

Appendix C. Results of Vector Autoregression and Vector Error Correction

We use an eight-variable unstructured VAR models to test the dynamics and the interdependencies between return series and risk premia variables. Specifically, we jointly analyze the relationship in eight return variables, caused from the cognition and breakpoints in FX markets. We follow the VAR estimation procedures described in Hamilton (1994).¹ For a variable with lags, we report coefficient estimates of lagged variables and use standard student *t*-tests to evaluate the significances of the coefficient estimates; we also calculate the *F*-statistic to test the hypothesis that the sum of coefficients is zero.

To analyze the VAR system's reaction to a one standard deviation shock, we estimate impulse responses obtained from the system's moving average representation. The statistical significances of the impulse responses are judged based on Monte Carlo simulation. More specifically, the standard errors are obtained from 10,000 random draws from the asymptotic distributions of the parameters. In short, we break the sample regime into three sub-sample states, 7/04/1996-12/31/1998, 1/01/1999-7/31/2007, and 2/01/2007-4/19/201. In state 1, for Canada dollar, the estimation results show that lag-one returns of Russia ruble and lag-one return of USDX, tend to strongly persist for Canada dollar return equation. For French franc, the estimation results show that lag-two returns of British pound tend to strongly persist for Canada dollar return equation. The results are similar to the Deutsche mark. For Italia lira, the estimation results show that lag-one and lag-two returns of British pound tend to strongly persist for Italia lira returns. Japanese yen has an AR (1) process and is statistically significant persisting by lag-one Russia ruble. Russia ruble also has an AR (1) process. For British pound, more interesting, the estimation results show that British pound has an AR (1) and lag-two returns of Canada dollar return and Italia lira tend to strongly persist for British pound return equation. The results of USDX return series is strongly correlated to the lag-one Canada dollar and itself. Similar results are provided in state 2 and state 3. In our view, it is better to focus on the discussion of the SWARCH model results. Thus, the VAR results are provided in Appendix C1.²

The Appendix C1 is estimated by the SIC criteria, which is used for model selection such as determining the lag length of the VAR, with smaller values of the information criterion being preferred. The multivariate LM test statistics is for residual serial correlation up to the specified order. Under the null hypothesis of no serial correlation of order, the LM statistic is asymptotically distributed as χ^2 with k^2 degrees of freedom, where k is the number of endogenous variables and is the largest lag p . The White heteroskedasticity test is extended from White's (1980) test to systems of equations. The White test regression is run by regressing each cross product of the residuals on the cross products of the regressors and testing the joint significance of the regression. The SIC, LM test, Jarque-Bera statistics, and White heteroskedasticity χ^2 statistics consistently show that the VAR(2) are model-fitness and the residuals is well-distributed in terms of no serial correlation and homoscedasticity. Further, we conduct Granger-causality tests (*F*-statistic) to evaluate whether a block of lags of a dependent variable is a jointly significant predictor of the other dependent variable. The results of Granger-causality tests are

¹ For the asymptotic distributions of the parameters, see Proposition 11.2 in Hamilton (1994).

² Appendix B are available on the contact author's web site:
<http://www2.nkfust.edu.tw/~mhchen/papers/index.htm#C>.

available on requirement.

A vector error correction (VEC) model is a restricted VAR designed for use with nonstationary series that are known to be cointegrated. The VEC estimation output consists of two parts. The first part reports the results from the first step Johansen procedure. We use a default normalization that identifies all cointegrating relations, which expresses the first variables in the VEC as functions of the remaining variables, where r is the number of cointegrating relations and k is the number of endogenous variables. Asymptotic standard errors (corrected for degrees of freedom) are reported for parameters that are identified under the restrictions. The second part of the output reports results from the second step VAR in first differences, including the error correction terms estimated from the first step. The VEC has cointegration relations built into the specification so that it restricts the long run behavior of the endogenous variables to converge to their cointegrating relationships while allowing for short-run adjustment dynamics.³ The cointegration term is known as the error correction term since the deviation from long-run equilibrium is corrected gradually through a series of partial short-run adjustments. The statistical significances of the impulse responses are judged based on Monte Carlo simulation. More specifically, the standard errors are obtained from 10,000 random draws from the asymptotic distributions of the parameters. In short, we break the sample regime into five sub-sample states, 7/05/1996-7/31/1998, 8/03/1998-7/31/2007, 8/01/2007-12/31/2008, 1/01/2009-12/30/2011, and 1/02/2012- 4/19/2013. Appendix C2 reports the results.⁴ Our results are similar to the VAR. The impulse response to Cholesky one standard deviation innovation among eight-variables unstructured VEC models and the interdependencies between one FX return series and another are provided in Appendix C3.⁵

³ Appendix C provides the results of vector error correction estimates, and is available on the contact author's web site: <http://www2.nkfust.edu.tw/~mhchen/papers/index.htm#C>

⁴ Appendix D is available on the contact author's web site: <http://www2.nkfust.edu.tw/~mhchen/papers/index.htm#C>

⁵ Appendix E is available on the contact author's web site: <http://www2.nkfust.edu.tw/~mhchen/papers/index.htm#C>

Table C1.1 Vector Autoregression Estimates: Sample period: 7/04/1996 12/31/1998,
 Included observations: 651 after adjustments,
 Standard errors in () & t-statistics in []

	CAN_R	FRE_R	GER_R	ITA_R	JAP_R	RUS_R	UK_R	USDX_R
CAN_R(-1)	-0.009562 (0.04022) [-0.23772]	-0.029489 (0.06821) [-0.43231]	-0.027056 (0.06952) [-0.38918]	-0.011963 (0.06398) [-0.18699]	-0.140596 (0.11075) [-1.26950]	0.058249 (0.52144) [0.11171]	0.010670 (0.06062) [0.17600]	0.083510 (0.03621) [2.30612]
CAN_R(-2)	-0.024396 (0.04005) [-0.60906]	-0.012715 (0.06792) [-0.18719]	-0.022147 (0.06923) [-0.31992]	-0.023363 (0.06371) [-0.36673]	0.157687 (0.11028) [1.42987]	-0.398436 (0.51924) [-0.76735]	-0.135652 (0.06037) [-2.24720]	0.050353 (0.03606) [1.39640]
FRE_R(-1)	0.062367 (0.17393) [0.35857]	-0.378255 (0.29495) [-1.28245]	-0.234878 (0.30061) [-0.78135]	-0.094793 (0.27663) [-0.34267]	0.204015 (0.47888) [0.42603]	-1.472114 (2.25471) [-0.65291]	-0.246999 (0.26213) [-0.94229]	-0.058822 (0.15658) [-0.37566]
FRE_R(-2)	-0.237628 (0.17381) [-1.36721]	0.385890 (0.29473) [1.30929]	0.487541 (0.30039) [1.62304]	0.262008 (0.27643) [0.94782]	0.421466 (0.47853) [0.88075]	1.269016 (2.25307) [0.56324]	-0.234228 (0.26194) [-0.89422]	-0.077659 (0.15647) [-0.49632]
GER_R(-1)	-0.053220 (0.16112) [-0.33031]	0.371510 (0.27323) [1.35970]	0.226208 (0.27847) [0.81232]	0.085681 (0.25626) [0.33435]	-0.192414 (0.44362) [-0.43374]	1.551405 (2.08870) [0.74276]	0.010206 (0.24283) [0.04203]	0.051684 (0.14505) [0.35631]
GER_R(-2)	0.148767 (0.16226) [0.91687]	-0.228674 (0.27515) [-0.83110]	-0.316986 (0.28043) [-1.13038]	-0.084036 (0.25806) [-0.32564]	-0.510043 (0.44673) [-1.14172]	-1.025393 (2.10335) [-0.48750]	0.075323 (0.24453) [0.30803]	0.089609 (0.14607) [0.61346]
ITA_R(-1)	-0.005974 (0.07417) [-0.08055]	0.052825 (0.12577) [0.42002]	0.045801 (0.12818) [0.35732]	0.070978 (0.11796) [0.60173]	0.030614 (0.20420) [0.14992]	0.337341 (0.96142) [0.35088]	0.233392 (0.11177) [2.08810]	-0.041433 (0.06677) [-0.62056]
ITA_R(-2)	0.100101 (0.07375) [1.35736]	-0.139012 (0.12506) [-1.11159]	-0.148106 (0.12746) [-1.16201]	-0.170800 (0.11729) [-1.45620]	0.241111 (0.20304) [1.18748]	-0.620651 (0.95600) [-0.64922]	0.121767 (0.11114) [1.09560]	-0.026404 (0.06639) [-0.39771]
JAP_R(-1)	0.008634 (0.01625) [0.53117]	-0.030296 (0.02756) [-1.09912]	-0.028959 (0.02809) [-1.03082]	-0.029974 (0.02585) [-1.15942]	0.109962 (0.04475) [2.45705]	-0.177268 (0.21071) [-0.84128]	-0.001358 (0.02450) [-0.05543]	0.016229 (0.01463) [1.10903]
JAP_R(-2)	0.019386 (0.01620) [1.19683]	-0.036795 (0.02747) [-1.33960]	-0.040284 (0.02799) [-1.43902]	-0.031583 (0.02576) [-1.22600]	-0.045573 (0.04460) [-1.02191]	0.198588 (0.20997) [0.94579]	0.003351 (0.02441) [1.3727]	0.002592 (0.01458) [1.1779]
RUS_R(-1)	0.009202 (0.00310) [2.96784]	0.005413 (0.00526) [1.02957]	0.005138 (0.00536) [0.95876]	0.005068 (0.00493) [1.02766]	0.020821 (0.00854) [2.43896]	0.107878 (0.04019) [2.68392]	-0.002521 (0.00467) [-0.53958]	0.003084 (0.00279) [1.10468]
RUS_R(-2)	0.005079 (0.00314) [1.61969]	-0.007412 (0.00532) [-1.39399]	-0.007108 (0.00542) [-1.31151]	-0.006638 (0.00499) [-1.33091]	-0.012914 (0.00863) [-1.49577]	0.067635 (0.04065) [1.66387]	-0.002591 (0.00473) [-0.54829]	-0.000718 (0.00282) [-0.25428]
UK_R(-1)	-0.010441 (0.02629) [-0.39710]	-0.086081 (0.04459) [-1.93067]	-0.090874 (0.04544) [-1.99982]	-0.086503 (0.04182) [-2.06858]	-0.029880 (0.07239) [-0.41276]	0.290893 (0.34084) [0.85347]	0.092734 (0.03962) [2.34032]	-0.038989 (0.02367) [-1.64721]
UK_R(-2)	-0.012644 (0.02631) [-0.48068]	0.137835 (0.04461) [3.08992]	0.135849 (0.04546) [2.98808]	0.099844 (0.04184) [2.38646]	-0.012042 (0.07243) [-0.16627]	0.587053 (0.34100) [1.72155]	-0.071078 (0.03964) [-1.79291]	-0.000935 (0.02368) [-0.03950]
USDX_R(-1)	0.086673 (0.04410) [1.96546]	0.068235 (0.07478) [0.91249]	0.069485 (0.07621) [0.91171]	0.043007 (0.07014) [0.61320]	0.087937 (0.12141) [0.72428]	0.166052 (0.57165) [0.29048]	0.112388 (0.06646) [1.69109]	0.144062 (0.03970) [3.62886]
USDX_R(-2)	0.035065 (0.04396) [0.79763]	0.015036 (0.07455) [0.20170]	0.016141 (0.07598) [0.21244]	-0.027466 (0.06992) [-0.39282]	0.042350 (0.12104) [0.34989]	-0.876593 (0.56988) [-1.53822]	-0.010683 (0.06625) [-0.16125]	0.006277 (0.03958) [0.15860]
C	0.000130 (0.00012) [1.04819]	0.000103 (0.00021) [0.48888]	0.000120 (0.00021) [0.55978]	0.000109 (0.00020) [0.55333]	-3.46E-05 (0.00034) [-0.10154]	0.001965 (0.00160) [1.22548]	0.000103 (0.00019) [0.55072]	0.000190 (0.00011) [1.70459]
R-squared	0.034763	0.037287	0.035692	0.030383	0.035301	0.034405	0.037781	0.047906
Adj. R-squared	0.010403	0.012991	0.011357	0.005913	0.010955	0.010036	0.013498	0.023878
Sum sq. resids	0.006139	0.017652	0.018336	0.015528	0.046534	1.031562	0.013942	0.004975
S.E. equation	0.003112	0.005277	0.005378	0.004949	0.008567	0.040337	0.004689	0.002801
F-statistic	1.427081	1.534718	1.466658	1.241635	1.449979	1.411862	1.555864	1.993783
Log likelihood	2842.848	2499.033	2486.662	2540.767	2183.524	1174.911	2575.830	2911.258
Akaike AIC	-8.681561	-7.625293	-7.587288	-7.753508	-6.655987	-3.557331	-7.861228	-8.891730
Schwarz SC	-8.564611	-7.508343	-7.470337	-7.636558	-6.539037	-3.440381	-7.744278	-8.774780
Mean dependent	0.000186	0.000123	0.000135	0.000110	3.07E-05	0.002201	8.50E-05	0.000251
S.D. dependent	0.003128	0.005311	0.005409	0.004964	0.008615	0.040541	0.004721	0.002835
Determinant resid covariance (dof adj.)				6.82E-39				
Determinant resid covariance				5.52E-39				
Log likelihood				21284.27				
Akaike information criterion				-64.97166				
Schwarz criterion				-64.03605				

