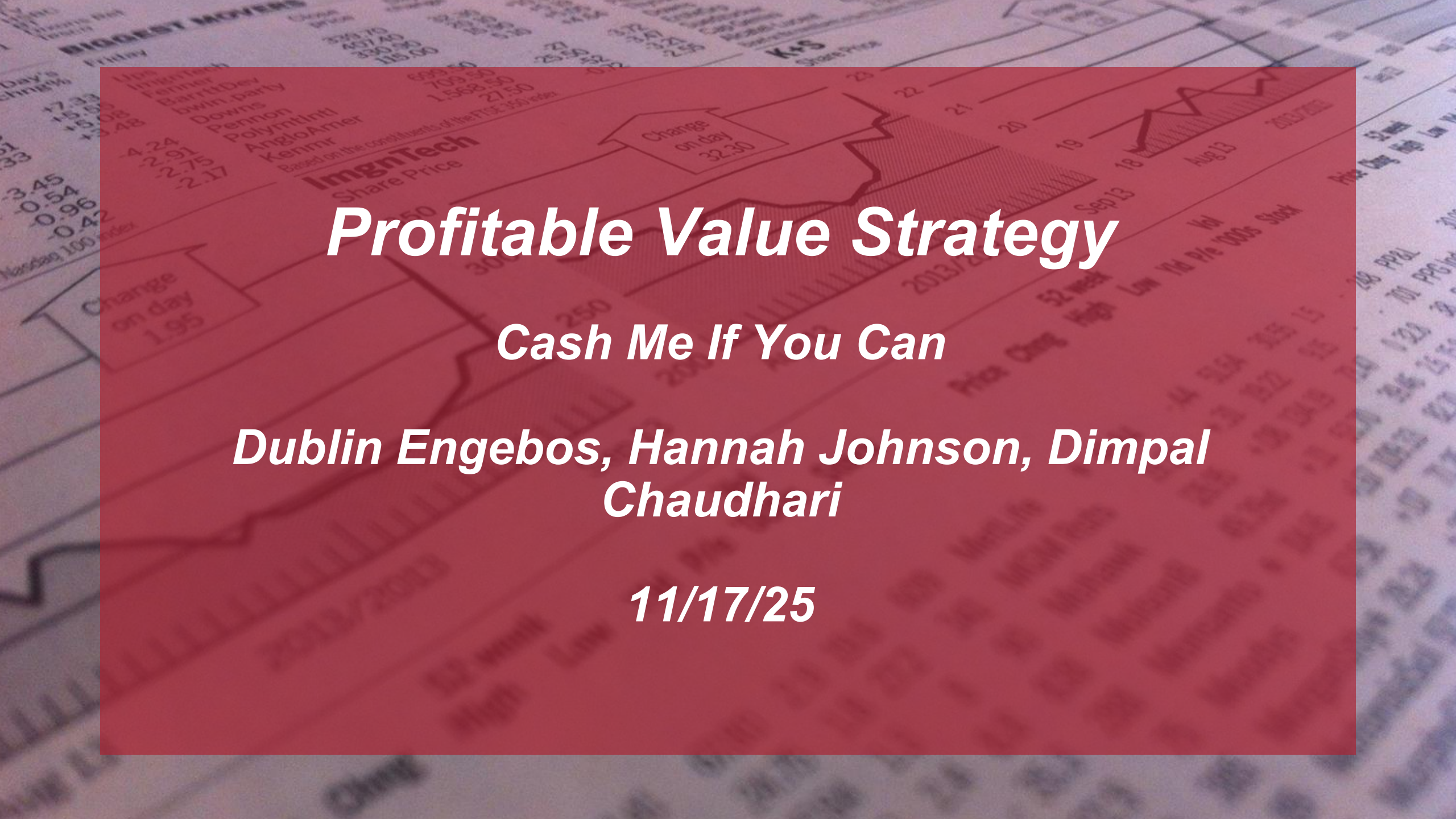


Profitable Value Strategy

Cash Me If You Can

Dublin Engebos, Hannah Johnson, Dimpal Chaudhari

11/17/25

Summary

Idea: Focus on stocks that combine high profitability with low valuation.

Origin: Novy-Marx (2013) high gross-profit firms outperform low-profit firms, Blackburn & Çakici (2021) combining value + profitability improves return predictability, Loughran & Wellman (2010) low EV/EBITDA firms earn higher average returns.

Strategy: Filter for high-profitability firms (GP/A ≥ 0.35) and then capture value by selecting those in the bottom 10% of EV/EBITDA.

Historical Performance: Across 1, 3, 5, and 10-year windows, PVS failed to consistently outperform the S&P 500, despite returns, returns ranging from 33.68% to 386.09%.

Recommendation: Do Not Invest!

What to Sell: N/A

Effect on Portfolio: N/A

Why Gross Profit / Assets?

What it measures

- Profit efficiency (GP = Revenue – COGS)
- How much profit a firm generates per $1 of assets
- Pricing power + operational efficiency

$$\frac{\text{Gross profits}}{\text{Assets}} = \underbrace{\frac{\text{Sales}}{\text{Assets}}}_{\text{Asset turnover}} \times \underbrace{\frac{\text{Gross profits}}{\text{Sales}}}_{\text{Gross margins}}$$

Why it matters

- Top-profitability firms beat bottom ones
- Cleaner than EBIT or earnings (less accounting noise)
- Finds high-quality, durable businesses

"Gross profits are cleaner, less noisy measures of true economic profitability." ***(Novy-Marx, 2013)***

Academic evidence

- High-Low alpha = 0.52% / month (~6.2%/yr)
- t-stat = 4.49 (statistically very significant)

Portfolio	r^e	α	MKT
Panel A: Portfolios sorted on gross profits-to-assets			
Low	0.31	−0.18	0.94
	[1.65]	[−2.54]	[57.7]
2	0.41	−0.11	1.03
	[2.08]	[−1.65]	[67.5]
3	0.52	0.02	1.02
	[2.60]	[0.27]	[69.9]
4	0.41	0.05	1.01
	[1.94]	[0.83]	[70.6]
High	0.62	0.34	0.92
	[3.12]	[5.01]	[58.3]
High–low	0.31	0.52	−0.03
	[2.49]	[4.49]	[−0.99]

(Novy-Marx 2013, 1963-2010)

Why Enterprise Multiple?

Enterprise Multiple = Enterprise Value / (EBITDA)

Enterprise Value = equity value + debt + preferred stock – cash

What it measures

- Value of a firm, regardless of capital structure
- How much a company is valued compared to its earnings before interest, taxes, depreciation, and amortization
- Not affected by nonoperating gains or losses

Why it matters

- Firms with low Enterprise Multiple outperform those with high
- Can compare companies with differing leverage

Panel A. Monthly Returns for Enterprise Multiple Deciles

Decile	Enterprise Multiple EW Returns	Enterprise Multiple VW Returns
Low	1.73%	1.23%
2	1.71%	1.26%
3	1.56%	1.32%
4	1.43%	1.09%
5	1.35%	1.03%
6	1.27%	0.90%
7	1.23%	0.91%
8	1.11%	0.88%
9	0.99%	0.79%
High	0.91%	0.59%
Value-Growth	0.82%	0.64%

This chart shows that as Enterprise Multiple increases, returns decrease

Why Combine Gross Profit / Assets + EV/EBITDA?

1. **Profitability filters out value traps**
   - Blackburn & Çakici (2021): Combining profitability with value removes low-quality, distressed firms that appear cheap on EV/EBITDA alone.

2. **Value prevents overpaying for high-quality firms**
   - Novy-Marx (2013): High-profit firms often trade at premiums; adding a valuation screen ensures we only keep high-profit, reasonably priced companies.

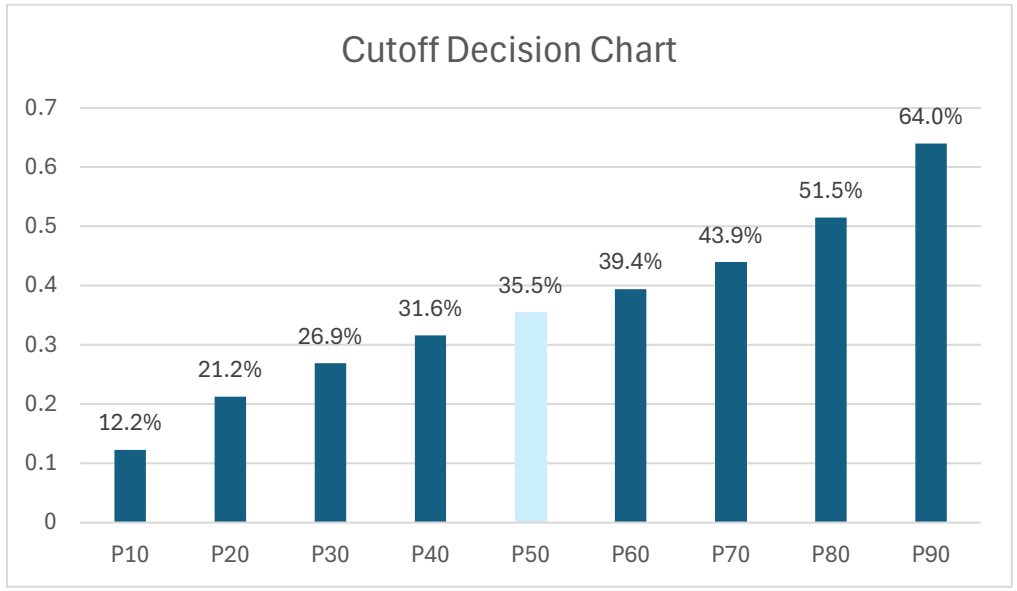
3. **Dual-factor portfolios deliver stronger, more consistent performance**
   - Blackburn & Çakici (2021): Value × profitability portfolios outperform either factor by itself and are more robust across markets and time periods.

