



# LOGICLY

## Portfolio Analysis

Prepared for  
**Manny Logicly**  
May 12, 2022

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LOGICLY  
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### ADVISOR NOTES

- Manny,  
Enclosed is your quarterly performance report for your 60/40 portfolio. Please review ahead of our meeting and bring any questions or concerns you have with you.  
Best regards,  
Brian Fechter, CCSM

### PORTFOLIO ANALYSIS - OVERVIEW

Key features of the inputted portfolio.

- Performance Before Fees, Portfolio realized returns, measured before any fee parameters.: Trailing Return of -6.8% over the past year.
- Risk Estimate, Portfolio realized volatility.: Annualized Volatility of 12.8% over the past year.
- Portfolio Costs, Costs associated with the Funds included in the portfolio.: Weighted Expense Ratio of 8.2 .

### PORTFOLIO ANALYSIS - KEY METRICS

Key features of the inputted portfolio.

- Performance Before Fees, Portfolio realized returns, measured before any fee parameters.: Trailing Return of -6.8% over the past year.
- Risk Estimate, Portfolio realized volatility.: Annualized Volatility of 12.8% over the past year.
- Realized Risks, Portfolio realized peak-to-trough.: Peak-to-Trough drawdown of -16.9% over the past year.

### SUMMARY

Details of the analysis.

### HOLDINGS FOR MANNY'S 60/40 ASSET ALLOCATION PORTFOLIO

Breakdown of the positions on the last day included in the analysis.

Name	Ticker	Size
Schwab U.S. Large-Cap ETF - Schwab Strategic Trust (USD)	SCHX US	10.00%
Schwab U.S. Large-Cap Growth ETF - Schwab Strategic Trust (USD)	SCHG US	10.00%
Schwab Short-Term U.S. Treasury ETF - Schwab Strategic Trust (USD)	SCHO US	10.00%
JPMorgan Ultra-Short Income ETF - J.P.Morgan Investment Management Inc. (US...	JPST US	10.00%
iShares Russell 1000 Growth ETF - BlackRock Institutional Trust Company N.A...	IWF US	10.00%
iShares S&P 500 Growth ETF - BlackRock Institutional Trust Company N.A. (US...	IWW US	10.00%
Vanguard Total Stock Market ETF - Vanguard Group, Inc. (USD)	VTI US	10.00%
Vanguard Growth ETF - Vanguard Group, Inc. (USD)	VUG US	10.00%
Vanguard Total Bond Market ETF - Vanguard Group, Inc. (USD)	BND US	10.00%
Vanguard Short-Term Bond ETF - Vanguard Group, Inc. (USD)	BSV US	10.00%

## SIMULATION PARAMETERS

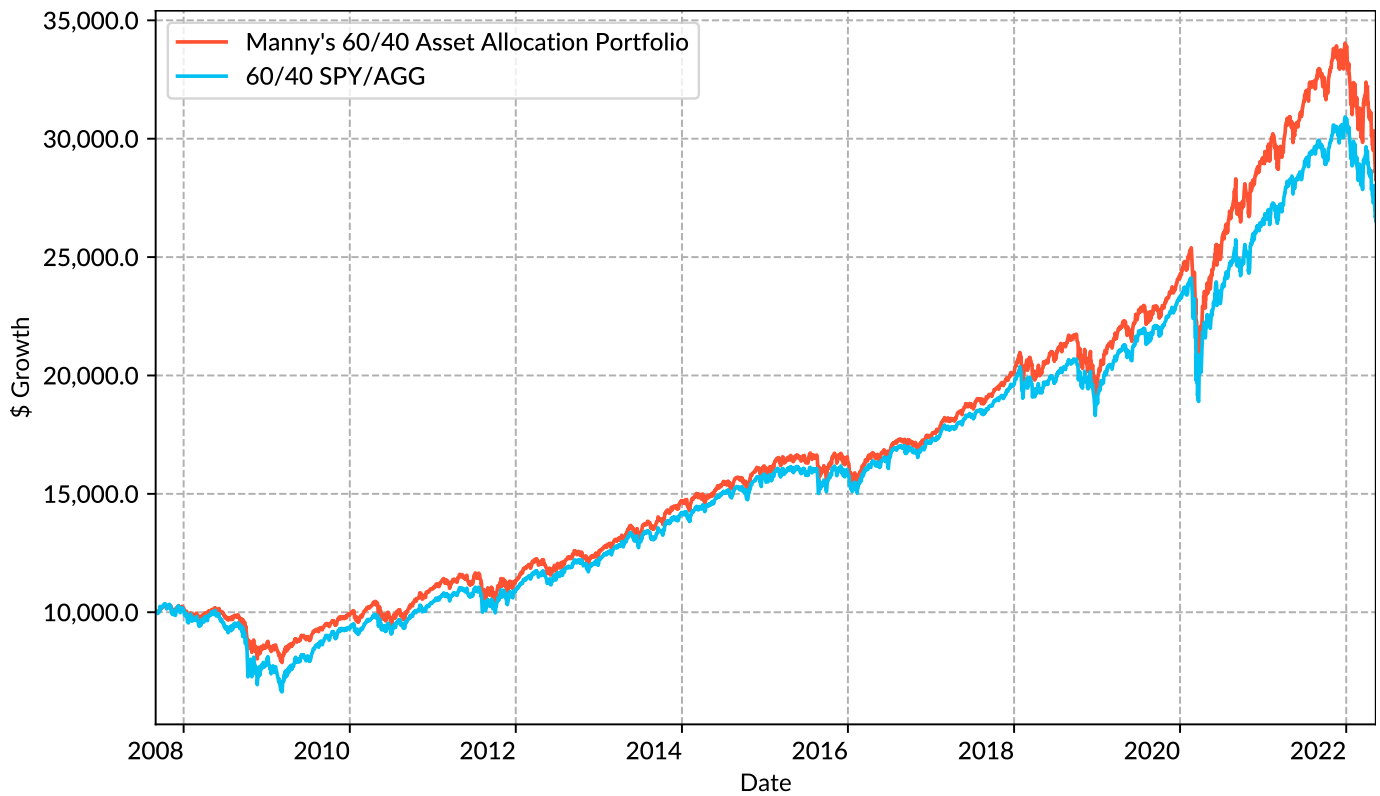
Recap of the parameters used to run the simulation of past performance.

	Parameter Value
Backfill Method	Cash Replacement
Rebalancing Method	Calendar Rebalancing
Rebalancing Frequency	Monthly Schedule
Return On Cash	
Portfolio Base Currency	Us Dollars
Start Date	2007-08-31
End Date	2022-05-11
Underlying Data	Daily Observations

## HISTORICAL PERFORMANCE, GROWTH OF \$10,000

Historical Performance of Portfolio and Benchmark. \* Please see the important Performance Disclosures at the end of the document.

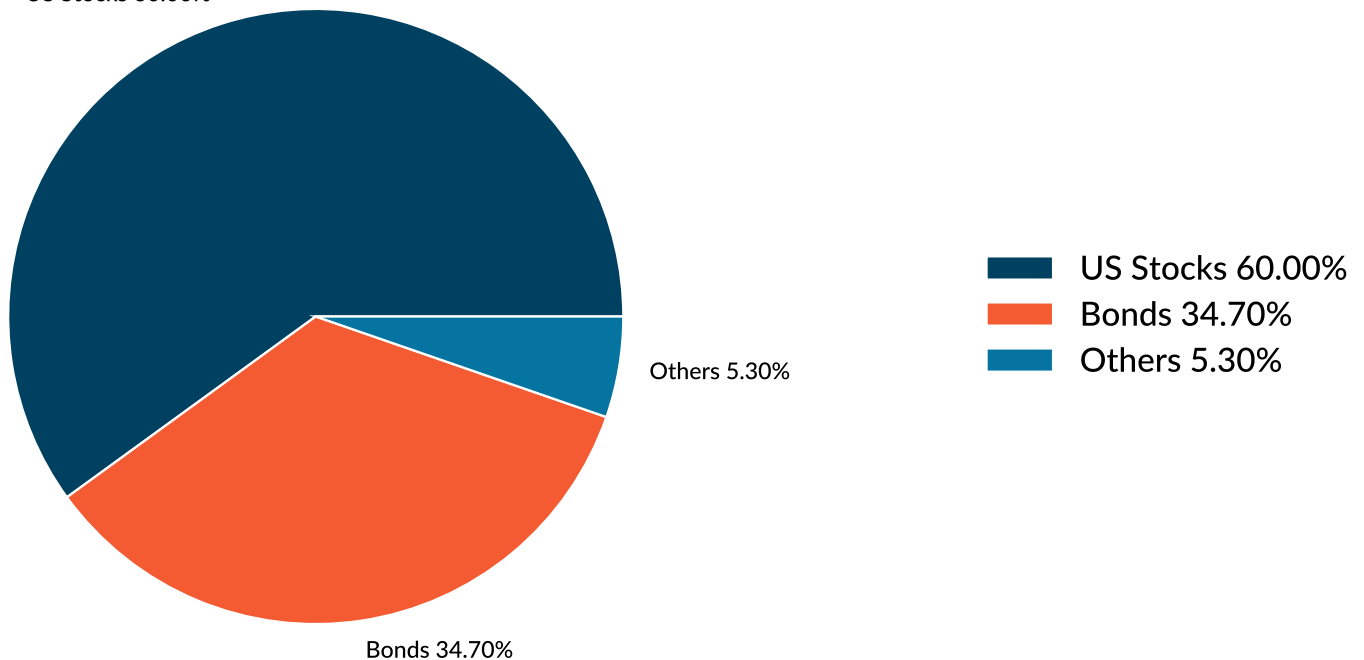
- The Historical Performance, Growth of \$10,000 chart is hypothetical based upon the historical performance of the portfolio. Total returns of the portfolio components are used, which assumes reinvestment of dividends.
- Advanced options allow for multiple rebalancing options: calendar rebalancing on the last trading day of each period, or a buy-and-hold strategy where no rebalancing occurs.
- Portfolio history length can vary based on the different inception dates of components in the portfolio and can be modified based on the advanced options settings:
  - (i) The common inception date is the earliest date when all items in the portfolio were available for trading.
  - (ii) Cash replacement attempts to backfill history for certain items with the \$CASH ticker. This is useful, for example, when a recent IPO or new ETF is added to the portfolio, so that the portfolio simulation is not limited by these components. If cash replacements represent more than 50% of the portfolio going back in time, then no more cash replacements can occur.



## OVERALL PORTFOLIO - ASSET ALLOCATION

Asset Allocation Breakdown.

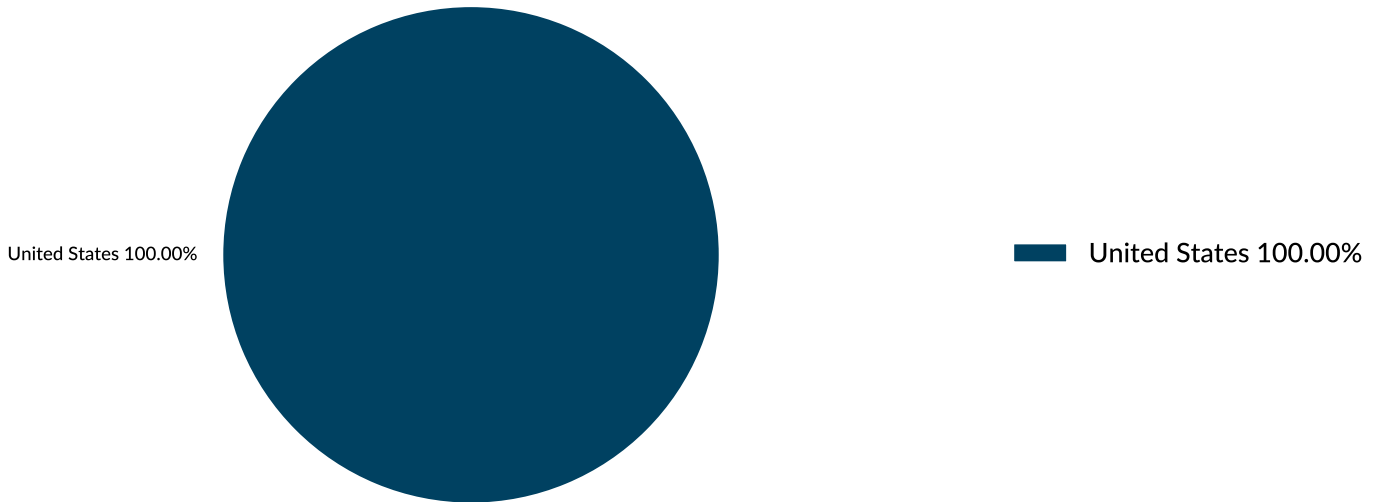
US Stocks 60.00%



- The overall portfolio asset allocation breakdown analyzes fund holdings and aggregates them up to the portfolio level.
- If any fund position is considered a fund-of-fund, the analysis will aggregate the holdings of those fund-of-funds. A fund-of-fund is any fund that in turn comprises funds that add up to more than 90% of the weight.

## EQUITY PORTFOLIO - GEOGRAPHY BREAKDOWN

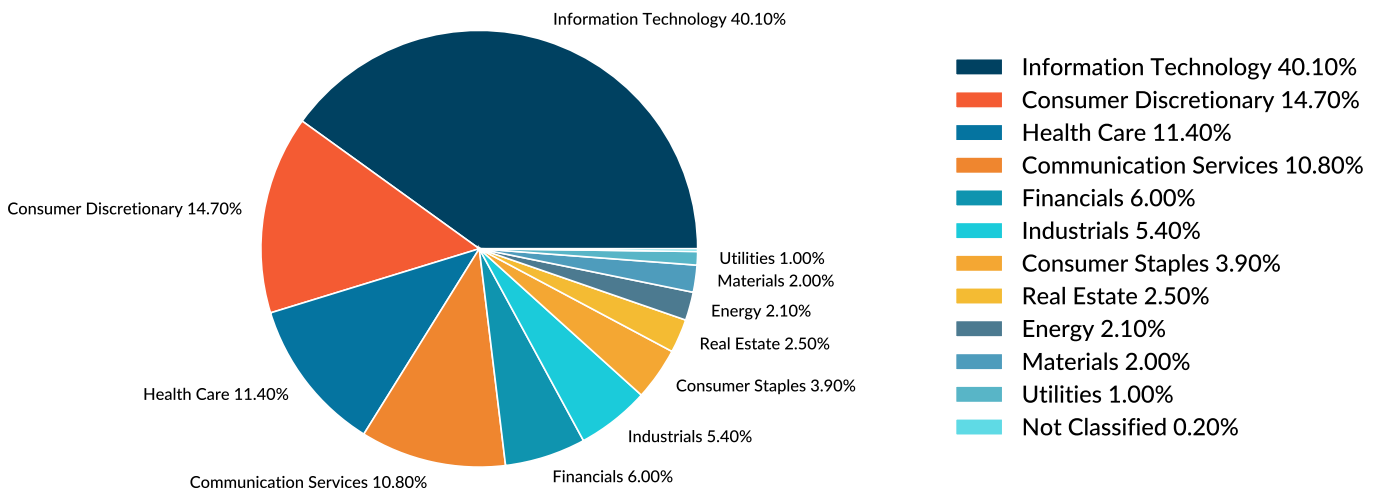
Geographic breakdown for the equity portion of the portfolio.



- Geography exposure is for the equity portion of the portfolio only.
- The mapping is based on the country exchange listing. Funds are broken down to their underlying holdings.
- China H-Share Class securities trading in Hong Kong are classified under China exposure.

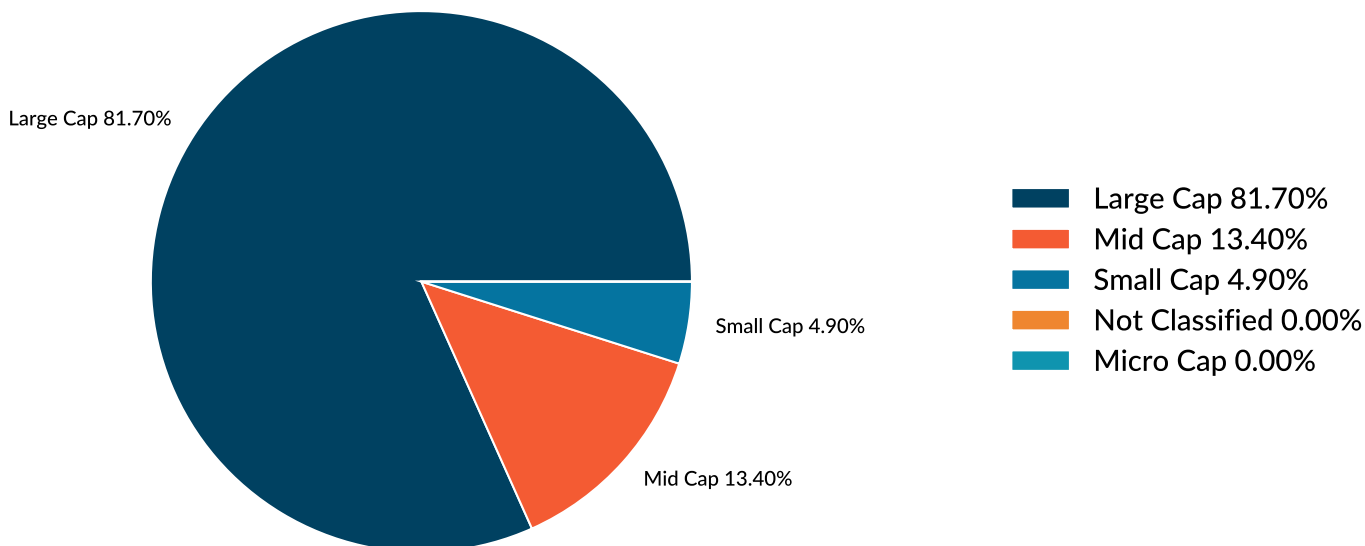
## EQUITY PORTFOLIO - SECTORS BREAKDOWN

Equity part of the portfolio broken down by Sector.



## EQUITY PORTFOLIO - MARKET CAP BREAKDOWN

Equity part of the portfolio broken down by Market Capitalization buckets.



- Market Capitalization exposure is for equity single stock listings only. Market Cap classification is based on Logicy cutoffs, calculated on a daily basis.

## TOP HOLDINGS BY NET BREAKDOWN

Portfolio holdings and their most recent performance.

### TOP EQUITY HOLDINGS

Underlying holdings aggregated across all items in the portfolio.

Ticker	Name	Aggregated Weight
AAPL US	Apple Inc	11.48%
MSFT US	Microsoft Corporation	9.71%
AMZN US	Amazon.com Inc.	4.70%
TSLA US	Tesla Inc	3.39%
GOOGL US	Alphabet Inc	3.27%
GOOG US	Alphabet Inc	2.82%
FB US	Meta Platforms Inc	2.21%
NVDA US	NVIDIA Corp	2.15%
V US	Visa Inc	1.39%
MA US	Mastercard Incorporated	1.26%

## TRAILING RETURNS OF HOLDINGS (AS OF 2022-05-11)

Portfolio Constituents detailed performance.

	Entire History	YTD	1w	1m	3m	6m	1y	3y	5y	10y
CASH USD										
JPST US		-0.41%	-0.02%	-0.07%	-0.27%	-0.50%	-0.40%	1.24%		
SCHO US		-2.79%	0.28%	0.03%	-1.25%	-2.97%	-3.42%	0.60%	0.92%	0.70%
BSV US	2.13%	-4.18%	0.39%	-0.16%	-2.15%	-4.33%	-4.94%	0.73%	1.17%	1.15%
BND US	3.07%	-9.56%	0.30%	-1.80%	-5.76%	-9.72%	-8.65%	0.27%	1.21%	1.62%
SCHX US		-18.29%	-6.32%	-12.90%	-13.41%	-16.84%	-6.91%	12.31%	12.12%	13.19%
VTI US	8.90%	-18.80%	-6.68%	-13.01%	-13.76%	-17.91%	-8.35%	11.57%	11.53%	12.89%
IVW US	10.73%	-25.37%	-8.15%	-16.29%	-17.70%	-22.90%	-7.68%	13.65%	14.31%	14.55%
IWF US	10.87%	-26.18%	-8.84%	-16.46%	-18.51%	-24.57%	-9.98%	14.19%	14.97%	14.75%
SCHG US		-27.25%	-9.48%	-18.10%	-19.50%	-26.27%	-10.99%	14.22%	14.69%	14.90%
VUG US	10.48%	-28.39%	-9.49%	-17.70%	-20.33%	-27.03%	-12.98%	13.53%	13.83%	14.16%

## PORTFOLIO COSTS

Breakdown and peergroup-based comparison of the costs associated with the expense-generating funds held in the portfolio.

- Expense Ratios are net expense ratios from the most recent fund public filings, when available.
- For Canadian funds, the displayed expense ratio is MER+TER (Management Expense Ratio + Trading Expense Ratio).
- Expense ratio peergroups are specific to the fund's trading region, assetclass and fund focus.
- For Canadian funds, we use the CIFSC category to calculate the median.

## FUND EXPENSE RATIO SUMMARY

Costs associated with globally listed funds included in the portfolio.

	Portfolio Expense Ratio	Yearly Cost / \$100k	# Funds	Avg Expense Ratio
Manny's 60/40 Asset Allocation Portfolio	0.082%	USD 82.00	10	0.080%

## EXPENSE RATIO PEER ANALYSIS

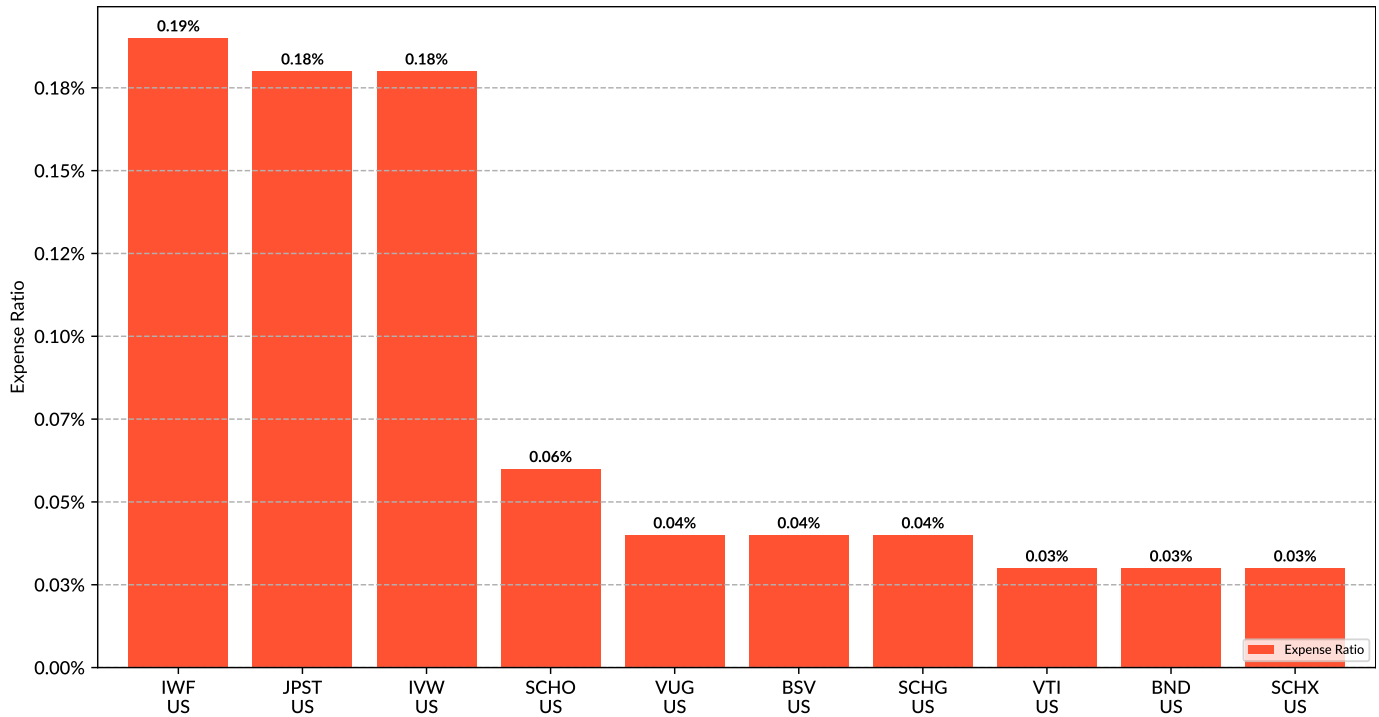
For each fund held in the portfolio we provide a comparison with the peergroup's median expense ratio.

