

Strategy Snapshot



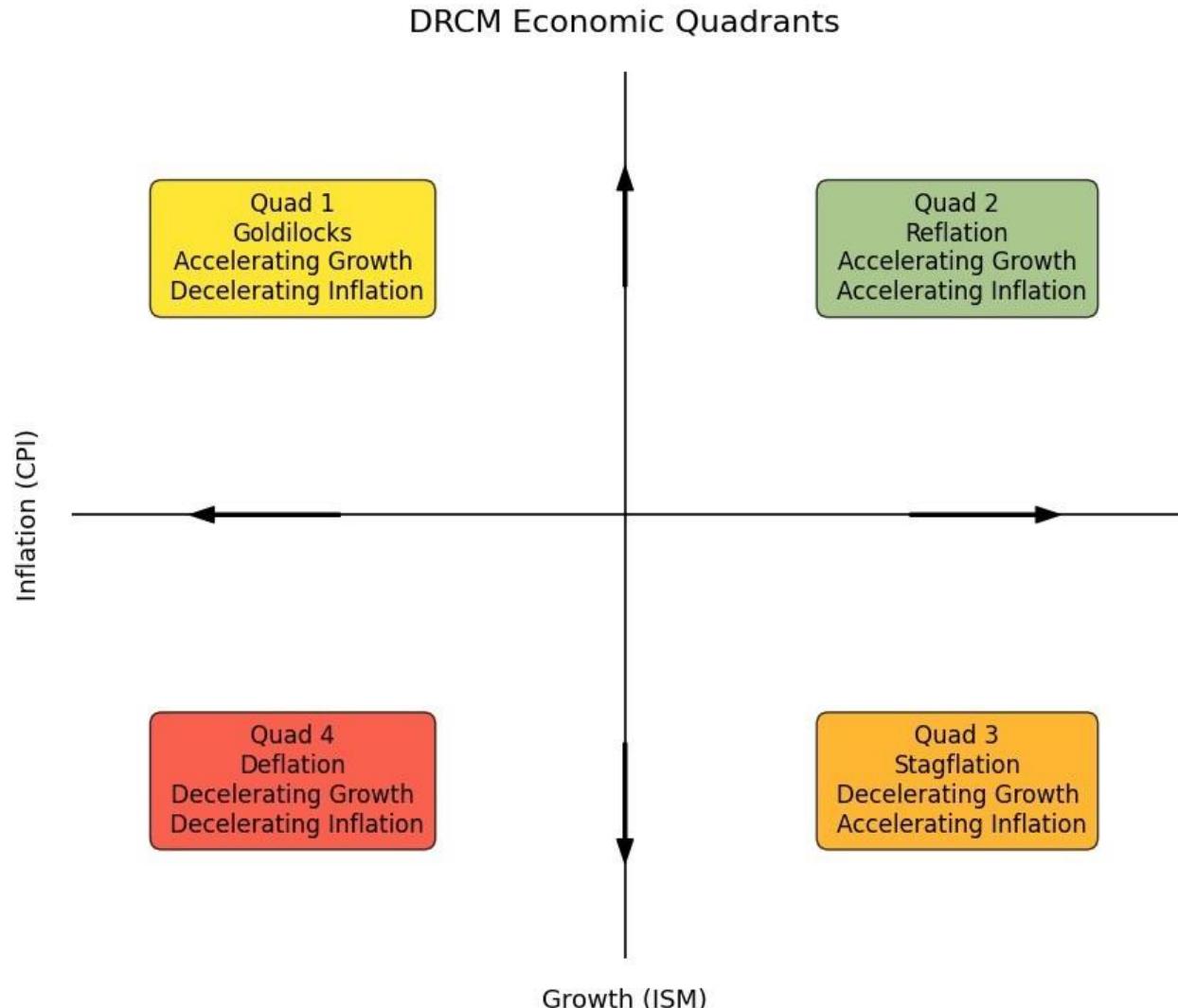
QUADRANT FRAMEWORK

How economic regimes are defined:

- Identify the directional momentum of growth and inflation using internally constructed signals built from market-based and economic indicators.
- By evaluating whether these signals are accelerating or decelerating, classify the current macro environment into one of four economic quadrants; this economic quadrant framework then guides asset allocation

