $]
I-10	$UR =$	$(L1 - J)/L1$ [Unemployment Rate]
I-11	$JMIN =$	Y/LAM [Minimum Required Employment, thousands]
I-12	$ZZ =$	$\log Y - \log YS$ [Demand Pressure Variable]
I-13	$PM =$	$PSI2 \cdot PMP$ [Import Price Deflator, 2000 = 1.0]
I-14	E	$E = H \cdot E_{GE}$ [Exchange Rate: lc per $] [Equation relevant for countries AU, FR, IT, NE, ST, UK, FI, BE, DE, NO, SW, GR, IR, PO, and SP only]
I-15	$NW =$	$NW_{-1} + I + V1 + EX - IM$ [National Wealth, constant lc]
I-16	$PX\$ =$	$(E00/E)PX$ [Export Price Index, $/2000$]

• From 1999:1 on for GE: $E_{GE} = E_{EU}$, $RS_{GE} = RS_{EU}$, and $RB_{GE} = RB_{EU}$. From 1999:1 on for an EU country i (except GE): $H_i = 1.0$, $RS_i = RS_{EU}$, and $RB_i = RB_{EU}$.
• $PX\$$ and $M00\$A$ are exogenous for trade share only countries.

Table B.3 (continued)

Equations that Pertain to the Trade and Price Links Among Countries

L-1	$a_{ij} =$	computed from trade share equations [Trade Share Coefficients]
L-2	$XX00\$_{ij} =$	$a_{ij} M00\$A_j, i = 1, ..., 39, j = 1, ..., 59$ and $i = 40, ..., 58, j = 1, ..., 58$ [Merchandise Exports from i to j, 2000$]
L-3	$X00\$_i =$	$\sum_{j=1}^{59} XX00\$_{ij}, i = 1, ..., 39$
	$X00\$_i =$	$\sum_{j=1}^{58} XX00\$_{ij}, i = 40, ..., 58$ [Total Merchandise Exports, 2000$]
L-4	$PMP_i =$	$(E_i/E00_i) \sum_{j=1}^{58} a_{ji} PX\$_j, i = 1, ..., 39$ [Import Price Deflator, 2000 = 1.0]
L-5	$PW\$_i =$	$(\sum_{j=1}^{58} PX\$_j X00\$_j) / \sum_{j=1}^{58} X00\$_j), i = 1, ..., 39$ An element in this summation is skipped if $j = i$. This summation also excludes the oil exporting countries, which are SA, VE, NI, AL, IA, IN, IQ, KU, LI, UA. [World Price Index, $/2000$]

Linking of the Annual and Quarterly Data

• Quarterly data exist for all the trade share calculations, and all these calculations are quarterly. Feeding into these calculations from the annual models are predicted annual values of $PX\$_i$, $M00\$A_i$, and E_i. For each of these three variables the predicted value for a given quarter was taken to be the predicted annual value multiplied by the ratio of the actual quarterly value to the actual annual value. This means in effect that the distribution of an annual value into its quarterly values is taken to be exogenous.

• Once the quarterly values have been computed from the trade share calculations, the annual values of $X00\$_i$ that are needed for the annual models are taken to be the sums of the quarterly values. Similarly, the annual values of PMP_i and $PW\$_i$ are taken to be the averages of the quarterly values.

Table B.4
Coefficient Estimates and Test Results
for the ROW Equations

See Chapter 1 for discussion of the tests.
See Chapter 2 for discussion of the equations.
* = significant at the 99 percent confidence level.
ρ = first order autoregressive coefficient of the error term.
† = variable is lagged one period.
Dummy variable coefficient estimates are not shown for GE and EU.
t-statistics are in parentheses.

Table B1: Coefficient Estimates for Equation 1

$$\log(IM/POP) = a_1 + a_2 \log(IM/POP)_{-1} + a_3 \log(PY/PM) + a_4 \log[(C+I+G)/POP)]$$

	a_1	a_2	a_3	a_4	ρ	SE	DW
Quarterly							
CA	-0.249	0.950	0.112	0.072	0.221	0.0288	2.04
	(-0.80)	(36.65)	(2.67)	(1.30)	(2.64)	1966.1–2005.1	
JA	-0.122	0.915	0.057	0.074		0.0280	1.82
	(-0.64)	(32.76)	(5.77)	(1.64)		1966.1–2005.2	
AU	-2.058	0.812		0.407		0.0306	1.94
	(-4.28)	(19.92)		(4.45)		1970.1–2004.4	
FR	-0.783	0.906	0.076	0.171		0.0200	1.23
	(-2.20)	(29.81)	(4.20)	(2.60)		1971.1–2005.1	
GE	-0.202	0.975	0.021	0.046		0.0208	2.23
	(-0.70)	(47.62)	(1.39)	(0.92)		1971.1–2005.2	
IT	-1.118	0.858	0.067	0.252		0.0366	2.09
	(-2.76)	(22.87)	(3.36)	(3.24)		1971.1–2005.1	
NE	-0.857	0.938	0.026	0.157		0.0181	1.83
	(-1.47)	(27.99)	(1.19)	(1.65)		1978.1–2004.4	
ST	-0.318	0.939		0.164		0.0253	2.00
	(-0.87)	(17.47)		(0.94)		1984.1–2005.1	
UK	-2.180	0.785	0.033	0.443		0.0283	2.00
	(-3.76)	(14.34)	(1.95)	(3.85)		1966.1–2005.1	
FI	-0.127	0.982	0.010	0.031		0.0506	2.64
	(-0.23)	(37.33)	(0.24)	(0.43)		1976.2–2005.2	
AS	-2.903	0.784	0.122	0.495	0.279	0.0371	2.07
	(-3.38)	(11.63)	(2.91)	(3.35)	(2.57)	1967.1–2005.1	
SO	-0.126	0.899		0.100		0.0702	1.93
	(-0.28)	(24.50)		(1.44)		1961.1–2005.2	
KO	-0.761	0.843	0.026	0.233		0.0566	2.00
	(-1.83)	(20.84)	(0.46)	(2.96)		1974.1–2005.2	
Annual							
BE	-1.798	0.661	0.293	0.511		0.0424	1.68
	(-1.28)	(4.79)	(3.67)	(1.88)		1962–2004	
DE	-1.184	0.772	0.134	0.410		0.0537	1.98
	(-1.24)	(7.04)	(0.99)	(1.63)		1962–2004	
NO	-0.212	0.535	0.193	0.422		0.0492	1.37
	(-0.55)	(4.12)	(2.47)	(2.77)		1962–2004	
GR	-0.772	0.883	0.183	0.188		0.0687	1.92
	(-0.80)	(12.02)	(1.91)	(1.15)		1963–2004	
IR	-1.435	0.781	0.356	0.364		0.0726	0.98
	(-0.66)	(4.42)	(2.42)	(0.94)		1968–2004	
PO	-1.496	0.232	0.511	0.844		0.0728	1.38
	(-2.43)	(1.73)	(5.62)	(5.00)		1962–2004	
SP	-0.603	0.741	0.313	0.288		0.0687	1.27
	(-0.39)	(7.49)	(4.32)	(1.21)		1962–2004	
NZ	-4.741	0.626	0.307	0.795		0.0706	1.96
	(-2.15)	(4.69)	(2.97)	(2.45)		1962–2004	
SA	-0.079	0.797		0.169		0.1439	1.17
	(-0.26)	(6.98)		(1.18)		1970–2004	
CO	0.809	0.535	0.360	0.232		0.1077	1.62
	(0.48)	(2.47)	(1.70)	(0.87)		1971–2002	
SY	-4.732	0.275	0.108	1.095		0.1297	1.21
	(-3.38)	(1.78)	(2.44)	(4.26)		1965–2002	
ID	-0.853	0.844		0.383		0.1037	1.79
	(-1.77)	(8.27)		(1.89)		1962–2003	
MA	-2.047	0.758		0.469		0.0979	1.52
	(-2.31)	(8.96)		(2.69)		1972–2004	
PA	-0.484	0.529		0.355		0.0796	1.53
	(-1.44)	(4.23)		(2.15)		1974–2004	

Table B1: Coefficient Estimates for Equation 1

	a_1	a_2	a_3	a_4	ρ	SE	DW
PH	-3.356	0.612	0.191	1.249		0.1610	2.07
	(-2.71)	(5.15)	(0.99)	(2.89)			1962–2004
TH	-0.756	0.776		0.380		0.0996	1.45
	(-2.38)	(8.88)		(2.63)			1962–2004
CH	-1.267	0.401		0.884		0.1076	1.51
	(-3.49)	(2.86)		(3.86)			1984–2003
BR				0.741		0.1887	0.28
				(103.10)			1995–2004
CE	-1.784	0.426		0.721		0.1022	1.02
	(-2.39)	(2.28)		(3.02)			1979–2004
ME	-2.467	0.831	0.327	0.382		0.1614	1.31
	(-1.43)	(10.44)	(2.09)	(1.83)			1962–2004
PE		0.555		0.356		0.0510	1.86
		(4.04)		(3.28)			1992–2004

Table B1: Test Results for Equation 1

	Lags	log PY	RHO	T	Stability			End Test		overid	
	p-val	p-val	p-val	p-val	AP	df	λ	p-val	End	p-val	df
Quarterly											
CA	0.000	0.909	0.140	0.045	11.41	5	5.565	1.000	1998.4		
JA	0.317	0.453	0.000	0.318	7.41	4	5.358	0.990	1998.3	0.773	5
AU	0.327		0.000	0.000	21.54	3	3.972	0.955	1998.3		
FR	0.000	0.873	0.000	0.414	11.85	4	3.607	0.512	1998.3	0.000	5
GE	0.182	0.377	0.256	0.488	11.56	4	4.261	0.788	1998.4		
IT	0.444	0.456	0.582	0.003	8.37	4	3.607	1.000	1998.3	0.000	5
NE	0.299	0.076	0.261	0.041	1.65	4	1.762	0.695	1998.4		
ST	0.665		0.000	0.072	12.48	3	1.000	0.188	1998.3		
UK	0.122	0.994	0.009	0.076	9.23	4	5.410	1.000	1998.3	0.003	5
FI	0.000	0.237	0.001	0.000	28.44	4	2.093	1.000	1998.3		
AS	0.020	0.597	0.013	0.000	4.33	5	5.607	1.000	1998.2	0.014	6
SO	0.207		0.000	0.508	3.48	3	7.494	0.772	1998.3		
KO	0.303	0.230	0.000	0.004	16.12	4	2.770	0.425	1998.4		
Annual											
BE	0.207	0.663	0.004	0.002	25.79	4	4.971	0.654	1996	0.005	5
DE	0.212	0.699	0.000	0.009	90.65	4	3.487	0.333	1998	0.000	5
NO	0.029	0.000	0.000	0.143	40.22	4	6.084	0.733	1998		
GR	0.268	0.001	0.391	0.000	11.36	4	5.690	0.345	1998	0.042	5
IR	0.026	0.218	0.000	0.049	11.29	4	3.916	0.000	1998	0.006	5
PO	0.023	0.850	0.105	0.937	5.17	4	4.971	1.000	1995		
SP	0.043	0.396	0.000	0.009	16.79	4	6.084	0.800	1998		
NZ	0.869	0.002	0.003	0.000	20.10	4	6.084	1.000	1998	0.001	5
SA	0.042		0.000	0.000	19.09	3	3.299	0.955	1998		
CO	0.149	0.051	0.019	0.112	10.50	4	3.194	0.609	1998		
SY	0.238	0.158	0.000	0.073	9.81	4	5.343	0.897	1998		
ID	0.601		0.445	0.149	6.76	3	4.636				
MA	0.717		0.169	0.009	7.29	3	2.734	0.550	1998		
PA	0.239		0.000	0.000	1.93	3	2.222	0.167	1998		
PH	0.001	0.000	0.497	0.000	30.50	4	6.764	0.938	1999		
TH	0.303		0.000	0.148	3.56	3	6.084	0.033	1998		
CH	0.074		0.183	0.928					44		
CE	0.181		0.000	0.024	1.39	3	1.367				
ME	0.000	0.000	0.000	0.000	13.76	4	6.084	1.000	1998		