	Weight	Net Expense Ratio	Peergroup	Median Expense Ratio
VTI US	10.0%	0.030%	US Traded: North America Equity Broad	0.530%
VUG US	10.0%	0.040%	US Traded: North America Equity Broad	0.530%
BND US	10.0%	0.030%	US Traded: North America Fixed Income Broad	0.250%
BSV US	10.0%	0.040%	US Traded: North America Fixed Income Government	0.150%
JPST US	10.0%	0.180%	US Traded: Global Fixed Income Broad	0.350%
IWF US	10.0%	0.190%	US Traded: North America Equity Broad	0.530%
IVW US	10.0%	0.180%	US Traded: North America Equity Broad	0.530%
SCHX US	10.0%	0.030%	US Traded: North America Equity Broad	0.530%
SCHG US	10.0%	0.040%	US Traded: North America Equity Broad	0.530%
SCHO US	10.0%	0.060%	US Traded: North America Fixed Income Government	0.150%

## PORTFOLIO COSTS BREAKDOWN

Decomposition of the costs associated with the Funds held in the portfolio.

- Portfolio Expense Ratio = 0.082%



## PERFORMANCE MEASURES

\* Please see the important Performance Disclosures at the end of the document.

- The performance tool computes a collection of standard metrics for portfolio analysis.
- Volatility is not estimated unless six months of data are available. This prevents distortions when annualizing the estimates.
- For the estimation of the risk-free rate, the tool uses the [3M Treasury Constant Maturity Rate](#).
- For the implementation of the CAPM model, the tool uses [SPX](#) as a proxy for the market factor.

## OVERVIEW OF RECENT PERFORMANCE (AS OF 2022-05-11)

Key performance metrics for the Portfolio. \* Please see the important Performance Disclosures at the end of the document.

	Entire History	YTD	1w	1m	3m	6m	1y	3y	5y	10y
Trailing Returns	7.32%	-16.31%	-4.83%	-9.77%	-11.18%	-15.38%	-6.84%	8.68%	8.87%	8.97%
Ann Volatility	10.82%	17.96%				16.44%	12.76%	14.97%	12.83%	10.53%
Sharpe Ratio	0.62	-0.92				-0.95	-0.55	0.54	0.61	0.79
Trailing Drawdowns	-23.53%	-16.59%	-6.72%	-9.29%	-12.66%	-16.89%	-16.89%	-20.72%	-20.72%	-20.72%

## TRAILING RETURNS (AS OF 2022-05-11)

Portfolio and Benchmark Trailing returns.

	Entire History	YTD	1w	1m	3m	6m	1y
Manny's 60/40 Asset Allocation Portfolio	7.32%	-16.31%	-4.83%	-9.77%	-11.18%	-15.38%	-6.84%
60/40 SPY/AGG	6.85%	-13.86%	-3.27%	-8.12%	-9.50%	-12.45%	-5.97%

Wide table continues→

	3y	5y	10y
Manny's 60/40 Asset Allocation Portfolio	8.68%	8.87%	8.97%
60/40 SPY/AGG	8.00%	8.05%	8.69%



## SHARPE & SORTINO RATIOS (AS OF 2022-05-11)

Detailed computations for Sharpe and Sortino Ratios for the Portfolio.

	Entire History	YTD	1w	1m	3m	6m	1y	3y	5y	10y
Sharpe Ratio	0.62	-0.92				-0.95	-0.55	0.54	0.61	0.79
Sortino Ratio	0.94	-1.12				-1.19	-0.70	0.79	0.94	1.17
Trailing Returns	7.32%	-16.31%	-4.83%	-9.77%	-11.18%	-15.38%	-6.84%	8.68%	8.87%	8.97%
Risk-Free Rate	0.61%	0.16%	0.02%	0.07%	0.15%	0.17%	0.19%	0.60%	1.07%	0.61%
Ann Volatility	10.82%	17.96%				16.44%	12.76%	14.97%	12.83%	10.53%
Ann Downside Volatility	7.82%	14.52%				12.94%	9.74%	11.02%	9.42%	7.64%
Ann Volatility - Benchmark	12.12%	14.75%				13.50%	10.70%	14.08%	12.02%	9.97%
Sharpe Ratio - Benchmark	0.51	-0.95				-0.93	-0.58	0.53	0.58	0.81
Sortino Ratio - Benchmark	0.79	-1.15				-1.16	-0.73	0.76	0.90	1.20

## CAPM MODEL (AS OF 2022-05-11)

CAPM implementation for the Portfolio.

	Entire History	YTD	1m	3m	6m	1y	3y	5y	10y
Alpha	0.000								0.000
Beta	0.495	0.751	0.730	0.743	0.738	0.719	0.615	0.617	0.609
R-squared (adj)	0.894	0.957	0.977	0.952	0.949	0.933	0.936	0.943	0.946

## UPSIDE/DOWNSIDE CAPTURE RATIOS (AS OF 2022-05-11)

Analysis of the relative performance of the portfolio in up and down markets for the benchmark.

	Entire History	YTD	1w	1m	3m	6m	1y	3y	5y	10y
Downside Capture Ratio	95.97	118.00	130.55	115.60	117.63	118.16	112.13	103.37	103.73	102.76
Upside Capture Ratio	89.72	130.12	107.63	112.06	125.37	130.36	126.05	116.04	114.19	107.57

## ACTIVE MANAGEMENT (AS OF 2022-05-11)

Analysis of the Portfolio as an actively managed investment.

	Entire History	YTD	1w	1m	3m	6m	1y	3y	5y	10y
Active Returns	0.20%	-2.70%	-1.59%	-1.75%	-1.75%	-3.18%	-0.75%	0.70%	0.83%	0.29%
Active Risks	4.02%	0.30%	0.35%	0.30%	0.30%	0.28%	3.53%	3.41%	2.82%	2.21%

## CALENDAR RETURNS (AS OF 2022-05-11)

Portfolio and Benchmark Calendar returns.

	2022	2021	2020	2019	2018	2017	2016	2015
Manny's 60/40 Asset Allocation Portfolio	-16.31%	15.77%	21.07%	21.64%	-1.06%	15.53%	5.72%	2.28%
60/40 SPY/AGG	-13.86%	15.77%	14.66%	21.93%	-2.75%	14.19%	7.89%	1.17%

Wide table continues→

	2014	2013	2012	2011	2010	2009	2008	2007
Manny's 60/40 Asset Allocation Portfolio	8.98%	18.58%	10.16%	2.54%	11.28%	14.24%	-15.14%	1.85%
60/40 SPY/AGG	10.50%	17.53%	11.11%	4.50%	12.11%	16.95%	-21.35%	1.00%

### DRAWDOWN (AS OF 2022-05-11)

The yearly peak-to-trough return. We display this return in absolute value. "Drawdown" differs from the "Maximum Drawdown" calculation which is the peak-to-trough return followed by a new peak. The Full drawdown column is the largest peak-to-trough negative return across the entire available history.

	Entire History	2022	2021	2020	2019	2018	2017
Manny's 60/40 Asset Allocation Portfolio	-23.53%	-16.59%	-4.99%	-20.72%	-3.84%	-12.45%	-1.24%
60/40 SPY/AGG	-35.96%	-13.93%	-3.42%	-21.63%	-3.12%	-11.55%	-1.24%

Wide table continues→

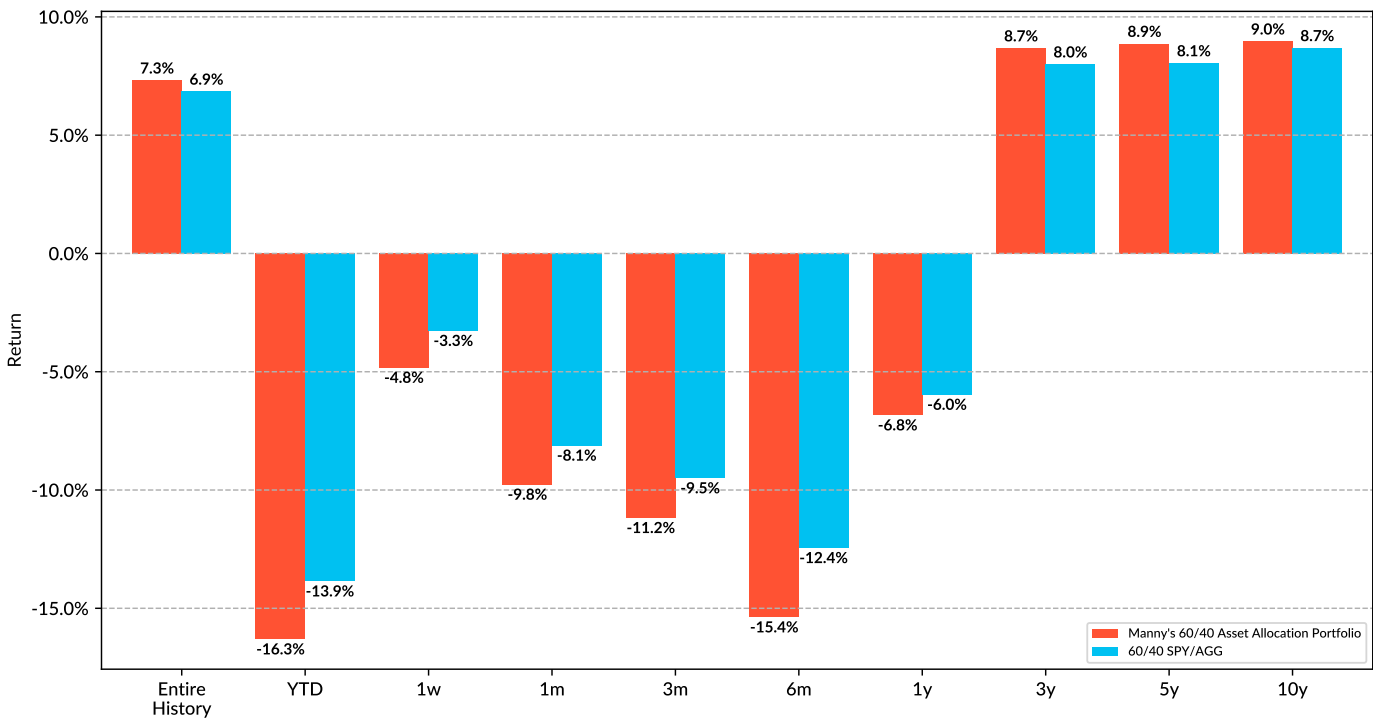
	2016	2015	2014	2013	2012	2011	2010	2009
Manny's 60/40 Asset Allocation Portfolio	-5.75%	-6.87%	-4.14%	-4.19%	-5.61%	-11.14%	-9.26%	-10.20%
60/40 SPY/AGG	-4.73%	-7.08%	-3.64%	-4.77%	-5.11%	-9.84%	-8.42%	-18.35%

Wide table continues→

	2008	2007
Manny's 60/40 Asset Allocation Portfolio	-21.22%	-2.73%
60/40 SPY/AGG	-31.15%	-4.76%

### TRAILING RETURNS (AS OF 2022-05-11)

Observation of Trailing Returns for the selected Portfolio and its Benchmark.

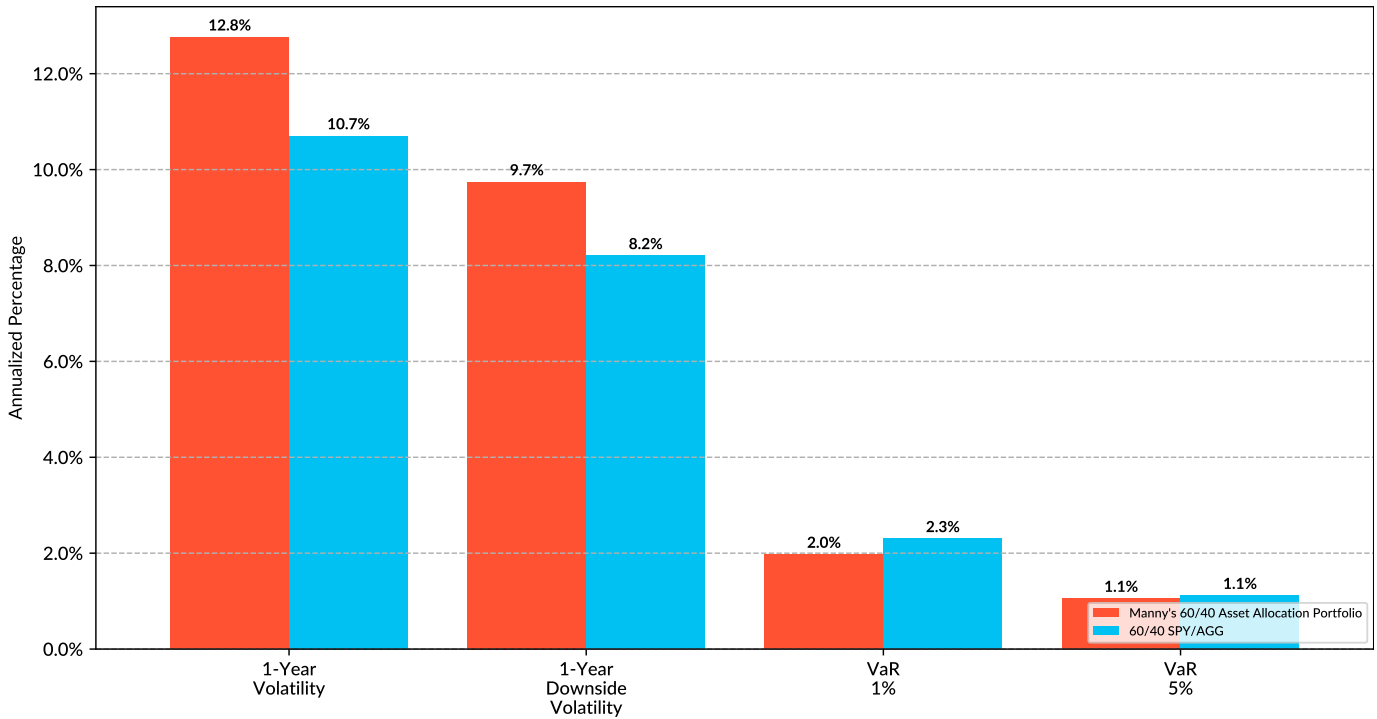


- All returns are total returns. Metrics over one year are annualized.

### RISK OVERVIEW (AS OF 2022-05-11)

Classical risk metrics for the selected portfolio.

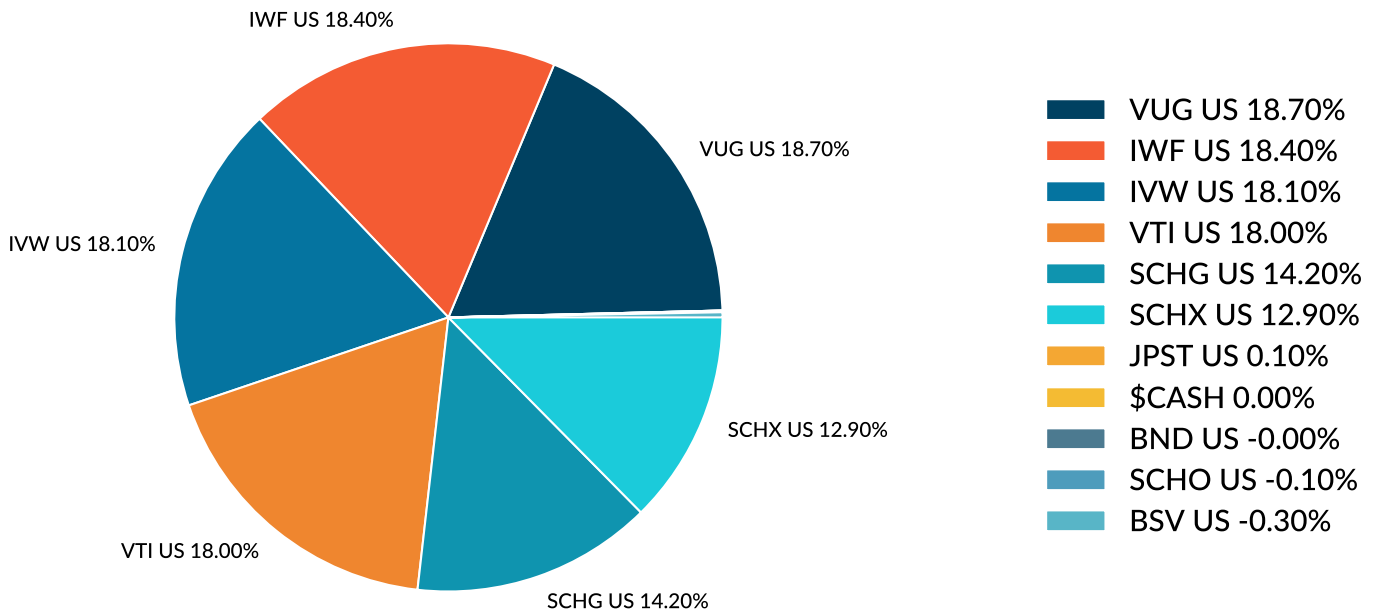
- Volatility and Downside Volatility are computed on a 1-year trailing basis.
- VaR is computed with the historical method, using realized returns.



## MARGINAL CONTRIBUTION TO RISK

Marginal Contribution to Risk broken down by ticker.

- The different components of a portfolio and their relative position to each other affects the risk of your portfolio. The marginal contribution to risk (MCTR) looks at the portfolio holdings and determines which components add or remove risk. The percentage exposures should be viewed relative to each other, to understand which positions add or remove risk.



## FORWARD RISK ESTIMATES

Forecasts of potential Portfolio returns assuming a log-normal distribution of returns.

- Forward estimates provide a view into theoretical cumulative return ranges for the portfolio, over selected time horizons and for various level of confidence.
- Over a particular time horizon, the cumulative performance of the portfolio will likely be constrained between the upper and lower bounds provided, with the chosen level of confidence.

## UPPER-BOUND FOR PORTFOLIO PERFORMANCE

Upper-bound for cumulative return of the portfolio, assuming a log-normal distribution of returns. \* Please see the important Performance Disclosures at the end of the document.

Time Horizon	95% Confidence	90% Confidence	85% Confidence	80% Confidence
Forward 1Q	36.41%	30.78%	27.12%	24.29%
Forward 2Q	52.32%	44.36%	39.17%	35.18%
Forward 3Q	64.85%	55.10%	48.75%	43.86%
Forward 4Q	75.63%	64.38%	57.04%	51.40%

## LOWER-BOUND FOR PORTFOLIO PERFORMANCE

Lower-bound for cumulative return of the portfolio, assuming a log-normal distribution of returns. \* Please see the important Performance Disclosures at the end of the document.

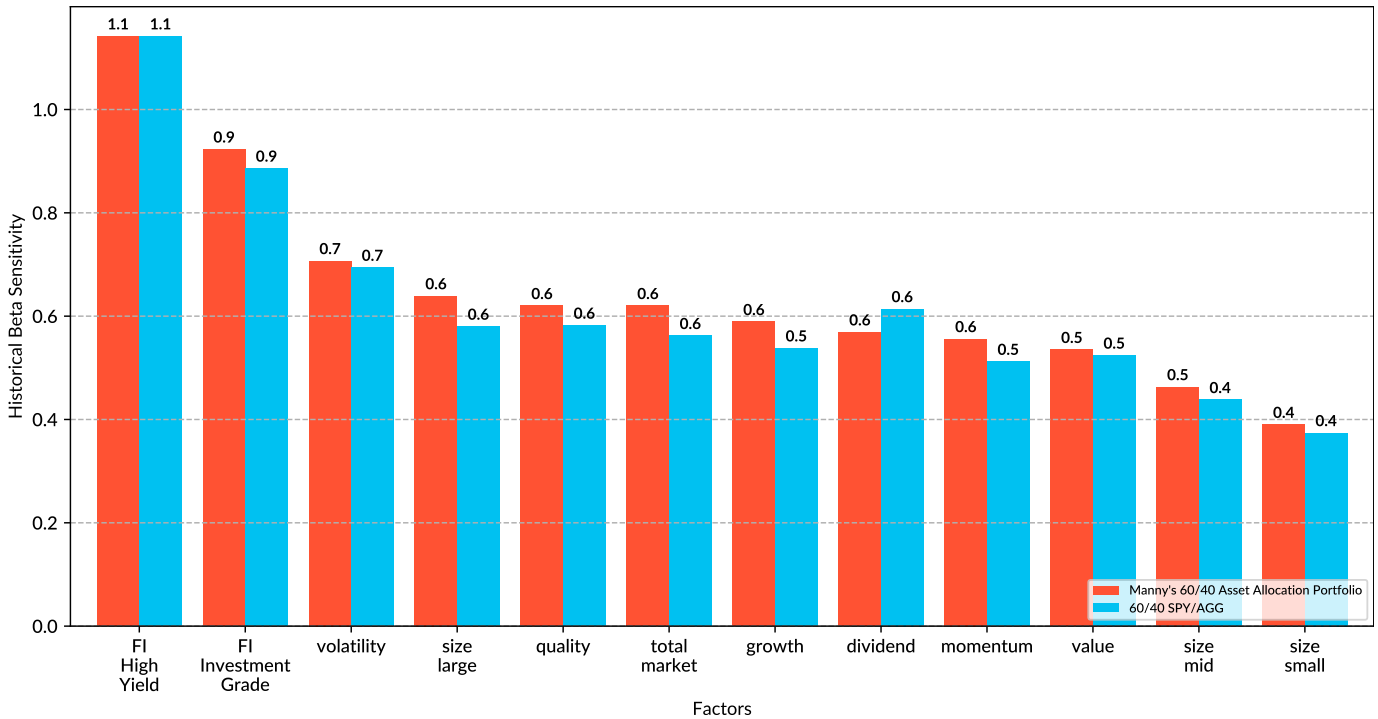
Time Horizon	95% Confidence	90% Confidence	85% Confidence	80% Confidence
Forward 1Q	-33.60%	-27.97%	-24.31%	-21.48%
Forward 2Q	-46.70%	-38.74%	-33.55%	-29.56%
Forward 3Q	-56.42%	-46.67%	-40.32%	-35.43%
Forward 4Q	-64.39%	-53.14%	-45.80%	-40.16%

- The model assumes a log-normal distribution of returns and uses, as inputs into the calculation, the historical volatility and risk of the portfolio.
- Instead of past returns, we use the risk-free rate as a proxy of the future returns of the portfolio.