Table C1.2 Vector Autoregression Estimates, Sample period: 1/01/1999~7/31/2007,
 Included observations: 2238
 Standard errors in () & t-statistics in []

	CAN_R	FRE_R	GER_R	ITA_R	JAP_R	RUS_R	UK_R	USDX_R
CAN_R(-1)	0.000586 (0.02245) [0.02608]	0.019732 (0.02945) [0.66998]	0.019771 (0.02945) [0.67132]	0.019787 (0.02945) [0.67183]	0.014026 (0.03013) [0.46555]	-0.028867 (0.01980) [-1.45809]	-0.014753 (0.02520) [-0.58541]	0.009896 (0.01227) [0.80677]
CAN_R(-2)	-0.030192 (0.02247) [-1.34367]	0.040731 (0.02947) [1.38207]	0.040675 (0.02947) [1.38024]	0.040700 (0.02947) [1.38101]	0.063791 (0.03015) [2.11589]	0.031441 (0.01981) [1.58704]	-0.024761 (0.02522) [-0.98192]	0.001375 (0.01227) [0.11198]
FRE_R(-1)	-4.764580 (7.02239) [-0.67848]	-5.125478 (9.21052) [-0.55648]	-4.895238 (9.21018) [-0.53150]	-5.032676 (9.21063) [-0.54640]	-3.988908 (9.42235) [-0.42335]	-7.682049 (6.19147) [-1.24075]	-2.577897 (7.88108) [-0.32710]	7.836428 (3.83619) [2.04276]
FRE_R(-2)	-8.450269 (5.97632) [-1.41396]	-10.61180 (7.83850) [-1.35380]	-10.53838 (7.83821) [-1.34449]	-10.57504 (7.83859) [-1.34910]	-1.133741 (8.01878) [-0.14139]	1.911835 (5.26917) [0.36283]	-2.273869 (6.70710) [-0.33902]	0.634933 (3.26475) [0.19448]
GER_R(-1)	-4.184408 (5.69840) [-0.73431]	-3.113977 (7.47398) [-0.41664]	-3.771980 (7.47370) [-0.50470]	-3.132679 (7.47406) [-0.41914]	9.704575 (7.64587) [1.26926]	5.161631 (5.02413) [-1.02737]	-5.38060 (6.39519) [0.24050]	2.521495 (3.11292) [0.81001]
GER_R(-2)	-8.471522 (5.70931) [-1.48381]	11.05707 (7.48830) [1.47658]	10.73779 (7.48802) [1.43400]	11.04691 (7.48838) [1.47521]	7.963066 (7.66052) [1.03949]	-3.906992 (5.03376) [-0.77616]	3.620592 (6.40744) [0.56506]	0.030119 (3.11889) [0.00966]
ITA_R(-1)	8.927674 (8.13706) [1.09716]	8.254658 (10.6725) [0.77345]	8.682322 (10.6721) [0.81355]	8.180537 (10.6726) [0.76650]	-5.735405 (10.9180) [-0.52532]	12.84784 (7.17424) [1.79083]	1.045389 (9.13204) [0.11447]	-10.34827 (4.44511) [-2.32801]
ITA_R(-2)	16.91963 (7.44416) [2.27287]	-0.447944 (9.76372) [-0.04588]	-0.201940 (9.76335) [-0.02068]	-0.474498 (9.76382) [-0.04860]	-6.816262 (9.98827) [-0.68243]	1.983254 (6.56333) [0.30217]	-1.338198 (8.35443) [-0.16018]	-0.662418 (4.06660) [-0.16289]
JAP_R(-1)	-0.024403 (0.01700) [-1.43559]	-0.049504 (0.02229) [-2.22042]	-0.049446 (0.02229) [-2.21791]	-0.049518 (0.02230) [-2.22102]	-0.005262 (0.02281) [-0.23071]	-0.025980 (0.01499) [-1.73352]	-0.017820 (0.01908) [-0.93414]	0.001465 (0.00929) [0.15777]
JAP_R(-2)	-0.013753 (0.01699) [-0.80940]	-0.029160 (0.02229) [-1.30846]	-0.029244 (0.02228) [-1.31228]	-0.029134 (0.02229) [-1.30732]	-0.019229 (0.02280) [-0.84345]	0.006403 (0.01498) [0.42740]	0.007898 (0.01907) [0.41417]	0.007286 (0.00928) [0.78500]
RUS_R(-1)	-0.019021 (0.02363) [-0.80482]	0.042018 (0.03100) [1.35549]	0.041995 (0.03100) [1.35480]	0.042037 (0.03100) [1.35610]	0.057494 (0.03171) [1.81305]	0.268842 (0.02084) [12.9018]	0.026972 (0.02652) [1.01689]	0.007256 (0.01291) [0.56198]
RUS_R(-2)	0.007661 (0.02364) [0.32404]	0.021314 (0.03101) [0.68735]	0.021494 (0.03101) [0.69317]	0.021233 (0.03101) [0.68471]	0.015864 (0.03172) [0.50010]	-0.211178 (0.02085) [-10.1308]	0.000832 (0.02653) [0.03135]	0.005391 (0.01292) [0.41744]
UK_R(-1)	-0.007576 (0.01895) [-0.39983]	-0.018124 (0.02485) [-0.72931]	-0.018092 (0.02485) [-0.72805]	-0.018105 (0.02485) [-0.72856]	-0.061053 (0.02542) [-2.40157]	0.004548 (0.01670) [0.27224]	0.021265 (0.02126) [1.00006]	0.002260 (0.01035) [0.21838]
UK_R(-2)	-0.026596 (0.01897) [-1.40235]	-0.016381 (0.02487) [-0.65855]	-0.016437 (0.02487) [-0.66082]	-0.016370 (0.02487) [-0.65808]	-0.036622 (0.02545) [-1.43915]	-0.017805 (0.01672) [-1.06481]	-0.011258 (0.02128) [-0.52894]	0.012686 (0.01036) [1.22448]
USDX_R(-1)	-0.048090 (0.03884) [-1.23811]	-0.048713 (0.05094) [-0.95620]	-0.048609 (0.05094) [-0.95418]	-0.048774 (0.05095) [-0.95738]	-0.015856 (0.05212) [-0.30425]	-0.027515 (0.03425) [-0.80344]	-0.011763 (0.04359) [-0.26985]	0.030618 (0.02122) [1.44299]
USDX_R(-2)	0.092554 (0.03880) [2.38529]	-0.030070 (0.05089) [-0.59085]	-0.030027 (0.05089) [-0.59004]	-0.030010 (0.05089) [-0.58967]	-0.048502 (0.05206) [-0.93161]	0.018253 (0.03421) [0.53354]	-0.024639 (0.04355) [-0.56581]	0.001091 (0.02120) [0.05145]
C	-0.000158 (9.5E-05) [-1.66555]	-6.13E-05 (0.00012) [-0.49273]	-6.13E-05 (0.00012) [-0.49278]	-6.14E-05 (0.00012) [-0.49293]	3.63E-05 (0.00013) [0.28533]	7.50E-05 (8.4E-05) [0.89585]	8.20E-05 (0.00011) [0.76984]	-7.05E-05 (5.2E-05) [-1.35939]
R-squared	0.010744	0.008107	0.008149	0.008104	0.009469	0.096002	0.002492	0.006758
Adj. R-squared	0.003618	0.000961	0.001004	0.000958	0.002333	0.089489	-0.004694	-0.000398
Sum sq. resids	0.044461	0.076485	0.076479	0.076487	0.080044	0.034562	0.055999	0.013268
S.E. equation	0.004474	0.005868	0.005868	0.005868	0.006003	0.003945	0.005021	0.002444
F-statistic	1.507649	1.134497	1.140508	1.134107	1.326921	14.74144	0.346764	0.944415
Log likelihood	8939.252	8332.211	8332.295	8332.186	8281.322	9221.088	8681.074	10292.40
Akaike AIC	-7.973416	-7.430930	-7.431006	-7.430908	-7.385453	-8.225279	-7.742693	-9.182662
Schwarz SC	-7.930017	-7.387531	-7.387607	-7.387509	-7.342055	-8.181880	-7.699295	-9.139263
Mean dependent	-0.000162	-6.85E-05	-6.85E-05	-6.85E-05	2.42E-05	7.62E-05	9.27E-05	-6.99E-05
S.D. dependent	0.004482	0.005871	0.005871	0.005871	0.006010	0.004134	0.005010	0.002444
Determinant resid covariance (dof adj.)				3.80E-49				
Determinant resid covariance				3.58E-49				
Log likelihood				99422.65				
Akaike information criterion				-88.72802				
Schwarz criterion				-88.38083				

Table C1.3 Vector Autoregression Estimates, Sample period: 8/01/2007~4/19/2013,
 Included observations: 1493 after adjustments
 Standard errors in () & t-statistics in []