Table B2: Coefficient Estimates for Equation 2

$$\log(C/POP) = a_1 + a_2 \log(C/POP)_{-1} + a_3 RS + a_4 RB + a_5 \log(Y/POP) + a_6 [A/(PY \cdot YS)]_{-1}$$

	a_1	a_2	a_3	a_4	a_5	a_6	ρ	SE	DW
Quarterly									
CA	0.012	0.869		-0.0007†	0.123	0.003		0.0079	1.99
	(0.33)	(24.64)		(-2.52)	(3.75)	(1.10)		1966.1–2005.1	
JA	0.087	0.869		-0.0010	0.108		-0.266	0.0097	2.06
	(3.38)	(21.74)		(-2.97)	(2.75)		(-3.38)	1966.1–2005.2	
AU	0.002	0.880	-0.0004		0.113			0.0144	2.45
	(0.02)	(15.48)	(-0.59)		(1.86)			1970.1–2004.4	
FR	0.077	0.894	-0.0004		0.091			0.0069	2.28
	(1.84)	(21.86)	(-1.58)		(2.22)			1971.1–2005.1	
GE	0.098	0.929		-0.0018	0.057	0.009	-0.391	0.0095	2.06
	(1.19)	(41.39)		(-3.55)	(1.99)	(2.36)	(-4.76)	1971.1–2005.2	
IT	-0.081	0.895	-0.0003		0.109			0.0059	1.05
	(-1.33)	(28.05)	(-2.32)		(2.95)			1971.1–2005.1	
NE	0.254	0.904		-0.0015	0.061			0.0085	2.27
	(2.54)	(28.84)		(-2.02)	(2.46)			1978.1–2004.4	
ST	0.018	0.795		-0.0024	0.163		-0.359	0.0052	1.89
	(0.80)	(13.69)		(-4.14)	(3.25)		(-3.18)	1984.1–2005.1	
UK	-0.429	0.858		-0.0013	0.189	0.014		0.0099	2.41
	(-4.14)	(20.15)		(-3.64)	(3.76)	(2.72)		1966.1–2005.1	
FI	0.046	0.826	-0.0003		0.156			0.0077	1.48
	(0.96)	(23.87)	(-1.24)		(4.65)			1976.2–2005.2	
AS	-0.242	0.874		-0.0004	0.148	0.009		0.0065	2.08
	(-2.50)	(28.48)		(-1.75)	(4.08)	(2.26)		1967.1–2005.1	
SO	-0.190	0.936	-0.0011†		0.084	0.007		0.0199	2.29
	(-0.85)	(27.70)	(-2.60)		(2.70)	(2.98)		1961.1–2005.2	
KO	0.159	0.859		-0.0009	0.112			0.0202	1.88
	(2.74)	(12.50)		(-1.45)	(1.76)			1974.1–2005.2	
Annual									
BE	-0.033	0.592			0.388			0.0113	1.97
	(-0.39)	(6.83)			(4.40)			1962–2004	
DE	0.390	0.458			0.400			0.0175	1.57
	(4.71)	(3.63)			(3.99)			1962–2004	
NO	0.181	0.749			0.185			0.0205	1.50
	(2.49)	(6.65)			(2.16)			1962–2004	
SW	0.397	0.596			0.281			0.0158	1.16
	(4.10)	(6.81)			(4.37)			1965–2004	
GR	0.105	0.898	-0.0014		0.090			0.0207	1.42
	(0.67)	(20.11)	(-2.04)		(1.62)			1963–2004	
IR	2.508	0.468		-0.0025	0.250	0.244		0.0200	1.46
	(6.21)	(3.82)		(-1.56)	(2.93)	(3.73)		1968–2004	
PO	-0.129	0.619		-0.0029	0.383	0.146		0.0326	1.92
	(-0.89)	(8.42)		(-3.03)	(5.33)	(3.49)		1962–2004	
SP	0.258	0.622	-0.0013		0.334			0.0126	1.52
	(2.99)	(5.73)	(-1.59)		(3.06)			1962–2004	

Table B2: Coefficient Estimates for Equation 2

	a_1	a_2	a_3	a_4	a_5	a_6	ρ	SE	DW
NZ	-0.002	0.549		-0.0031	0.432			0.0176	1.48
	(-0.01)	(4.16)		(-3.55)	(3.59)			1962–2004	
SA		0.887			0.064	0.077		0.1503	1.72
		(13.83)			(1.46)	(1.79)		1970–2004	
VE	-1.088	0.728			0.418			0.0771	1.82
	(-1.36)	(8.71)			(3.18)			1962–2004	
CO	0.584	0.650	-0.0016		0.263	0.187		0.0423	1.73
	(1.16)	(4.70)	(-1.56)		(2.16)	(1.30)		1971–2002	
SY	1.044				0.864			0.0653	1.20
	(2.45)				(20.94)			1965–2002	
ID	0.029	0.256	-0.0024		0.627			0.0284	1.87
	(0.78)	(2.26)	(-1.47)		(6.89)			1962–2003	
MA	0.791	0.380			0.484	0.033		0.0427	1.24
	(3.10)	(2.30)			(3.67)	(0.66)		1972–2004	
PA	0.170	0.558			0.331			0.0289	1.56
	(2.46)	(4.51)			(3.12)			1974–2004	
PH	0.041	0.825	-0.0014		0.153			0.0201	1.74
	(0.56)	(12.75)	(-1.97)		(2.78)			1962–2004	
TH	0.076	0.390			0.510			0.0242	1.60
	(3.42)	(4.94)			(7.67)			1962–2004	
CH	-0.313	0.336	-0.0044		0.585			0.0245	1.54
	(-3.91)	(2.84)	(-1.43)		(5.43)			1984–2003	
BR		0.909			0.086			0.0297	0.76
		(3.33)			(0.34)			1995–2004	
CE	0.225	0.474			0.467			0.0387	1.41
	(1.09)	(5.34)			(6.09)			1979–2004	
ME	0.898	0.250			0.641			0.0248	0.57
	(4.26)	(2.37)			(6.74)			1962–2004	
PE		0.630			0.357			0.0172	0.88
		(5.10)			(3.01)			1992–2004	

Table B2: Test Results for Equation 2

	Lags	RHO	T	Leads	Stability			End Test		overid	
	p-val	*p*-val	*p*-val	*p*-val	AP	df	λ	*p*-val	End	*p*-val	df
Quarterly											
CA	0.401	0.000	0.005	0.001	41.00	5	5.565	1.000	1998.4		
JA	0.318	0.128	0.577	0.054	8.09	5	5.358	1.000	1998.3	0.004	4
AU	0.002	0.000	0.325	0.580	19.16	3	3.972	1.000	1998.3	0.028	4
FR	0.022	0.000	0.005	0.045	21.79	4	3.607	1.000	1998.3		
GE	0.029	0.028	0.810	0.340	18.21	6	4.261	0.918	1998.4		
IT	0.000	0.000	0.000	0.005	17.13	4	3.607	1.000	1998.3	0.000	4
NE	0.179	0.099	0.000	0.169	9.55	4	1.762	1.000	1998.4	0.000	3
ST	0.163	0.246	0.067	0.813	4.74	5	1.000	1.000	1998.3	0.297	4
UK	0.004	0.026	0.022	0.277	2.86	5	5.410	1.000	1998.3	0.153	3
FI	0.006	0.000	0.001	0.081	21.32	4	2.093	1.000	1998.3	0.000	3
AS	0.624	0.814	0.183	0.214	4.50	5	5.607	1.000	1998.2	0.379	3
SO	0.024	0.062	0.029	0.219	8.08	5	7.494	1.000	1998.3	0.001	4
KO	0.628	0.001	0.006	0.025	8.71	4	2.770	0.288	1998.4	0.001	3
Annual											
BE	0.944	0.841	0.107	0.358	4.24	3	4.971	0.769	1996	0.227	4
DE	0.410	0.002	0.892	0.414	1.34	3	3.487	0.367	1998	0.115	5
NO	0.114	0.021	0.621	0.698	11.14	3	6.084	0.967	1998	0.205	4
SW	0.001	0.001	0.001	0.124	3.48	3	4.941	1.000	1998	0.009	4
GR	0.192	0.000	0.000	0.123	9.93	4	5.690	1.000	1998		
IR	0.012	0.077	0.601	0.691	10.53	5	3.916	0.917	1998	0.007	3
PO	0.663	0.846	0.007	0.097	6.64	5	4.971	0.833	1995	0.059	3
SP	0.109	0.105	0.000	0.936	23.76	4	6.084	0.967	1998	0.131	3
NZ	0.132	0.066	0.853	0.165	8.79	4	6.084	0.900	1998	0.154	3
SA	0.337	0.476	0.166	0.718	2.84	3	3.299	0.955	1998		
VE	0.943	0.018	0.972	0.308	3.80	3	6.084	0.600	1998		
CO	0.175	0.392	0.046	0.596	0.74	5	1.000	0.348	1998		
SY	0.960	0.016	0.604	0.304	1.91	2	5.343	0.172	1998		
ID	0.226	0.001	0.000	0.601	14.37	4	4.636				
MA	0.002	0.006	0.158	0.679	4.26	4	2.734	0.000	1998		
PA	0.449	0.092	0.222	0.223	15.33	3	2.222	0.944	1998		
PH	0.616	0.435	0.003	0.147	7.25	4	6.764	0.781	1999		
TH	0.691	0.002	0.022	0.808	4.36	3	6.084	0.000	1998		
CH	0.106	0.397	0.008	0.000							
CE	0.504	0.002	0.000	0.001	0.56	3	1.367				
ME	0.000	0.000	0.577	0.810	17.25	3	6.084	0.400	1998		