## FACTOR EXPOSURES

Historical beta sensitivities, estimated as of the portfolio simulation end time.

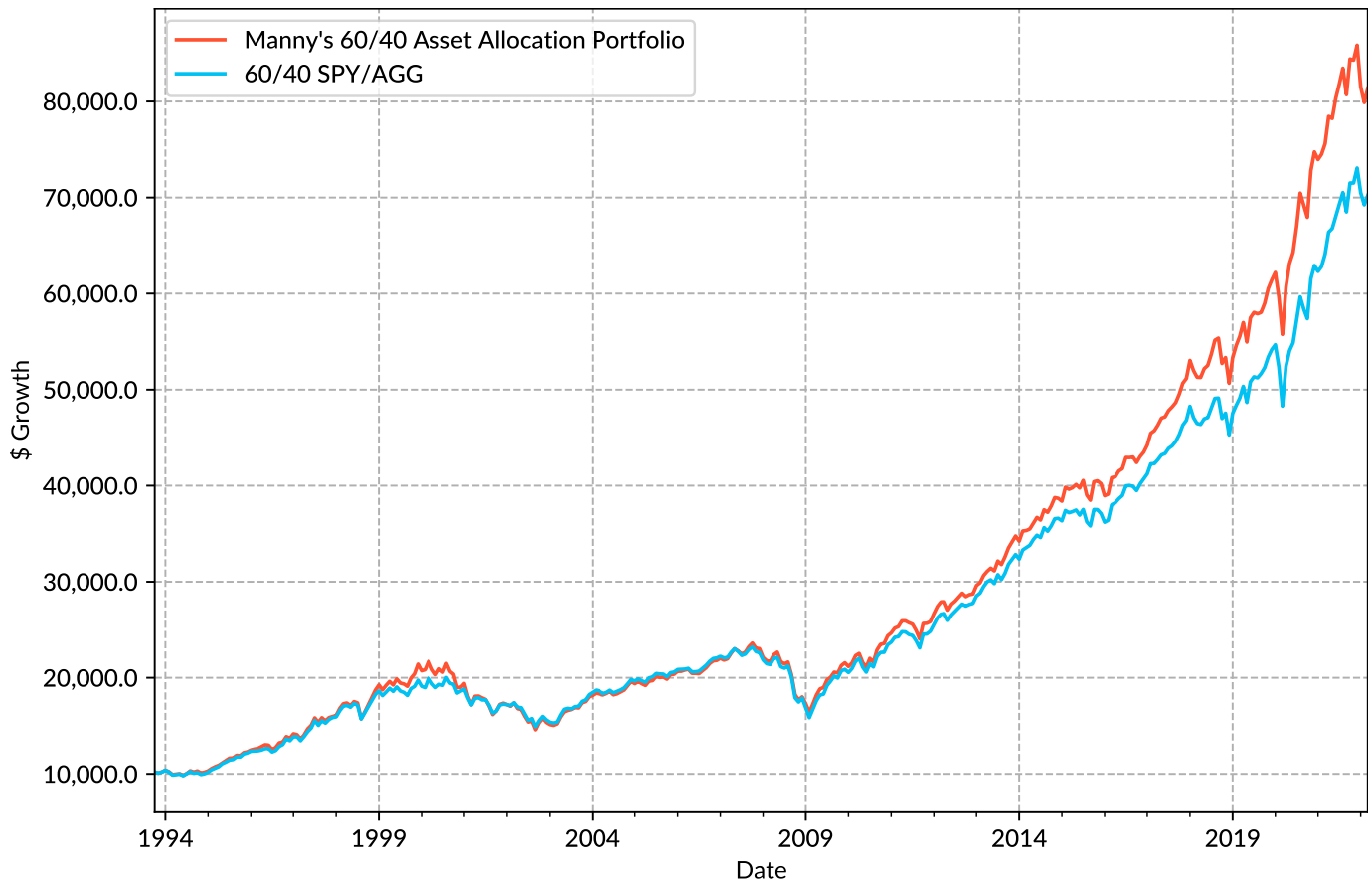
- The factor exposures breakdown provides a relative view of factor sensitivity of the input portfolio and a benchmark. Factors analyzed range from fundamental to technical exposures including fixed income credit quality, market-cap size, growth vs value, dividend and volatility.
- This tool allows you to better understand your portfolio, and compare it with its benchmark, in the factor space.



## FACTOR BACKTEST, GROWTH OF \$10,000

This line chart shows the factor-based historical performance for these portfolios.

- The factor backtest simulates the performance of your current portfolio using its recent factor profile and known historical factor returns.
- Funds, like ETFs or Mutual Funds, may only have recent trading history. The factor backtest provides a window into the possible performance of these funds beyond their actual trading history.
- The factor backtest is a theoretical view on factor returns and the factor return mix of your portfolio. It is not an actual backtest of the return history.



- First, the factor exposure 'mix' is estimated for a recent time in history. Second, we extrapolate that factor mix back in time. We compare the returns of the input potfolio with a benchmark.

## TAX LOT ANALYSIS

Analyze open tax lots in the portfolio.

- This tax lot analysis highlights to generate tax alpha by harvesting losses.
- This is not tax advice. Please consult with your tax specialist before making any trades.
- A well-executed, systematic tax-aware strategy may boost after-tax returns. Further details on this analysis can be found at the bottom of the section or in the LOGICLY user guide.

## POSITION BOOK BREAKDOWN AND ANALYSIS OF TAX LOSS HARVESTING OPPORTUNITIES

Scan of the Portfolio to identify TLH Opportunities.

Security Description			Size
VUG US	US	Vanguard Growth ETF - Vanguard Group, Inc. (USD)	10.00%
SCHG US	US	Schwab U.S. Large-Cap Growth ETF - Schwab Strategic Trust (USD)	10.00%
IWF US	US	iShares Russell 1000 Growth ETF - BlackRock Institutional Trust Company N.A...	10.00%
IWW US	US	iShares S&P 500 Growth ETF - BlackRock Institutional Trust Company N.A. (US...	10.00%
VTI US	US	Vanguard Total Stock Market ETF - Vanguard Group, Inc. (USD)	10.00%
SCHX US	US	Schwab U.S. Large-Cap ETF - Schwab Strategic Trust (USD)	10.00%
BND US	US	Vanguard Total Bond Market ETF - Vanguard Group, Inc. (USD)	10.00%
BSV US	US	Vanguard Short-Term Bond ETF - Vanguard Group, Inc. (USD)	10.00%
SCHO US	US	Schwab Short-Term U.S. Treasury ETF - Schwab Strategic Trust (USD)	10.00%
JPST US	US	JPMorgan Ultra-Short Income ETF - J.P.Morgan Investment Management Inc. (US...	10.00%

Wide table continues →

Equivalent Size (in Shares)	Average Price	Last Close Price	Open PnL	TLH Opportunity?	TLH Estimate	Associated Tax Benefits
375.41	266.38	USD 229.56	USD -13,822.00	True	13,822.00	3,317.28
1,452.95	68.83	USD 59.51	USD -13,535.01	True	13,535.01	3,248.40
388.41	257.46	USD 225.24	USD -12,513.76	True	12,513.76	3,003.30
1,408.45	71.00	USD 62.34	USD -12,196.95	True	12,196.95	2,927.27
464.67	215.21	USD 195.45	USD -9,181.16	True	9,181.16	2,203.48
1,970.37	50.75	USD 46.37	USD -8,634.06	True	8,634.06	2,072.17
1,242.09	80.51	USD 76.07	USD -5,514.36	True	5,514.36	1,323.45
1,268.82	78.81	USD 77.14	USD -2,123.03	True	2,123.03	509.53
1,999.18	50.02	USD 49.35	USD -1,340.36	True	1,340.36	321.69
1,991.60	50.21	USD 50.17	USD -81.26	True	81.26	19.50

- When Tax Loss Harvesting (TLH) opportunities are identified, alternative securities are highlighted based on LOG-ICLY's Similarity Score based on similar performance and exposure.
- Tax Rates used: 24% for long-term capital gains and 15% for short-term capital gains.
- When the input portfolio has no tax lot information, we assume a trade at the close price on the day prior to the last known historical portfolio.
- Computations are done in the pricing currency defined for the portfolio. When the traded currency of portfolio position differs from that of portfolio's pricing currency, we adjust the returns of that position based on the foreign-exchange rate. This portfolio is defined in percent terms, so we assume a notional exposure of \$1m on the portfolio create date.

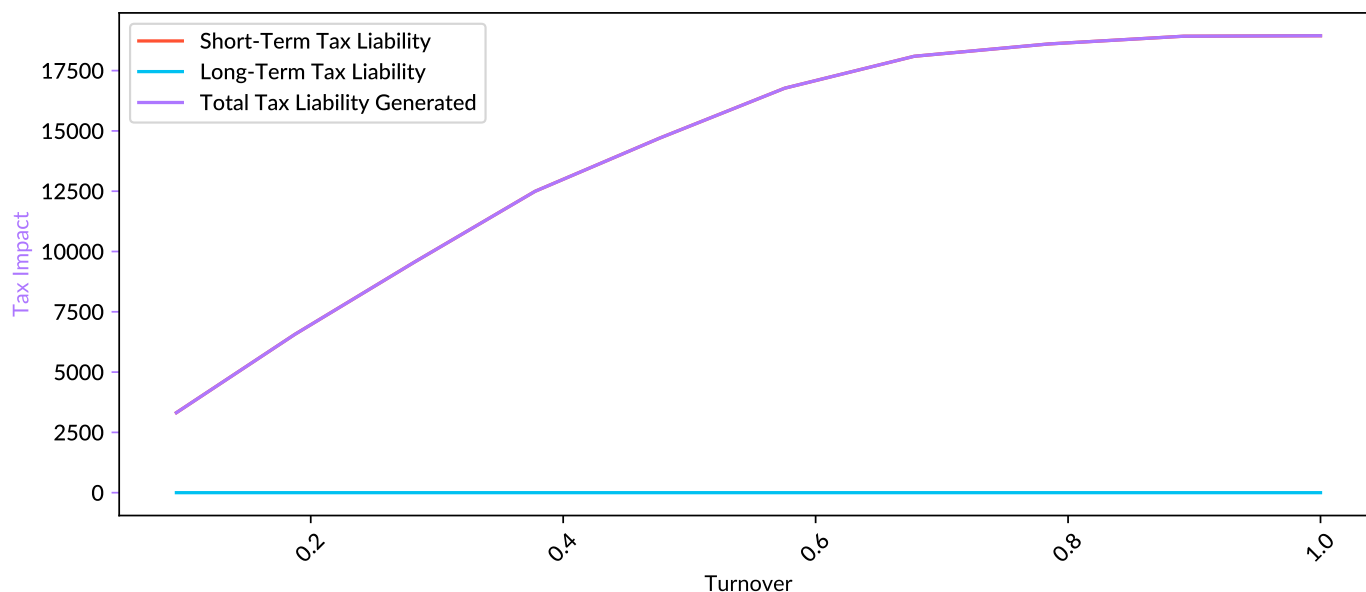
## TAX-AWARE TRANSITION ANALYSIS - PERCENT-FOCUSED

Tax-aware transition analysis for the portfolio.

- Percent-Focused: We maximize realized losses by closing open lots that are furthest away from their cost-basis in percent terms.

## TAX IMPACT AS A FUNCTION OF IMPLIED PORTFOLIO TURNOVER

Graph representing the potential Tax Impact



## TAX TRANSITION STRATEGIES

Analysis of different tax transitions scenarios for the open lots.

Strategy	Proceeds from Sale (Before Tax Paid)	Realized PnL	Tax Liability/Asset Generated	Proceeds from Sale (After Tax Paid)
Realize Only Capital Losses	USD 921,058	USD -78,941.96	USD 18,946.07	USD 940,004.11
Full Liquidation of the Portfolio	USD 921,058	USD -78,941.96	USD 18,946.07	USD 940,004.11
Realize No Capital Gains Overall	USD 921,058	USD -78,941.96	USD 18,946.07	USD 940,004.11

Wide table continues→

Portfolio Turnover	Performance Needed on Reinvested Capital to Offset Taxes	# of Positions Traded	# of Closed Lots
100.0%	8.57%	10	10
100.0%	8.57%	10	10
100.0%	8.57%	10	10

- We evaluate the tax-related impacts of different rebalancing strategies for this portfolio:
- Tax assets or liabilities generated based on portfolio turnover
- The impact of different exit strategies for the current holdings. Those strategies look at the impact of full portfolio liquidation, partial liquidation where no gains are realized, or partial liquidation where some gains are realized.
- This is not tax advice. Please consult with your tax specialist before making any trades.

## TAX-AWARE TRANSITION ANALYSIS - NOTIONAL-FOCUSED

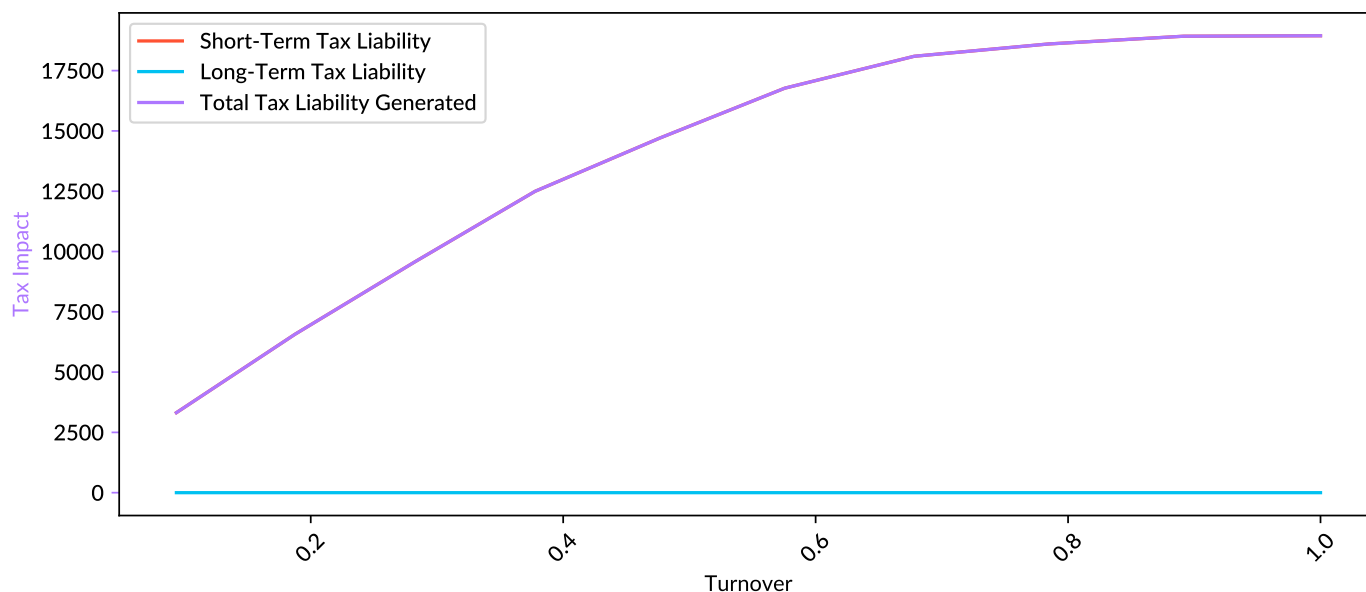
Tax-aware transition analysis for the portfolio.

- Notional-Focused: We maximize realized losses by closing open lots that are furthest away from their cost-basis in notional terms, based on the portfolio currency



## TAX IMPACT AS A FUNCTION OF IMPLIED PORTFOLIO TURNOVER

Graph representing the potential Tax Impact



## TAX TRANSITION STRATEGIES

Analysis of different tax transitions scenarios for the open lots.

Strategy	Proceeds from Sale (Before Tax Paid)	Realized PnL	Tax Liability/Asset Generated	Proceeds from Sale (After Tax Paid)
Realize Only Capital Losses	USD 921,058	USD -78,941.96	USD 18,946.07	USD 940,004.11
Full Liquidation of the Portfolio	USD 921,058	USD -78,941.96	USD 18,946.07	USD 940,004.11
Realize No Capital Gains Overall	USD 921,058	USD -78,941.96	USD 18,946.07	USD 940,004.11

*Wide table continues →*

Portfolio Turnover	Performance Needed on Reinvested Capital to Offset Taxes	# of Positions Traded	# of Closed Lots
100.0%	8.57%	10	10
100.0%	8.57%	10	10
100.0%	8.57%	10	10

- We evaluate the tax-related impacts of different rebalancing strategies for this portfolio:
- Tax assets or liabilities generated based on portfolio turnover
- The impact of different exit strategies for the current holdings. Those strategies look at the impact of full portfolio liquidation, partial liquidation where no gains are realized, or partial liquidation where some gains are realized.
- This is not tax advice. Please consult with your tax specialist before making any trades.

## HISTORICAL AND SIMULATED REBALANCES

In-depth look at the simulated life of the portfolio.

### REBALANCES

Overview of the rebalances that happened over the simulated life of the portfolio.

Starting date	Ending date	Rebalance Type	Rebalance Trade-in cost (in % of portfolio)
2022-05-02	2022-05-11	Calendar	5.25%
2022-04-01	2022-04-29	Calendar	5.52%
2022-03-09	2022-03-31	Discretionary Update	3.00%
2022-03-01	2022-03-08	Calendar	1.57%
2022-02-01	2022-02-28	Calendar	3.50%
2022-01-03	2022-01-31	Calendar	1.31%
2021-12-01	2021-12-31	Calendar	0.60%
2021-11-01	2021-11-30	Calendar	3.82%
2021-10-01	2021-10-29	Calendar	2.41%
2021-09-01	2021-09-30	Calendar	1.68%
2021-08-02	2021-08-31	Calendar	1.22%
2021-07-01	2021-07-30	Calendar	2.38%
2021-06-01	2021-06-30	Calendar	0.77%
2021-05-03	2021-05-28	Calendar	2.83%
2021-04-01	2021-04-30	Calendar	1.38%
2021-03-01	2021-03-31	Calendar	1.05%
2021-02-01	2021-02-26	Calendar	0.34%
2021-01-04	2021-01-29	Calendar	1.94%
2020-12-01	2020-12-31	Calendar	4.60%
2020-11-02	2020-11-30	Calendar	1.25%
2020-10-01	2020-10-30	Calendar	2.05%
2020-09-01	2020-09-30	Calendar	4.20%
2020-08-03	2020-08-31	Calendar	2.93%
2020-07-01	2020-07-31	Calendar	1.56%
2020-06-01	2020-06-30	Calendar	2.64%
2020-05-01	2020-05-29	Calendar	5.66%
2020-04-01	2020-04-30	Calendar	5.70%
2020-03-02	2020-03-31	Calendar	3.99%
2020-02-03	2020-02-28	Calendar	1.04%
2020-01-02	2020-01-31	Calendar	1.30%
2019-12-02	2019-12-31	Calendar	1.88%
2019-11-01	2019-11-29	Calendar	0.99%
2019-10-01	2019-10-31	Calendar	0.57%
2019-09-03	2019-09-30	Calendar	1.16%
2019-08-01	2019-08-30	Calendar	0.81%
2019-07-01	2019-07-31	Calendar	2.79%
2019-06-03	2019-06-28	Calendar	3.52%
2019-05-01	2019-05-31	Calendar	1.93%
2019-04-01	2019-04-30	Calendar	0.81%
2019-03-01	2019-03-29	Calendar	1.68%
2019-02-01	2019-02-28	Calendar	3.64%
2019-01-02	2019-01-31	Calendar	4.82%
2018-12-03	2018-12-31	Calendar	0.52%
2018-11-01	2018-11-30	Calendar	4.04%

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Starting date	Ending date	Rebalance Type	Rebalance Trade-in cost (in % of portfolio)
2018-10-01	2018-10-31	Calendar	0.37%
2018-09-04	2018-09-28	Calendar	1.91%
2018-08-01	2018-08-31	Calendar	1.43%
2018-07-02	2018-07-31	Calendar	0.43%
2018-06-01	2018-06-29	Calendar	1.56%
2018-05-01	2018-05-31	Calendar	0.34%
2018-04-02	2018-04-30	Calendar	1.33%
2018-03-01	2018-03-29	Calendar	1.29%
2018-02-01	2018-02-28	Calendar	3.23%
2018-01-02	2018-01-31	Calendar	0.43%
2017-12-01	2017-12-29	Calendar	1.42%
2017-11-01	2017-11-30	Calendar	1.38%
2017-10-02	2017-10-31	Calendar	0.85%
2017-09-01	2017-09-29	Calendar	0.52%
2017-08-01	2017-08-31	Calendar	1.01%
2017-07-03	2017-07-31	Calendar	0.33%
2017-06-01	2017-06-30	Calendar	1.05%
2017-05-19	2017-05-31	Implied by Backfilling choice	20.30%
2017-05-01	2017-05-18	Calendar	0.76%
2017-04-03	2017-04-28	Calendar	0.49%
2017-03-01	2017-03-31	Calendar	1.79%
2017-02-01	2017-02-28	Calendar	1.28%
2017-01-03	2017-01-31	Calendar	0.65%
2016-12-01	2016-12-30	Calendar	1.71%
2016-11-01	2016-11-30	Calendar	0.95%
2016-10-03	2016-10-31	Calendar	0.18%
2016-09-01	2016-09-30	Calendar	0.23%
2016-08-01	2016-08-31	Calendar	2.01%
2016-07-01	2016-07-29	Calendar	0.67%
2016-06-01	2016-06-30	Calendar	1.03%
2016-05-02	2016-05-31	Calendar	0.53%
2016-04-01	2016-04-29	Calendar	3.02%
2016-03-01	2016-03-31	Calendar	0.27%
2016-02-01	2016-02-29	Calendar	3.22%
2016-01-04	2016-01-29	Calendar	0.91%
2015-12-01	2015-12-31	Calendar	0.26%
2015-11-02	2015-11-30	Calendar	3.94%
2015-10-01	2015-10-30	Calendar	1.58%
2015-09-01	2015-09-30	Calendar	2.99%
2015-08-03	2015-08-31	Calendar	1.23%
2015-07-01	2015-07-31	Calendar	0.69%
2015-06-01	2015-06-30	Calendar	0.74%
2015-05-01	2015-05-29	Calendar	0.57%
2015-04-01	2015-04-30	Calendar	0.96%
2015-03-02	2015-03-31	Calendar	3.07%
2015-02-02	2015-02-27	Calendar	1.38%
2015-01-02	2015-01-30	Calendar	0.36%
2014-12-01	2014-12-31	Calendar	1.26%
2014-11-03	2014-11-28	Calendar	1.12%
2014-10-01	2014-10-31	Calendar	0.69%

