

Portfolio Optimization

This portfolio optimizer tool supports the following portfolio optimization strategies:

- Mean Variance Optimization – Find the optimal risk adjusted portfolio that lies on the efficient frontier
- Conditional Value-at-Risk – Optimize the portfolio to minimize the expected tail loss
- Risk Parity – Find the portfolio that equalizes the risk contribution of portfolio assets
- Tracking Error – Find the portfolio that minimizes the tracking error against the selected benchmark
- Information Ratio – Find the portfolio that maximizes the information ratio against the selected benchmark
- Kelly Criterion – Finds the portfolio with the maximum expected geometric growth rate
- Sortino Ratio – Find the portfolio that maximizes the Sortino ratio for the given minimum acceptable return
- Omega Ratio – Find the portfolio that maximizes the Omega ratio for the given minimum acceptable return
- Maximum Drawdown – Find the portfolio with the minimum worst case drawdown with optional minimum acceptable return

The optimization is based on the monthly return statistics of the selected portfolio assets for the given time period. The optimization result does not predict what allocation would perform best outside the given time period, and the actual performance of portfolios constructed using the optimized asset weights may vary from the given performance goal.

The required inputs for the optimization include the time range and the portfolio assets. Portfolio asset weights and constraints are optional. You can also use the Black-Litterman model based portfolio optimization, which allows the benchmark portfolio asset weights to be optimized based on investor's views.

Portfolio Type

Tickers

Time Period

Month-to-Month

Start Year

2018

First Month

Sep

End Year

2021

Last Month

Feb

Optimization Goal

Maximize Kelly Criterion

Asset Constraints

Yes

Compared Allocation

Maximum Sharpe Ratio Weights

Benchmark

Specify Ticker...

Benchmark Ticker

SCHD

Q

Portfolio Assets			Allocation		Min. Weight		Max. Weight	
1	AVGO	Q		%	1.6	%	8	%
2	HD	Q		%	1.6	%	8	%
3	JPM	Q		%	1.6	%	8	%
4	TXN	Q		%	1.6	%	8	%
5	ABBV	Q		%	1.6	%	8	%
6	FCPT	Q		%	1.6	%	8	%
7	STOR	Q		%	1.6	%	8	%
8	CTRE	Q		%	1.6	%	8	%
9	NSA	Q		%	1.6	%	8	%
10	O	Q		%	1.6	%	8	%
11	APAM	Q		%	1.6	%	8	%
12	MSM	Q		%	1.6	%	8	%
13	COR	Q		%	1.6	%	8	%
14	DTE	Q		%	1.6	%	8	%
15	NTAP	Q		%	1.6	%	8	%
16	SAFT	Q		%	1.6	%	8	%
17	IRM	Q		%	1.6	%	8	%
18	JEPIX	Q		%	5	%	10	%
19	BLOK	Q		%	1	%	5	%
20	SCHD	Q		%	10	%	15	%
Total			0	%				

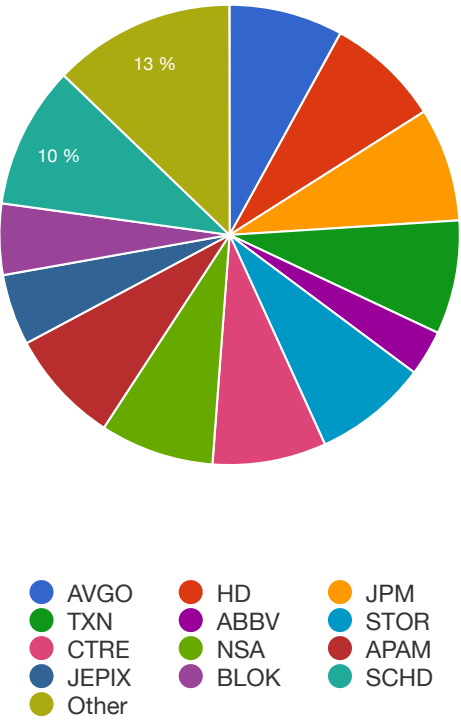
Portfolio Optimization Results (Sep 2018 - Feb 2021)

Portfolio optimization results with goal to maximize kelly criterion. The possible range of expected annual portfolio returns for the given period taking into account the specified constraints is 13.78% to 22.52%. Refer to the efficient frontier section for additional details.

Portfolio Allocations

Maximum Kelly Criterion

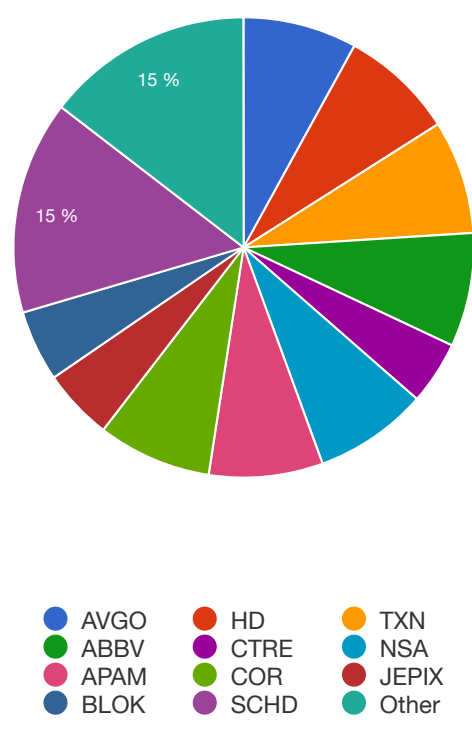
Ticker	Name	Allocation
AVGO	Broadcom Limited	8.00%
HD	Home Depot, Inc.	8.00%
JPM	J P Morgan Chase & Co	8.00%
TXN	Texas Instruments Incorporated	8.00%
ABBV	AbbVie Inc.	3.20%
FCPT	Four Corners Property Trust, Inc.	1.60%
STOR	STORE Capital Corporation	8.00%
CTRE	CareTrust REIT, Inc.	8.00%
NSA	National Storage Affiliates Trust	8.00%
O	Realty Income Corporation	1.60%
APAM	Artisan Partners Asset Management Inc.	8.00%
MSM	MSC Industrial Direct Company, Inc.	1.60%



Ticker	Name	Allocation
COR	CoreSite Realty Corporation	1.60%
DTE	DTE Energy Company	1.60%
NTAP	NetApp, Inc.	1.60%
SAFT	Safety Insurance Group, Inc.	1.60%
IRM	Iron Mountain Incorporated	1.60%
JEPIX	JPMorgan Equity Premium Income I	5.00%
BLOK	Amplify Transformational Data Shrg ETF	5.00%
SCHD	Schwab US Dividend Equity ETF	10.00%