Table B3: Coefficient Estimates for Equation 3

$$\log I = a_1 + a_2 \log I_{-1} + a_3 \log Y + a_4 RS + a_5 RB$$

	a_1	a_2	a_3	a_4	a_5	SE	DW
Quarterly							
CA	-0.214	0.904	0.103		-0.0020†	0.0208	1.43
	(-2.06)	(27.10)	(2.84)		(-3.08)	1966.1–2005.1	
JA	0.313	0.932	0.034		-0.0016	0.0221	1.76
	(3.23)	(35.89)	(1.20)		(-1.53)	1966.1–2005.2	
AU	0.558	0.890	0.046		-0.0066	0.0270	2.48
	(3.44)	(21.74)	(1.23)		(-3.30)	1970.1–2004.4	
FR	0.315	0.941	0.028		-0.0026†	0.0137	1.38
	(3.50)	(41.72)	(1.49)		(-5.10)	1971.1–2005.1	
GE	0.222	0.900	0.072		-0.0016	0.0267	2.38
	(1.39)	(24.77)	(2.16)		(-0.82)	1971.1–2005.2	
IT	0.436	0.884	0.067		-0.0017†	0.0163	1.68
	(3.51)	(30.52)	(3.49)		(-4.11)	1971.1–2005.1	
NE	0.189	0.508	0.414		-0.0091†	0.0463	2.43
	(0.42)	(6.30)	(5.02)		(-2.28)	1978.1–2004.4	
UK	-0.192	0.839	0.155		-0.0043†	0.0254	2.10
	(-1.43)	(23.01)	(4.13)		(-4.33)	1966.1–2005.1	
FI	0.089	0.952	0.032			0.0368	1.92
	(0.45)	(36.25)	(1.57)			1976.2–2005.2	
AS	-0.207	0.937	0.075		-0.0018	0.0275	1.77
	(-1.79)	(29.05)	(2.07)		(-2.39)	1967.1–2005.1	
SO	-0.111	0.967	0.042		-0.0040†	0.0389	2.29
	(-0.73)	(65.68)	(2.46)		(-3.53)	1961.1–2005.2	
KO	-0.112	0.931	0.073			0.0591	2.35
	(-0.61)	(25.75)	(1.57)			1974.1–2005.2	
Annual							
BE	0.384	0.665	0.269		-0.0139	0.0492	1.86
	(1.38)	(6.70)	(2.91)		(-3.80)	1962–2004	
DE	0.182	0.772	0.161		-0.0096	0.0672	1.85
	(0.60)	(9.58)	(1.92)		(-3.40)	1962–2004	
SW	0.216	0.707	0.200	-0.0031		0.0531	1.11
	(0.82)	(6.33)	(2.27)	(-1.14)		1965–2004	
GR	0.227	0.533	0.402	-0.0144		0.0811	1.86
	(0.55)	(4.95)	(3.86)	(-4.70)		1963–2004	
IR	0.342	0.818	0.137		-0.0071	0.0820	1.49
	(0.75)	(7.03)	(1.14)		(-1.28)	1968–2004	
PO	-0.579	0.522	0.478		-0.0086	0.0629	1.16
	(-1.78)	(4.50)	(3.85)		(-3.63)	1962–2004	
SP	0.100	0.783	0.193	-0.0082		0.0507	1.13
	(0.27)	(9.18)	(1.94)	(-4.07)		1962–2004	

Table B3: Coefficient Estimates for Equation 3

$$\log I = a_1 + a_2 \log I_{-1} + a_3 \log Y + a_4 RS + a_5 RB$$

	a_1	a_2	a_3	a_4	a_5	SE	DW
NZ	-2.125	0.650	0.493		-0.0076	0.0760	1.17
	(-2.50)	(4.63)	(2.66)		(-2.17)		1962–2004
ID	-1.085	0.740	0.339			0.0476	1.60
	(-2.64)	(7.60)	(2.74)				1962–2003
PA	-0.291	0.635	0.319			0.0618	1.68
	(-1.01)	(6.31)	(2.92)				1974–2004
CH	-1.512	0.361	0.747	-0.0085		0.0798	0.89
	(-1.71)	(1.37)	(2.33)	(-0.87)			1984–2003

Table B3: Test Results for Equation 3

	Lags	RHO	T	Leads	Stability			End Test		overid	
	p-val	p-val	p-val	p-val	AP	df	λ	p-val	End	p-val	df
Quarterly											
CA	0.000	0.000	0.000	0.049	11.23	4	5.565	1.000	1998.4	0.002	4
JA	0.120	0.000	0.000	0.345	19.42	4	5.358	0.845	1998.3		
AU	0.003	0.002	0.465	0.554	7.44	4	3.972	0.978	1998.3	0.312	4
FR	0.000	0.000	0.402	0.098	8.64	4	3.607	1.000	1998.3	0.012	4
GE	0.010	0.037	0.000	0.230	4.08	4	4.261	1.000	1998.4		
IT	0.045	0.092	0.046	0.099	6.24	4	3.607	0.095	1998.3	0.058	4
NE	0.000	0.000	0.000	0.694	6.55	4	1.762	0.864	1998.4	0.000	4
UK	0.342	0.607	0.005	0.121	5.40	4	5.410	1.000	1998.3	0.073	4
FI	0.743	0.000	0.000	0.000	17.87	3	2.093	1.000	1998.3	0.000	5
AS	0.130	0.021	0.186	0.032	5.81	4	5.607	0.520	1998.2	0.133	4
SO	0.061	0.058	0.000	0.565	8.72	4	7.494	1.000	1998.3	0.012	4
KO	0.042	0.001	0.002	0.123	6.14	3	2.770	1.000	1998.4	0.194	5
Annual											
BE	0.521	0.598	0.025	0.456	5.52	4	4.971	0.962	1996	0.101	4
DE	0.558	0.555	0.000	0.981	23.07	4	3.487	1.000	1998	0.006	4
SW	0.000	0.000	0.365	0.341	3.15	4	4.941	0.741	1998	0.012	4
GR	0.519	0.731	0.061	0.257	20.68	4	5.690	1.000	1998	0.048	4
IR	0.040	0.000	0.000	0.056	7.73	4	3.916	1.000	1998		
PO	0.000	0.003	0.204	0.879	2.77	4	4.971	1.000	1995	0.985	4
SP	0.000	0.000	0.592	0.039	6.08	4	6.084	1.000	1998	0.091	4
NZ	0.000	0.001	0.719	0.232	12.50	4	6.084	0.967	1998	0.156	4
ID	0.327	0.006	0.034	0.948	12.66	3	4.636				
PA	0.023	0.111	0.190	0.083	0.83	3	2.222	0.111	1998		
CH	0.000	0.007	0.143	0.006							

Table B4: Coefficient Estimates for Equation 4

$$\log Y = a_1 + a_2 \log Y_{-1} + a_3 \log X + a_4 \log V_{-1}$$

	a_1	a_2	a_3	a_4	ρ	Implied Values See eq. 2.10 λ	α	β	SE	DW
Quarterly										
JA	0.247	0.170	0.858	-0.0511	0.484	0.830	0.062	0.553	0.0034	2.06
	(9.13)	(6.85)	(34.58)	(-4.67)	(6.61)				1966.1–2005.2	
IT	-0.403	0.637	0.536	-0.1389	0.389	0.363	0.383	1.250	0.0059	2.07
	(-3.57)	(11.58)	(9.07)	(-4.81)	(4.56)				1971.1–2005.1	
NE	0.563	0.399	0.631	-0.0792		0.601	0.132	0.379	0.0064	1.79
	(4.72)	(10.03)	(15.57)	(-4.35)					1978.1–2004.4	
UK	0.340	0.168	0.861	-0.0575	0.528	0.832	0.069	0.501	0.0052	2.12
	(2.31)	(4.43)	(22.33)	(-2.40)	(6.75)				1966.1–2005.1	
AS	0.341	0.291	0.760	-0.0852	0.356	0.709	0.120	0.603	0.0054	1.81
	(3.53)	(5.37)	(13.71)	(-3.65)	(3.35)				1976.1–2005.1	
Annual										
SW	0.094	0.183	0.839	-0.0403		0.817	0.049	0.546	0.0091	1.25
	(2.01)	(2.05)	(9.84)	(-2.64)					1965–2004	
GR	0.163	0.404	0.600	-0.0195		0.596	0.033	0.197	0.0181	1.04
	(1.54)	(5.48)	(8.09)	(-2.35)					1963–2004	
SP	0.167	0.141	0.898	-0.0568		0.859	0.066	0.690	0.0050	1.41
	(6.21)	(2.68)	(18.77)	(-5.51)					1962–2004	
MA	0.150	0.018	0.993	-0.0292		0.982	0.030	0.382	0.0129	1.81
	(2.52)	(0.30)	(15.78)	(-2.06)					1972–2004	
PA	-0.189	0.102	0.954	-0.0340		0.898	0.038	1.630	0.0043	1.49
	(-2.79)	(2.01)	(20.56)	(-2.67)					1974–2004	

Table B4: Test Results for Equation 4

	Lags	RHO	T	Leads	Stability			End Test	
	p-val	p-val	p-val	p-val	AP	df	λ	p-val	End
Quarterly									
JA	0.243	0.698	0.007	0.181	15.85	5	5.358	0.320	1998.3
IT	0.494	0.225	0.954	0.000	10.57	5	3.607	1.000	1998.3
NE	0.201	0.008	0.366	0.982	7.43	4	1.762	1.000	1998.4
UK	0.290	0.121	0.005	0.001	19.54	5	5.410	1.000	1998.3
AS	0.104	0.934	0.838	0.002	9.78	5	2.444	1.000	1998.2
Annual									
SW	0.004	0.001	0.156	0.687	23.77	4	4.941	0.926	1998
GR	0.000	0.000	0.399	0.194	15.11	4	5.690	1.000	1998
SP	0.138	0.021	0.043	0.249	13.72	4	6.084	1.000	1998
MA	0.782	0.436	0.291	0.086	6.01	4	2.734	0.850	1998
PA	0.110	0.194	0.654	0.108	4.70	4	2.222	0.500	1998

