FX QUANT SERIES · 5 OF 6

USD/CAD: A Quantitative Review

quiet rise to a 52-week high

The dollar has climbed to its highest level against the Canadian dollar in a year, in one of the calmest moves on record. This note shows why oil has stopped helping the loonie and what the numbers say before the Bank of Canada meets on 28 October.

Global Markets Research · FX Quantitative Strategy Desk Prepared by ANDRA MARKETS

52-week high on 8 Oct

Coverage summary. USD/CAD fixed at 1.4262 on 8 October, its highest level in the past year and 4.2 per cent above the end of 2025. The rise has been extraordinarily smooth: one-month realised volatility of 2.3 per cent is the lowest reading in at least ten years. The main driver is the gap in interest rates: the Fed has raised its range to 3.75 to 4.00 per cent while the Bank of Canada has kept its rate at 2.25 per cent, leaving a two-year yield gap of about 1.5 percentage points. Oil above US$90 would normally support the Canadian dollar, but over the past year the link has disappeared.

USD/CAD, 8 Oct	1m realised vol	RSI (14)	2y yield gap
1.4262	**2.3%**	**79**	**+1.54pp**
+4.2% YTD	*lowest in 10 years*	*overbought above 70*	*UST 4.79% vs Canada 3.25%*

Exhibit A. Quantitative dashboard: USD/CAD

Metric	Value	Context
Spot (8 Oct, ECB reference)	1.4262	end-2025: 1.3692
Return 1 week / 1 month	+0.1% / +3.3%	3 months: +0.5%
Return YTD / 12 months	+4.2% / +2.3%	
52-week range	1.3524 to 1.4262	position: 100% of range
50-day / 200-day average	1.3975 / 1.3865	spot +2.9% vs 200-day
z-score vs 1-year mean / RSI(14)	+2.0 / 79	
Realised vol 1m / 3m / 1y	2.3% / 4.4% / 4.3%	1m at a 10-year low
Skew / excess kurtosis (1y daily)	-0.39 / 1.7	fat tails if kurtosis > 1
Daily 95% VaR (historical, 1y)	-0.43% / +0.38%	down / up tail
Variance ratio (5-day) / autocorr.	1.27 / +0.03	>1 trending, <1 mean-reverting

Source: ECB euro reference rates (14:15 CET), crossed through EUR/USD to obtain dollar pairs; Andra Markets calculations on log returns, 252-day year. Data to 8 October 2026.

1.0 Executive Summary

Key takeaways

trend up, RSI 79

A strong trend, now overbought. The pair is 2.0 per cent above its 50-day average and 2.9 per cent above its 200-day, with a z-score of +2.0 and an RSI of 79, the highest in this series. The trend is clear, but in the short term the move is stretched.

oil link: gone

Oil no longer drives the loonie. The correlation of weekly changes with WTI crude over the past year is only −0.07, against about −0.4 between 2014 and 2019 on our calculation. The Canadian dollar is trading on interest rates and on trade policy, not on energy.

Range. The one-month one-sigma range is 1.4082 to 1.4443. MUFG expects 1.42 at the end of the year, close to the current level, and 1.36 by the third quarter of 2027.

