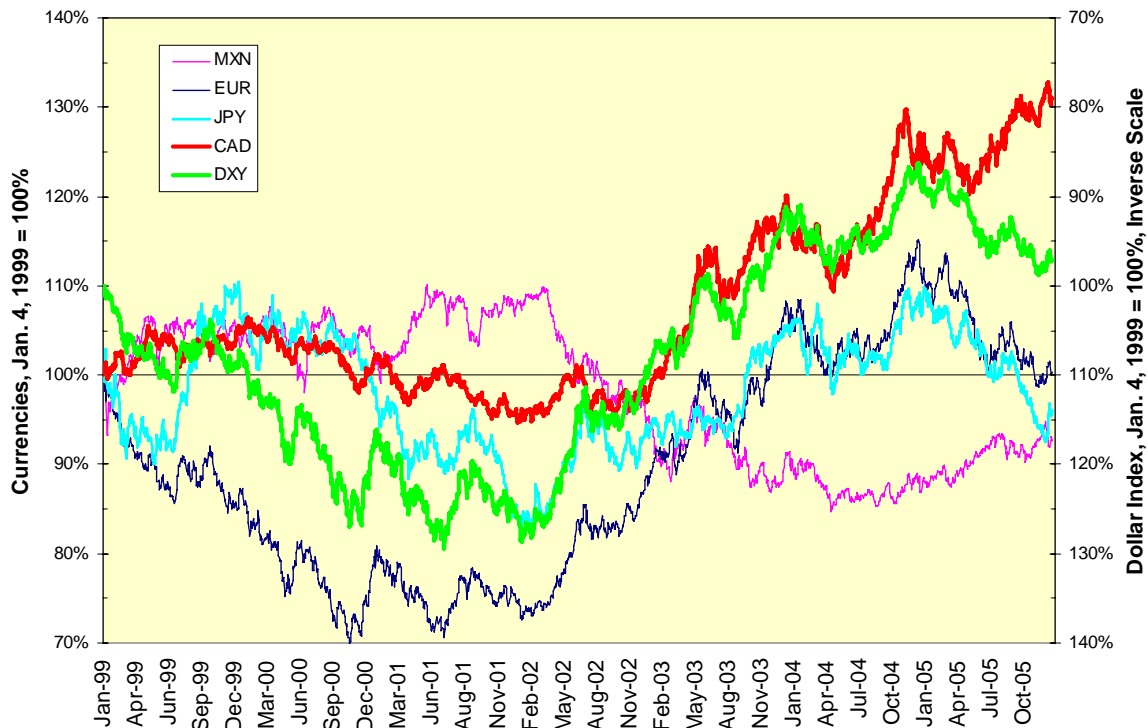


Remember The Forgotten Currency

Nothing infuriates Canadians more than the sense Americans are ignoring them. This indignation is justifiable in light of the importance of the U.S.-Canada bilateral trade flow; each country is the other's largest trading partner. The Canadian dollar (CAD) is an important financial variable, too. Not only does it account for 9.1% of the benchmark dollar index (DXY), but it occupies a unique role therein. None of the five other currencies in the DXY can claim the CAD's combination of dependence on cross-border trade and investment flows, interest rate differentials and commodity linkages. Once we understand what drives the CAD, we have a critical piece for understanding the DXY in place.

The CAD is and has been stronger against the U.S. dollar (USD) than can be accounted for by interest rate differentials alone. Commodity prices are a contributing factor. And while the euro and Japanese yen, with their 57.6% and 13.6% weights in the DXY, respectively, garner the lion's share of attention, the CAD has been the strongest performer against the USD since the January 4, 1999 introduction of the euro. Canadians may note how this has escaped the attention of the headline writers.