For example:

- If growth remains strong while inflation momentum fades, it's identified as Quad 1 (Goldilocks)
- When the direction of both growth and inflation is rising, the environment is Quad 2 (Reflation)
- When growth is falling and inflation is rising, the regime shifts to Quad 3 (Stagflation)
- If both growth and inflation are decelerating, we enter Quad 4 (Deflation)



HOW ASSET CLASSES PERFORM ACROSS ECONOMIC REGIMES

- Backtested historical asset performance across the four economic quadrants
- Regimes are labeled based on directional shifts in inflation and growth momentum; using peak-to-trough and trough-to-peak inflections in ISM and CPI
- This approach captures how markets experience macro cycles in real time, rather than relying on lagging economic reports
- The analysis spans 30+ years of data, covering multiple business cycles, inflationary shocks, disinflationary drawdowns, and policy regimes

Each Quad segment includes asset-level quad specific metrics:

- Number of monthly datapoints, CAGR, annualized volatility, and its Sharpe ratio (not adjusted for the risk-free rate)
- The backtest covers a wide range of exposures: equities (US and global), sectors, factors, commodities, currencies, crypto, and fixed income.
- The following slides break down performance by quad (highlighting which asset classes historically outperformed or lagged in each macro environment)

| Quad | Growth | Inflation | Macro Label |
|------|--------|-----------|-------------|
| 1 | ↑ | ↓ | Goldilocks |
| 2 | ↑ | ↑ | Reflation |
| 3 | ↓ | ↑ | Stagflation |
| 4 | ↓ | ↓ | Deflation |

QUAD 1 – GOLDILOCKS: STRONG GROWTH, DISINFLATION

- Equities outperform as improving growth lifts earnings expectations, while falling inflation keeps interest rates low
- Tech, discretionary, and growth stocks benefit most from lower discount rates and improving consumer demand
- Momentum and quality factors thrive as strong earnings trends dominate. Mid and small caps also perform well in early-cycle recoveries
- Crypto performs exceptionally in this regime, likely due to risk-on sentiment, liquidity, and momentum flows
- Commodities struggle, especially energy and natural gas, as cooling inflation softens pricing power and demand expectations
- Fixed income is mixed: risk-on credit (HY, convertibles, BDCs) does well, while long-duration Treasuries lag as investors rotate into equities

Sharpe Highlights:

- Top: Momentum (MTUM 2.70), Loans (BKLN 2.54), Quality (QUAL 1.99)
- Bottom: Nat Gas (UNG -0.81), Crude (USO -0.44), Long Bonds (EDV -0.52)

