
Q1 2026: VOLATILITY IN HISTORICAL CONTEXT

CROSS-ASSET DISPERSION AND THE HORMUZ SUPPLY SHOCK

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EXECUTIVE SUMMARY

Using a VIX-implied proxy for realized equity volatility — a methodology detailed in the disclosures — we estimate Q1 2026 annualized equity volatility at approximately 26.8%, placing the quarter near the 75th percentile of the 105-quarter distribution from Q1 2000 through Q1 2026. On this measure, Q1 2026 represents the most volatile quarter since Q1 2020 (COVID-19 shock) and is broadly comparable in character to Q1 2018 and Q1 2022. The CBOE VIX averaged 24.4 across the quarter, peaking at 35.3 on March 11 before closing at 25.3.

The primary external event of the quarter was the Straits of Hormuz blockade, announced January 28. Based on daily settlement data, WTI crude oil closed Q1 2026 at \$104.69 from a year-end 2025 level of \$57.26, a gain of +82.8% for the quarter. Brent crude closed at \$121.88 from \$61.35, a gain of +98.7%. In a historical context extending to the 1970s supply shocks, these gains are comparable in magnitude to the 1979 Iranian Revolution episode and are exceeded on a percentage basis only by the 1973 Arab Embargo. Importantly, the oil move was not front-loaded at the announcement: WTI had risen only +12.6% by January 30, with the bulk of the gain occurring in a concentrated window from late February through March as a negotiated resolution failed to materialize.

Equity markets experienced three distinct phases. January delivered positive returns across all four benchmarks (MSCI EM +8.9%, MSCI USA Small Cap +5.4%, MSCI World Ex-US +4.7%, MSCI USA +1.3%), followed by a mixed February, and a broad reversal in March that erased accumulated gains. MSCI USA finished Q1 at -4.6%; MSCI World Ex-US at -0.9%; MSCI EM at -0.2%; MSCI USA Small Cap at +2.5%, the only benchmark in positive territory for the quarter. Gold closed at \$4,550/oz (+3.9% Q1), having set an all-time nominal high in January before reversing approximately 21% from peak to quarter-end. The US dollar (Fed Nominal Broad USD Index) was essentially flat for the quarter (+0.95%), masking an intra-quarter weakening in January and recovery in February through March.

AT-A-GLANCE: Q1 2026 PERFORMANCE

A. MSCI EQUITY BENCHMARKS (NET TOTAL RETURN, USD)

Benchmark	January	February	March	Q1 2026
MSCI USA	+1.3%	-0.9%	-4.9%	-4.6%
MSCI USA Small Cap	+5.4%	+2.7%	-5.3%	+2.5%
MSCI World Ex-US	+4.7%	+4.8%	-9.7%	-0.9%
MSCI Emerging Mkts	+8.9%	+5.5%	-13.1%	-0.2%

Source: MSCI. Net total return, USD. Monthly periods: Jan 2–30, Feb 2–27, Mar 2–31, 2026.

B. OTHER ASSETS — Q1 2026 SNAPSHOT

Asset	Q1 Open	Q1 Close	Q1 Return	Vol Regime (Approx.)
Gold (USD/troy oz)	\$4,378	\$4,550	+3.9%	~80th pctile (55-yr est.)
WTI Crude (USD/bbl)	\$57.26	\$104.69	+82.8%	Comparable to 1979 episode
Brent Crude (USD/bbl)	\$61.35	\$121.88	+98.7%	Exceeds 1979; below 1973
DXY — Fed Broad USD	119.75	120.89	+0.95%	~50th pctile (near flat)
VIX (CBOE)	Avg 24.4	Peak 35.3	CIs 25.3	~75th pctile (post-2000)

Sources: CBOE (VIX); FRED DCOILWTICO / DCOILBRETEU (WTI / Brent, Dec 31 → Mar 30 closes); FRED DTWEXBGS (Fed Nominal Broad USD Index, Dec 31 → Mar 27); LBMA/web sources (Gold). Vol percentile estimates are approximate, derived from annualized quarterly realized vol distributions. VIX row: Q1 2026 average / intra-quarter peak / quarter-end close. Gold FRED series (GOLDAMGBD228NLBM) discontinued; LBMA/web sources used.

