

Systematic: Quality Minus Junk

10 Nov 2025

The 4 Risketeers

Gabriela Mostacero

Nicole Matamoros

Kevin Gong

Jaxon Floyd



Executive Summary



Strategy

The QMJ strategy selects companies with strong profitability, healthy balance sheets, consistent earnings, and high free cash flow generation. The screen identifies and ranks firms across four quality dimensions (profitability, efficiency, safety, and stability).



Performance

Over the backtest period, the strategy outperformed the S&P 500 on a total return basis while exhibiting lower drawdowns.



Recommendation

Yes – we recommend allocating \$50,000 to this strategy.

Strategy Design

Description

- This strategy selects high-quality companies by screening for strong profitability (Operating Margin), healthy balance sheets (low Debt-to-Assets), and efficient cash generation (Free Cash Flow Margin), while also incorporating earnings stability (low Earnings Volatility). The goal is to capture the long-run performance premium associated with quality stocks.

Origin

- The approach is inspired by the academic factor model “Quality Minus Junk” (Asness, Frazzini, and Pedersen, 2019), which demonstrates that high-quality firms systematically outperform lower-quality peers. The screening criteria were translated into Bloomberg-available metrics to operationalize the strategy in public equity markets.

Goal

- Firms with high profitability, strong balance sheets, stable earnings, and efficient cash generation are mispriced relative to their true economic quality. By concentrating on these firms and rebalancing quarterly, the portfolio aims to outperform the S&P 500 on a risk-adjusted basis.

Parameters

- U.S. equities, Market Cap \geq \$20B. Filters applied: Operating Margin (Top 50%), Total Debt/Assets (Bottom 50%), Free Cash Flow Margin (Top 15%). Final portfolio selects the Top 15 stocks ranked by Free Cash Flow Margin, rebalanced quarterly.

Strategy Rationale

Article

[Quality Minus Junk](#)

Asness, C.S., Frazzini, A. & Pedersen, L.H.

Key Takeaways

Profitability: Strong earnings and margins relative to peers.

Growth: Consistent, sustainable improvement in fundamental performance.

Safety: Low leverage, stable earnings, and lower downside risk.

Payout Discipline: Thoughtful capital allocation through dividends, buybacks, or reinvestment.

