

Main Topics

<u>Key Events</u> - President Trump threatened to impose 100% tariffs on the **BRIC alliance**, should they take actions to undermine the U.S. dollar.

Government Bonds and Currencies - Brazilian Real hits record high at 5.97 reais per dollar amid fiscal concerns. Japanese Yen strengthens on rate hike expectations ahead of BOJ meeting.

<u>Commodities</u> - **Gasoline prices dip** amid middle east truce and US tariff tensions.

<u>Stocks</u> - Shanghai posted a nice 1.81% WoW return, while **Brazilian** markets experienced a -2.68% return.

<u>Crypto</u> - Altcoins take center stage as Bitcoin approaches \$100,000 milestone.

Weekly Paper Picks - Backtest overfitting in the machine learning era.

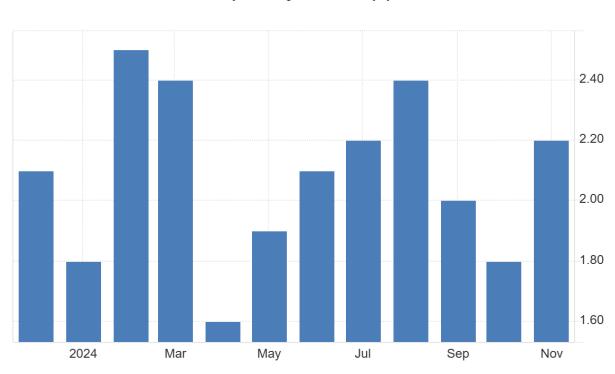
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Key Events

Economy at a glance

In November, the core consumer price index for Tokyo's Ku-area increased by 2.2% year-on-year, rising from 1.8% in October and surpassing the market forecast of 2.1%. This marks the highest inflation level in three months. Tokyo's CPI figures are closely watched as an early signal of national trends. BOJ Governor Kazuo Ueda has hinted at the possibility of a rate hike, potentially next month, amid concerns about the yen's persistent weakness link.



Japan Tokyo Core CPI (%)

Source: Trading Economics | Statistics Bureau of Japan



In November, China's NBS Manufacturing PMI increased to 50.3, up from 50.1 in October, meeting market expectations and reaching its highest level since April. This marks the second consecutive month of growth in manufacturing activity, reflecting the impact of support measures introduced by Beijing since the late September link.

The Eurozone's annual inflation rate climbed to 2.3% in November, up from 2% in October, in line with market predictions, according to preliminary data. This marks the second consecutive monthly increase, driven primarily by base effects, as the steep drop in energy prices from the previous year is no longer influencing the annual comparison link.

President Donald Trump issued a stark warning on Saturday, threatening to impose 100% tariffs on a coalition of nine nations, the BRIC alliance, should they take actions to undermine the U.S. dollar. Members of the alliance, along with other developing nations, have expressed growing dissatisfaction with America's control over the global financial system, signaling potential challenges to its preeminence link.

South Korea's central bank unexpectedly lowered interest rates on Thursday, signaling the likelihood of further cuts as the nation's economic growth shows signs of strain. Policymakers also highlighted concerns over heightened trade risks linked to the potential implications of a second Donald Trump presidency <u>link</u>.



Germany's annual inflation rate increased to 2.2% in November, up from 2% in October, reaching its highest level in four months, according to preliminary data. While the figure fell just short of market expectations of 2.3%, it highlights a continued upward trend in price pressures <u>link</u>.

In October, **U.S. personal income increased by 0.6% month-over-month to \$24.96 trillion, marking the largest gain in seven months.** This growth outpaced both the 0.3% rise recorded in September and market expectations of a similar 0.3% increase <u>link</u>.

Germany's GfK Consumer Climate Indicator dropped to -23.3 heading into December, its lowest level since May and below the forecast of -18.6. This decline reflects mounting concerns among consumers <u>link</u>.

This week, economic data and central bank commentary will dominate global markets. Third-quarter GDP growth figures will be released by Brazil, and Australia, while unemployment rates are due from the Euro Area and Canada. Manufacturing PMI reports are expected from countries including South Korea, China, Spain, Italy, Canada, USA and Switzerland, alongside services PMI data from China, Italy, USA and Brazil.