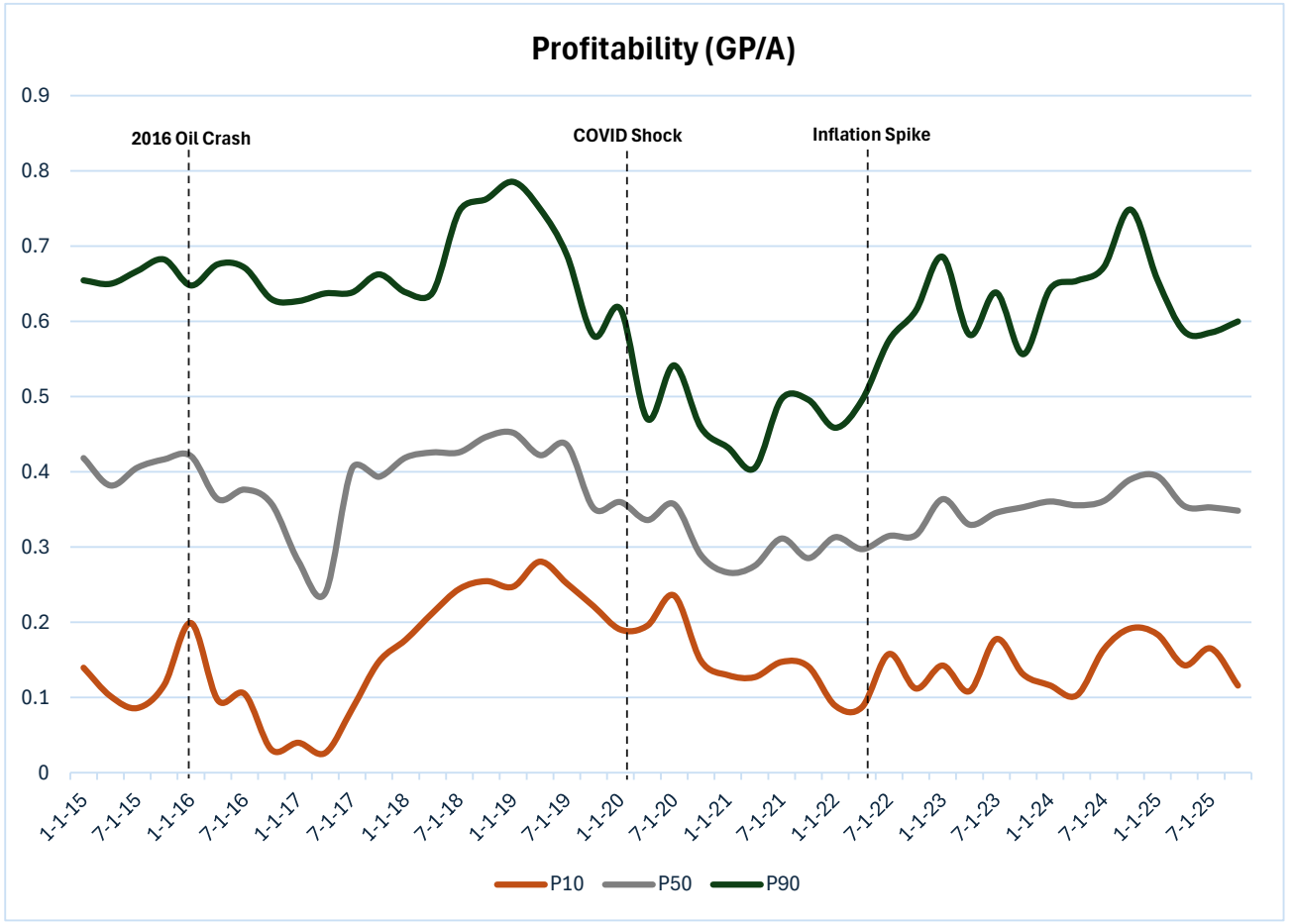
Limitation: GP/A Cutoff Selection

Why We Used a Hard GP/A Cutoff

- Bloomberg cannot percentile-rank custom formulas
- Built a full 10-year quarterly dataset to replicate percentiles
  - We exported every firm meeting our universe constraints for each quarter (2015–2025) and merged the entire dataset in Excel to calculate P10-P90 GP/A each quarter
- Identified stable percentile behavior & long-term central tendency
- Chose P50 to ensure invest ability + academic strength
  - Higher percentiles perform better in research but leave too few stocks after applying both filters. GP/A ≥ 0.35 preserved 15 names while still representing high profitability

GP/A Percentile Reconstruction (2015-2025)





Backtesting Implementation Details

# OF STOCKS	15
MIN MARKET CAP	$10B
MIN MONTHLY TRADING VOLUME	$1.6M
WEIGHTING SCHEME	EQUAL
REBALANCING FREQUENCY	QUARTERLY
TIME FRAME	10 YEARS
CURRENCY	USD

Filtering Criteria

Security Universe	1596813
Trading Status: Active	575816
Exchanges: United States	28095
Sectors (BICS): -Financials; -Utilities	23873
Security Attributes: Show Primary Security of company only	12897
Security Types: Common Stock	7358
Current Market Cap >= 10000 Million	516
Current Enterprise Value/EBITDA Adjusted > 0	472
GP/A >= 0.35	150
Bottom 10 Sequential Percentile Rank - Lower is Better(Current Enterprise Value/EBITDA Adjusted)	15

Recommended Purchases

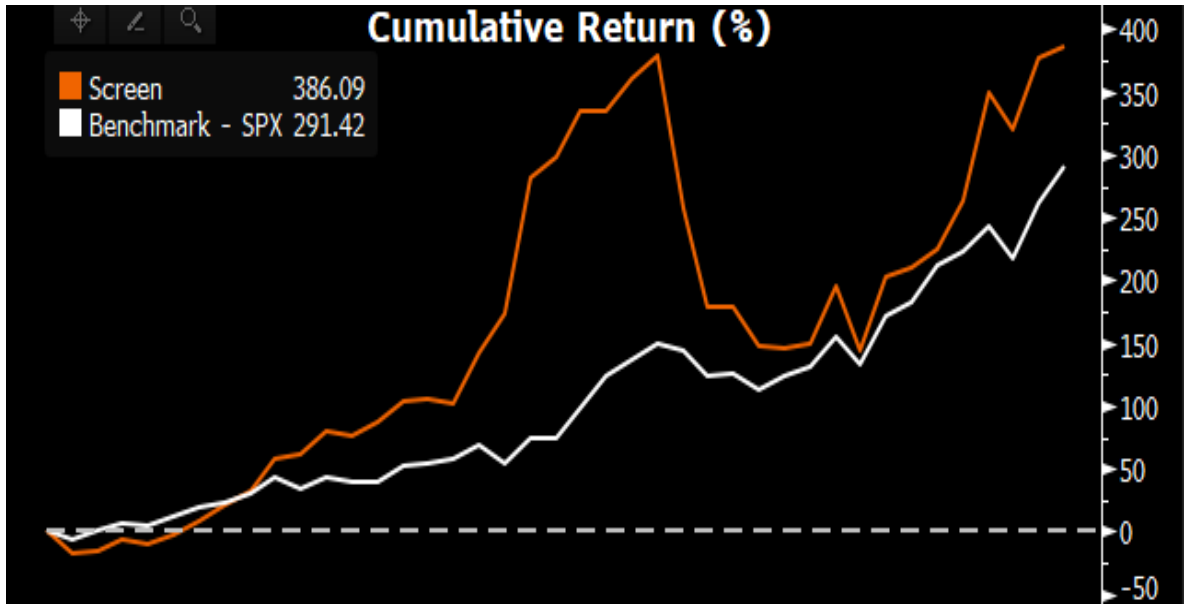
Name	Ticker	P/E Ratio	Monthly Trading Volume ($M)	Market Cap ($B)	Share Price	# of Shares	Total Value
Astera Labs Inc.	ALAB	119.29	59.23	24.38	144.34	20	3000
Alnylam Pharmace	ALNY	1,403.62	8.68	59.34	449.16	6	3000
Credo Technology	CRDO	204.96	52.96	25.17	145.52	20	3000
Doordash Inc.	DASH	104	80.59	84.14	206.96	14	3000
Datadog Inc.	DDOG	596.81	68.87	65.22	185.01	16	3000
Draftking Inc.	DKNG	--	238.75	14.78	29.58	101	3000
Duolingo	DUOL	23.31	35.75	8.62	185.07	16	3000
Exact Sciences	EXAS	--	36.68	12.84	67.03	44	3000
Hubspot Inc.	HUBS	--	11.56	20.76	396.36	7	3000
ServiceNow Inc.	NOW	103.08	1.63	176.45	850.43	3	3000
Pinterest Inc.	PINS	9.34	255.02	18.09	26.62	112	3000
Palantir Techn	PLTR	1,740.10	749.55	410.29	174.01	17	3000
Pure Storage	PSTG	206.32	30.41	27.8	84.59	35	3000
Reddit Inc.	RDDT	89.08	54.02	35.9	193.31	15	3000
Roku Inc.	ROKU	--	33.00	14.78	99.77	30	3000

Backtesting Results - Characteristics

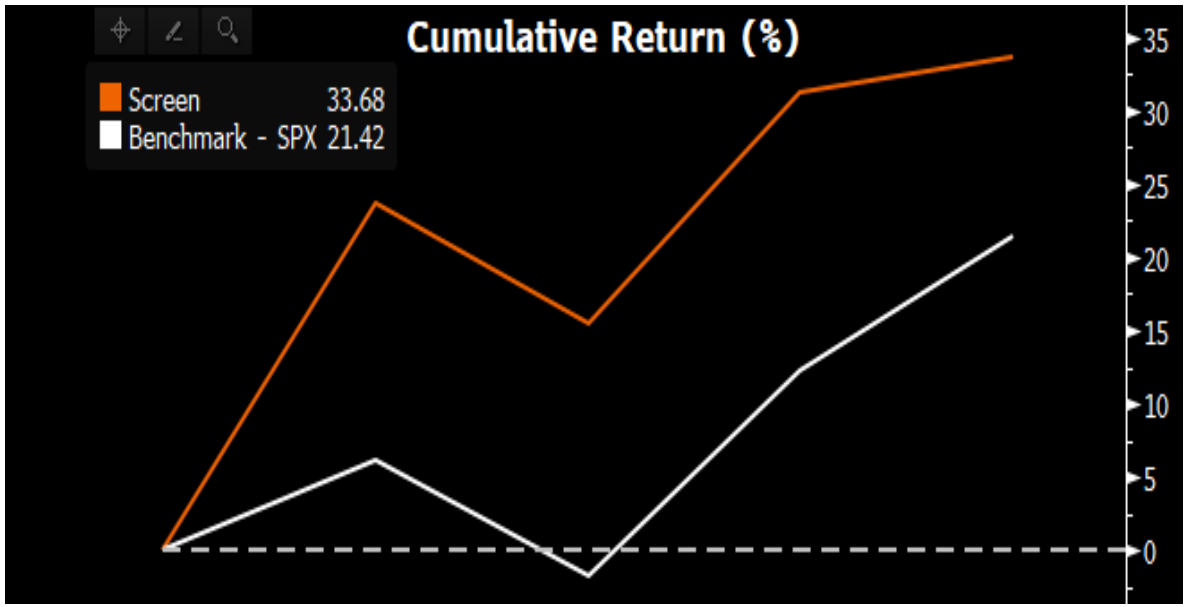
10-Year Analysis	Mean	Min	25%	Median	75%	Max
Market Cap ($Billions)	66.57	8.62	16.44	25.17	62.28	410.29
P/E Ratio	418.17	9.34	96.08	119.29	401.57	1740.1
Monthly Trading Volume* ($Millions)	114.45	1.63	31.71	52.96	74.73	749.55
Share Price*	215.85	26.62	92.18	174.01	200.14	850.43