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Starting date	Ending date	Rebalance Type	Rebalance Trade-in cost (in % of portfolio)
2014-09-01	2014-09-30	Calendar	1.82%
2014-08-01	2014-08-29	Calendar	0.64%
2014-07-01	2014-07-31	Calendar	1.07%
2014-06-02	2014-06-30	Calendar	1.21%
2014-05-01	2014-05-30	Calendar	0.20%
2014-04-01	2014-04-30	Calendar	0.52%
2014-03-03	2014-03-31	Calendar	2.29%
2014-02-03	2014-02-28	Calendar	1.70%
2014-01-02	2014-01-31	Calendar	1.51%
2013-12-02	2013-12-31	Calendar	1.27%
2013-11-01	2013-11-29	Calendar	1.93%
2013-10-01	2013-10-31	Calendar	1.65%
2013-09-03	2013-09-30	Calendar	0.96%
2013-08-01	2013-08-30	Calendar	2.46%
2013-07-01	2013-07-31	Calendar	0.68%
2013-06-03	2013-06-28	Calendar	1.38%
2013-05-01	2013-05-31	Calendar	0.70%
2013-04-01	2013-04-30	Calendar	1.77%
2013-03-01	2013-03-29	Calendar	0.42%
2013-02-01	2013-02-28	Calendar	2.28%
2013-01-02	2013-01-31	Calendar	0.41%
2012-12-03	2012-12-31	Calendar	0.59%
2012-11-01	2012-11-30	Calendar	1.24%
2012-10-01	2012-10-31	Calendar	0.98%
2012-09-04	2012-09-28	Calendar	1.36%
2012-08-01	2012-08-31	Calendar	0.40%
2012-07-02	2012-07-31	Calendar	1.56%
2012-06-01	2012-06-29	Calendar	3.21%
2012-05-01	2012-05-31	Calendar	0.41%
2012-04-02	2012-04-30	Calendar	1.59%
2012-03-01	2012-03-30	Calendar	2.13%
2012-02-01	2012-02-29	Calendar	2.45%
2012-01-03	2012-01-31	Calendar	0.56%
2011-12-01	2011-12-30	Calendar	0.14%
2011-11-01	2011-11-30	Calendar	5.04%
2011-10-03	2011-10-31	Calendar	3.78%
2011-09-01	2011-09-30	Calendar	3.11%
2011-08-01	2011-08-31	Calendar	0.94%
2011-07-01	2011-07-29	Calendar	0.70%
2011-06-01	2011-06-30	Calendar	0.70%
2011-05-02	2011-05-31	Calendar	1.10%
2011-04-01	2011-04-29	Calendar	0.19%
2011-03-01	2011-03-31	Calendar	1.52%
2011-02-01	2011-02-28	Calendar	0.92%
2011-01-03	2011-01-31	Calendar	2.99%
2010-12-01	2010-12-31	Calendar	0.51%
2010-11-01	2010-11-30	Calendar	2.05%
2010-10-01	2010-10-29	Calendar	4.58%
2010-09-01	2010-09-30	Calendar	3.79%
2010-08-05	2010-08-31	Implied by Backfilling choice	20.58%

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Starting date	Ending date	Rebalance Type	Rebalance Trade-in cost (in % of portfolio)
2010-08-02	2010-08-04	Calendar	3.08%
2010-07-01	2010-07-30	Calendar	3.01%
2010-06-01	2010-06-30	Calendar	4.23%
2010-05-03	2010-05-28	Calendar	0.53%
2010-04-01	2010-04-30	Calendar	2.82%
2010-03-01	2010-03-31	Calendar	1.62%
2010-02-01	2010-02-26	Calendar	2.40%
2010-01-04	2010-01-29	Calendar	1.12%
2009-12-11	2009-12-31	Implied by Backfilling choice	20.29%
2009-12-01	2009-12-10	Calendar	2.32%
2009-11-03	2009-11-30	Implied by Backfilling choice	20.12%
2009-11-02	2009-11-02	Calendar	0.75%
2009-10-01	2009-10-30	Calendar	1.83%
2009-09-01	2009-09-30	Calendar	1.03%
2009-08-03	2009-08-31	Calendar	3.19%
2009-07-01	2009-07-31	Calendar	0.37%
2009-06-01	2009-06-30	Calendar	2.29%
2009-05-01	2009-05-29	Calendar	4.48%
2009-04-01	2009-04-30	Calendar	3.63%
2009-03-02	2009-03-31	Calendar	4.13%
2009-02-02	2009-02-27	Calendar	2.57%
2009-01-02	2009-01-30	Calendar	1.22%
2008-12-01	2008-12-31	Calendar	4.51%
2008-11-03	2008-11-28	Calendar	8.59%
2008-10-01	2008-10-31	Calendar	5.09%
2008-09-02	2008-09-30	Calendar	0.61%
2008-08-01	2008-08-29	Calendar	0.86%
2008-07-01	2008-07-31	Calendar	3.46%
2008-06-02	2008-06-30	Calendar	1.54%
2008-05-01	2008-05-30	Calendar	2.69%
2008-04-01	2008-04-30	Calendar	0.44%
2008-03-03	2008-03-31	Calendar	0.85%
2008-02-01	2008-02-29	Calendar	4.07%
2008-01-02	2008-01-31	Calendar	0.29%
2007-12-03	2007-12-31	Calendar	2.11%
2007-11-01	2007-11-30	Calendar	1.03%
2007-10-01	2007-10-31	Calendar	1.98%
2007-09-04	2007-09-28	Calendar	
2007-08-31	2007-08-31	Inception	

### BEST PERFORMERS INTRA-PERIOD

Highlights the best performing investments in between rebalances.

Starting date	Ending date	Ticker	Intra-period Return-to-date	Best Perf. Observed on
2022-05-02	2022-05-11	IVW US	4.96%	2022-05-04
2022-04-01	2022-04-29	SCHG US	2.31%	2022-04-04
2022-03-09	2022-03-31	SCHG US	15.93%	2022-03-29
2022-03-01	2022-03-08	BND US	0.52%	2022-03-01
2022-02-01	2022-02-28	VTI US	1.97%	2022-02-09

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Starting date	Ending date	Ticker	Intra-period Return-to-date	Best Perf. Observed on
2022-01-03	2022-01-31	SCHG US	0.91%	2022-01-03
2021-12-01	2021-12-31	SCHX US	4.72%	2021-12-27
2021-11-01	2021-11-30	IVW US	4.10%	2021-11-19
2021-10-01	2021-10-29	IVW US	9.11%	2021-10-29
2021-09-01	2021-09-30	SCHG US	0.77%	2021-09-07
2021-08-02	2021-08-31	IVW US	4.33%	2021-08-30
2021-07-01	2021-07-30	IVW US	5.02%	2021-07-26
2021-06-01	2021-06-30	SCHG US	6.69%	2021-06-29
2021-05-03	2021-05-28	SCHX US	0.87%	2021-05-07
2021-04-01	2021-04-30	SCHG US	8.78%	2021-04-26
2021-03-01	2021-03-31	VTI US	4.38%	2021-03-15
2021-02-01	2021-02-26	VUG US	7.23%	2021-02-12
2021-01-04	2021-01-29	IVW US	3.71%	2021-01-26
2020-12-01	2020-12-31	SCHG US	4.70%	2020-12-28
2020-11-02	2020-11-30	VTI US	12.69%	2020-11-27
2020-10-01	2020-10-30	SCHG US	6.16%	2020-10-12
2020-09-01	2020-09-30	IVW US	2.66%	2020-09-02
2020-08-03	2020-08-31	IWF US	10.17%	2020-08-31
2020-07-01	2020-07-31	IWF US	7.78%	2020-07-31
2020-06-01	2020-06-30	VTI US	6.76%	2020-06-08
2020-05-01	2020-05-29	SCHG US	7.08%	2020-05-29
2020-04-01	2020-04-30	VUG US	15.16%	2020-04-29
2020-03-02	2020-03-31	SCHG US	5.97%	2020-03-04
2020-02-03	2020-02-28	VUG US	7.31%	2020-02-19
2020-01-02	2020-01-31	VUG US	5.73%	2020-01-23
2019-12-02	2019-12-31	IVW US	3.62%	2019-12-26
2019-11-01	2019-11-29	SCHG US	4.95%	2019-11-27
2019-10-01	2019-10-31	SCHG US	3.36%	2019-10-30
2019-09-03	2019-09-30	VTI US	3.07%	2019-09-12
2019-08-01	2019-08-30	BND US	2.84%	2019-08-28
2019-07-01	2019-07-31	IWF US	4.35%	2019-07-26
2019-06-03	2019-06-28	IWF US	7.85%	2019-06-20
2019-05-01	2019-05-31	BND US	1.83%	2019-05-31
2019-04-01	2019-04-30	VUG US	5.02%	2019-04-29
2019-03-01	2019-03-29	VUG US	4.06%	2019-03-21
2019-02-01	2019-02-28	IVW US	4.10%	2019-02-27
2019-01-02	2019-01-31	VUG US	9.20%	2019-01-31
2018-12-03	2018-12-31	BND US	1.87%	2018-12-31
2018-11-01	2018-11-30	SCHG US	3.88%	2018-11-07
2018-10-01	2018-10-31	SCHX US	0.34%	2018-10-03
2018-09-04	2018-09-28	SCHX US	1.08%	2018-09-20
2018-08-01	2018-08-31	IWF US	5.61%	2018-08-29
2018-07-02	2018-07-31	IVW US	6.15%	2018-07-25
2018-06-01	2018-06-29	SCHG US	4.04%	2018-06-14
2018-05-01	2018-05-31	IWF US	4.94%	2018-05-30
2018-04-02	2018-04-30	SCHG US	3.21%	2018-04-18
2018-03-01	2018-03-29	VUG US	3.60%	2018-03-12
2018-02-01	2018-02-28	SCHO US	0.16%	2018-02-05
2018-01-02	2018-01-31	SCHG US	8.66%	2018-01-26
2017-12-01	2017-12-29	VUG US	1.89%	2017-12-18

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Starting date	Ending date	Ticker	Intra-period Return-to-date	Best Perf. Observed on
2017-11-01	2017-11-30	SCHG US	3.06%	2017-11-30
2017-10-02	2017-10-31	IWF US	3.92%	2017-10-31
2017-09-01	2017-09-29	VTI US	2.44%	2017-09-29
2017-08-01	2017-08-31	IWF US	1.82%	2017-08-31
2017-07-03	2017-07-31	IWF US	3.56%	2017-07-26
2017-06-01	2017-06-30	VTI US	1.95%	2017-06-19
2017-05-19	2017-05-31	IWF US	2.61%	2017-05-31
2017-05-01	2017-05-18	VUG US	1.59%	2017-05-15
2017-04-03	2017-04-28	VUG US	2.28%	2017-04-28
2017-03-01	2017-03-31	IVW US	1.52%	2017-03-15
2017-02-01	2017-02-28	VUG US	4.74%	2017-02-27
2017-01-03	2017-01-31	SCHG US	4.39%	2017-01-25
2016-12-01	2016-12-30	VTI US	3.36%	2016-12-20
2016-11-01	2016-11-30	VTI US	5.20%	2016-11-25
2016-10-03	2016-10-31	SCHO US	0.05%	2016-10-03
2016-09-01	2016-09-30	VUG US	1.23%	2016-09-22
2016-08-01	2016-08-31	SCHG US	1.54%	2016-08-23
2016-07-01	2016-07-29	SCHG US	5.00%	2016-07-29
2016-06-01	2016-06-30	BND US	2.02%	2016-06-30
2016-05-02	2016-05-31	IVW US	2.65%	2016-05-27
2016-04-01	2016-04-29	VTI US	2.25%	2016-04-20
2016-03-01	2016-03-31	VUG US	7.32%	2016-03-30
2016-02-01	2016-02-29	BND US	0.89%	2016-02-25
2016-01-04	2016-01-29	BND US	1.20%	2016-01-29
2015-12-01	2015-12-31	IVW US	1.03%	2015-12-01
2015-11-02	2015-11-30	VTI US	1.57%	2015-11-03
2015-10-01	2015-10-30	IVW US	9.97%	2015-10-29
2015-09-01	2015-09-30	IWF US	2.13%	2015-09-17
2015-08-03	2015-08-31	BND US	0.49%	2015-08-21
2015-07-01	2015-07-31	IWF US	4.64%	2015-07-20
2015-06-01	2015-06-30	SCHG US	1.38%	2015-06-23
2015-05-01	2015-05-29	IVW US	2.69%	2015-05-21
2015-04-01	2015-04-30	VUG US	5.35%	2015-04-24
2015-03-02	2015-03-31	SCHG US	1.19%	2015-03-20
2015-02-02	2015-02-27	SCHG US	7.04%	2015-02-25
2015-01-02	2015-01-30	BND US	2.40%	2015-01-30
2014-12-01	2014-12-31	VTI US	1.46%	2014-12-29
2014-11-03	2014-11-28	SCHG US	3.38%	2014-11-26
2014-10-01	2014-10-31	VUG US	3.00%	2014-10-31
2014-09-01	2014-09-30	IVW US	0.51%	2014-09-19
2014-08-01	2014-08-29	VUG US	4.61%	2014-08-26
2014-07-01	2014-07-31	SCHG US	1.65%	2014-07-23
2014-06-02	2014-06-30	VTI US	2.62%	2014-06-30
2014-05-01	2014-05-30	VUG US	3.57%	2014-05-30
2014-04-01	2014-04-30	VUG US	1.44%	2014-04-02
2014-03-03	2014-03-31	VTI US	1.04%	2014-03-06
2014-02-03	2014-02-28	VUG US	5.61%	2014-02-28
2014-01-02	2014-01-31	BND US	1.55%	2014-01-31
2013-12-02	2013-12-31	VUG US	3.42%	2013-12-31
2013-11-01	2013-11-29	IVW US	3.18%	2013-11-27

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Starting date	Ending date	Ticker	Intra-period Return-to-date	Best Perf. Observed on
2013-10-01	2013-10-31	IVW US	5.54%	2013-10-29
2013-09-03	2013-09-30	VUG US	6.50%	2013-09-18
2013-08-01	2013-08-30	VUG US	1.67%	2013-08-05
2013-07-01	2013-07-31	VTI US	6.11%	2013-07-22
2013-06-03	2013-06-28	SCHX US	1.37%	2013-06-18
2013-05-01	2013-05-31	SCHG US	5.25%	2013-05-21
2013-04-01	2013-04-30	IWF US	2.12%	2013-04-30
2013-03-01	2013-03-29	VTI US	3.95%	2013-03-28
2013-02-01	2013-02-28	VTI US	2.45%	2013-02-19
2013-01-02	2013-01-31	VTI US	6.03%	2013-01-29
2012-12-03	2012-12-31	VTI US	2.44%	2012-12-18
2012-11-01	2012-11-30	VUG US	2.08%	2012-11-29
2012-10-01	2012-10-31	SCHX US	1.56%	2012-10-17
2012-09-04	2012-09-28	VTI US	4.56%	2012-09-14
2012-08-01	2012-08-31	SCHG US	4.26%	2012-08-17
2012-07-02	2012-07-31	IVW US	2.37%	2012-07-30
2012-06-01	2012-06-29	VTI US	4.05%	2012-06-29
2012-05-01	2012-05-31	BND US	0.93%	2012-05-31
2012-04-02	2012-04-30	BND US	1.10%	2012-04-30
2012-03-01	2012-03-30	VUG US	4.08%	2012-03-26
2012-02-01	2012-02-29	SCHG US	5.44%	2012-02-28
2012-01-03	2012-01-31	SCHG US	7.85%	2012-01-25
2011-12-01	2011-12-30	VTI US	1.68%	2011-12-27
2011-11-01	2011-11-30	SCHG US	2.29%	2011-11-08
2011-10-03	2011-10-31	SCHG US	15.02%	2011-10-28
2011-09-01	2011-09-30	BND US	1.37%	2011-09-22
2011-08-01	2011-08-31	BND US	2.40%	2011-08-10
2011-07-01	2011-07-29	SCHG US	3.30%	2011-07-07
2011-06-01	2011-06-30	BND US	0.72%	2011-06-24
2011-05-02	2011-05-31	BND US	1.18%	2011-05-31
2011-04-01	2011-04-29	IWF US	3.29%	2011-04-29
2011-03-01	2011-03-31	BND US	0.88%	2011-03-16
2011-02-01	2011-02-28	VTI US	4.95%	2011-02-18
2011-01-03	2011-01-31	SCHG US	3.75%	2011-01-18
2010-12-01	2010-12-31	VTI US	7.14%	2010-12-29
2010-11-01	2010-11-30	VTI US	3.66%	2010-11-05
2010-10-01	2010-10-29	VUG US	5.18%	2010-10-29
2010-09-01	2010-09-30	SCHG US	11.83%	2010-09-28
2010-08-05	2010-08-31	BND US	1.51%	2010-08-31
2010-08-02	2010-08-04	IWF US	2.62%	2010-08-04
2010-07-01	2010-07-30	VUG US	9.03%	2010-07-26
2010-06-01	2010-06-30	IVW US	3.26%	2010-06-18
2010-05-03	2010-05-28	BND US	1.44%	2010-05-25
2010-04-01	2010-04-30	VTI US	4.83%	2010-04-23
2010-03-01	2010-03-31	VTI US	6.86%	2010-03-23
2010-02-01	2010-02-26	SCHG US	4.36%	2010-02-19
2010-01-04	2010-01-29	VTI US	3.35%	2010-01-19
2009-12-11	2009-12-31	SCHG US	3.93%	2009-12-24
2009-12-01	2009-12-10	VTI US	1.52%	2009-12-02
2009-11-03	2009-11-30	IWF US	7.13%	2009-11-17

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Starting date	Ending date	Ticker	Intra-period Return-to-date	Best Perf. Observed on
2009-11-02	2009-11-02	VUG US	0.76%	2009-11-02
2009-10-01	2009-10-30	IVW US	4.63%	2009-10-19
2009-09-01	2009-09-30	VTI US	5.63%	2009-09-22
2009-08-03	2009-08-31	VTI US	4.79%	2009-08-27
2009-07-01	2009-07-31	VTI US	7.74%	2009-07-31
2009-06-01	2009-06-30	IVW US	3.96%	2009-06-11
2009-05-01	2009-05-29	VTI US	5.96%	2009-05-08
2009-04-01	2009-04-30	VTI US	11.02%	2009-04-29
2009-03-02	2009-03-31	IWF US	13.46%	2009-03-26
2009-02-02	2009-02-27	IWF US	6.77%	2009-02-06
2009-01-02	2009-01-30	IWF US	4.86%	2009-01-06
2008-12-01	2008-12-31	BND US	5.14%	2008-12-31
2008-11-03	2008-11-28	BSV US	4.42%	2008-11-26
2008-10-01	2008-10-31	BND US	1.41%	2008-10-02
2008-09-02	2008-09-30	BND US	1.85%	2008-09-15
2008-08-01	2008-08-29	IVW US	3.34%	2008-08-28
2008-07-01	2008-07-31	IVW US	0.60%	2008-07-01
2008-06-02	2008-06-30	IWF US	1.18%	2008-06-05
2008-05-01	2008-05-30	VUG US	4.35%	2008-05-16
2008-04-01	2008-04-30	IVW US	7.08%	2008-04-21
2008-03-03	2008-03-31	IWF US	1.41%	2008-03-25
2008-02-01	2008-02-29	VUG US	2.03%	2008-02-26
2008-01-02	2008-01-31	BSV US	2.27%	2008-01-31
2007-12-03	2007-12-31	VUG US	2.74%	2007-12-10
2007-11-01	2007-11-30	BND US	2.16%	2007-11-26
2007-10-01	2007-10-31	VUG US	2.96%	2007-10-31
2007-09-04	2007-09-28	IWF US	4.83%	2007-09-27
2007-08-31	2007-08-31	CASH USD		2007-08-31

## WORST PERFORMERS INTRA-PERIOD

Highlights the least performing investments in between rebalances.

Starting date	Ending date	Ticker	Intra-period Return-to-date	Worst Perf. Observed on
2022-05-02	2022-05-11	VUG US	-8.4%	2022-05-11
2022-04-01	2022-04-29	SCHG US	-13.2%	2022-04-29
2022-03-09	2022-03-31	BND US	-2.9%	2022-03-25
2022-03-01	2022-03-08	VUG US	-7.5%	2022-03-08
2022-02-01	2022-02-28	VUG US	-9.3%	2022-02-23
2022-01-03	2022-01-31	VUG US	-15.3%	2022-01-27
2021-12-01	2021-12-31	SCHG US	-3.0%	2021-12-03
2021-11-01	2021-11-30	VTI US	-1.5%	2021-11-30
2021-10-01	2021-10-29	SCHG US	-1.3%	2021-10-04
2021-09-01	2021-09-30	IVW US	-5.8%	2021-09-30
2021-08-02	2021-08-31	BND US	-0.8%	2021-08-10
2021-07-01	2021-07-30	VTI US	-1.6%	2021-07-19
2021-06-01	2021-06-30	SCHG US	-1.3%	2021-06-03
2021-05-03	2021-05-28	SCHG US	-6.5%	2021-05-12
2021-04-01	2021-04-30	SCHO US	-0.0%	2021-04-05
2021-03-01	2021-03-31	SCHG US	-4.1%	2021-03-08
2021-02-01	2021-02-26	BND US	-2.4%	2021-02-25

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Starting date	Ending date	Ticker	Intra-period Return-to-date	Worst Perf. Observed on
2021-01-04	2021-01-29	IWF US	-2.0%	2021-01-06
2020-12-01	2020-12-31	BND US	-0.5%	2020-12-04
2020-11-02	2020-11-30	SCHO US	-0.1%	2020-11-11
2020-10-01	2020-10-30	IWF US	-3.4%	2020-10-30
2020-09-01	2020-09-30	IWF US	-9.0%	2020-09-23
2020-08-03	2020-08-31	BND US	-1.3%	2020-08-27
2020-07-01	2020-07-31	SCHO US	-0.0%	2020-07-06
2020-06-01	2020-06-30	VTI US	-1.2%	2020-06-11
2020-05-01	2020-05-29	VTI US	-3.0%	2020-05-13
2020-04-01	2020-04-30	VTI US	-4.6%	2020-04-01
2020-03-02	2020-03-31	VTI US	-25.6%	2020-03-23
2020-02-03	2020-02-28	VTI US	-8.0%	2020-02-28
2020-01-02	2020-01-31	VTI US	-0.1%	2020-01-31
2019-12-02	2019-12-31	VUG US	-1.7%	2019-12-03
2019-11-01	2019-11-29	BND US	-1.1%	2019-11-08
2019-10-01	2019-10-31	SCHX US	-2.9%	2019-10-02
2019-09-03	2019-09-30	BND US	-1.9%	2019-09-13
2019-08-01	2019-08-30	VUG US	-4.9%	2019-08-05
2019-07-01	2019-07-31	BND US	-0.5%	2019-07-11
2019-06-03	2019-06-28	VUG US	-1.5%	2019-06-03
2019-05-01	2019-05-31	VTI US	-6.4%	2019-05-31
2019-04-01	2019-04-30	BND US	-0.6%	2019-04-16
2019-03-01	2019-03-29	VTI US	-1.7%	2019-03-08
2019-02-01	2019-02-28	BND US	-0.4%	2019-02-04
2019-01-02	2019-01-31	IWF US	-3.2%	2019-01-03
2018-12-03	2018-12-31	SCHG US	-14.9%	2018-12-24
2018-11-01	2018-11-30	IWF US	-4.7%	2018-11-20
2018-10-01	2018-10-31	VUG US	-12.0%	2018-10-29
2018-09-04	2018-09-28	VUG US	-1.6%	2018-09-07
2018-08-01	2018-08-31	VTI US	-0.1%	2018-08-01
2018-07-02	2018-07-31	VUG US	-0.3%	2018-07-03
2018-06-01	2018-06-29	BND US	-0.6%	2018-06-13
2018-05-01	2018-05-31	VTI US	-0.7%	2018-05-03
2018-04-02	2018-04-30	VUG US	-2.5%	2018-04-02
2018-03-01	2018-03-29	IWV US	-4.6%	2018-03-23
2018-02-01	2018-02-28	IWV US	-8.6%	2018-02-08
2018-01-02	2018-01-31	BND US	-1.3%	2018-01-30
2017-12-01	2017-12-29	IWF US	-1.1%	2017-12-05
2017-11-01	2017-11-30	VTI US	-0.5%	2017-11-15
2017-10-02	2017-10-31	BND US	-0.4%	2017-10-26
2017-09-01	2017-09-29	SCHG US	-0.6%	2017-09-05
2017-08-01	2017-08-31	VTI US	-2.0%	2017-08-18
2017-07-03	2017-07-31	VUG US	-0.9%	2017-07-06
2017-06-01	2017-06-30	IWV US	-0.6%	2017-06-29
2017-05-19	2017-05-31	BND US	-0.2%	2017-05-23
2017-05-01	2017-05-18	VTI US	-1.2%	2017-05-17
2017-04-03	2017-04-28	VTI US	-1.5%	2017-04-13
2017-03-01	2017-03-31	BND US	-1.3%	2017-03-14
2017-02-01	2017-02-28	BND US	-0.2%	2017-02-01
2017-01-03	2017-01-31	BND US	-0.1%	2017-01-25

