FX QUANT SERIES · 2 OF 6

GBP/USD: A Quantitative Review

calm price, nervous gilts

Sterling has slipped to a three-month low against the dollar while gilt yields hit their highest level since 2007. This note measures how the pound trades, what drives it and what the numbers imply before the 28 October Budget.

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

-1.9% YTD

Coverage summary. GBP/USD fixed at 1.3207 on 8 October, down 1.9 per cent this year and 2.5 per cent in the past month, and below both its 50-day and 200-day averages. The fall has been orderly: one-month realised volatility of 4.9 per cent is in the lowest 7 per cent of the past ten years. That calm contrasts with the gilt market, where the ten-year yield touched 5.51 per cent on 8 October, its highest since 2007, ahead of the first Budget of Chancellor John Healey on 28 October. Quantitatively, the pair offers no carry and no clear signal; the risk lies in a sudden repricing around the Budget.

GBP/USD, 8 Oct	1m realised vol	2y yield gap	Spec positioning
1.3207	**4.9%**	**−0.06pp**	**−91k**
−1.9% YTD	*7th pct of 10 years*	*gilt 4.73% vs UST 4.79%*	*net short GBP (CFTC)*

Exhibit A. Quantitative dashboard: GBP/USD

Metric	Value	Context
Spot (8 Oct, ECB reference)	1.3207	end-2025: 1.3466
Return 1 week / 1 month	-0.2% / -2.5%	3 months: -1.1%
Return YTD / 12 months	-1.9% / -1.5%	
52-week range	1.3044 to 1.3817	position: 21% of range
50-day / 200-day average	1.3447 / 1.3442	spot -1.7% vs 200-day
z-score vs 1-year mean / RSI(14)	-1.3 / 36	
Realised vol 1m / 3m / 1y	4.9% / 4.8% / 6.1%	1m in 7th percentile of 10 years
Skew / excess kurtosis (1y daily)	+0.07 / 1.8	fat tails if kurtosis > 1
Daily 95% VaR (historical, 1y)	-0.63% / +0.59%	down / up tail
Variance ratio (5-day) / autocorr.	0.91 / -0.05	>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 turned down

The trend has turned down. The pair is 1.8 per cent below its 50-day average and 1.7 per cent below its 200-day, with an RSI of 36, weak but not oversold. It sits in the lower fifth of its 52-week range, about 1.2 per cent above the November 2025 low of 1.3044.

vol very low

Volatility is unusually low. At 4.9 per cent, one-month volatility is about 2.7 points below its ten-year median. Such calm leaves little room for error before a major fiscal event: the last fiscal shock, in the autumn of 2022, pushed one-month volatility above 20 per cent on our data.

No carry to hold the pound. Two-year gilts and Treasuries yield almost the same, so investors are not paid to own sterling. Markets price more than 100 basis points of Bank of England increases by the end of 2027; if the Bank delivers less, as MUFG expects, the pound loses support.

no carry: gap ~0

2.0 Price and Trend

Below both averages

Jan high 1.3817

The pound peaked at 1.3817 on 29 January and has traded between about 1.32 and 1.37 since. The decline of the last month took it below the 50-day average (1.3447) and the 200-day (1.3442), which now sit almost on top of each other, a sign that the medium-term trend has flattened. The z-score against the one-year average is -1.3, so the pound is cheap relative to its recent history but not extremely so.

Sep–Oct: –2.5%

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



averages flat, price below

next support: 1.3044

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

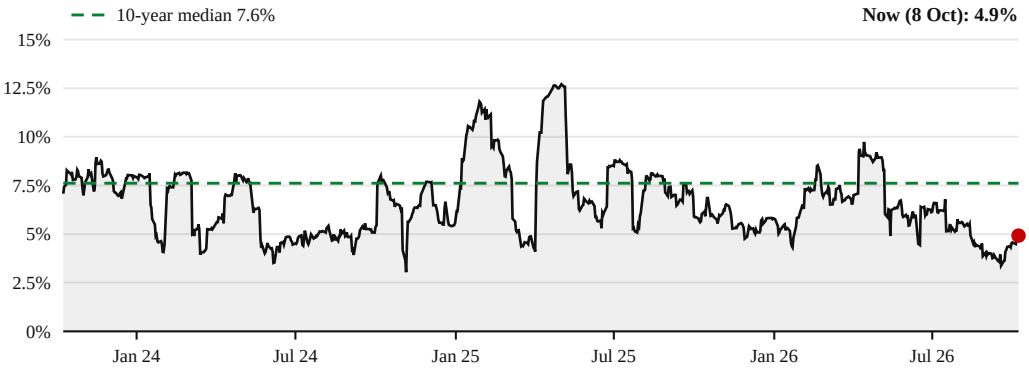
3.0 Volatility

Close to ten-year lows

One-month realised volatility of 4.9 per cent compares with a ten-year median of 7.6 per cent; three-month volatility is similar at 4.8 per cent. The pound has become one of the quietest major currencies, even though UK government bonds have been among the most volatile. That gap is unusual: in past episodes of gilt stress, sterling volatility rose quickly.

vol 4.9% vs median 7.6%

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



2022: above 20%

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.