Backtesting Results - Performance

10 Year



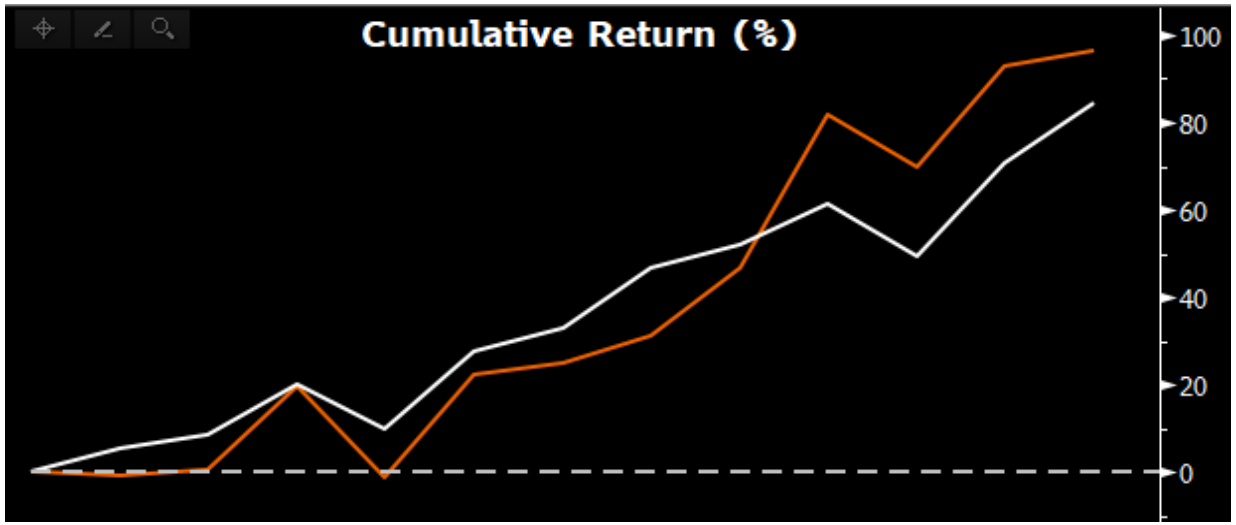
1 Year



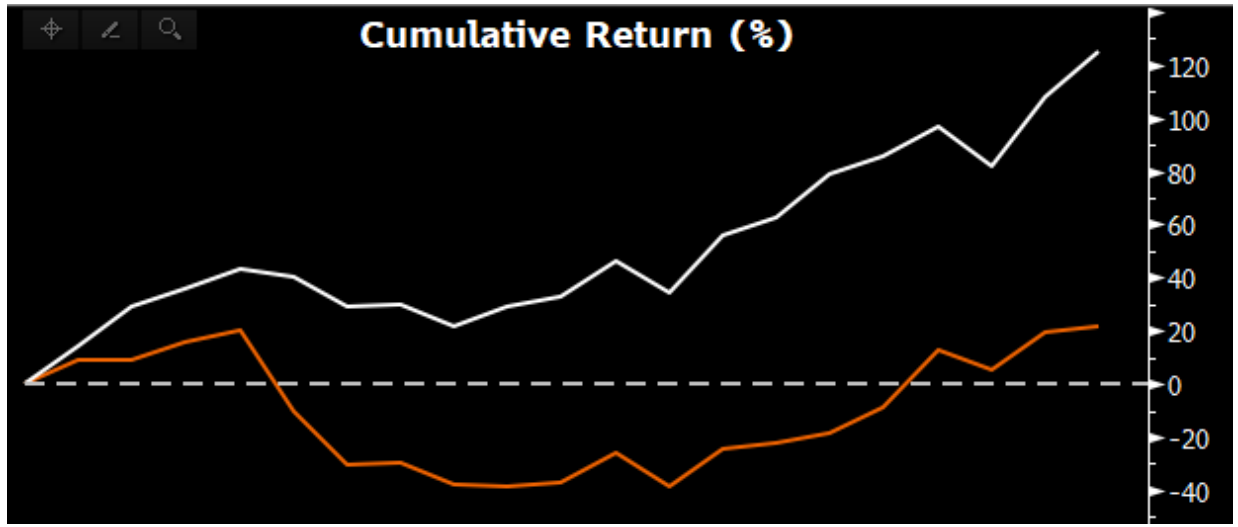
Annualized	Return	α*	β*	σ	Sharpe	Treynor	Max DD	Info Ratio*	Idio. Risk
10 Year	32.17%	2.66	1.23	30.07	0.68	.23	-64.04%	0.25	35.14%
1 Year	33.68%	9.12	1.45	33.45%	1.12	.2	-53.83%	0.69	35.14%
10 Year SPX	14.66%	--	1.00	12.83%	1.07	.14	-14.62%	--	--
1 Year SPX	17.52%	--	1.00	16.4%	1.13	.17	-7.5%	--	--

