Financial Markets Analysis v1.1

6-Month Analysis | 2025-08-04 to 2026-01-31

January 31, 2026

Analysis Scope

🔍 Analysis Scope

Period:	6 months
Date Range:	2025-08-04 to 2026-01-31
Trading Days:	125
Data Source:	Yahoo Finance via yfinance
Risk-Free Rate:	5% annualized

Limitations:

- ETF prices used as proxies (not direct index/commodity prices)
- Crypto data may have gaps on weekends
- Historical VaR assumes past volatility predicts future risk

Macro Economic Indicators

Indicator	Current	MoM Change	QoQ Change
S&P 500 ETF	$691.97	0.72%	2.09%
Nasdaq 100 ETF	$621.87	0.39%	-0.54%
20+ Year Treasury ETF	$87.13	-0.83%	-2.72%
Gold ETF	$444.95	11.55%	20.21%
US Dollar Index ETF	$26.85	-0.74%	-1.29%
10Y Treasury Yield	4.24	2.69%	3.62%
VIX Volatility Index	17.44	21.7%	3.13%

Methodology:
MoM: Month-over-month (22 trading days)
QoQ: Quarter-over-quarter (63 trading days)
Note: ^TNX and ^IRX are yield indices, not ETFs

Multi-Asset Comparison

Asset	Class	Return	Volatility	Sharpe	Max DD
S&P 500 (SPY)	Equity	10.26%	10.92%	1.415	-5.07%
Nasdaq 100 (QQQ)	Equity	10.51%	15.12%	1.088	-7.88%
Bitcoin (BTC-USD)	Crypto	-26.51%	31.39%	-1.39	-32.22%
Ethereum (ETH-USD)	Crypto	-24.22%	56.49%	-0.503	-42.76%
Gold (GLD)	Commodity	43.11%	26.3%	2.717	-10.27%
20Y Treasury (TLT)	Fixed Income	0.77%	8.84%	-0.345	-4.83%
Real Estate (VNQ)	REIT	2.98%	12.35%	0.139	-4.91%

Cross-Asset Correlation Matrix

	SPY	QQQ	BTC-USD	ETH-USD	GLD	TLT	VNQ
SPY	1.00	0.95	0.51	0.53	0.12	0.09	0.34
QQQ	0.95	1.00	0.51	0.53	0.17	0.06	0.14
BTC-USD	0.51	0.51	1.00	0.86	0.19	0.12	0.18
ETH-USD	0.53	0.53	0.86	1.00	0.13	0.07	0.23
GLD	0.12	0.17	0.19	0.13	1.00	0.03	0.01
TLT	0.09	0.06	0.12	0.07	0.03	1.00	0.26
VNQ	0.34	0.14	0.18	0.23	0.01	0.26	1.00

Data Quality: 7 of 7 assets with full data. Assets with insufficient data marked as N/A (not shown as 'nan')

Portfolio Risk Dashboard

PORTFOLIO RETURN	VOLATILITY (ANN.)	SHARPE RATIO	VAR (95%)
19.92%	17.55%	0.85	-1.74%

Ticker	Weight	Return	Volatility	Sharpe	VaR 95%	Beta
NVDA	25.0%	6.2%	32.14%	0.384	-3.57%	1.83
AAPL	20.0%	27.87%	22.14%	2.142	-1.63%	0.98
MSFT	20.0%	-19.39%	23.21%	-1.983	-2.38%	0.8
GOOGL	20.0%	73.57%	27.95%	3.975	-2.16%	1.38
AMZN	15.0%	13.06%	29.82%	0.816	-2.84%	1.68

Methodology:
VaR Interpretation: Maximum expected daily loss at 95% confidence
Sharpe: (Return - 5% Rf) / Volatility
Beta: Covariance with SPY / Variance of SPY

Sector Rotation Analysis (11 Sectors)

Best Sector: Energy | **Worst Sector:** Utilities | **Spread:** 21.13%

All 11 GICS sectors included (via SPDR ETFs)

Rank	Sector	ETF	Return	Volatility	Sharpe	Max DD
1	**Energy**	XLE	21.6%	18.21%	2.0	-7.36%
2	**Healthcare**	XLV	17.37%	14.02%	2.036	-5.55%
3	**Materials**	XLB	13.26%	15.17%	1.414	-8.37%
4	**Communication Services**	XLC	11.77%	12.29%	1.495	-7.58%
5	**Consumer Discretionary**	XLY	11.26%	17.37%	1.047	-8.68%
6	**Industrials**	XLI	10.3%	13.36%	1.184	-5.11%
7	**Technology**	XLK	10.02%	18.95%	0.855	-10.52%
8	**Consumer Staples**	XLP	5.22%	11.74%	0.514	-8.53%
9	**Financials**	XLF	3.65%	13.59%	0.235	-6.05%
10	**Real Estate**	XLRE	1.35%	12.37%	-0.122	-5.64%
11	**Utilities**	XLU	0.47%	12.65%	-0.256	-9.18%

Methodology & Data Quality

Version:	1.1
Generated:	2026-01-31T01:09:26.750984

v1.1 Fixes Applied:

- F01: NaN values now shown as 'N/A' with data quality notes
- F02: Correlation matrix only includes assets with valid data
- F03: All 11 GICS sectors included (was 8)
- F04: Date range explicitly stated
- F05: Methodology section added with formulas
- F06: ETF proxy disclosure added
- F07: VaR interpretation clarified (daily, not annual)
- F08: Risk-free rate stated (5%)
- F09: Data quality section shows assets with missing data

Clean Metrics Studio