	CAN_R	FRE_R	GER_R	ITA_R	JAP_R	RUS_R	UK_R	USDX_R
CAN_R(-1)	-0.018533 (0.03385) [-0.54755]	-0.033211 (0.03194) [-1.03972]	-0.033262 (0.03194) [-1.04137]	-0.033219 (0.03194) [-1.03995]	-0.006278 (0.03305) [-0.18996]	0.009322 (0.03053) [0.30538]	-0.056024 (0.03178) [-1.76303]	-0.024448 (0.01695) [-1.44211]
CAN_R(-2)	-0.040771 (0.03372) [-1.20900]	-0.013411 (0.03182) [-0.42143]	-0.013357 (0.03182) [-0.41973]	-0.013370 (0.03182) [-0.42011]	0.021819 (0.03293) [0.66266]	-0.028067 (0.03041) [-0.92282]	-0.010598 (0.03166) [-0.33476]	-0.005615 (0.01689) [-0.33247]
FRE_R(-1)	-4.135330 (37.3585) [-0.11069]	-14.01756 (35.2551) [-0.39760]	-13.31881 (35.2533) [-0.37780]	-13.31628 (35.2556) [-0.37771]	-0.291877 (36.4763) [-0.00800]	-25.56059 (33.6932) [-0.75863]	-3.279947 (35.0725) [-0.09352]	-30.25957 (18.7115) [-1.61716]
FRE_R(-2)	17.74633 (37.3431) [0.47522]	12.79172 (35.2406) [0.36298]	13.12064 (35.2388) [0.37233]	13.10570 (35.2411) [0.37189]	2.946246 (36.4613) [0.08080]	-55.93853 (33.6794) [-1.66091]	-19.26087 (35.0581) [-0.54940]	-38.01262 (18.7038) [-2.03234]
GER_R(-1)	-8.307262 (11.1394) [-0.74575]	-23.43443 (10.5122) [-2.22925]	-24.07429 (10.5117) [-2.29024]	-23.43575 (10.5124) [-2.22935]	-8.577154 (10.8764) [-0.78861]	-9.216297 (10.0465) [-0.91736]	6.549835 (10.4578) [0.62631]	-3.592536 (5.57933) [-0.64390]
GER_R(-2)	12.30686 (11.1202) [1.10671]	-3.688273 (10.4941) [-0.35146]	-4.006082 (10.4936) [-0.38177]	-3.684271 (10.4943) [-0.35107]	-16.03967 (10.8576) [-1.47728]	-1.120268 (10.0292) [-0.11170]	18.70660 (10.4398) [1.79186]	-6.824186 (5.56970) [-1.22523]
ITA_R(-1)	12.42076 (39.1637) [0.31715]	37.51701 (36.9587) [1.01511]	37.45825 (36.9568) [1.01357]	36.81709 (36.9592) [0.99615]	8.872034 (38.2389) [0.23202]	34.75731 (35.3214) [0.98403]	-3.177704 (36.7673) [-0.08643]	33.88255 (19.6157) [1.72732]
ITA_R(-2)	-30.03595 (39.1272) [-0.76765]	-9.114763 (36.9242) [-0.24685]	-9.125864 (36.9223) [-0.24716]	-9.432797 (36.9248) [-0.25546]	13.06263 (38.2032) [0.34192]	57.04955 (35.2884) [1.61666]	0.566904 (36.7330) [0.01543]	44.85589 (19.5974) [2.28887]
JAP_R(-1)	-0.040127 (0.02827) [-1.41928]	-0.005131 (0.02668) [-0.19230]	-0.005105 (0.02670) [-0.19134]	-0.005140 (0.02668) [-0.19266]	-0.043174 (0.02761) [-1.56399]	-0.004345 (0.02550) [-0.17040]	-0.013140 (0.02654) [-0.49504]	-0.012160 (0.01416) [-0.85873]
JAP_R(-2)	-0.015480 (0.02829) [-0.54717]	-0.026264 (0.02670) [-0.98370]	-0.026230 (0.02670) [-0.98248]	-0.026248 (0.02670) [-0.98311]	-0.010950 (0.02762) [-0.39639]	-0.011615 (0.02552) [-0.45518]	-0.023015 (0.02656) [-0.86651]	0.008622 (0.01417) [0.60848]
RUS_R(-1)	0.066366 (0.03929) [1.68902]	-0.034781 (0.03708) [-0.93798]	-0.034783 (0.03708) [-0.93808]	-0.034805 (0.03708) [-0.93863]	-0.022832 (0.03836) [-0.59514]	0.132466 (0.03544) [3.73798]	0.005890 (0.03689) [0.15966]	-0.006966 (0.01968) [-0.35398]
RUS_R(-2)	-6.26E-05 (0.03915) [-0.00160]	0.009609 (0.03694) [0.26009]	0.009603 (0.03694) [0.25995]	0.009635 (0.03694) [0.26080]	-0.027744 (0.03822) [-0.72584]	0.021205 (0.03531) [0.60058]	0.052171 (0.03675) [1.41953]	-0.002822 (0.01961) [-0.14390]
UK_R(-1)	-0.026577 (0.02768) [-0.96007]	0.002682 (0.02612) [0.10266]	0.002596 (0.02612) [0.09937]	0.002689 (0.02612) [0.10293]	-0.001004 (0.02703) [-0.03713]	-0.009464 (0.02497) [-0.37905]	0.036291 (0.02599) [1.39644]	0.014174 (0.01386) [1.02226]
UK_R(-2)	-0.015613 (0.02766) [-0.56439]	-0.037715 (0.02611) [-1.44469]	-0.037692 (0.02610) [-1.44390]	-0.037719 (0.02611) [-1.44483]	-0.028625 (0.02701) [-1.05980]	-0.012463 (0.02495) [-0.49954]	-0.037466 (0.02597) [-1.44262]	0.015874 (0.01386) [1.14570]
USDX_R(-1)	0.083977 (0.05187) [1.61900]	0.012378 (0.04895) [0.25288]	0.012291 (0.04895) [0.25111]	0.012410 (0.04895) [0.25352]	0.003819 (0.05064) [0.07541]	0.003819 (0.04678) [-0.46152]	-0.021590 (0.04870) [-1.03426]	0.016476 (0.02598) [0.63420]
USDX_R(-2)	0.022486 (0.05190) [0.43324]	-0.044290 (0.04898) [-0.90427]	-0.044308 (0.04898) [-0.90468]	-0.044315 (0.04898) [-0.90477]	-0.019487 (0.05068) [-0.38454]	0.035713 (0.04681) [0.76296]	0.002754 (0.04873) [0.05652]	0.007089 (0.02600) [0.27270]
R-squared	0.009682	0.009265	0.009440	0.009257	0.006518	0.019671	0.014008	0.010167
Adj. R-squared	-0.000375	-0.000797	-0.000620	-0.000804	-0.003571	0.009715	0.003995	0.000114
Sum sq. resids	0.083862	0.074684	0.074677	0.074686	0.079948	0.068214	0.073913	0.021038
S.E. equation	0.007535	0.007111	0.007111	0.007111	0.007357	0.006796	0.007074	0.003774
F-statistic	0.962694	0.920826	0.938335	0.920067	0.646035	1.975792	1.398938	1.011351
Log likelihood	5187.617	5274.136	5274.212	5274.114	5223.296	5341.788	5281.887	6219.909
Akaike AIC	-6.927820	-7.043719	-7.043821	-7.043689	-6.975614	-7.134344	-7.054101	-8.310662
Schwarz SC	-6.870930	-6.986829	-6.986931	-6.986799	-6.918724	-7.077454	-6.997212	-8.253772
Mean dependent	-2.67E-05	3.04E-05	3.04E-05	3.04E-05	-0.000122	0.000141	-0.000161	2.23E-05
S.D. dependent	0.007534	0.007108	0.007108	0.007108	0.007344	0.006829	0.007088	0.003774
Determinant resid covariance (dof adj.)				1.14E-47				
Determinant resid covariance				1.04E-47				
Log likelihood				63808.95				
Akaike information criterion				-85.30603				
Schwarz criterion				-84.85091				

Table C2.1 Vector Error Correction Estimates: Sample (adjusted): 7/05/1996- 7/31/1998

Error								
Correction:	D(CAN_R)	D(FRE_R)	D(GER_R)	D(ITA_R)	D(JAP_R)	D(RUS_R)	D(UK_R)	D(USDX_R)
CointEq1	-0.007630 (0.00744) [-1.02528]	0.047517 (0.01511) [3.14434]	0.075579 (0.01537) [4.91664]	0.044794 (0.01407) [3.18458]	0.013860 (0.02147) [0.64547]	0.034276 (0.00429) [7.99830]	-0.038570 (0.01416) [-2.72344]	0.005884 (0.00803) [0.73278]
D(CAN_R(-1))	-0.617750 (0.04218) [-14.6458]	-0.125238 (0.08566) [-1.46210]	-0.149769 (0.08713) [-1.71893]	-0.100955 (0.07973) [-1.26627]	-0.508295 (0.12171) [-4.17625]	-0.002166 (0.02429) [-0.08917]	0.018722 (0.08027) [0.23322]	0.034132 (0.04551) [0.74999]
D(CAN_R(-2))	-0.333874 (0.04273) [-7.81278]	-0.009943 (0.08678) [-0.11457]	-0.037539 (0.08828) [-0.42524]	-0.007334 (0.08078) [-0.09080]	-0.047475 (0.12331) [-0.38500]	0.035024 (0.02461) [1.42323]	-0.163947 (0.08133) [-2.01585]	0.026976 (0.04611) [0.58505]
D(FRE_R(-1))	0.273359 (0.20537) [1.33102]	-2.212783 (0.41707) [-3.35595]	-2.113446 (0.42424) [-4.98174]	-1.175464 (0.38819) [-3.02803]	-0.219125 (0.59262) [-0.36976]	-0.756944 (0.11827) [-6.40023]	0.752889 (0.39085) [1.92626]	-0.165690 (0.22159) [-0.74774]
D(FRE_R(-2))	0.063574 (0.14968) [0.42474]	-1.020068 (0.30396) [-3.35595]	-0.954970 (0.30919) [-3.08867]	-0.518084 (0.28292) [-1.83123]	0.313300 (0.43190) [0.72540]	-0.407313 (0.08619) [-4.72555]	0.373894 (0.28485) [1.31258]	-0.156078 (0.16149) [-0.96646]
D(GER_R(-1))	-0.220969 (0.20266) [-1.09036]	1.509795 (0.41155) [3.66860]	1.414206 (0.41862) [3.37823]	1.142090 (0.38306) [2.98153]	0.196751 (0.58477) [0.33646]	0.736551 (0.11670) [6.31135]	-0.925384 (0.38568) [-2.39935]	0.143109 (0.21866) [0.65449]
D(GER_R(-2))	-0.060784 (0.14397) [-0.42219]	0.753317 (0.29238) [2.57652]	0.693896 (0.29741) [2.33316]	0.625153 (0.27214) [2.29720]	-0.488086 (0.41545) [-1.17485]	0.396161 (0.08291) [4.77821]	-0.467596 (0.27400) [-1.70654]	0.157153 (0.15534) [1.01166]
D(ITA_R(-1))	-0.058144 (0.05624) [-0.85600]	0.063423 (0.11421) [0.55529]	0.060056 (0.11618) [0.51692]	-0.583005 (0.10631) [-5.48412]	-0.052673 (0.16229) [-0.32456]	0.057503 (0.03239) [1.77545]	0.152185 (0.10704) [1.42181]	-0.028553 (0.06068) [-0.47053]
D(ITA_R(-2))	-0.028082 (0.05613) [-0.50026]	-0.000721 (0.11400) [-0.00632]	-0.009065 (0.11596) [-0.07818]	-0.378970 (0.10610) [-3.57169]	0.184544 (0.16198) [1.13931]	0.033513 (0.03233) [1.03672]	0.056452 (0.10683) [0.52842]	-0.029766 (0.06057) [-0.49146]
D(JAP_R(-1))	0.014609 (0.01601) [0.91275]	0.006013 (0.03250) [0.18500]	0.008956 (0.03306) [0.27087]	0.004165 (0.03025) [0.13766]	-0.552445 (0.04619) [-11.9613]	0.008958 (0.00922) [0.97183]	-0.009260 (0.03046) [-0.30398]	-0.005091 (0.01727) [-0.29480]
D(JAP_R(-2))	0.026150 (0.01570) [1.66593]	0.000141 (0.03188) [0.00443]	0.007347 (0.03242) [0.22660]	0.005080 (0.02967) [0.17120]	-0.233370 (0.04529) [-5.15237]	-0.011508 (0.00904) [-1.27311]	0.007083 (0.02987) [0.23711]	-0.024457 (0.01694) [-1.44406]
D(RUS_R(-1))	-0.090898 (0.09145) [-0.99396]	0.332395 (0.18571) [1.78982]	0.577393 (0.18891) [3.05649]	0.276809 (0.17286) [1.60137]	0.144498 (0.26388) [0.54758]	-0.449100 (0.05266) [-8.52779]	-0.393497 (0.17404) [-2.26093]	-0.027180 (0.09867) [-0.27546]
D(RUS_R(-2))	-0.105639 (0.07253) [-1.45641]	0.164726 (0.14730) [1.11831]	0.271847 (0.14983) [1.81435]	0.108870 (0.13710) [0.79408]	-0.245052 (0.20930) [-1.17082]	-0.285947 (0.04177) [-6.84578]	-0.083786 (0.13804) [-0.60696]	0.001326 (0.07826) [0.01694]
D(UK_R(-1))	0.045363 (0.02192) [2.06983]	-0.081559 (0.04451) [-1.83253]	-0.090533 (0.04527) [-1.99976]	-0.079177 (0.04143) [-1.91132]	-0.021155 (0.06324) [-0.33451]	-0.011493 (0.01262) [-0.91062]	-0.567096 (0.04171) [-13.5964]	-0.027551 (0.02365) [-1.16513]
D(UK_R(-2))	0.027460 (0.02204) [1.24576]	0.100235 (0.04476) [2.23919]	0.088446 (0.04553) [1.94243]	0.063430 (0.04166) [1.52237]	0.072063 (0.06361) [1.13296]	-0.007074 (0.01269) [-0.55727]	-0.297804 (0.04195) [-7.09893]	-0.003214 (0.02378) [-0.13514]
D(USDX_R(-1))	0.043548 (0.03888) [1.11994]	0.085646 (0.07896) [1.08461]	0.078881 (0.08032) [0.98205]	0.058091 (0.07350) [0.79037]	0.004192 (0.11220) [0.03736]	-0.015354 (0.02239) [-0.68568]	0.078695 (0.07400) [1.06342]	-0.559482 (0.04195) [-13.3355]
D(USDX_R(-2))	0.022711 (0.03913) [0.58037]	0.160278 (0.07947) [2.01687]	0.148780 (0.08084) [1.84053]	0.088660 (0.07397) [1.19863]	0.040446 (0.11292) [0.35818]	-0.015014 (0.02254) [-0.66625]	0.051726 (0.07447) [0.69454]	-0.287771 (0.04222) [-6.81562]
C	6.84E-06 (0.00012) [0.05556]	1.02E-05 (0.00025) [0.04076]	1.13E-05 (0.00025) [0.04428]	1.56E-05 (0.00023) [0.06705]	2.69E-05 (0.00036) [0.07558]	4.86E-06 (7.1E-05) [0.06861]	9.56E-06 (0.00023) [0.04078]	-1.43E-05 (0.00013) [-0.10794]
R ²	0.333889	0.373358	0.383875	0.341363	0.317659	0.483591	0.292358	0.276196
Adj. R ²	0.312237	0.352989	0.363848	0.319954	0.295479	0.466806	0.269356	0.252669
Sum sq. resids	0.004290	0.017692	0.018306	0.015327	0.035721	0.001423	0.015538	0.004994
S.E. equation	0.002864	0.005816	0.005916	0.005414	0.008264	0.001649	0.005451	0.003090
F-statistic	15.42085	18.32981	19.16786	15.94492	14.32228	28.80964	12.71022	11.73951
Log likelihood	2409.342	2026.092	2016.867	2064.903	1836.035	2707.910	2061.209	2368.231
Akaike AIC	-8.840449	-7.423632	-7.389528	-7.567111	-6.721018	-9.944213	-7.553451	-8.688469
Schwarz SC	-8.697600	-7.280783	-7.246679	-7.424261	-6.578168	-9.801363	-7.410602	-8.545619
Mean dependent	5.41E-07	5.59E-06	6.22E-06	1.13E-05	2.37E-05	5.79E-06	5.91E-06	-9.87E-06
S.D. dependent	0.003454	0.007231	0.007418	0.006565	0.009846	0.002259	0.006377	0.003575
Determinant resid covariance (dof adj.)			3.55E-41					
Determinant resid covariance			2.71E-41					
Log likelihood			19126.37					
Akaike information criterion			-70.14556					
Schwarz criterion			-68.93927					