Moreover, **Germany** will publish updates on **factory orders and industrial production**, while **India's central bank** will announce its latest interest rate decision. **Inflation data** from South Korea, Indonesia, Turkey, Switzerland, and the Philippines will also be closely monitored.

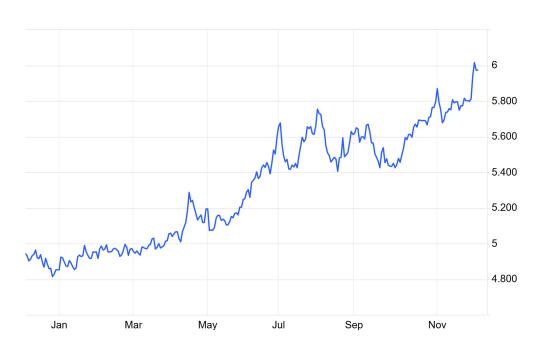


Government Bonds and Currencies

Brazilian Real hits record high amid fiscal concerns

This week, the Brazilian real dropped to a historic low against the dollar, closing at 5.97 reais per dollar, marking a 2.97% decline over the week. The currency has depreciated 19% year-to-date, making it the worst-performing among major currencies. Simultaneously, the yield on Brazil's 10-year government bond surged by 59 bps, reaching 13.47%, driven by concerns over the country's fiscal sustainability and inflationary pressures.

US Dollar Brazilian Real



Source: Trading Economics



Finance Minister Fernando Haddad unveiled a **long-awaited fiscal plan aimed at cutting 70 billion reais** (\$11.8 billion) in public spending through 2026. While the measures include limits on minimum wage growth, caps on public worker salaries, and higher taxes on monthly incomes above 50,000 reais, the plan also exempts monthly salaries up to 5,000 reais from income tax—a provision expected to cost 35 billion reais. Haddad assured that this revenue shortfall would be offset by higher taxes on wealthier individuals, but investors remain skeptical about its effectiveness link.

The fiscal measures were seen as insufficient to address Brazil's ballooning budget deficit, which reached 9.3% of GDP in the 12 months through September, compared to 4.9% at the start of President Luiz Inácio Lula da Silva's term in January 2023. Haddad pledged further efforts to balance the budget and warned of the need for additional measures if the current package proves inadequate <u>link</u>.

However, market participants noted the lack of structural reforms and questioned the government's ability to execute the proposed measures, with many labeling the plan as falling short of expectations. As inflation expectations rise, the central bank is expected to increase interest rates beyond 14%, further straining economic growth. Haddad's emphasis on reducing the cost of public debt and fostering economic sustainability



has not alleviated concerns, with many analysts calling for bolder measures to regain investor confidence.

In the current environment, the sharp depreciation of the real and rising bond yields underscore a pressing need for credible fiscal reforms. The combination of high public spending, insufficient revenue-generating measures, and inflationary risks has left Brazil vulnerable to continued financial market volatility. Stronger signals of fiscal responsibility will be essential to restoring stability to both the real and the broader financial landscape.

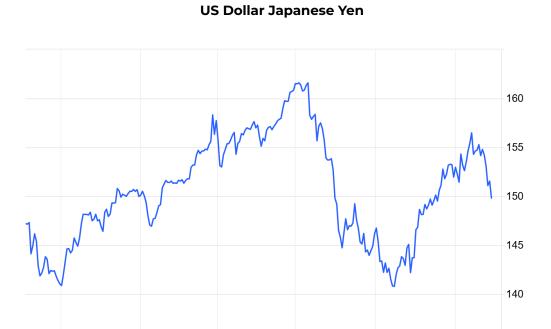
Japanese Yen strengthens on rate hike expectations ahead of BOJ meeting

The Japanese yen ended the week strong against the dollar, appreciating 3.21% to close at 149.18 yen per dollar. This strength came amid expectations that the interest rate differential between the United States and Japan could narrow in the near term. Traders are positioning for a potential rate hike by the Bank of Japan (BOJ) at its December meeting, while the U.S. Federal Reserve considers the possibility of a rate cut link.