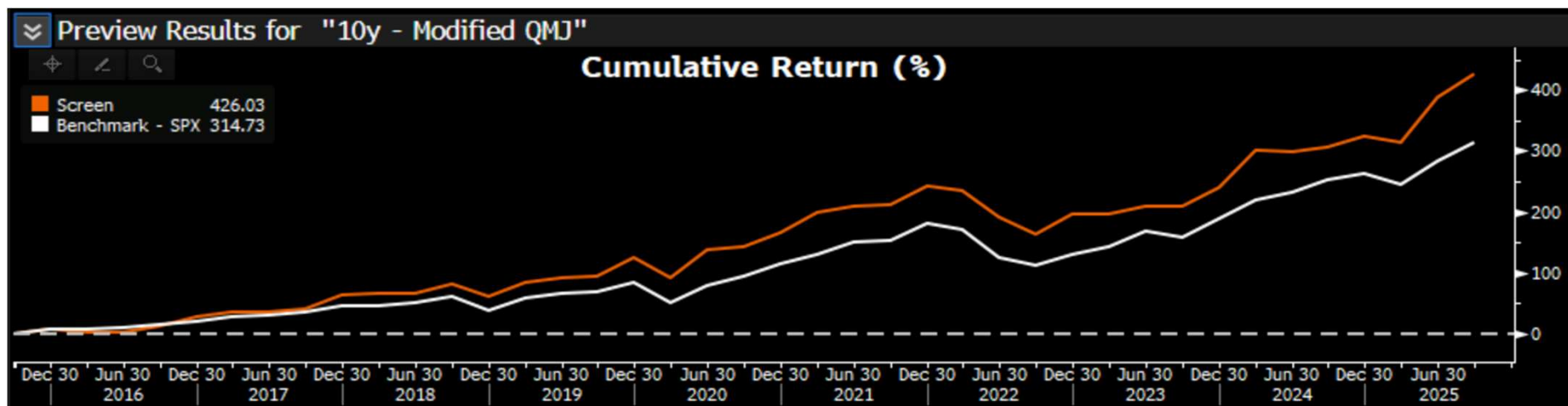


Average Quarterly Turnover: **28.5%**

Backtesting Parameters

Parameter	Filter Applied	Remaining Stocks	Rationale
Market Cap Filter	Market Cap \geq \$20B	585	Ensures investable size and reduces liquidity & bankruptcy risk.
Profitability	Top 50% Operating Margin	234	Screens for firms generating strong core operating efficiency.
Safety	Bottom 50% Debt to Assets	116	Favors firms using moderate, sustainable leverage to enhance returns (without excessive balance sheet strain).
Value	Rank Current P/E	113	Avoids overpaying for quality; selects firms trading at reasonable valuations.
Growth	Top 15 TTM Free Cash Flow	Final Holdings: 15	Focuses portfolio in firms generating strong, repeatable free cash flow – core to quality investing.
Payout	Dividend Yield – Net: Yes	Used as supportive signal	Ensures firms demonstrate ongoing capital return discipline.

Backtesting Results - Performance



Period	Return	α^*	β^*	σ^*	Max DD*	Sharpe*
1yr	28.22%	3.85	0.95	18.82%	-6.5%	1.40
1yr SPX	25.00%	0	1	13.33%	-5.2%	1
10yr	426.03%	2.90	0.97	19.35%	-14.56%	0.94
10yr SPX	314.73%	0	1	15.29%	-24.1%	0.72

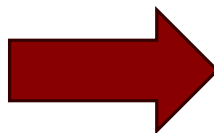
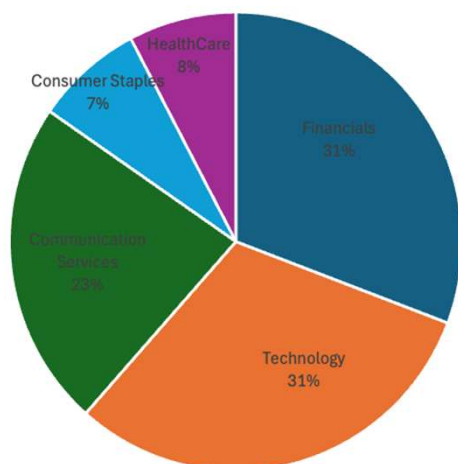
Backtesting Results - Performance

QMJ 10						
Overview		Counts	Security Analysis			
Securities		In	Rebalance Period << < 09/30/2025 > >>			
			Rebalance Period: 09/30/2025			In/Out
Ticker		Short Name	Market Cap	Weight	Return	Previous Next
1) CB	US	CHUBB LTD	112.530335B	7.692308	--	Out Out
2) CRM	US	SALESFORCE INC	225.624B	7.692308	--	In Out
3) CSCO	US	CISCO SYSTEMS	270.477736B	7.692308	--	In Out
4) GOOGL	US	ALPHABET INC-A	2.942685T	7.692308	--	In Out
5) IBKR	US	INTERACTIVE BROK	116.964669B	7.692308	--	Out Out
6) JNJ	US	JOHNSON&JOHNSON	446.554194B	7.692308	--	In Out
7) META	US	META PLATFORMS-A	1.844866T	7.692308	--	In Out
8) MSFT	US	MICROSOFT CORP	3.850009T	7.692308	--	In Out
9) NTES	US	NETEASE INC-ADR	96.239807B	7.692308	--	In Out
10) NVDA	US	NVIDIA CORP	4.533894T	7.692308	--	In Out
11) PG	US	PROCTER & GAMBLE	359.615561B	7.692308	--	In Out
12) SCHW	US	SCHWAB (CHARLES)	178.157808B	7.692308	--	In Out
13) V	US	VISA INC-CLASS A	672.370869B	7.692308	--	In Out