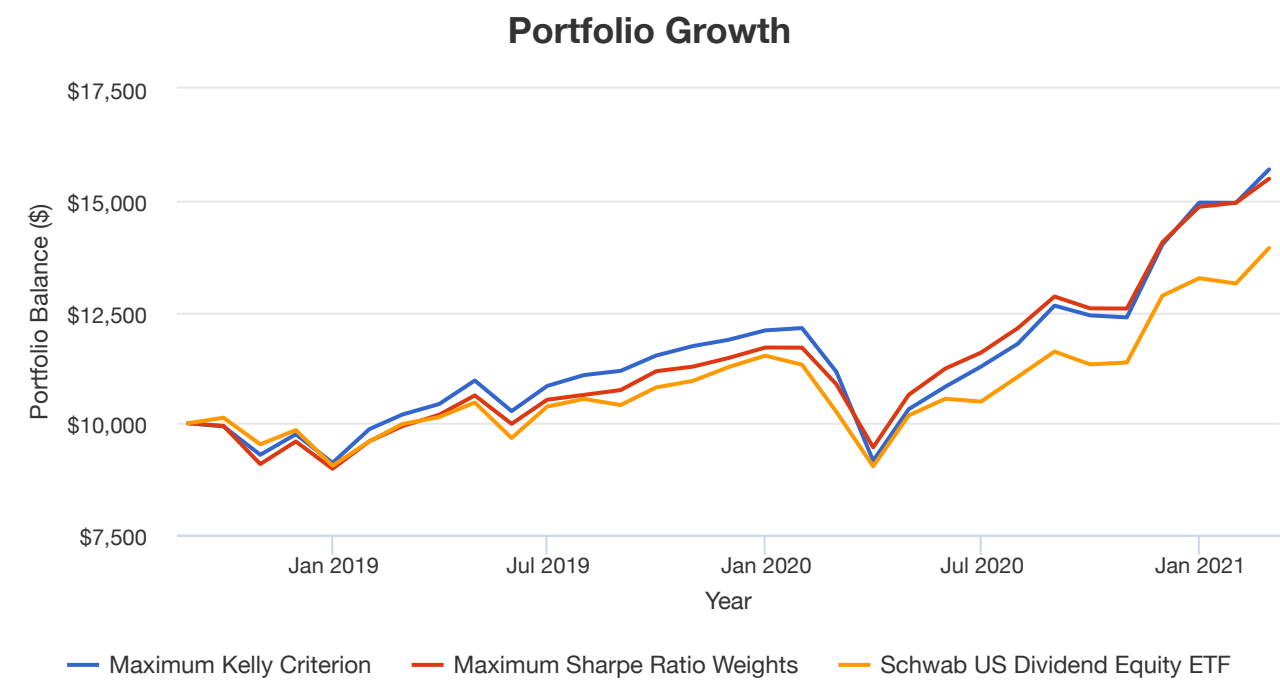
Maximum Sharpe Ratio Weights

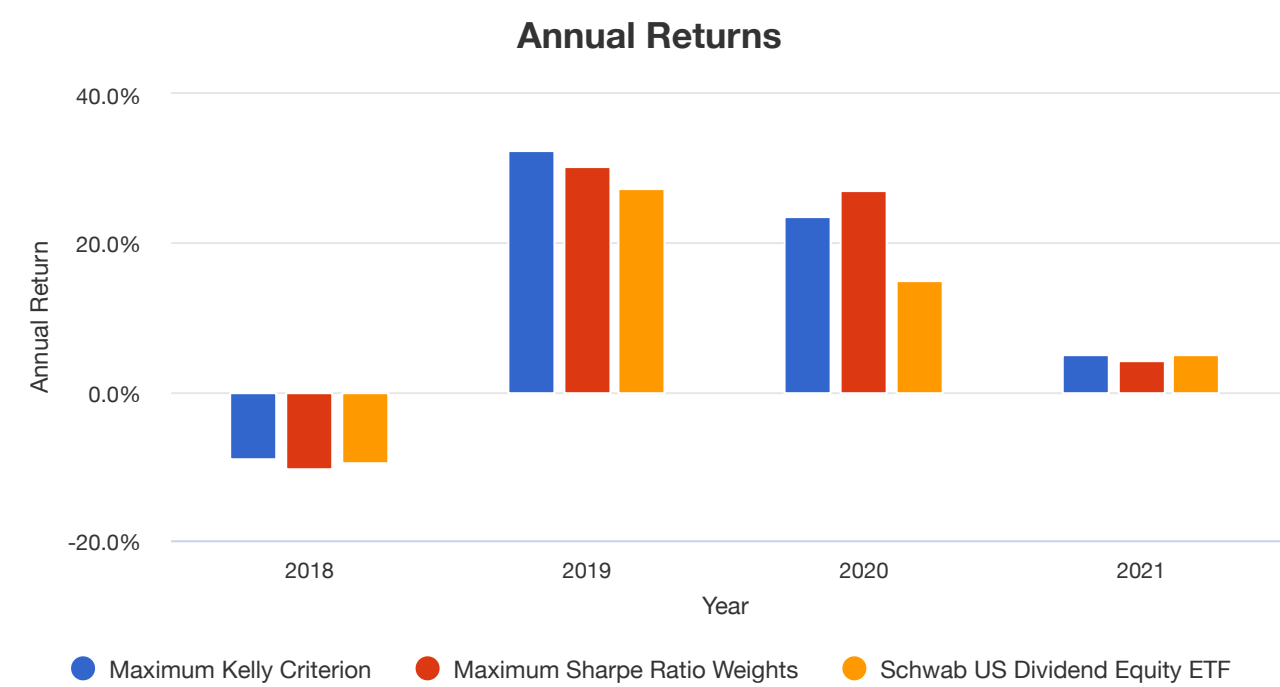
Ticker	Name	Allocation
AVGO	Broadcom Limited	8.00%
HD	Home Depot, Inc.	8.00%
JPM	J P Morgan Chase & Co	1.60%
TXN	Texas Instruments Incorporated	8.00%
ABBV	AbbVie Inc.	8.00%
FCPT	Four Corners Property Trust, Inc.	1.60%
STOR	STORE Capital Corporation	1.76%
CTRE	CareTrust REIT, Inc.	4.44%
NSA	National Storage Affiliates Trust	8.00%
O	Realty Income Corporation	1.60%
APAM	Artisan Partners Asset Management Inc.	8.00%
MSM	MSC Industrial Direct Company, Inc.	1.60%
COR	CoreSite Realty Corporation	8.00%
DTE	DTE Energy Company	1.60%
NTAP	NetApp, Inc.	1.60%
SAFT	Safety Insurance Group, Inc.	1.60%
IRM	Iron Mountain Incorporated	1.60%
JEPIX	JPMorgan Equity Premium Income I	5.00%
BLOK	Amplify Transformational Data Shrg ETF	5.00%
SCHD	Schwab US Dividend Equity ETF	15.00%



Portfolio Performance Summary

Metric	Maximum Kelly Criterion	Maximum Sharpe Ratio Weights	Schwab US Dividend Equity ETF
Start Balance	\$10,000	\$10,000	\$10,000
End Balance	\$15,690	\$15,480	\$13,927
CAGR	19.74%	19.10%	14.17%
Expected Return	22.52%	21.26%	16.36%
Stdev	21.63%	19.32%	19.95%
Best Year	32.56%	30.25%	27.28%
Worst Year	-8.86%	-10.20%	-9.53%
Max. Drawdown	-24.51%	-19.12%	-21.54%
Sharpe Ratio (ex-ante)	0.98	1.03	0.75
Sharpe Ratio (ex-post)	0.88	0.93	0.70
Sortino Ratio	1.32	1.46	1.08
Active Return	5.58%	4.93%	N/A
Tracking Error	6.87%	5.63%	N/A
Information Ratio	0.81	0.88	N/A
US Stock Market Correlation	0.97	0.97	0.97





Trailing Returns

Name	3 Month	YTD	1 year	Full
Maximum Kelly Criterion	12.04%	4.99%	40.72%	19.74%
Maximum Sharpe Ratio Weights	10.13%	4.23%	42.38%	19.10%
Schwab US Dividend Equity ETF	8.31%	5.10%	35.81%	14.17%

Trailing annualized returns are for full months ending in February 2021 excluding portfolio cashflows.

Notes on results:

- Past performance is no guarantee of future results, which may vary. All use is subject to terms of service.
- Investing involves risk, including possible loss of principal. The value of the investments and the income derived from them may fluctuate over time.
- All portfolio returns presented are hypothetical and backtested. Hypothetical returns do not reflect trading costs, transaction fees, or taxes.
- Portfolio optimization determines target weights for portfolio assets based on mathematical models that can use either historical or forecasted data as inputs. Optimization results are not guarantees of future performance.
- The results are based on information from a variety of sources we consider reliable, but we do not represent that the information is accurate or complete.
- The results do not constitute investment advice or recommendation, are provided solely for informational purposes, and are not an offer to buy or sell any securities.
- The results are based on the total return of assets and assume that all received dividends and distributions are reinvested.
- Allocation constraints are only applied to the optimized portfolio, not to compared allocations and benchmarks
- The annual results for 2018 are based on full calendar months from September to December
- The annual results for 2021 are based on full calendar months from January to February
- CAGR = Compound Annual Growth Rate
- Stdev = Annualized standard deviation of monthly returns
- Sharpe ratio is calculated and annualized from monthly excess returns over the risk free rate (3-month treasury bill)
- Drawdowns are calculated based on monthly returns.
- The backtested results assume monthly rebalancing of portfolio assets to match the specified allocation.
- The results from the evolutionary algorithm for non-convex optimization may vary slightly between optimization runs depending on convergence to the global optimum.

#	Asset	CAGR	Expected Return	Standard Deviation	Sharpe Ratio	Min. Weight	Max. Weight
1	Broadcom Limited (AVGO)	41.29%	47.39%	29.64%	1.554	1.60%	8.00%
2	Home Depot, Inc. (HD)	13.13%	16.43%	24.51%	0.616	1.60%	8.00%
3	J P Morgan Chase & Co (JPM)	14.16%	19.31%	30.09%	0.598	1.60%	8.00%
4	Texas Instruments Incorporated (TXN)	22.06%	26.02%	25.92%	0.952	1.60%	8.00%
5	AbbVie Inc. (ABBV)	10.34%	15.64%	31.83%	0.450	1.60%	8.00%
6	Four Corners Property Trust, Inc. (FCPT)	4.94%	10.86%	31.99%	0.298	1.60%	8.00%
7	STORE Capital Corporation (STOR)	11.31%	23.43%	43.28%	0.511	1.60%	8.00%
8	CareTrust REIT, Inc. (CTRE)	12.84%	19.05%	32.71%	0.542	1.60%	8.00%
9	National Storage Affiliates Trust (NSA)	17.85%	19.80%	18.57%	0.995	1.60%	8.00%
10	Realty Income Corporation (O)	5.53%	9.73%	26.67%	0.315	1.60%	8.00%
11	Artisan Partners Asset Management Inc. (APAM)	28.66%	40.76%	43.93%	0.897	1.60%	8.00%
12	MSC Industrial Direct Company, Inc. (MSM)	8.88%	14.21%	32.01%	0.403	1.60%	8.00%
13	CoreSite Realty Corporation (COR)	6.13%	9.33%	24.69%	0.324	1.60%	8.00%
14	DTE Energy Company (DTE)	5.82%	7.87%	19.53%	0.335	1.60%	8.00%
15	NetApp, Inc. (NTAP)	-9.30%	-3.36%	36.11%	-0.130	1.60%	8.00%
16	Safety Insurance Group, Inc. (SAFT)	-4.23%	-2.34%	19.98%	-0.183	1.60%	8.00%
17	Iron Mountain Incorporated (IRM)	6.46%	10.29%	26.85%	0.334	1.60%	8.00%
18	JPMorgan Equity Premium Income I (JEPIX)	7.00%	8.09%	14.39%	0.470	5.00%	10.00%
19	Amplify Transformational Data Shrg ETF (BLOK)	46.93%	55.10%	35.16%	1.530	1.00%	5.00%
20	Schwab US Dividend Equity ETF (SCHD)	14.17%	16.36%	19.95%	0.754	10.00%	15.00%

Results based on historical returns. Ex ante Sharpe Ratio calculated using 3-month treasury bill returns as the risk-free rate (1.33% annualized).