BOJ Governor Kazuo Ueda reinforced these expectations by stating that economic and inflation trends are evolving in line with the central bank's forecasts, bringing the prospect of a rate increase closer. Recent



data showed Tokyo inflation exceeded market expectations, further bolstering the case for a tighter monetary policy stance <u>link</u>.



Source: Trading Economics

Jul

Sep

Nov

May

Mar

Ueda also highlighted that wage growth, a key component for sustaining a positive inflation cycle, is approaching levels consistent with the 2% inflation target. While he acknowledged that some factors remain uncertain, he suggested that the BOJ could act before wage momentum is fully realized.

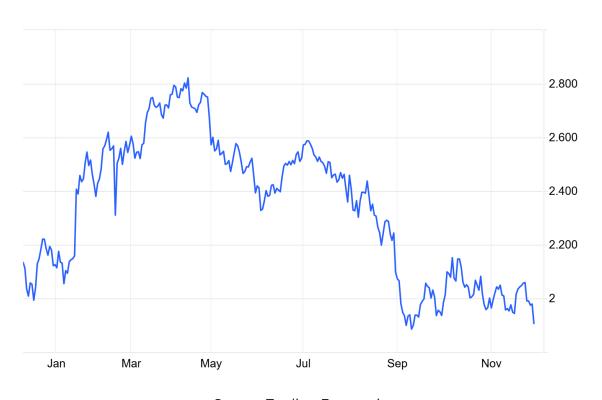


The BOJ's upcoming policy meeting on December 18-19 will be critical for markets. Overnight swap rates now reflect a 66% probability of a December rate hike, underscoring heightened market anticipation.

Commodities

Gasoline prices dip amid middle east truce and US tariff tensions

Gasoline (USD/Gal)



Source: Trading Economics

US gasoline futures fell to \$1.97 per gallon, down from a one-month high of \$2.06, as easing Middle East tensions and a stronger US dollar weighed on prices. Reports of a potential Israel-Hezbollah truce reduced supply



concerns, while President-elect Trump's tariff threats against Mexico, Canada, and China strengthened the dollar, making fuel imports more expensive. Ongoing Russia-Ukraine and Iran tensions provided some support. <u>link</u>.

Stocks

From the international markets, stocks from Shanghai posted a nice 1.81% WoW return, while Brazilian markets experienced a -2.68% return.

Main Equity Markets Movers WoW Major Price Day Weekly Monthly YTD **SHANGHAI** 3326 **A** 31 0.93% 1.81% 1.84% 11.82% **DE40** 19626 **201** 1.03% 1.57% 1.92% 17.16% **US30** 44911 **189** 0.42% 1.39% 6.57% 19.16% **US500 33.64** 26.47% 6032.38 0.56% 1.06% 3.76% HK50 19424 **▲** 57 0.29% 1.01% -4.70% 13.94% SENSEX 79803 **759** 0.96% 0.87% -0.17% 10.47% SAALL 84510 **7** 277 -0.33% -1.28% -2.59% 9.91% \succcurlyeq IPC **T** 171 3 49710 -0.34% -1.44% -2.29% -13.38% **IBOVESPA 1,058** 0.85% -2.68% -3.81% -6.35% ***** 125668

Source: Trading Economics

This was another great week for US markets. Looking at US Sectors, Energy was the only sector with a negative return; -1.79%, while Health Care bounced back from last week's negative return, experiencing a 2.25%.