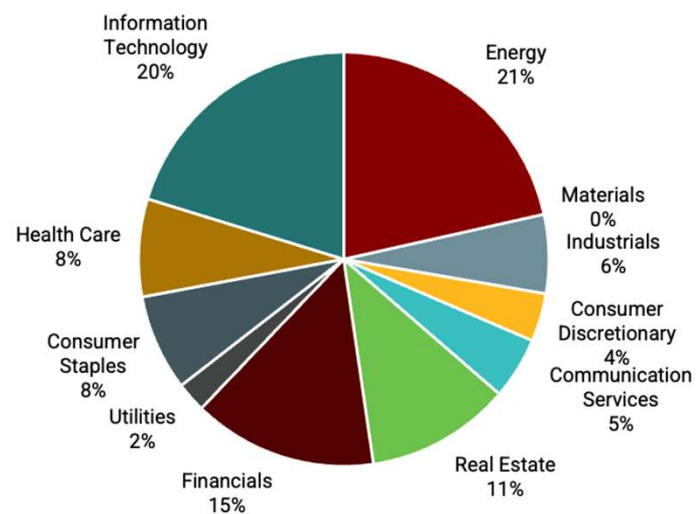
Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Avg
STRAT	7.38%	26.86%	0.07%	34.63%	21.09%	26.32%	-11.61%	13.64%	24.12%	27.75%	17.13%
SPX	8.05%	20.28%	-3.88%	29.37%	20.91%	27.30%	-18.08%	24.67%	23.55%	17.29%	14.54%

Effect on the Portfolio

Proposed Investment Sectors



Adjusted Portfolio



Portfolio	Exp. Return	St. Dev*	Beta*	Sharpe Ratio*	Idio. Risk*
Existing	15.88%	10.23%	0.75	1.14	10.22%
Adjusted	14.48%	7.82%	0.85	1.33	7.8%

Risks

Our QMJ strategy targets firms with strong profits, solid balance sheets, and efficient capital use. Key risks include model overfitting, data bias, and high turnover. We managed these by keeping the model simple, using point-in-time data, and balancing exposures to keep the portfolio realistic and durable.

<u>Risk Category</u>	Specific Risks	Mitigations
Model & Research	Strategy can underperform in hot, speculative markets or when too many investors use similar “quality” signals.	Kept the model simple (6 main quality filters), focused on long-term consistency. Acknowledge that QMJ performs best in stable or risk-off environments.
Data & Assumptions	Possible data errors, look-ahead bias, or changes in accounting standards that affect comparability.	Used Bloomberg point-in-time data to avoid future-looking bias; applied consistent definitions (Operating Margin, Debt/Assets, FCF Margin, Earnings Volatility).
Portfolio	Concentration in defensive sectors (e.g., healthcare, staples), valuation risk from overpaying for “quality,” or high turnover increasing costs.	Added a P/E filter to control valuation; used large-cap (\geq \$20B) universe for liquidity; monitored sector weights and quarterly turnover.

Recommendation

Highlights



- **High Quality**
- This strategy moves the portfolio closer to our goals for the year (e.g. beta)
- Beats the SP500

Action Plan



- **Recommendation: Yes – Buy!**
- Allocate \$50k
- Sell Bond (*iShares Ultra Short Duration Bond Active ETF ICSH*)

Appendix

Rebalancing Schedule

- Quarterly Rebalancing

Criteria Explanation

Company	Debt/Asset	Interpretation
J	60%	Highest Leverage
I	50%	
H	45%	
G	40%	
F	35%	
E	30%	
D	25%	
C	20%	
B	15%	
A	10%	Lowest Leverage

Higher is better (Rank)