| Quad 1 Performance | | # of observations | CAGR | Annual Vol | Annual Vol (no RF) |
|-------------------------------------|------|-------------------|--------|------------|-----------------------|
| Exposure | | | | | |
| Exposure | ETF | # of observations | CAGR | Annual Vol | Sharpe (no RF) |
| S&P 500 | SPY | 1,635 | 12.4% | 16.8% | 0.74 |
| All Country World Index | ACWI | 752 | 18.4% | 20.5% | 0.90 |
| Broad Commodities | DBC | 809 | -0.9% | 18.6% | -0.05 |
| Aggregate US Bonds | AGG | 940 | 4.0% | 4.9% | 0.81 |
| Gold | GLD | 843 | 11.3% | 15.8% | 0.71 |
| Bitcoin Trust | GBTC | 305 | 665.6% | 84.1% | 7.92 |
| Outperforming Sector Bets | | | | | |
| Exposure | ETF | # of observations | CAGR | Annual Vol | Sharpe (no RF) |
| Consumer Discretionary | XLY | 1,343 | 17.8% | 21.1% | 0.84 |
| Technology | XLK | 1,343 | 8.1% | 24.4% | 0.33 |
| Telecom | VOX | 837 | 20.5% | 19.2% | 1.06 |
| Health Care | XLV | 1,343 | 11.6% | 16.5% | 0.70 |
| Underperforming Sector Bets | | | | | |
| Exposure | ETF | # of observations | CAGR | Annual Vol | Sharpe (no RF) |
| Utilities | XLU | 1,343 | -1.0% | 18.8% | -0.05 |
| Energy | XLE | 1,343 | 3.3% | 24.7% | 0.13 |
| Outperforming Factor Bets | | | | | |
| Exposure | ETF | # of observations | CAGR | Annual Vol | Sharpe (no RF) |
| Momentum | MTUM | 428 | 35.9% | 12.9% | 2.77 |
| Quality | QUAL | 407 | 28.3% | 11.1% | 2.54 |
| S&P Midcap 400 | MDY | 1,400 | 24.2% | 20.4% | 1.18 |
| Russell 2000 | IWM | 1,320 | 19.7% | 23.6% | 0.84 |
| S&P 500 Equal Weight | RSP | 1,044 | 24.6% | 20.6% | 1.20 |
| S&P 500 High Beta | SPHB | 499 | 30.0% | 20.2% | 1.48 |
| Underperforming Factor Bets | | | | | |
| Exposure | ETF | # of observations | CAGR | Annual Vol | Sharpe (no RF) |
| Dividend Aristocrats | SDY | 804 | 13.2% | 21.2% | 0.62 |
| Outperforming Commodities | | | | | |
| Exposure | ETF | # of observations | CAGR | Annual Vol | Sharpe (no RF) |
| Precious Metals | DBP | 811 | 9.6% | 17.8% | 0.54 |
| Copper | CPER | 492 | 11.7% | 16.6% | 0.70 |
| Underperforming Commodities | | | | | |
| Exposure | ETF | # of observations | CAGR | Annual Vol | Sharpe (no RF) |
| Natural Gas | UNG | 760 | -48.2% | 45.6% | -1.06 |
| US Oil | USO | 807 | 5.0% | 34.4% | 0.14 |
| Brent Oil | BNO | 502 | 28.7% | 25.9% | 1.11 |
| US Dollar | UUP | 793 | 1.7% | 8.0% | 0.22 |
| Outperforming Fixed Income | | | | | |
| Exposure | ETF | # of observations | CAGR | Annual Vol | Sharpe (no RF) |
| Senior Loans | BKLN | 502 | 7.3% | 2.8% | 2.62 |
| Business Development Companies | BIZD | 431 | 21.5% | 12.8% | 1.68 |
| Convertible Bonds | CWB | 658 | 17.0% | 10.6% | 1.60 |
| High Yield Corporate Bonds | HYG | 765 | 12.3% | 12.0% | 1.03 |
| Underperforming Fixed Income | | | | | |
| Exposure | ETF | # of observations | CAGR | Annual Vol | Sharpe (no RF) |
| Extended Duration Treasuries | EDV | 754 | -9.2% | 24.3% | -0.38 |
| 20+ Year Treasuries | TLT | 1,067 | -2.8% | 14.6% | -0.19 |
| 7-10 Year Treasuries | IEF | 1,067 | 2.7% | 7.4% | 0.36 |
| Mortgage Backed Securities | MBB | 782 | 4.1% | 4.9% | 0.85 |

QUAD 2 – REFLATION: GROWTH & INFLATION ACCELERATING

- Cyclicals and commodities surge as rising demand and inflation expectations lift real asset prices
- Energy, materials, and industrials outperform thanks to pricing power, capital expenditures, and global growth
- High beta, value, and small/mid-caps benefit from strong economic momentum and reflation trades
- Crypto does well, but increased inflation risk starts to raise volatility
- Long-duration Treasuries underperform as higher inflation drives yields up
- Convertibles and high-yield bonds hold up, driven by growth optimism and credit spread tightening

Sharpe Highlights:

- Top: Convertibles (CWB 2.39), Equal-Weight Cyclicals (RSP 1.93), Base Metals (DBB 1.61)
- Bottom: USD (UUP -0.91), Nat Gas (UNG -0.69), EDV (-0.39)

| Quad 2 Performance | | # of observations | CAGR | Annual Vol | Sharpe (no RF) |
|--------------------------------------|------|-------------------|--------|------------|----------------|
| Exposure | | | | | |
| Exposure | ETF | | | | |
| S&P 500 | SPY | 2,061 | 21.0% | 14.7% | 1.43 |
| All Country World Index | ACWI | 1,138 | 22.6% | 15.0% | 1.51 |
| Broad Commodities | DBC | 1,157 | 28.9% | 16.2% | 1.78 |
| Aggregate US Bonds | AGG | 1,286 | -0.5% | 3.4% | -0.15 |
| Gold | GLD | 1,222 | 5.3% | 15.4% | 0.34 |
| Bitcoin Trust | GBTC | 754 | 198.6% | 96.3% | 2.06 |
| Outperforming Sector Bets | | | | | |
| Exposure | ETF | | | | |
| Technology | XLK | 1,578 | 29.6% | 19.8% | 1.50 |
| Energy | XLE | 1,578 | 36.1% | 24.6% | 1.47 |
| Consumer Discretionary | XLY | 1,578 | 22.7% | 17.7% | 1.29 |
| Industrials | XLI | 1,578 | 28.5% | 17.1% | 1.66 |
| Materials | XLB | 1,578 | 24.9% | 19.6% | 1.27 |
| Underperforming Sector Bets | | | | | |
| Exposure | ETF | | | | |
| Consumer Staples | XLP | 1,578 | 9.4% | 13.4% | 0.70 |
| Outperforming Factor Bets | | | | | |
| Exposure | ETF | | | | |
| S&P 500 High Beta | SPHB | 862 | 37.5% | 25.3% | 1.48 |
| Russell 1000 Value | IWD | 1,388 | 22.1% | 15.1% | 1.47 |
| S&P Midcap 400 | MDY | 1,954 | 23.1% | 16.4% | 1.41 |
| Russell 2000 | IWM | 1,388 | 28.3% | 19.3% | 1.47 |
| S&P 500 Equal Weight | RSP | 1,286 | 28.6% | 15.2% | 1.89 |
| Russell 1000 Growth | IWF | 1,388 | 24.7% | 15.5% | 1.59 |
| Momentum | MTUM | 840 | 23.2% | 17.1% | 1.36 |
| Underperforming Factor Bets | | | | | |
| Exposure | ETF | | | | |
| S&P 500 Low Volatility | SPLV | 862 | 14.7% | 11.3% | 1.30 |
| Outperforming Commodities | | | | | |
| Exposure | ETF | | | | |
| Brent Oil | BNO | 1,010 | 54.8% | 30.3% | 1.81 |
| Industrial Metals | DBB | 1,157 | 31.5% | 20.3% | 1.55 |
| US Oil | USO | 1,157 | 37.2% | 31.1% | 1.20 |
| Underperforming Commodities | | | | | |
| Exposure | ETF | | | | |
| US Dollar | UUP | 1,138 | -3.1% | 7.4% | -0.41 |
| Natural Gas | UNG | 1,138 | -26.2% | 41.8% | -0.63 |
| Precious Metals | DBP | 1,157 | 5.8% | 17.9% | 0.32 |
| Outperforming Fixed Income | | | | | |
| Exposure | ETF | | | | |
| Convertible Bonds | CWB | 1,138 | 24.3% | 12.1% | 2.01 |
| High Yield Corporate Bonds | HYG | 1,138 | 11.0% | 7.0% | 1.57 |
| Senior Loans | BKLN | 862 | 5.5% | 3.4% | 1.61 |
| Preferred Stock | PFF | 1,138 | 8.6% | 7.1% | 1.21 |
| Underperforming Fixed Income | | | | | |
| Exposure | ETF | | | | |
| Extended Duration Treasuries | EDV | 1,138 | -13.0% | 19.1% | -0.68 |
| 20+ Year Treasuries | TLT | 1,388 | -7.6% | 12.6% | -0.60 |
| 7-10 Year Treasuries | IEF | 1,388 | -2.6% | 5.9% | -0.44 |
| Emerging Market Local Currency Bonds | EMLC | 967 | -2.5% | 10.5% | -0.24 |
| Taxable Municipal Bonds | BAB | 1,032 | 0.1% | 7.0% | 0.02 |