1. VOLATILITY IN HISTORICAL CONTEXT

To situate Q1 2026 in its full historical context, we construct an estimated quarterly annualized volatility series for US large-cap equity from Q1 2000 through Q1 2026, using VIX level averages as a proxy for realized volatility. This approach is a practical shortcut: true realized vol estimates for MSCI indices over the full 26-year window are not readily accessible in this exercise, and VIX-implied vol is a known overestimate of subsequent realized vol due to the variance risk premium. With that caveat explicit, we estimate Q1 2026 US equity vol at approximately 26.8% annualized, placing the quarter near the 75th percentile of the 105-quarter distribution.

Figure 1 plots this estimated series alongside scaled proxies for MSCI USA Small Cap and MSCI World Ex-US (see disclosures for scaling methodology). Three structural episodes of elevated volatility are visible: the post-2000 technology bust (2000–2002), the Global Financial Crisis (2008–2009), and the COVID-19 shock (Q1–Q2 2020). Q1 2026 sits within a fourth, less severe category — quarters where a specific, identifiable external catalyst drove vol materially above its long-run average without producing systemic financial contagion. Q1 2018 and Q1 2022 share this character.

Figure 1. Equity Market Volatility, Q1 2000 - Q1 2026

VIX-implied annualised quarterly vol; percentile bands vs. full 2000–2026 distribution. Shaded: Dot-Com Bust, GFC, COVID-19. Q1 2026 peak VIX: 35.3 (Mar 11). Small Cap and World Ex-US: scaled proxy series.

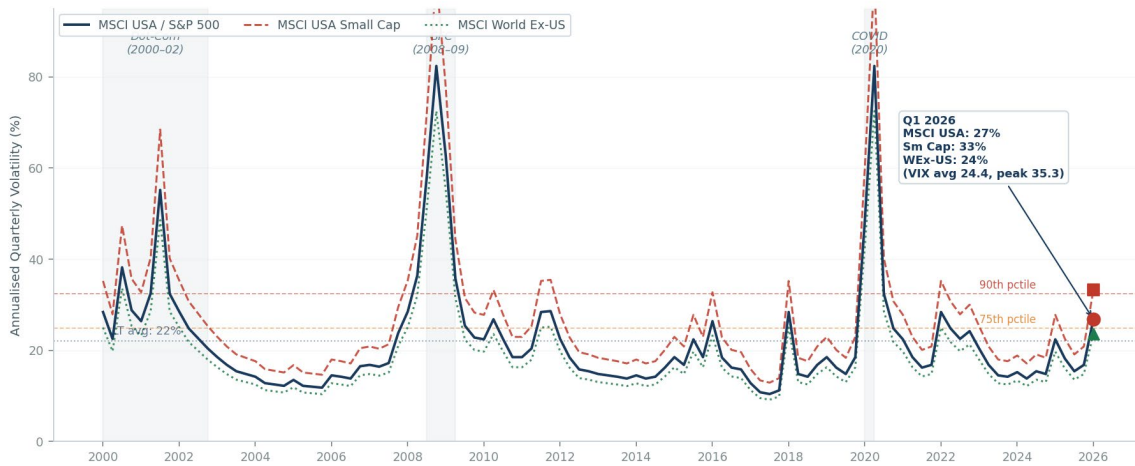


Figure 1. Estimated quarterly annualized equity volatility, Q1 2000–Q1 2026. Proxy: VIX-implied vol. Shaded: Dot-Com Bust, GFC, COVID. Dashed: 75th / 90th percentile thresholds. MSCI Small Cap and World Ex-US: scaled from the US series; see disclosures.

Source: CBOE VIX (quarterly averages); MSCI (Q1 2026 VIX context). Percentile bands computed vs. the full 105-quarter in-sample distribution. Note: VIX is an ex-ante implied measure; it systematically overstates subsequent realized vol.