1m range: 1.408 to 1.444

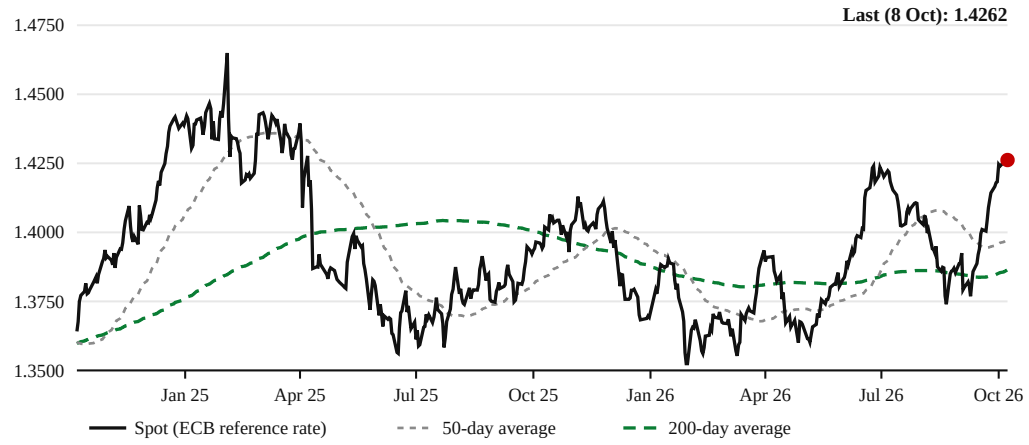
2.0 Price and Trend

A steady climb

Jan low 1.3524

USD/CAD fell to 1.3524 on 29 January and has risen gradually since, with an acceleration in September when the Fed raised rates. The 50-day average (1.3975) is above the 200-day (1.3865), the standard sign of an upward trend, and the price is at the top of its 52-week range. The variance ratio of 1.27 is the highest in this series, which means weekly moves are larger than daily moves would suggest: a trending market.

Exhibit 1. USD/CAD over two years, with 50-day and 200-day moving averages



new 52-week high

averages rising

Source: ECB euro reference rates, Andra Markets calculations. Moving averages are simple averages of daily fixes.

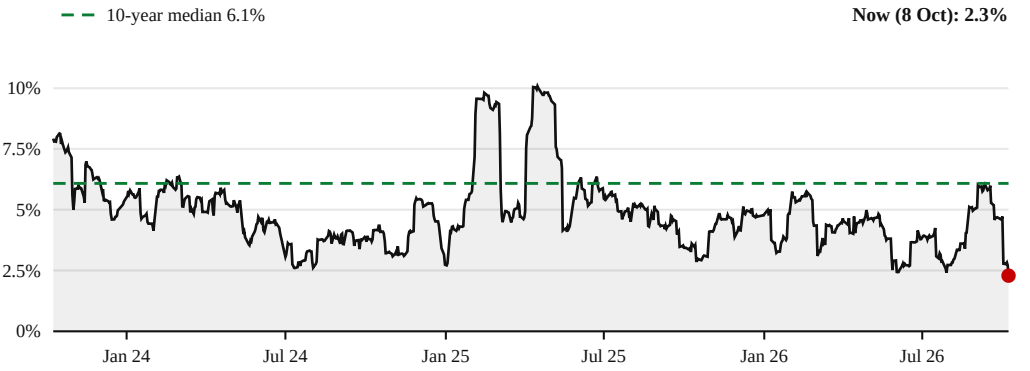
3.0 Volatility

A record low

One-month realised volatility of 2.3 per cent compares with a ten-year median of 6.1 per cent, and three-month volatility is 4.4 per cent. The pair has risen in small, regular steps, with few large days. Such low volatility can persist, but it often ends when a scheduled event, here the Bank of Canada decision and Monetary Policy Report on 28 October, forces a repricing.

1m 2.3% vs median 6.1%

Exhibit 2. USD/CAD: one-month realised volatility, annualised



now: lowest in 10y

Source: Andra Markets calculation from ECB reference rates: 21-day standard deviation of daily log returns, annualised with √252. The median is over ten years.

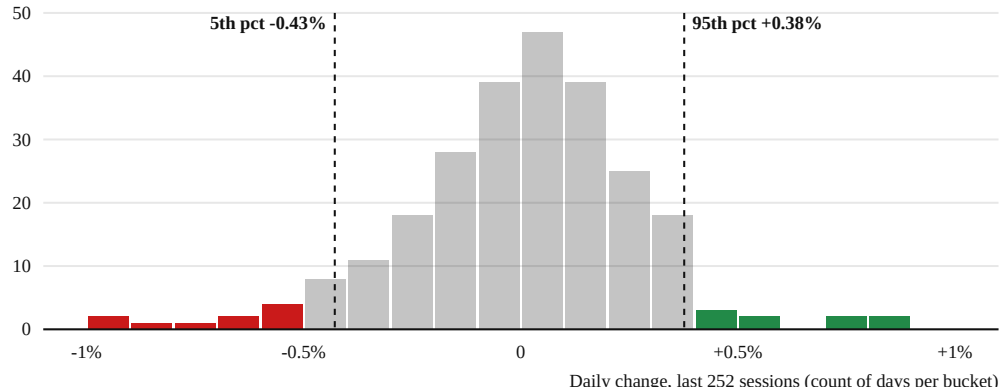
4.0 Distribution of Returns

Thin tails

VaR 95%: −0.43%

Daily changes are small: the one-day value at risk at 95 per cent is -0.43 per cent, the lowest of the G10 pairs here apart from the managed yuan. The largest fall of the year was −0.96 per cent on 3 September and the largest rise +0.89 per cent on 2 February. The skew of -0.39 indicates that falls in the pair, when they come, tend to be slightly sharper than rises.