Backtesting Results - Performance

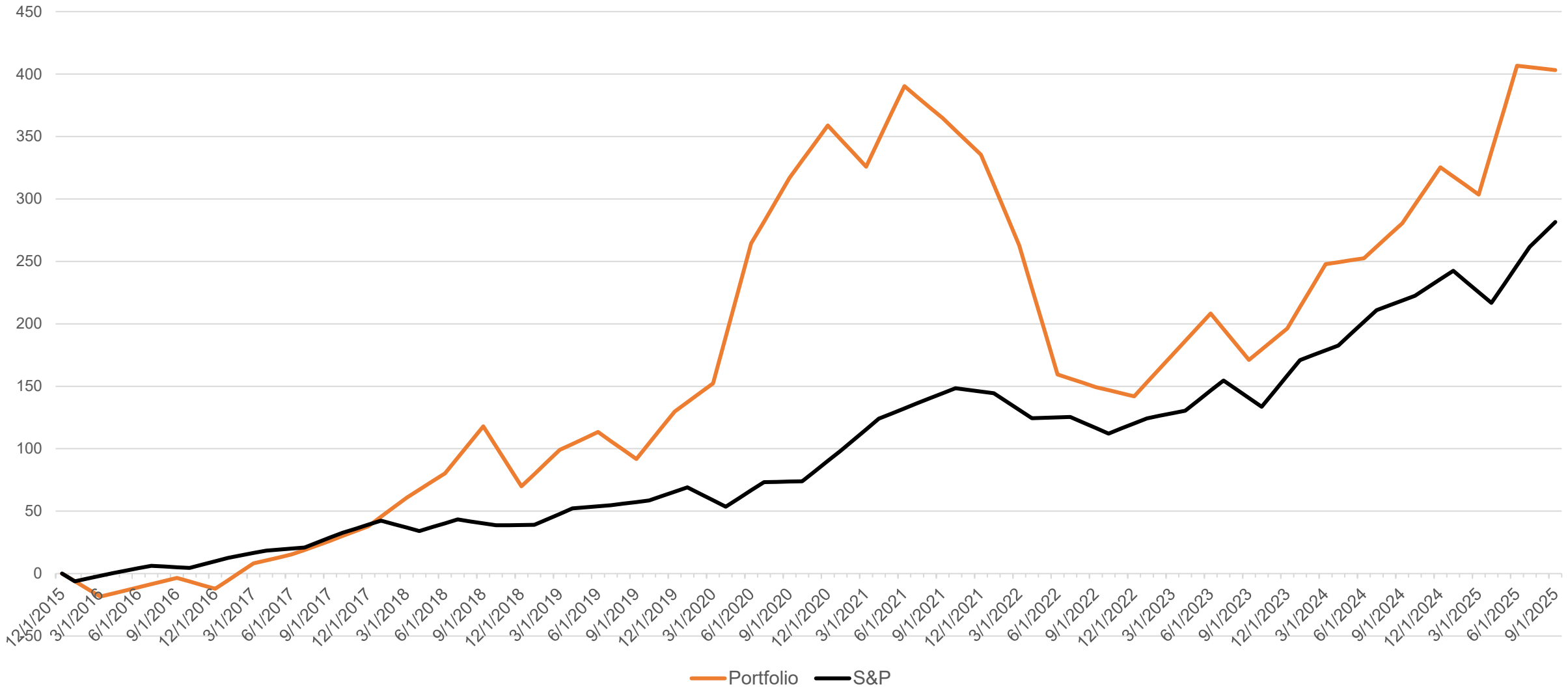
3 Year



5 Year



10-Year Monthly Returns



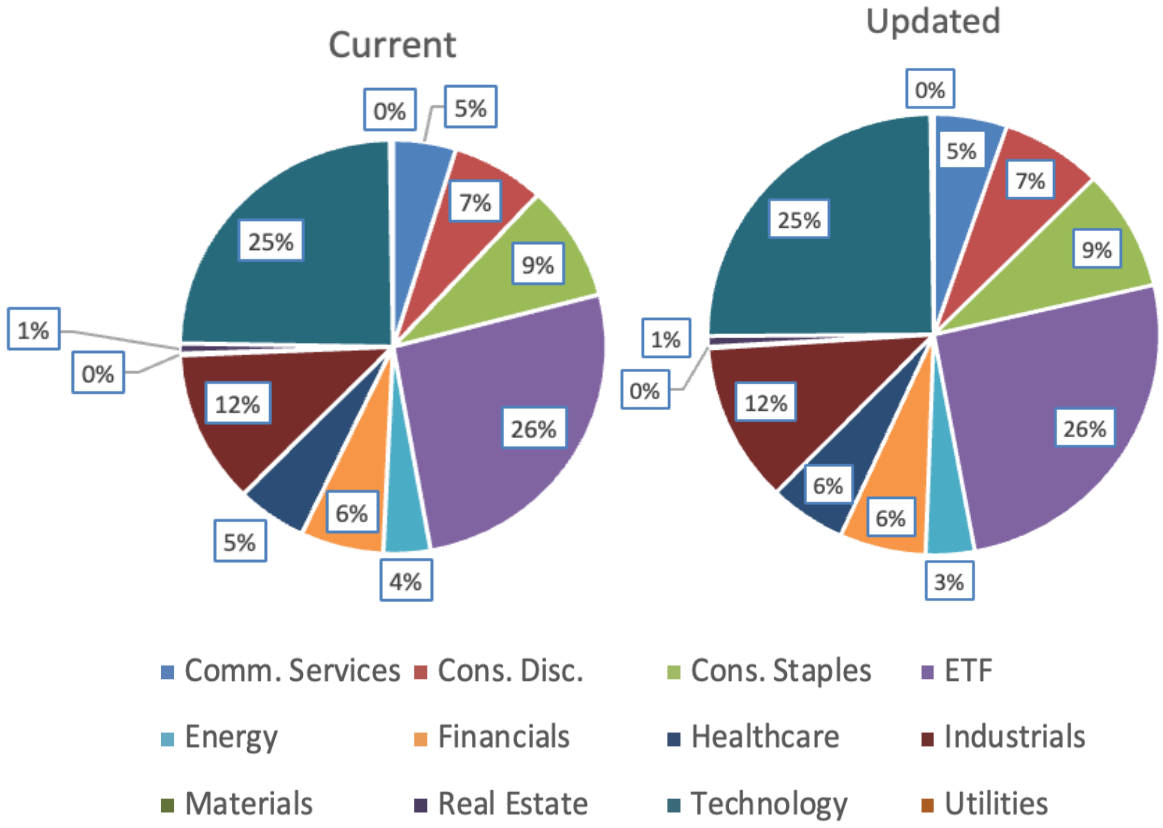
Sell Proposal – Sell $45k SPY

We recommend no buy, but hypothetically we'd sell SPY rather than replace a strategy

	SPY	Strategy
Sharpe	0.87	0.68
σ	15.27%	30.07%
β	1.0	1.23
CAGR	14.6%	16.5%

Effect on the Portfolio

	Existing Portfolio	New Portfolio
Beta	1.04	1.045
Sharpe	0.39	0.406
Alpha	0.03%	0.231%
Standard Deviation	19.20%	19.42%
Expected Return	14.27%	14.66%



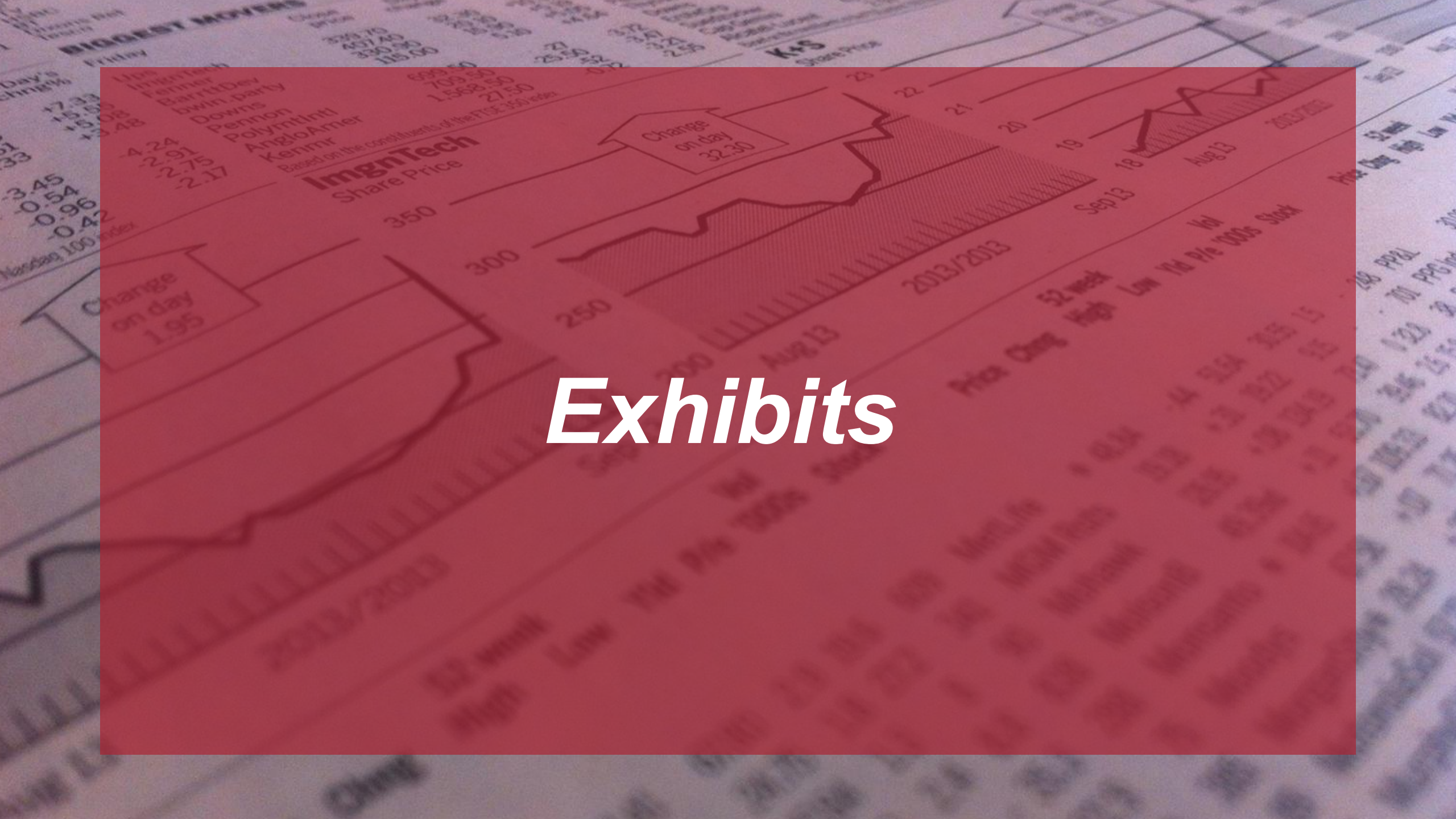
Recap

Idea: Focus on stocks that combine high profitability with low valuation.

Strategy: Filter for high-profitability firms (GP/A ≥ 0.35) and then capture value by selecting those in the bottom 10% of EV/EBITDA.

Historical Performance: Across 1, 3, 5, and 10-year windows, PVS failed to consistently outperform the S&P 500, despite returns, returns ranging from 33.68% to 386.09%.

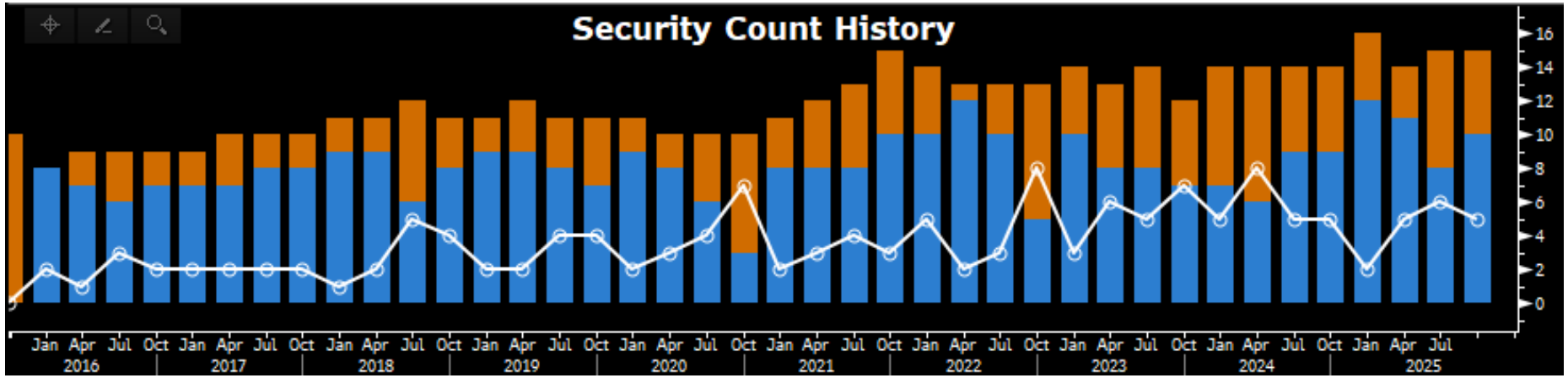
Recommendation: Do Not Invest!