Asset Correlations

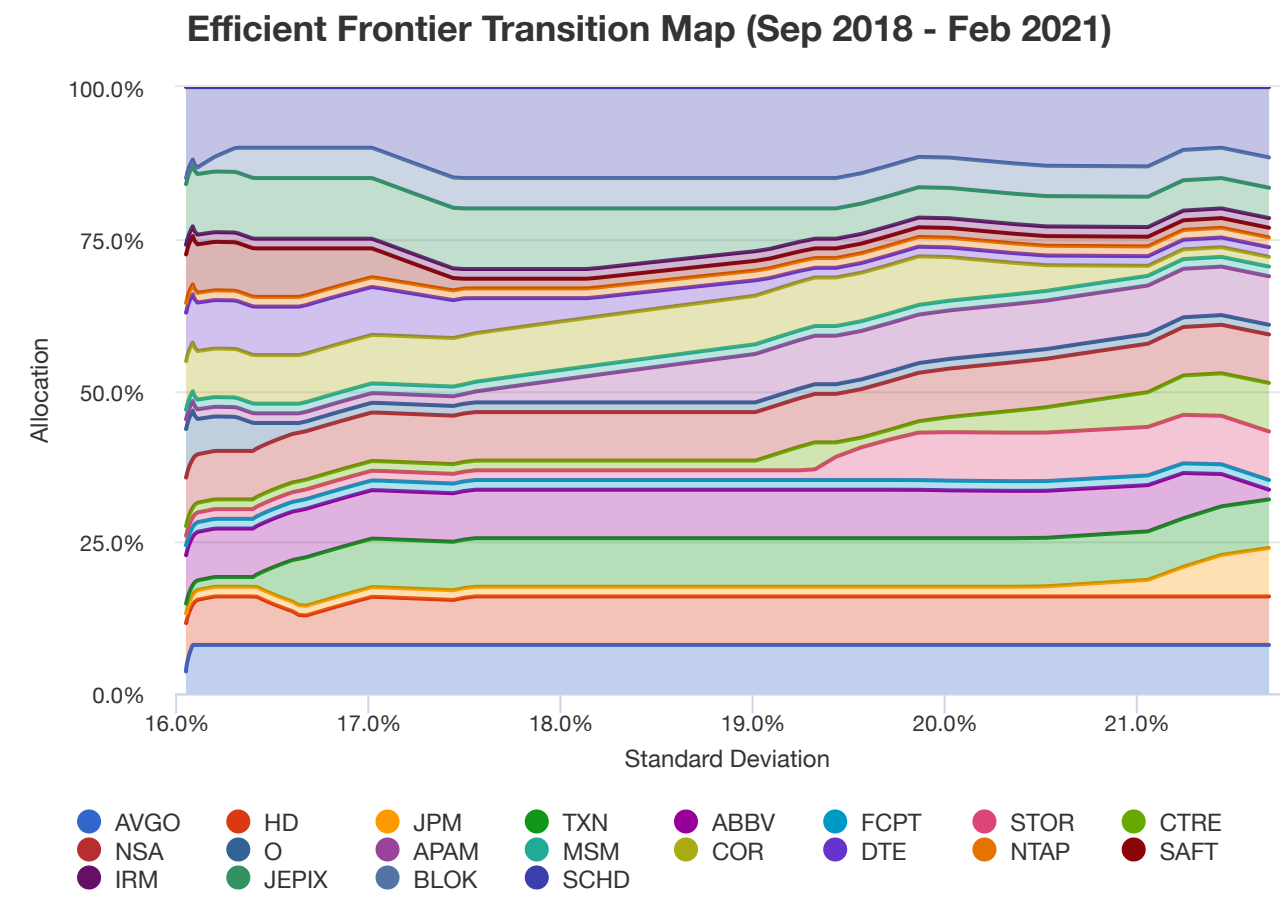
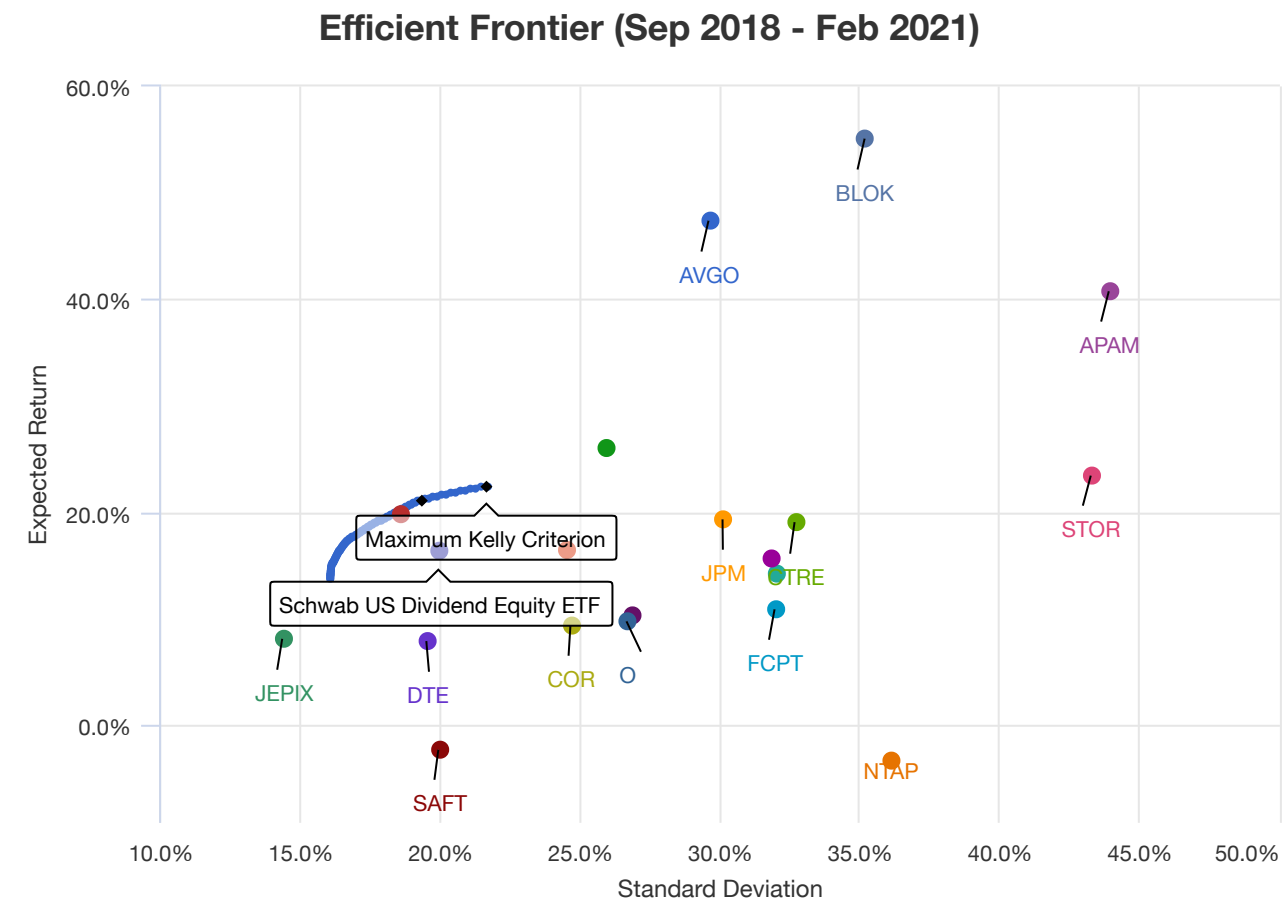
Name	Ticker	AVGO	HD	JPM	TXN	ABBV	FCPT	STOR	CTRE	NSA	O	APAM	MSM	COR	DTE	NTAP	SAFT	IRM	JEPIX	BLOK	SCHD
Broadcom Limited	AVGO	1.00	0.60	0.55	0.65	0.39	0.39	0.47	0.37	-0.05	0.36	0.61	0.59	-0.05	0.30	0.63	0.12	0.44	0.63	0.49	0.71
Home Depot, Inc.	HD	0.60	1.00	0.44	0.70	0.34	0.47	0.42	0.62	0.25	0.50	0.66	0.47	0.35	0.55	0.30	-0.01	0.57	0.77	0.44	0.70
J P Morgan Chase & Co	JPM	0.55	0.44	1.00	0.70	0.44	0.48	0.59	0.57	0.41	0.46	0.70	0.73	-0.02	0.55	0.69	0.37	0.46	0.78	0.75	0.87
Texas Instruments Incorporated	TXN	0.65	0.70	0.70	1.00	0.43	0.44	0.47	0.46	0.25	0.35	0.84	0.67	0.13	0.55	0.52	0.36	0.47	0.74	0.61	0.82
AbbVie Inc.	ABBV	0.39	0.34	0.44	0.43	1.00	0.33	0.31	0.31	0.02	0.25	0.36	0.63	0.06	0.14	0.35	0.13	0.40	0.41	0.36	0.49
Four Corners Property Trust, Inc.	FCPT	0.39	0.47	0.48	0.44	0.33	1.00	0.87	0.68	0.39	0.90	0.56	0.41	-0.02	0.61	0.26	0.01	0.49	0.66	0.45	0.57
STORE Capital Corporation	STOR	0.47	0.42	0.59	0.47	0.31	0.87	1.00	0.63	0.44	0.87	0.50	0.45	-0.08	0.54	0.34	0.07	0.51	0.65	0.50	0.60
CareTrust REIT, Inc.	CTRE	0.37	0.62	0.57	0.46	0.31	0.68	0.63	1.00	0.64	0.76	0.46	0.48	0.23	0.62	0.39	0.05	0.71	0.76	0.52	0.63
National Storage Affiliates Trust	NSA	-0.05	0.25	0.41	0.25	0.02	0.39	0.44	0.64	1.00	0.53	0.11	0.15	0.06	0.45	0.11	0.06	0.59	0.42	0.35	0.30
Realty Income Corporation	O	0.36	0.50	0.46	0.35	0.25	0.90	0.87	0.76	0.53	1.00	0.43	0.33	-0.07	0.63	0.19	-0.05	0.59	0.63	0.36	0.52
Artisan Partners Asset Management Inc.	APAM	0.61	0.66	0.70	0.84	0.36	0.56	0.50	0.46	0.11	0.43	1.00	0.58	0.12	0.62	0.60	0.38	0.36	0.79	0.65	0.85