Table C2.2 Vector Error Correction Estimates: Sample (adjusted): 8/03/1998- 7/31/2007

Error	D(CAN_R)	D(FRE_R)	D(GER_R)	D(ITA_R)	D(JAP_R)	D(RUS_R)	D(UK_R)	D(USDX_R)
Correction:	D(CAN_R)	D(FRE_R)	D(GER_R)	D(ITA_R)	D(JAP_R)	D(RUS_R)	D(UK_R)	D(USDX_R)
CointEq1	-0.000494 (0.00032) [-1.52509]	-0.000849 (0.00042) [-2.01203]	-0.000667 (0.00042) [-1.58064]	-0.000716 (0.00042) [-1.69791]	-0.001644 (0.00047) [-3.53313]	-0.006474 (0.00146) [-4.42711]	0.000683 (0.00036) [1.89144]	-1.61E-05 (0.00018) [-0.09095]
D(CAN_R(-1))	-0.648216 (0.02046) [-31.6778]	0.010530 (0.02666) [0.39496]	0.010539 (0.02667) [0.39514]	0.010950 (0.02666) [0.41081]	0.001521 (0.02941) [0.05172]	-0.058385 (0.09242) [-0.63172]	0.006617 (0.02281) [0.29011]	0.012134 (0.01122) [1.08158]
D(CAN_R(-2))	-0.339756 (0.02043) [-16.6329]	0.020409 (0.02661) [0.76682]	0.020158 (0.02662) [0.75712]	0.020376 (0.02661) [0.76578]	0.019751 (0.02935) [0.67287]	-0.048890 (0.09226) [-0.52993]	-0.011393 (0.02277) [-0.50039]	0.020443 (0.01120) [1.82545]
D(FRE_R(-1))	4.787832 (2.76086) [1.73418]	3.206137 (3.59724) [0.89128]	2.633767 (3.59855) [0.73190]	2.911128 (3.59641) [0.80946]	10.49356 (3.96741) [2.64494]	35.42841 (12.4697) [-2.84116]	-6.927337 (3.07725) [-2.25114]	-1.719807 (1.51366) [-1.13619]
D(FRE_R(-2))	3.430524 (1.60468) [2.13782]	-1.799504 (2.09081) [-0.86067]	-2.031492 (2.09157) [-0.97128]	-1.737735 (2.09032) [-0.83132]	-0.364101 (2.30596) [-0.15790]	48.52452 (7.24770) [6.69516]	-5.184874 (1.78858) [-2.89888]	-2.029125 (0.87978) [-2.30640]
D(GER_R(-1))	-8.221124 (3.61684) [-2.27301]	-6.197713 (4.71253) [-1.31516]	-5.429262 (4.71425) [-1.15167]	-5.224188 (4.71144) [-1.10883]	-8.629007 (5.19747) [-1.66023]	-1.008933 (16.3358) [-0.06176]	12.31041 (4.03133) [3.05369]	0.552191 (1.98296) [0.27847]
D(GER_R(-2))	-3.995832 (2.19026) [-1.82436]	-0.542947 (2.85378) [0.19026]	0.832219 (2.85482) [0.29151]	0.819997 (2.85312) [0.28740]	5.858679 (3.14745) [1.86140]	1.623393 (9.89252) [0.16410]	6.464705 (2.44126) [2.64810]	0.052024 (1.20083) [0.04332]
D(ITA_R(-1))	3.407235 (1.61684) [2.10734]	2.353728 (2.10665) [1.11729]	2.157620 (2.10742) [1.02382]	1.675065 (2.10616) [0.79532]	-1.874311 (2.32343) [-0.80670]	-34.29956 (7.30261) [-4.69689]	-1.779790 (1.80213) [-2.98629]	1.177970 (0.88644) [1.32887]
D(ITA_R(-2))	0.544810 (1.47653) [0.36898]	0.942751 (1.92383) [0.49004]	0.885962 (1.92453) [0.46035]	0.604019 (1.92338) [0.31404]	-5.475587 (2.12180) [-2.58063]	-50.12949 (6.66888) [-7.51693]	-1.269547 (1.64574) [-0.77142]	1.983827 (0.80952) [2.45063]
D(JAP_R(-1))	-0.025766 (0.01476) [-1.74551]	-0.041527 (0.01923) [-2.15916]	-0.041813 (0.01924) [-2.17322]	-0.041435 (0.01923) [-2.15484]	-0.637111 (0.02121) [-30.0350]	-0.071460 (0.06667) [-1.07183]	0.000246 (0.01645) [0.01495]	0.005225 (0.00809) [0.64566]
D(JAP_R(-2))	-0.011214 (0.01478) [-0.75853]	-0.036560 (0.01926) [-1.89789]	-0.037350 (0.01927) [-1.93821]	-0.036992 (0.01926) [-1.92080]	-0.329451 (0.02125) [-15.5068]	0.045325 (0.06678) [0.67877]	0.016805 (0.01648) [1.01981]	0.010057 (0.00811) [1.24069]
D(RUS_R(-1))	0.007218 (0.00450) [1.60553]	0.003754 (0.00586) [0.64099]	0.003881 (0.00586) [0.66229]	0.004073 (0.00586) [0.69551]	0.013300 (0.00646) [2.05879]	-0.548317 (0.02030) [-27.0051]	-0.000545 (0.00501) [-0.10870]	0.003341 (0.00246) [1.35564]
D(RUS_R(-2))	0.013721 (0.00447) [3.06966]	0.002579 (0.00582) [0.44282]	0.003206 (0.00583) [0.55027]	0.003699 (0.00582) [0.63534]	0.011011 (0.00642) [1.71420]	-0.216046 (0.02019) [-10.7012]	-0.001807 (0.00498) [-0.36277]	0.003033 (0.00245) [1.23758]
D(UK_R(-1))	-0.003181 (0.01777) [-0.17894]	-0.033637 (0.02316) [-1.45243]	-0.032895 (0.02317) [-1.41989]	-0.033201 (0.02315) [-1.43395]	-0.063169 (0.02554) [-2.47312]	-0.042005 (0.08028) [-0.52324]	-0.625997 (0.01981) [-31.5979]	-0.004392 (0.00974) [-0.45072]
D(UK_R(-2))	-0.020371 (0.01775) [-1.14778]	-0.041172 (0.02312) [-1.78042]	-0.040761 (0.02313) [-1.76201]	-0.040467 (0.02312) [-1.75035]	-0.078283 (0.02550) [-3.06938]	0.041073 (0.08016) [0.51238]	-0.310853 (0.01978) [-15.7138]	0.002287 (0.00973) [0.23504]
D(USDX_R(-1))	-0.061981 (0.03578) [-1.73209]	-0.052212 (0.04662) [-1.11986]	-0.051968 (0.04664) [-1.11421]	-0.052735 (0.04661) [-1.13134]	-0.010165 (0.05142) [-0.19768]	0.128988 (0.16162) [0.79809]	0.014650 (0.03988) [0.36730]	-0.631713 (0.01962) [-32.1996]
D(USDX_R(-2))	0.034809 (0.03578) [0.97285]	-0.076274 (0.04662) [-1.63608]	-0.075810 (0.04664) [-1.62555]	-0.076847 (0.04661) [-1.64876]	-0.019219 (0.05142) [-0.37378]	-0.073325 (0.16161) [-0.45373]	0.011989 (0.03988) [0.30062]	-0.310839 (0.01962) [-15.8455]
C	1.85E-06 (0.00011) [0.01713]	-1.25E-06 (0.00014) [-0.00891]	-1.29E-06 (0.00014) [-0.00914]	-1.39E-06 (0.00014) [-0.00988]	-6.93E-06 (0.00016) [-0.04470]	-9.77E-06 (0.00049) [-0.02005]	-9.29E-06 (0.00012) [-0.07726]	1.00E-06 (5.9E-05) [0.01690]
R ²	0.346873	0.329388	0.328820	0.328524	0.334909	0.330061	0.307331	0.314247
Adj. R ²	0.342105	0.324493	0.323921	0.323623	0.330054	0.325171	0.302275	0.309242
Sum sq. resids	0.063616	0.107997	0.108076	0.107947	0.131368	1.297733	0.079032	0.019122
S.E. equation	0.005226	0.006810	0.006812	0.006808	0.007510	0.023605	0.005825	0.002865
F-statistic	72.76001	67.29111	67.11826	67.02820	68.98672	67.49620	60.78577	62.78052
Log likelihood	9010.032	8388.957	8388.102	8389.502	8159.075	5471.323	8755.394	10420.61
Akaike AIC	-7.662575	-7.133325	-7.132597	-7.133789	-6.937430	-4.647058	-7.445585	-8.864598
Schwarz SC	-7.618393	-7.089143	-7.088414	-7.089607	-6.893248	-4.602876	-7.401403	-8.820416
Mean								
dependent	2.03E-07	-1.01E-06	-1.11E-06	-1.14E-06	-2.53E-06	-4.56E-07	-8.23E-06	9.46E-08
S.D. dependent	0.006443	0.008285	0.008285	0.008278	0.009176	0.028735	0.006974	0.003448
Determinant resid covariance (dof adj.)			1.56E-43					
Determinant resid covariance			1.47E-43					
Log likelihood			89095.40					
Akaike information criterion			-75.79327					
Schwarz criterion			-75.42018					