Exhibits

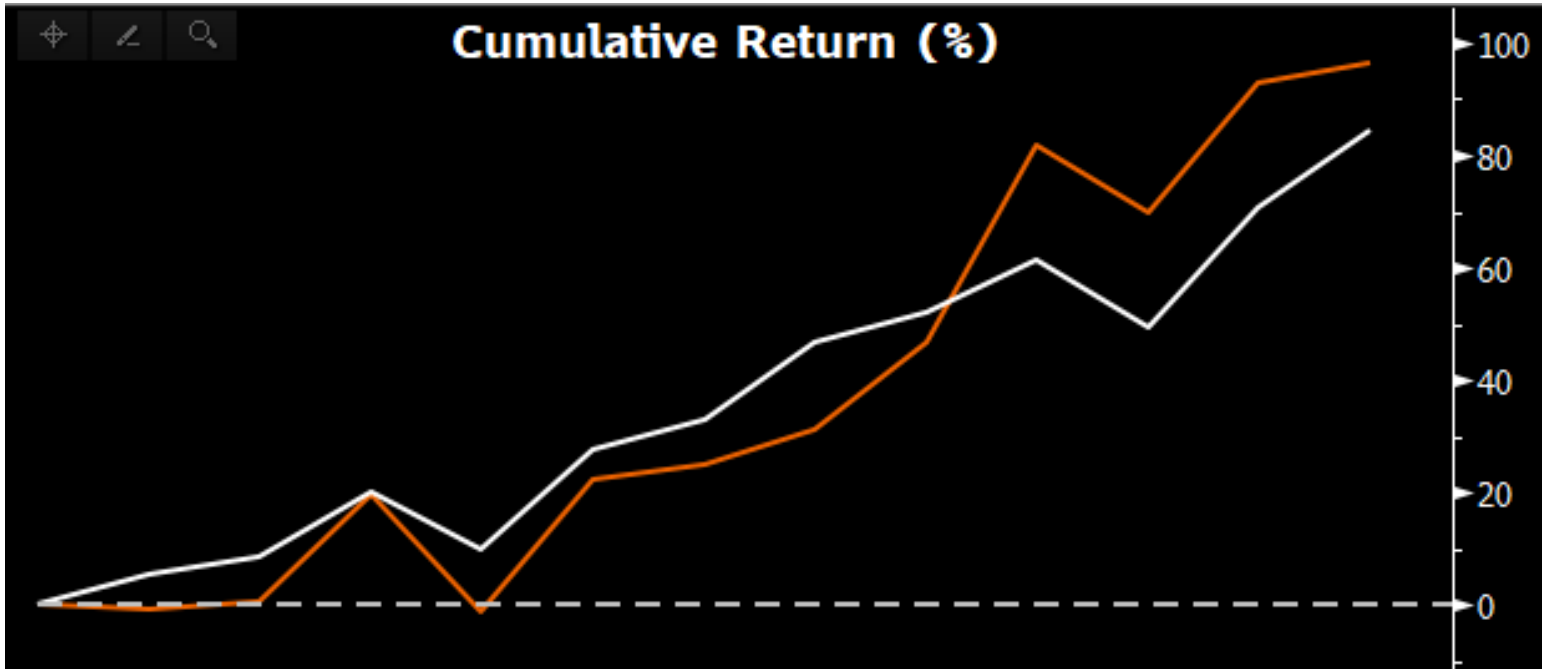
P50 10 YR Security Analysis

Securities In | Rebalance Period << < 10/31/2025 > >>

	Ticker		Short Name	Rebalance Period: 10/31/2025 Market Cap	Weight	Return	In/Out Previous	Next
1)	ALAB	US	ASTERA LABS INC	31.029789B	6.666667	--	Out	Out
2)	ALNY	US	ALNYLAM PHARMACE	60.249186B	6.666667	--	Out	Out
3)	CRDO	US	CREDO TECHNOLOGY	32.457434B	6.666667	--	Out	Out
4)	DASH	US	DOORDASH INC-A	108.665549B	6.666667	--	In	Out
5)	DDOG	US	DATADOG INC-A	56.779194B	6.666667	--	In	Out
6)	DKNG	US	DRAFTKINGS INC	15.187019B	6.666667	--	Out	Out
7)	DUOL	US	DUOLINGO	12.401241B	6.666667	--	In	Out
8)	EXAS	US	EXACT SCIENCES	12.247053B	6.666667	--	Out	Out
9)	HUBS	US	HUBSPOT INC	25.920795B	6.666667	--	In	Out
10)	NOW	US	SERVICENOW INC	191.21024B	6.666667	--	In	Out
11)	PINS	US	PINTEREST INC -A	22.505672B	6.666667	--	In	Out
12)	PLTR	US	PALANTIR TECHN-A	475.583485B	6.666667	--	In	Out
13)	PSTG	US	PURE STORAGE-A	32.436431B	6.666667	--	In	Out
14)	RDDT	US	REDDIT INC-A	39.59514B	6.666667	--	In	Out
15)	ROKU	US	ROKU INC	15.694162B	6.666667	--	In	Out

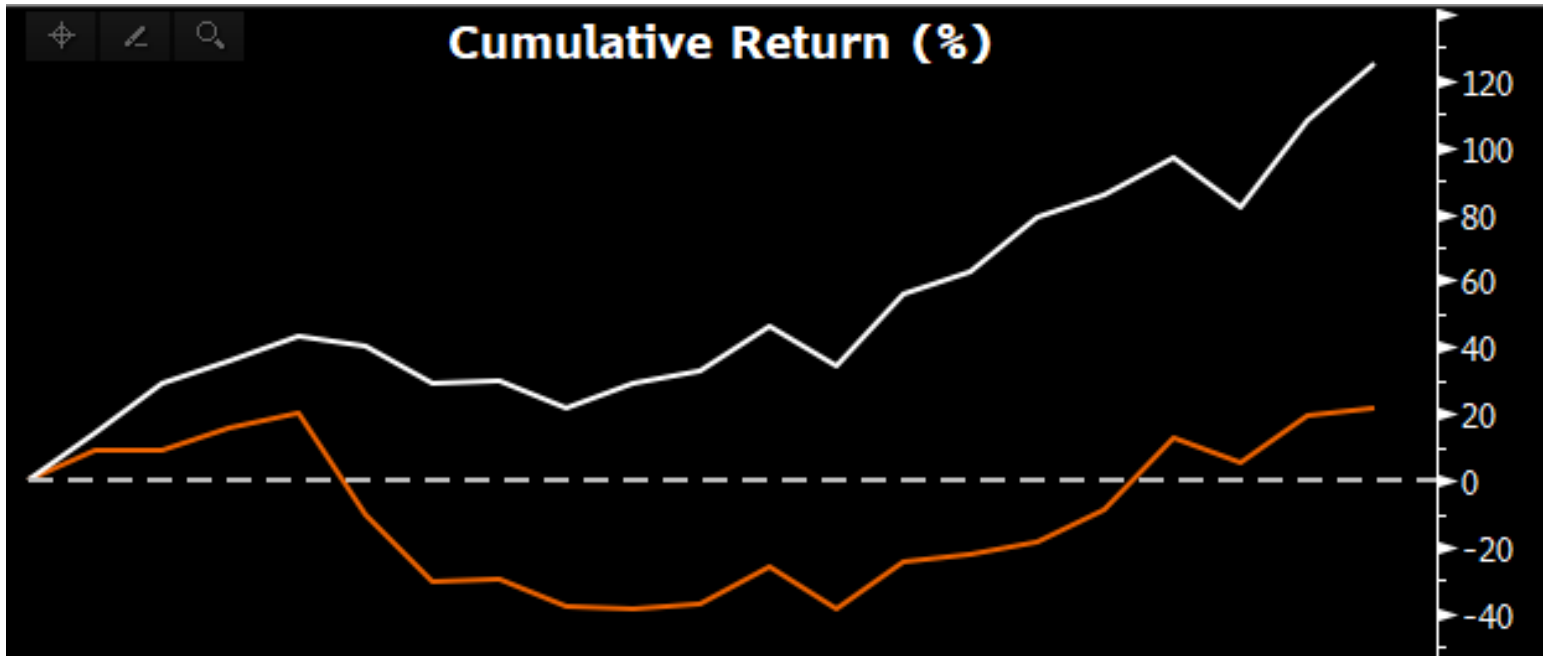


P50 (35%) 3 YR



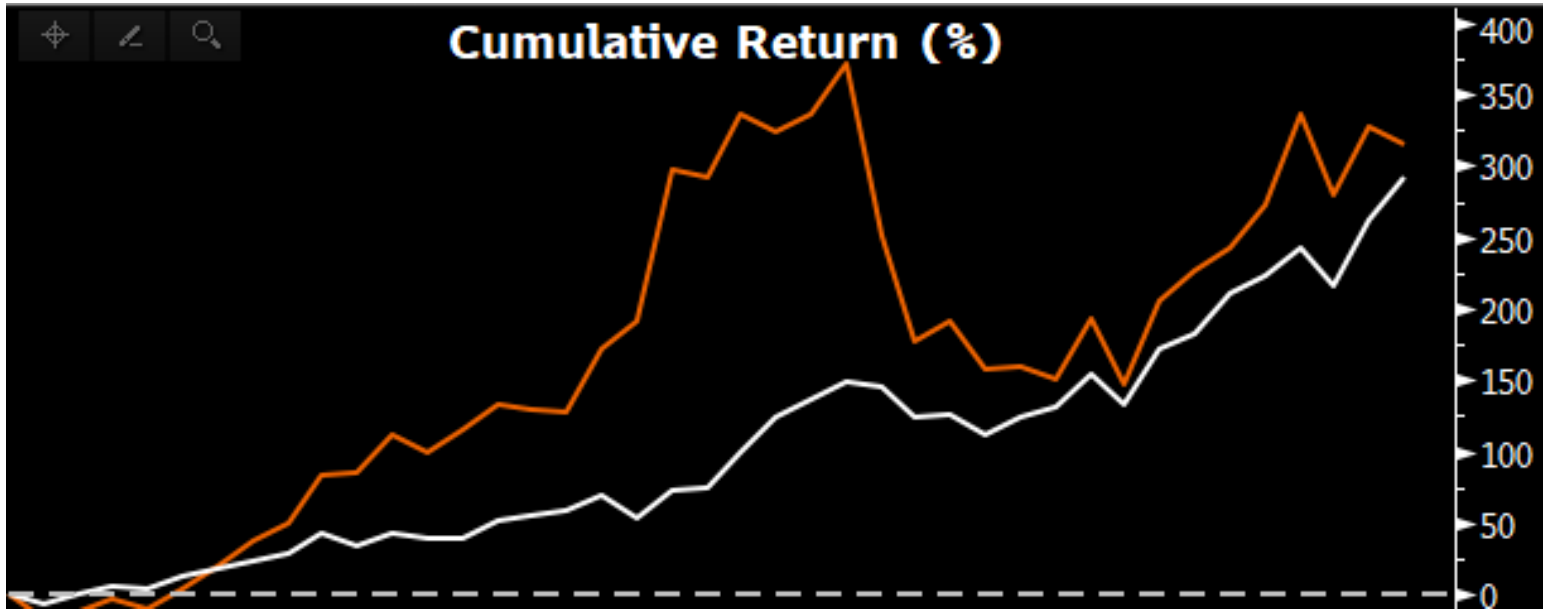
Total Return	96.42
Mean Return (%)	28.46
Mean Active Return (%)	3.96
Minimum Return (%)	-17.32
Maximum Return (%)	23.76
Standard Deviation	27.18
Semi variance	18.75
Tracking Error (%)	17.04
Skewness	0.22
Sharpe Ratio	0.93
Jensen Alpha	-2.01
Information Ratio	0.27
Beta	1.40
Correlation	0.81