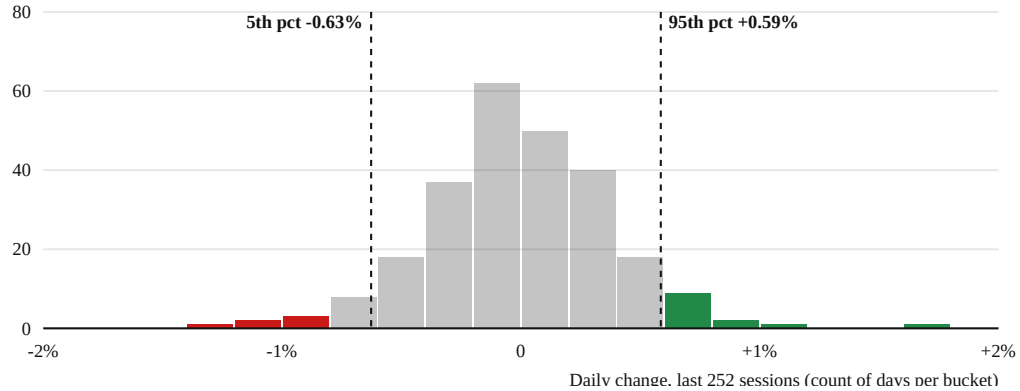
4.0 Distribution of Returns

Close to normal

skew ~0, normal tails

Daily returns over the past year are almost symmetric (skew +0.07) with moderate fat tails (excess kurtosis 1.8). The one-day value at risk at 95 per cent is -0.63 per cent. The largest moves were a rise of 1.70 per cent on 8 April, the day of the US-Iran ceasefire, and a fall of 1.33 per cent on 18 June, after the June Federal Reserve meeting. A variance ratio of 0.91 points to mild mean reversion over a week.

Exhibit 3. GBP/USD: 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.

5.0 What Moves the Pair

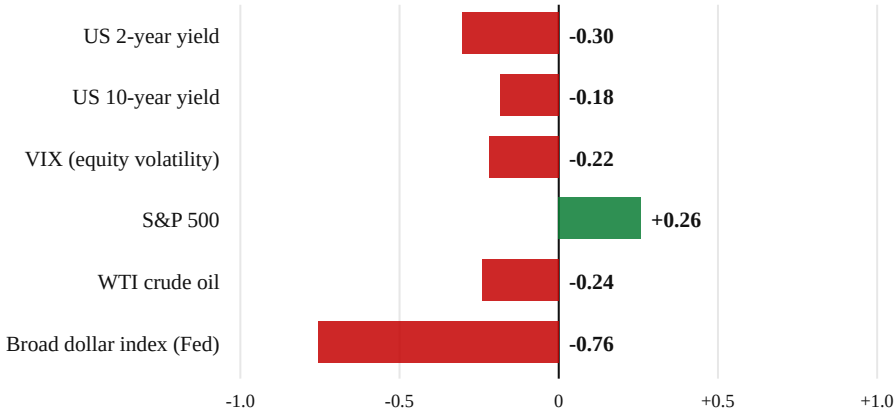
The dollar, and the oil price

broad USD: −0.76

Weekly changes in GBP/USD show a correlation of −0.76 with the Fed's broad dollar index: much of the pound's move is simply the dollar. Beyond that, the pound falls when US two-year yields rise (−0.30) and when oil rises (−0.24), and it rises with US equities (+0.26). The oil link reflects the United Kingdom's position as a net energy importer during the conflict with Iran, which has kept Brent above US$100.

oil up = GBP down

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



risk-on = GBP up

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.

6.0 Macro and Policy Context

Rates high, room limited

BoE: 3 votes for a hike

The Bank of England held Bank Rate at 3.75 per cent on 16 September, but three of nine members voted for an increase to 4 per cent, and markets now price more than 100 basis points of increases by the end of 2027. Inflation is 3.1 per cent and services inflation 3.4 per cent, while unemployment has risen to 4.9 per cent. Fiscal policy is the other variable: John Healey,

who replaced Rachel Reeves as Chancellor, delivers his first Budget on 28 October with limited room after the rise in borrowing costs; the thirty-year gilt yield went above 6 per cent on 1 October for the first time since 1998.