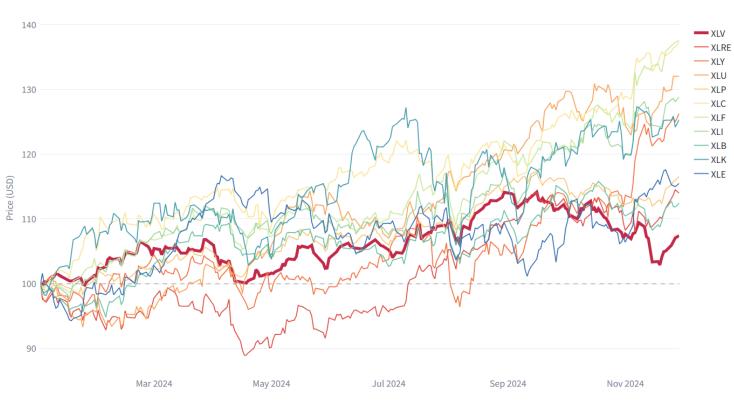


US Sector Performance

	WoW	YTD
Energy (XLE)	-1.79%	15.50%
Technology (XLK)	0.06%	25.34%
Materials (XLB)	0.73%	12.43%
Industrials (XLI)	0.94%	28.86%
Financials (XLF)	1.20%	37.53%
Communication Services (XLC)	1.57%	37.33%
Consumer Staples (XLP)	1.69%	16.57%
Utilities (XLU)	1.82%	32.08%
Consumer Discretionary (XLY)	1.93%	26.29%
Real Estate (XLRE)	2.06%	13.98%
Health Care (XLV)	2.25%	7.42%

Source: FMP

US Sector Performance



Source: FMP



This week on earnings season

Dicks sporting goods

- Sustained Earnings Growth and Competitive Position: UBS analysts project EPS growth of over 8% annually over the next five years, significantly higher than pre-pandemic levels. This growth is supported by Dick's competitive positioning in athletic footwear, apparel, and equipment, alongside the expansion of its "House of Sport" flagship locations. These initiatives aim to increase traffic, strengthen brand partnerships, and build a robust ecosystem.
- Strategic Investments and Margin Improvements: The company leverages gross margin gains to reinvest in growth through technology and cost flexibility. Despite higher SG&A expenses (doubling the rate of sales growth), these investments support leadership in the sector while maintaining profitability. Gross profit margins also improved, driven by higher merchandise margins and lower eCommerce shipping costs.
- Market Share Gains and Financial Resilience: Dick's Sporting Goods consistently outperformed Census retail sales, reflecting robust market share gains. UBS highlights structural improvements in the sporting goods sector, leading to sustained higher margins and free cash flow. The company's free cash flow yield of 5% provides downside protection, with UBS raising its valuation multiple, reflecting



increased confidence in sustained growth and efficient margin management.

Zoom

- Al-Driven Transformation and Expansion: Zoom is rebranding as an "Al-first" company and broadening its focus beyond video conferencing to become a comprehensive work solutions platform. It has launched Al tools like the Zoom Al Companion 2.0 and plans to roll out Custom Al Companion add-ons targeting industries such as healthcare, education, and retail. These innovations aim to boost productivity, enhance user experience, and reduce churn, especially in enterprise customers.
- Enterprise Growth Amid Self-Service Weakness: Zoom's enterprise revenue grew nearly 6% year-over-year to \$698.9 million, driven by large enterprise customers, with trailing annual revenue of over \$100,000 increasing by 7%. However, net dollar retention of 98% signals churn and reduced spending among existing enterprise clients. Online revenue remains flat, indicating challenges with smaller, self-service customers.
- Strong Financials and Cash Position: Zoom demonstrated robust cash generation with free cash flow of \$457.7 million in Q3, ending the quarter with \$7.7 billion in cash and no debt. It raised its fiscal 2025 guidance, projecting revenue of up to \$4.661 billion and adjusted EPS



of \$5.43. Despite slower growth, its strong cash reserves and relatively low valuation multiples (P/E under 11 excluding cash) provide a solid financial foundation and potential for upside.

Dell

- Al Infrastructure as a Growth Driver: Dell's Al server sales hit a record \$3.6 billion in Q3, with the Al product pipeline growing by over 50%. This reflects strong enterprise demand for Al-driven solutions and positions Dell as a leader in Al infrastructure. Strategic investments in Al are seen as key to Dell's long-term growth potential, despite current challenges in other segments like PCs.
- Mixed Earnings Results: While Dell beat profit expectations with adjusted EPS of \$2.15, revenue of \$24.4 billion fell short of Wall Street's forecast of \$24.7 billion. The Infrastructure Solutions Group (ISG) drove overall revenue growth with a 34% year-over-year increase, while the Client Solutions Group (CSG) saw a 1% decline, reflecting weak PC demand. Dell's cautious Q4 revenue guidance (\$24–\$25 billion) also weighed on investor sentiment.
- Optimism for Long-Term Potential Amid Challenges: Despite a 12% drop in stock price, analysts remain optimistic about Dell's prospects. They highlight its strategic focus on AI, strong margins, and leadership in infrastructure solutions as reasons for long-term confidence. Revised price targets (e.g., \$150–\$160) suggest that the



current headwinds, including delays in server upgrades, are temporary.