P50 (35%) 5 YR



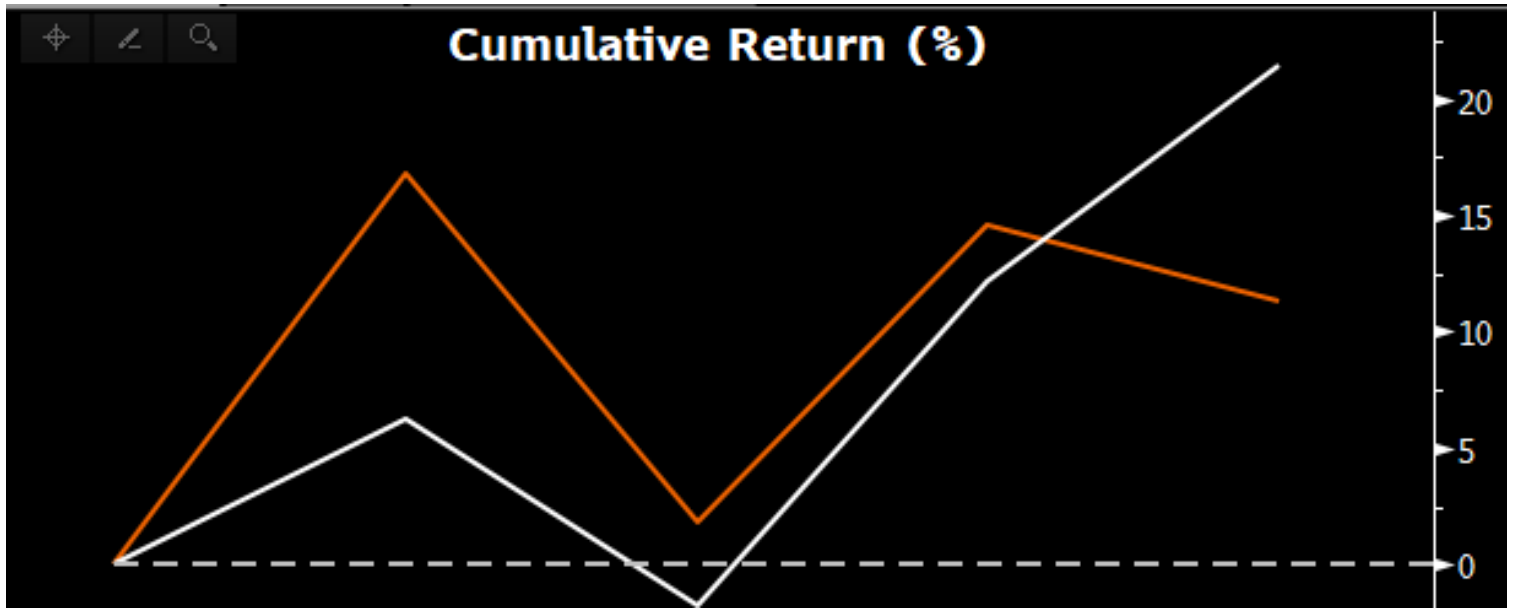
Total Return	21.90
Mean Return (%)	7.81
Mean Active Return (%)	-9.68
Minimum Return (%)	-25.55
Maximum Return (%)	23.76
Standard Deviation	33.21
Semi variance	22.85
Tracking Error (%)	22.73
Skewness	0.05
Sharpe Ratio	0.20
Jensen Alpha	-17.81
Information Ratio	-0.35
Beta	1.52
Correlation	0.78

P60 (39%) 10 YR



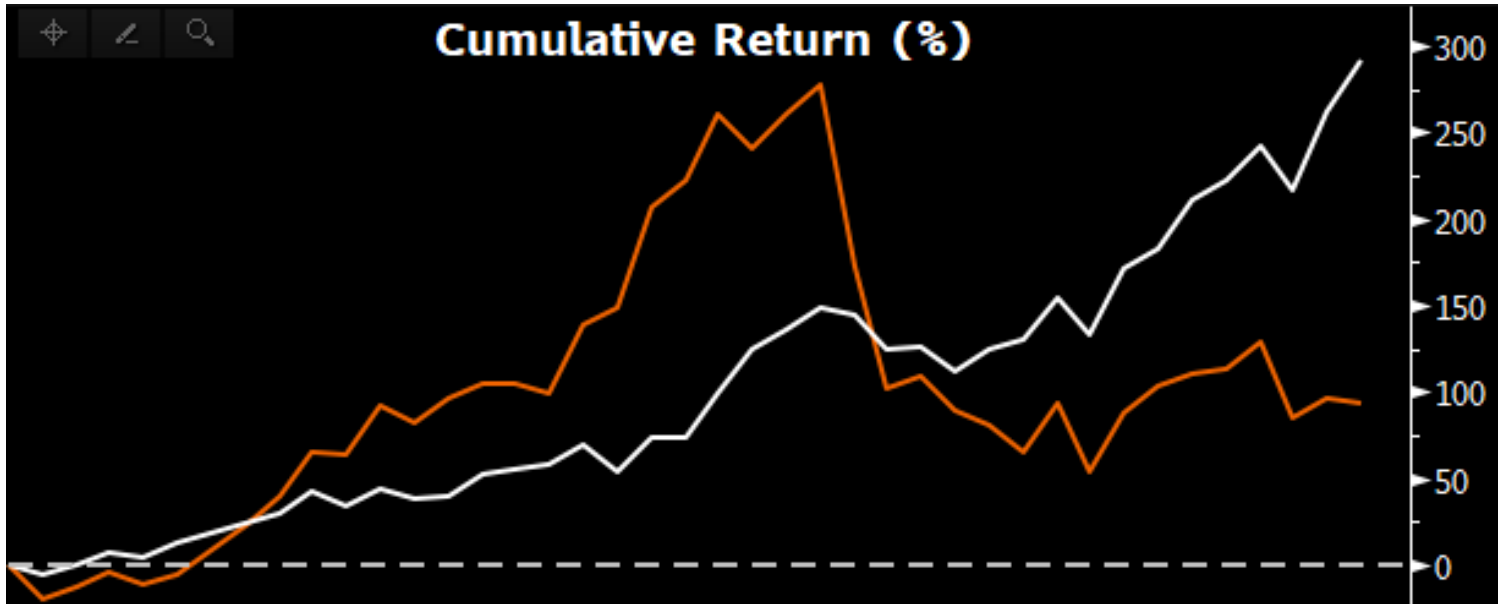
Total Return	314.67
Mean Return (%)	18.91
Mean Active Return (%)	2.97
Minimum Return (%)	-25.63
Maximum Return (%)	36.38
Standard Deviation	31.23
Semi variance	22.87
Tracking Error (%)	21.12
Skewness	-0.11
Sharpe Ratio	0.61
Jensen Alpha	0.17
Information Ratio	0.18
Beta	1.30
Correlation	0.76

P60 (39%) 1 YR



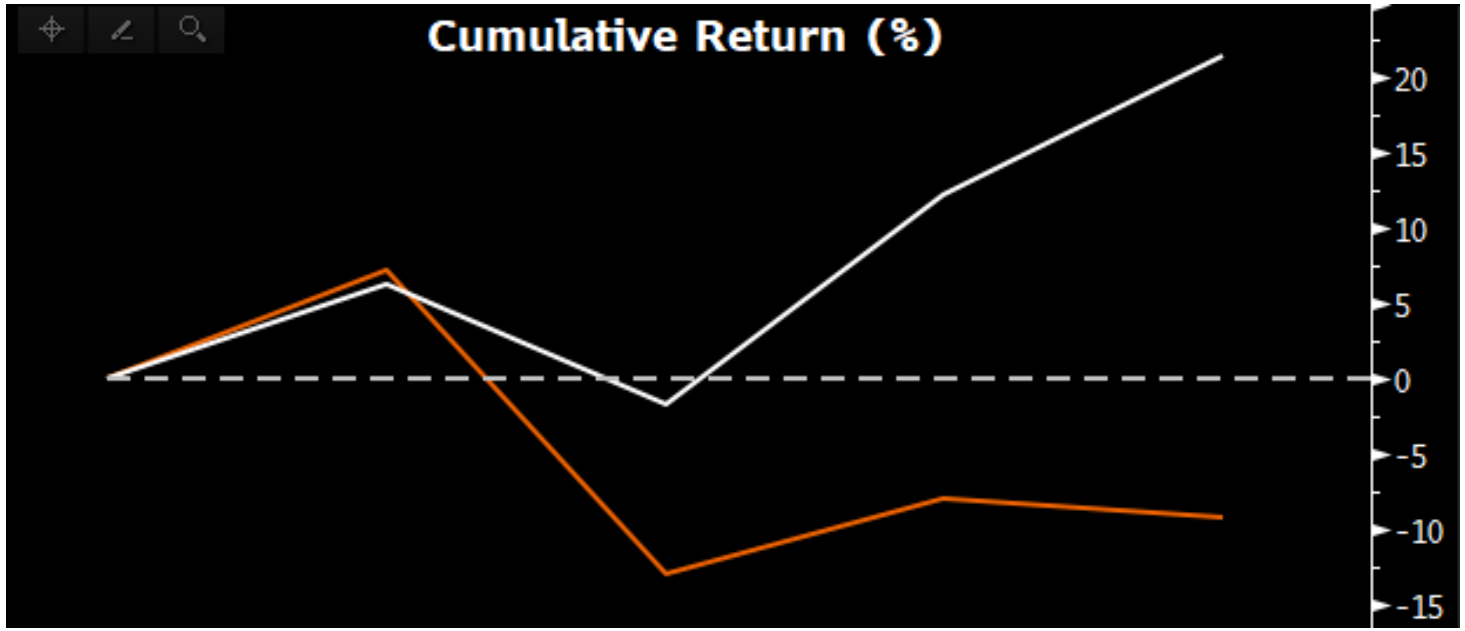
Total Return	11.30
Mean Return (%)	14.37
Mean Active Return (%)	-7.28
Minimum Return (%)	-12.85
Maximum Return (%)	16.82
Standard Deviation	33.02
Semi variance	24.30
Tracking Error (%)	21.13
Skewness	0.18
Sharpe Ratio	0.40
Jensen Alpha	-14.04
Information Ratio	-0.24
Beta	1.40
Correlation	0.80