Canadian Dollar Pulls Ahead

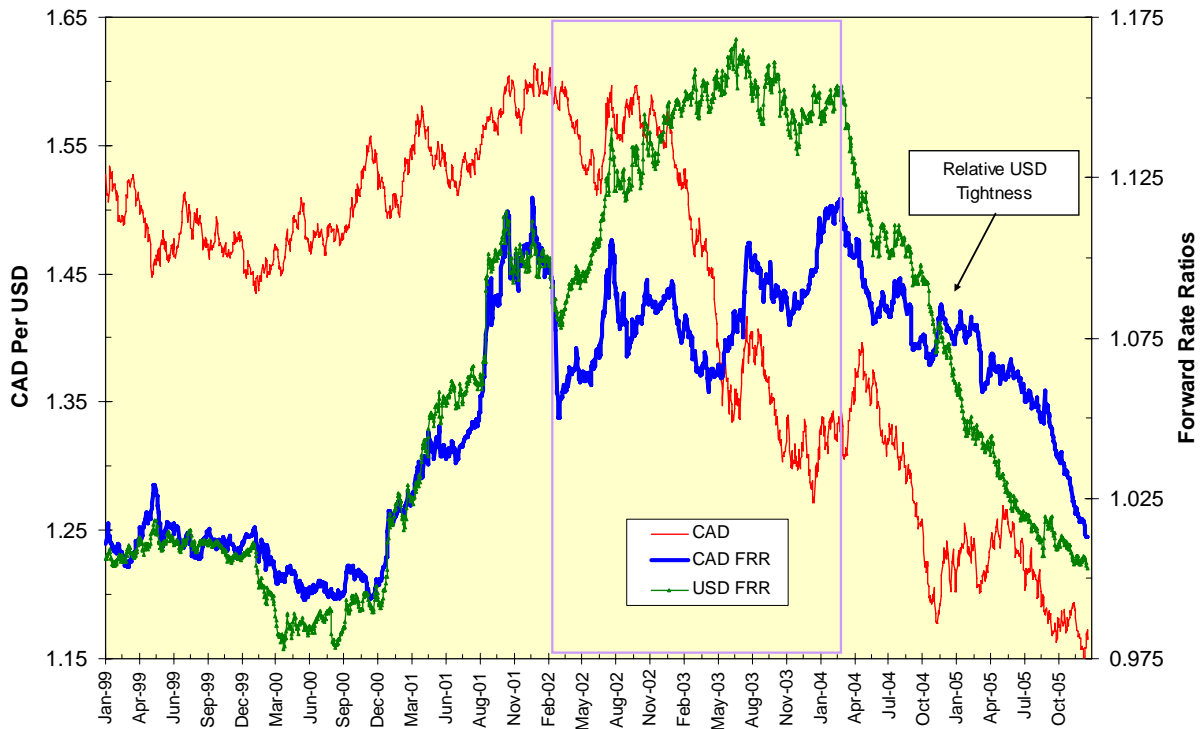


The Role of The Yield Curves

Let's use the forward rate ratio (FRR) between two and ten years as a measure of the yield curve's steepness. This measure is the forward rate between 2 and 10 years, divided by the ten-year rate itself. The more the FRR exceeds 1.00, the steeper the yield curve. A FRR less than 1.00 indicates inversion.