Next Week's Earnings

	Company	Release Date	Exp. EPS	Time	MktCap (USD)	Country
PROSY	Prosus N.V.	Mon, Dec 2	-	вмо	\$93,123	NL
NAPRF	Naspers Limited	Mon, Dec 2	-	вмо	\$38,623	ZA
ZS	Zscaler, Inc.	Mon, Dec 2	\$0.63	AMC	\$28,363	US
CRM	Salesforce, Inc.	Tue, Dec 3	\$2.44	AMC	\$233,519	US
MRVL	Marvell Technology, Inc.	Tue, Dec 3	\$0.41	AMC	\$60,938	US
BNS	The Bank of Nova Scotia	Tue, Dec 3	\$1.16	вмо	\$56,954	CA
MIELY	Mitsubishi Electric Corporation	Tue, Dec 3	\$0.39	вмо	\$33,895	JP
ASHTY	Ashtead Group plc	Tue, Dec 3	\$4.74		\$31,576	GB
RBCPF	Royal Bank of Canada	Wed, Dec 4	-	вмо	\$150,035	CA
SNPS	Synopsys, Inc.	Wed, Dec 4	\$3.30	AMC	\$88,851	US
RCRRF	Recruit Holdings Co., Ltd.	Wed, Dec 4	\$0.48		\$80,368	JP
VEEV	Veeva Systems Inc.	Wed, Dec 4	\$1.58	AMC	\$30,391	US
NBKCF	National Bank of Canada	Wed, Dec 4	-	вмо	\$28,667	CA
DLMAF	Dollarama Inc.	Wed, Dec 4	-	ВМО	\$25,916	CA
DLTR	Dollar Tree, Inc.	Wed, Dec 4	\$1.07	вмо	\$23,566	US
PSTG	Pure Storage, Inc.	Wed, Dec 4	\$0.42	AMC	\$21,638	US
TDBKF	The Toronto-Dominion Bank	Thu, Dec 5	-	ВМО	\$97,093	CA
вмо	Bank of Montreal	Thu, Dec 5	\$1.75	ВМО	\$60,589	CA
СМ	Canadian Imperial Bank of Commerce	Thu, Dec 5	\$0.93	вмо	\$45,008	CA

Source: FMP



Crypto

Altcoin surge: top performers shine amid market volatility

This week **Bitcoin maintained** a **modest** weekly gain of **0.80%**, the focus shifted to altcoins, where several projects displayed impressive performances, riding on bullish sentiment. **Many altcoins are outperforming Bitcoin**, signaling a bullish trend for the broader market. Investors should monitor BTC pair breakouts for strategic entry points.

Main Crypto Movers WoW Crypto Price Day % Weekly Monthly YTD ▲ 0.04 **Algorand** 0.48 66.80% 112.08% 8.87% 319.79% Ripple 1.89990 ▲ 0.09883 5.49% 28.73% 272.81% 206.91% Uniswap 13.17 \triangle 0.53 22.26% 73.45% 82.29% 4.17% 8.70 **0.46** -17.64% Cosmos 5.53% 16.33% 95.24% Ether 3741.31 **27.11** 0.73% 11.35% 50.30% 63.93% Litecoin 107.520 **4.540** 4.41% 10.93% 55.77% 45.85% 45.22 **0.22** 0.49% Avalanche 8.63% 80.09% 17.14% Weekly Crypto Price Day Monthly YTD Solana 239.1260 **V** 4.424 -1.82% -6.28% 41.66% 136.14% **1665** Bitcoin 97392 1.74% -1.55% 34.41% 129.07% ▼ 0.03483 Stellar 0.50750 -6.42% -1.20% 448.38% 293.76% Cardano 1.06863 ▼ 0.00157 -0.15% -0.52% 211.64% 80.11%