HISTORICAL CONTEXT: SELECTED EPISODES

The table below places Q1 2026 alongside a set of prior market episodes where volatility was materially elevated. We make no claim to a comprehensive, statistically constructed regime classification; the selection is illustrative. The primary purpose is to note that Q1 2026 sits within the range of catalyst-driven, non-systemic episodes rather than at the extreme tail occupied by the GFC and COVID crises.

Period	VIX Avg	US Equity Vol ¹	Primary Catalyst
Low-vol period (2005–2007)	12.4	~13%	Extended credit expansion; low macro uncertainty
Global Fin. Crisis (2008–2009)	39.5	~52%	Systemic bank solvency stress; contagion
Euro Sovereign Crisis (2011)	24.2	~26%	Sovereign debt stress; policy uncertainty
Taper Tantrum (2013 Q2)	16.8	~18%	Fed forward guidance revision
Vol spike — Q1 2018	22.4	~28%	Short-vol product unwind; catalyst-driven
COVID-19 crash (2020 Q1)	48.5	~48%	Pandemic; systemic demand shock
Ukraine/rates shock (2022 Q1)	26.2	~28%	Supply shock + Fed policy pivot
Hormuz blockade (Q1 2026)	24.4	~27%	Geopolitical supply shock; WTI +82.8%

¹ US equity vol: VIX-implied annualized quarterly estimate; a proxy, not observed realized vol. GFC, COVID figures: Bloomberg/CBOE historical data. Source: CBOE VIX historical series. Episode selection is illustrative, not exhaustive.

A key analytical distinction between Q1 2026 and systemic crises is the difference between catalyst-driven and contagion-driven volatility. This distinction has implications for the expected duration of vol elevation: in the three catalyst-driven episodes in our table above (Q1 2018, Q1 2022, and the 2011 Euro crisis), the VIX returned to near-long-run-average levels within two to four quarters. In the systemic episodes (GFC, COVID), elevated vol persisted for four to eight quarters or more. Whether Q1 2026 follows the shorter-duration pattern is an empirical question that depends on whether the supply disruption is resolved and systemic transmission is avoided.

2. EQUITY MARKETS — PHASE DYNAMICS AND CROSS-GEOGRAPHY DISPERSION

Q1 2026 equity performance can be decomposed into three distinct phases. January delivered positive returns across all four benchmarks, with MSCI EM at +8.9% and MSCI USA Small Cap at +5.4% leading. The initial market response to the Hormuz blockade announcement (Jan 28) was, in retrospect, consistent with an expectation of near-term resolution: oil moved only modestly in January, and equity markets absorbed the geopolitical news without significant concurrent deleveraging. February was mixed across geographies, with international benchmarks continuing to post gains while MSCI USA declined fractionally. March brought a broad reversal as oil prices accelerated materially and no diplomatic resolution emerged: all four benchmarks posted losses, with MSCI EM the most affected at -13.1% in the month.

The quarterly result for MSCI USA Small Cap (+2.5%) relative to MSCI USA large cap (-4.6%) is consistent with — though not conclusive evidence for — the hypothesis that domestic revenue orientation provided relative insulation from energy cost pass-through. Isolating this channel cleanly from concurrent sector composition differences, earnings revision dynamics, and style factor exposures would require return decomposition beyond the scope of this note.