Table C2.3 Vector Error Correction Estimates: Sample (adjusted): 8/01/2007- 12/31/2008

Error	D(CAN_R)	D(FRE_R)	D(GER_R)	D(ITA_R)	D(JAP_R)	D(RUS_R)	D(UK_R)	D(USDX_R)
Correction:	D(CAN_R)	D(FRE_R)	D(GER_R)	D(ITA_R)	D(JAP_R)	D(RUS_R)	D(UK_R)	D(USDX_R)
CoIntEq1	0.005938 (0.01008) [0.58902]	0.011739 (0.00803) [1.46169]	0.011453 (0.00803) [1.42607]	0.011676 (0.00803) [1.45389]	-0.017282 (0.00965) [-1.79087]	0.007761 (0.00497) [1.56178]	-0.007998 (0.01079) [-0.74125]	-0.000886 (0.00540) [-0.16403]
D(CAN_R(-1))	-0.598955 (0.06764) [-8.85495]	0.112431 (0.05388) [2.08660]	0.112596 (0.05388) [2.08965]	0.112515 (0.05388) [2.08819]	-0.028326 (0.06475) [-0.43749]	0.048259 (0.03334) [1.44743]	-0.016793 (0.07240) [-0.23196]	-0.069345 (0.03625) [-1.91273]
D(CAN_R(-2))	-0.402670 (0.06757) [-5.95931]	0.053884 (0.05383) [1.00108]	0.053986 (0.05383) [1.00297]	0.053949 (0.05383) [1.00229]	0.038217 (0.06468) [0.59087]	0.026849 (0.03331) [0.80611]	-0.028576 (0.07232) [-0.39512]	-0.085289 (0.03622) [-2.35497]
D(FRE_R(-1))	117.1909 (136.018) [0.86159]	151.5847 (108.352) [1.39901]	149.0800 (108.352) [1.37588]	151.9413 (108.350) [1.40233]	-166.5599 (130.199) [-1.27927]	96.05277 (67.0457) [1.43265]	-17.16874 (145.582) [-0.11793]	-42.86065 (72.9039) [-0.58791]
D(FRE_R(-2))	134.7792 (81.3414) [1.65696]	126.2813 (64.7965) [1.94889]	125.2121 (64.7970) [1.93237]	126.5248 (64.7953) [1.95268]	-35.42179 (77.8618) [-0.45493]	65.91995 (40.0947) [1.64411]	-81.39121 (87.0613) [-0.93487]	-86.88714 (43.5980) [-1.99291]
D(GER_R(-1))	-37.18603 (48.9865) [-0.75911]	-77.75341 (39.0226) [-1.99252]	-77.48920 (39.0229) [-1.98573]	-77.46394 (39.0219) [-1.98514]	84.61997 (46.8909) [1.80461]	-41.33588 (24.1464) [-1.71189]	35.02198 (52.4312) [0.66796]	14.65706 (26.2562) [0.55823]
D(GER_R(-2))	14.59419 (29.2829) [0.49839]	-18.99970 (23.3267) [-0.81450]	-18.95697 (23.3269) [-0.81267]	-18.87509 (23.3263) [-0.80918]	-18.32095 (28.0302) [0.88230]	24.73095 (14.4341) [-0.71564]	34.71010 (31.3420) [1.10746]	4.512248 (15.6953) [0.28749]
D(ITA_R(-1))	-79.96793 (101.668) [-0.78656]	-74.45484 (80.9889) [-0.91932]	-72.21416 (80.9895) [-0.89165]	-75.10098 (80.9874) [-0.92732]	82.02282 (97.3191) [0.84282]	-54.55026 (50.1142) [-1.08852]	-17.95549 (108.817) [-0.16501]	28.34918 (54.4930) [0.52024]
D(ITA_R(-2))	-149.3691 (74.5999) [-2.00227]	-107.7867 (59.4263) [-1.81379]	-106.7598 (59.4267) [-1.79650]	-108.1551 (59.4251) [-1.82002]	10.81120 (71.4086) [0.15140]	-55.63572 (36.7717) [-1.51300]	46.70984 (79.8457) [0.58500]	82.48228 (39.9847) [2.06285]
D(JAP_R(-1))	-0.059419 (0.05846) [-1.01640]	-0.002733 (0.04657) [-0.05868]	-0.002425 (0.04657) [-0.05207]	-0.002630 (0.04647) [-0.05648]	-0.715516 (0.05596) [-12.7864]	0.024222 (0.02882) [0.84058]	-0.077982 (0.06257) [-1.24630]	-0.062617 (0.03133) [-1.99837]
D(JAP_R(-2))	-0.110091 (0.05833) [-1.88735]	-0.021886 (0.04647) [-0.47101]	-0.021702 (0.04647) [-0.46704]	-0.021785 (0.04647) [-0.46885]	-0.306346 (0.05584) [-5.48655]	0.011149 (0.02875) [0.38776]	-0.116251 (0.06243) [-1.86201]	-0.019781 (0.03126) [-0.63268]
D(RUS_R(-1))	-0.080343 (0.21233) [-0.37839]	-0.068513 (0.16914) [-0.40506]	-0.069514 (0.16914) [-0.41098]	-0.068573 (0.16914) [-0.40543]	-0.039724 (0.20325) [-0.19545]	-0.893089 (0.10466) [-8.53316]	0.387369 (0.22726) [1.70452]	-0.065002 (0.11381) [-0.57117]
D(RUS_R(-2))	-0.020158 (0.21779) [-0.09256]	0.218629 (0.17349) [1.26017]	0.217634 (0.17349) [1.25443]	0.218891 (0.17349) [1.26171]	-0.288254 (0.20847) [-1.38269]	-0.289134 (0.10735) [-2.69330]	0.285147 (0.23310) [1.22326]	0.002086 (0.11673) [0.01787]
D(UK_R(-1))	-0.067569 (0.04764) [-1.41848]	-0.036713 (0.03795) [-0.96749]	-0.036612 (0.03795) [-0.96484]	-0.036726 (0.03795) [-0.96786]	0.062071 (0.04560) [1.36128]	-0.015175 (0.02348) [-0.64630]	-0.570458 (0.05098) [-11.1888]	0.018235 (0.02553) [0.71419]
D(UK_R(-2))	-0.047944 (0.04718) [-1.01613]	-0.027169 (0.03759) [-0.72285]	-0.027081 (0.03759) [-0.72049]	-0.027173 (0.03759) [-0.72298]	0.023456 (0.04516) [0.51935]	-0.017594 (0.02326) [-0.75648]	-0.271902 (0.05050) [-5.38408]	0.017248 (0.02529) [0.68204]
D(USDX_R(-1))	0.110865 (0.09204) [1.20452]	-0.001302 (0.07332) [-0.01776]	-0.001476 (0.07332) [-0.02014]	-0.001299 (0.07332) [-0.01771]	0.012079 (0.08810) [0.13710]	-0.035471 (0.04537) [-0.78185]	-0.173974 (0.04935) [-1.76600]	-0.667299 (0.04933) [-13.5265]
D(USDX_R(-2))	-0.029875 (0.09200) [-0.32474]	-0.143452 (0.07328) [-1.95747]	-0.143434 (0.07328) [-1.95721]	-0.143423 (0.07328) [-1.95712]	-0.041608 (0.08806) [-0.47249]	-0.101976 (0.04535) [-2.24881]	-0.114720 (0.09847) [-1.16508]	-0.346449 (0.04931) [-7.02609]
C	-0.002301 (0.01611) [-0.14284]	-0.001830 (0.01283) [-0.14259]	-0.001833 (0.01283) [-0.14285]	-0.001828 (0.01283) [-0.14247]	-0.001581 (0.01542) [-0.10254]	-0.005651 (0.00794) [-0.71170]	0.002319 (0.01724) [0.13451]	0.000640 (0.00863) [0.07409]
@TREND(7/01/96)	7.50E-07 (5.2E-06) [0.14328]	6.07E-07 (4.2E-06) [0.14558]	6.08E-07 (4.2E-06) [0.14582]	6.06E-07 (4.2E-06) [0.14545]	5.19E-07 (5.0E-06) [0.10365]	1.87E-06 (2.6E-06) [0.72675]	-7.38E-07 (5.6E-06) [-0.13172]	-2.07E-07 (2.8E-06) [-0.07381]
R ²	0.343677	0.335747	0.335783	0.335678	0.386235	0.338783	0.310086	0.388529
Adj. R ²	0.310115	0.301779	0.301818	0.301708	0.354849	0.304971	0.274806	0.357260
Sum sq. resids	0.040973	0.026000	0.026001	0.025999	0.037542	0.009955	0.046938	0.011771
S.E. equation	0.010789	0.008594	0.008594	0.008594	0.010327	0.005318	0.011548	0.005783
F-statistic	10.24007	9.884348	9.885972	9.881329	12.30608	10.01955	8.789357	12.42558
Log likelihood	1163.673	1248.040	1248.037	1248.047	1179.893	1426.122	1138.461	1395.045
Akaike AIC	-6.170745	-6.625550	-6.625534	-6.625588	-6.258184	-7.585564	-6.034830	-7.418030
Schwarz SC	-5.970185	-6.424990	-6.424974	-6.425028	-6.057624	-7.385004	-5.834270	-7.217470
Mean								
dependent	2.18E-05	4.79E-05	4.79E-05	4.79E-05	1.67E-07	0.000110	3.01E-05	-3.44E-06
S.D. dependent	0.012989	0.010285	0.010286	0.010285	0.012858	0.006379	0.013560	0.007213
Determinant resid covariance (dof adj.)			2.20E-46					
Determinant resid covariance			1.44E-46					
Log likelihood			15368.52					
Akaike information criterion			-81.98664					
Schwarz criterion			-80.29771					