Table B5: Coefficient Estimates for Equation 5

$$\log PY = a_1 + a_2 \log PY_{-1} + a_3(\log W - \log LAM) + a_4 \log PM + a_5 ZZ + a_6 T$$

	a_1	a_2	a_3	a_4	a_5	a_6	ρ	SE	DW
Quarterly									
CA	0.434	0.915	0.049	0.011	0.12657†	0.00029		0.0062	1.11
	(2.11)	(32.30)	(2.20)	(1.44)	(8.99)	(3.59)		1966.1–2005.1	
JA	-0.070	0.939		0.015	0.07979	0.00041	0.396	0.0074	1.96
	(-2.69)	(58.97)		(2.73)	(3.80)	(2.71)	(5.21)	1966.1–2005.2	
AU	-0.024	0.965		0.018	0.05159	0.00015	-0.287	0.0105	2.01
	(-1.58)	(82.84)		(1.81)	(1.70)	(1.81)	(-3.46)	1970.1–2004.4	
FR	-0.010	0.869	0.063	0.029	0.03742†	0.00007	0.289	0.0036	1.92
	(-0.54)	(58.42)	(4.25)	(3.33)	(1.41)	(0.75)	(3.41)	1971.1–2005.1	
GE	0.001	0.981		0.003†	0.05319†	0.00001		0.0049	1.78
	(0.07)	(110.90)		(0.67)	(2.23)	(0.23)		1971.1–2005.2	
IT	-0.055	0.943		0.033	0.19790†	0.00039		0.0083	1.77
	(-2.90)	(159.89)		(7.99)	(5.52)	(3.70)		1971.1–2005.1	
NE	-0.047	0.940		0.026	0.10420†	0.00026		0.0057	1.92
	(-1.22)	(25.24)		(2.63)	(4.17)	(1.34)		1978.1–2004.4	
ST	-0.011	0.966			0.11550†	0.00007	-0.169	0.0044	2.02
	(-1.18)	(92.49)			(5.72)	(1.45)	(-1.53)	1984.1–2005.1	
UK	1.773	0.773	0.187	0.062†	-0.35003†	-0.00026	0.282	0.0083	2.11
	(3.85)	(16.78)	(3.78)	(5.63)	(-5.65)	(-1.49)	(3.38)	1966.1–2005.1	
FI	0.011	0.979		0.010	0.03742†	-0.00003		0.0077	2.02
	(0.83)	(128.27)		(1.42)	(2.76)	(-0.43)		1976.2–2005.2	
AS	1.175	0.907	0.112	0.005	0.19764†	-0.00036	0.201	0.0080	2.00
	(3.95)	(29.85)	(3.77)	(0.45)	(5.74)	(-3.66)	(2.45)	1967.1–2005.1	
SO	0.134	0.995		0.028†	0.12346†	-0.00055		0.0165	2.14
	(2.24)	(59.94)		(2.50)	(5.36)	(-1.79)		1961.1–2005.2	
KO	0.155	0.823	0.104	0.042	0.05431†	-0.00076		0.0178	2.18
	(1.46)	(19.02)	(2.90)	(1.92)	(1.30)	(-1.37)		1974.1–2005.2	
Annual									
BE	-0.097	0.858		0.065	0.32173†	0.00322		0.0116	0.84
	(-2.79)	(29.38)		(3.60)	(9.85)	(3.53)		1962–2004	
DE	-0.033	0.847		0.134	0.39473†	0.00150		0.0126	1.09
	(-0.86)	(26.88)		(5.53)	(9.44)	(1.52)		1962–2004	
NO	-0.430	0.690		0.153	0.48259†	0.01071		0.0301	1.43
	(-2.58)	(6.24)		(2.03)	(3.09)	(2.76)		1962–2003	
SW	1.337	0.783	0.194	0.080	0.30827†	-0.00229		0.0132	1.70
	(2.60)	(10.23)	(2.30)	(4.32)	(3.65)	(-2.26)		1965–2004	
GR	0.253	0.804		0.241	0.19599†	-0.00464		0.0214	1.64
	(1.46)	(11.39)		(5.63)	(2.24)	(-1.15)		1963–2004	
IR	-0.065	0.764		0.208	0.15887†	0.00240		0.0271	1.86
	(-0.58)	(11.36)		(4.67)	(2.25)	(0.85)		1968–2004	
PO	-0.292	0.756		0.230	0.13470†	0.00846		0.0185	1.90
	(-4.70)	(33.78)		(14.11)	(2.69)	(5.53)		1962–2004	
SP	-0.046	0.672	0.199	0.039†		0.00180		0.0167	0.68
	(-0.80)	(21.19)	(13.11)	(2.18)		(1.23)		1962–2004	
NZ	0.096	0.828		0.197	0.30677†	-0.00111		0.0332	1.45
	(1.05)	(14.95)		(5.43)	(2.37)	(-0.46)		1962–2004	
CO	0.348	0.744		0.287†	0.50441	-0.00067		0.0358	2.27
	(0.73)	(11.77)		(6.08)	(2.89)	(-0.05)		1971–2002	
JO	0.133	0.909		0.121		-0.00252		0.0357	1.67
	(0.71)	(9.10)		(2.53)		(-0.52)		1978–2003	
SY	-0.045	0.903		0.111		0.00344		0.0683	1.31
	(-0.16)	(15.40)		(3.48)		(0.48)		1965–2002	

Table B5: Coefficient Estimates for Equation 5

	a_1	a_2	a_3	a_4	a_5	a_6	ρ	SE	DW
MA	-0.619	0.349		0.261	0.22980	0.01700		0.0320	1.84
	(-5.20)	(3.23)		(4.69)	(2.40)	(5.38)			1972–2004
PA	0.498	0.792		0.269		-0.00732		0.0371	1.30
	(0.91)	(8.41)		(2.83)		(-0.53)			1974–2004
PH	-0.172	0.643		0.271		0.00845		0.0480	1.41
	(-0.82)	(9.88)		(6.85)		(1.52)			1962–2004
TH	-0.194	0.423		0.298	0.40754	0.00826		0.0275	1.33
	(-2.32)	(5.43)		(7.27)	(7.12)	(3.63)			1962–2004
CH	-0.315	0.627		0.201	0.42806	0.00840		0.0349	1.16
	(-1.17)	(6.06)		(4.59)	(1.55)	(1.25)			1984–2003
CE	0.361	0.712		0.321	0.24792†	-0.00673		0.0522	1.52
	(1.59)	(7.14)		(2.48)	(0.97)	(-1.17)			1979–2004
ME	-0.514	0.488		0.480	0.03778†	0.01301		0.0464	1.37
	(-2.99)	(14.39)		(19.64)	(0.33)	(3.28)			1962–2004

• For the UK the demand pressure variable is UR, not ZZ.

Table B5: Test Results for Equation 5

	Lags-1	Lags-2	RHO	Leads	Stability			End Test		overid	
	p-val	*p*-val	*p*-val	*p*-val	AP	df	λ	*p*-val	End	*p*-val	df
Quarterly											
CA	0.000	0.000	0.000	0.011	30.03	6	5.565	0.340	1998.4	0.000	5
JA	0.008	0.023	0.000		62.54	6	5.358	0.913	1998.3	0.088	5
AU	0.411	0.387	0.009		10.34	6	3.972	1.000	1998.3	0.371	5
FR	0.393	0.947	0.430	0.079	9.87	7	3.607	1.000	1998.3	0.129	6
GE	0.866	0.402	0.002		18.83	5	4.261	1.000	1998.4		
IT	0.088	0.026	0.230		7.39	5	3.607	0.667	1998.3	0.115	4
NE	0.103	0.252	0.368		10.99	5	1.762	0.881	1998.4	0.010	4
ST	0.153	0.022	0.246		4.73	5	1.000	0.000	1998.3	0.076	6
UK	0.104	0.037	0.084	0.004	17.99	7	5.410	1.000	1998.3	0.048	7
FI	0.288	0.673	0.762		12.03	5	2.093	1.000	1998.3	0.739	4
AS	0.414	0.978	0.354	0.017	6.22	7	5.607	0.898	1998.2	0.084	6
SO	0.564	0.289	0.189		8.79	5	7.494	0.919	1998.3	0.017	4
KO	0.489	0.544	0.224	0.068	9.45	6	2.770	1.000	1998.4	0.087	5
Annual											
BE	0.000	0.001	0.000		29.95	5	4.971	0.885	1996		
DE	0.000	0.000	0.002		19.01	5	3.487	0.967	1998		
NO	0.000	0.000	0.002		5.05	5	6.084	0.000	1998		
SW	0.671	0.251	0.412	0.137	4.59	6	4.941	1.000	1998		
GR	0.512	0.764	0.280		4.34	5	5.690	1.000	1998		
IR	0.211	0.403	0.954		11.77	5	3.916	1.000	1998		
PO	0.826	0.271	0.753		9.16	5	4.971	1.000	1995		
SP	0.001	0.000	0.000	0.005	28.93	5	6.084	0.967	1998		
NZ	0.015	0.054	0.102		6.35	5	6.084	0.867	1998		
CO	0.321	0.048	0.379		26.03	5	3.194	0.522	1998		
JO	0.884	0.523	0.486								
SY	0.012	0.044	0.004		18.47	4	5.343	0.724	1998		
MA	0.003	0.000	0.000		23.93	5	2.734	0.800	1998		
PA	0.090	0.119	0.089		11.81	4	2.222	0.056	1998		
PH	0.070	0.002	0.002		9.77	4	6.764	0.844	1999		
TH	0.146	0.236	0.030		12.34	5	6.084	0.400	1998		
CH	0.034	0.080	0.225								
CE	0.037	0.194	0.882		21.28	5	1.367				
ME	0.226	0.266	0.046		11.11	5	6.084	0.633	1998		

Table B6: Coefficient Estimates for Equation 6

$$\log[M1/(POP \cdot PY)] = a_1 + a_2 \log[M1/(POP \cdot PY)]_{-1} + a_3 \log[M1_{-1}/(POP_{-1} \cdot PY)] + a_4 RS + a_5 \log(Y/POP)$$

	a_1	a_2	a_3	a_4	a_5	SE	DW
Quarterly							
CA	-0.272		0.929	-0.0042	0.103	0.0232	2.18
	(-2.93)		(61.50)	(-3.99)	(4.98)		1968.1–2005.1
GE	-0.240	0.983		-0.0023	0.047	0.0190	2.28
	(-1.25)	(62.57)		(-2.70)	(1.30)		1971.1–2005.2
NE	-1.254		0.797	-0.0050	0.356	0.0178	2.18
	(-3.21)		(15.18)	(-4.29)	(3.65)		1978.1–2004.4
ST	-0.211	0.909		-0.0099	0.198	0.0262	1.95
	(-1.41)	(37.32)		(-5.10)	(2.74)		1984.1–2005.1
UK	0.131	0.978		-0.0029	0.004	0.0144	2.15
	(1.22)	(108.34)		(-5.77)	(0.50)		1970.1–2005.1
FI	-0.511		0.874	-0.0035	0.192	0.0372	2.24
	(-1.73)		(24.46)	(-2.41)	(2.98)		1976.2–2005.2
AS	-0.531		0.947	-0.0034	0.115	0.0259	2.04
	(-3.25)		(53.75)	(-2.82)	(3.37)		1967.1–2005.1
KO	0.149		0.873		0.092	0.0644	2.41
	(1.84)		(16.18)		(1.88)		1974.1–2005.2
Annual							
BE	0.224	0.973		-0.0091	0.008	0.0336	1.80
	(0.48)	(13.07)		(-4.58)	(0.30)		1962–2004
DE	-0.661		0.727	-0.0080	0.352	0.0469	2.17
	(-2.10)		(10.84)	(-2.90)	(3.30)		1962–2004
SW	0.397	0.821		-0.0060	0.090	0.0396	1.79
	(1.70)	(8.42)		(-3.23)	(1.47)		1965–2004
IR	-0.452		0.613	-0.0189	0.396	0.1867	1.97
	(-0.15)		(2.58)	(-0.67)	(1.00)		1983–2004
PO	-0.777	0.854		-0.0023	0.223	0.1350	1.52
	(-1.10)	(9.86)		(-0.68)	(1.54)		1962–2004
SP	0.665		0.805	-0.0019	0.110	0.0430	1.27
	(3.24)		(8.01)	(-0.89)	(1.12)		1962–2004
NZ	-0.184		0.807	-0.0039	0.181	0.0696	1.50
	(-0.21)		(12.52)	(-1.04)	(2.33)		1962–2004
VE	-4.794	0.592		-0.0061	1.047	0.1360	1.76
	(-2.93)	(6.98)		(-4.32)	(3.59)		1962–2004
ID	-0.766		0.598		0.443	0.0456	2.00
	(-3.75)		(5.84)		(4.23)		1962–2003
PA	-0.207		0.646	-0.0120	0.318	0.0576	1.72
	(-0.85)		(5.20)	(-2.50)	(2.27)		1974–2004
PH	-0.417		0.724	-0.0089	0.266	0.0778	2.20
	(-1.48)		(8.73)	(-2.39)	(2.71)		1962–2004