Based on monthly returns from Sep 2018 to Feb 2021

Name	Ticker	AVGO	HD	JPM	TXN	ABBV	FCPT	STOR	CTRE	NSA	O	APAM	MSM	COR	DTE	NTAP	SAFT	IRM	JEPIX	BLOK	SCHD
MSC Industrial Direct Company, Inc.	MSM	0.59	0.47	0.73	0.67	0.63	0.41	0.45	0.48	0.15	0.33	0.58	1.00	0.12	0.50	0.58	0.28	0.42	0.68	0.59	0.79
CoreSite Realty Corporation	COR	-0.05	0.35	-0.02	0.13	0.06	-0.02	-0.08	0.23	0.06	-0.07	0.12	0.12	1.00	0.28	0.10	0.34	0.30	0.30	0.10	0.19
DTE Energy Company	DTE	0.30	0.55	0.55	0.55	0.14	0.61	0.54	0.62	0.45	0.63	0.62	0.50	0.28	1.00	0.25	0.23	0.46	0.79	0.38	0.69
NetApp, Inc.	NTAP	0.63	0.30	0.69	0.52	0.35	0.26	0.34	0.39	0.11	0.19	0.60	0.58	0.10	0.25	1.00	0.28	0.35	0.57	0.58	0.68
Safety Insurance Group, Inc.	SAFT	0.12	-0.01	0.37	0.36	0.13	0.01	0.07	0.05	0.06	-0.05	0.38	0.28	0.34	0.23	0.28	1.00	0.00	0.29	0.35	0.36
Iron Mountain Incorporated	IRM	0.44	0.57	0.46	0.47	0.40	0.49	0.51	0.71	0.59	0.59	0.36	0.42	0.30	0.46	0.35	0.00	1.00	0.64	0.57	0.56
JPMorgan Equity Premium Income I	JEPIX	0.63	0.77	0.78	0.74	0.41	0.66	0.65	0.76	0.42	0.63	0.79	0.68	0.30	0.79	0.57	0.29	0.64	1.00	0.68	0.93
Amplify Transformational Data Shrg ETF	BLOK	0.49	0.44	0.75	0.61	0.36	0.45	0.50	0.52	0.35	0.36	0.65	0.59	0.10	0.38	0.58	0.35	0.57	0.68	1.00	0.78
Schwab US Dividend Equity ETF	SCHD	0.71	0.70	0.87	0.82	0.49	0.57	0.60	0.63	0.30	0.52	0.85	0.79	0.19	0.69	0.68	0.36	0.56	0.93	0.78	1.00

Based on monthly returns from Sep 2018 to Feb 2021

Note: You can hover over any of the data points on the chart for more information.



#	AVGO	HD	JPM	TXN	ABBV	FCPT	STOR	CTRE	NSA	O	APAM	MSM	COR	DTE	NTAP	SAFT	IRM	JEPIX	BLOK	SCHD	Expected Return*	Standard Deviation*	Sharpe Ratio*
1	3.60%	8.00%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	8.00%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	1.00%	15.00%	13.78%	16.05%	0.776
2	3.91%	7.69%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	8.00%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	1.00%	15.00%	13.87%	16.05%	0.782
3	4.23%	7.44%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	8.00%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	1.00%	14.93%	13.95%	16.05%	0.787
4	4.54%	7.38%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	8.00%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	1.00%	14.68%	14.04%	16.05%	0.792
5	4.86%	7.31%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	8.00%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	1.00%	14.43%	14.13%	16.05%	0.797
6	5.17%	7.25%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	8.00%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	1.00%	14.18%	14.21%	16.05%	0.803
7	5.48%	7.18%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	8.00%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	1.00%	13.93%	14.30%	16.06%	0.808
8	5.80%	7.12%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	8.00%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	1.00%	13.69%	14.38%	16.06%	0.813
9	6.11%	7.05%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	8.00%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	1.00%	13.44%	14.47%	16.06%	0.818
10	6.43%	6.98%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	8.00%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	1.00%	13.19%	14.55%	16.06%	0.823
11	6.74%	6.92%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	8.00%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	1.00%	12.94%	14.64%	16.07%	0.829
12	7.05%	6.85%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	8.00%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	1.00%	12.69%	14.73%	16.07%	0.834
13	7.37%	6.79%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	8.00%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	1.00%	12.44%	14.81%	16.07%	0.839

*Ex-ante values shown for portfolio return and volatility. Ex ante Sharpe Ratio calculated using historical 3-month treasury bill returns as the risk-free rate (1.33% annualized).