QUAD 3 – STAGFLATION: WEAK GROWTH, STICKY INFLATION

- Commodities and gold are top performers as inflation stays high despite deteriorating growth, leading to real asset outperformance
- Equities face headwinds, especially cyclicals, as slowing activity reduces earnings while inflation erodes margins
- Low beta and quality offer shelter from rising macro uncertainty and earnings volatility
- Crypto performance weakens but remains positive as investors seek alternative stores of value
- TIPS and short-duration Treasuries are favored, as they protect against inflation while minimizing duration risk

Sharpe Highlights:

- Top: Short TIPS (STIP 1.53), Long TIPS (TIP 1.22), BDCs (BIZD 1.30)
- Bottom: Copper (CPER -0.27), Base Metals (DBB -0.20), EM FX (CEW -0.31)

| Quad 3 Performance | | # of observations | CAGR | Annual Vol | Sharpe (no RF) |
|---|------|-------------------|--------|------------|----------------|
| Exposure | | | | | |
| Exposure | ETF | # of observations | CAGR | Annual Vol | Sharpe (no RF) |
| S&P 500 | SPY | 2,146 | 6.0% | 20.4% | 0.30 |
| All Country World Index | ACWI | 1,136 | -7.9% | 21.2% | -0.37 |
| Broad Commodities | DBC | 1,427 | 2.6% | 20.7% | 0.13 |
| Aggregate US Bonds | AGG | 1,533 | 3.3% | 5.4% | 0.62 |
| Gold | GLD | 1,427 | 13.6% | 18.1% | 0.75 |
| Bitcoin Trust | GBTC | 780 | -4.5% | 85.1% | -0.05 |
| Outperforming Sector Bets | | | | | |
| Exposure | ETF | # of observations | CAGR | Annual Vol | Sharpe (no RF) |
| Energy | XLE | 1,703 | -1.8% | 32.3% | -0.06 |
| US Real Estate | IYR | 1,620 | 0.4% | 25.0% | 0.02 |
| Underperforming Sector Bets | | | | | |
| Exposure | ETF | # of observations | CAGR | Annual Vol | Sharpe (no RF) |
| Financials | XLF | 1,703 | -10.0% | 29.4% | -0.34 |
| Consumer Discretionary | XLY | 1,703 | -3.1% | 24.6% | -0.13 |
| Industrials | XLI | 1,703 | -4.7% | 23.2% | -0.20 |
| Telecom | VOX | 1,448 | -7.7% | 21.9% | -0.35 |
| Materials | XLB | 1,703 | -2.2% | 25.9% | -0.09 |
| Health Care | XLV | 1,703 | 4.1% | 19.9% | 0.21 |
| Outperforming Factor Bets | | | | | |
| Exposure | ETF | # of observations | CAGR | Annual Vol | Sharpe (no RF) |
| S&P 500 Low Volatility | SPLV | 988 | 4.5% | 20.7% | 0.22 |
| Quality | QUAL | 923 | 3.1% | 21.9% | 0.14 |
| Defensive Equity | DEF | 1,071 | 1.4% | 19.4% | 0.07 |
| Nasdaq 100 | QQQ | 1,703 | 10.2% | 26.8% | 0.38 |
| Underperforming Factor Bets | | | | | |
| Exposure | ETF | # of observations | CAGR | Annual Vol | Sharpe (no RF) |
| Russell 2000 | IWM | 1,620 | -9.2% | 25.6% | -0.36 |
| S&P 500 High Beta | SPHB | 988 | -14.4% | 32.2% | -0.45 |
| Russell 1000 Value | IWD | 1,620 | -3.4% | 21.3% | -0.16 |
| Russell 1000 Growth | IWF | 1,620 | 0.1% | 22.3% | 0.00 |
| S&P 100 | OEF | 1,620 | -0.1% | 21.2% | -0.00 |
| Dividend Aristocrats | SDY | 1,427 | -3.2% | 20.7% | -0.16 |
| S&P 500 Equal Weight | RSP | 1,533 | -4.2% | 21.5% | -0.20 |
| Outperforming Commodities | | | | | |
| Exposure | ETF | # of observations | CAGR | Annual Vol | Sharpe (no RF) |
| Precious Metals | DBP | 1,302 | 9.2% | 19.5% | 0.47 |
| Agriculture | DBA | 1,302 | 4.1% | 17.9% | 0.23 |
| Natural Gas | UNG | 1,302 | -0.2% | 46.3% | -0.00 |
| Underperforming Commodities | | | | | |
| Exposure | ETF | # of observations | CAGR | Annual Vol | Sharpe (no RF) |
| Emerging Currencies | CEW | 1,071 | -7.4% | 7.8% | -0.95 |
| Copper | CPER | 923 | -17.9% | 22.9% | -0.78 |
| Industrial Metals | DBB | 1,302 | -15.2% | 21.8% | -0.70 |
| US Dollar | UUP | 1,302 | 2.0% | 7.8% | 0.26 |
| Outperforming Fixed Income | | | | | |
| Exposure | ETF | # of observations | CAGR | Annual Vol | Sharpe (no RF) |
| Business Development Companies | BIZD | 923 | -7.5% | 28.6% | -0.26 |
| Treasury Inflation-Protected Securities | TIP | 1,533 | 5.3% | 6.9% | 0.77 |
| Short-Term TIPS | STIP | 1,071 | 1.9% | 2.8% | 0.68 |
| 1-3 Year Treasuries | SHY | 1,598 | 1.9% | 1.6% | 1.15 |
| Underperforming Fixed Income | | | | | |
| Exposure | ETF | # of observations | CAGR | Annual Vol | Sharpe (no RF) |
| Convertible Bonds | CWB | 1,071 | -4.9% | 16.6% | -0.30 |
| Emerging Market Local Currency Bonds | EMLC | 1,071 | -8.7% | 11.4% | -0.77 |
| Senior Loans | BKLN | 1,029 | -4.1% | 9.1% | -0.45 |
| Preferred Stock | PFF | 1,302 | -3.6% | 18.9% | -0.19 |