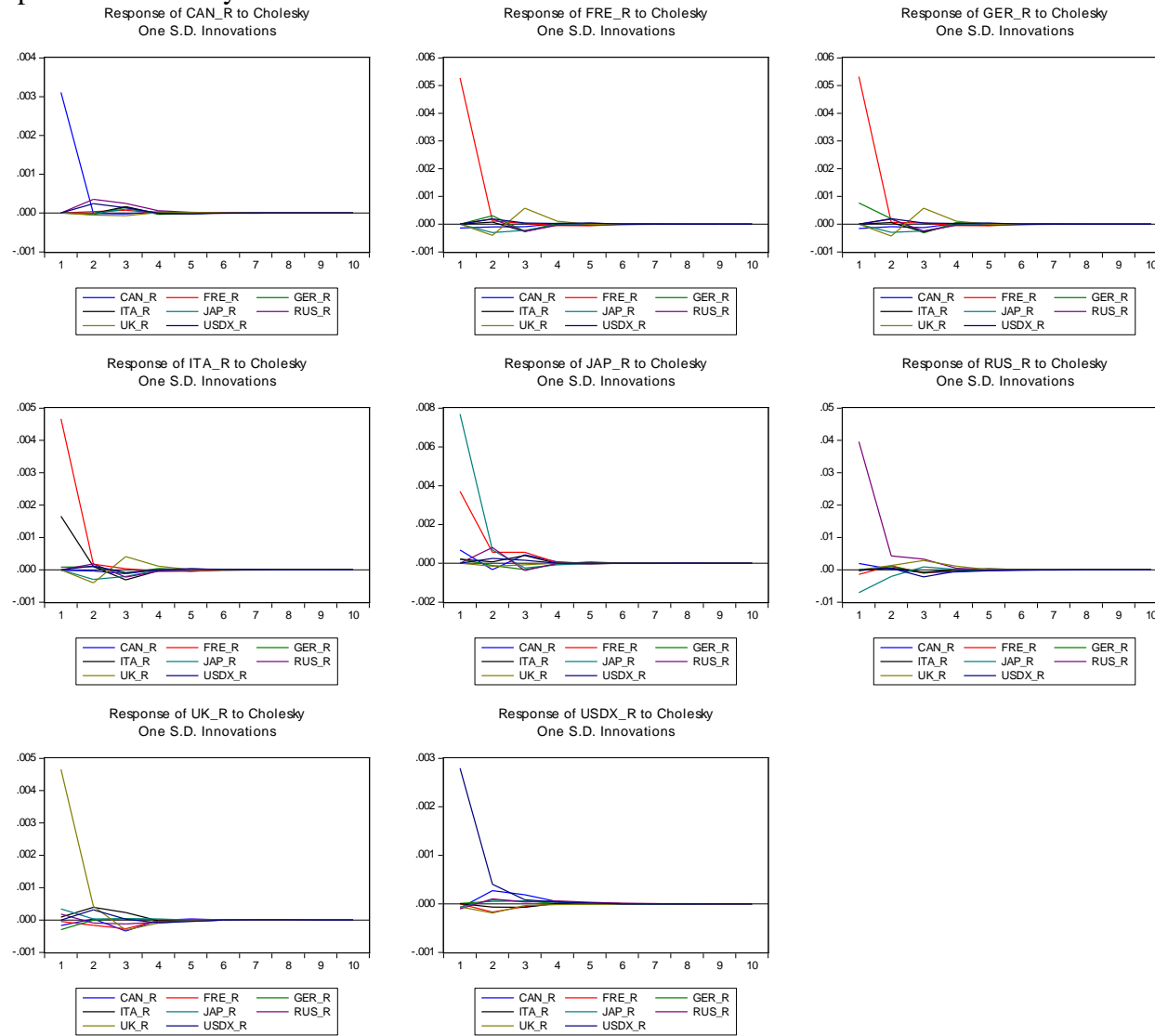
Table C2.4 Vector Error Correction Estimates: Sample (adjusted): 1/01/2009- 12/30/2011

Error								
Correction:	D(CAN_R)	D(FRE_R)	D(GER_R)	D(ITA_R)	D(JAP_R)	D(RUS_R)	D(UK_R)	D(USD_X_R)
CointEq1	0.001743 (0.00281) [0.62038]	0.000457 (0.00274) [0.16648]	0.000419 (0.00274) [0.15273]	0.000492 (0.00274) [0.17918]	-0.006189 (0.00267) [-2.31870]	-0.000579 (0.00278) [-0.20824]	0.000993 (0.00229) [0.43376]	0.002257 (0.00128) [1.76851]
D(CAN_R(-1))	-0.736939 (0.04431) [-16.6331]	-0.087890 (0.04328) [-2.03062]	-0.088040 (0.04328) [-2.03415]	-0.087959 (0.04328) [-2.03215]	-0.017975 (0.04210) [-0.42697]	-0.001969 (0.04383) [-0.04492]	-0.072141 (0.03610) [-1.99811]	-0.029874 (0.02013) [-1.48427]
D(CAN_R(-2))	-0.385322 (0.04449) [-8.66132]	-0.012878 (0.04346) [-0.29631]	-0.012790 (0.04346) [-0.29429]	-0.012873 (0.04346) [-0.29619]	0.003470 (0.04227) [0.08209]	-0.033251 (0.04401) [-0.75545]	-0.072990 (0.03625) [-2.01335]	-0.008713 (0.02021) [-0.43113]
D(FRE_R(-1))	-68.10367 (110.033) [-0.61894]	-30.29758 (107.492) [-0.28186]	-27.71923 (107.489) [-0.25788]	-30.49835 (107.495) [-0.28372]	225.2261 (104.553) [2.15419]	47.61767 (108.862) [0.43741]	-55.68051 (89.6656) [-0.62098]	-103.1592 (49.9849) [-2.06381]
D(FRE_R(-2))	-38.92403 (58.9556) [-0.66023]	-17.72016 (57.5941) [-0.30767]	-16.45672 (57.5924) [-0.28574]	-17.72557 (57.5959) [-0.30776]	76.84269 (56.0194) [1.37172]	-13.10707 (58.3286) [-0.22471]	8.541794 (48.0429) [0.17780]	-58.05612 (26.7819) [-2.16773]
D(GER_R(-1))	-25.71941 (20.6520) [-1.24537]	-14.76754 (20.1751) [-0.73197]	-15.54127 (20.1745) [-0.77034]	-14.98496 (20.1757) [-0.74272]	36.86764 (19.6235) [1.87875]	-0.518914 (20.4324) [-0.02540]	-2.161103 (16.8293) [-0.12841]	-19.86403 (9.38166) [-2.11733]
D(GER_R(-2))	-21.64132 (13.9737) [-1.54871]	-21.92863 (13.6510) [-1.60637]	-22.31707 (13.6506) [-1.63487]	-22.01736 (13.6515) [-1.61282]	16.05841 (13.2778) [1.20942]	-15.00188 (13.8251) [-1.08512]	17.52350 (11.3872) [1.53888]	-11.98229 (6.34790) [-1.88760]
D(ITA_R(-1))	93.84371 (126.535) [0.74164]	44.48176 (123.612) [0.35989]	42.68289 (123.609) [0.34531]	44.90548 (123.616) [0.36327]	-262.1226 (120.233) [-2.18013]	-47.10221 (125.189) [-0.37625]	57.93987 (103.113) [0.56191]	123.0152 (57.4813) [2.14009]
D(ITA_R(-2))	60.66124 (65.8404) [0.92134]	39.39236 (64.3199) [0.61244]	38.51751 (64.3180) [0.59886]	39.48654 (64.3219) [0.61389]	-92.95399 (62.5613) [-1.48581]	28.14730 (65.1402) [0.43210]	-26.04009 (53.6533) [-0.48534]	70.01144 (29.9095) [2.34077]
D(JAP_R(-1))	-0.047972 (0.03855) [-1.24436]	0.022962 (0.03766) [0.60969]	0.022928 (0.03766) [0.60881]	0.022836 (0.03766) [0.60634]	-0.659876 (0.03663) [-18.0138]	-0.026217 (0.03814) [-0.68736]	0.029859 (0.03142) [0.95044]	-0.001560 (0.01751) [-0.08908]
D(JAP_R(-2))	-0.032587 (0.03838) [-0.84912]	-0.032972 (0.03749) [-0.87945]	-0.032941 (0.03749) [-0.87865]	-0.033051 (0.03749) [-0.88153]	-0.349463 (0.03647) [-9.58324]	-0.027430 (0.03797) [-0.72242]	0.004399 (0.03127) [0.14067]	0.009215 (0.01743) [0.52859]
D(RUS_R(-1))	0.060244 (0.04639) [1.29873]	-0.039070 (0.04532) [-0.86162]	-0.039046 (0.04531) [-0.86217]	-0.039119 (0.04532) [-0.86323]	0.000952 (0.04408) [0.02160]	-0.551758 (0.04589) [-12.0226]	-0.026995 (0.03780) [-0.71413]	0.011725 (0.02107) [0.55640]
D(RUS_R(-2))	-0.040851 (0.04577) [-0.89251]	-0.103897 (0.04471) [-2.32357]	-0.103972 (0.04471) [-2.32530]	-0.103928 (0.04472) [-2.32418]	-0.054210 (0.04349) [-1.24643]	-0.324744 (0.04528) [-7.17115]	0.035970 (0.03730) [0.96437]	0.008341 (0.02079) [0.40113]
D(UK_R(-1))	0.007689 (0.04044) [0.19013]	0.044783 (0.03951) [1.13354]	0.044421 (0.03951) [1.12440]	0.044737 (0.03951) [1.13234]	-0.017169 (0.03843) [-0.44679]	-0.011879 (0.04001) [-0.29690]	-0.641563 (0.03296) [-19.4674]	-0.006664 (0.01837) [-0.36274]
D(UK_R(-2))	0.054989 (0.04046) [1.35907]	0.038241 (0.03953) [0.96747]	0.038053 (0.03953) [0.96274]	0.038231 (0.03953) [0.96720]	0.004059 (0.03845) [0.10559]	0.043450 (0.04003) [1.08543]	-0.405697 (0.03297) [-12.3044]	-0.012717 (0.01838) [-0.69191]
D(USD_X_R(-1))	0.019106 (0.07496) [0.25490]	-0.007103 (0.07322) [-0.09701]	-0.007148 (0.07322) [-0.09763]	-0.006990 (0.07323) [-0.09546]	-0.084654 (0.07122) [-1.18859]	-0.023260 (0.07416) [-0.31366]	0.025655 (0.06108) [0.42002]	-0.632683 (0.03405) [-18.5810]
D(USD_X_R(-2))	0.123460 (0.07488) [1.64874]	0.002180 (0.07315) [0.02980]	0.002158 (0.07315) [0.02950]	0.002255 (0.07315) [0.03083]	0.009718 (0.07115) [0.13659]	0.058810 (0.07408) [0.79382]	0.049272 (0.06102) [0.80746]	-0.335980 (0.03402) [-9.87698]
C	-0.000130 (0.00514) [-0.02529]	-0.000611 (0.00502) [-0.12183]	-0.000613 (0.00502) [-0.12218]	-0.000610 (0.00502) [-0.12164]	-1.30E-05 (0.00488) [-0.00266]	-0.001939 (0.00508) [-0.38158]	-0.000111 (0.00419) [-0.02651]	0.000327 (0.00233) [0.13998]
@TREND(7/01/96)	3.04E-08 (1.4E-06) [0.02168]	1.61E-07 (1.4E-06) [0.11743]	1.61E-07 (1.4E-06) [0.11779]	1.61E-07 (1.4E-06) [0.11725]	-1.58E-09 (1.3E-06) [-0.00118]	5.18E-07 (1.4E-06) [0.37313]	3.15E-08 (1.1E-06) [0.02755]	-8.98E-08 (6.4E-07) [-0.14089]
R ²	0.364221	0.338050	0.337999	0.338061	0.360800	0.275214	0.359232	0.324993
Adj. R ²	0.349222	0.322434	0.322381	0.322445	0.345721	0.258115	0.344116	0.309069
Sum sq. resids	0.059840	0.057108	0.057105	0.057111	0.054028	0.058574	0.039737	0.012349
S.E. equation	0.008856	0.008651	0.008651	0.008652	0.008415	0.008762	0.007217	0.004023
F-statistic	24.28346	21.64752	21.64253	21.64860	23.92666	16.09579	23.76439	20.40881
Log likelihood	2596.263	2614.535	2614.557	2614.511	2636.213	2604.624	2756.331	3213.306
Akaike AIC	-6.591466	-6.638197	-6.638253	-6.638134	-6.693639	-6.612850	-7.000846	-8.169580
Schwarz SC	-6.478199	-6.524929	-6.524986	-6.524867	-6.580372	-6.499582	-6.887578	-8.056313
Mean								
dependent	-1.45E-05	-2.89E-05	-2.89E-05	-2.89E-05	-1.96E-05	-5.32E-05	4.30E-06	-6.54E-06
S.D. dependent	0.010978	0.010510	0.010509	0.010511	0.010403	0.010172	0.008911	0.004840
Determinant resid covariance (dof adj.)			1.10E-46					
Determinant resid covariance			9.06E-47					
Log likelihood			32575.86					
Akaike information criterion			-82.90502					
Schwarz criterion			-81.95118					

Table C2.5 Vector Error Correction Estimates: Sample (adjusted): 1/02/2012- 4/19/2013