Table B6: Test Results for Equation 6

	[a]N vs R	Lags	RHO	T	Stability			End Test		overid	
	p-val	*p*-val	*p*-val	*p*-val	AP	df	λ	*p*-val	End	*p*-val	df
Quarterly											
CA	0.576	0.542	0.006	0.699	11.15	4	4.782	1.000	1998.4	0.258	5
GE	0.245	0.093	0.144	0.044	8.18	4	4.261	0.788	1998.4	0.633	4
NE	0.725	0.386	0.556	0.053	4.68	4	1.762	0.000	1998.4		
ST	0.595	0.864	0.150	0.448	1.05	4	1.000	0.031	1998.3	0.291	5
UK	0.000	0.101	0.158	0.034	3.37	4	3.938	0.409	1998.3	0.168	4
FI	0.014	0.130	0.000	0.000	15.30	4	2.093	1.000	1998.3	0.010	4
AS	0.791	0.639	0.143	0.698	3.72	4	6.417	0.145	1998.2	0.083	4
KO	0.592	0.010	0.010	0.838	2.39	3	2.770	0.644	1998.4	0.124	5
Annual											
BE	0.947	0.676	0.880	0.815	4.04	4	4.971	0.308	1996		
DE	0.013	0.372	0.291	0.015	5.84	4	3.802	0.914	1998		
SW	0.195	0.487	0.049	0.497	3.96	4	2.870	0.516	1998		
IR	0.441	0.722	0.700	0.569	0.64	4	1.000	0.000	1998		
PO	0.005	0.055	0.094	0.191	35.62	4	4.971	1.000	1995		
SP	0.261	0.026	0.003	0.001	6.38	4	5.309	0.643	1998		
NZ	0.162	0.650	0.000	0.013	8.21	4	4.295	0.867	1998		
VE	0.289	0.800	0.002	0.002	12.87	4	6.084	0.467	1998		
ID	0.587	0.672	0.960	0.850	15.49	3	4.636				
PA	0.249	0.487	0.780	0.195	1.32	4	2.222	0.444	1998		
PH	0.408	0.152	0.427	0.222	3.06	4	6.764	0.219	1999		

Table B7: Coefficient Estimates for Equation 7

$RS = a_1 + a_2 RS_{-1} + a_3 PCPY + a_4 ZZ + a_5 RS_{GE} + a_6 RS_{US}$

	a_1	a_2	a_3	a_4	a_5	a_6	ρ	SE	DW
Quarterly									
EU	0.33	0.890		21.4		0.04		0.714	1.75
	(1.86)	(29.95)		(4.98)		(1.53)		1972.2–2004.4	
CA	0.42	0.781		6.9		0.19		0.862	1.65
	(1.95)	(19.32)		(3.60)		(3.25)		1972.2–2005.1	
JA	-0.23	0.659	0.168	1.0†		0.19	0.592	0.584	1.95
	(-0.53)	(5.67)	(2.79)	(0.63)		(1.89)	(4.04)	1972.2–2005.2	
AU	0.42	0.732		6.1	0.17	0.02		0.741	1.58
	(1.61)	(11.62)		(2.56)	(2.94)	(0.51)		1972.2–1998.4	
FR	0.11	0.693	0.048	12.1	0.22	0.13		0.848	1.63
	(0.31)	(15.75)	(1.73)	(2.06)	(4.55)	(2.70)		1972.2–1998.4	
GE	0.34	0.889		25.5		0.04		0.773	1.80
	(1.34)	(26.88)		(5.24)		(1.29)		1972.2–1998.4	
IT	2.31	0.651	0.155	23.4			0.476	1.110	1.87
	(2.47)	(5.85)	(2.84)	(2.59)			(3.37)	1972.2–1998.4	
NE	0.34	0.589		12.6	0.28	0.10		0.910	1.84
	(1.04)	(6.07)		(3.18)	(2.87)	(2.38)		1978.1–1998.4	
ST	0.42	0.729	0.217	17.9			0.347	0.490	1.99
	(1.92)	(8.34)	(2.19)	(2.50)			(2.41)	1984.1–2005.1	
UK	0.18	0.821		10.7		0.22		0.937	1.60
	(0.76)	(21.54)		(3.93)		(4.97)		1972.2–2005.1	
FI	0.47	0.910	0.066	5.4				0.995	1.78
	(1.28)	(26.94)	(1.88)	(2.64)				1976.2–1998.4	
AS	0.05	0.911		2.6		0.11		1.028	1.65
	(0.18)	(31.53)		(0.90)		(2.83)		1972.2–2005.1	
SO	0.26	0.908				0.13	0.468	1.067	2.01
	(0.38)	(19.12)				(2.01)	(4.62)	1972.2–2005.2	
KO	1.16	0.747	0.102	10.4		0.13		1.520	1.53
	(2.90)	(15.33)	(4.09)	(4.62)		(2.19)		1974.1–2005.2	
Annual									
BE	0.13	0.482		8.0	0.53			1.458	2.36
	(0.14)	(4.02)		(1.34)	(3.88)			1972–1998	
DE	-0.09	0.620	0.068	18.8	0.52			2.180	2.42
	(-0.08)	(4.77)	(0.35)	(1.22)	(2.81)			1972–2004	
NO	0.70	0.719		21.7	0.27			1.456	2.20
	(0.81)	(8.26)		(3.54)	(2.47)			1972–2004	
SW	-0.39	0.709	0.102			0.33		1.760	2.46
	(-0.44)	(7.37)	(0.94)			(2.38)		1972–2004	
IR	2.67		0.170		0.26	0.70		2.069	1.88
	(2.09)		(2.14)		(1.38)	(3.58)		1972–1998	
PO	-0.73	0.769	0.208	16.9				2.976	1.70
	(-0.47)	(5.93)	(1.65)	(1.49)				1972–1998	
SP	1.95	0.526	0.236			0.18		2.958	2.28
	(0.96)	(2.96)	(1.97)			(0.63)		1972–1998	
NZ	1.56	0.696	0.201					2.676	1.79
	(1.38)	(6.22)	(2.25)					1972–2004	
ID	2.97	0.539	0.301	15.8				2.418	1.75
	(1.39)	(3.61)	(2.11)	(1.97)				1972–2003	
PA	0.48	0.669	0.222	9.1				1.307	2.55
	(0.47)	(5.61)	(3.87)	(2.36)				1974–2004	
PH	2.15	0.593	0.197			0.31		2.812	1.25
	(1.09)	(4.92)	(2.28)			(1.69)		1972–2004	

Table B7: Test Results for Equation 7

	Lags	RHO	T	Stability			End Test		overid	
	p-val	*p*-val	*p*-val	AP	df	λ	*p*-val	End	*p*-val	df
Quarterly										
CA	0.068	0.028	0.017	11.58	4	3.315	1.000	1998.4	0.003	5
JA	0.813	0.716	0.204	4.18	6	3.189	1.000	1998.3	0.012	7
AU	0.029	0.005	0.083	12.66	5	2.696			0.001	5
FR	0.345	0.280	0.151	2.78	6	2.696			0.131	5
GE	0.219	0.198	0.595	3.89	4	2.696			0.002	5
IT	0.331	0.136	0.147	1.61	5	2.696	0.452	1998.3	0.021	8
NE	0.530	0.087	0.000	15.33	5	1.154			0.006	5
ST	0.145	0.899	0.029	2.34	5	1.000	1.000	1998.3	0.041	6
UK	0.108	0.025	0.583	4.01	4	3.213	1.000	1998.3	0.072	5
FI	0.642	0.300	0.520	1.03	4	1.555			0.697	4
AS	0.060	0.045	0.153	5.54	4	3.114	1.000	1998.2	0.001	5
SO	0.436	0.881	0.022	7.80	4	3.189	0.026	1998.3	0.010	6
KO	0.055	0.000	0.439	8.82	5	2.770	1.000	1998.4	0.901	5
Annual										
BE	0.141	0.161	0.009	2.35	4	2.469				
DE	0.047	0.099	0.845	3.89	5	2.734	1.000	1998		
NO	0.047	0.532	0.244	3.09	4	2.734	0.900	1998		
SW	0.289	0.100	0.048	4.77	4	2.734	1.000	1998		
IR	0.914	0.943	0.080	4.56	4	2.469				
PO	0.519	0.105	0.002	7.22	4	2.469				
SP	0.272	0.249	0.322	3.69	4	2.469				
NZ	0.092	0.059	0.386	3.39	3	1.843	0.900	1998		
ID	0.070	0.478	0.448	1.25	4	1.924				
PA	0.011	0.003	0.409	4.76	4	2.222	0.500	1998		
PH	0.005	0.005	0.101	14.52	4	3.095	0.773	1999		

Table B8: Coefficient Estimates for Equation 8

$RB - RS_{-2} = a_1 + a_2(RB_{-1} - RS_{-2}) + a_3(RS - RS_{-2}) + a_4(RS_{-1} - RS_{-2})$

	a_1	a_2	a_3	a_4	ρ	SE	DW
Quarterly							
EU	0.078	0.930	0.389	-0.368		0.4189	1.82
	(1.42)	(31.28)	(4.23)	(-3.26)			1970.3–2004.4
CA	0.112	0.912	0.405	-0.365		0.4245	2.02
	(2.36)	(35.03)	(3.74)	(-2.76)			1966.1–2005.1
JA	0.014	0.934	0.330	-0.324		0.3650	2.03
	(0.37)	(25.46)	(2.07)	(-1.40)			1966.1–2005.2
AU	0.026	0.965	0.085	-0.010	0.400	0.2825	1.91
	(0.37)	(26.77)	(0.65)	(-0.10)	(4.15)		1970.1–1998.4
FR	0.075	0.871	0.349	-0.172	0.342	0.4151	1.99
	(0.99)	(14.21)	(2.77)	(-1.45)	(2.73)		1971.1–1998.4
GE	0.075	0.929	0.406	-0.387		0.4214	1.82
	(1.34)	(30.73)	(4.24)	(-3.32)			1971.1–2005.2
IT	-0.073	0.720	0.457	-0.277	0.469	0.5847	2.01
	(-0.70)	(8.32)	(3.80)	(-2.42)	(3.65)		1971.1–1998.4
NE	0.082	0.907	0.298	-0.181		0.4287	1.86
	(1.20)	(24.02)	(2.95)	(-1.87)			1978.1–1998.4
ST	0.017	0.963	0.508	-0.542		0.2798	2.03
	(0.45)	(40.18)	(3.89)	(-3.03)			1984.1–2005.1
UK	0.017	0.972	0.309	-0.317		0.4802	1.59
	(0.37)	(39.14)	(1.83)	(-1.54)			1966.1–2005.1
AS	0.121	0.885	0.680	-0.722		0.6402	2.00
	(1.56)	(16.19)	(3.19)	(-3.12)			1967.1–2005.1
SO	0.155	0.924	0.788	-1.069		0.6400	1.92
	(1.72)	(22.65)	(2.51)	(-2.49)			1961.1–2005.2
KO	0.137	0.909	0.404	-0.172		1.1049	2.06
	(0.93)	(19.08)	(2.44)	(-0.88)			1974.1–2005.2
Annual							
BE	0.541	0.742	0.399			0.7780	1.47
	(1.90)	(6.57)	(5.21)				1962–1998
DE	0.322	0.741	0.437			1.1873	1.67
	(1.34)	(6.43)	(4.96)				1962–2004
NO	-0.015	0.841	0.451			0.6651	1.77
	(-0.14)	(8.47)	(6.34)				1962–2004
IR	0.501	0.528	0.483			1.2667	1.48
	(1.85)	(3.99)	(5.74)				1968–1998
PO	0.109	0.715	0.431			1.4529	1.71
	(0.45)	(6.38)	(4.96)				1962–1998
NZ	-0.175	0.777	0.369			0.9643	2.42
	(-1.02)	(7.93)	(5.47)				1962–2004
TH	0.018	0.834	0.352			1.1318	2.16
	(0.08)	(9.61)	(4.94)				1978–2004