P70 (44%) 10 YR



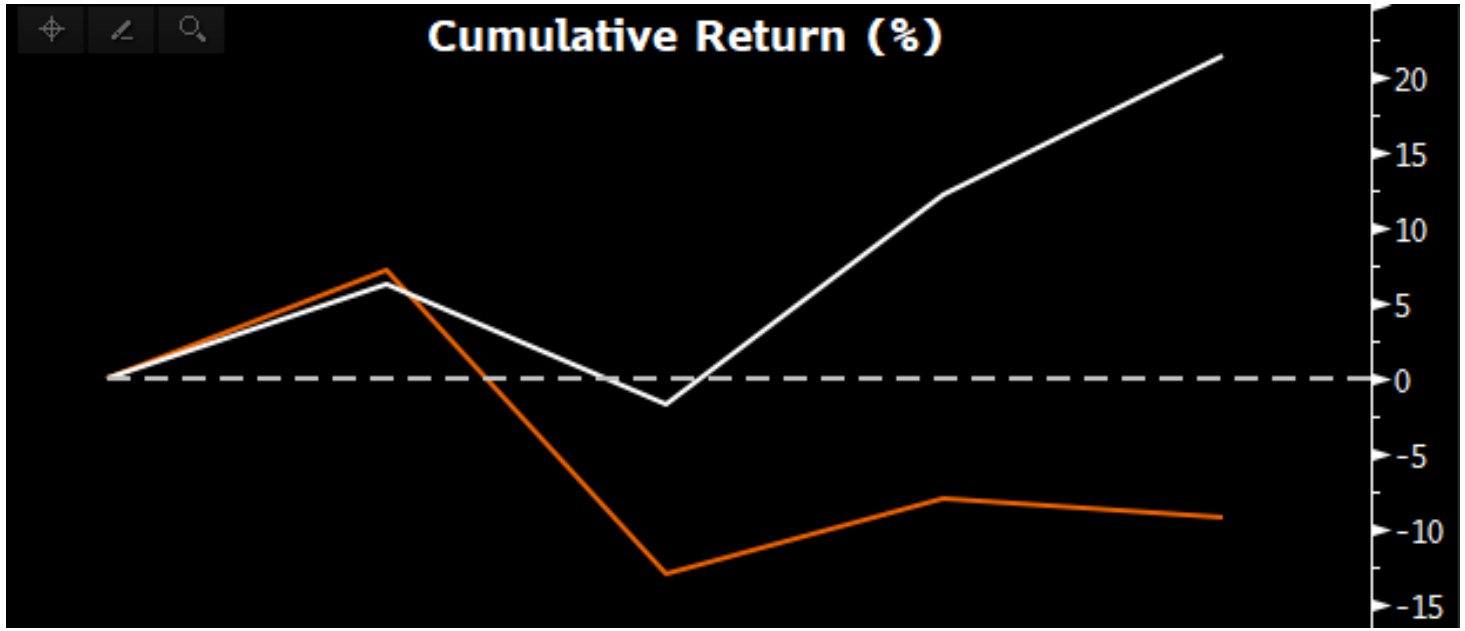
Total Return	93.28
Mean Return (%)	10.32
Mean Active Return (%)	-4.73
Minimum Return (%)	-27.68
Maximum Return (%)	22.88
Standard Deviation	32.63
Semi variance	23.16
Tracking Error (%)	22.95
Skewness	-0.03
Sharpe Ratio	0.32
Jensen Alpha	-8.44
Information Ratio	-0.15
Beta	1.31
Correlation	0.73

P70 (44%) 1 YR



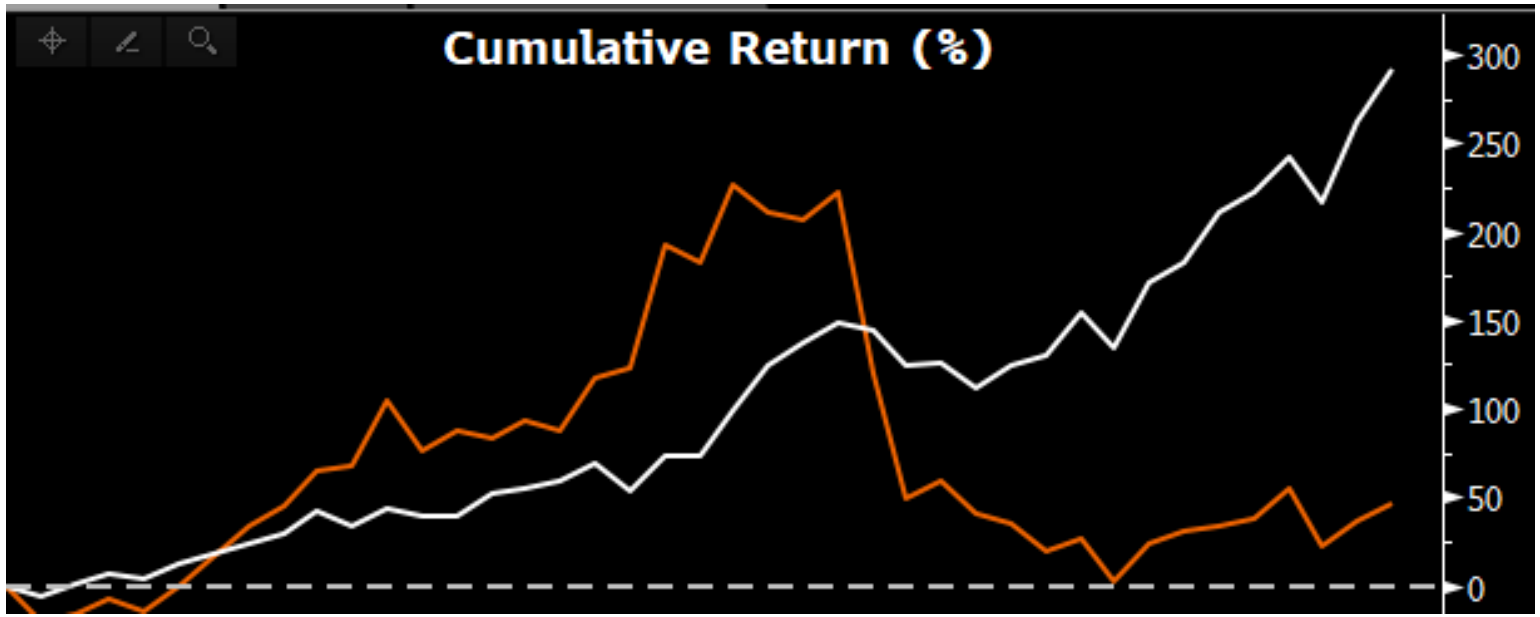
Total Return	-9.24
Mean Return (%)	-7.07
Mean Active Return (%)	-25.52
Minimum Return (%)	-18.78
Maximum Return (%)	7.11
Standard Deviation	32.64
Semi variance	23.32
Tracking Error (%)	21.60
Skewness	0.08
Sharpe Ratio	-0.26
Jensen Alpha	-34.77
Information Ratio	-1.05
Beta	1.34
Correlation	0.78

P80 (52%) 1 YR



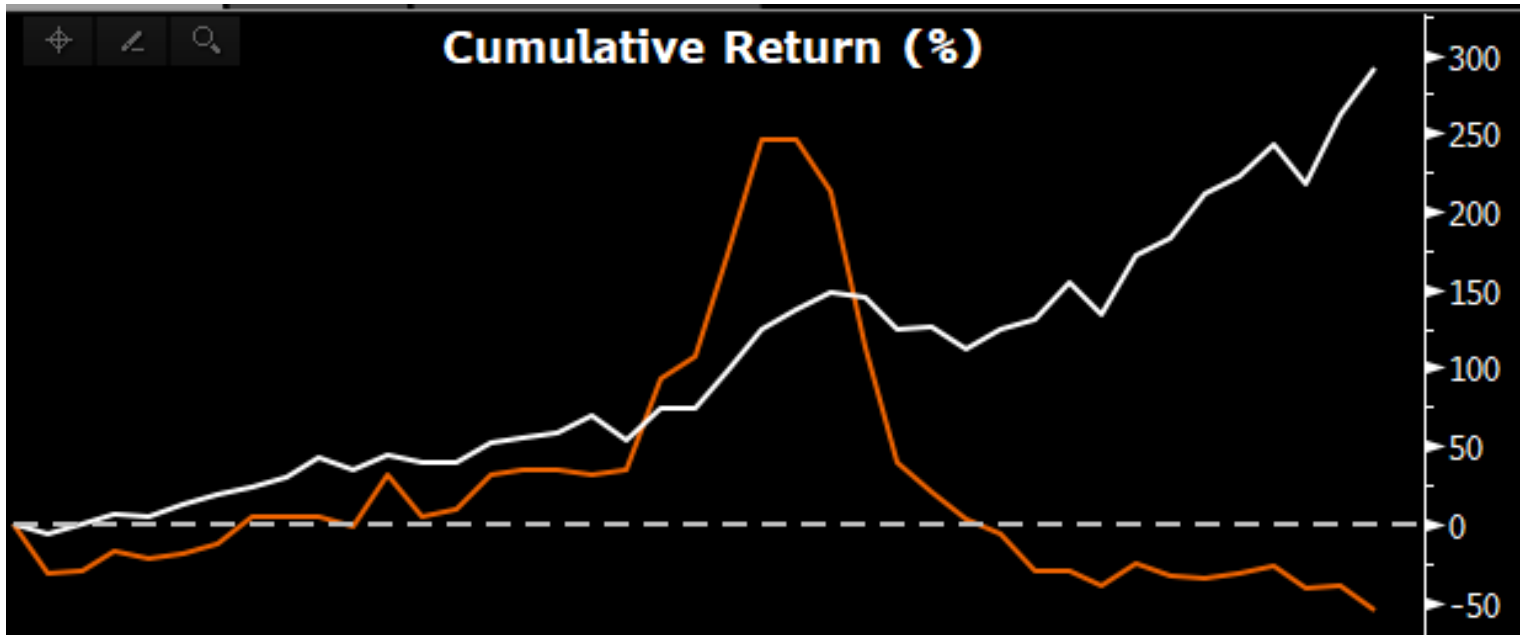
Total Return	-9.24
Mean Return (%)	-7.07
Mean Active Return (%)	-25.52
Minimum Return (%)	-18.78
Maximum Return (%)	7.11
Standard Deviation	32.64
Semi variance	23.32
Tracking Error (%)	21.60
Skewness	0.08
Sharpe Ratio	-0.26
Jensen Alpha	-34.77
Information Ratio	-1.05
Beta	1.34
Correlation	0.78