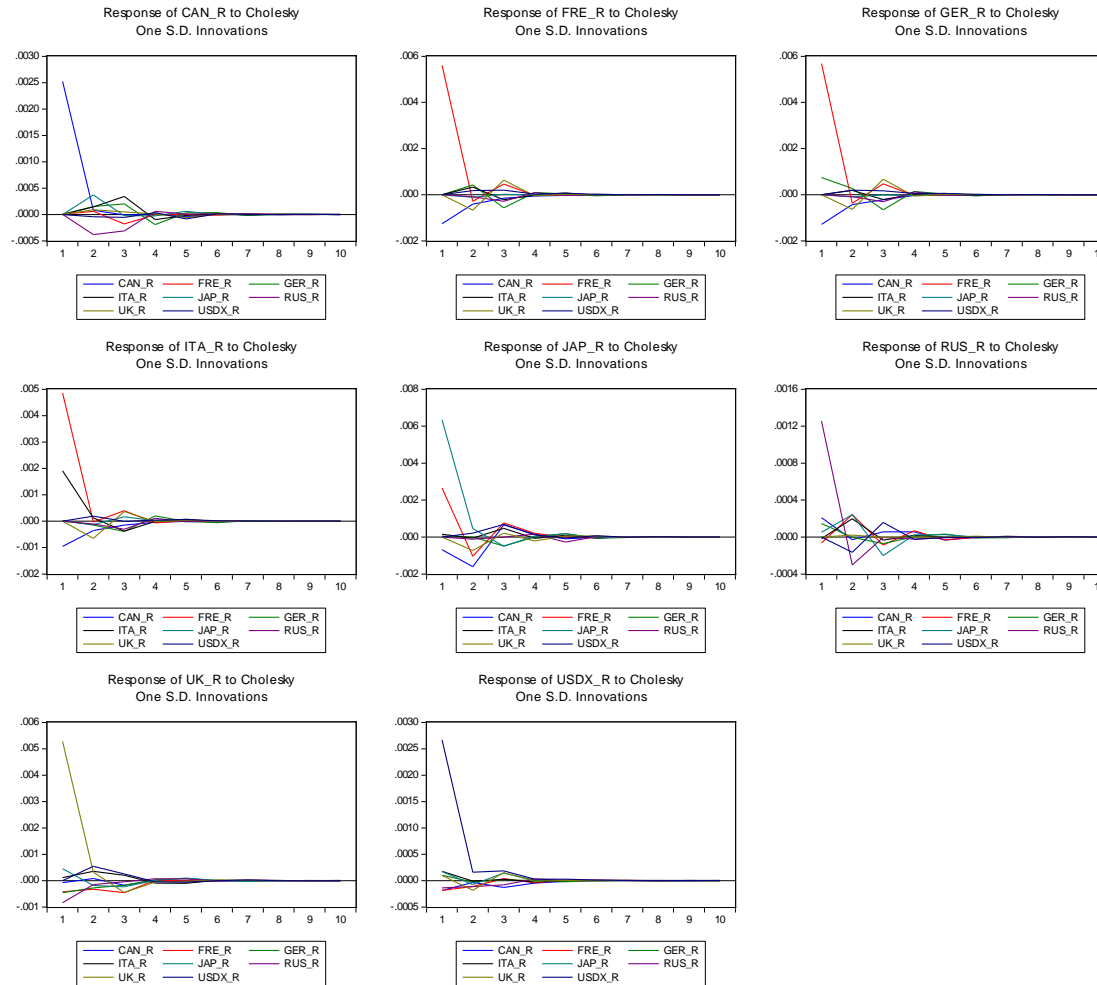
Error								
Correction:	D(CAN_R)	D(FRE_R)	D(GER_R)	D(ITA_R)	D(JAP_R)	D(RUS_R)	D(UK_R)	D(USD_X_R)
CointEq1	-0.120368 (0.03591) [-3.35205]	-0.101987 (0.04823) [-2.11451]	-0.103787 (0.04823) [-2.15170]	-0.102298 (0.04823) [-2.12092]	-0.209126 (0.04959) [-4.21731]	-0.094673 (0.05731) [-1.65194]	-0.069451 (0.03912) [-1.77515]	0.034998 (0.02062) [1.69729]
D(CAN_R(-1))	-0.664658 (0.07260) [-9.15494]	-0.188301 (0.09752) [-1.93098]	-0.186576 (0.09752) [-1.91318]	-0.188108 (0.09752) [-1.92896]	0.250428 (0.10026) [2.49787]	-0.201741 (0.11587) [-1.74109]	-0.060907 (0.07910) [-0.76999]	-0.006078 (0.04169) [-0.14579]
D(CAN_R(-2))	-0.280946 (0.07188) [-3.90864]	-0.107312 (0.09654) [-1.11152]	-0.106455 (0.09655) [-1.10258]	-0.107138 (0.09655) [-1.10970]	-0.110214 (0.09926) [-1.11037]	-0.123321 (0.11472) [-1.07501]	0.004350 (0.07831) [0.05555]	-0.013186 (0.04127) [-0.31946]
D(FRE_R(-1))	-219.6505 (69.7853) [-3.14752]	-219.7625 (93.7339) [-2.34454]	-221.7425 (93.7392) [-2.36553]	-219.3953 (93.7356) [-2.34058]	-391.2050 (96.3685) [-4.05947]	-192.0332 (111.376) [-1.72418]	-155.2375 (76.0339) [-2.04169]	7.764955 (40.0732) [0.19377]
D(FRE_R(-2))	-132.9692 (49.0921) [-2.70857]	-115.2263 (65.9393) [-1.74746]	-116.3417 (65.9430) [-1.76428]	-115.0196 (65.9405) [-1.74429]	-140.8805 (67.7927) [-2.07811]	-151.4096 (78.3504) [-1.93247]	-54.15724 (53.4878) [-1.01252]	18.81785 (28.1904) [0.66753]
D(GER_R(-1))	84.14270 (27.6623) [3.04178]	44.19922 (37.1554) [1.18958]	44.49402 (37.1575) [1.19744]	44.41369 (37.1560) [1.19533]	151.6739 (38.1997) [3.97055]	42.62553 (44.1487) [0.96550]	54.50012 (30.1392) [1.80828]	-28.06331 (15.8847) [-1.76669]
D(GER_R(-2))	47.23549 (16.0225) [2.94807]	18.25881 (21.5210) [0.84842]	18.26275 (21.5223) [0.84855]	18.35268 (21.5214) [0.85276]	47.17079 (22.1259) [2.13192]	37.36994 (25.5717) [1.46138]	22.94457 (17.4572) [1.31434]	-20.44665 (9.20069) [-2.22230]
D(ITA_R(-1))	135.4643 (53.0660) [2.55275]	174.8918 (71.2769) [2.45370]	176.5771 (71.2809) [2.47720]	174.3103 (71.2782) [2.44549]	239.5459 (73.2803) [3.26890]	149.3630 (84.6926) [1.76359]	100.7236 (57.8175) [1.74210]	20.28572 (30.4723) [0.66571]
D(ITA_R(-2))	85.72024 (45.5535) [1.88175]	96.66650 (61.1863) [1.57987]	97.77778 (61.1898) [1.59794]	96.36588 (61.1875) [1.57493]	93.77156 (62.9061) [1.49066]	114.0314 (72.7028) [1.56846]	31.23690 (49.6324) [0.62937]	1.635252 (26.1584) [0.06251]
D(JAP_R(-1))	0.073823 (0.03940) [1.87359]	0.022934 (0.05292) [0.43333]	0.023433 (0.05293) [0.44275]	0.022968 (0.05292) [0.43397]	-0.560852 (0.05441) [-10.3077]	0.094874 (0.06288) [1.50870]	-0.008282 (0.04293) [-0.19292]	0.024726 (0.02263) [1.09282]
D(JAP_R(-2))	0.005749 (0.03868) [0.14865]	-0.008501 (0.05195) [-0.16364]	-0.008049 (0.05195) [-0.15493]	-0.008450 (0.05195) [-0.16266]	-0.185769 (0.05341) [-3.47821]	0.010955 (0.06173) [0.17748]	0.037448 (0.04214) [0.88866]	0.007990 (0.02221) [0.35978]
D(RUS_R(-1))	0.131329 (0.05280) [2.48743]	0.074478 (0.07092) [1.05024]	0.074008 (0.07092) [1.04354]	0.074371 (0.07092) [1.04870]	-0.156250 (0.07291) [-2.14308]	-0.397666 (0.08426) [-4.71931]	0.056753 (0.05752) [0.98658]	-0.010253 (0.03032) [-0.33820]
D(RUS_R(-2))	0.047319 (0.05380) [0.87955]	-0.011700 (0.07226) [-0.16191]	-0.011729 (0.07227) [-0.16231]	-0.011770 (0.07226) [-0.16288]	0.032071 (0.07429) [0.43168]	-0.139892 (0.08586) [-1.62924]	0.026958 (0.05862) [0.45991]	0.020395 (0.03089) [0.66016]
D(UK_R(-1))	0.034069 (0.04854) [0.70184]	0.008906 (0.06520) [0.13660]	0.008501 (0.06520) [0.13038]	0.008880 (0.06520) [0.13620]	-0.053553 (0.06703) [-0.79891]	0.046824 (0.07747) [0.60440]	-0.736120 (0.05289) [-13.9184]	0.014920 (0.02787) [0.53527]
D(UK_R(-2))	0.059171 (0.04750) [1.24580]	0.018444 (0.06380) [0.28911]	0.018232 (0.06380) [0.28577]	0.018394 (0.06380) [0.28832]	-0.050051 (0.06559) [-0.76310]	0.061779 (0.07580) [0.81498]	-0.369043 (0.05175) [-7.13136]	0.037904 (0.02727) [1.38976]
D(USD_X_R(-1))	0.092130 (0.08996) [1.02409]	0.117035 (0.12084) [0.96855]	0.117421 (0.12084) [0.97169]	0.117067 (0.12084) [0.96880]	0.322561 (0.12423) [2.59644]	0.043290 (0.14358) [0.30151]	-0.031942 (0.09802) [-0.32588]	-0.743816 (0.05166) [-14.3984]
D(USD_X_R(-2))	0.205337 (0.08943) [2.29620]	0.184351 (0.12011) [1.53481]	0.184774 (0.12012) [1.53824]	0.184253 (0.12012) [1.53396]	0.055544 (0.12349) [0.44978]	0.220795 (0.14272) [1.54704]	0.086811 (0.09743) [0.89099]	-0.394184 (0.05135) [-7.67626]
C	0.001408 (0.01096) [0.12852]	0.000579 (0.01472) [0.03933]	0.000579 (0.01472) [0.03932]	0.000578 (0.01472) [0.03929]	0.000300 (0.01513) [0.01983]	-0.000530 (0.01749) [-0.03030]	0.000679 (0.01194) [0.05685]	0.000375 (0.00629) [0.05953]
@TREND(7/01/96)	-3.27E-07 (2.6E-06) [-0.12585]	-1.33E-07 (3.5E-06) [-0.03811]	-1.33E-07 (3.5E-06) [-0.03810]	-1.33E-07 (3.5E-06) [-0.03808]	-4.85E-08 (3.6E-06) [-0.01350]	1.23E-07 (4.1E-06) [0.02966]	-1.65E-07 (2.8E-06) [-0.05812]	-8.39E-08 (1.5E-06) [-0.05622]
R ²	0.387534	0.415105	0.415714	0.415116	0.372324	0.304868	0.408503	0.434090
Adj. R ²	0.353190	0.382307	0.382951	0.382318	0.337127	0.265889	0.375335	0.402357
Sum sq. resids	0.007096	0.012801	0.012803	0.012802	0.013531	0.018073	0.008423	0.002340
S.E. equation	0.004702	0.006315	0.006315	0.006315	0.006492	0.007504	0.005123	0.002700
F-statistic	11.28393	12.65645	12.68826	12.65702	10.57835	7.821279	12.31617	13.67935
Log likelihood	1349.692	1249.379	1249.360	1249.373	1239.955	1190.744	1320.535	1538.295
Akaike AIC	-7.827598	-7.237525	-7.237412	-7.237489	-7.182087	-6.892613	-7.656087	-8.937030
Schwarz SC	-7.613627	-7.023555	-7.023442	-7.023518	-6.968116	-6.678643	-7.442117	-8.723060
Mean								
dependent	1.34E-05	1.53E-05	1.53E-05	1.53E-05	6.01E-05	-4.30E-06	7.60E-06	3.32E-05
S.D. dependent	0.005846	0.008035	0.008040	0.008035	0.007974	0.008758	0.006481	0.003492
Determinant resid covariance (dof adj.)			6.89E-49					
Determinant resid covariance			4.35E-49					
Log likelihood			15071.02					
Akaike information criterion			-87.71189					
Schwarz criterion			-85.91003					