Exhibit 3. USD/CAD: distribution of daily changes over the last year



Source: Andra Markets calculation. Red bars are days beyond the 5th percentile (historical value at risk), green bars beyond the 95th.

small daily moves

5.0 What Moves the Pair

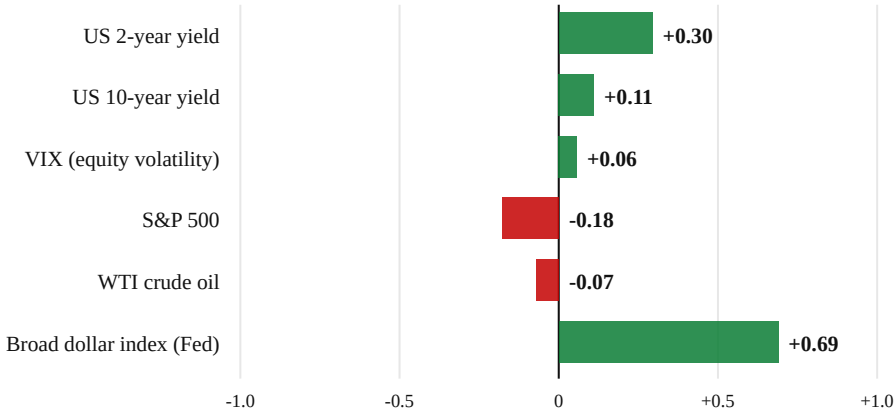
Rate gap and the broad dollar

broad USD: +0.69

US 2y: +0.30

Weekly changes in USD/CAD show a correlation of +0.69 with the broad dollar and +0.30 with the US two-year yield over the past year, and +0.32 with the gap between US and euro area two-year yields. The link with oil, the traditional driver, is essentially zero. One explanation is trade policy: since the United States declined to renew the USMCA at the 1 July joint review, the agreement remains in force but under annual reviews, and Canadian exports face uncertainty that higher oil prices do not offset.

Exhibit 4. USD/CAD: correlation of weekly changes with market drivers, last 52 weeks



Source: Andra Markets calculation from weekly (Friday) changes; FRED for US yields, VIX, S&P 500, WTI and the Fed broad dollar index. Weekly data avoid the gap between the ECB fixing time and US closing prices.

USMCA: annual reviews

6.0 Macro and Policy Context

A dovish Bank of Canada

BoC 2.25% vs Fed ~3.9%

The Bank of Canada held its rate at 2.25 per cent on 2 September while noting upside risks to inflation from energy and tariffs. Canadian inflation is 3.0 per cent but measures of underlying inflation are close to 2 per cent, and unemployment is 6.4 per cent, so the case for higher rates is weaker than in the United States. Both central banks decide on 28 October; a Bank of Canada

increase, which some forecasters now expect, would be the main catalyst for a lower USD/CAD.

Exhibit B. USD/CAD macro and policy dashboard

Indicator	United States	Canada
Policy rate	3.75 to 4.00%	2.25% (hold 2 Sep)
Next meeting	28 Oct	28 Oct (with MPR)
2-year yield	4.79%	3.25%
10-year yield	5.24%	3.93%
Inflation (Aug)	CPI 3.4%	CPI 3.0%, core 2.4%
Growth / jobs	GDP 2.2%; unemployment 4.2%	GDP +3.3% ann. (Q2); unemployment 6.4%

Sources: Federal Reserve; Bank of Canada and Statistics Canada via Trading Economics; FRED and Trading Economics for yields (8 to 9 October 2026); BoC calendar via Storeys.

same day: Fed + BoC

7.0 Positioning and Forecasts

Shorts growing

Speculators raised their net short position in the Canadian dollar sharply, to 78,671 contracts in the week to 29 September from 53,210, adding to the momentum behind the move. MUFG expects 1.42 at the end of the year and 1.36 by the third quarter of 2027; Trading Economics' model has 1.42 and 1.41.