Table B8: Test Results for Equation 8

	[a]Restr.	Lags	RHO	T	Leads	Stability			End Test		overid	
	p-val	*p*-val	*p*-val	*p*-val	*p*-val	AP	df	λ	*p*-val	End	*p*-val	df
Quarterly												
CA	0.014	0.035	0.850	0.435	0.018	3.44	4	5.565	1.000	1998.4	0.072	5
JA	0.067	0.222	0.549	0.678	0.076	1.81	4	5.358	0.777	1998.3	0.251	5
AU	0.457	0.118	0.675	0.011	0.295	2.93	5	3.475			0.032	6
FR	0.381	0.575	0.805	0.320	0.383	2.76	5	3.117			0.683	6
GE	0.239	0.009	0.032	0.361	0.244	5.81	4	4.261	1.000	1998.4	0.009	5
IT	0.815	0.901	0.803	0.867	0.797	5.59	5	3.117			0.978	6
NE	0.414	0.377	0.182	0.711	0.418	2.29	4	1.154			0.294	5
ST	0.003	0.001	0.666	0.499	0.011	2.01	4	1.000	0.562	1998.3	0.005	5
UK	0.807	0.424	0.026	0.012	0.749	6.66	4	5.410	1.000	1998.3	0.003	5
AS	0.307	0.209	0.831	0.174	0.345	6.23	4	5.607	0.908	1998.2	0.311	5
SO	0.214	0.006	0.037	0.036	0.182	3.83	4	7.494	0.220	1998.3	0.058	5
KO	0.498	0.631	0.512	0.025	9.900	4.00	4	2.770	1.000	1998.4	0.021	5
Annual												
BE	0.252	0.080	0.036	0.003	0.666	6.54	3	6.370				
DE	0.954	0.879	0.172	0.015	0.449	11.29	3	3.487	1.000	1998		
NO	0.118	0.140	0.394	0.029	0.948	5.18	3	6.084	0.800	1998		
IR	0.645	0.593	0.026	0.001	0.751	9.11	3	3.812				
PO	0.003	0.001	0.156	0.008	0.335	4.47	3	6.370				
NZ	0.132	0.000	0.003	0.674	0.447	1.92	3	3.301	0.733	1998		
TH	0.040	0.264	0.482	0.631	0.898	3.80	3	1.355	1.000	1998		

Table B9: Coefficient Estimates for Equation 9

$$\Delta \log E = a_1 + \lambda[\log(PY/PY_{US}) - \log E_{-1}] + .25\lambda\beta \log[(1 + RS/100)/(1 + RS_{US}/100)]$$

or

$$\Delta \log H = a_1 + \lambda[\log(PY/PY_{GE}) - \log H_{-1}] + .25\lambda\beta \log[(1 + RS/100)/(1 + RS_{GE}/100)]$$

	a_1	λ	$\lambda\beta$	ρ	SE	DW
Quarterly						
EU	-0.017	0.082	-2.218	0.285	0.0480	1.99
	(-2.31)	(2.06)	(-1.94)	(2.88)	1972.2–2004.4	
CA	0.020	0.067	-1.665	0.317	0.0191	1.98
	(2.61)	(2.37)	(-2.03)	(3.35)	1972.2–2005.1	
JA	-0.114	0.050	-1.332	0.296	0.0494	1.93
	(-15.25)		(-1.30)	(3.42)	1972.2–2005.2	
AU	0.003	0.050		0.495	0.0044	2.15
	(3.18)			(5.96)	1972.2–1998.4	
FR	0.008	0.232		0.274	0.0198	2.05
	(2.93)	(3.01)		(2.17)	1972.2–1998.4	
GE	-0.020	0.090	-1.869	0.307	0.0490	1.98
	(-2.11)	(1.97)	(-1.46)	(2.79)	1972.2–1998.4	
IT	0.015	0.050		0.342	0.0334	1.95
	(3.00)			(3.72)	1972.2–1998.4	
NE	0.005	0.050	-0.538		0.0047	1.46
	(8.61)		(-2.48)		1978.1–1998.4	
ST	-0.506	0.079			0.0164	1.75
	(-1.86)	(1.86)			1984.1–2005.1	
UK	0.003	0.050	-0.480		0.0424	1.40
	(0.42)		(-0.72)		1972.2–2005.1	
FI	0.009	0.090	-0.257	0.420	0.0289	2.02
	(0.84)	(1.30)	(-0.25)	(3.14)	1976.2–1998.4	
AS	0.035	0.079		0.288	0.0398	2.02
	(2.27)	(2.17)		(3.01)	1972.2–2005.1	
SO	0.105	0.050			0.0617	1.47
	(19.61)				1972.2–2005.2	
KO	0.017	0.059		0.334	0.0465	1.92
	(2.00)	(1.67)		(3.52)	1974.1–2005.2	
Annual						
BE	0.016	0.171			0.0291	1.36
	(2.78)	(1.92)			1972–1998	
DE	-0.223	0.050			0.0280	0.91
	(-45.79)				1972–2004	
NO	-0.498	0.110			0.0494	1.56
	(-1.46)	(1.52)			1972–2004	
SW	-1.617	0.343			0.0612	1.92
	(-3.22)	(3.29)			1972–2004	
GR	0.116	0.196			0.0689	0.99
	(6.96)	(1.20)			1972–2000	
IR	0.060	0.115			0.0624	0.98
	(2.91)	(0.87)			1972–1998	

Table B9: Coefficient Estimates for Equation 9

	a_1	λ	$\lambda\beta$	ρ	SE	DW
PO	0.128	0.200			0.0978	0.62
	(3.02)	(0.90)				1972–1998
SP	0.065	0.148			0.0726	1.28
	(3.70)	(1.04)				1972–1998
NZ	0.138	0.159	-2.758		0.1078	0.94
	(1.55)	(1.09)	(-1.32)			1972–2004
VE	-0.959	0.532			0.2201	0.92
	(-2.44)	(2.92)				1972–2004
JO	-0.029	0.095			0.0968	1.11
	(-0.48)	(1.02)				1978–2003
PH	-1.028	0.302			0.0950	1.21
	(-2.24)	(2.39)				1972–2004

Table B9: Test Results for Equation 9

	[a]Restr.	Lags	RHO	T	Stability			End Test		overid	
	p-val	*p*-val	*p*-val	*p*-val	AP	df	λ	*p*-val	End	*p*-val	df
Quarterly											
CA	0.979	0.368	0.903	0.979	2.38	3	3.315	0.000	1998.4	0.216	6
JA	0.116	0.888	0.323	0.067	4.55	3	3.189	0.628	1998.3	0.096	7
AU	0.002	0.027	0.115	0.003	3.69	2	2.696			0.002	7
FR	0.152	0.344	0.325	0.324	1.48	3	2.696			0.413	6
GE	0.993	0.761	0.971	0.930	4.34	4	2.696			0.261	6
IT	0.001	0.955	0.540	0.002	4.66	2	2.696			0.052	7
NE	0.129	0.312	0.001	0.003	5.31	2	1.154			0.009	7
ST	0.976	0.226	0.189	0.005	3.84	2	1.000	1.000	1998.3	0.017	6
UK	0.000	0.001	0.001	0.000	7.06	2	3.213	1.000	1998.3	0.000	7
FI	0.155	0.794	0.675	0.217	0.37	4	1.555			0.019	6
AS	0.194	0.628	0.620	0.347	1.38	3	3.114	0.403	1998.2	0.489	6
SO	0.997	0.001	0.008	0.910	0.29	1	3.189	0.282	1998.3		
KO	0.016	0.409	0.152	0.029	11.49	3	2.770	0.301	1998.4	0.453	6
Annual											
BE	0.843	0.102	0.107	0.670	12.01	2	2.469				
DE	0.000	0.004	0.001	0.000	20.04	2	2.734	1.000	1998		
NO	0.440	0.121	0.223	0.482	0.28	2	2.734	0.600	1998		
SW	0.458	0.464	0.805	0.357	0.62	2	2.734	1.000	1998		
GR	0.001	0.000	0.000	0.000	15.24	2	2.734	0.250	1998		
IR	0.000	0.001	0.000	0.000	5.94	2	2.469				
PO	0.022	0.000	0.000	0.005	8.90	2	2.469				
SP	0.002	0.050	0.004	0.005	4.61	2	2.469	0.462	1998		
NZ	0.429	0.000	0.001	0.245	4.45	3	2.734	0.200	1998		
VE	0.010	0.041	0.000	0.002	19.85	2	2.734	1.000	1998		
JO	0.383	0.012	0.003	0.202							
PH	0.189	0.025	0.001	0.185	3.69	2	3.095	0.864	1999		

Table B10: Coefficient Estimates for Equation 10
$\log F = a_1 \log EE + a_2(.25)\log[(1 + RS/100)/(1 + RS_{US}/100)]$

	a_1	a_2	ρ	SE	DW
Quarterly					
CA	0.9824	1.761	0.793	0.0096	2.28
	(49.23)	(3.68)	(11.64)		1972.2–1997.3
JA	1.0008	1.214	0.375	0.0091	1.82
	(1134.25)	(6.52)	(4.39)		1972.2–2002.1
AU	0.9930	1.049	0.250	0.0058	2.10
	(299.71)	(8.25)	(2.60)		1972.2–1998.4
FR	1.0076	0.644		0.0071	1.54
	(333.90)	(4.78)			1972.2–1989.3
GE	0.9960	1.198	0.720	0.0032	2.21
	(250.42)	(10.89)	(10.67)		1972.2–1998.4
IT	0.9967	1.057		0.0105	1.74
	(257.91)	(8.62)			1976.3–1998.4
NE	0.9955	1.472		0.0097	2.03
	(123.29)	(4.84)			1978.1–1990.4
ST	1.0001	1.118		0.0031	2.11
	(15511.92)	(19.03)			1984.1–2003.2
UK	1.0014	1.277	0.396	0.0061	1.95
	(368.88)	(5.55)	(2.74)		1972.2–1984.4
FI	0.9942	1.211	0.676	0.0071	2.63
	(103.38)	(4.80)	(6.79)		1976.2–1989.3
AS	1.0030	1.245		0.0065	1.94
	(440.34)	(15.73)			1976.1–2005.1