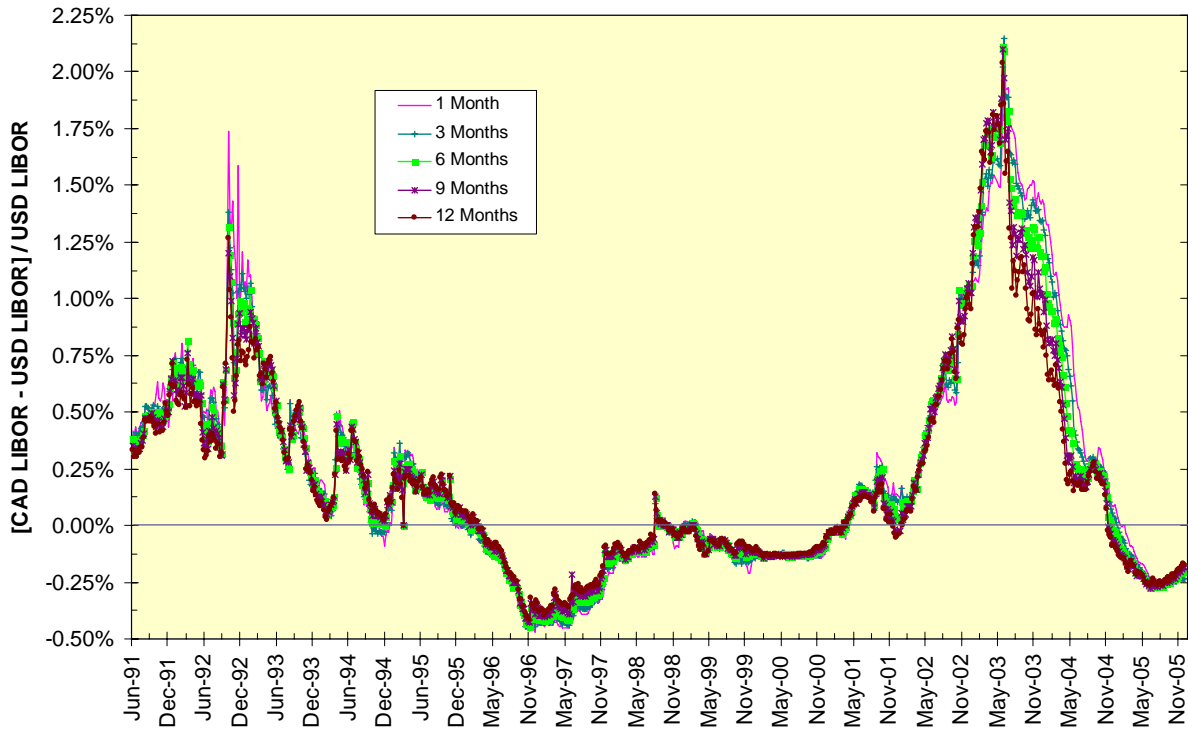
Prior to the Federal Reserve's embarkation on aggressive easing in the Spring of 2001, the U.S. and Canadian FRRs were nearly identical. Once the Federal Reserve eased aggressively and the Bank of Canada did not match, the CAD began to strengthen. The major monetary policy divergence occurred in the aftermath of September 11th and extending into the Spring of 2004, a period highlighted with a box in the chart below. The CAD continued to firm both throughout this period and well into 2005 despite the fact that U.S. monetary policy became tighter than its Canadian counterpart in early 2005.

Post September 11th Policy Divergence Has Closed



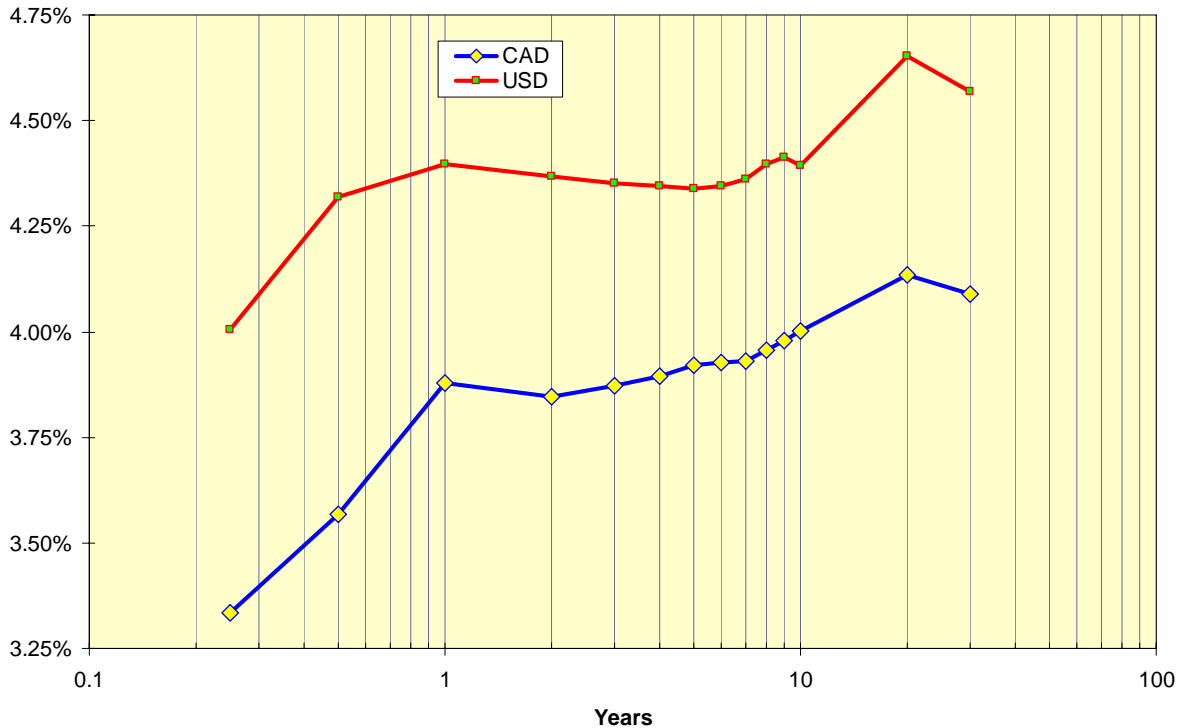
A second and perhaps more familiar way of illustrating this same phenomenon is the absolute spread between CAD and USD LIBOR as a percentage of the USD LIBOR. Short-term CAD swap rates stood well over USD rates by mid-2003, a move certainly supportive of a stronger CAD. By mid-2005, the yield advantage switched to the USD, a state of affairs that should have weakened the CAD if that was the only factor operating. The USD advantage started to erode by late 2005, a period in which the CAD moved to a multiyear high against the USD.