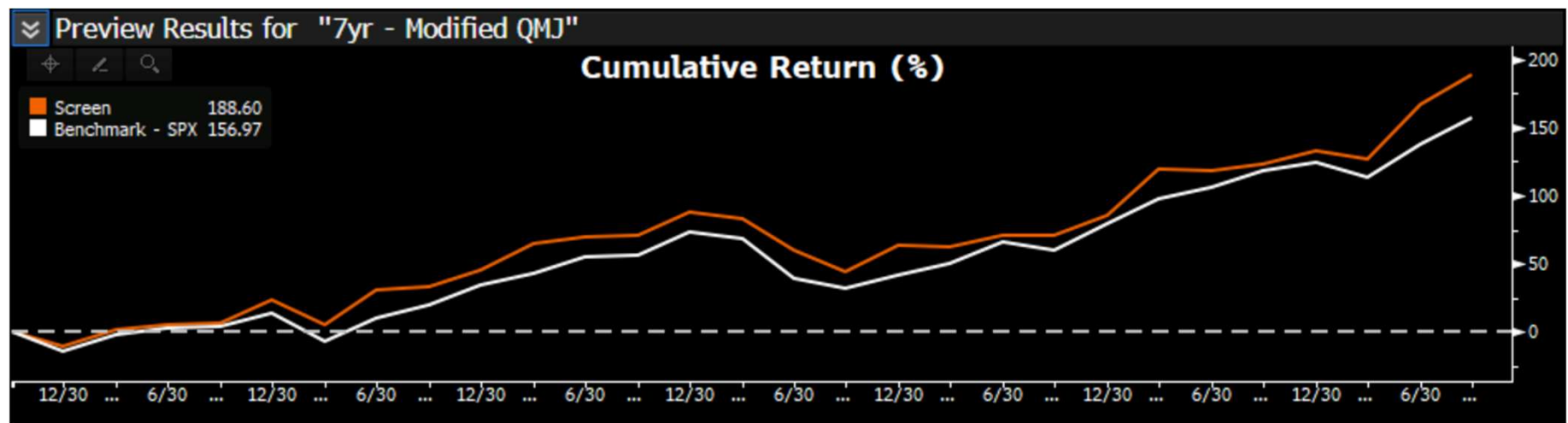
Bottom 50 Percentile

Ranks them from High to Low (F-J) being the best

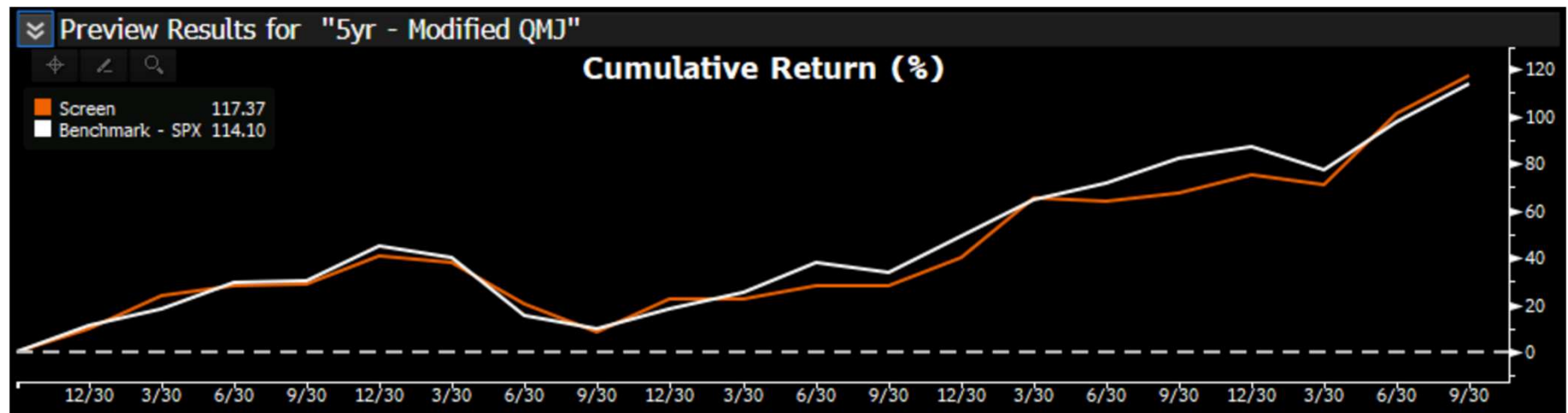
Select low half of those values (A-E)