Source: Trading Economics



Among the top-performing altcoins, **Stellar (XLM)** led the pack with a remarkable **54.46%** weekly increase, Algorand (ALGO) followed closely with a **51.69%**, **Polkadot (DOT)**, a leader in interoperability, recorded a robust **35.30%** WoW increase, Uniswap (UNI), one of the top decentralized exchanges, achieved a **31.83%** weekly growth, fueled by ongoing activity in the DeFi space; and **Ripple (XRP)** rounded out the top five with a **31.83%** increase, driven by its leadership in cross-border payment innovations.

On the flip side, **Solana (SOL)** experienced a **7.20% decline**. Stablecoins like **Dai (DAI)** and **Tether (USDT)** remained **relatively flat**, reflecting their safe-haven status in the midst of volatility. Overall, while some assets struggled, the altcoin market remains vibrant, with several tokens showing potential for further upside as the year-end approaches.link

Bitcoin nears \$100,000 but faces market headwinds

Bitcoin approached the \$100,000 milestone, peaking less than \$1,000 shy before retreating to \$90,702.27 on Tuesday. It later recovered to trade near \$96,150, reflecting its volatility as profit-taking and structural challenges slowed its rally. Analysts have observed that long-term holders have begun selling during this surge, increasing supply and triggering a natural market correction as investors secure gains from unprecedented price levels.link



The \$100,000 threshold has proven to be a significant psychological and technical barrier. David Morrison from Trade Nation described it as a high hurdle for further gains, citing macroeconomic pressures. Similarly, George Milling-Stanley from State Street Global Advisors highlighted that Bitcoin's rally appears to be driven by speculative behavior, with investors focused on short-term gains rather than the cryptocurrency's intrinsic value or utility.link

The recent launch of options tied to spot Bitcoin ETFs has added complexity, enabling speculation with less capital while increasing market leverage. Galaxy Digital CEO Mike Novogratz cautioned that the crypto market is now "leveraged to the gills," creating heightened risk for a sharp correction.

Despite these challenges, **optimism remains strong** for Bitcoin's future. The introduction of **spot ETFs** and rising institutional interest could bolster the cryptocurrency in the long term. However, overcoming the **\$100,000 milestone** may require more market **stability** and less reliance on speculative activity <u>Link</u>.

Weekly Paper Picks

Backtest overfitting in the machine learning era

Link: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4686376



This research explores the integration of advanced statistical models and machine learning in financial analytics, representing a shift from traditional to advanced, data-driven methods.

We address a critical gap in quantitative finance: the need for robust model evaluation and out-of-sample testing methodologies, particularly tailored cross-validation techniques for financial markets. We present a comprehensive framework to assess these methods, considering the financial characteristics of data like non-stationarity, autocorrelation, and regime shifts. Through our analysis, we unveil the marked superiority of the Combinatorial Purged (CPCV) method in mitigating overfitting risks, outperforming traditional methods like K-Fold, Purged K-Fold, and especially Walk-Forward, as evidenced by its lower Probability of Backtest Overfitting (PBO) and superior Deflated Sharpe Ratio (DSR) Test Statistic.

Walk-Forward, by contrast, exhibits notable shortcomings in false discovery prevention, characterized by increased temporal variability and weaker stationarity. This contrasts starkly with CPCV's demonstrable stability and efficiency, confirming its reliability for financial strategy development. The analysis also suggests that choosing between Purged K-Fold and K-Fold necessitates caution due to their comparable



performance and potential impact on the robustness of training data in out-of-sample testing.

investigation utilizes Synthetic Controlled Environment Our а incorporating advanced models like the Heston Stochastic Volatility, Jump Diffusion, Drift-Burst Hypothesis, Merton and regime-switching models. This approach provides a nuanced simulation of market conditions, offering new insights into evaluating cross-validation techniques.

Our study underscores the necessity of specialized validation methods in financial modeling, especially in the face of growing regulatory demands and complex market dynamics. It bridges theoretical and practical finance, offering a fresh outlook on financial model validation. **Highlighting the significance of advanced cross-validation techniques like CPCV**, our research enhances the reliability and applicability of financial models in decision-making.