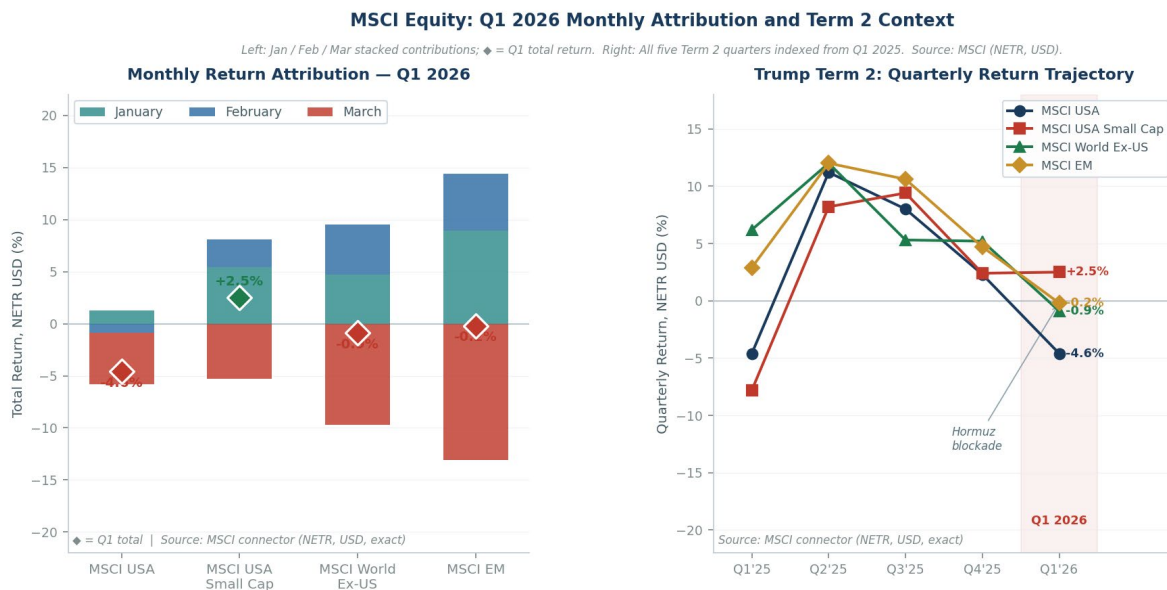


Figure 2. Left: Monthly return attribution by benchmark (Q1 2026); ◆ = Q1 total return. Right: Term 2 quarterly trajectory, Q1 2025–Q1 2026 (indexed). Source: MSCI. Net total return, USD.

Source: MSCI. NETR, USD. Periods: Jan 2–30, Feb 2–27, Mar 2–31, 2026.

Over the five quarters of Term 2 to date (Q1 2025 through Q1 2026), MSCI World Ex-US has accumulated a cumulative return of approximately +29.3% versus +8.8% for MSCI USA, a +20.5 percentage point differential. Contextualizing this gap against a longer historical sample would require matched MSCI NETR data we do not have access to for this exercise; we note it as a material observation without making a precise percentile claim. The directional pattern — sustained international outperformance across all five quarters — is clear in the data.

3. COMMODITIES — OIL AND GOLD

CRUDE OIL: AMONG THE LARGEST SINGLE-QUARTER PRICE SHOCKS ON RECORD

WTI crude oil entered Q1 2026 at \$57.26/bbl (Dec 31, 2025 daily settlement price), a multi-year low reflecting OPEC+ quota expansion and demand softness in H2 2025. The Hormuz blockade announcement on January 28 produced a measured initial response: WTI was \$64.50 at January month-end, a +12.6% gain from the opening level. The price remained in the \$65–67 range through February — consistent with market pricing of a meaningful but potentially resolvable disruption.

The more significant move occurred in late February and March. WTI rose from \$66.96 (Feb 27) to \$90.77 (Mar 6) over five trading sessions, then continued to \$104.69 at the March 30 daily close (+82.8% for the quarter). Brent closed at \$121.88, a +98.7% gain on its \$61.35 year-end level. Placed in a historical context extending to the canonical oil supply shocks of the 1970s, the Q1 2026 WTI gain of +82.8% is broadly comparable in magnitude to the 1979 Iranian Revolution episode (approximately +82% in Q1 1979 on pre-revolution pricing). The 1973 Arab Embargo remains the single largest percentage episode on record (approximately +185% in Q4 1973). The Russia-Ukraine conflict, by comparison, drove WTI +33% in Q1 2022; the Hormuz Q1 2026 gain is approximately 2.5 times that magnitude. The Brent/WTI spread widened to approximately \$17/bbl at quarter-end, a pattern consistent with geographic pricing differentiation when the disruption is concentrated in the Strait of Hormuz transit corridor.