"Rank all the companies by Debt-to-Asset ratio (treating high leverage as better), but keep the bottom half of those (companies with lower leverage)."

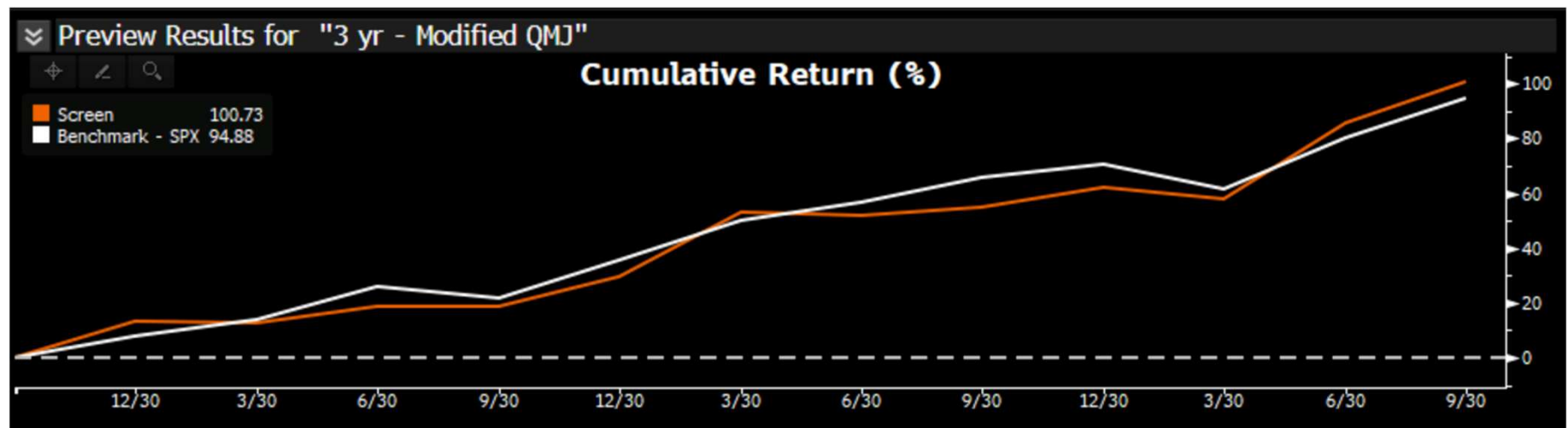
