30–Year Correlation Report

Federal Reserve Interest Rates vs. Market Response (1994–2024)

Executive Summary

"Rising interest rates are bad for stocks, and falling interest rates are good." This prevailing sentiment suggests lower rates reduce borrowing costs and stimulate corporate expansion, while higher rates tighten liquidity. However, historical data often contradicts this simplistic view.

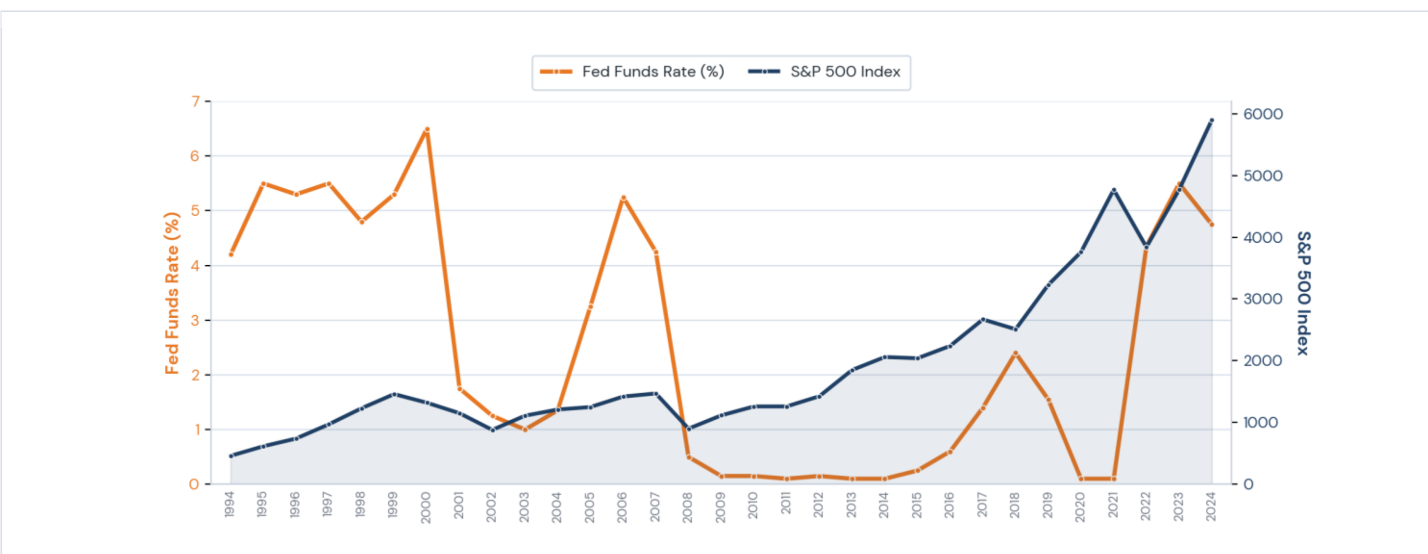
A 30-year analysis of the Federal Funds Rate relative to the S&P 500 reveals a more nuanced reality: equity markets frequently appreciate during rate-hiking cycles and may experience significant volatility during aggressive rate-cutting phases.

KEY INSIGHT

Macroeconomic context remains the primary driver of performance. The Federal Reserve typically raises rates to moderate a robust, expanding economy, characterized by strong corporate earnings, whereas aggressive cuts are often a reactive measure to systemic economic distress.

Visualizing the 30-Year Trend

The chart plots the Effective Federal Funds Rate against S&P 500 Index performance from 1994 through 2024. Rate-hiking cycles frequently coincide with rising equity values, while the sharpest declines follow aggressive rate cuts made in response to economic stress.



Effective Federal Funds Rate (left axis, orange) vs. S&P 500 Index (right axis, navy), 1994–2024.

Historical Phasing: Four Distinct Market Cycles

To understand the true correlation, we can break the last 30 years into distinct macroeconomic eras.