QUAD 4 – DEFLATION: RISK-OFF REGIME

- Equities suffer, especially growth and cyclical names, as falling earnings and declining inflation crush valuations
- Technology, small-caps, and high beta struggle the most due to falling demand and tightening financial conditions
- The USD strengthens, reflecting global flight-to-safety and tighter domestic liquidity
- Treasuries (especially long duration) outperform, benefiting from falling inflation and growth expectations
- Commodities collapse, particularly energy, as demand evaporates and inflation rolls over
- Best equity protection comes from low beta, staples, and utilities, which offer stable cash flows and defensive pricing power

Sharpe Highlights:

- Top: USD (UUP 1.31), 10Y Treasuries (IEF 1.03), 20Y+ Treasuries (TLT 0.92)
- Bottom: Energy (USO -1.18), Natural Gas (UNG -0.91), Commodities (DBC -1.36)

| Quad 4 Performance | | # of observations | CAGR | Annual Vol | Sharpe (no RF) |
|--------------------------------------|------|-------------------|--------|------------|----------------|
| Exposure | | | | | |
| Exposure | ETF | | | | |
| S&P 500 | SPY | 2,111 | 3.6% | 21.5% | 0.17 |
| All Country World Index | ACWI | 1,109 | 1.5% | 24.5% | 0.06 |
| Broad Commodities | DBC | 1,280 | -20.0% | 20.8% | -0.97 |
| Aggregate US Bonds | AGG | 1,507 | 5.7% | 6.4% | 0.90 |
| Gold | GLD | 1,486 | 6.7% | 19.5% | 0.34 |
| Bitcoin Trust | GBTC | 504 | -20.7% | 71.0% | -0.29 |
| Outperforming Sector Bets | | | | | |
| Exposure | ETF | | | | |
| Consumer Staples | XLP | 1,839 | 10.6% | 15.6% | 0.68 |
| Utilities | XLU | 1,839 | 9.6% | 20.4% | 0.47 |
| Underperforming Sector Bets | | | | | |
| Exposure | ETF | | | | |
| Technology | XLK | 1,839 | -6.4% | 30.9% | -0.21 |
| Energy | XLE | 1,839 | 0.9% | 31.7% | 0.03 |
| US Real Estate | IYR | 1,733 | 4.1% | 29.9% | 0.14 |
| Materials | XLB | 1,839 | -1.2% | 26.5% | -0.04 |
| Industrials | XLI | 1,839 | 3.6% | 22.6% | 0.16 |
| Financials | XLF | 1,839 | 1.5% | 31.0% | 0.05 |
| Outperforming Factor Bets | | | | | |
| Exposure | ETF | | | | |
| S&P 500 Low Volatility | SPLV | 1,003 | 14.0% | 12.2% | 1.14 |
| Underperforming Factor Bets | | | | | |
| Exposure | ETF | | | | |
| Nasdaq 100 | QQQ | 1,839 | -8.6% | 33.5% | -0.26 |
| Russell 2000 | IWM | 1,775 | 1.1% | 26.0% | 0.04 |
| Russell 1000 Growth | IWF | 1,775 | -1.3% | 24.3% | -0.05 |