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Starting date	Ending date	Ticker	Intra-period Return-to-date	Worst Perf. Observed on
2016-12-01	2016-12-30	VUG US	-1.3%	2016-12-01
2016-11-01	2016-11-30	BND US	-2.6%	2016-11-30
2016-10-03	2016-10-31	VUG US	-2.6%	2016-10-31
2016-09-01	2016-09-30	IWW US	-2.1%	2016-09-09
2016-08-01	2016-08-31	VTI US	-0.9%	2016-08-02
2016-07-01	2016-07-29	VTI US	-0.6%	2016-07-05
2016-06-01	2016-06-30	SCHG US	-5.8%	2016-06-27
2016-05-02	2016-05-31	VTI US	-1.3%	2016-05-19
2016-04-01	2016-04-29	IWW US	-1.2%	2016-04-29
2016-03-01	2016-03-31	BND US	-0.4%	2016-03-11
2016-02-01	2016-02-29	VUG US	-6.4%	2016-02-11
2016-01-04	2016-01-29	SCHG US	-9.7%	2016-01-20
2015-12-01	2015-12-31	VUG US	-4.2%	2015-12-18
2015-11-02	2015-11-30	VUG US	-3.0%	2015-11-13
2015-10-01	2015-10-30	BND US	-0.2%	2015-10-29
2015-09-01	2015-09-30	SCHG US	-5.4%	2015-09-29
2015-08-03	2015-08-31	VUG US	-11.1%	2015-08-25
2015-07-01	2015-07-31	SCHG US	-1.0%	2015-07-08
2015-06-01	2015-06-30	IWW US	-2.3%	2015-06-29
2015-05-01	2015-05-29	BND US	-1.1%	2015-05-13
2015-04-01	2015-04-30	SCHG US	-0.5%	2015-04-01
2015-03-02	2015-03-31	VUG US	-3.9%	2015-03-31
2015-02-02	2015-02-27	BND US	-2.0%	2015-02-17
2015-01-02	2015-01-30	VUG US	-3.2%	2015-01-15
2014-12-01	2014-12-31	IWF US	-5.1%	2014-12-16
2014-11-03	2014-11-28	SCHG US	-0.4%	2014-11-04
2014-10-01	2014-10-31	SCHG US	-5.9%	2014-10-15
2014-09-01	2014-09-30	VUG US	-2.5%	2014-09-25
2014-08-01	2014-08-29	IWW US	-1.0%	2014-08-07
2014-07-01	2014-07-31	VTI US	-2.0%	2014-07-31
2014-06-02	2014-06-30	BND US	-0.7%	2014-06-10
2014-05-01	2014-05-30	VTI US	-0.8%	2014-05-06
2014-04-01	2014-04-30	IWW US	-3.8%	2014-04-11
2014-03-03	2014-03-31	VUG US	-2.7%	2014-03-27
2014-02-03	2014-02-28	IWF US	-2.4%	2014-02-03
2014-01-02	2014-01-31	VUG US	-4.0%	2014-01-29
2013-12-02	2013-12-31	SCHG US	-1.6%	2013-12-12
2013-11-01	2013-11-29	VUG US	-1.4%	2013-11-07
2013-10-01	2013-10-31	IWF US	-2.1%	2013-10-09
2013-09-03	2013-09-30	BND US	-1.0%	2013-09-05
2013-08-01	2013-08-30	VTI US	-3.1%	2013-08-27
2013-07-01	2013-07-31	BND US	-1.0%	2013-07-05
2013-06-03	2013-06-28	VUG US	-4.1%	2013-06-24
2013-05-01	2013-05-31	BND US	-1.9%	2013-05-31
2013-04-01	2013-04-30	SCHG US	-2.7%	2013-04-18
2013-03-01	2013-03-29	BND US	-0.7%	2013-03-11
2013-02-01	2013-02-28	SCHG US	-1.1%	2013-02-25
2013-01-02	2013-01-31	BND US	-0.9%	2013-01-30
2012-12-03	2012-12-31	IWW US	-1.9%	2012-12-28
2012-11-01	2012-11-30	VTI US	-4.1%	2012-11-15

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Starting date	Ending date	Ticker	Intra-period Return-to-date	Worst Perf. Observed on
2012-10-01	2012-10-31	VUG US	-3.2%	2012-10-24
2012-09-04	2012-09-28	BND US	-0.8%	2012-09-14
2012-08-01	2012-08-31	BND US	-1.1%	2012-08-16
2012-07-02	2012-07-31	SCHG US	-2.2%	2012-07-25
2012-06-01	2012-06-29	VUG US	-2.8%	2012-06-01
2012-05-01	2012-05-31	SCHG US	-8.4%	2012-05-18
2012-04-02	2012-04-30	VTI US	-3.7%	2012-04-10
2012-03-01	2012-03-30	SCHG US	-2.0%	2012-03-06
2012-02-01	2012-02-29	BND US	-0.5%	2012-02-21
2012-01-03	2012-01-31	BND US	-0.3%	2012-01-23
2011-12-01	2011-12-30	SCHG US	-4.6%	2011-12-19
2011-11-01	2011-11-30	VTI US	-7.5%	2011-11-25
2011-10-03	2011-10-31	VTI US	-3.3%	2011-10-03
2011-09-01	2011-09-30	SCHG US	-8.7%	2011-09-30
2011-08-01	2011-08-31	SCHG US	-14.7%	2011-08-22
2011-07-01	2011-07-29	VTI US	-2.3%	2011-07-29
2011-06-01	2011-06-30	SCHG US	-6.5%	2011-06-16
2011-05-02	2011-05-31	SCHG US	-3.8%	2011-05-24
2011-04-01	2011-04-29	SCHG US	-2.1%	2011-04-18
2011-03-01	2011-03-31	IWF US	-5.4%	2011-03-16
2011-02-01	2011-02-28	BND US	-1.4%	2011-02-10
2011-01-03	2011-01-31	BND US	-0.5%	2011-01-05
2010-12-01	2010-12-31	BND US	-2.4%	2010-12-15
2010-11-01	2010-11-30	BND US	-1.2%	2010-11-15
2010-10-01	2010-10-29	SCHG US	-0.7%	2010-10-04
2010-09-01	2010-09-30	BND US	-1.0%	2010-09-10
2010-08-05	2010-08-31	SCHG US	-7.6%	2010-08-31
2010-08-02	2010-08-04	BSV US	-0.0%	2010-08-02
2010-07-01	2010-07-30	VTI US	-0.9%	2010-07-02
2010-06-01	2010-06-30	VTI US	-5.8%	2010-06-30
2010-05-03	2010-05-28	SCHG US	-10.1%	2010-05-26
2010-04-01	2010-04-30	BND US	-0.6%	2010-04-05
2010-03-01	2010-03-31	BND US	-0.5%	2010-03-25
2010-02-01	2010-02-26	VTI US	-1.5%	2010-02-08
2010-01-04	2010-01-29	IWV US	-5.3%	2010-01-29
2009-12-11	2009-12-31	BND US	-1.1%	2009-12-24
2009-12-01	2009-12-10	BND US	-0.8%	2009-12-04
2009-11-03	2009-11-30	BND US	-0.2%	2009-11-04
2009-11-02	2009-11-02	BND US	-0.1%	2009-11-02
2009-10-01	2009-10-30	VTI US	-3.2%	2009-10-02
2009-09-01	2009-09-30	VTI US	-2.6%	2009-09-02
2009-08-03	2009-08-31	IWV US	-1.8%	2009-08-17
2009-07-01	2009-07-31	VTI US	-4.6%	2009-07-10
2009-06-01	2009-06-30	VTI US	-2.8%	2009-06-22
2009-05-01	2009-05-29	BND US	-0.3%	2009-05-27
2009-04-01	2009-04-30	BSV US	-0.6%	2009-04-06
2009-03-02	2009-03-31	VTI US	-8.4%	2009-03-09
2009-02-02	2009-02-27	VTI US	-10.5%	2009-02-27
2009-01-02	2009-01-30	VTI US	-10.3%	2009-01-20
2008-12-01	2008-12-31	VTI US	-8.9%	2008-12-01

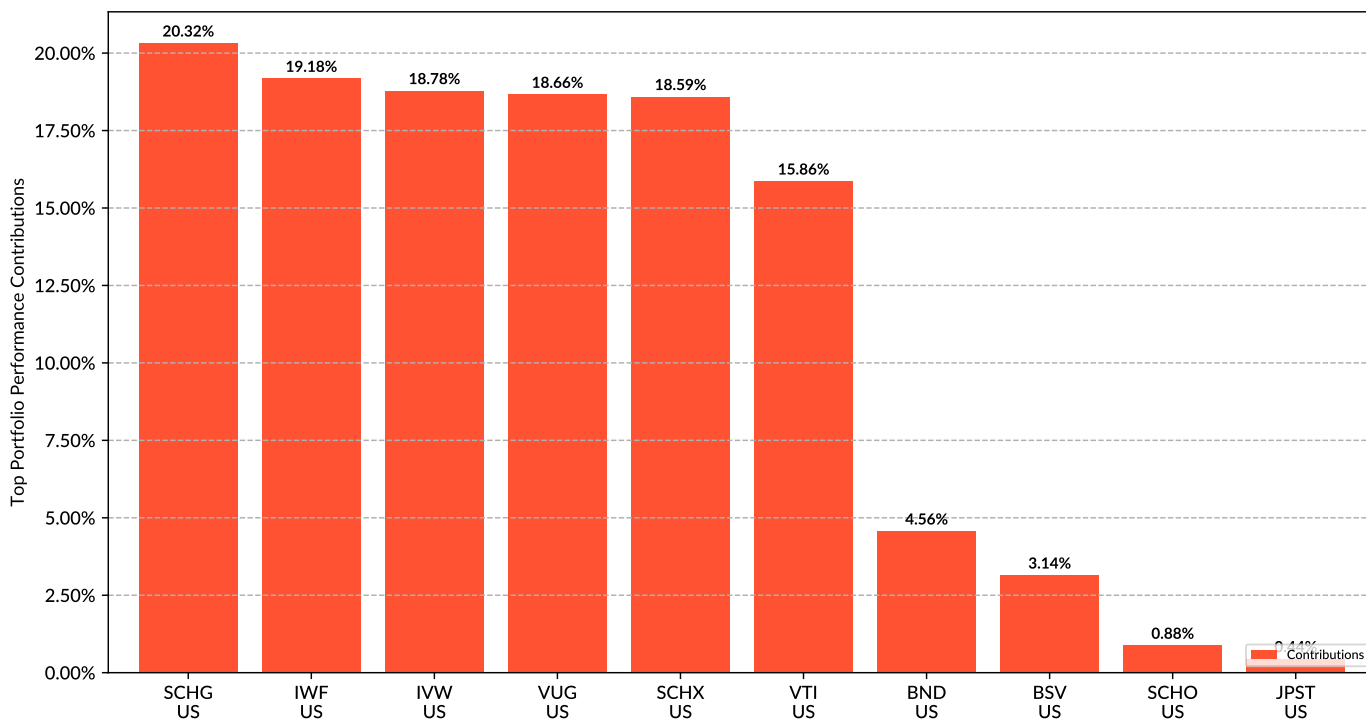
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Starting date	Ending date	Ticker	Intra-period Return-to-date	Worst Perf. Observed on
2008-11-03	2008-11-28	VTI US	-22.8%	2008-11-20
2008-10-01	2008-10-31	VUG US	-29.3%	2008-10-27
2008-09-02	2008-09-30	IWF US	-14.3%	2008-09-29
2008-08-01	2008-08-29	IWF US	-2.1%	2008-08-04
2008-07-01	2008-07-31	VTI US	-5.3%	2008-07-15
2008-06-02	2008-06-30	VTI US	-8.6%	2008-06-30
2008-05-01	2008-05-30	BND US	-1.4%	2008-05-29
2008-04-01	2008-04-30	BND US	-1.4%	2008-04-25
2008-03-03	2008-03-31	VTI US	-4.7%	2008-03-10
2008-02-01	2008-02-29	IWW US	-3.5%	2008-02-06
2008-01-02	2008-01-31	VUG US	-11.6%	2008-01-22
2007-12-03	2007-12-31	VTI US	-2.4%	2007-12-17
2007-11-01	2007-11-30	VTI US	-9.2%	2007-11-26
2007-10-01	2007-10-31	VTI US	-1.5%	2007-10-19
2007-09-04	2007-09-28	VTI US	-1.3%	2007-09-10
2007-08-31	2007-08-31	CASH USD		2007-08-31

## PERFORMANCE ATTRIBUTION - CONTRIBUTIONS

Decomposition by constituents of contributions to the portfolio returns. \* Please see the important Performance Disclosures at the end of the document.

- For each constituent, we compute a first order contribution to the overall performance of the portfolio. Over the simulated time span, several rebalances might take place: we add up the contributions of each security within said periods and compound returns - overlooking cross effects with other securities.
- The chart highlights the top contributors - ranked by decreasing contributions, and reporting up to 10 securities.



## PERFORMANCE ATTRIBUTION - ACTIVE RETURNS ANALYSIS

This section breaks down the origin of excess returns along various portfolio representations. \* Please see the important Performance Disclosures at the end of the document.

- A portfolio simulation may include several rebalances which can either be discretionary (based on provided historical portfolio trades) or triggered by the systematic rebalancing options selected. We attribute performance by calculating the Active Return against the chosen Benchmark. Attribution breaks up performance based on Allocation, Selection and Interaction effects.

### SECURITY MASTER

	Parent	Asset class focus	Investment strategy	Geography focus	Security type
\$Cash	Portfolio, Benchmark	Cash & Equivalents	Cash & Equivalents	USA	Cash
SCHX US	Portfolio	Equity	Equity - Broad Market	USA	ETF
SCHG US	Portfolio	Equity	Equity - Broad Market	USA	ETF
SCHO US	Portfolio	Fixed Income	Sector Focused - Government	USA	ETF
JPST US	Portfolio	Fixed Income	Sector Focused - Broad	Global	ETF
SPY US	Benchmark	Equity	Equity - Broad Market	USA	ETF
IWF US	Portfolio	Equity	Equity - Broad Market	USA	ETF
IVW US	Portfolio	Equity	Equity - Broad Market	USA	ETF
AGG US	Benchmark	Fixed Income	Sector Focused - Broad	USA	ETF
VTI US	Portfolio	Equity	Equity - Broad Market	USA	ETF
VUG US	Portfolio	Equity	Equity - Broad Market	USA	ETF
BND US	Portfolio	Fixed Income	Sector Focused - Broad	USA	ETF
BSV US	Portfolio	Fixed Income	Sector Focused - Government	USA	ETF

### PERFORMANCE BREAKDOWN BY ASSET CLASS FOCUS

\* Please see the important Performance Disclosures at the end of the document.

	Avg Portfolio Weight	Avg Benchmark Weight	Allocation Effect	Selection Effect	Interaction Effect	Excess Return	Portfolio return	Benchmark return
Equity	56.83%	60.00%	8.33%	33.82%	-3.97%	38.18%		
Fixed Income	31.26%	40.00%	0.13%	-12.52%	3.55%	-8.83%		
Cash & Equivalents	11.91%		-11.84%			-11.84%		
Total	100.00%	100.00%	-3.38%	21.30%	-0.42%	17.51%	182.90%	165.39%

### PERFORMANCE BREAKDOWN BY INVESTMENT STRATEGY

\* Please see the important Performance Disclosures at the end of the document.

	Avg Portfolio Weight	Avg Benchmark Weight	Allocation Effect	Selection Effect
Equity - Broad Market	56.83%	60.00%	8.33%	33.82%
Sector Focused - Government	17.87%		-57.32%	
Sector Focused - Broad	13.39%	40.00%	37.91%	-0.80%
Cash & Equivalents	11.91%		-11.84%	
Total	100.00%	100.00%	-22.92%	33.02%

Wide table continues→

	Interaction Effect	Excess Return	Portfolio return	Benchmark return
Equity - Broad Market	-3.97%	38.18%		
Sector Focused - Government	10.93%	-46.39%		
Sector Focused - Broad	0.46%	37.57%		
Cash & Equivalents		-11.84%		
Total	7.41%	17.51%	182.90%	165.39%

## PERFORMANCE BREAKDOWN BY GEOGRAPHY FOCUS

\* Please see the important Performance Disclosures at the end of the document.

	Avg Portfolio Weight	Avg Benchmark Weight	Allocation Effect	Selection Effect	Interaction Effect	Excess Return	Portfolio return	Benchmark return
USA	96.61%	100.00%		30.29%	-2.53%	27.76%		
Global	3.39%		-11.53%		1.27%	-10.25%		
Total	100.00%	100.00%	-11.53%	30.29%	-1.25%	17.51%	182.90%	165.39%

## PERFORMANCE BREAKDOWN BY SECURITY TYPE

\* Please see the important Performance Disclosures at the end of the document.

	Avg Portfolio Weight	Avg Benchmark Weight	Allocation Effect	Selection Effect	Interaction Effect	Excess Return	Portfolio return	Benchmark return
ETF	88.09%	100.00%		33.12%	-3.77%	29.35%		
Cash	11.91%		-11.84%			-11.84%		
Total	100.00%	100.00%	-11.84%	33.12%	-3.77%	17.51%	182.90%	165.39%

## PORTFOLIO CONSTITUENT FEATURES

This section highlights intrinsic features of the securities included in the Portfolio.

- This section provides an in-depth look at the recent performance of the securities included in the portfolio. At the portfolio level, such a breakdown aims at showcasing the potential heterogeneities in the different contributions to the portfolio. Example of use-cases include the identification of drag on performance or high idiosyncratic risk securities.
- Unlike the portfolio which might be simulated as an actively managed investment (through calendar rebalances, for instance), the instruments are taken in individuality and the values reported are Buy-and-Hold estimations.

## TRAILING RETURNS OF THE CONSTITUENTS

	Entire History	YTD	1w	1m	3m	6m	1y	3y	5y	10y
Cash Position USD										
JPST US		-0.41%	-0.02%	-0.07%	-0.27%	-0.50%	-0.40%	1.24%		
SCHO US		-2.79%	0.28%	0.03%	-1.25%	-2.97%	-3.42%	0.60%	0.92%	0.70%
BSV US	2.13%	-4.18%	0.39%	-0.16%	-2.15%	-4.33%	-4.94%	0.73%	1.17%	1.15%
BND US	3.07%	-9.56%	0.30%	-1.80%	-5.76%	-9.72%	-8.65%	0.27%	1.21%	1.62%
SCHX US		-18.29%	-6.32%	-12.90%	-13.41%	-16.84%	-6.91%	12.31%	12.12%	13.19%
VTI US	8.90%	-18.80%	-6.68%	-13.01%	-13.76%	-17.91%	-8.35%	11.57%	11.53%	12.89%
IWW US	10.73%	-25.37%	-8.15%	-16.29%	-17.70%	-22.90%	-7.68%	13.65%	14.31%	14.55%
IWF US	10.87%	-26.18%	-8.84%	-16.46%	-18.51%	-24.57%	-9.98%	14.19%	14.97%	14.75%
SCHG US		-27.25%	-9.48%	-18.10%	-19.50%	-26.27%	-10.99%	14.22%	14.69%	14.90%
VUG US	10.48%	-28.39%	-9.49%	-17.70%	-20.33%	-27.03%	-12.98%	13.53%	13.83%	14.16%

## VOLATILITY OF THE CONSTITUENTS

	Entire History	YTD	6m	1y	3y	5y	10y
Cash Position USD							
SCHX US	15.96%	24.38%	22.51%	17.71%	23.63%	20.21%	16.82%
SCHG US	17.53%	34.35%	31.47%	24.26%	26.80%	22.98%	18.77%
SCHO US	0.87%	2.10%	1.88%	1.40%	1.21%	1.09%	0.97%
JPST US	0.69%	0.58%	0.55%	0.45%	1.40%	1.18%	0.83%
IWF US	20.71%	32.20%	29.57%	22.83%	25.99%	22.51%	18.32%
IWW US	20.43%	31.58%	28.86%	22.30%	25.37%	21.96%	17.98%
VTI US	20.68%	24.46%	22.63%	17.89%	23.69%	20.25%	16.94%
VUG US	21.06%	33.47%	30.64%	23.59%	26.35%	22.72%	18.65%
BND US	4.94%	7.03%	6.36%	5.18%	6.49%	5.30%	4.39%
BSV US	3.03%	3.24%	2.89%	2.19%	2.54%	2.10%	1.78%