#	AVGO	HD	JPM	TXN	ABBV	FCPT	STOR	CTRE	NSA	O	APAM	MSM	COR	DTE	NTAP	SAFT	IRM	JEPIX	BLOK	SCHD	Expected Return*	Standard Deviation*	Sharpe Ratio*
14	7.68%	6.72%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	8.00%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	1.00%	12.19%	14.90%	16.08%	0.844
15	8.00%	6.66%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	8.00%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	1.00%	11.95%	14.98%	16.08%	0.849
16	8.00%	7.10%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	6.74%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	1.00%	12.76%	15.07%	16.09%	0.854
17	8.00%	7.44%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	5.82%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	1.07%	13.26%	15.16%	16.11%	0.859
18	8.00%	7.55%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	5.80%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	1.32%	12.93%	15.24%	16.12%	0.863
19	8.00%	7.65%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	5.77%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	1.58%	12.60%	15.33%	16.14%	0.868
20	8.00%	7.76%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	5.75%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	1.83%	12.27%	15.42%	16.16%	0.872
21	8.00%	7.86%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	5.72%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	2.08%	11.94%	15.50%	16.17%	0.877
22	8.00%	7.96%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	5.69%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	2.33%	11.61%	15.59%	16.19%	0.881
23	8.00%	8.00%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	5.68%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	2.59%	11.33%	15.68%	16.21%	0.885
24	8.00%	8.00%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	5.67%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	2.84%	11.09%	15.76%	16.23%	0.890
25	8.00%	8.00%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	5.66%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	3.10%	10.85%	15.85%	16.24%	0.894
26	8.00%	8.00%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	5.64%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	3.35%	10.60%	15.94%	16.26%	0.898
27	8.00%	8.00%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	5.63%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	3.61%	10.36%	16.02%	16.28%	0.903
28	8.00%	8.00%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	5.62%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	3.86%	10.11%	16.11%	16.30%	0.907
29	8.00%	8.00%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	5.50%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	4.10%	10.00%	16.20%	16.32%	0.911
30	8.00%	8.00%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	5.29%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	4.31%	10.00%	16.28%	16.34%	0.916
31	8.00%	8.00%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	5.07%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	4.53%	10.00%	16.37%	16.35%	0.920
32	8.00%	8.00%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	4.86%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	4.74%	10.00%	16.46%	16.37%	0.924
33	8.00%	7.98%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	4.67%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	4.96%	10.00%	16.55%	16.39%	0.928
34	8.00%	7.96%	1.60%	2.04%	8.00%	1.60%	1.60%	1.60%	8.00%	4.19%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	5.00%	10.00%	16.63%	16.42%	0.932
35	8.00%	7.62%	1.60%	2.73%	8.00%	1.60%	1.60%	1.60%	8.00%	3.85%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	5.00%	10.00%	16.72%	16.44%	0.937
36	8.00%	7.27%	1.60%	3.42%	8.00%	1.60%	1.60%	1.60%	8.00%	3.51%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	5.00%	10.00%	16.81%	16.46%	0.940
37	8.00%	6.93%	1.60%	4.11%	8.00%	1.60%	1.60%	1.60%	8.00%	3.17%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	5.00%	10.00%	16.90%	16.49%	0.944
38	8.00%	6.58%	1.60%	4.80%	8.00%	1.60%	1.60%	1.60%	8.00%	2.82%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	5.00%	10.00%	16.98%	16.51%	0.948
39	8.00%	6.24%	1.60%	5.48%	8.00%	1.60%	1.60%	1.60%	8.00%	2.48%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	5.00%	10.00%	17.07%	16.54%	0.952
40	8.00%	5.89%	1.60%	6.17%	8.00%	1.60%	1.60%	1.60%	8.00%	2.14%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	5.00%	10.00%	17.16%	16.57%	0.955
41	8.00%	5.54%	1.60%	6.86%	8.00%	1.60%	1.60%	1.60%	8.00%	1.80%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	5.00%	10.00%	17.25%	16.60%	0.959
42	8.00%	4.94%	1.60%	7.66%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	8.00%	1.60%	8.00%	1.60%	10.00%	5.00%	10.00%	17.33%	16.63%	0.962
43	8.00%	4.87%	1.60%	8.00%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	8.00%	1.60%	7.73%	1.60%	10.00%	5.00%	10.00%	17.42%	16.67%	0.965
44	8.00%	5.30%	1.60%	8.00%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	8.00%	1.60%	7.30%	1.60%	10.00%	5.00%	10.00%	17.51%	16.72%	0.968
45	8.00%	5.73%	1.60%	8.00%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	7.99%	1.60%	6.87%	1.60%	10.00%	5.00%	10.00%	17.60%	16.77%	0.970
46	8.00%	6.17%	1.60%	8.00%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	7.98%	1.60%	6.45%	1.60%	10.00%	5.00%	10.00%	17.69%	16.81%	0.973
47	8.00%	6.61%	1.60%	8.00%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	7.96%	1.60%	6.03%	1.60%	10.00%	5.00%	10.00%	17.77%	16.86%	0.975
48	8.00%	7.05%	1.60%	8.00%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	7.94%	1.60%	5.61%	1.60%	10.00%	5.00%	10.00%	17.86%	16.91%	0.978
49	8.00%	7.49%	1.60%	8.00%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	7.93%	1.60%	5.18%	1.60%	10.00%	5.00%	10.00%	17.95%	16.96%	0.980
50	8.00%	7.93%	1.60%	8.00%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	7.91%	1.60%	4.76%	1.60%	10.00%	5.00%	10.00%	18.04%	17.01%	0.982
51	8.00%	7.89%	1.60%	8.00%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	7.71%	1.60%	4.42%	1.60%	10.00%	5.00%	10.58%	18.13%	17.07%	0.984
52	8.00%	7.82%	1.60%	8.00%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	7.50%	1.60%	4.08%	1.60%	10.00%	5.00%	11.20%	18.21%	17.12%	0.987
53	8.00%	7.76%	1.60%	8.00%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	7.30%	1.60%	3.74%	1.60%	10.00%	5.00%	11.81%	18.30%	17.17%	0.989
54	8.00%	7.69%	1.60%	8.00%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	7.09%	1.60%	3.40%	1.60%	10.00%	5.00%	12.43%	18.39%	17.22%	0.991
55	8.00%	7.62%	1.60%	8.00%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	6.88%	1.60%	3.05%	1.60%	10.00%	5.00%	13.05%	18.48%	17.28%	0.993
56	8.00%	7.55%	1.60%	8.00%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	6.67%	1.60%	2.71%	1.60%	10.00%	5.00%	13.66%	18.57%	17.33%	0.995
57	8.00%	7.48%	1.60%	8.00%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	6.46%	1.60%	2.37%	1.60%	10.00%	5.00%	14.28%	18.66%	17.38%	0.997
58	8.00%	7.41%	1.60%	8.00%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	6.25%	1.60%	2.03%	1.60%	10.00%	5.00%	14.90%	18.75%	17.44%	0.999
59	8.00%	7.77%	1.60%	8.00%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	1.60%	1.60%	8.00%	6.21%	1.60%	1.63%	1.60%	10.00%	5.00%	15.00%	18.84%	17.49%	1.001
60	8.00%	8.00%	1.60%	8.00%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	1.80%	1.60%	8.00%	5.80%	1.60%	1.60%	1.60%	10.00%	5.00%	15.00%	18.92%	17.55%	1.003
61	8.00%	8.00%	1.60%	8.00%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	2.09%	1.60%	8.00%	5.51%	1.60%	1.60%	1.60%	10.00%	5.00%	15.00%	19.01%	17.62%	1.004
62	8.00%	8.00%	1.60%	8.00%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	2.37%	1.60%	8.00%	5.23%	1.60%	1.60%	1.60%	10.00%	5.00%	15.00%	19.10%	17.68%	1.005
63	8.00%	8.00%	1.60%	8.00%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	2.65%	1.60%	8.00%	4.95%	1.60%	1.60%	1.60%	10.00%	5.00%	15.00%	19.19%	17.74%	1.007
64	8.00%	8.00%	1.60%	8.00%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	2.93%	1.60%	8.00%	4.67%	1.60%	1.60%	1.60%	10.00%	5.00%	15.00%	19.28%	17.81%	1.008
65	8.00%	8.00%	1.60%	8.00%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	3.21%	1.60%	8.00%	4.39%	1.60%	1.60%	1.60%	10.00%	5.00%	15.00%	19.37%	17.87%	1.010
66	8.00%	8.00%	1.60%	8.00%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	3.49%	1.60%	8.00%	4.11%	1.60%	1.60%	1.60%	10.00%	5.00%	15.00%	19.46%	17.94%	1.011
67	8.00%	8.00%	1.60%	8.00%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	3.77%	1.60%	8.00%	3.83%	1.60%	1.60%	1.60%	10.00%	5.00%	15.00%	19.55%	18.00%	1.012
68	8.00%	8.00%	1.60%	8.00%	8.00%	1.60%	1.60%	1.60%	8.00%	1.60%	4.05%	1.60%	8.00%	3.55%	1.60%	1.60%							

#	AVGO	HD	JPM	TXN	ABBV	FCPT	STOR	CTRE	NSA	O	APAM	MSM	COR	DTE	NTAP	SAFT	IRM	JEPIX	BLOK	SCHD	Expected Return*	Standard Deviation*	Sharpe Ratio*
84	8.00%	8.00%	1.60%	8.00%	8.00%	1.60%	1.60%	3.12%	8.00%	1.60%	8.00%	1.60%	8.00%	1.99%	1.60%	1.60%	1.60%	6.10%	5.00%	15.00%	21.08%	19.16%	1.031
85	8.00%	8.00%	1.60%	8.00%	8.00%	1.60%	1.60%	3.89%	8.00%	1.60%	8.00%	1.60%	8.00%	1.80%	1.60%	1.60%	1.60%	5.51%	5.00%	15.00%	21.17%	19.24%	1.031
86	8.00%	8.00%	1.60%	8.00%	8.00%	1.60%	1.76%	4.44%	8.00%	1.60%	8.00%	1.60%	8.00%	1.60%	1.60%	1.60%	1.60%	5.00%	5.00%	15.00%	21.26%	19.32%	1.032
87	8.00%	8.00%	1.60%	8.00%	8.00%	1.60%	3.83%	2.37%	8.00%	1.60%	8.00%	1.60%	8.00%	1.60%	1.60%	1.60%	1.60%	5.00%	5.00%	15.00%	21.35%	19.43%	1.030
88	8.00%	8.00%	1.60%	8.00%	8.00%	1.60%	5.40%	1.60%	8.00%	1.60%	8.00%	1.60%	8.00%	1.60%	1.60%	1.60%	1.60%	5.00%	5.00%	14.20%	21.44%	19.56%	1.028
89	8.00%	8.00%	1.60%	8.00%	8.00%	1.60%	6.67%	1.60%	8.00%	1.60%	8.00%	1.60%	8.00%	1.60%	1.60%	1.60%	1.60%	5.00%	5.00%	12.93%	21.53%	19.71%	1.025
90	8.00%	8.00%	1.60%	8.00%	7.99%	1.60%	7.83%	1.86%	8.00%	1.60%	8.00%	1.60%	8.00%	1.60%	1.60%	1.60%	1.60%	5.00%	5.00%	11.52%	21.62%	19.86%	1.022
91	8.00%	8.00%	1.60%	8.00%	7.90%	1.60%	8.00%	2.48%	8.00%	1.60%	8.00%	1.60%	7.19%	1.60%	1.60%	1.60%	1.60%	5.00%	5.00%	11.63%	21.71%	20.02%	1.018
92	8.00%	8.00%	1.60%	8.00%	7.85%	1.60%	8.00%	3.05%	8.00%	1.60%	8.00%	1.60%	6.20%	1.60%	1.60%	1.60%	1.60%	5.00%	5.00%	12.10%	21.80%	20.19%	1.014
93	8.00%	8.00%	1.60%	8.00%	7.81%	1.60%	8.00%	3.61%	8.00%	1.60%	8.00%	1.60%	5.21%	1.60%	1.60%	1.60%	1.60%	5.00%	5.00%	12.57%	21.89%	20.35%	1.010
94	8.00%	8.00%	1.66%	8.00%	7.76%	1.60%	8.00%	4.17%	8.00%	1.60%	8.00%	1.60%	4.24%	1.60%	1.60%	1.60%	1.60%	5.00%	5.00%	12.97%	21.98%	20.52%	1.006
95	8.00%	8.00%	2.01%	8.00%	7.72%	1.60%	8.00%	4.68%	8.00%	1.60%	8.00%	1.60%	3.37%	1.60%	1.60%	1.60%	1.60%	5.00%	5.00%	13.01%	22.07%	20.70%	1.002
96	8.00%	8.00%	2.37%	8.00%	7.68%	1.60%	8.00%	5.20%	8.00%	1.60%	8.00%	1.60%	2.51%	1.60%	1.60%	1.60%	1.60%	5.00%	5.00%	13.04%	22.16%	20.88%	0.998
97	8.00%	8.00%	2.72%	8.00%	7.63%	1.60%	8.00%	5.72%	8.00%	1.60%	8.00%	1.60%	1.64%	1.60%	1.60%	1.60%	1.60%	5.00%	5.00%	13.08%	22.26%	21.05%	0.994
98	8.00%	8.00%	4.88%	8.00%	7.48%	1.60%	8.00%	6.48%	8.00%	1.60%	8.00%	1.60%	1.60%	1.60%	1.60%	1.60%	1.60%	5.00%	5.00%	10.36%	22.35%	21.24%	0.990
99	8.00%	8.00%	6.85%	8.00%	5.34%	1.60%	8.00%	7.01%	8.00%	1.60%	8.00%	1.60%	1.60%	1.60%	1.60%	1.60%	1.60%	5.00%	5.00%	10.00%	22.44%	21.44%	0.985
100	8.00%	8.00%	8.00%	8.00%	1.60%	1.60%	8.00%	8.00%	8.00%	1.60%	8.00%	1.60%	1.60%	1.60%	1.60%	1.60%	1.60%	5.00%	5.00%	11.60%	22.53%	21.69%	0.978

*Ex-ante values shown for portfolio return and volatility. Ex ante Sharpe Ratio calculated using historical 3-month treasury bill returns as the risk-free rate (1.33% annualized).