CAD - USD Swap Rate Differentials Rising From Multiyear Lows



The comparative USD and CAD yield curves show a remarkably parallel shape at the time of this writing. The CAD curve is a little steeper at the money market maturities, those less than one year, while the USD curve is noticeably flatter at the note maturities, those between 1 and 10 years.

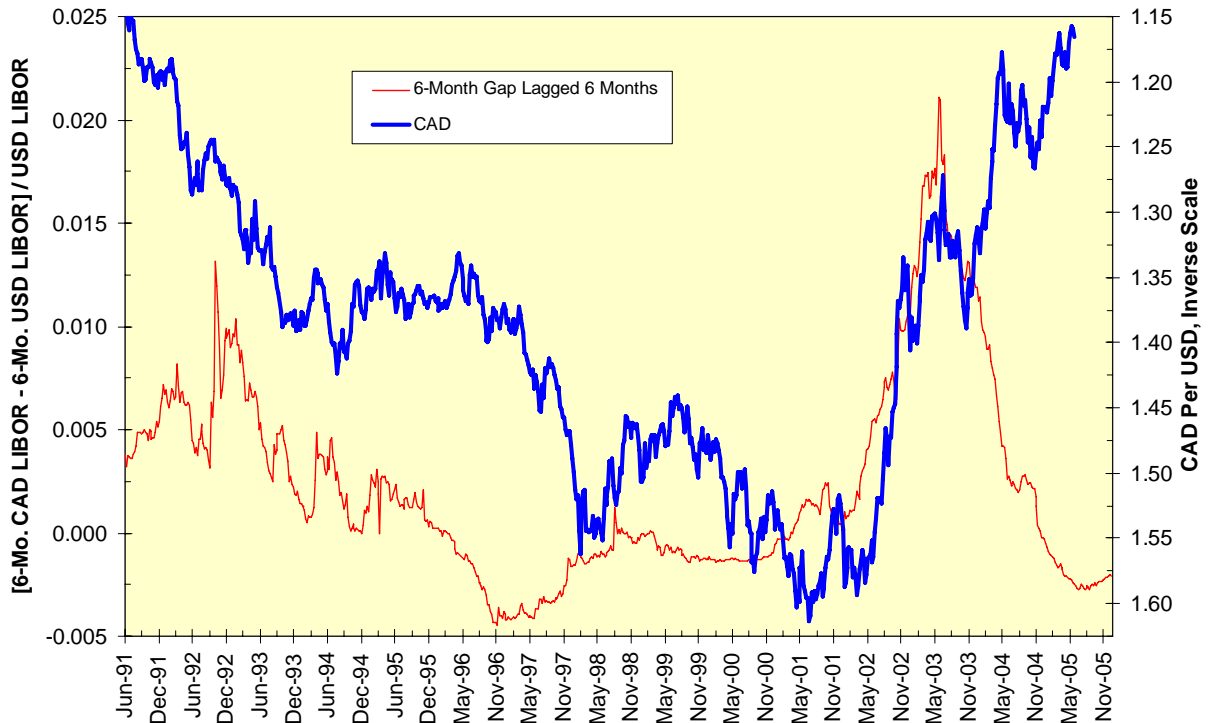
Comparative Yield Curves December 23, 2005



Leads And Lags

There are no hard and fast rules for the CAD exchange rate given the interest rate differentials between the two countries. Given the mechanics of controlled interest rate arbitrage, we should expect a relationship between the 6-month rate differential and the normal 3-month non-deliverable forward. This is visible when CAD LIBOR trades over USD LIBOR. It is not as visible when the LIBOR relationship reverses, as has been the case in late 2005. At no point in the last 15 years has the divergence between the LIBOR differentials and the exchange rate been as great.