We note that isolating the supply-disruption channel from concurrent demand, speculative positioning, and inventory draw-down effects in a single-quarter price move is methodologically challenging. The price data are consistent with a supply shock of significant magnitude; attributing the full price change to the physical supply disruption alone would require a structural model we do not attempt here.

Figure 3. Oil: Major Price Shock Episodes Compared, 1973–Q1 2026

Q1 2026 WTI gain comparable to 1979 Iranian Revolution; exceeded historically only by 1973 Arab Embargo. COVID 2020: demand-side shock. All other episodes: supply-side. 1973/1979: EIA historical. Q1 2026: FRED.

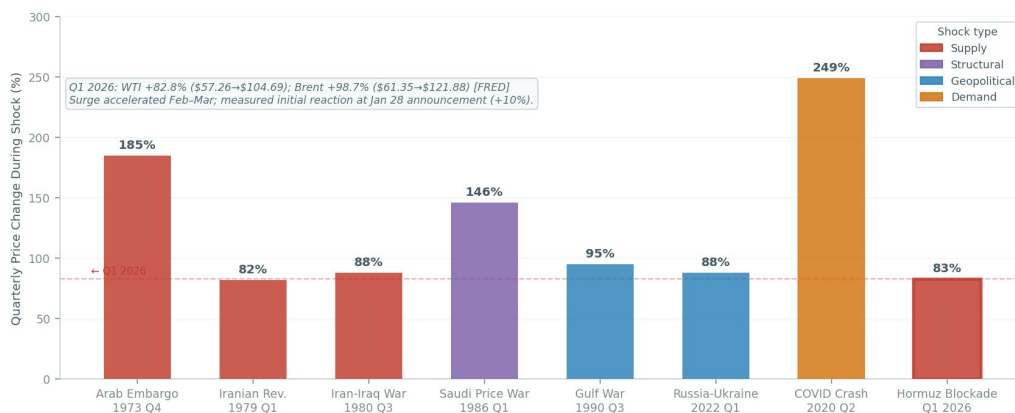


Figure 3. Oil price shock episodes: selected comparisons, 1973–Q1 2026. Bars show the approximate peak single-quarter percentage gain during each episode. 1973 and 1979 episode estimates: EIA historical data. Q1 2026: FRED daily settlement series (DCOILWTICO / DCOILBRETEU).

Episode selection is illustrative; comparability across decades is approximate given differences in market structure, pricing conventions, and contract availability.

Source: EIA historical, FRED. Note: COVID 2020 episode reflects a demand shock; all other bars reflect supply-side disruptions. Comparability across episodes is approximate given different market structures and contract conventions.

GOLD: NOMINAL HIGH, THEN REVERSAL

Gold entered Q1 2026 at \$4,378/oz, having appreciated approximately 64% over 2025. The intra-quarter pattern was sharply non-monotonic: the metal reached an all-time nominal high of approximately \$5,600/oz in late January before declining roughly 21% from that peak to close Q1 at \$4,550 (+3.9% for the quarter). The precise drivers of the intra-quarter reversal are difficult to establish definitively from price data alone. Possibilities include profit-taking following the run-up, commodity-market margin pressure from the oil move, rising real rates as the Federal Reserve signaled tolerance for commodity-driven inflation, and dollar recovery in February and March. In practice, multiple forces likely operated simultaneously.

On our estimated annual vol basis, gold's Q1 2026 intra-quarter range (approximately 28% of the January entry price from open to peak) is consistent with an elevated volatility environment, though annualized estimates for a single quarter should be interpreted with caution given the small sample.

Figure 4. Gold: Price and Annual Realised Volatility, 1971-Q1 2026

Q1 2026: ATH \$5,600 (Jan), followed by approx. -21% peak-to-trough reversal; quarter-end \$4,550 (+3.9%). Est. 2025-26 annual vol: -70-72%, approx. 80th percentile of the 55-year distribution.