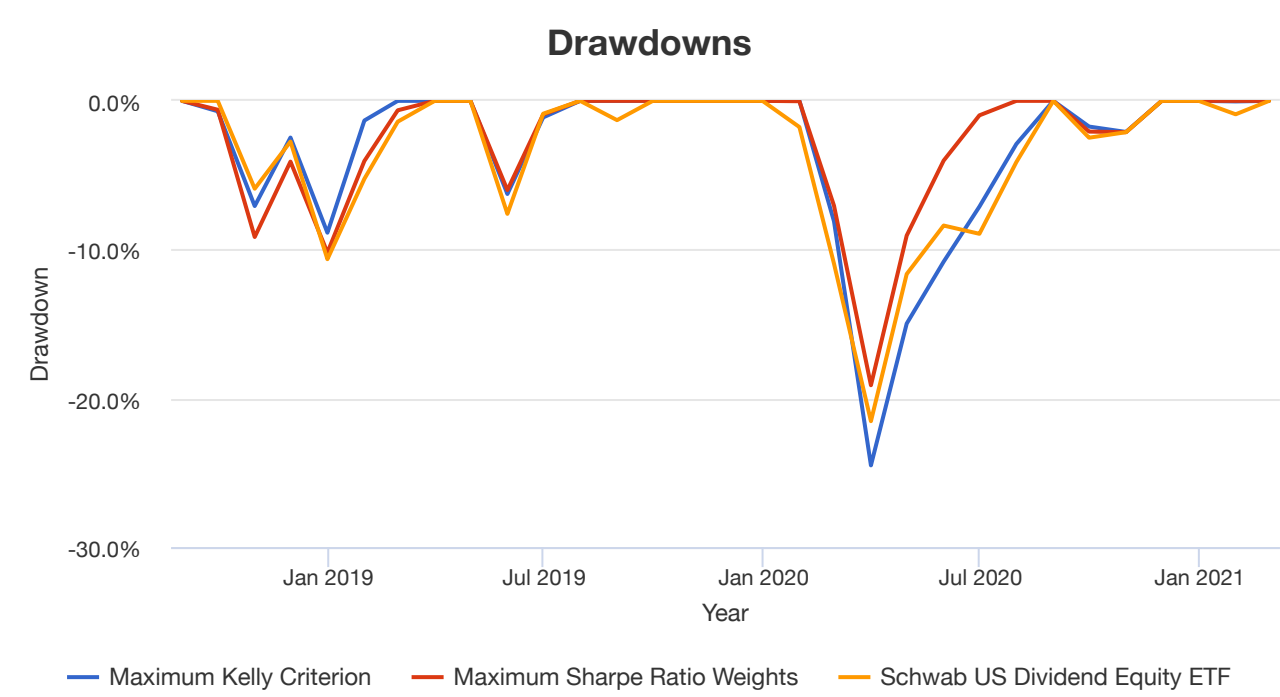
Year	Inflation	Maximum Kelly Criterion		Maximum Sharpe Ratio Weights		Schwab US Dividend Equity ETF		Broadcom Limited (AVGO)	Home Depot, Inc. (HD)	J P Morgan Chase & Co (JPM)	Texas Instruments Incorporated (TXN)	AbbVie Inc. (ABBV)	Four Corners Property Trust, Inc. (FCPT)	STORE Capital Corporation (STOR)	CareTrust REIT, Inc. (CTRE)	National Storage Affiliates Trust (NSA)	Realty Income Corporation (O)	Artisan Partners Asset Management Inc. (APAM)	MSC Industrial Direct Company, Inc. (MSM)	CoreSite Realty Corporation (COR)	Kensington Energy (KES)
		Return	Balance	Return	Balance	Return	Balance														
2018	-0.36%	-8.86%	\$9,114	-10.20%	\$8,980	-9.53%	\$9,047	18.18%	-13.92%	-14.21%	-15.23%	-2.93%	-1.69%	0.60%	2.36%	-4.75%	9.20%	-31.78%	-9.36%	-23.44%	0.8%
2019	2.29%	32.56%	\$12,081	30.25%	\$11,697	27.28%	\$11,515	29.11%	30.54%	47.27%	39.56%	1.50%	12.17%	36.70%	16.26%	32.41%	21.26%	66.53%	5.75%	34.03%	21.3%
2020	1.36%	23.70%	\$14,944	26.97%	\$14,851	15.08%	\$13,251	44.91%	24.55%	-5.52%	31.74%	27.61%	12.43%	-3.42%	13.67%	11.73%	-11.55%	70.96%	25.31%	16.39%	-2.9%
2021	0.43%	4.99%	\$15,690	4.23%	\$15,480	5.10%	\$13,927	7.31%	-2.74%	16.65%	5.61%	1.72%	-9.00%	-1.59%	-0.00%	6.99%	-2.31%	-3.33%	2.99%	-2.85%	-3.0%

Annual return for 2018 is from 09/01/2018 to 12/31/2018 and annual return for 2021 is from 01/01/2021 to 02/28/2021