Backtesting Result-7 Year



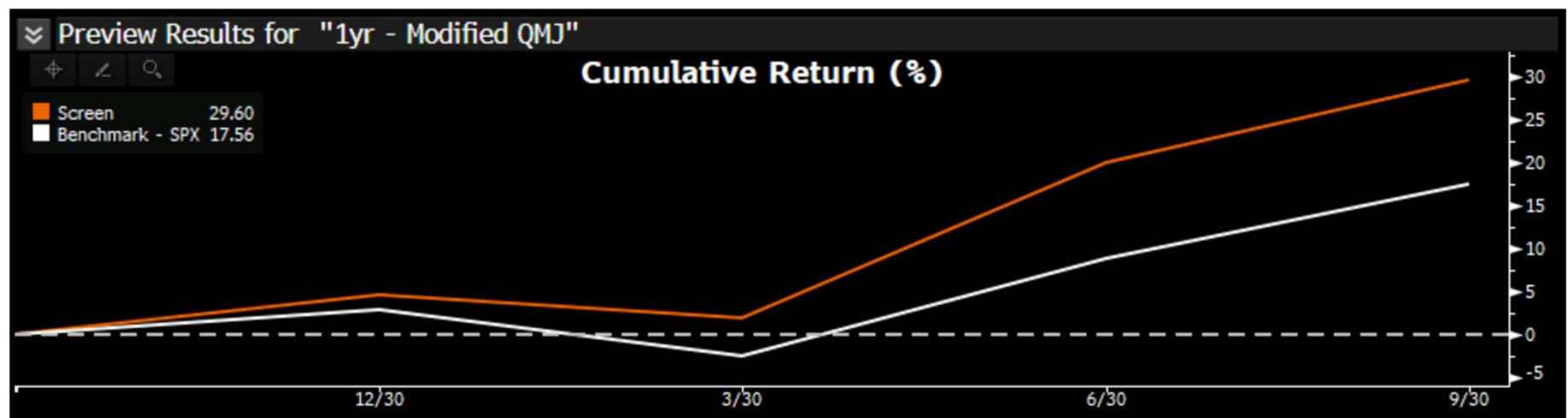
Backtesting Result-5 Year



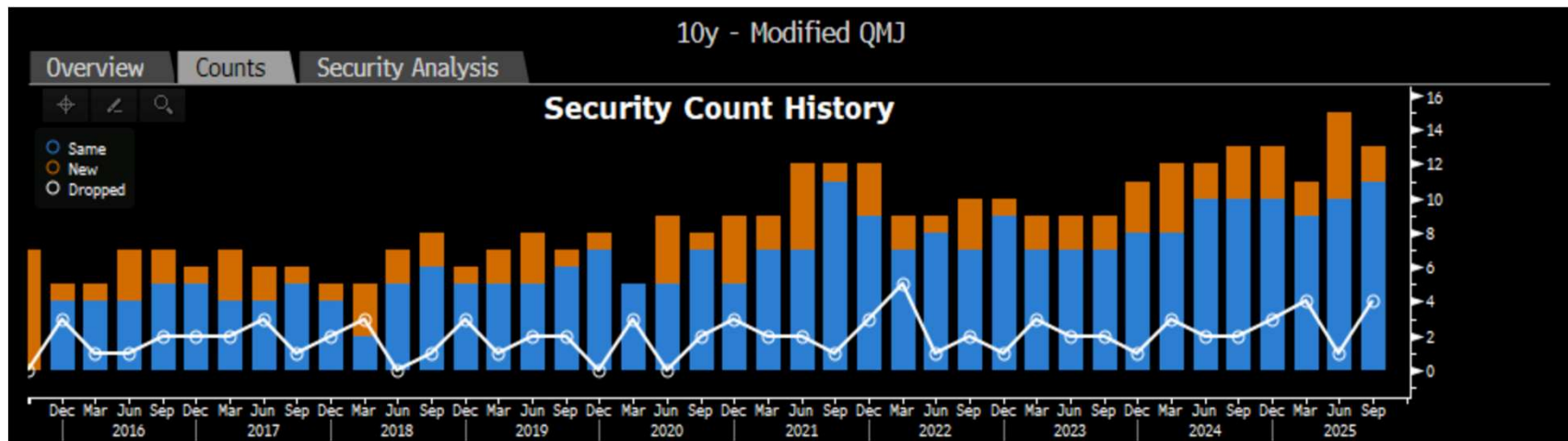
Backtesting Result-3 Year