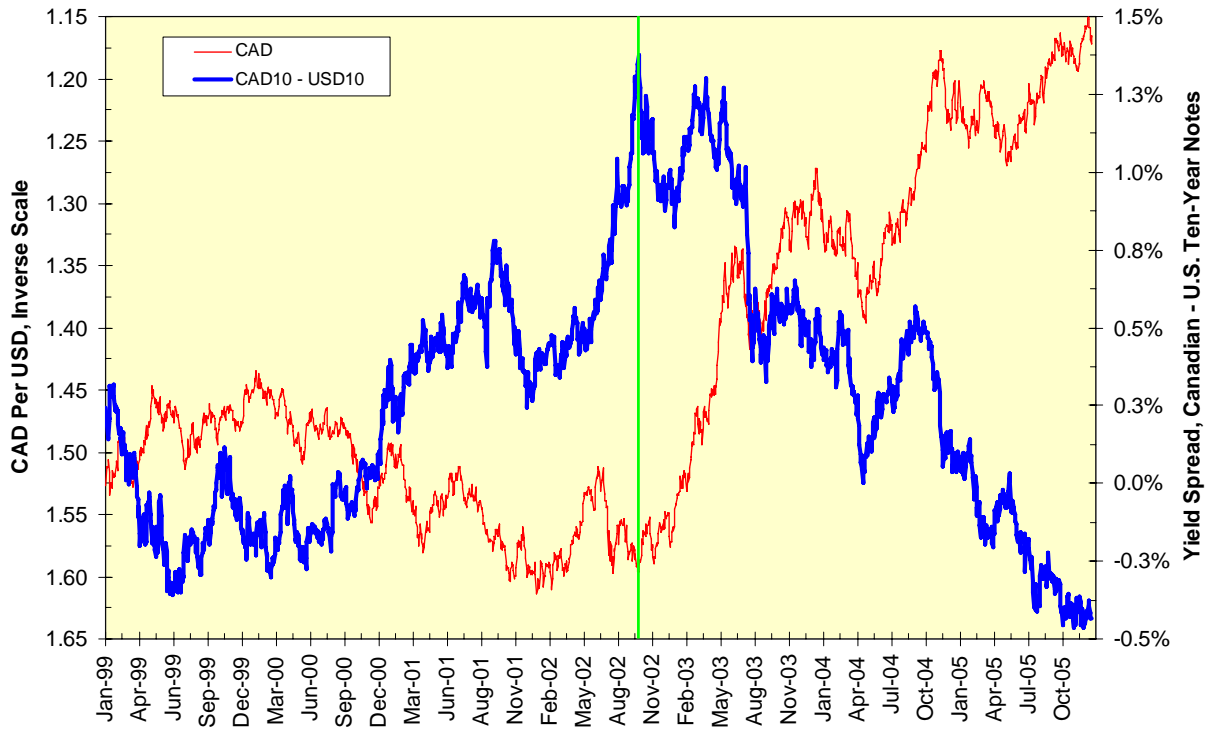
Implications Of The Rate Differential For The Future Of Exchange Rates



This divergence demands explanation. Even though currency trades tend to be dominated by short-rate differentials, activity at the long end of the yield curve is related closely to the CAD. This is a capital market phenomenon, one related to both note yields and to stock market activities.

Once the equity bear market ended in October 2002, U.S. ten-year note yields rose relative to Canadian ten-year note yields. The CAD strengthened apace. Prior to October 2002, no such relationship was visible. This suggests the U.S. has to pay a risk premium for capital relative to what Canadian borrowers pay; such a premium is linked to the risk of ultimate repayment of principal. The U.S. is seen as a riskier credit than Canada by international creditors.

