

Estimation Results for the Equation used in Figure 2 of the e-Brief
The Real Reasons for the Canadian Dollar's Power Trip – And What Not To Do About It

Yvan Guillemette, David Laidler and Bill Robson

Variable legend (source) – All series are converted to quarterly averages

RFX: Real Canada-U.S. exchange rate calculated by deflating the nominal Canada-U.S. exchange rate in U.S. cents (CANSIM v37694 in table 176-0041) by the ratio of the Canadian GDP implicit price index (CANSIM v1997756 in table 380-0003) to the U.S. GDP implicit price index (www.economagic.com).

COM: Real non-energy commodity price index calculated by deflating the nominal commodity price index – total excluding energy – in U.S. dollar terms for Canada (CANSIM v36383 in table 176-0001) by the U.S. GDP implicit price index. The nominal index is scaled to be equal to 100 on average for the period 1982 to 1990.

ENE: Real energy commodity price index calculated by deflating the nominal commodity price index – energy – in U.S. dollar terms for Canada (CANSIM v36384 in table 176-0001) by the U.S. GDP implicit price index. The nominal index is scaled to be equal to 100 on average for the period 1982 to 1990.

RDIFF: Canada-U.S. short-term interest rate differential calculated by subtracting the U.S. 3-month Treasury bill rate in percentage points (www.economagic.com) from the Canadian 3-month Treasury bill rate in percentage points (CANSIM v121778 in table 176-0041).

Estimation Results

Dependent Variable: LOG(RFX)-LOG(RFX(-1))

Method: Least Squares

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Sample(adjusted): 1973:2 2004:3

Included observations: 126 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	0.400	0.128	3.13	0.002
LOG(RFX(-1))	-0.173	0.033	-5.19	0.000
LOG(COM70S(-1))	0.090	0.020	4.46	0.000
LOG(COM80S(-1))	0.094	0.022	4.17	0.000
LOG(COM90S(-1))	0.045	0.019	2.29	0.024
LOG(ENE70S(-1))	-0.022	0.008	-2.72	0.008
LOG(ENE80S(-1))	-0.024	0.011	-2.24	0.027
LOG(ENE90S(-1))	0.027	0.010	2.84	0.005
RDIFF(-1)	0.006	0.002	3.82	0.000
R-squared	0.289	Mean dependent var		0.000
Adjusted R-squared	0.240	S.D. dependent var		0.021
S.E. of regression	0.019	Akaike info criterion		-5.057
Sum squared resid	0.041	Schwarz criterion		-4.855
Log likelihood	327.607	F-statistic		5.939
Durbin-Watson stat	1.341	Prob(F-statistic)		0.000

Estimated coefficients on the commodity price indexes are allowed to change through time. As such, **70s** refer to the period 1973:Q1 to 1982:Q4, **80s** to 1983:Q1 to 1992:Q4 and **90s** to 1993:Q1 to 2004:Q3.

The dynamic forecast underlying Figure 2 in the e-brief is computed, for each quarter, by using actual observed values of the variables **COM**, **ENE** and **RDIFF** for the previous quarter, but using the previous-quarter forecast of **RFX** as the lagged dependent variable rather than the realized value. As all left-hand side variables in the equation are lagged one period, the first forecast value shown in Figure 2 is for 1973:Q2 and the last is for 2004:Q4.

For more details on the equation, please see:

David Laidler and Shay Aba. 2002. "Productivity and the Dollar: Commodities and the Exchange Rate Connection." *C.D. Howe Institute Commentary* 158. Toronto: C.D. Howe Institute.

It is available at http://www.cdhowe.org/pdf/commentary_158.pdf