## PORTFOLIO COMPOSITION - CONSTRAINED EFFICIENT FRONTIER

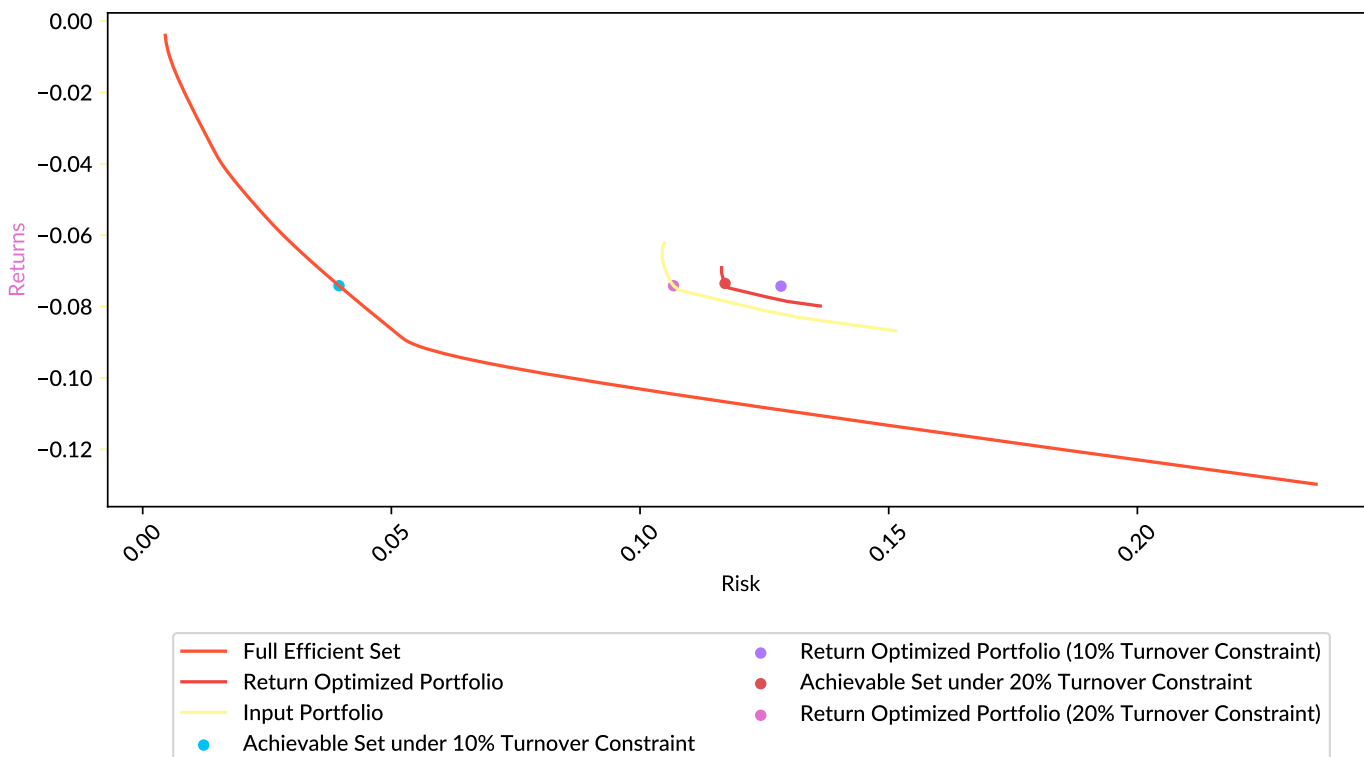
*Holding the securities universe constant, and limiting portfolio turnover, analysis of the set of achievable portfolios.*

- This model provides a visual of the theoretically achievable set of portfolios obtained by re-weighting the risky positions included in the input portfolio. Classically, these new portfolios are represented in the Risk/Return plan - and a few noteworthy points are highlighted.
- The purpose of the tool is to assess the position of the input portfolio within the feasible space - assuming a fixed investment universe for the risky assets (i.e. excluding cash and cash-like instruments) and at a given point in time. Depending on user's selection, the input portfolio is likely to be actively managed - with calendar rebalances, for instance. The Risk and Return estimations for the actual input portfolio are likely to be significantly different from the Buy-And-Hold assessment this procedure will return.
- Historical returns of the constituents are used to derive expected returns, as well as the estimation of the variance-covariance structure to be used for the estimation of risks. If the portfolio has a simulated track record longer than 1 year, only the last year of data - which is expected to be a more accurate proxy for recent market conditions - is used to evaluate the newly created portfolios. Alternatively, the model uses as much information as available.
- The Notable Portfolios highlighted are Optimized Allocations for which - always under the assumption that the investment universe is frozen - the Risk characteristics (resp. Return) of the input portfolio are fixed and the model returns an allocation maximizing the portfolio's Returns (resp. minimizing the risk).
- Additionally, the optimization model establishes constrained sets of portfolios - as defined by achievable under a maximum turnover constraint. These portfolios, although not positioned on the EF, represent optimized allocations within a given percentage change from the input portfolio.



## ESTIMATION OF THE EFFICIENT FRONTIER

Given its most recent composition, observation of the Portfolios in the Risk/Return space.



## OVERVIEW OF NOTABLE PORTFOLIOS

Maintaining a constant investable universe, comparison of the initial portfolio versus optimized portfolios.

	Expected Returns	Estimated Risk
Input Portfolio	-7.43%	12.83%
Return Optimized Portfolio	-7.42%	3.95%
Return Optimized Portfolio (10% Turnover Constraint)	-7.35%	11.71%
Return Optimized Portfolio (20% Turnover Constraint)	-7.42%	10.67%

## ALLOCATION OF NOTABLE PORTFOLIOS

Maintaining a constant investable universe, comparison of the portfolio versus optimized portfolio allocations.

	Input Portfolio	Return Optimized Portfolio	Return Optimized Portfolio (10% Turnover Constraint)	Return Optimized Portfolio (20% Turnover Constraint)
SCHX US	10.00%		10.00%	10.00%
SCHG US	10.00%		6.23%	6.68%
SCHO US	10.00%	0.00%	10.00%	10.00%
JPST US	10.00%	0.00%	10.00%	10.00%
IWF US	10.00%		10.00%	10.00%
IVW US	10.00%		8.77%	3.32%
VTI US	10.00%	0.00%	10.00%	10.00%
VUG US	10.00%	4.04%	10.00%	10.00%
BND US	10.00%	58.00%	15.00%	20.00%
BSV US	10.00%	37.95%	10.00%	10.00%

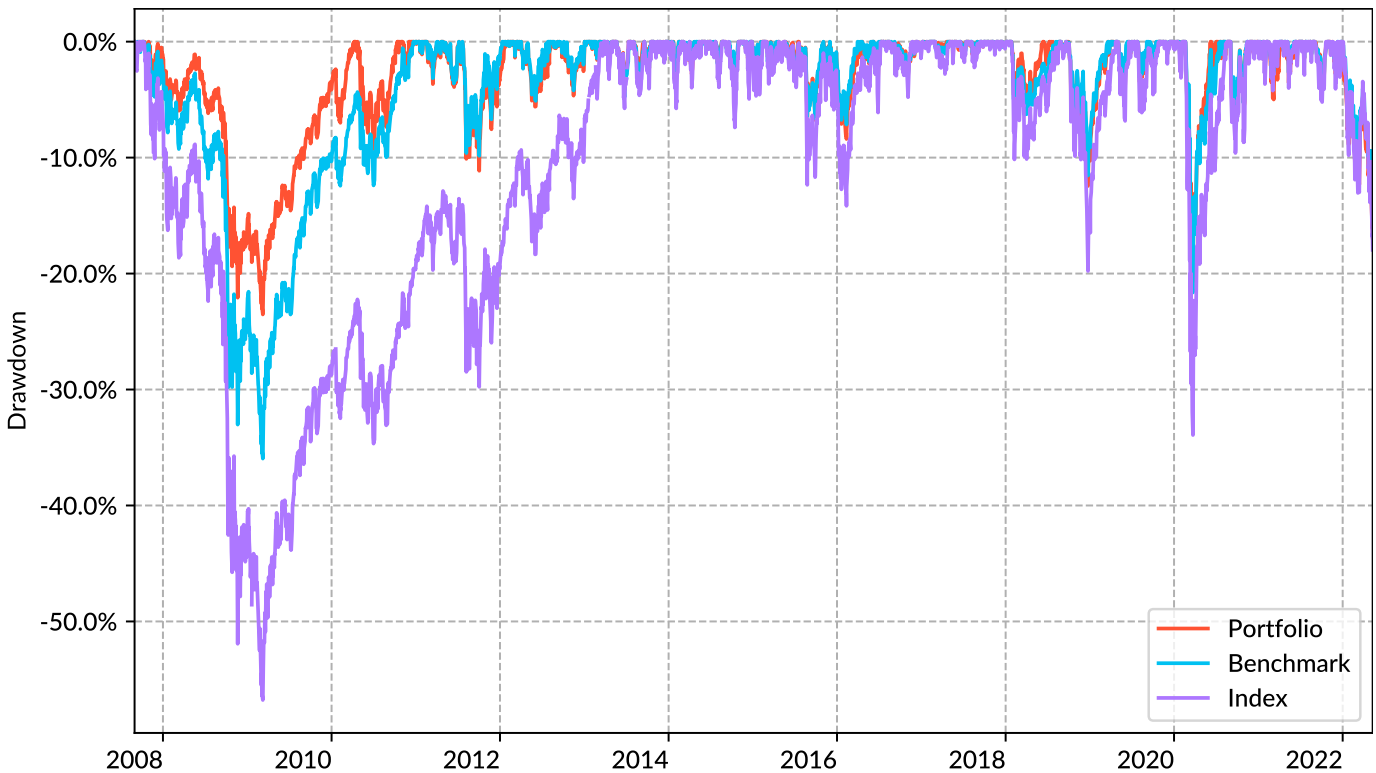
## RISK - PERFORMANCE ANALYSIS

Observation of recent portfolio performance throughout market cycles. \* Please see the important Performance Disclosures at the end of the document.

- The performance of the portfolio and its selected benchmark are analyzed throughout various market cycles.
- The S&P 500 Index (SPX) is used as a proxy for the overall US market and three types of market conditions are identified:
- Bear: where the market is retracing from recently achieved new highs.
- Bull-Recovery: where the market has just exited from a Bear trend and has started recovering from it's most recent lows.
- Bull: where the market has recovered from a high-low-high cycle and is now reaching new highs.
- A summary and detailed view of the performance of the portfolio and its benchmark is provided.

## DRAWDOWN EVOLUTION

Drawdown curves for the portfolio and the benchmark



## SUMMARY

Average over all periods for each market environment.

	Portfolio - Performance	Portfolio - Active Returns	Portfolio - Active Risk	Portfolio - Information Ratio	Benchmark - Performance	Benchmark - Active Returns	Benchmark - Active Risk
Entire History	182.9%				165.4%		
Bear	-5.8%	41.5%	7.7%	5.5	-6.1%	44.2%	8.3%
Bull	3.8%	-12.2%	3.9%	-3.2	3.6%	-14.1%	3.9%
Bull-Recovery	8.1%	-19.6%	6.1%	-3.4	9.0%	-21.7%	6.3%

*Wide table continues→*

**Benchmark -  
Information Ratio**

Entire History	
Bear	548.0%
Bull	-387.7%
Bull-Recovery	-366.3%

**BULL MARKETS**

Focus on Bull Markets.

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**BEAR MARKETS**

Focus on Bear Markets.

Start Date	End Date	Duration	Portfolio - Performance	Portfolio - Active Returns	Portfolio - Active Risk	Portfolio - Information Ratio	Benchmark - Performance
2022-01-03	2022-05-11	90	-16.3%	2.7%	6.9%	0.4	-13.9%
2021-09-02	2021-10-04	22	-3.8%	12.8%	5.2%	2.5	-3.2%
2021-05-07	2021-05-12	4	-2.4%	56.9%	6.0%	9.4	-2.3%
2020-09-02	2020-09-23	15	-5.7%	42.8%	8.7%	4.9	-5.0%
2020-02-19	2020-03-23	24	-20.4%	168.5%	32.0%	5.3	-21.4%
2019-07-26	2019-08-14	14	-2.6%	50.6%	8.9%	5.7	-2.4%
2019-04-30	2019-06-03	24	-3.8%	31.6%	5.2%	6.1	-3.1%
2018-09-20	2018-12-24	66	-11.9%	31.7%	7.4%	4.3	-11.1%
2018-01-26	2018-02-08	10	-5.4%	95.8%	12.2%	7.9	-6.0%
2017-08-07	2017-08-18	10	-1.0%	27.5%	4.3%	6.5	-1.0%
2017-05-15	2017-05-17	3	-0.7%	56.0%	6.7%	8.3	-0.6%
2017-03-01	2017-04-13	32	-0.1%	10.5%	3.3%	3.2	-0.4%
2016-08-15	2016-11-04	59	-2.9%	7.0%	3.9%	1.8	-2.7%
2015-05-21	2016-02-11	184	-7.7%	8.5%	7.6%	1.1	-6.7%
2015-03-02	2015-03-11	8	-1.7%	43.8%	5.0%	8.7	-2.0%
2014-12-29	2015-01-15	13	-2.2%	47.7%	6.1%	7.8	-1.9%
2014-09-18	2014-10-15	20	-3.8%	40.9%	10.6%	3.9	-3.2%
2014-04-02	2014-04-11	8	-2.5%	38.1%	5.0%	7.6	-1.8%
2014-01-15	2014-02-03	13	-2.8%	49.6%	6.0%	8.2	-2.6%
2013-08-02	2013-08-27	18	-2.2%	32.2%	3.6%	9.1	-2.6%
2013-05-21	2013-06-24	24	-4.1%	15.8%	6.0%	2.6	-4.7%
2007-10-09	2009-03-09	358	-23.2%				-35.6%

Wide table continues→

Start Date	Benchmark - Active Returns	Benchmark - Active Risk	Benchmark - Information Ratio
2022-01-03	10.2%	9.3%	109.9%
2021-09-02	20.5%	5.3%	386.4%
2021-05-07	66.2%	6.0%	1,109.7%
2020-09-02	55.4%	10.3%	538.7%
2020-02-19	155.4%	34.9%	445.8%
2019-07-26	54.8%	9.7%	565.2%
2019-04-30	40.0%	5.4%	743.3%
2018-09-20	34.9%	8.6%	403.9%
2018-01-26	81.9%	12.0%	680.4%
2017-08-07	25.9%	4.9%	527.2%
2017-05-15	72.1%	7.6%	943.6%
2017-03-01	8.3%	3.3%	250.7%
2016-08-15	7.7%	3.7%	211.1%
2015-05-21	10.0%	7.9%	126.6%
2015-03-02	35.0%	5.3%	659.9%
2014-12-29	52.5%	6.5%	805.8%
2014-09-18	49.4%	10.5%	470.7%
2014-04-02	59.8%	6.9%	868.9%
2014-01-15	53.1%	7.0%	759.1%
2013-08-02	26.3%	3.6%	726.9%
2013-05-21	9.7%	5.5%	175.0%
2007-10-09			

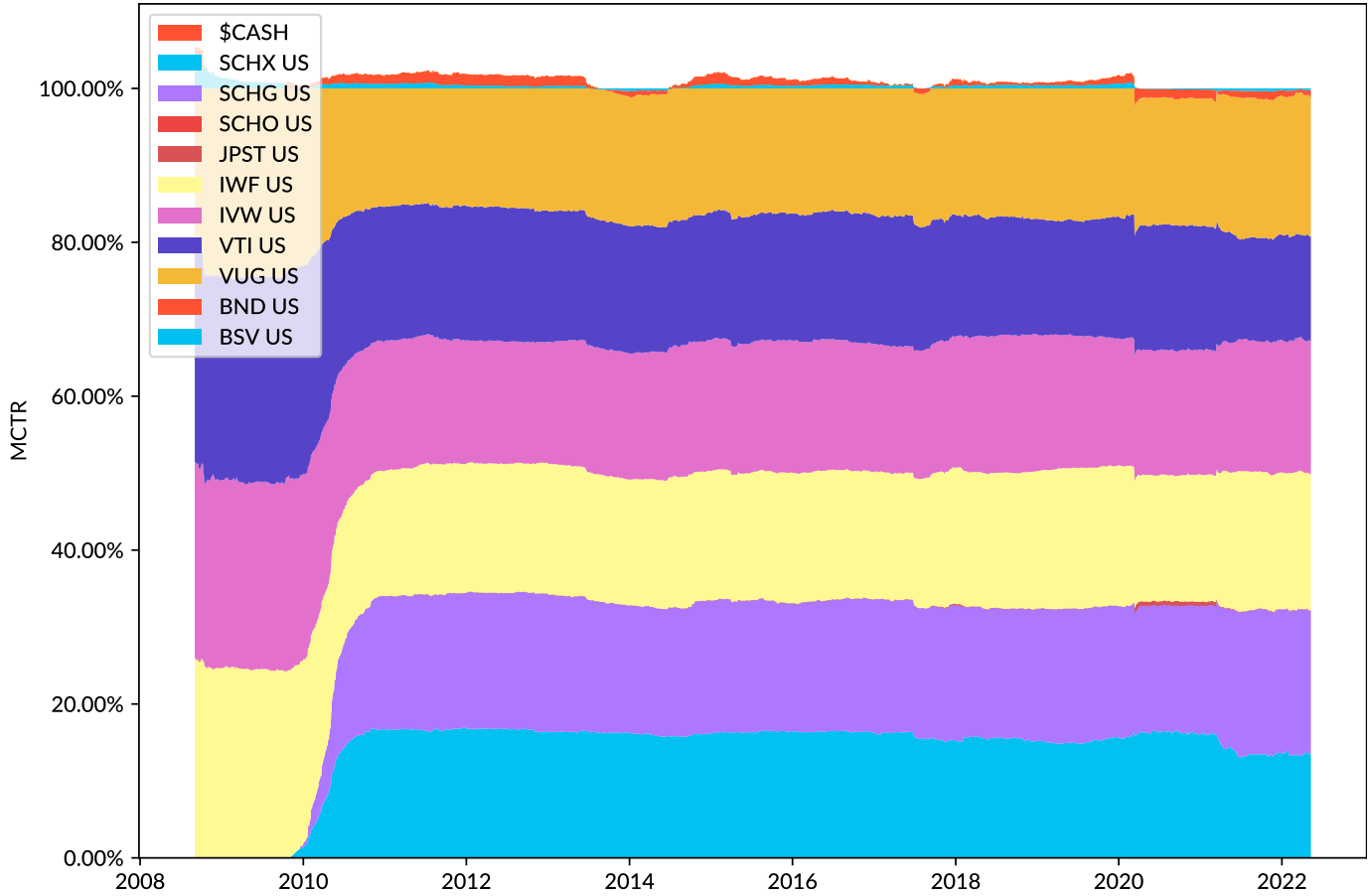
## RISK - CONTRIBUTIONS ANALYSIS

*Observation of contributions to the overall risk of the portfolio throughout time.*

- This section provides an in-depth look at how the holdings contribute to the overall risk of the portfolio. A rolling MCTR estimation is implemented throughout the simulated life of the portfolio.
- In the context of portfolio construction, some positions might suffer from market regime change and go from decreasing the overall portfolio risk, to being additive. Additionally, in a well-diversified portfolio a specific position should not contribute excessively - as compared to its size - to the risk of the portfolio.
- For each observation date, a rolling one-year variance-covariance structure is estimated for all the securities included in the portfolio and a standard MCTR computation is graphed.

## MCTR - TIME SERIES EVOLUTION

Observation over the simulated life of the portfolio of the Marginal Contributions To Risk.



## SECURITY RETURNS QUILT

- The return quilt depicts total returns for each security in the latest, current portfolio. Historical portfolios, rebalances and portfolio weights are not considered here.
- The latest time-period is as of the market last close.

SCHX US 0.55%	SCHG US 6.32%	IVW US 3.78%	IVW US 4.12%	JPST US 0.01%	IVW US 9.11%	IVW US 1.34%	SCHX US 4.05%	JPST US -0.18%	JPST US -0.18%	SCHG US 4.68%	JPST US -0.05%	BSV US 0.24%
VTI US 0.46%	IWF US 6.11%	IWF US 3.38%	SCHG US 3.88%	SCHO US -0.13%	SCHG US 8.89%	VUG US 0.71%	VTI US 3.79%	SCHO US -0.73%	SCHO US -0.42%	IVW US 4.45%	SCHO US -0.48%	SCHO US 0.19%
BSV US 0.21%	VUG US 6.02%	SCHG US 3.34%	VUG US 3.67%	BSV US -0.30%	IWF US 8.74%	IWF US 0.63%	IVW US 2.50%	BSV US -1.03%	BSV US -0.53%	IWF US 3.96%	BSV US -0.99%	BND US 0.03%
BND US 0.15%	IVW US 5.63%	VUG US 3.18%	IWF US 3.65%	BND US -1.01%	VUG US 8.26%	SCHG US 0.31%	IWF US 2.04%	BND US -2.06%	BND US -1.14%	VUG US 3.80%	BND US -3.97%	JPST US -0.03%
JPST US 0.09%	SCHX US 2.48%	SCHX US 2.29%	SCHX US 2.90%	VTI US -4.46%	SCHX US 6.91%	BND US 0.20%	VUG US 1.57%	SCHX US -5.70%	VTI US -2.49%	SCHX US 3.54%	SCHX US -9.01%	SCHX US -5.37%
SCHO US 0.08%	VTI US 2.48%	VTI US 1.74%	VTI US 2.86%	SCHX US -4.63%	VTI US 6.69%	JPST US 0.02%	SCHG US 1.40%	VTI US -6.06%	SCHX US -2.81%	VTI US 3.26%	VTI US -9.13%	VTI US -5.52%
IVW US -0.89%	BND US 0.90%	BND US 1.17%	JPST US 0.05%	VUG US -5.32%	BND US 0.07%	SCHO US -0.05%	JPST US -0.05%	IVW US -8.40%	SCHG US -4.04%	JPST US -0.14%	IWF US -12.20%	IVW US -6.65%
IWF US -1.39%	JPST US -0.00%	BSV US 0.38%	SCHO US -0.01%	SCHG US -5.39%	JPST US -0.18%	BSV US -0.06%	BSV US -0.15%	IWF US -8.68%	IWF US -4.16%	SCHO US -1.38%	IVW US -12.57%	IWF US -7.59%
VUG US -1.43%	SCHO US -0.18%	SCHO US 0.17%	BSV US -0.07%	IWF US -5.65%	SCHO US -0.29%	SCHX US -1.27%	SCHO US -0.22%	SCHG US -8.94%	IVW US -4.42%	BSV US -1.93%	VUG US -12.88%	SCHG US -8.32%
SCHG US -1.63%	BSV US -0.19%	JPST US 0.05%	BND US -0.19%	IVW US -5.82%	BSV US -0.52%	VTI US -1.46%	BND US -0.31%	VUG US -9.41%	VUG US -4.59%	BND US -2.75%	SCHG US -13.25%	VUG US -8.38%

2021-05 2021-06 2021-07 2021-08 2021-09 2021-10 2021-11 2021-12 2022-01 2022-02 2022-03 2022-04 2022-05

INCOME OVERVIEW

PORTFOLIO SUMMARY

<b>Portfolio Value</b>	<b>Portfolio Yield (TTM)</b>	<b>Income Estimate</b>
1,000,000	1.2203%	12,203

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## PORTFOLIO LINE ITEMS

Ticker	Weight	Estimated Yield (TTM)	Portfolio Contribution	Yearly Income
VTI US	10.00%	1.7315%	0.1731%	1,731.48
VUG US	10.00%	0.5894%	0.0589%	589.41
BND US	10.00%	2.3902%	0.2390%	2,390.16
BSV US	10.00%	1.4237%	0.1424%	1,423.71
JPST US	10.00%	0.6924%	0.0692%	692.39
IWF US	10.00%	0.7279%	0.0728%	727.93
IWW US	10.00%	0.6124%	0.0612%	612.44
SCHX US	10.00%	2.6392%	0.2639%	2,639.23
SCHG US	10.00%	1.0087%	0.1009%	1,008.73
SCHO US	10.00%	0.3876%	0.0388%	387.56