Table B11: Coefficient Estimates for Equation 11

$\log PX - \log[PW\$(E/E00)] = a_1 + \lambda[\log PY - \log[PW\$(E/E00)]$

	a_1	λ	ρ_1	ρ_2	SE	DW
Quarterly						
CA	0.642	1.029	-0.059	0.0216		2.01
	(10.36)	(12.71)	(-0.73)			1966.1–2004.4
JA	0.419	1.288	-0.299	0.0139		1.95
	(14.99)	(16.71)	(-3.94)			1966.1–2004.4
AU	0.806	0.756	0.223	0.0145		1.99
	(21.45)	(8.99)	(2.70)			1970.1–2004.4
FR	0.730	1.092	-0.099	0.0089		2.01
	(28.88)	(12.40)	(-1.13)			1971.1–2004.4
GE	0.806	1.143	-0.154	0.0075		1.88
	(40.96)	(13.24)	(-1.79)			1971.1–2004.4
IT	0.594	0.755	0.229	0.0183		1.91
	(13.91)	(8.93)	(2.71)			1971.1–2004.4
NE	0.496	0.807	0.171	0.0270		2.05
	(6.25)	(8.37)	(1.79)			1978.1–2004.4
ST	0.839	0.744	0.206	0.0093		2.03
	(30.93)	(6.78)	(1.91)			1984.1–2004.4
UK	0.717	1.042	-0.049	0.0195		2.00
	(16.18)	(12.88)	(-0.61)			1966.1–2004.4
FI	0.670	1.051	-0.060	0.0158		2.03
	(14.05)	(11.41)	(-0.66)			1976.2–2004.4
AS	0.572	1.240	-0.254	0.0260		1.97
	(10.24)	(15.76)	(-3.26)			1967.1–2004.4
SO	0.654	0.837	0.133	0.0543		2.03
	(7.82)	(11.07)	(1.76)			1961.1–2004.4
KO	0.757	0.966	0.010	0.0315		1.97
	(12.80)	(10.02)	(0.11)			1974.1–2004.4
Annual						
BE	0.498	0.821	-0.023	0.0182		1.93
	(12.07)	(5.01)	(-0.15)			1962–2004
DE	0.611	1.057	-0.103	0.0175		1.95
	(13.65)	(6.76)	(-0.70)			1962–2004
SW	0.486	1.151	-0.281	0.0330		1.77
	(5.87)	(7.20)	(-1.84)			1965–2004
IR	0.488	1.198	-0.222	0.0312		1.75
	(6.26)	(5.91)	(-1.12)			1968–2004
SP	0.541	1.073	-0.109	0.0366		1.68
	(6.66)	(6.86)	(-0.72)			1962–2004

Table B11: Coefficient Estimates for Equation 11

	a_1	λ	ρ_1	ρ_2	SE	DW
NZ		0.480	1.028	-0.151	0.0698	1.82
		(3.14)	(6.54)	(-1.00)	1962–2004	
CO		1.003	1.159	-0.173	0.1350	2.01
		(2.92)	(5.88)	(-0.85)	1971–2002	
JO		0.138	1.117	-0.387	0.0580	1.97
		(0.70)	(5.21)	(-1.95)	1978–2003	
ID		0.332	0.765	-0.007	0.0561	1.94
		(5.10)	(4.74)	(-0.04)	1962–2003	
MA		1.000	0.926	0.052	0.1133	1.93
			(5.15)	(0.29)	1972–2004	
PA		0.077	0.843	-0.033	0.0699	2.15
		(0.70)	(5.13)	(-0.19)	1974–2004	
TH		0.157	0.961	-0.247	0.0655	1.81
		(1.26)	(6.15)	(-1.64)	1962–2004	
CH	-0.065		1.053	-0.402	0.0427	1.94
	(-2.29)		(4.70)	(-1.80)	1984–2003	
CE	-0.054		1.070	-0.449	0.0436	2.18
	(-2.37)		(5.90)	(-2.48)	1979–2004	
ME	-0.055		1.126	-0.477	0.0369	2.07
	(-3.43)		(8.03)	(-3.41)	1962–2004	

Table B11: Test Results for Equation 11

	[a]Restr.	Stability			End Test	
	p-val	AP	df	λ	p-val	End
Quarterly						
CA	0.586	2.73	3	5.998	0.000	1998.4
JA	0.000	1.18	3	5.464	0.952	1998.3
AU	0.000	8.38	3	3.972	0.820	1998.3
FR	0.000	14.98	3	3.636	0.529	1998.3
GE	0.000	7.15	3	4.336	0.965	1998.4
IT	0.199	5.56	3	3.636	0.600	1998.3
NE	0.018	9.74	3	1.770	0.000	1998.4
ST	0.350	1.25	3	1.000	0.000	1998.3
UK	0.511	3.06	3	5.464	0.971	1998.3
FI	0.012	3.68	3	2.115	0.032	1998.3
AS	0.005	3.21	3	1.766	0.306	1998.2
SO	0.047	2.44	3	7.661	0.951	1998.3
KO	0.000	27.30	3	2.995	0.337	1998.4
Annual						
BE	0.001	4.18	3	4.971	0.577	1996
DE	0.773	2.64	3	3.487	0.900	1998
SW	0.001	15.21	3	4.941	0.926	1998
IR	0.956	-4.95	3	3.916	0.125	1998
SP	0.005	1.28	3	6.084	1.000	1998
NZ	0.000	6.85	3	6.084	0.733	1998
CO	0.301	2.77	3	3.194	1.000	1998
JO	0.000					
ID	0.001	1.00	3	4.636		
MA	0.102	0.59	2	2.734	1.000	1998
PA	0.136	14.38	3	2.222	1.000	1998
TH	0.124	5.00	3	6.084	0.900	1998
CH	0.422					
CE	0.395	0.75	3	1.367		
ME	0.155	1.15	3	6.084	0.700	1998

Table B12: Coefficient Estimates for Equation 12

$$\log W - \log LAM = a_1 + a_2(\log W_{-1} - \log LAM_{-1}) + a_3 \log PY + a_4 ZZ + a_5 T + a_6 \log PY_{-1}$$

	a_1	a_2	a_3	a_4	a_5	ρ	a_6	SE	DW
Quarterly									
CA	-0.479	0.949	1.185		-0.00009	0.245	-1.128	0.0084	2.00
	(-1.70)	(32.36)	(8.20)		(-1.80)	(2.89)			1966.1–2005.1
FR	-0.006	1.013	0.710	0.08121†	0.00006		-0.744	0.0071	1.85
	(-0.35)	(25.13)	(3.53)	(2.13)	(0.71)				1971.1–2005.1
UK	-1.409	0.846	0.890	0.03769†	0.00006		-0.741	0.0104	1.95
	(-3.98)	(21.77)	(16.51)	(1.19)	(1.52)				1966.1–2005.1
AS	-0.615	0.937	0.960	0.02882†	-0.00001		-0.896	0.0112	2.02
	(-1.41)	(22.03)	(2.83)	(0.37)	(-0.13)				1967.1–2005.1
KO	-0.434	0.846	0.876	0.09830†	0.00233		-0.733	0.0297	2.16
	(-2.94)	(14.92)	(2.99)	(1.63)	(3.03)				1974.1–2005.2
Annual									
SW	-3.134	0.472	0.487	0.40015	-0.00427		0.030	0.0212	1.77
	(-4.34)	(3.88)	(3.59)	(2.91)	(-4.00)				1965–2004
SP	-0.057	0.761	1.372	0.37950†	0.00169		-1.073	0.0276	1.68
	(-1.37)	(10.78)	(7.08)	(5.78)	(1.38)				1962–2004

Table B12: Test Results for Equation 12

	[a]Restr.	Lags	RHO	Stability			End Test		overid	
	p-val	p-val	p-val	AP	df	λ	p-val	End	p-val	df
Quarterly										
CA	0.024	0.004	0.016	21.88	4	5.565	0.000	1998.4	0.002	8
FR	0.000	0.005	0.035	10.13	4	3.607	1.000	1998.3	0.016	3
UK	0.981	0.969	0.164	13.41	5	5.410	1.000	1998.3	0.212	6
AS	0.007	0.001	0.661	7.85	5	5.607	1.000	1998.2	0.030	4
KO	0.409	0.379	0.293	4.80	5	2.770	0.932	1998.4	0.497	4
Annual										
SW	0.075	0.262	0.773	11.30	5	4.941	1.000	1998		
SP	0.024	0.485	0.242	88.50	5	6.084	1.000	1998		

Table B13: Coefficient Estimates for Equation 13

$$\Delta \log J = a_1 + a_2 T + a_3 \log(J/JMIN)_{-1} + a_4 \Delta \log Y + a_5 \Delta \log Y_{-1}$$

	a_1	a_2	a_3	a_4	a_5	ρ	SE	DW
Quarterly								
CA	0.004	-0.00001	-0.160	0.568	0.149		0.0045	1.84
	(2.09)	(-1.46)	(-4.12)	(4.67)	(2.24)		1966.1–2005.1	
JA	0.006	-0.00003	-0.066	0.055			0.0047	2.29
	(2.16)	(-1.68)	(-2.39)	(0.49)			1966.1–2005.2	
FR	-0.008	0.00004	-0.231	0.816			0.0030	1.78
	(-4.40)	(3.59)	(-3.81)	(5.81)			1979.1–2005.1	
GE	-0.003	0.00002	-0.172	0.250			0.0038	1.45
	(-2.06)	(2.03)	(-2.43)	(2.19)			1971.1–2005.2	
IT	0.004	-0.00001	-0.180	0.085			0.0056	1.87
	(1.61)	(-0.48)	(-5.71)	(0.74)			1971.1–2005.1	
ST	0.012	-0.00005	-0.173	0.184			0.0045	1.64
	(2.96)	(-2.41)	(-3.34)	(1.02)			1984.1–2005.1	
UK	0.003		-0.188	0.123		0.512	0.0035	2.09
	(1.62)	(0.11)	(-5.72)	(4.41)		(6.81)	1966.1–2005.1	
FI	-0.008	0.00003	-0.130	0.656			0.0074	1.90
	(-2.21)	(1.56)	(-2.63)	(5.48)			1976.2–2005.2	
AS	0.010	-0.00001	-0.235	0.107		0.441	0.0046	2.12
	(4.04)	(-0.78)	(-5.53)	(3.22)		(5.38)	1967.1–2005.1	
Annual								
BE	-0.031	0.00093	-0.233	0.384			0.0066	1.43
	(-4.28)	(3.80)	(-2.37)	(5.31)			1971–1999	
DE	0.010	-0.00035	-0.203	0.364			0.0146	1.58
	(1.32)	(-1.50)	(-1.80)	(3.22)			1962–2004	
NO	-0.004	0.00012	-0.406	0.385			0.0115	0.88
	(-0.63)	(0.73)	(-4.21)	(3.18)			1962–2002	
SW	-0.001	-0.00010	-0.180	0.467			0.0127	0.85
	(-0.19)	(-0.57)	(-1.91)	(3.84)			1965–2004	
IR	-0.044	0.00123	-0.418	0.573			0.0119	1.55
	(-6.85)	(5.66)	(-3.38)	(7.32)			1968–2004	