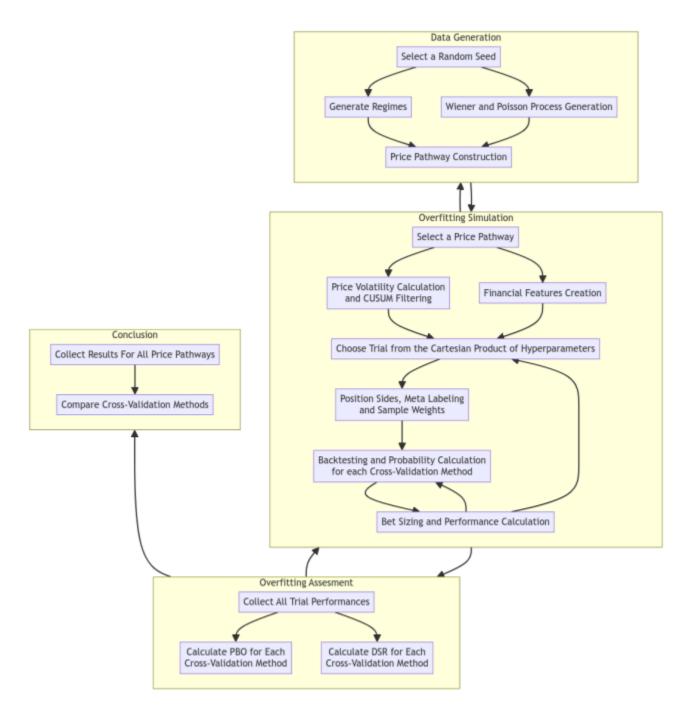


Figure 1: Flow Chart of the Empirical Results Simulation

Speculative Bubble Simulated Using Drift Burst Hypothesis

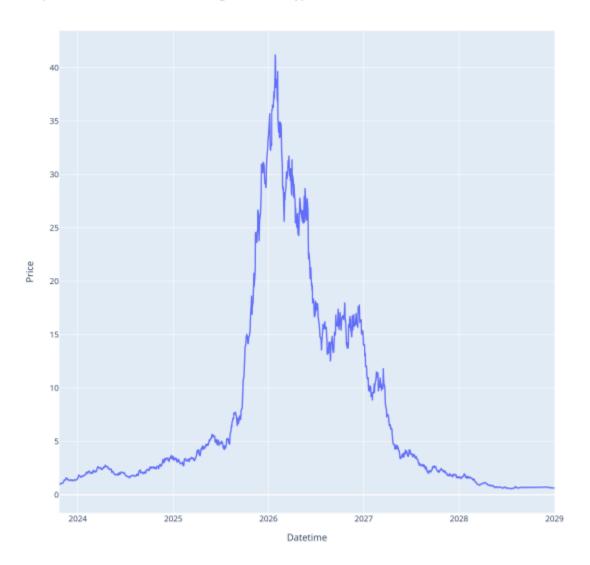


Figure 2: Speculative Bubble Simulated Using Drift Burst Hypothesis



Table 3 Markov Chain Transition Matrix for Market Regimes

From/To	Calm	Volatile	Speculative Bubble
Calm	$1 - \Delta t$	$\Delta t - 0.00001$	0.00001
Volatile	$20\Delta t$	$1 - 20\Delta t - 0.00001$	0.00001
Speculative Bubble	$1 - \Delta t$	Δt	0.0