Year	Month	Maximum Kelly Criterion Return	Maximum Sharpe Ratio Weights Return	Schwab US	Broadcom Limited (AVGO)	Home Depot, Inc. (HD)	J P	Texas Instruments Incorporated (TXN)	AbbVie Inc. (ABBV)	Four	STORE Capital Corporation (STOR)	CareTrust REIT, Inc. (CTRE)	National	Realty Income Corporation (O)	Artisan Partners Asset Management Inc. (APAM)	MSC	CoreSite Realty Corporation (COR)	DTE	NetApp, Inc. (NTAP)	Safety
				Dividend Equity ETF Return			Morgan Chase & Co (JPM)			Corners Property Trust, Inc. (FCPT)			Storage Affiliates Trust (NSA)			Industrial Direct Company, Inc. (MSM)		Energy Company (DTE)		Insurance Group, Inc. (SAFT)
2018	9	-0.70%	-0.60%	1.25%	13.47%	3.18%	-1.52%	-4.55%	-1.46%	-3.60%	-2.38%	-2.87%	-9.34%	-2.49%	-2.26%	3.08%	-3.68%	-1.04%	-1.06%	-7.34%
2018	10	-6.42%	-8.61%	-5.91%	-9.42%	-15.10%	-2.71%	-12.76%	-16.82%	1.52%	4.46%	-0.28%	4.68%	6.33%	-15.40%	-8.00%	-15.55%	3.00%	-8.18%	-7.05%
2018	11	4.96%	5.58%	3.37%	6.23%	3.12%	1.99%	7.56%	21.09%	6.37%	3.20%	13.36%	5.03%	6.70%	1.62%	10.08%	3.84%	6.53%	-14.80%	6.41%
2018	12	-6.56%	-6.37%	-8.13%	8.24%	-4.71%	-12.20%	-5.36%	-2.21%	-5.55%	-4.42%	-6.77%	-4.44%	-1.29%	-18.80%	-13.17%	-9.36%	-7.15%	-10.77%	-6.84%
2019	1	8.27%	6.85%	6.05%	5.49%	6.82%	6.90%	7.34%	-11.81%	9.01%	14.16%	19.07%	9.98%	9.32%	5.47%	9.43%	13.25%	6.75%	7.61%	0.61%
2019	2	3.33%	3.55%	4.06%	2.65%	0.88%	0.83%	5.07%	-1.31%	-3.01%	0.46%	1.64%	-2.68%	1.01%	20.14%	1.10%	3.50%	4.93%	2.24%	9.51%
2019	3	2.31%	2.55%	1.55%	10.20%	4.42%	-3.00%	0.27%	1.70%	9.12%	4.19%	6.02%	1.74%	6.69%	-4.30%	-2.01%	5.74%	1.72%	6.35%	-2.46%
2019	4	5.04%	4.26%	3.21%	5.88%	6.15%	15.51%	11.09%	-0.18%	-3.92%	-0.54%	3.37%	2.63%	-4.52%	12.59%	1.88%	2.23%	0.78%	5.65%	6.63%
2019	5	-6.26%	-6.00%	-7.60%	-20.97%	-6.80%	-8.69%	-10.89%	-3.38%	1.13%	2.70%	0.25%	1.81%	0.42%	-14.74%	-15.53%	6.68%	-0.19%	-18.74%	-1.07%
2019	6	5.49%	5.41%	7.29%	15.50%	10.30%	5.51%	10.02%	-5.20%	-3.96%	-2.05%	-1.25%	-1.81%	-1.26%	16.36%	5.09%	-0.27%	2.66%	4.22%	4.39%
2019	7	2.25%	1.03%	1.66%	0.74%	2.75%	4.49%	9.58%	-6.99%	-1.43%	3.07%	-2.31%	4.66%	0.68%	7.52%	-3.30%	-9.00%	-0.60%	-4.47%	3.71%
2019	8	0.85%	1.02%	-1.30%	-2.53%	6.65%	-5.29%	-1.01%	-1.32%	5.75%	10.38%	2.41%	10.47%	6.97%	-7.86%	-4.83%	10.85%	2.01%	-17.83%	-1.34%
2019	9	3.08%	3.93%	3.79%	-1.41%	2.42%	7.13%	4.44%	15.18%	0.27%	0.00%	-0.25%	0.72%	4.20%	6.01%	7.26%	5.94%	3.30%	9.26%	5.07%
2019	10	1.84%	0.92%	1.35%	6.08%	1.10%	6.99%	-8.01%	6.58%	1.31%	8.26%	3.13%	2.40%	6.96%	-3.15%	0.94%	-3.57%	-4.24%	7.41%	-4.08%
2019	11	1.19%	1.72%	2.83%	7.98%	-6.00%	5.48%	1.88%	10.28%	-1.15%	0.52%	-13.86%	-1.96%	-6.03%	10.95%	1.27%	-3.50%	-1.87%	8.43%	1.39%
2019	12	1.78%	2.04%	2.28%	0.96%	-0.34%	5.80%	6.72%	0.92%	-0.46%	-7.66%	-0.11%	1.38%	-3.62%	8.93%	6.89%	-0.03%	4.79%	2.74%	-5.24%
2020	1	0.43%	-0.03%	-1.76%	-3.44%	4.45%	-4.43%	-5.27%	-7.27%	8.65%	5.40%	7.51%	1.58%	6.81%	3.34%	-6.25%	4.75%	2.11%	-13.56%	-0.49%
2020	2	-8.10%	-7.02%	-9.35%	-10.66%	-4.50%	-12.28%	-5.40%	5.79%	-5.28%	-16.28%	-5.91%	-1.20%	-7.38%	-11.41%	-9.18%	-11.68%	-15.79%	-12.51%	-13.51%
2020	3	-17.86%	-12.99%	-11.89%	-11.56%	-13.69%	-22.46%	-12.45%	-11.11%	-33.70%	-43.82%	-28.00%	-11.30%	-30.80%	-24.81%	-11.08%	12.92%	-14.06%	-10.77%	7.23%
2020	4	12.63%	12.44%	12.61%	14.56%	17.74%	7.50%	16.15%	9.44%	19.67%	10.76%	11.43%	-3.78%	10.62%	36.99%	9.92%	4.56%	9.23%	6.26%	-0.37%
2020	5	4.89%	5.54%	3.69%	7.23%	13.03%	1.62%	3.14%	12.74%	-3.44%	-3.64%	13.05%	5.37%	1.13%	0.62%	16.26%	3.00%	3.69%	1.76%	-8.30%
2020	6	4.15%	3.17%	-0.61%	9.52%	1.42%	-3.34%	6.93%	5.95%	14.28%	24.91%	-6.55%	-3.45%	8.00%	12.19%	5.00%	-2.02%	0.90%	-0.38%	0.03%
2020	7	4.53%	4.73%	5.29%	0.36%	5.98%	3.74%	1.16%	-2.18%	3.28%	-0.50%	5.01%	7.54%	1.32%	11.48%	-8.29%	6.60%	7.56%	0.98%	-0.77%
2020	8	7.26%	5.85%	5.12%	9.60%	7.36%	3.67%	11.45%	0.91%	0.20%	14.14%	7.49%	11.32%	3.69%	8.74%	-0.17%	-5.11%	2.63%	6.98%	-3.13%
2020	9	-1.73%	-2.07%	-2.48%	5.92%	-2.06%	-3.91%	0.45%	-8.54%	2.55%	2.78%	-6.83%	-3.74%	-1.69%	0.72%	-3.98%	-1.93%	-2.18%	-7.49%	-4.57%
2020	10	-0.37%	-0.04%	0.38%	-4.03%	-3.96%	2.76%	1.97%	-1.51%	-0.98%	-6.31%	-3.91%	3.61%	-4.37%	2.74%	10.08%	0.40%	7.28%	1.15%	1.32%
2020	11	13.19%	11.83%	13.17%	14.86%	4.01%	20.24%	11.52%	22.89%	10.54%	26.69%	13.63%	0.27%	4.05%	14.45%	25.83%	5.05%	1.94%	21.46%	3.07%
2020	12	6.72%	5.66%	3.06%	9.94%	-3.72%	7.80%	1.79%	2.46%	7.42%	5.47%	15.44%	7.12%	4.06%	11.87%	1.28%	0.91%	-2.64%	24.25%	9.33%
2021	1	-0.04%	0.60%	-0.90%	2.89%	1.96%	1.98%	1.57%	-3.24%	-11.45%	-8.71%	1.26%	1.42%	-4.62%	-3.85%	-7.25%	7.31%	-2.22%	1.04%	-5.73%
2021	2	5.03%	3.61%	6.06%	4.30%	-4.61%	14.38%	3.97%	5.13%	2.77%	7.80%	-1.25%	5.50%	2.43%	0.54%	11.04%	-9.47%	-0.84%	-5.78%	7.68%

Metric	Maximum Kelly Criterion	Maximum Sharpe Ratio Weights	Schwab US Dividend Equity ETF
Volatility (annualized)	21.63%	19.32%	19.95%
Downside Deviation (monthly)	4.13%	3.53%	3.65%
Max. Drawdown	-24.51%	-19.12%	-21.54%
US Market Correlation	0.97	0.97	0.97
Beta ^(*)	1.03	0.93	1.00
Alpha (annualized)	4.79%	5.26%	0.00%
R ²	90.00%	92.03%	100.00%
Sharpe Ratio	0.88	0.93	0.70
Sortino Ratio	1.32	1.46	1.08
Treynor Ratio (%)	18.63	19.49	13.93
Active Return	5.58%	4.93%	N/A
Tracking Error	6.87%	5.63%	N/A
Information Ratio	0.81	0.88	N/A
Skewness	-0.98	-0.64	-0.33
Excess Kurtosis	2.38	0.89	0.50
Historical Value-at-Risk (5%)	-7.41%	-7.89%	-8.80%
Analytical Value-at-Risk (5%)	-8.39%	-7.40%	-8.20%
Conditional Value-at-Risk (5%)	-12.98%	-10.80%	-10.62%
Upside Capture Ratio (%)	106.01	98.43	100.00
Downside Capture Ratio (%)	86.63	79.28	100.00
Safe Withdrawal Rate	38.05%	37.36%	36.15%
Perpetual Withdrawal Rate	12.88%	12.49%	9.35%
Positive Periods	21 out of 30 (70.00%)	21 out of 30 (70.00%)	20 out of 30 (66.67%)
Gain/Loss Ratio	0.89	0.90	0.88

^{*} Schwab US Dividend Equity ETF is used as the benchmark for calculations. Value-at-risk metrics are based on monthly values.



Drawdowns for Maximum Kelly Criterion

	Rank	Start	End	Length	Recovery By	Recovery Time	Underwater Period	Drawdown
	1	Feb 2020	Mar 2020	2 months	Aug 2020	5 months	7 months	-24.51%
	2	Sep 2018	Dec 2018	4 months	Feb 2019	2 months	6 months	-8.86%
	3	May 2019	May 2019	1 month	Jul 2019	2 months	3 months	-6.26%
	4	Sep 2020	Oct 2020	2 months	Nov 2020	1 month	3 months	-2.09%
	5	Jan 2021	Jan 2021	1 month	Feb 2021	1 month	2 months	-0.04%

Drawdowns for Maximum Sharpe Ratio Weights

	Rank	Start	End	Length	Recovery By	Recovery Time	Underwater Period	Drawdown
	1	Jan 2020	Mar 2020	3 months	Jul 2020	4 months	7 months	-19.12%
	2	Sep 2018	Dec 2018	4 months	Mar 2019	3 months	7 months	-10.20%
	3	May 2019	May 2019	1 month	Jul 2019	2 months	3 months	-6.00%
	4	Sep 2020	Oct 2020	2 months	Nov 2020	1 month	3 months	-2.11%

Drawdowns for Schwab US Dividend Equity ETF

	Rank	Start	End	Length	Recovery By	Recovery Time	Underwater Period	Drawdown
	1	Jan 2020	Mar 2020	3 months	Aug 2020	5 months	8 months	-21.54%
	2	Oct 2018	Dec 2018	3 months	Mar 2019	3 months	6 months	-10.65%
	3	May 2019	May 2019	1 month	Jul 2019	2 months	3 months	-7.60%
	4	Sep 2020	Sep 2020	1 month	Nov 2020	2 months	3 months	-2.48%
	5	Aug 2019	Aug 2019	1 month	Sep 2019	1 month	2 months	-1.30%
	6	Jan 2021	Jan 2021	1 month	Feb 2021	1 month	2 months	-0.90%

Portfolio Assets

Ticker	Name	CAGR	Stdev	Best Year	Worst Year	Max. Drawdown	Sharpe Ratio	Sortino Ratio	US Mkt Correlation
AVGO	Broadcom Limited	41.29%	29.64%	44.91%	7.31%	-23.70%	1.28	2.09	0.71
HD	Home Depot, Inc.	13.13%	24.51%	30.54%	-13.92%	-19.34%	0.57	0.90	0.76
JPM	J P Morgan Chase & Co	14.16%	30.09%	47.27%	-14.21%	-35.00%	0.55	0.83	0.83
TXN	Texas Instruments Incorporated	22.06%	25.92%	39.56%	-15.23%	-21.54%	0.85	1.39	0.82