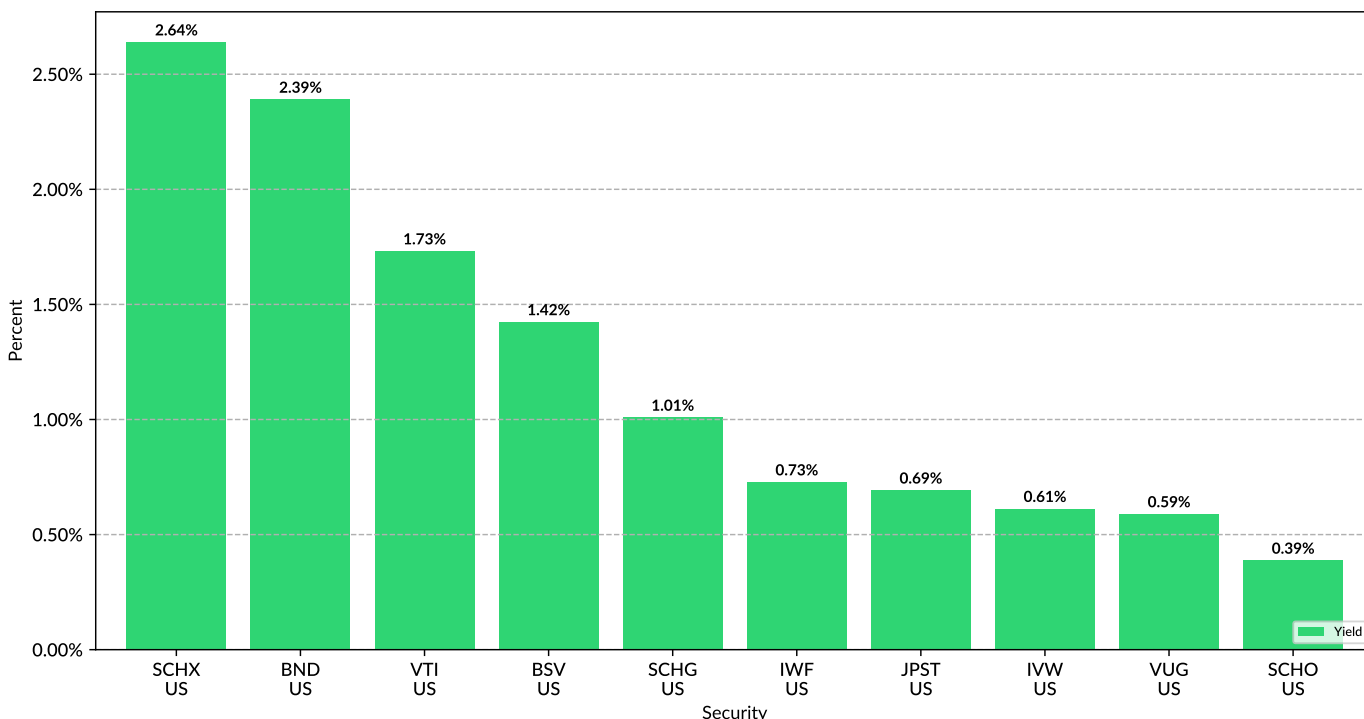
## DIVIDEND OVERVIEW

Ticker	Last Ex Date	Last Div	Total \$ Div TTM	# Divs TTM
VTI US	2022-03-23	0.71	2.97	4
VUG US	2022-03-23	0.30	1.46	4
BND US	2022-05-02	0.14	1.81	12
BSV US	2022-05-02	0.07	1.13	12
JPST US	2022-05-02	0.04	0.35	13
IWF US	2022-03-24	0.40	1.56	4
IWW US	2022-03-24	0.13	0.42	4
SCHX US	2022-03-23	0.15	1.25	5
SCHG US	2022-03-23	0.06	0.62	5
SCHO US	2022-05-02	0.03	0.20	12

## SPECIAL DIVIDEND WARNINGS

Ticker	Has ST Gains (5 yrs)	Has LT Gains (5 yrs)	Has Special Divs (5 yrs)
VTI US			
VUG US			
BND US			
BSV US			
JPST US			
IWF US			True
IWW US			True
SCHX US			
SCHG US			
SCHO US			

## INCOME BY SECURITY



## INCOME - HISTORICAL DIVIDENDS

- Historical and future dividend projections based on the latest portfolio.

Ticker	Ex-Date	Receive Date	Pay Date	Amount	Currency	Payout Type
SCHX US	2022-03-23	2022-03-24	2022-03-28	0.1511	USD	Interim
SCHX US	2021-12-30	2021-12-31	2022-01-04	0.0204	USD	Interim
SCHX US	2021-12-08	2021-12-09	2021-12-13	0.4124	USD	Interim
SCHX US	2021-09-22	2021-09-23	2021-09-27	0.3405	USD	Interim
SCHX US	2021-06-23	2021-06-24	2021-06-28	0.3229	USD	Interim
SCHX US	2021-03-24	2021-03-25	2021-03-29	0.2868	USD	Interim
SCHX US	2020-12-10	2020-12-11	2020-12-15	0.3689	USD	Interim
SCHX US	2020-09-23	2020-09-24	2020-09-28	0.4851	USD	Interim
SCHX US	2020-06-24	2020-06-25	2020-06-29	0.2999	USD	Interim
SCHX US	2020-03-25	2020-03-26	2020-03-30	0.3383	USD	Interim
SCHX US	2019-12-12	2019-12-13	2019-12-17	0.4665	USD	Interim
SCHX US	2019-09-25	2019-09-26	2019-09-30	0.3313	USD	Interim
SCHX US	2019-06-26	2019-06-27	2019-07-01	0.3145	USD	Interim
SCHX US	2019-03-20	2019-03-21	2019-03-25	0.2880	USD	Interim
SCHX US	2018-12-28	2018-12-31	2019-01-03	0.0859	USD	Interim
SCHX US	2018-12-12	2018-12-13	2018-12-17	0.3302	USD	Interim
SCHX US	2018-09-25	2018-09-26	2018-09-28	0.3099	USD	Interim
SCHX US	2018-06-26	2018-06-27	2018-06-29	0.2993	USD	Interim
SCHX US	2018-03-16	2018-03-19	2018-03-22	0.2675	USD	Interim
SCHX US	2017-12-18	2017-12-19	2017-12-22	0.3014	USD	Interim
SCHX US	2017-09-18	2017-09-19	2017-09-22	0.2784	USD	Interim
SCHX US	2017-06-19	2017-06-21	2017-06-23	0.2653	USD	Interim

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Ticker	Ex-Date	Receive Date	Pay Date	Amount	Currency	Payout Type
SCHG US	2022-03-23	2022-03-24	2022-03-28	0.0638	USD	Interim
SCHG US	2021-12-30	2021-12-31	2022-01-04	0.0405	USD	Interim
SCHG US	2021-12-08	2021-12-09	2021-12-13	0.2288	USD	Interim
SCHG US	2021-09-22	2021-09-23	2021-09-27	0.1462	USD	Interim
SCHG US	2021-06-23	2021-06-24	2021-06-28	0.1444	USD	Interim
SCHG US	2021-03-24	2021-03-25	2021-03-29	0.1335	USD	Interim
SCHG US	2020-12-10	2020-12-11	2020-12-15	0.1689	USD	Interim
SCHG US	2020-09-23	2020-09-24	2020-09-28	0.1736	USD	Interim
SCHG US	2020-06-24	2020-06-25	2020-06-29	0.1617	USD	Interim
SCHG US	2020-03-25	2020-03-26	2020-03-30	0.1668	USD	Interim
SCHG US	2019-12-12	2019-12-13	2019-12-17	0.1956	USD	Interim
SCHG US	2019-09-25	2019-09-26	2019-09-30	0.2090	USD	Interim
SCHG US	2019-06-26	2019-06-27	2019-07-01	0.2015	USD	Interim
SCHG US	2019-03-20	2019-03-21	2019-03-25	0.1565	USD	Interim
SCHG US	2018-12-28	2018-12-31	2019-01-03	0.1807	USD	Interim
SCHG US	2018-12-12	2018-12-13	2018-12-17	0.2180	USD	Interim
SCHG US	2018-09-25	2018-09-26	2018-09-28	0.1608	USD	Interim
SCHG US	2018-06-26	2018-06-27	2018-06-29	0.1687	USD	Interim
SCHG US	2018-03-16	2018-03-19	2018-03-22	0.1499	USD	Interim
SCHG US	2017-12-18	2017-12-19	2017-12-22	0.1805	USD	Interim
SCHG US	2017-09-18	2017-09-19	2017-09-22	0.2153	USD	Interim
SCHG US	2017-06-19	2017-06-21	2017-06-23	0.1831	USD	Interim
SCHO US	2022-05-02	2022-05-03	2022-05-06	0.0254	USD	Interim
SCHO US	2022-04-01	2022-04-04	2022-04-07	0.0235	USD	Interim
SCHO US	2022-03-01	2022-03-02	2022-03-07	0.0153	USD	Interim
SCHO US	2022-02-01	2022-02-02	2022-02-07	0.0170	USD	Interim
SCHO US	2021-12-17	2021-12-20	2021-12-23	0.0132	USD	Interim
SCHO US	2021-12-01	2021-12-02	2021-12-07	0.0131	USD	Interim
SCHO US	2021-11-01	2021-11-02	2021-11-05	0.0130	USD	Interim
SCHO US	2021-10-01	2021-10-04	2021-10-07	0.0126	USD	Interim
SCHO US	2021-09-01	2021-09-02	2021-09-08	0.0137	USD	Interim
SCHO US	2021-08-02	2021-08-03	2021-08-06	0.0167	USD	Interim
SCHO US	2021-07-01	2021-07-02	2021-07-08	0.0162	USD	Interim
SCHO US	2021-06-01	2021-06-02	2021-06-07	0.0166	USD	Interim
SCHO US	2021-05-03	2021-05-04	2021-05-07	0.0195	USD	Interim
SCHO US	2021-04-01	2021-04-05	2021-04-08	0.0231	USD	Interim
SCHO US	2021-03-01	2021-03-02	2021-03-05	0.0230	USD	Interim
SCHO US	2021-02-01	2021-02-02	2021-02-05	0.0303	USD	Interim
SCHO US	2020-12-17	2020-12-18	2020-12-23	0.0293	USD	Interim
SCHO US	2020-12-01	2020-12-02	2020-12-07	0.0329	USD	Interim
SCHO US	2020-11-02	2020-11-03	2020-11-06	0.0395	USD	Interim
SCHO US	2020-10-01	2020-10-02	2020-10-07	0.0421	USD	Interim
SCHO US	2020-09-01	2020-09-02	2020-09-08	0.0446	USD	Interim
SCHO US	2020-08-03	2020-08-04	2020-08-07	0.0555	USD	Interim
SCHO US	2020-07-01	2020-07-02	2020-07-08	0.0525	USD	Interim
SCHO US	2020-06-01	2020-06-02	2020-06-05	0.0605	USD	Interim
SCHO US	2020-05-01	2020-05-04	2020-05-07	0.0646	USD	Interim
SCHO US	2020-04-01	2020-04-02	2020-04-07	0.0685	USD	Interim
SCHO US	2020-03-02	2020-03-03	2020-03-06	0.0749	USD	Interim
SCHO US	2020-02-03	2020-02-04	2020-02-07	0.0898	USD	Interim

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Ticker	Ex-Date	Receive Date	Pay Date	Amount	Currency	Payout Type
SCHO US	2019-12-19	2019-12-20	2019-12-26	0.0801	USD	Interim
SCHO US	2019-12-02	2019-12-03	2019-12-06	0.0893	USD	Interim
SCHO US	2019-11-01	2019-11-04	2019-11-07	0.0914	USD	Interim
SCHO US	2019-10-01	2019-10-02	2019-10-07	0.0938	USD	Interim
SCHO US	2019-09-03	2019-09-04	2019-09-09	0.0985	USD	Interim
SCHO US	2019-08-01	2019-08-02	2019-08-07	0.0976	USD	Interim
SCHO US	2019-07-01	2019-07-02	2019-07-08	0.0921	USD	Interim
SCHO US	2019-06-03	2019-06-04	2019-06-07	0.1077	USD	Interim
SCHO US	2019-05-01	2019-05-02	2019-05-07	0.0991	USD	Interim
SCHO US	2019-04-01	2019-04-02	2019-04-05	0.1030	USD	Interim
SCHO US	2019-03-01	2019-03-04	2019-03-07	0.0895	USD	Interim
SCHO US	2019-02-01	2019-02-04	2019-02-07	0.1009	USD	Interim
SCHO US	2018-12-19	2018-12-20	2018-12-26	0.0887	USD	Unspecified
SCHO US	2018-12-03	2018-12-04	2018-12-07	0.0841	USD	Interim
SCHO US	2018-11-01	2018-11-02	2018-11-07	0.0872	USD	Interim
SCHO US	2018-10-01	2018-10-02	2018-10-05	0.0744	USD	Interim
SCHO US	2018-09-04	2018-09-05	2018-09-10	0.0857	USD	Interim
SCHO US	2018-08-01	2018-08-02	2018-08-07	0.0751	USD	Interim
SCHO US	2018-07-02	2018-07-03	2018-07-09	0.0766	USD	Interim
SCHO US	2018-06-01	2018-06-04	2018-06-07	0.0708	USD	Interim
SCHO US	2018-05-01	2018-05-02	2018-05-07	0.0625	USD	Interim
SCHO US	2018-04-02	2018-04-03	2018-04-06	0.0672	USD	Interim
SCHO US	2018-03-01	2018-03-02	2018-03-07	0.0551	USD	Interim
SCHO US	2018-02-01	2018-02-02	2018-02-07	0.0591	USD	Interim
SCHO US	2017-12-27	2017-12-28	2018-01-03	0.0559	USD	Interim
SCHO US	2017-12-01	2017-12-04	2017-12-07	0.0543	USD	Interim
SCHO US	2017-11-01	2017-11-02	2017-11-07	0.0474	USD	Interim
SCHO US	2017-10-02	2017-10-03	2017-10-06	0.0489	USD	Interim
SCHO US	2017-09-01	2017-09-06	2017-09-08	0.0492	USD	Interim
SCHO US	2017-08-01	2017-08-03	2017-08-07	0.0436	USD	Interim
SCHO US	2017-07-03	2017-07-06	2017-07-10	0.0484	USD	Interim
SCHO US	2017-06-01	2017-06-05	2017-06-07	0.0465	USD	Interim
JPST US	2022-05-02	2022-05-03	2022-05-05	0.0362	USD	Interim
JPST US	2022-04-01	2022-04-04	2022-04-06	0.0229	USD	Interim
JPST US	2022-03-01	2022-03-02	2022-03-04	0.0238	USD	Interim
JPST US	2022-02-01	2022-02-02	2022-02-04	0.0219	USD	Interim
JPST US	2021-12-30	2021-12-31	2022-01-04	0.0232	USD	Final
JPST US	2021-12-15	2021-12-16	2021-12-20	0.0357	USD	Final
JPST US	2021-12-01	2021-12-02	2021-12-06	0.0246	USD	Interim
JPST US	2021-11-01	2021-11-02	2021-11-04	0.0225	USD	Interim
JPST US	2021-10-01	2021-10-04	2021-10-06	0.0272	USD	Interim
JPST US	2021-09-01	2021-09-02	2021-09-07	0.0259	USD	Interim
JPST US	2021-08-02	2021-08-03	2021-08-05	0.0274	USD	Interim
JPST US	2021-07-01	2021-07-02	2021-07-07	0.0277	USD	Interim
JPST US	2021-06-01	2021-06-02	2021-06-04	0.0287	USD	Interim
JPST US	2021-05-03	2021-05-04	2021-05-06	0.0317	USD	Interim
JPST US	2021-04-01	2021-04-05	2021-04-07	0.0303	USD	Interim
JPST US	2021-03-01	2021-03-02	2021-03-04	0.0321	USD	Interim
JPST US	2021-02-01	2021-02-02	2021-02-04	0.0307	USD	Interim
JPST US	2020-12-30	2020-12-31	2021-01-05	0.0390	USD	Interim

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Ticker	Ex-Date	Receive Date	Pay Date	Amount	Currency	Payout Type
JPST US	2020-12-15	2020-12-16	2020-12-18	0.0042	USD	Final
JPST US	2020-12-01	2020-12-02	2020-12-04	0.0379	USD	Interim
JPST US	2020-11-02	2020-11-03	2020-11-05	0.0388	USD	Interim
JPST US	2020-10-01	2020-10-02	2020-10-06	0.0459	USD	Interim
JPST US	2020-09-01	2020-09-02	2020-09-04	0.0473	USD	Interim
JPST US	2020-08-03	2020-08-04	2020-08-06	0.0532	USD	Interim
JPST US	2020-07-01	2020-07-02	2020-07-07	0.0595	USD	Interim
JPST US	2020-06-01	2020-06-02	2020-06-04	0.0664	USD	Interim
JPST US	2020-05-01	2020-05-04	2020-05-06	0.0756	USD	Interim
JPST US	2020-04-01	2020-04-02	2020-04-06	0.0915	USD	Interim
JPST US	2020-02-28	2020-03-02	2020-03-04	0.0841	USD	Interim
JPST US	2020-01-31	2020-02-03	2020-02-05	0.0850	USD	Interim
JPST US	2019-12-30	2019-12-31	2020-01-03	0.1100	USD	Interim
JPST US	2019-11-29	2019-12-02	2019-12-04	0.1044	USD	Interim
JPST US	2019-10-31	2019-11-01	2019-11-05	0.0977	USD	Interim
JPST US	2019-09-30	2019-10-01	2019-10-03	0.1069	USD	Interim
JPST US	2019-08-30	2019-09-03	2019-09-05	0.1083	USD	Interim
JPST US	2019-07-31	2019-08-01	2019-08-05	0.1152	USD	Interim
JPST US	2019-06-28	2019-07-01	2019-07-03	0.1204	USD	Interim
JPST US	2019-05-31	2019-06-03	2019-06-05	0.1180	USD	Interim
JPST US	2019-04-30	2019-05-01	2019-05-03	0.1250	USD	Interim
JPST US	2019-03-29	2019-04-01	2019-04-03	0.1149	USD	Interim
JPST US	2019-02-28	2019-03-01	2019-03-05	0.1149	USD	Interim
JPST US	2019-01-31	2019-02-01	2019-02-05	0.1186	USD	Interim
JPST US	2018-12-28	2018-12-31	2019-01-03	0.1116	USD	Interim
JPST US	2018-11-30	2018-12-03	2018-12-05	0.0977	USD	Interim
JPST US	2018-10-31	2018-11-01	2018-11-05	0.0861	USD	Interim
JPST US	2018-09-28	2018-10-01	2018-10-03	0.1068	USD	Interim
JPST US	2018-08-31	2018-09-04	2018-09-06	0.0909	USD	Interim
JPST US	2018-07-31	2018-08-01	2018-08-03	0.0954	USD	Interim
JPST US	2018-06-29	2018-07-02	2018-07-05	0.0859	USD	Interim
JPST US	2018-05-31	2018-06-01	2018-06-05	0.0902	USD	Interim
JPST US	2018-04-30	2018-05-01	2018-05-03	0.0704	USD	Interim
JPST US	2018-03-26	2018-03-27	2018-03-29	0.0695	USD	Interim
JPST US	2018-02-22	2018-02-23	2018-02-27	0.0629	USD	Interim
JPST US	2018-01-25	2018-01-26	2018-01-30	0.0692	USD	Interim
JPST US	2017-12-26	2017-12-27	2017-12-29	0.0698	USD	Interim
JPST US	2017-11-24	2017-11-27	2017-11-29	0.0645	USD	Interim
JPST US	2017-10-25	2017-10-26	2017-10-30	0.0709	USD	Interim
JPST US	2017-09-26	2017-09-27	2017-09-29	0.0656	USD	Interim
JPST US	2017-08-24	2017-08-28	2017-08-30	0.0675	USD	Interim
JPST US	2017-07-24	2017-07-26	2017-07-28	0.0702	USD	Interim
JPST US	2017-06-23	2017-06-27	2017-06-29	0.0715	USD	Interim
IWF US	2022-03-24	2022-03-25	2022-03-30	0.4027	USD	Interim
IWF US	2021-12-13	2021-12-14	2021-12-17	0.4007	USD	Interim
IWF US	2021-09-24	2021-09-27	2021-09-30	0.4578	USD	Interim
IWF US	2021-06-10	2021-06-11	2021-06-16	0.3021	USD	Interim
IWF US	2021-03-25	2021-03-26	2021-03-31	0.3519	USD	Interim
IWF US	2020-12-14	2020-12-15	2020-12-18	0.3742	USD	Final
IWF US	2020-09-23	2020-09-24	2020-09-29	0.4328	USD	Interim

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Ticker	Ex-Date	Receive Date	Pay Date	Amount	Currency	Payout Type
IWF US	2020-06-15	2020-06-16	2020-06-19	0.3622	USD	Interim
IWF US	2020-03-25	2020-03-26	2020-03-31	0.4254	USD	Interim
IWF US	2019-12-16	2019-12-17	2019-12-20	0.4502	USD	Final
IWF US	2019-09-26	2019-09-25	2019-09-30	0.4298	USD	Interim
IWF US	2019-06-17	2019-06-18	2019-06-21	0.4368	USD	Interim
IWF US	2019-03-22	2019-03-21	2019-03-26	0.4289	USD	Interim
IWF US	2018-12-28	2018-12-31	2019-01-04	0.0249	USD	Special
IWF US	2018-12-17	2018-12-18	2018-12-21	0.3710	USD	Final
IWF US	2018-09-26	2018-09-27	2018-10-02	0.4359	USD	Interim
IWF US	2018-07-03	2018-07-05	2018-07-10	0.4276	USD	Interim
IWF US	2018-03-22	2018-03-23	2018-03-28	0.4015	USD	Interim
IWF US	2017-12-26	2017-12-22	2017-12-28	0.3567	USD	Final
IWF US	2017-09-26	2017-09-27	2017-09-29	0.3646	USD	Interim
IWF US	2017-07-06	2017-07-10	2017-07-12	0.4246	USD	Interim
IWW US	2022-03-24	2022-03-25	2022-03-30	0.1267	USD	Interim
IWW US	2021-12-13	2021-12-14	2021-12-17	0.0927	USD	Interim
IWW US	2021-09-24	2021-09-27	2021-09-30	0.1131	USD	Interim
IWW US	2021-06-10	2021-06-11	2021-06-16	0.0841	USD	Interim
IWW US	2021-03-25	2021-03-26	2021-03-31	0.0974	USD	Interim
IWW US	2020-12-14	2020-12-15	2020-12-18	0.1427	USD	Final
IWW US	2020-09-23	2020-09-24	2020-09-29	0.5459	USD	Interim
IWW US	2020-06-15	2020-06-16	2020-06-19	0.4679	USD	Interim
IWW US	2020-03-25	2020-03-26	2020-03-31	0.5028	USD	Interim
IWW US	2019-12-16	2019-12-17	2019-12-20	0.5023	USD	Special
IWW US	2019-09-24	2019-09-25	2019-09-30	0.6213	USD	Interim
IWW US	2019-06-17	2019-06-18	2019-06-21	0.7493	USD	Interim
IWW US	2019-03-20	2019-03-21	2019-03-26	0.5871	USD	Interim
IWW US	2018-12-17	2018-12-18	2018-12-21	0.5061	USD	Final
IWW US	2018-09-26	2018-09-27	2018-10-02	0.4715	USD	Interim
IWW US	2018-06-28	2018-06-27	2018-07-02	0.4803	USD	Interim
IWW US	2018-03-22	2018-03-23	2018-03-28	0.4673	USD	Interim
IWW US	2017-12-19	2017-12-20	2017-12-26	0.5263	USD	Final
IWW US	2017-09-26	2017-09-27	2017-09-29	0.5368	USD	Interim
IWW US	2017-06-27	2017-06-29	2017-06-30	0.4894	USD	Interim
VTI US	2022-03-23	2022-03-24	2022-03-28	0.7082	USD	Interim
VTI US	2021-12-27	2021-12-28	2021-12-30	0.8592	USD	Interim
VTI US	2021-09-24	2021-09-27	2021-09-29	0.7242	USD	Interim
VTI US	2021-06-24	2021-06-25	2021-06-29	0.6753	USD	Interim
VTI US	2021-03-25	2021-03-26	2021-03-30	0.6716	USD	Interim
VTI US	2020-12-24	2020-12-28	2020-12-30	0.7818	USD	Interim
VTI US	2020-09-25	2020-09-28	2020-09-30	0.6741	USD	Interim
VTI US	2020-06-25	2020-06-26	2020-06-30	0.6999	USD	Interim
VTI US	2020-03-26	2020-03-27	2020-03-31	0.6136	USD	Interim
VTI US	2019-12-24	2019-12-26	2019-12-30	0.8855	USD	Interim
VTI US	2019-09-16	2019-09-17	2019-09-19	0.7000	USD	Interim
VTI US	2019-06-17	2019-06-18	2019-06-20	0.5472	USD	Interim
VTI US	2019-03-25	2019-03-26	2019-03-28	0.7720	USD	Interim
VTI US	2018-12-24	2018-12-26	2018-12-28	0.7209	USD	Interim
VTI US	2018-09-28	2018-10-01	2018-10-03	0.7142	USD	Interim
VTI US	2018-06-22	2018-06-25	2018-06-27	0.6034	USD	Interim