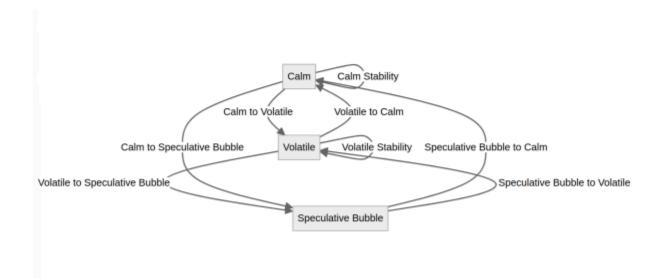


Figure 3: Regime Transition Diagram



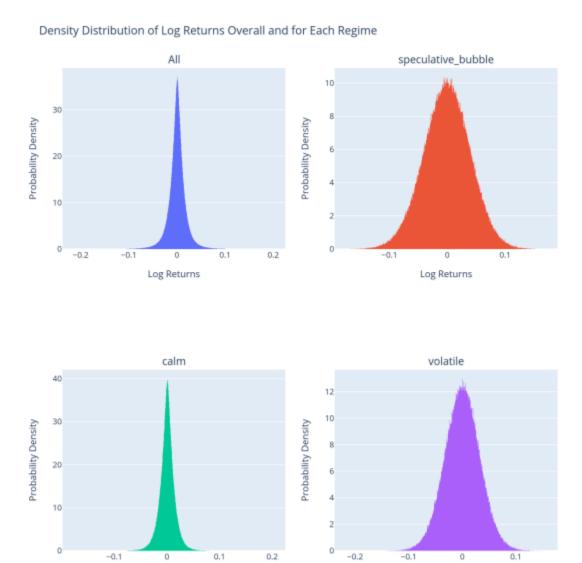


Figure 8: Density Distribution of Log Returns Overall and for Each Regime

Log Returns

Log Returns



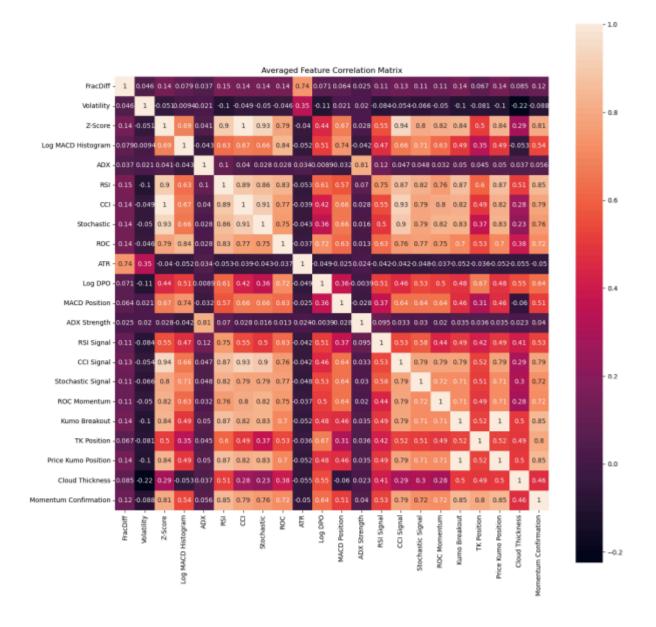


Figure 9: Average Feature Correlation Matrix



Comparison of Overall PBO/DSR Values Across Simulations For Each CV Method

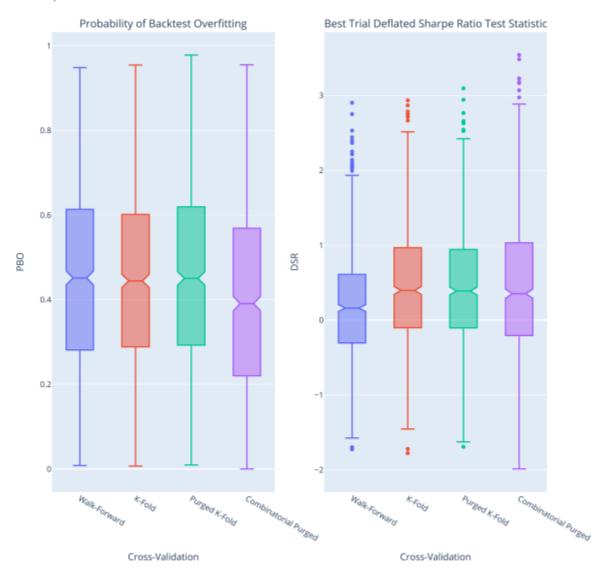


Figure 13: Comparison of Overall Probability of Backtest Overfitting and Best Trial Deflated Sharpe Ratio Test Statistic Values Across Simulations For Each Cross-Validation Method



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