PHASE 1 · 1994–2002

The '90s "Soft Landing" & Dot-Com Bubble

- **1994–1999 (Market ignores high rates):** In 1994 the Fed hiked aggressively (3.0% to 6.0%) to pre-empt inflation. Though 1994 was flat for equities, the Fed engineered a "soft landing." The S&P 500 then ran a historic five-year tear despite rates above 5.0%, as rapid earnings and the internet boom outpaced high borrowing costs.
- **2000–2002 (The rate-cut trap):** After rates peaked at 6.5%, the dot-com bubble popped. The Fed rapidly cut to 1.25%, yet the market kept crashing. *Insight: aggressive rate cuts could not outpace a systemic earnings collapse.*

PHASE 2 · 2003–2009

The Housing Boom & Global Financial Crisis

- **2004–2006 (Growing together):** As the post-9/11 economy recovered, the Fed followed a steady, predictable path of hikes (1.0% to 5.25%). The S&P 500 climbed to new highs as a global real-estate boom drove expansion.
- **2007–2008 (The liquidity trap):** As the subprime crisis erupted, the Fed slashed rates to the zero-lower bound (0.0%–0.25%). Despite the cheapest borrowing in history, the S&P 500 plummeted over 50%. *Insight: cheap liquidity cannot instantly fix a systemic insolvency/credit crisis.*

PHASE 3 · 2009–2019

ZIRP & The "Everything" Bull Market

- **2009–2015 (The golden era for stocks):** Zero Interest Rate Policy (ZIRP) and Quantitative Easing (QE) altered the market. With the Fed Funds rate near 0%, yields on safe assets were negligible, forcing capital into risk assets—the *TINA* ("There Is No Alternative") phenomenon. The S&P 500 rocketed amid unnaturally low volatility.
- **2016–2018 (The taper tantrum):** The Fed slowly normalized rates to 2.5%. The market absorbed early hikes well but cracked in late 2018 when hikes plus balance-sheet reduction triggered a sudden 20% correction.
- **2019 (The pivot):** The Fed executed "mid-cycle adjustments," cutting rates back to 1.5%. The market responded with a massive relief rally.

PHASE 4 · 2020–2024

The Great Tightening and the AI Boom

- **2020–2021 (The V-shape):** COVID-19 triggered the fastest bear market in history. The Fed instantly cut rates to 0% and injected trillions in emergency liquidity, sparking an explosive V-shaped recovery through 2021.
- **2022 (The rate shock):** Sticky inflation forced the steepest hiking cycle in modern history, blasting rates from near 0% to over 4% in months. The S&P 500 responded with a brutal valuation reset, dropping nearly 20% for the year.
- **2023–2024 (Adaptation):** Despite rates plateauing at a restrictive ~5.50%, the market adapted. Driven by the AI mega-cap boom, heavy fiscal spending, and resilient earnings, the S&P 500 surged past 5,900, defying consensus that 5%+ rates would trigger a deep recession. The Fed initiated its first post-inflation cuts in Q4 2024.

Key Takeaways for Market Behavior

1. The "Rate-Cut Trap"

Retail investors often view Fed rate cuts as an immediate "buy signal." Historically, major rate-cutting cycles have frequently occurred during periods of significant economic stress. Because the Federal Reserve generally lowers rates in response to deteriorating economic conditions, equity markets have often experienced elevated volatility during these periods.

2. Velocity Over Absolute Yield

Historical market performance demonstrates that equity returns have occurred across a wide range of interest-rate environments (as proven in the late '90s, the mid-2000s, and 2023–2024). What *is* bearish is the speed of change. Rate shocks (1994, 2022) compress valuations because markets struggle to re-price risk quickly. Predictable plateaus let equities absorb conditions and resume upward trends.

3. Earnings Overpower Yields

Over a long timeframe, the ultimate driver of the stock market is corporate earnings growth. The Fed Funds Rate dictates short-to-medium-term volatility and valuation multiples, but it fails to permanently suppress long-term equity growth if corporations continue to innovate and expand profit margins.