ABBV	AbbVie Inc.	10.34%	31.83%	27.61%	-2.93%	-27.90%	0.42	0.74	0.46
FCPT	Four Corners Property Trust, Inc.	4.94%	31.99%	12.43%	-9.00%	-37.20%	0.28	0.38	0.62
STOR	STORE Capital Corporation	11.31%	43.28%	36.70%	-3.42%	-54.22%	0.46	0.64	0.64
CTRE	CareTrust REIT, Inc.	12.84%	32.71%	16.26%	-0.00%	-37.32%	0.50	0.74	0.69
NSA	National Storage Affiliates Trust	17.85%	18.57%	32.41%	-4.75%	-15.68%	0.91	1.54	0.35
O	Realty Income Corporation	5.53%	26.67%	21.26%	-11.55%	-38.00%	0.30	0.37	0.56
APAM	Artisan Partners Asset Management Inc.	28.66%	43.93%	70.96%	-31.78%	-33.38%	0.76	1.28	0.87
MSM	MSC Industrial Direct Company, Inc.	8.88%	32.01%	25.31%	-9.36%	-30.48%	0.38	0.63	0.73
COR	CoreSite Realty Corporation	6.13%	24.69%	34.03%	-23.44%	-23.44%	0.31	0.45	0.21
DTE	DTE Energy Company	5.82%	19.53%	21.36%	-3.04%	-27.63%	0.32	0.42	0.67
NTAP	NetApp, Inc.	-9.30%	36.11%	10.90%	-30.94%	-49.92%	-0.13	-0.18	0.69
SAFT	Safety Insurance Group, Inc.	-4.23%	19.98%	17.26%	-14.63%	-28.70%	-0.18	-0.25	0.28
IRM	Iron Mountain Incorporated	6.46%	26.85%	18.01%	-7.15%	-29.60%	0.32	0.46	0.62
JEPIX	JPMorgan Equity Premium Income I	7.00%	14.39%	21.08%	-6.98%	-18.33%	0.45	0.61	0.94
BLOK	Amplify Transformational Data Shrg ETF	46.93%	35.16%	90.15%	-26.62%	-26.62%	1.23	2.78	0.78
SCHD	Schwab US Dividend Equity ETF	14.17%	19.95%	27.28%	-9.53%	-21.54%	0.70	1.08	0.97

Monthly Correlations

Ticker	Name	AVGO	HD	JPM	TXN	ABBV	FCPT	STOR	CTRE	NSA	O	APAM	MSM	COR	DTE	NTAP	SAFT	IRM	JEPIX	BLOK	SCHD	Maximum Kelly Criterion	Maximum Sharpe Ratio Weights	Schwab US Dividend Equity ETF
AVGO	Broadcom Limited	1.00	0.60	0.55	0.65	0.39	0.39	0.47	0.37	-0.05	0.36	0.61	0.59	-0.05	0.30	0.63	0.12	0.44	0.63	0.49	0.71	0.71	0.71	0.71
HD	Home Depot, Inc.	0.60	1.00	0.44	0.70	0.34	0.47	0.42	0.62	0.25	0.50	0.66	0.47	0.35	0.55	0.30	-0.01	0.57	0.77	0.44	0.70	0.75	0.79	0.70
JPM	J P Morgan Chase & Co	0.55	0.44	1.00	0.70	0.44	0.48	0.59	0.57	0.41	0.46	0.70	0.73	-0.02	0.55	0.69	0.37	0.46	0.78	0.75	0.87	0.85	0.81	0.87
TXN	Texas Instruments Incorporated	0.65	0.70	0.70	1.00	0.43	0.44	0.47	0.46	0.25	0.35	0.84	0.67	0.13	0.55	0.52	0.36	0.47	0.74	0.61	0.82	0.84	0.86	0.82
ABBV	AbbVie Inc.	0.39	0.34	0.44	0.43	1.00	0.33	0.31	0.31	0.02	0.25	0.36	0.63	0.06	0.14	0.35	0.13	0.40	0.41	0.36	0.49	0.50	0.56	0.49
FCPT	Four Corners Property Trust, Inc.	0.39	0.47	0.48	0.44	0.33	1.00	0.87	0.68	0.39	0.90	0.56	0.41	-0.02	0.61	0.26	0.01	0.49	0.66	0.45	0.57	0.72	0.65	0.57
STOR	STORE Capital Corporation	0.47	0.42	0.59	0.47	0.31	0.87	1.00	0.63	0.44	0.87	0.50	0.45	-0.08	0.54	0.34	0.07	0.51	0.65	0.50	0.60	0.75	0.66	0.60
CTRE	CareTrust REIT, Inc.	0.37	0.62	0.57	0.46	0.31	0.68	0.63	1.00	0.64	0.76	0.46	0.48	0.23	0.62	0.39	0.05	0.71	0.76	0.52	0.63	0.77	0.73	0.63
NSA	National Storage Affiliates Trust	-0.05	0.25	0.41	0.25	0.02	0.39	0.44	0.64	1.00	0.53	0.11	0.15	0.06	0.45	0.11	0.06	0.59	0.42	0.35	0.30	0.44	0.37	0.30
O	Realty Income Corporation	0.36	0.50	0.46	0.35	0.25	0.90	0.87	0.76	0.53	1.00	0.43	0.33	-0.07	0.63	0.19	-0.05	0.59	0.63	0.36	0.52	0.69	0.60	0.52
APAM	Artisan Partners Asset Management Inc.	0.61	0.66	0.70	0.84	0.36	0.56	0.50	0.46	0.11	0.43	1.00	0.58	0.12	0.62	0.60	0.38	0.36	0.79	0.65	0.85	0.84	0.86	0.85
MSM	MSC Industrial Direct Company, Inc.	0.59	0.47	0.73	0.67	0.63	0.41	0.45	0.48	0.15	0.33	0.58	1.00	0.12	0.50	0.58	0.28	0.42	0.68	0.59	0.79	0.74	0.76	0.79
COR	CoreSite Realty Corporation	-0.05	0.35	-0.02	0.13	0.06	-0.02	-0.08	0.23	0.06	-0.07	0.12	0.12	1.00	0.28	0.10	0.34	0.30	0.30	0.10	0.19	0.15	0.26	0.19
DTE	DTE Energy Company	0.30	0.55	0.55	0.55	0.14	0.61	0.54	0.62	0.45	0.63	0.62	0.50	0.28	1.00	0.25	0.23	0.46	0.79	0.38	0.69	0.70	0.68	0.69
NTAP	NetApp, Inc.	0.63	0.30	0.69	0.52	0.35	0.26	0.34	0.39	0.11	0.19	0.60	0.58	0.10	0.25	1.00	0.28	0.35	0.57	0.58	0.68	0.64	0.65	0.68
SAFT	Safety Insurance Group, Inc.	0.12	-0.01	0.37	0.36	0.13	0.01	0.07	0.05	0.06	-0.05	0.38	0.28	0.34	0.23	0.28	1.00	0.00	0.29	0.35	0.36	0.29	0.33	0.36
IRM	Iron Mountain Incorporated	0.44	0.57	0.46	0.47	0.40	0.49	0.51	0.71	0.59	0.59	0.36	0.42	0.30	0.46	0.35	0.00	1.00	0.64	0.57	0.56	0.68	0.68	0.56
JEPIX	JPMorgan Equity Premium Income I	0.63	0.77	0.78	0.74	0.41	0.66	0.65	0.76	0.42	0.63	0.79	0.68	0.30	0.79	0.57	0.29	0.64	1.00	0.68	0.93	0.94	0.94	0.93
BLOK	Amplify Transformational Data Shrg ETF	0.49	0.44	0.75	0.61	0.36	0.45	0.50	0.52	0.35	0.36	0.65	0.59	0.10	0.38	0.58	0.35	0.57	0.68	1.00	0.78	0.77	0.76	0.78
SCHD	Schwab US Dividend Equity ETF	0.71	0.70	0.87	0.82	0.49	0.57	0.60	0.63	0.30	0.52	0.85	0.79	0.19	0.69	0.68	0.36	0.56	0.93	0.78	1.00	0.95	0.96	1.00

Portfolio Risk Decomposition

Ticker	Name	Maximum Kelly Criterion	Maximum Sharpe Ratio Weights
AVGO	Broadcom Limited	7.77%	8.77%
HD	Home Depot, Inc.	6.76%	7.98%
JPM	J P Morgan Chase & Co	9.44%	2.02%
TXN	Texas Instruments Incorporated	8.01%	9.21%
ABBV	AbbVie Inc.	2.34%	7.36%
FCPT	Four Corners Property Trust, Inc.	1.71%	1.73%
STOR	STORE Capital Corporation	12.08%	2.60%
CTRE	CareTrust REIT, Inc.	9.27%	5.47%
NSA	National Storage Affiliates Trust	3.01%	2.86%
O	Realty Income Corporation	1.36%	1.33%
APAM	Artisan Partners Asset Management Inc.	13.64%	15.56%
MSM	MSC Industrial Direct Company, Inc.	1.74%	2.02%
COR	CoreSite Realty Corporation	0.27%	2.70%
DTE	DTE Energy Company	1.00%	1.10%
NTAP	NetApp, Inc.	1.71%	1.94%
SAFT	Safety Insurance Group, Inc.	0.42%	0.54%
IRM	Iron Mountain Incorporated	1.34%	1.52%
JEPIX	JPMorgan Equity Premium Income I	3.11%	3.50%
BLOK	Amplify Transformational Data Shrg ETF	6.26%	6.96%
SCHD	Schwab US Dividend Equity ETF	8.75%	14.86%