Budget 28 Oct (Healey)

Exhibit B. GBP/USD macro and policy dashboard

Indicator	United Kingdom	United States
Policy rate	3.75% (hold 16 Sep, 6-3)	3.75 to 4.00%
Next meeting	5 Nov	28 Oct
2-year yield	4.73%	4.79%
10-year yield	5.43% (8 Oct close)	5.24%
Inflation (Aug)	CPI 3.1%, core 2.6%	CPI 3.4%
Growth / jobs	GDP +1.4% y/y; unemployment 4.9%	GDP 2.2%; unemployment 4.2%

gilt 10y: highest since 2007

Sources: Bank of England, Federal Reserve, Office for National Statistics, BLS; Trading Economics and FRED for yields (8 to 9 October 2026).

7.0 Positioning and Forecasts

Speculators short

Speculative investors are short sterling: the CFTC reports a net short of 91,075 contracts in the week to 29 September, up from 82,568. Forecasters see little change: MUFG expects 1.31 at the end of the year and 1.349 by the third quarter of 2027. A large short position limits further downside from positioning alone, because a positive surprise could force investors to buy back pounds.

CFTC: −91k, shorts rising

MUFG Q4: 1.31

8.0 Quantitative Outlook

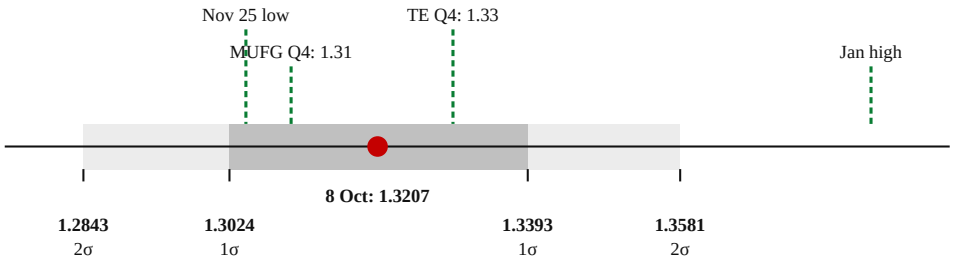
Ranges and signals

Using three-month volatility, the one-month range is 1.3024 to 1.3393 at one standard deviation and 1.2843 to 1.3581 at two. The November 2025 low of 1.3044 sits just inside the lower one-sigma band. The composite signal is neutral: a negative trend offsets slightly positive twelve-month momentum, carry is close to zero and the seasonal pattern is mixed, with gains in seven of the last twelve fourth quarters.

1σ: 1.302 to 1.339

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

low vol = narrow band



Source: Andra Markets calculation. Bands use three-month realised volatility of 4.8% 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; 52-week extremes.

The scorecard gives no edge, which in itself is informative: the pound is being driven by the dollar and by event risk rather than by persistent quantitative factors. In this situation, the most useful number is volatility: options and realised volatility are cheap relative to history, while the event risk around the Budget and the November Bank of England meeting is high.

score 0: no edge

Exhibit C. Quantitative signal scorecard for GBP/USD

Signal	Reading	Implication for the pair
Trend	-1.8% vs 50-day, -1.7% vs 200-day	supports lower
Momentum (12 minus 1 month)	+1.0%	supports higher
Mean reversion	z-score -1.3; RSI 36	neutral
Carry (2-year yield gap)	-0.06 pp in favour of selling the pair	neutral
Seasonality (Q4, 2014 to 2025)	average +0.7%, up in 7 of 12	neutral
Composite score	**0 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.

9.0 Risk Considerations and Calendar

What to watch

Budget = the event

The main risk is the Budget on 28 October. A plan seen as credible could lower gilt yields and support the pound, while a loss of confidence would push yields and the currency in opposite directions, as in 2022. A weaker US labour market would help sterling through a softer dollar. Key dates: UK CPI on 21 October, the Budget and the FOMC on 28 October, and the Bank of England on 5 November. Low volatility is the statistic to challenge most in the coming weeks.

21 Oct CPI, 5 Nov BoE

verdict: no signal, but too calm for a Budget month

Methodology and Source Notes

Method. This note applies standard quantitative measures to GBP/USD 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 England, gilt yields, UK data, 7 to 9 October 2026); FXStreet (8 October 2026); Bloomberg Government and others on the Budget date and the Chancellor; MUFG Research (1 October 2026); CFTC Commitments of Traders (29 September 2026).

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