P80 (52%) 10 YR



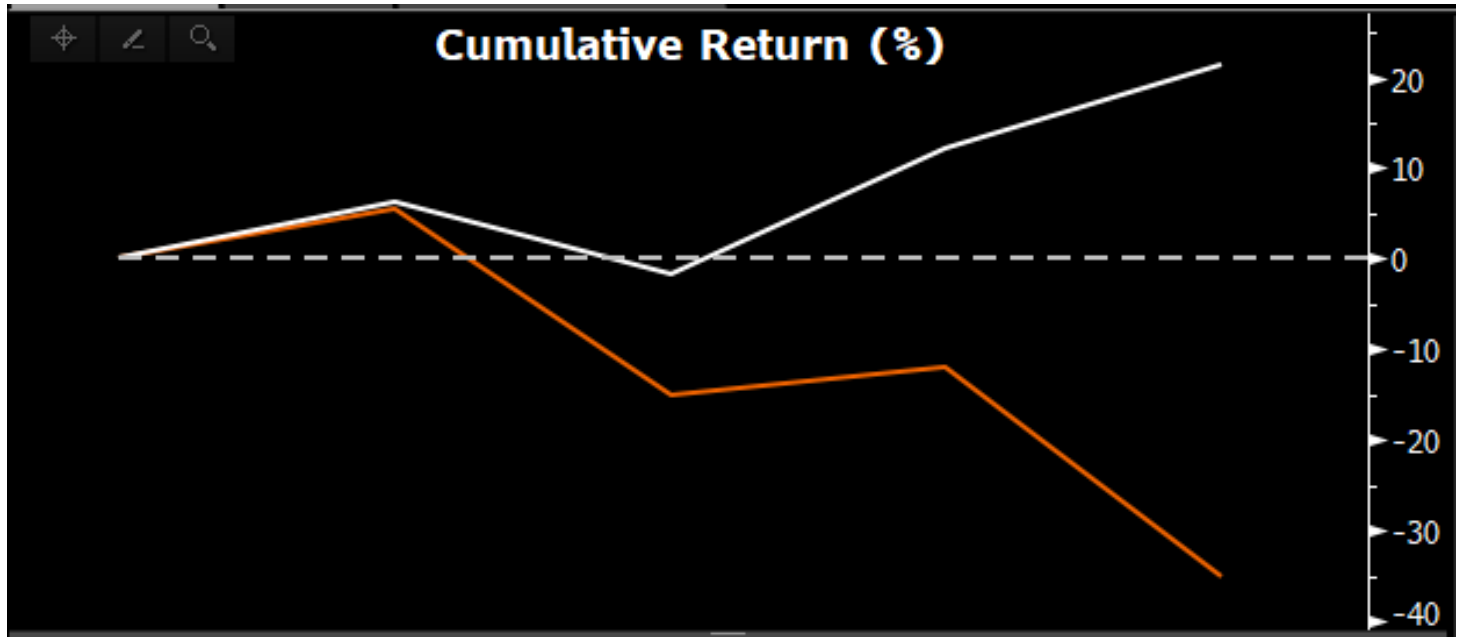
Total Return	45.87
Mean Return (%)	8.14
Mean Active Return (%)	-6.68
Minimum Return (%)	-32.43
Maximum Return (%)	30.73
Standard Deviation	35.45
Semi variance	25.66
Tracking Error (%)	27.33
Skewness	0.04
Sharpe Ratio	0.24
Jensen Alpha	-9.90
Information Ratio	-0.19
Beta	1.27
Correlation	0.65

P90 (64%) 10 YR



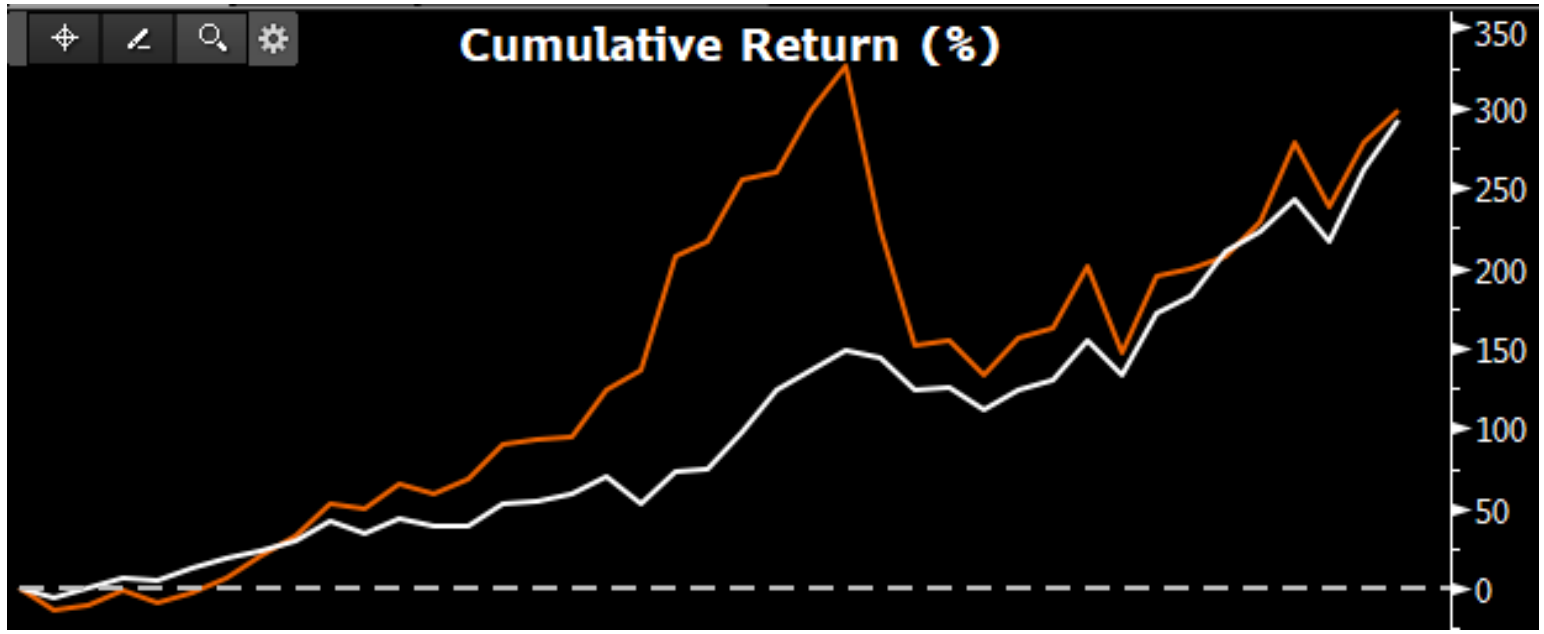
Total Return	-55.21
Mean Return (%)	-1.32
Mean Active Return (%)	-15.15
Minimum Return (%)	-34.82
Maximum Return (%)	43.28
Standard Deviation	44.43
Semi variance	30.19
Tracking Error (%)	38.19
Skewness	2.19
Sharpe Ratio	-0.02
Jensen Alpha	-18.84
Information Ratio	-0.34
Beta	1.27
Correlation	0.52

P90 (64%) 1 YR



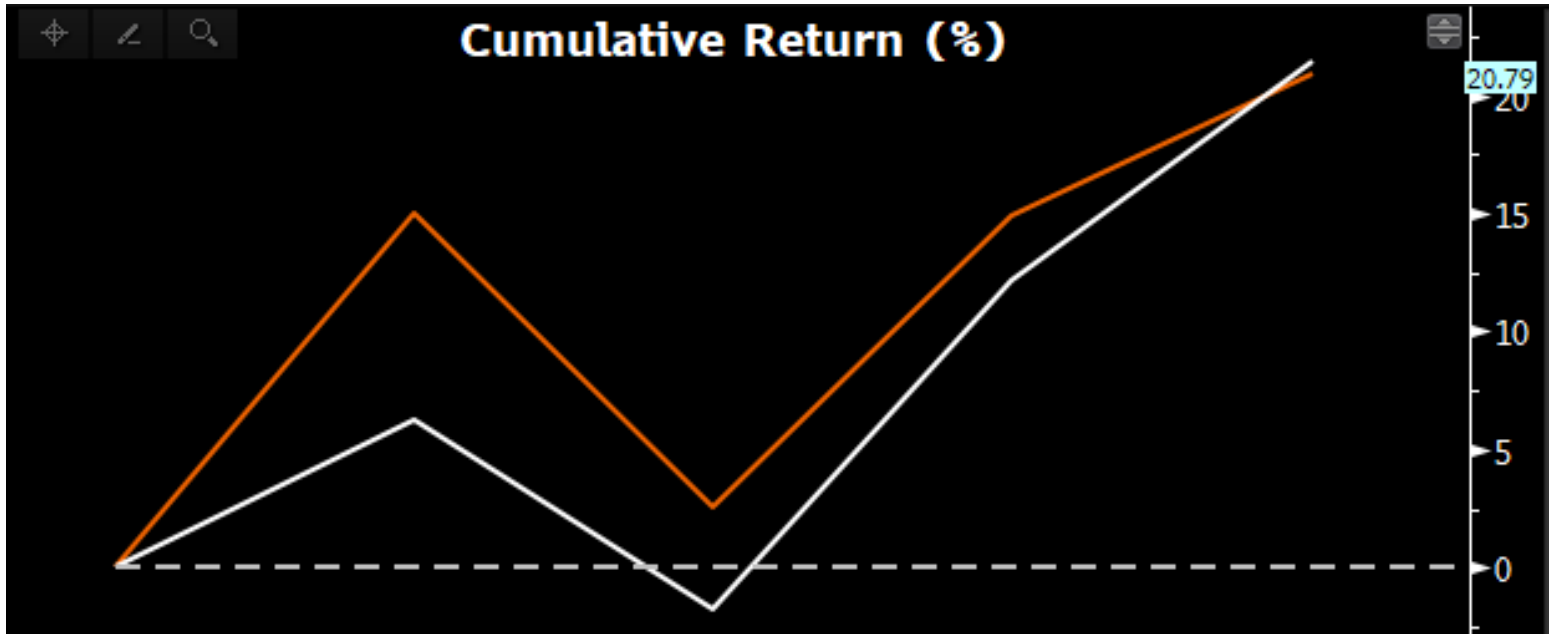
Total Return	-35.12
Mean Return (%)	-31.93
Mean Active Return (%)	-46.44
Minimum Return (%)	-26.36
Maximum Return (%)	5.39
Standard Deviation	34.61
Semi variance	23.52
Tracking Error (%)	28.24
Skewness	0.11
Sharpe Ratio	-1.03
Jensen Alpha	-56.34
Information Ratio	-1.58
Beta	1.06
Correlation	0.58

P50 (35%) 10 YR with Bottom 20% EV/EBITDA



Total Return	298.29
Mean Return (%)	17.60
Mean Active Return (%)	1.80
Minimum Return (%)	-23.94
Maximum Return (%)	30.14
Standard Deviation	26.93
Semi variance	20.43
Tracking Error (%)	15.93
Skewness	-0.25
Sharpe Ratio	0.63
Jensen Alpha	-0.54
Information Ratio	0.14
Beta	1.21
Correlation	0.82

P50 (35%) 1 YR with Bottom 20% EV/EBITDA



Total Return	20.92
Mean Return (%)	23.22
Mean Active Return (%)	0.30
Minimum Return (%)	-10.78
Maximum Return (%)	14.95
Standard Deviation	29.93
Semi variance	22.03
Tracking Error (%)	16.60
Skewness	0.36
Sharpe Ratio	0.75
Jensen Alpha	-4.40
Information Ratio	0.14
Beta	1.37
Correlation	0.86

Academic References

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