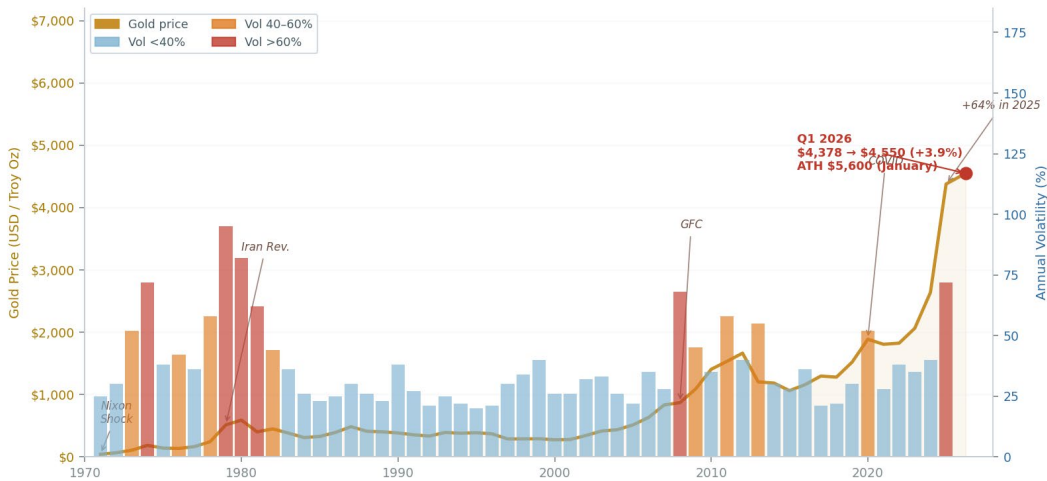


Figure 4. Gold price (USD/troy oz) and estimated annual realized volatility, 1971–Q1 2026. Annual vol estimated from log-return standard deviation. Q1 2026 point: approximate quarter-end close. Source: LBMA historical; web sources for Q1 2026.

Source: LBMA gold price fix (historical); LBMA/web sources (Q1 2026). Note: The FRED GOLDAMGBD228NLBM series (IBA/ICE data) was discontinued prior to this analysis; figures are sourced from LBMA and corroborated by multiple public sources.

4. US DOLLAR AND VOLATILITY REGIME

DOLLAR: NEAR-FLAT WITH INTRA-QUARTER DYNAMICS

The US dollar, measured by the Federal Reserve's Nominal Broad USD Index, rose +0.95% over Q1 2026 (119.75 on Dec 31, 2025 to 120.89 on Mar 27, 2026). The near-flat quarter-end outcome masked a more dynamic intra-quarter path: the index fell approximately 2% from year-end levels by late January before recovering through February and March. One interpretation is that the initial dollar weakness reflected a rotation toward hard assets (gold, commodities) as markets priced the supply shock; the subsequent recovery could reflect reserve-currency safe-haven demand, relative US trade-balance resilience compared with major DM energy importers, or both. Distinguishing between these channels from exchange rate data alone is not straightforward.

For context, the Russia-Ukraine supply shock in Q1 2022 produced a +5.5% dollar appreciation over the quarter — a materially stronger dollar move than the +0.95% observed in Q1 2026. Whether this difference reflects a larger oil shock this cycle (partially offsetting safe-haven flows through terms-of-trade deterioration), different starting conditions, or other factors is an open question that single-quarter data cannot resolve.

VIX: STRUCTURAL ELEVATION RELATIVE TO TERM 1

The CBOE VIX averaged 24.4 in Q1 2026. For comparison, the VIX averaged approximately 10–12 during the first four quarters of Trump Term 1 (2017), rising to 22.4 in Q1 2018 at the vol spike associated with short-volatility product unwinds. The long-run post-1990 VIX average is approximately 19.5. Term 2 has recorded an above-long-run-average VIX in every quarter to date (range: 14.8–24.4), while Term 1 averaged below 15 in each of its first four quarters before the Q1 2018 spike. This structural difference matters for strategies sensitive to realized volatility: options hedging costs, vol-targeting portfolio rebalancing frequency, and risk-parity drawdown risk are all materially higher in a 18–24 VIX environment than in a 11–13 VIX environment.