Note Gap's Currency Sensitivity



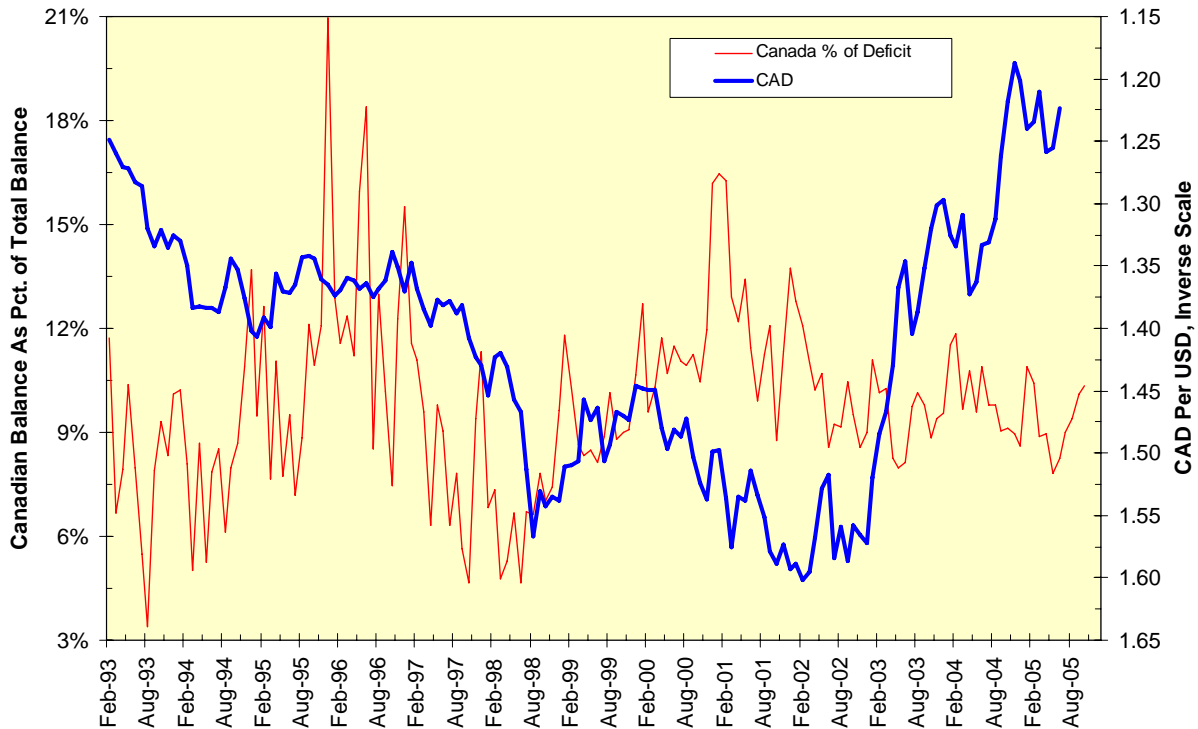
The CAD And Trade

Mercantilists never have to worry about being right. The percentage of the U.S. trade deficit accounted for by Canada rose in the early 1990s while the CAD weakened slightly. The percentage fell sharply in advance of the CAD's 1997-1998 breaks. It rose again into 2001 while the CAD both rose and fell. It declined steadily since then, well before the CAD's recent strength.

In other words, there does not appear to be any sort of predictive relationship between the CAD and U.S.-Canada bilateral trade.

There are several factors behind this. First, much of U.S.-Canada trade is inter-subsidary, such as within the automobile industry, or occurs within price-inelastic goods such as energy and mineral. In addition, long-term currency hedging is used frequently on both sides of the border. As a result, currency movements may affect certain profit margins, but are notably ineffective in affecting macro trade flows.

Currency Sensitivity of Canada-U.S. Trade Balance



The Commodity Linkage

Now let's turn to the assertion the CAD is driven by commodity prices. The same assertion has been made on behalf of the Australian dollar, the South African rand and a host of minor currencies. We can construct a correlation matrix of returns for the CAD against a host of other financial variables, including individual commodities exported from Canada, commodity indices such as the Reuters/Jefferies-CRB and Dow Jones-AG, and Canadian markets. The matrix, constructed from data between January 1991 and December 2005, is presented below.