| S&P 500 Equal Weight | RSP | 1,507 | 4.1% | 21.9% | 0.19 |
| S&P 500 High Beta | SPHB | 1,003 | 13.5% | 26.4% | 0.51 |
| S&P Midcap 400 | MDY | 2,028 | 4.8% | 24.3% | 0.20 |
| Russell 1000 Value | IWD | 1,775 | 4.9% | 20.7% | 0.24 |
| Outperforming Commodities | | | | | |
| Exposure | ETF | | | | |
| US Dollar | UUP | 1,173 | 5.1% | 9.3% | 0.55 |
| Underperforming Commodities | | | | | |
| Exposure | ETF | | | | |
| US Oil | USO | 1,280 | -36.7% | 36.1% | -1.02 |
| Natural Gas | UNG | 1,173 | -43.7% | 55.9% | -0.78 |
| Brent Oil | BNO | 1,003 | -20.3% | 31.1% | -0.65 |
| Agriculture | DBA | 1,173 | -10.5% | 18.8% | -0.56 |
| Outperforming Fixed Income | | | | | |
| Exposure | ETF | | | | |
| Extended Duration Treasuries | EDV | 1,109 | 17.6% | 24.2% | 0.73 |
| 20+ Year Treasuries | TLT | 1,507 | 13.4% | 14.7% | 0.91 |
| 7-10 Year Treasuries | IEF | 1,507 | 8.1% | 7.1% | 1.15 |
| Mortgage Backed Securities | MBB | 1,173 | 4.6% | 5.7% | 0.82 |
| Underperforming Fixed Income | | | | | |
| Exposure | ETF | | | | |
| Business Development Companies | BIZD | 691 | 5.7% | 16.6% | 0.34 |
| Preferred Stock | PFF | 1,173 | 0.3% | 22.3% | 0.01 |
| High Yield Corporate Bonds | HYG | 1,173 | 4.0% | 14.7% | 0.27 |
| Emerging Market Local Currency Bonds | EMLC | 1,003 | 7.3% | 9.8% | 0.74 |
| Emerging Bond Markets | EMB | 1,109 | 8.6% | 13.6% | 0.63 |
| Convertible Bonds | CWB | 1,003 | 9.8% | 11.0% | 0.89 |

TURNING REGIME INSIGHTS INTO ALLOCATION DECISIONS

- Identifying the current economic quad isn't just academic; it directly informs how to allocate risk across the portfolio
- Tilt toward asset classes with favorable risk/reward profiles in each regime, based on both backtest data and real-time signals
- During transitions between quads, it's important to emphasize capital preservation, reducing exposure to assets most vulnerable to macro shifts
- This regime-aware approach helps to capture upside early in new cycles and avoid drawdowns when the macro turns
- But positioning after the quad shift is only half the game; the real edge comes from anticipating those shifts before consensus

| Quad | Growth | Inflation | Exposure |
|------|--------|-----------|--|
| 1 | ↑ | ↓ | Tech, Consumer Discretionary, Momentum, Gold, Crypto |
| 2 | ↑ | ↑ | Tech, Energy, High Beta, Convertibles, High Yield |
| 3 | ↓ | ↑ | Low Beta, Gold, BDCs, Short-term Treasuries |
| 4 | ↓ | ↓ | Non-cyclicals, USD, TLT |