5. TRUMP ADMINISTRATION: SAME-STAGE COMPARISON

Figure 5 presents a same-stage comparison of Trump Terms 1 and 2 across five quarters from inauguration, examining MSCI USA cumulative returns, MSCI World Ex-US cumulative returns, and the CBOE VIX quarterly average. A methodological caveat is important here: Term 2 equity returns are sourced directly from MSCI (NETR, USD), while Term 1 figures use S&P 500 (US equity) and MSCI EAFE (international equity) as proxies, as matched MSCI NETR series for the 2017–2018 period were not available for this exercise. The directional comparison is likely robust to this substitution, but precise return differentials carry measurement uncertainty.

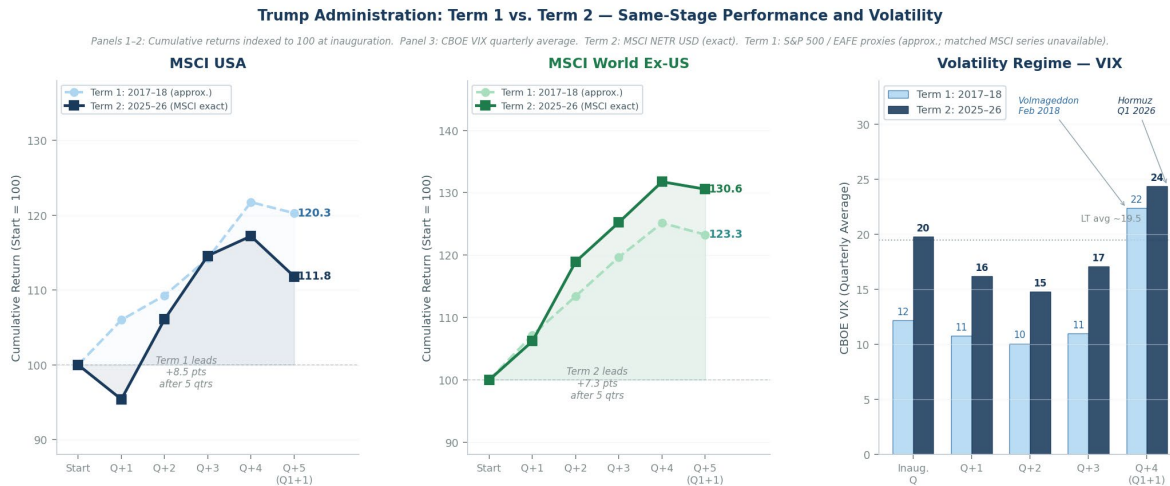


Figure 5. Trump Term 1 vs. Term 2: cumulative equity returns and CBOE VIX quarterly average, five quarters from inauguration. Term 2: MSCI NETR, USD (exact). Term 1: S&P 500 / MSCI EAFE proxies (approximate). VIX: CBOE historical.

Source: MSCI connector (Term 2, exact); Bloomberg / S&P 500 / MSCI EAFE (Term 1, approx.); CBOE (VIX).

The data show a consistent directional pattern across all three metrics. For US equity, cumulative returns over five quarters are positive in both terms but materially lower in Term 2 (+8.8% vs. approximately +20% in Term 1 on our proxy basis). For international equity, the pattern reverses: Term 2 accumulated approximately +29.3% in cumulative MSCI World Ex-US returns versus an estimated +23–25% in Term 1 (S&P EAFE proxy). For volatility, the contrast is the sharpest: Term 1 recorded VIX averages of 10–13 across its first four quarters and rose to 22.4 only in Q+4; Term 2 has not had a single quarter below 14.8 and averaged 24.4 in its fifth quarter.