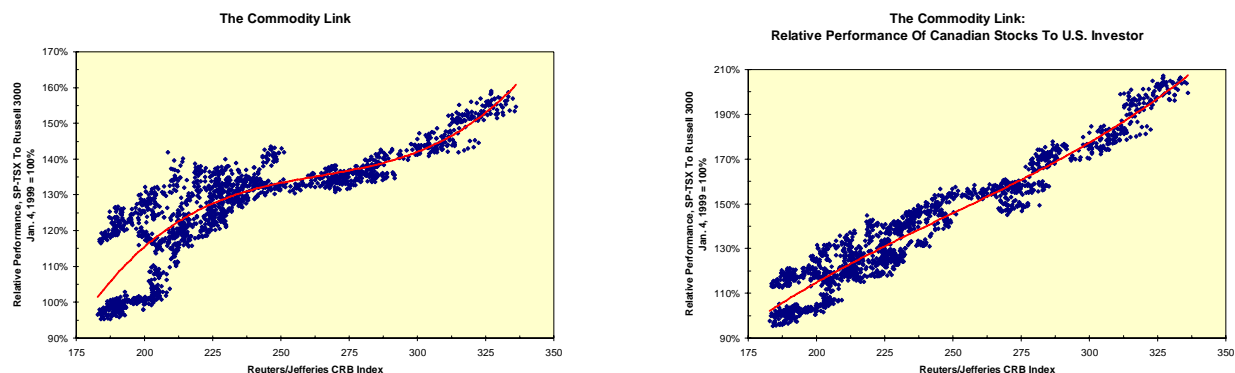
Correlation of Weekly Returns, January 1991 - December 2005

	CAD	JOC	CRB	GC	CL	NG	NI	HG	LB	DJAIG	TSX	2-Yr	10-Yr
CAD	1.000												
JOC-ECRI	0.136	1.000											
CRB	0.159	0.182	1.000										
Gold	0.201	0.070	0.349	1.000									
Crude Oil	0.106	0.177	0.467	0.066	1.000								
Nat. Gas	0.050	0.026	0.231	0.100	0.128	1.000							
Nickel	0.132	0.151	0.209	0.131	0.109	0.060	1.000						
Copper	0.126	0.164	0.220	0.125	0.011	0.041	0.436	1.000					
Lumber	0.048	0.123	0.142	0.024	-0.020	0.015	0.028	0.091	1.000				
DJ-AIG	0.176	0.214	0.841	0.307	0.691	0.310	0.292	0.273	0.053	1.000			
SP-TSX	0.210	0.065	0.216	0.165	0.094	0.067	0.169	0.178	0.098	0.216	1.000		
CAD 2-Year	0.211	0.011	-0.018	0.050	0.001	0.039	-0.051	-0.039	0.027	-0.012	0.096	1.000	
CAD 10-Year	0.167	-0.013	-0.012	0.048	0.045	0.065	-0.066	-0.072	-0.006	0.006	0.091	0.788	1.000

The strongest correlation to the Canadian dollar, read in the column labeled "CAD," is not from any particular commodity, but rather from the Canadian two-year note, followed in close order by the Toronto Stock Exchange SP-TSX index; the weekly correlations of returns for these are .211 and .210, respectively. It would be just as fair given these data to call the CAD a "note currency" or a "stock currency," as it would be to label it a "commodity currency."

Canada is an important exporter of such commodities as crude oil, natural gas, nickel, copper and lumber, but none of these correlations are anywhere near as high as those mentioned for two-year notes or the SP-TSX index.

However, an interesting side-door relationship emerges. The strongest correlation to the SP-TSX index is that with the CRB and DJ-AIG indices, .216 in both instances. If commodity prices influence the SP-TSX, can we account for the relative performance of the Canadian and American markets by commodity prices? The charts below depict the relative performance of the SP-TSX to the Russell 3000 index as a function of the CRB index. These are given both prior to (left-hand chart) and subsequent to (right-hand chart) currency adjustment.