CFTC: −79k, from −53k

8.0 Quantitative Outlook

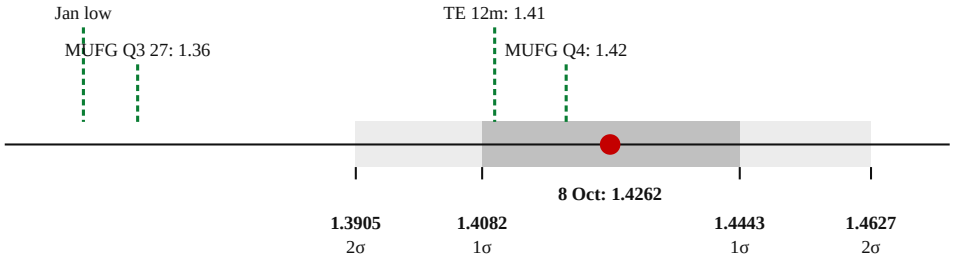
Ranges and signals

1σ: 1.408 to 1.444

The one-month range is 1.4082 to 1.4443 at one standard deviation and 1.3905 to 1.4627 at two, using three-month volatility; with one-month volatility, the range would be about half as wide. The composite score is +1: trend and carry favour the dollar, the overbought RSI points the other way, and momentum over twelve months is flat because the pair was at similar levels a year ago.

Exhibit 5. USD/CAD: statistical one-month range from current volatility, with published forecasts

forecasts at or below spot



Source: Andra Markets calculation. Bands use three-month realised volatility of 4.4% and assume normally distributed returns: about two-thirds of outcomes fall inside 1σ and 95% inside 2σ. Forecast markers: MUFG (1 October 2026); Trading Economics model; 29 January 2026 low.

The scorecard has no clear edge because the signals conflict: the trend and the rate gap are strong, but the pair is overbought after a low-volatility climb. In such conditions, quantitative models typically keep a trend position but reduce its size, because a reversal from overbought levels with very low volatility tends to be sharp.

score +1: no clear edge

9.0 Risk Considerations and Calendar

What to watch

28 Oct: BoC + Fed + MPR

The main risk to a higher dollar is a hawkish Bank of Canada on 28 October or a Fed pause. Positive news on trade with the United States would also support the loonie, while new tariffs would weaken it further. Key dates: Canadian jobs on 9 October, Canadian CPI and the Business Outlook Survey on 19 October, and the Bank of Canada and the FOMC on 28

October. A record-low volatility move into a double central bank day is the setup to watch. 19 Oct CPI

Exhibit C. Quantitative signal scorecard for USD/CAD

Signal	Reading	Implication for the pair
Trend	+2.0% vs 50-day, +2.9% vs 200-day	supports higher
Momentum (12 minus 1 month)	-1.0%	neutral
Mean reversion	z-score +2.0; RSI 79	supports lower
Carry (2-year yield gap)	+1.54 pp in favour of holding the pair	supports higher
Seasonality (Q4, 2014 to 2025)	average +0.8%, up in 6 of 12	neutral
Composite score	**+1 out of ±5**	**no clear edge**

Andra Markets rules: trend is positive if the pair is above both averages and negative if below both; momentum uses a ±1% band; mean reversion flags a z-score beyond ±2 or RSI beyond 30/70; carry uses a ±0.5 point band; seasonality needs at least 8 of 12 years in one direction. Signals are descriptive, not trading advice.

verdict: trend intact, but overbought into 28 October

Methodology and Source Notes

Method. This note applies standard quantitative measures to USD/CAD using ECB euro reference rates, crossed through EUR/USD, to 8 October 2026. Returns are log returns; realised volatility is annualised with 252 trading days; value at risk is historical; correlations use weekly changes. Ranges and signals are statistical descriptions of past behaviour and do not predict future prices. Handwritten notes and highlights are informal commentary by the desk. This note is analysis, not investment advice.

Principal sources. ECB euro reference rates (data to 8 October 2026); FRED; Trading Economics (Bank of Canada, Canadian yields and data, 8 to 9 October 2026); McMillan LLP on the USMCA review (July 2026); Storeys (BoC calendar); MUFG Research (1 October 2026); CFTC Commitments of Traders (29 September 2026).

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