Figure C3.1 Impulse Response to Cholesky one Standard Deviation Innovation: 7/05/1996-7/31/1998



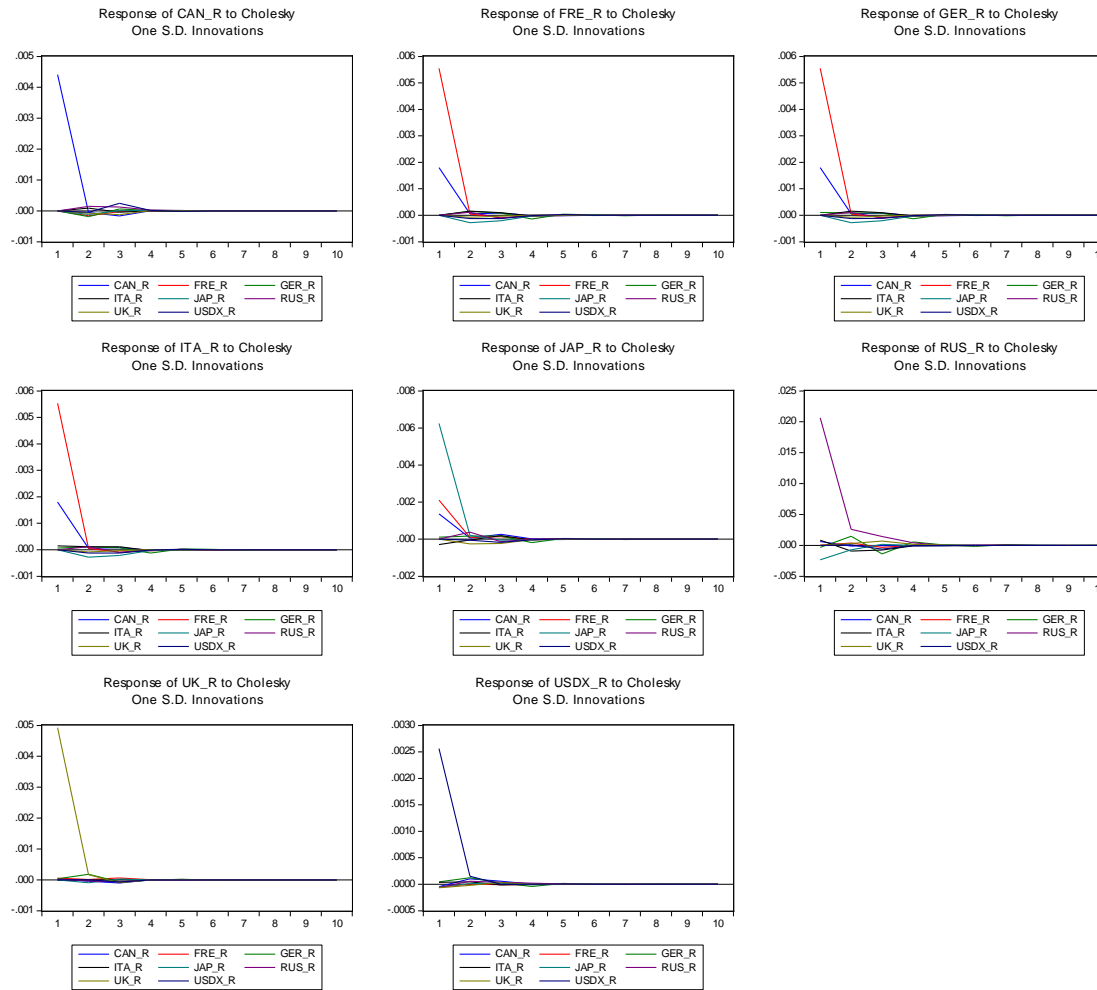
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Figure C3.2 Impulse Response to Cholesky one Standard Deviation Innovation: 8/03/1998-7/31/2007



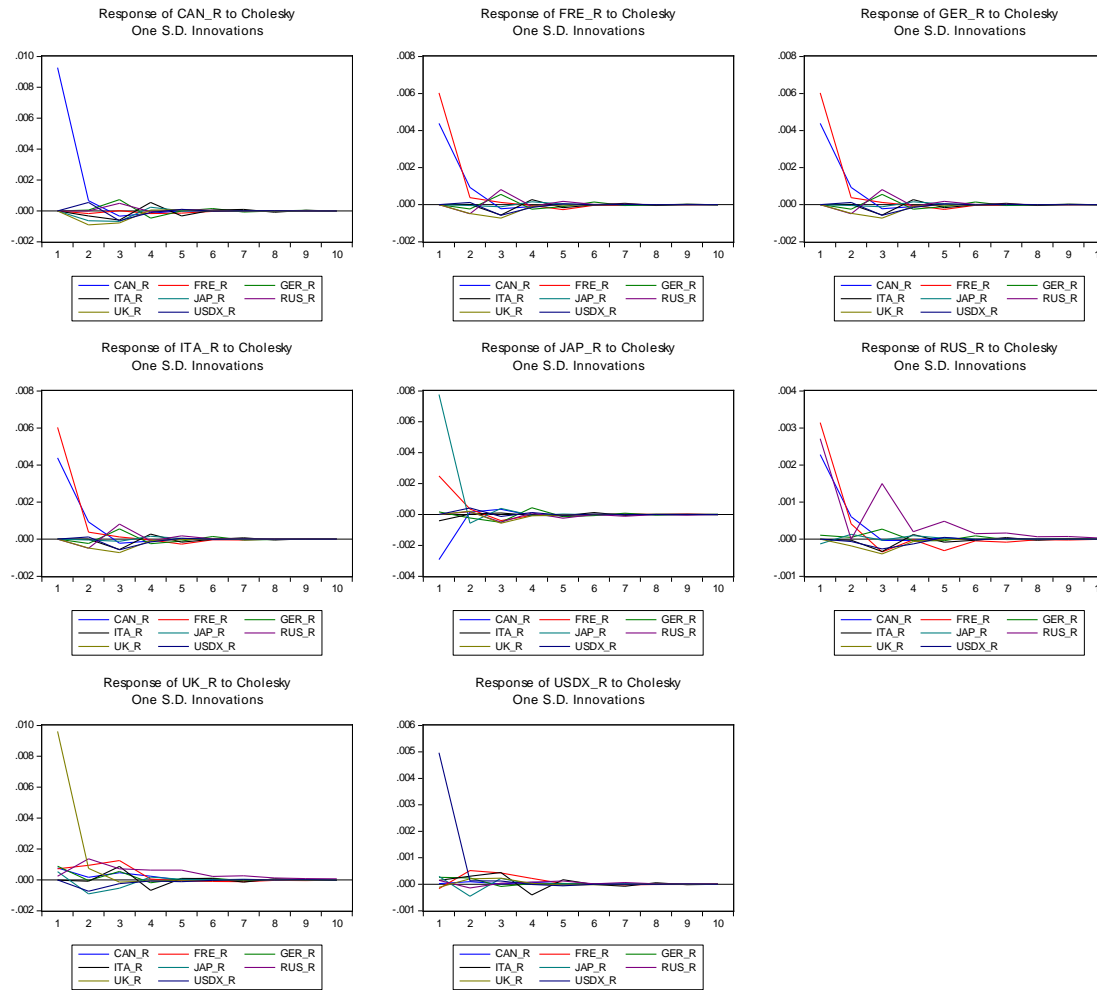
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Figure C3.3 Impulse Response to Cholesky one Standard Deviation Innovation: 8/01/2007-12/31/2008



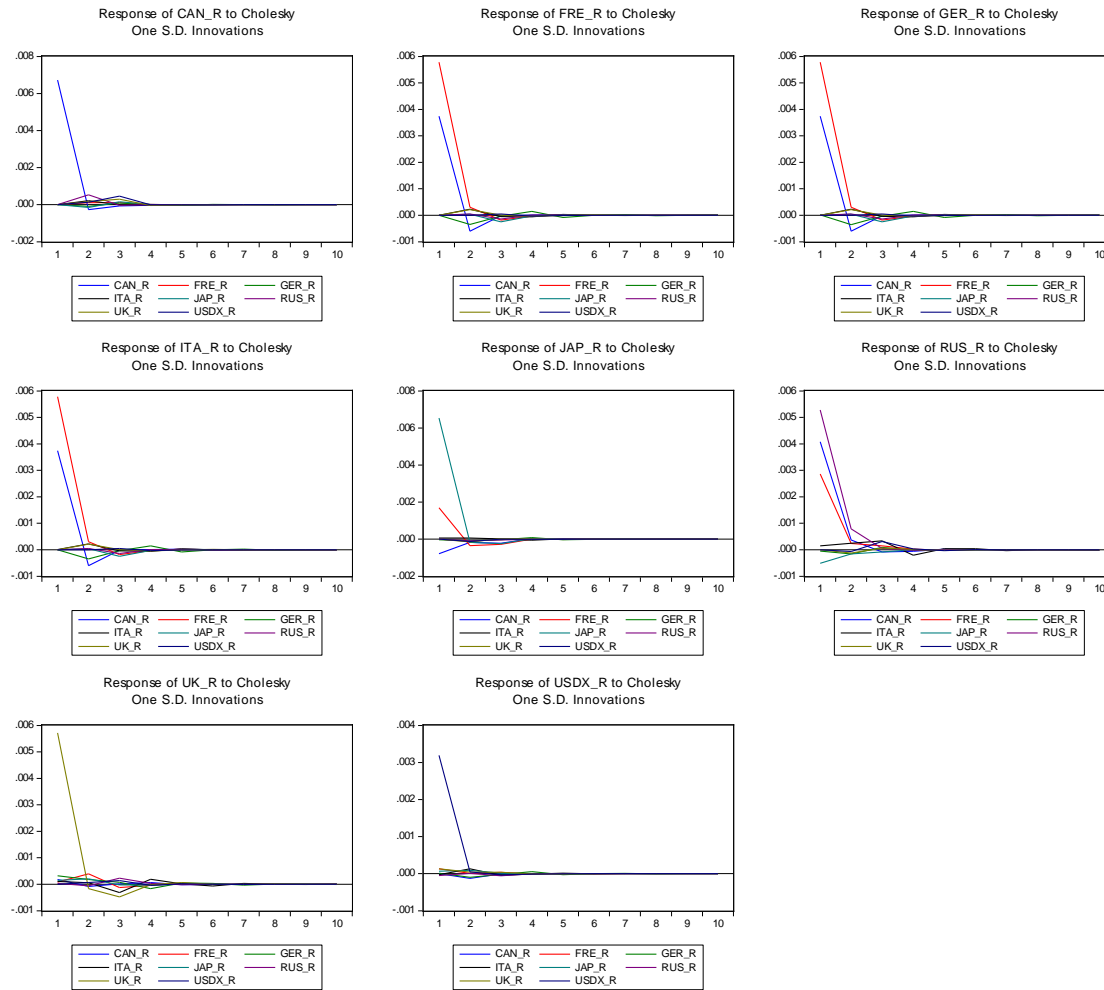
01/01/1998 06/30/2007

Figure C3.4 Impulse Response to Cholesky one Standard Deviation Innovation: 1/01/2009- 12/30/2011



07/01/2007 12/31/2008

Figure C3.5 Impulse Response to Cholesky one Standard Deviation Innovation: 1/02/2012- 4/19/2013



01/01/2009 12/12/2013