Backtesting Result-1 Year



Turnover



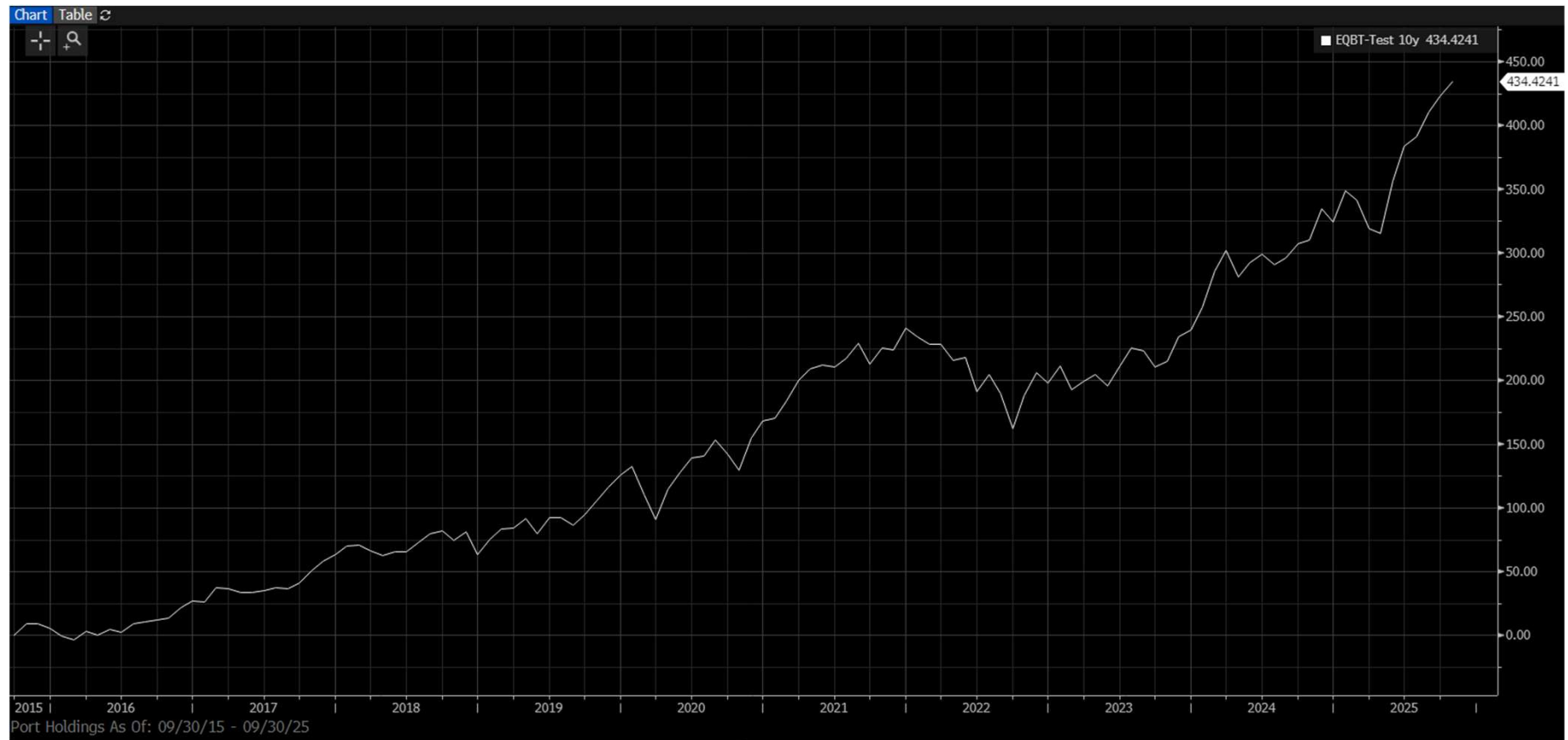
- Average Quarterly Turnover: 28.85%

Turnover

Click on Cells for Rebalance Period Details.