One interpretation of this pattern is that tariff and geopolitical uncertainty in Term 2 created a higher baseline vol regime that shifted institutional positioning toward international diversification, which in turn contributed to the US underperformance relative to the international benchmark. This is a plausible channel, but the observed performance differential is also consistent with valuation reversion (US equities entered 2025 at elevated multiples relative to international peers), currency effects, and sector composition differences. A proper attribution would require factor decomposition beyond this note.

- **Q1 2026 is among the most volatile quarters since COVID-19.** On our VIX-implied proxy, annualized equity vol was approximately 26.8%, near the 75th percentile of the post-2000 distribution. The character of the episode — a specific, identifiable external catalyst rather than systemic financial contagion — is consistent with the shorter-duration vol patterns observed in 2018 and 2022, though this analogy carries uncertainty.
- **The oil move ranks among the largest supply-shock episodes on record.** WTI +82.8% and Brent +98.7% in Q1 2026 are comparable in percentage terms to the 1979 Iranian Revolution episode and are exceeded historically only by the 1973 Arab Embargo. Critically, the move was not front-loaded: the bulk of the price change occurred in a concentrated late-February through March window, suggesting a market re-pricing of the probability of near-term diplomatic resolution.
- **International equity outperformed the US in every Term 2 quarter.** Over five quarters, MSCI World Ex-US (+29.3%) has outpaced MSCI USA (+8.8%) by approximately 20 percentage points on a cumulative basis. Attributing this to any single factor (valuation, vol regime, currency, policy uncertainty) would require more granular decomposition than is attempted here; the directional pattern is clear in the data.
- **VIX is structurally elevated relative to Term 1.** Term 2 has averaged 18–24 VIX per quarter versus 10–13 in the comparable Term 1 period. This has concrete implications for options hedging costs and risk-parity drawdown exposure, irrespective of the directional equity outcome.
- **Dollar was near-flat; gold's net Q1 return masked substantial intra-quarter volatility.** The Fed Broad USD Index rose +0.95% for the quarter, with a 2% January weakening followed by full recovery. Gold's +3.9% Q1 return reflected a peak gain of approximately 28% intra-quarter followed by an approximate 21% reversal. Both outcomes illustrate that at elevated commodity and safe-haven entry levels, short-term returns can diverge substantially from longer-period directional trends.

METHODOLOGY AND DISCLOSURES

This document is prepared by Ativo Capital Management for informational purposes only. It does not constitute investment advice or a solicitation to buy or sell any security or instrument. Past performance is not indicative of future results.

Equity returns: MSCI NETR, USD. Q1 2026 monthly and quarterly returns sourced from the MSCI data connector. Term 1 equity return comparisons use S&P 500 (US) and MSCI EAFE (international) as proxies; matched MSCI NETR series for 2017–2018 were not available. The direction of the Term 1 vs. Term 2 comparison is likely robust to this substitution, but precise return differentials carry measurement uncertainty and should be interpreted accordingly.

Volatility estimates: Quarterly annualized vol is estimated from CBOE VIX quarterly averages and historical vol literature. VIX is an ex-ante implied measure and a known overestimate of subsequent realized vol due to the variance risk premium; historical vol estimates derived from VIX should be read as upper-bound approximations. MSCI Small Cap and World Ex-US historical vol series are scaled from the US proxy series using fixed multipliers based on long-run relative vol ratios; these scaled series are approximate.

Commodity and FX data: WTI and Brent settlement prices from FRED (DCOILWTICO and DCOILBRENTU). USD index: FRED DTWEXBGS (Fed Nominal Broad USD Index, Jan 2006 = 100). Gold prices: LBMA historical data and web sources (FRED series GOLDAMGBD228NLBM was discontinued prior to this analysis). All commodity returns computed on daily close-to-close basis (Dec 31, 2025 → Mar 30, 2026); March 31 data were not yet available in the FRED series at time of writing.

All figures in USD unless otherwise stated. Prepared: April 2026. All data are subject to revision.