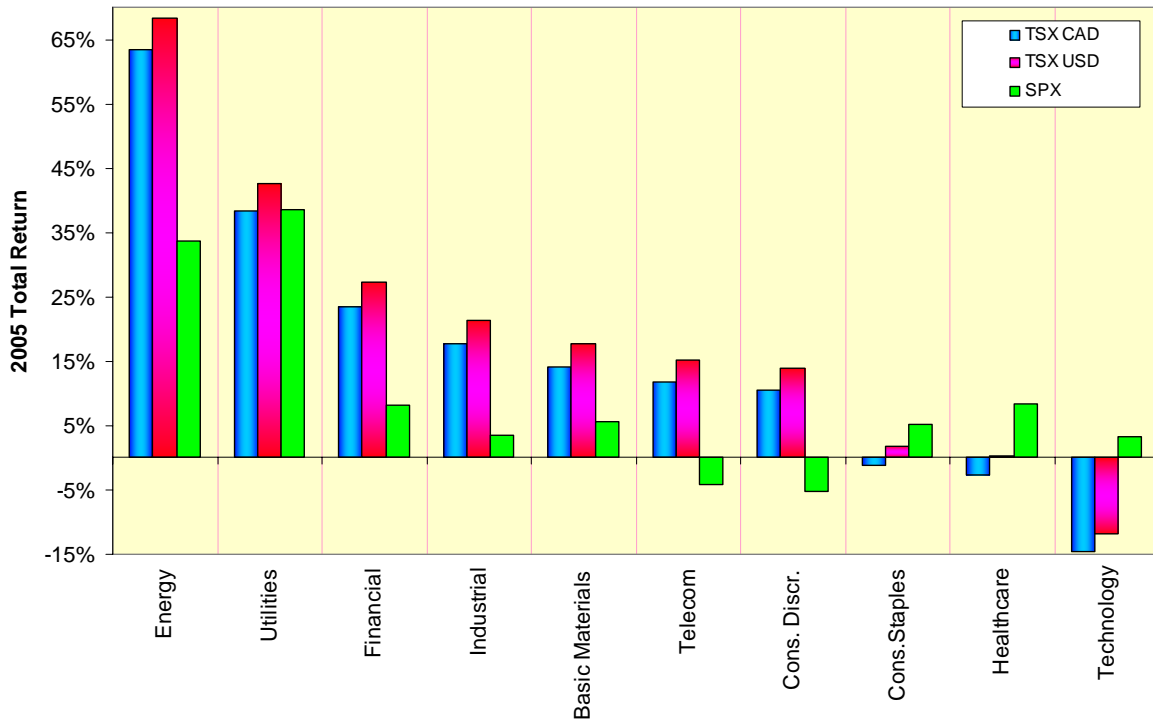


Before currency adjustments are made, the relative stock market performance appears to be a cubic function of the CRB index; the SP-TSX outperforms the Russell 3000 both a low and high CRB levels. After the adjustments are made, the relative performance of the SP-TSX to the Russell 3000 becomes far more linear to the level of the CRB.

This suggests the following driving mechanism for the CAD: As commodity prices rise, the more commodity-dependent SP-TSX increases relative to the Russell 3000. The cross-border investment flow necessitates a selling of USD for CAD. We need to modify, therefore, the assertion the CAD is a commodity currency to the assertion the CAD is a commodity-linked equity currency.

One final way to emphasize this conclusion is to compare the total returns for the various economic sectors as defined by Standard & Poor's for both the SP-TSX and S&P 500 indices. The total returns for the Canadian market are depicted both in USD and in CAD terms. The economic sector with the greatest outperformance by the Canadian market was Energy. The Financial sector outperformed strongly as well; the Bank of Canada was notably less hawkish than the Federal Reserve. And the Industrial and Basic Materials sectors, both of which had strong commodity linkages, were stronger in Canada than in the U.S. The sectors in which the American market outperformed were Consumer Staples, Healthcare and Technology, none of which have strong commodity linkages.

Comparative Economic Sector Performance



Conclusion

Currency traders are forever searching for a single answer to the riddle of what drives both an individual currency and the DXY. The answer, both fortunately and unfortunately, is there is no one answer, but rather a group of answers. The interest rate gap between the CAD and USD is a piece of the puzzle, but we need to analyze it in terms of the yield curve and both long- and short-term interest rates. Cross-border trade flows are almost irrelevant. To call the CAD a commodity currency is an over-simplification; as we have seen, it is really a financial flow currency wherein the flows are driven in large part by commodity indices such as the CRB.

The unfortunate part is this complexity. The fortunate part for traders is the rewards will go to those who understand this and endeavor to do their homework. As always, the rewards do not go to the lucky, they go to the prepared.