Date	In	Same	New	Dropped	Turnover (%)
09/30/2025	14	12	2	3	20
06/30/2025	15	10	5	2	33.333333
03/30/2025	12	9	3	4	30.769231
12/30/2024	13	10	3	3	23.076923
09/30/2024	13	10	3	2	23.076923
06/30/2024	12	10	2	2	16.666667
03/30/2024	12	8	4	3	33.333333
12/30/2023	11	8	3	1	27.272727
09/30/2023	9	7	2	2	22.222222
06/30/2023	9	7	2	2	22.222222
03/30/2023	9	7	2	3	30
12/30/2022	10	9	1	1	10
09/30/2022	10	7	3	2	30
06/30/2022	9	8	1	1	11.111111
03/30/2022	9	7	2	5	41.666667
12/30/2021	12	9	3	3	25
09/30/2021	12	11	1	1	8.333333
06/30/2021	12	7	5	2	41.666667
03/30/2021	9	7	2	2	22.222222
12/30/2020	9	5	4	3	44.444444
09/30/2020	8	7	1	2	22.222222
06/30/2020	9	5	4	0	44.444444
03/30/2020	5	5	0	3	37.5
12/30/2019	8	7	1	0	12.5
09/30/2019	7	6	1	2	25
06/30/2019	8	5	3	2	37.5

Monthly Returns



Yearly Returns

Rebalance Date	Periodic Return (10y - I)	Turnover (Periodic Return (SPX)	Yearly Return	spx year		
09/30/2015	0	0	0			Avg Yearly Return	Avg Yearly Return SPX
12/30/2015	7.3794	42.8571	8.0493	7.3794	8.0493	17.12854545	14.54312727
03/30/2016	-4.0415	20	0.5992				
06/30/2016	-0.3853	42.8571	2.2466				
09/30/2016	9.5065	28.5714	3.8518				
12/30/2016	13.0569	28.5714	3.8175	18.1366	10.5151		
03/30/2017	7.7129	42.8571	6.3055				
06/30/2017	-1.2285	42.8571	2.8559				
09/30/2017	4.2766	16.6667	4.4803				
12/30/2017	16.0949	33.3333	6.6372	26.8559	20.2789		
03/30/2018	1.7381	60	-0.7613				
06/30/2018	-0.5638	28.5714	3.4333				
09/30/2018	10.0827	25	7.7107				
12/30/2018	-11.1842	37.5	-14.2647	0.0728	-3.882		
03/30/2019	13.6557	28.5714	14.6277				
06/30/2019	4.4372	37.5	4.3038				
09/30/2019	1.1864	25	1.6984				
12/30/2019	15.352	12.5	8.7355	34.6313	29.3654		
03/30/2020	-14.5641	37.5	-18.056				
06/30/2020	24.4795	44.4444	18.6253				
09/30/2020	1.4563	22.2222	8.9293				
12/30/2020	9.7272	44.4444	11.4177	21.0989	20.9163		
03/30/2021	12.8759	22.2222	6.4638				
06/30/2021	3.395	41.6667	8.9504				
09/30/2021	0.6664	8.3333	0.5805				
12/30/2021	9.386	25	11.3047	26.3233	27.2994		
03/30/2022	-2.2707	41.6667	-3.3383				
06/30/2022	-12.8171	11.1111	-17.4106				
09/30/2022	-9.8685	30	-4.8851				

Yearly Returns

09/30/2022	-9.8685	30	-4.8851		
12/30/2022	13.3511	10	7.5498	-11.6052	-18.0842
03/30/2023	-0.3839	30	5.953		
06/30/2023	4.903	22.2222	10.3162		
09/30/2023	-0.0448	22.2222	-3.2735		
12/30/2023	9.1702	27.2727	11.679	13.6445	24.6747
03/30/2024	18.2447	33.3333	10.5546		
06/30/2024	-0.7737	16.6667	4.2836		
09/30/2024	2.13	23.0769	5.8864		
12/30/2024	4.5232	23.0769	2.8241	24.1242	23.5487
03/30/2025	-2.4412	30.7692	-5.2139		
06/30/2025	17.6057	33.3333	11.568		
09/30/2025	8.0646	26.6667	8.1146	27.7523	17.2928