Table B13: Test Results for Equation 13

	Lags	RHO	Leads	Stability			End Test		overid	
	p-val	p-val	p-val	AP	df	λ	p-val	End	p-val	df
Quarterly										
CA	0.101	0.316	0.959	10.12	5	5.565	0.792	1998.4	0.261	5
JA	0.208	0.032	0.437	6.85	4	5.358	0.641	1998.3	0.000	6
FR	0.072	0.001	0.638	3.84	4	1.476	0.000	1998.3	0.350	6
GE	0.000	0.000	0.003	4.39	4	4.261	0.976	1998.4	0.000	6
IT	0.024	0.379	0.376	3.05	4	3.607	1.000	1998.3	0.819	6
ST	0.054	0.127	0.249	11.66	4	1.000	1.000	1998.3	0.004	6
UK	0.064	0.267	0.033	9.93	5	5.410	0.798	1998.3		
FI	0.001	0.000	0.442	15.86	4	2.093	0.597	1998.3	0.000	7
AS	0.190	0.084	0.002	7.06	5	5.607	0.969	1998.2		
Annual										
BE	0.011	0.014	0.176	7.32	4	2.681	1.000	1996		
DE	0.017	0.030	0.767	12.11	4	3.487	1.000	1998		
NO	0.000	0.000	0.570	27.81	4	6.623	1.000	1998		
SW	0.000	0.000	0.074	10.45	4	4.941	0.963	1998		
IR	0.402	0.147	0.007	4.80	4	3.916	0.000	1998		

Table B14: Coefficient Estimates for Equation 14

$$\log(L1/POP1) = a_1 + a_2 T + a_3 \log(L1/POP1)_{-1} + a_4 \log(W/PY) + a_5 UR$$

	a_1	a_2	a_3	a_4	a_5	SE	DW
Quarterly							
CA	0.014	-0.00006	0.989	0.028	-0.064	0.0043	1.63
	(1.00)	(-1.49)	(66.65)	(1.57)	(-1.74)		1966.1–2005.1
JA	-0.035	0.00001	0.918		-0.161	0.0045	2.26
	(-2.68)	(0.39)	(29.92)		(-2.17)		1966.1–2005.2
AU	-0.040	0.00004	0.951		-0.040	0.0026	1.01
	(-3.14)	(1.93)	(66.02)		(-1.25)		1970.1–2004.4
GE	-0.050	0.00001	0.912		-0.023	0.0048	2.01
	(-3.02)	(0.51)	(30.32)		(-0.64)		1971.1–2005.2
IT	-0.086	0.00004	0.882		-0.106	0.0058	1.92
	(-2.86)	(1.59)	(21.08)		(-2.06)		1971.1–2005.1
ST	0.003	-0.00003	0.983		-0.077	0.0046	1.94
	(0.32)	(-1.24)	(47.16)		(-1.87)		1984.1–2005.1
FI	-0.055	-0.00006	0.851		-0.082	0.0051	2.20
	(-3.48)	(-2.42)	(20.03)		(-3.18)		1976.2–2005.2
AS	-0.064	0.00006	0.879		-0.042	0.0043	1.79
	(-3.23)	(3.15)	(23.71)		(-2.09)		1967.1–2005.1
Annual							
BE	-0.061	0.00016	0.905		-0.048	0.0036	1.66
	(-0.76)	(1.37)	(7.62)		(-1.45)		1971–1999
NO	-0.087	0.00122	0.831		-0.517	0.0117	1.16
	(-2.03)	(2.72)	(12.07)		(-2.85)		1962–2002
SW	-0.004	-0.00025	0.942	0.048	-0.198	0.0065	1.65
	(-0.11)	(-0.82)	(15.53)	(1.83)	(-2.88)		1965–2004
IR	-0.133	0.00084	0.788		-0.161	0.0127	2.68
	(-2.26)	(3.58)	(7.79)		(-2.02)		1968–2004

Table B14: Test Results for Equation 14

	Lags	$\log PY$	RHO	Stability			End Test		overid	
	p-val	p-val	p-val	AP	df	λ	p-val	End	p-val	df
Quarterly										
CA	0.152	0.040	0.372	13.20	5	5.565	1.000	1998.4	0.000	5
JA	0.030		0.014	20.44	4	5.358	0.612	1998.3	0.033	5
AU	0.000		0.000	12.71	4	3.972	0.652	1998.3	0.000	5
GE	0.780		0.000	3.44	4	4.261	0.365	1998.4	0.404	5
IT	0.889		0.551	8.04	4	3.607	1.000	1998.3	0.024	5
ST	0.760		0.327	8.47	4	1.000	0.969	1998.3	0.106	5
FI	0.000		0.038	9.76	4	2.093	0.871	1998.3	0.003	5
AS	0.277		0.352	6.84	4	5.607	0.633	1998.2	0.209	5
Annual										
BE	0.006		0.318	11.12	4	2.681	1.000	1996		
NO	0.008		0.004	10.21	4	6.623	0.344	1998		
SW	0.018	0.011	0.011	0.85	0	0.000				
IR	0.004		0.025	11.75	4	3.916	0.458	1998		

Table B.5
Links Between the US and ROW Models

The data on the variables for the United States that are needed when the US model is imbedded in the MCC model were collected as described in Table B.2. These variables are (with the US subscript dropped): $EXDS$, $IMDS$, M, MS, $M00\$A$, $M00\$B$, PM, PMP, $PSI2$, $PW\$$, PX (= $PX\$$), S, TT, XS, and $X00\$$. The PX_{US} variable here is not the same as the PX variable for the United States in Appendix A. The variable here is denoted $USPX$ in the MCC model. The PX variable for the United States is the price deflator of total sales of the firm sector.

Variable	Determination
$X00\$_{US}$	Determined in Table B.3
PMP_{US}	Determined in Table B.3
$PW\$_{US}$	Determined in Table B.3
PX_{US}	Determined by an equation that is equivalent to equation 11 for the other countries. See the discussion in Section B.6.
$PEX =$	$DEL3 \cdot PX_{US}$. In the US model by itself, PEX is determined as $PSI1 \cdot PX$, which is equation 32 in Table A.2. This equation is dropped when the US model is linked to the ROW model. $DEL3$ is constructed from the data as PEX/PX_{US} and is taken to be exogenous.
$PM_{US} =$	$PSI2_{US}PMP_{US}$. This is the same as equation I-19 for the other countries.
$PIM =$	$DEL4 \cdot PM_{US}$. PIM is an exogenous variable in the US model by itself. $DEL4$ is constructed from the data as PIM/PM_{US} and is taken to be exogenous.
$EX =$	$(X00\$_{US} + XS_{US} + EXDS_{US})/1000$. This is the same as equation I-2 for the other countries. EX is an exogenous variable in the US model by itself. $EXDS_{US}$ is constructed from the data as $1000EX - X00\$_{US} - XS_{US}$ and is taken to be exogenous.
$M_{US} =$	$1000IM - MS_{US} - IMDS_{US}$. This is the same as equation I-1 for the other countries. $IMDS_{US}$ is constructed from the data as $1000IM - M_{US} - MS_{US}$ and is taken to be exogenous.
$M00\$A_{US} =$	$M_{US} - M00\$B_{US}$. This is the same as equation I-8 for the other countries.
$S_{US} =$	$PX_{US}(X00\$_{US} + XS_{US}) - PM_{US}(M_{US} + MS_{US}) + TT_{US}$. This is the same as equation I-6 for the other countries.

• The new exogenous variables for the US model when it is linked to the ROW model are $DEL3$, $DEL4$, $EXDS_{US}$, $IMDS_{US}$, $M00\$B_{US}$, MS_{US}, $PSI2_{US}$, TT_{US}, and XS_{US}. EX and PIM are exogenous in the US model by itself, but endogenous when the US model is linked to the ROW model.

Table B.6
Construction of the Balance of Payments Data: Data for S and TT

The relevant raw data variables are:

$M\$'$	Goods imports (fob) in \$, BOP data. [IFS78ABD]
$M\$$	Goods imports (fob) in \$. [IFS71V/E]
$X\$'$	Goods exports (fob) in \$, BOP data. [IFS78AAD]
$X\$$	Goods exports (fob) in \$. [IFS70/E]
$MS\$$	Services and income (debit) in \$, BOP data. [IFS78AED + IFS78AHD]
$XS\$$	Services and income (credit) in \$, BOP data. [IFS78ADD + IFS78AGD]
$XT\$$	Current transfers, n.i.e., (credit) in \$, BOP data. [IFS78AJD]
$MT\$$	Current transfers, n.i.e., (debit) in \$, BOP data. [IFS78AKD]

When quarterly data on all the above variables were available, then $S\$$ and $TT\$$ were constructed as:

$$S\$ = \quad X\$' + XS\$ - M\$' - MS\$ + XT\$ - MT\$$$

$$TT\$ = \quad S\$ - X\$ - XS\$ + M\$ + MS\$$$

where $S\$$ is total net goods, services, and transfers in \$ (balance of payments on current account) and $TT\$$ is total net transfers in \$.

When only annual data on $M\$'$ were available and quarterly data were needed, interpolated quarterly data were constructed using $M\$$. Similarly for $MS\$$.

When only annual data on $X\$'$ were available and quarterly data were needed, interpolated quarterly data were constructed using $X\$$. Similarly for $XS\$$, $XT\$$, and $MT\$$.

When no data on $M\$'$ were available, then $M\$'$ was taken to be $\lambda M\$$, where λ is the last observed value of $M\$'/M\$$. Similarly for $MS\$$ (where λ is the last observed annual value of $MS\$/M\$$.)

When no data on $X\$'$ were available, then $X\$'$ was taken to be $\lambda X\$$, where λ is the last observed value of $X\$'/X\$$. Similarly for $XS\$$ (where λ is the last observed annual value of $XS\$/X\$$), for $XT\$$ (where λ is the last observed annual value of $XT\$/X\$$), and for $MT\$$ (where λ is the last observed annual value of $MT\$/X\$$).

The above equations for $S\$$ and $TT\$$ were then used to construct quarterly data for $S\$$ and $TT\$$.

After data on $S\$$ and $TT\$$ were constructed, data on S and TT were constructed as:

$$S = \quad E \cdot S\$$$

$$TT = \quad E \cdot TT\$$$

Note from MS and XS in Table B.2 and from $MS\$$ and $XS\$$ above that

$$MS\$ = \quad (PM \cdot MS)/E$$

$$XS\$ = \quad (PX \cdot XS)/E$$

Note also from Table B.2 that

$$M\$ = \quad (PM \cdot M)/E$$

$$X\$ = \quad (E00 \cdot PX \cdot X00\$)/E$$

Therefore, from the above equations, the equation for S can be written

$$S = \quad PX(E00 \cdot X00\$ + XS) - PM(M + MS) + TT$$

which is equation I-6 in Table B.3.