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Ticker	Ex-Date	Receive Date	Pay Date	Amount	Currency	Payout Type
VTI US	2018-03-22	2018-03-23	2018-03-27	0.5661	USD	Interim
VTI US	2017-12-21	2017-12-22	2017-12-27	0.6730	USD	Final
VTI US	2017-09-22	2017-09-25	2017-09-27	0.5530	USD	Interim
VTI US	2017-06-21	2017-06-23	2017-06-27	0.5750	USD	Interim
VUG US	2022-03-23	2022-03-24	2022-03-28	0.3006	USD	Interim
VUG US	2021-12-27	2021-12-28	2021-12-30	0.4690	USD	Interim
VUG US	2021-09-24	2021-09-27	2021-09-29	0.3166	USD	Interim
VUG US	2021-06-24	2021-06-25	2021-06-29	0.3736	USD	Interim
VUG US	2021-03-25	2021-03-26	2021-03-30	0.3809	USD	Interim
VUG US	2020-12-24	2020-12-28	2020-12-30	0.4606	USD	Interim
VUG US	2020-09-25	2020-09-28	2020-09-30	0.4062	USD	Interim
VUG US	2020-06-25	2020-06-26	2020-06-30	0.4189	USD	Interim
VUG US	2020-03-26	2020-03-27	2020-03-31	0.3983	USD	Interim
VUG US	2019-12-24	2019-12-26	2019-12-30	0.5077	USD	Interim
VUG US	2019-09-16	2019-09-17	2019-09-19	0.3854	USD	Interim
VUG US	2019-06-27	2019-06-28	2019-07-02	0.4126	USD	Interim
VUG US	2019-03-28	2019-03-29	2019-04-02	0.4320	USD	Interim
VUG US	2018-12-24	2018-12-26	2018-12-28	0.5274	USD	Interim
VUG US	2018-09-28	2018-10-01	2018-10-03	0.4674	USD	Interim
VUG US	2018-06-22	2018-06-25	2018-06-27	0.4194	USD	Interim
VUG US	2018-03-22	2018-03-23	2018-03-27	0.3594	USD	Interim
VUG US	2017-12-21	2017-12-22	2017-12-27	0.4751	USD	Interim
VUG US	2017-09-22	2017-09-25	2017-09-27	0.4110	USD	Interim
VUG US	2017-06-23	2017-06-27	2017-06-29	0.3410	USD	Interim
BND US	2022-05-02	2022-05-03	2022-05-05	0.1408	USD	Interim
BND US	2022-04-01	2022-04-04	2022-04-06	0.1980	USD	Interim
BND US	2022-03-01	2022-03-02	2022-03-04	0.1291	USD	Interim
BND US	2022-02-01	2022-02-02	2022-02-04	0.1365	USD	Interim
BND US	2021-12-24	2021-12-27	2021-12-29	0.2709	USD	Interim
BND US	2021-12-01	2021-12-02	2021-12-06	0.1349	USD	Interim
BND US	2021-11-01	2021-11-02	2021-11-04	0.1340	USD	Interim
BND US	2021-10-01	2021-10-04	2021-10-06	0.1302	USD	Interim
BND US	2021-09-01	2021-09-02	2021-09-07	0.1350	USD	Interim
BND US	2021-08-02	2021-08-03	2021-08-05	0.1361	USD	Interim
BND US	2021-07-01	2021-07-02	2021-07-07	0.1321	USD	Interim
BND US	2021-06-01	2021-06-02	2021-06-04	0.1345	USD	Interim
BND US	2021-05-03	2021-05-04	2021-05-06	0.1306	USD	Interim
BND US	2021-04-01	2021-04-05	2021-04-07	0.1925	USD	Interim
BND US	2021-03-01	2021-03-02	2021-03-04	0.1288	USD	Interim
BND US	2021-01-29	2021-02-02	2021-02-04	0.1392	USD	Interim
BND US	2020-12-23	2020-12-24	2020-12-29	0.2908	USD	Interim
BND US	2020-12-01	2020-12-02	2020-12-04	0.1432	USD	Interim
BND US	2020-11-02	2020-11-03	2020-11-05	0.1510	USD	Interim
BND US	2020-10-01	2020-10-02	2020-10-06	0.1503	USD	Interim
BND US	2020-09-01	2020-09-02	2020-09-04	0.1531	USD	Interim
BND US	2020-08-03	2020-08-04	2020-08-06	0.1587	USD	Interim
BND US	2020-07-01	2020-07-02	2020-07-07	0.1624	USD	Interim
BND US	2020-06-01	2020-06-02	2020-06-04	0.1687	USD	Interim
BND US	2020-04-30	2020-05-04	2020-05-06	0.1739	USD	Interim
BND US	2020-04-01	2020-04-02	2020-04-06	0.1905	USD	Interim

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Ticker	Ex-Date	Receive Date	Pay Date	Amount	Currency	Payout Type
BND US	2020-03-02	2020-03-03	2020-03-05	0.1727	USD	Interim
BND US	2020-02-03	2020-02-04	2020-02-06	0.1825	USD	Interim
BND US	2019-12-23	2019-12-24	2019-12-27	0.1873	USD	Interim
BND US	2019-12-02	2019-12-03	2019-12-05	0.1800	USD	Interim
BND US	2019-11-01	2019-11-04	2019-11-06	0.1853	USD	Interim
BND US	2019-10-01	2019-10-02	2019-10-04	0.1817	USD	Interim
BND US	2019-09-03	2019-09-04	2019-09-06	0.1882	USD	Interim
BND US	2019-08-01	2019-08-02	2019-08-06	0.1934	USD	Interim
BND US	2019-07-01	2019-07-02	2019-07-05	0.1945	USD	Interim
BND US	2019-06-03	2019-06-04	2019-06-06	0.1935	USD	Interim
BND US	2019-05-01	2019-05-02	2019-05-06	0.1948	USD	Interim
BND US	2019-04-01	2019-04-02	2019-04-04	0.1996	USD	Interim
BND US	2019-03-01	2019-03-04	2019-03-06	0.1837	USD	Interim
BND US	2019-02-01	2019-02-04	2019-02-06	0.1983	USD	Interim
BND US	2018-12-24	2018-12-26	2018-12-28	0.1983	USD	Interim
BND US	2018-12-03	2018-12-04	2018-12-06	0.1920	USD	Interim
BND US	2018-11-01	2018-11-02	2018-11-06	0.1944	USD	Interim
BND US	2018-10-01	2018-10-02	2018-10-04	0.1834	USD	Interim
BND US	2018-09-04	2018-09-05	2018-09-07	0.1876	USD	Interim
BND US	2018-08-01	2018-08-02	2018-08-06	0.1869	USD	Interim
BND US	2018-07-02	2018-07-03	2018-07-06	0.1810	USD	Interim
BND US	2018-06-01	2018-06-04	2018-06-06	0.1846	USD	Interim
BND US	2018-05-01	2018-05-02	2018-05-04	0.1784	USD	Interim
BND US	2018-04-02	2018-04-03	2018-04-05	0.0192	USD	Capital Gain Long Term
BND US	2018-03-01	2018-03-02	2018-03-06	0.1653	USD	Interim
BND US	2018-02-01	2018-02-02	2018-02-06	0.1766	USD	Interim
BND US	2017-12-26	2017-12-27	2017-12-29	0.1742	USD	Interim
BND US	2017-12-01	2017-12-04	2017-12-06	0.1684	USD	Interim
BND US	2017-11-01	2017-11-02	2017-11-06	0.1729	USD	Interim
BND US	2017-10-02	2017-10-03	2017-10-05	0.1682	USD	Interim
BND US	2017-09-01	2017-09-06	2017-09-08	0.1735	USD	Interim
BND US	2017-08-01	2017-08-03	2017-08-07	0.1711	USD	Interim
BND US	2017-07-03	2017-07-06	2017-07-10	0.1697	USD	Interim
BND US	2017-06-01	2017-06-05	2017-06-07	0.1722	USD	Interim
BSV US	2022-05-02	2022-05-03	2022-05-05	0.0747	USD	Interim
BSV US	2022-04-01	2022-04-04	2022-04-06	0.0989	USD	Interim
BSV US	2022-03-01	2022-03-02	2022-03-04	0.0663	USD	Interim
BSV US	2022-02-01	2022-02-02	2022-02-04	0.0739	USD	Interim
BSV US	2021-12-24	2021-12-27	2021-12-29	0.2939	USD	Interim
BSV US	2021-12-01	2021-12-02	2021-12-06	0.0718	USD	Interim
BSV US	2021-11-01	2021-11-02	2021-11-04	0.0731	USD	Interim
BSV US	2021-10-01	2021-10-04	2021-10-06	0.0728	USD	Interim
BSV US	2021-09-01	2021-09-02	2021-09-07	0.0757	USD	Interim
BSV US	2021-08-02	2021-08-03	2021-08-05	0.0716	USD	Interim
BSV US	2021-07-01	2021-07-02	2021-07-07	0.0785	USD	Interim
BSV US	2021-06-01	2021-06-02	2021-06-04	0.0827	USD	Interim
BSV US	2021-05-03	2021-05-04	2021-05-06	0.0844	USD	Interim
BSV US	2021-04-01	2021-04-05	2021-04-07	0.0890	USD	Interim
BSV US	2021-03-01	2021-03-02	2021-03-04	0.0843	USD	Interim
BSV US	2021-02-01	2021-02-02	2021-02-04	0.0962	USD	Interim

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Ticker	Ex-Date	Receive Date	Pay Date	Amount	Currency	Payout Type
BSV US	2020-12-23	2020-12-24	2020-12-29	0.1019	USD	Interim
BSV US	2020-12-01	2020-12-02	2020-12-04	0.1018	USD	Interim
BSV US	2020-10-30	2020-11-03	2020-11-05	0.1070	USD	Interim
BSV US	2020-10-01	2020-10-02	2020-10-06	0.1092	USD	Interim
BSV US	2020-09-01	2020-09-02	2020-09-04	0.1159	USD	Interim
BSV US	2020-08-03	2020-08-04	2020-08-06	0.1203	USD	Interim
BSV US	2020-07-01	2020-07-02	2020-07-07	0.1218	USD	Interim
BSV US	2020-06-01	2020-06-02	2020-06-04	0.1321	USD	Interim
BSV US	2020-04-30	2020-05-04	2020-05-06	0.1363	USD	Interim
BSV US	2020-04-01	2020-04-02	2020-04-06	0.1445	USD	Interim
BSV US	2020-03-02	2020-03-03	2020-03-05	0.1366	USD	Interim
BSV US	2020-01-31	2020-02-04	2020-02-06	0.1533	USD	Interim
BSV US	2019-12-23	2019-12-24	2019-12-27	0.1501	USD	Interim
BSV US	2019-12-02	2019-12-03	2019-12-05	0.1472	USD	Interim
BSV US	2019-11-01	2019-11-04	2019-11-06	0.1526	USD	Interim
BSV US	2019-10-01	2019-10-02	2019-10-04	0.1553	USD	Interim
BSV US	2019-09-03	2019-09-04	2019-09-06	0.1558	USD	Interim
BSV US	2019-08-01	2019-08-02	2019-08-06	0.1561	USD	Interim
BSV US	2019-07-01	2019-07-02	2019-07-05	0.1534	USD	Interim
BSV US	2019-06-03	2019-06-04	2019-06-06	0.1580	USD	Interim
BSV US	2019-05-01	2019-05-02	2019-05-06	0.1566	USD	Interim
BSV US	2019-04-01	2019-04-02	2019-04-04	0.1537	USD	Interim
BSV US	2019-03-01	2019-03-04	2019-03-06	0.1409	USD	Interim
BSV US	2019-02-01	2019-02-04	2019-02-06	0.1636	USD	Interim
BSV US	2018-12-24	2018-12-26	2018-12-28	0.1432	USD	Interim
BSV US	2018-12-03	2018-12-04	2018-12-06	0.1404	USD	Interim
BSV US	2018-11-01	2018-11-02	2018-11-06	0.1440	USD	Interim
BSV US	2018-10-01	2018-10-02	2018-10-04	0.1345	USD	Interim
BSV US	2018-09-04	2018-09-05	2018-09-07	0.1377	USD	Interim
BSV US	2018-08-01	2018-08-02	2018-08-06	0.1345	USD	Interim
BSV US	2018-07-02	2018-07-03	2018-07-06	0.1240	USD	Interim
BSV US	2018-06-01	2018-06-04	2018-06-06	0.1293	USD	Interim
BSV US	2018-05-01	2018-05-02	2018-05-04	0.1234	USD	Interim
BSV US	2018-04-02	2018-04-03	2018-04-05	0.1257	USD	Interim
BSV US	2018-03-01	2018-03-02	2018-03-06	0.1103	USD	Interim
BSV US	2018-01-31	2018-02-02	2018-02-06	0.1182	USD	Interim
BSV US	2017-12-26	2017-12-27	2017-12-29	0.1162	USD	Interim
BSV US	2017-12-01	2017-12-04	2017-12-06	0.1108	USD	Interim
BSV US	2017-11-01	2017-11-02	2017-11-06	0.1145	USD	Interim
BSV US	2017-10-02	2017-10-03	2017-10-05	0.1097	USD	Interim
BSV US	2017-09-05	2017-09-06	2017-09-08	0.1127	USD	Interim
BSV US	2017-08-01	2017-08-03	2017-08-07	0.1118	USD	Interim
BSV US	2017-07-03	2017-07-06	2017-07-10	0.1073	USD	Interim
BSV US	2017-06-01	2017-06-05	2017-06-07	0.1091	USD	Interim



## PORTFOLIO ANALYSIS - INCOME

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*Key metrics for income drawn from inputted portfolio.*

- Portfolio Yield, The Income Yield of the portfolio (Trailing Twelve Months): Income Yield of 1.2% (TTM)
- Estimated Portfolio Distributions, The estimated amount of distributions generated by the portfolio.: Distributions totaling 12,203.1 (TTM)
- Special Dividend Warnings, Highlights whether the portfolio has generated notable tax events.: Portfolio generated 2 tax events over the past 5 years.



## GENERAL DISCLOSURE

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## STANDARD PERFORMANCE DISCLOSURE

Performance data quoted presents past performance; past performance does not guarantee future results; the investment return and principal value of an investment will fluctuate; an investor's shares, when redeemed, may be worth more or less than their original cost; current performance may be lower or higher than quoted performance data.

## PERFORMANCE DISCLOSURE

THIS REPORT IS NOT AN INVESTMENT PERFORMANCE REPORT. DO NOT RELY ON THIS REPORT AS PORTRAYING, OR CONTAINING PERFORMANCE OF, AN ACTUAL ACCOUNT. THIS REPORT SHOWS HYPOTHETICAL OR SIMULATED RETURNS OF PORTFOLIO(S) AND IS FOR ILLUSTRATIVE PURPOSES ONLY. This report is not intended to and does not predict or show the actual investment performance of any account. A portfolio represents an investment in a hypothetical weighted blend of securities which, together with other inputs, were selected by you and/or your Adviser and, accordingly, a portfolio should be used for illustrative purposes only. To obtain performance data current to the most recent month-ended, visit the respective funds' websites.

## DEFINITIONS

**Allocations and Exposure Data:** All hypothetical portfolio attributes are calculated as weighted averages of the underlying holdings using the target weights input by the cre-

ator of this report. The underlying securities' attributes are based on data in Logicly, provided by the fund issuer or other data vendors. For individual stock positions the entire weight is assigned to the corresponding sector, market cap group, style, etc.

**Alpha:** Alpha measures the risk and market-adjusted returns for the portfolio. The metric is calculated on the specified lookback period using the benchmark that is set for the portfolio. When your PDF report includes an ETF or Mutual Fund, the alpha is calculated vs. the category benchmark.

**Note:** Risk free rate = average 1 month treasury rate throughout the lookback period.

**Formula:** Alpha = Annualized security return - risk free rate - beta \* (annualized benchmark return - risk free rate) \* 100

**Avg. Market Cap:** Market capitalization is the share price multiplied by the total number of shares outstanding. For the portfolio, an average of the underlying holdings' market cap is taken.

**Benchmark:** The benchmark used in this report was chosen by the creator of the report. The benchmark is displayed for comparison reasons and is used to calculate portfolio level risk data when necessary. Underlying holdings risk data is computed using specific benchmarks based on that security's asset classification.

**Beta:** Beta measures the movement of the portfolio in comparison to the benchmark based on the lookback period. It is a statistical measure that can be used to measure the volatility of price movements. When your PDF report includes an ETF or Mutual Fund, the beta is calculated vs. the category benchmark.

**Formula:** Beta = Covariance ( Portfolio Return , Benchmark Return ) / Variance (Benchmark Return)

**Dividend Yield (TTM):** For the underlying holdings of the portfolio, the dividend yield measures the total amount of dividends per share paid over the last 12 months, divided by the price per share of the security. To calculate the portfolio's dividend yield, a weighted average of the underlying holdings' dividend yield is taken.

**Distribution Yield (TTM):** Measures the total amount of distributions received from common dividends paid in the underlying holdings over the last 12 months.

**Expense Ratio:** A measure of the fees charged by an Asset Manager to the investors that own shares of the fund. The value is a percentage and represents the portion of the investor's assets that are paid to the fund company on an annual basis. Any expense ratio shown is only inclusive of the underlying fees in the securities included in the hypothetical portfolio, and as such should be considered for illustrative

purposes only. These fees do not include additional commissions, loads, transaction, or advisory fees. All fee data is collected by ETFLogic from various data sources including third party data vendors as well as sourced directly from the fund providers.

**Historical Sharpe:** Sharpe measures the risk-adjusted return for the specified lookback period.

**Formula:** Sharpe = (Average monthly return over lookback period) / (Historical standard deviation)

**Historical Sortino:** Sortino Ratio measures the downside risk-adjusted outperformance of the portfolio versus the benchmark.

**Formula:** Historical Sortino = (Average Monthly Returns - risk free rate) / downside deviation

**Max Drawdown:** Max drawdown is an indicator of the risk of a portfolio chosen based on a certain strategy. It measures the largest single drop from peak to bottom in the value of a portfolio (before a new peak is achieved).

**Formula:** Max Drawdown = (Peak value before largest drop - Lowest value before new high established) / (Peak value before largest drop)

**Portfolio:** All portfolios represent hypothetical blended investments of weighted securities as designated by the creator of this report and should be used for illustrative purposes only and should not be considered performance reports. They are calculated by taking a weighted average of the target weights and the securities total return, assuming all dividends reinvested, since the latest rebalance date. These portfolios are assumed to rebalance to the exact designated weights at each calendar quarter or month end – whichever is chosen when setting up the portfolio. No transaction costs, taxes, or advisory fees are included. Portfolio holdings are weighted by percentage, not whole share numbers.

**Portfolio Rebalance:** Each portfolio listed on this report contains a rebalance frequency. This can be selected when you create the portfolio on Logicly. The portfolios are rebalanced to the proper target weights at each target rebalance point. For monthly rebalancing, the portfolio will rebalance to the target weight at the end of each calendar month. For quarterly rebalancing, the portfolio will rebalance to the target weight at the end of each calendar quarter (March 31st, June 30th, September 30th, December 31st). For annual rebalancing, the portfolio will rebalance to the target weight at the end of each calendar year. Lastly, if the portfolio never rebalances, the target weights are implemented at the portfolio inception date, but will not change after that.

**Portfolio Weights:** All stated portfolio weights are based on

allocation choices input by the creator of this report. These weights represent the values used at rebalance periods and not necessarily the implied weights at the time this report was generated. All weightings ignore the concept of whole shares and instead uses the exact percentage chosen when setting up the portfolio.

**Rebalancing:** Rebalancing is conducted on either a quarterly or monthly basis, as selected by the creator of this report. Weights may drift away from the target allocations between rebalance periods.

**Returns:** All returns are hypothetical and should not be considered performance reporting. The hypothetical returns displayed are based on weighted calculations of the underlying holdings' returns and other selections by the creator of this report. Returns assume all dividends and distributions are reinvested on the corresponding ex-date. Returns are not audited and should not be considered performance reporting, as they are hypothetical in nature.

**Risk Calculation:** All risk calculations are for illustrative purposes only. They are calculated at the portfolio level using a benchmark selected by the creator of this report. At the security level, risk metrics are calculated by Logicly using historical volatility.

**Standard Deviation:** Standard deviation measures the range of return values that you can statistically expect from your portfolio compared to its mean return. This measure is annualized for the specified lookback period.

**Formula:** Standard Deviation = SQRT(Variance of Monthly Returns for Lookback Period)

**Weighted Avg. Debt to Capital:** The debt to capital for underlying stocks is calculated as the total long-term debt divided by the capital of the firm. Capital is measured as the sum of common equity, preferred equity, and long term debt. For the portfolio, the weighted average is taken of the underlying holdings' debt to capital.

**Weighted Average PE Ratio:** A weighted average of each underlying holding's share price relative to the net income per share. Stocks that have EPS < 0 are excluded in this calculation.

**Weighted Average Price to Book Ratio:** A weighted average of each underlying holding's share price relative to the book value per share. Stocks that have Book Value per Share < 0 are excluded in this calculation.

**Weighted Average Price to Sales Ratio:** A weighted average of each underlying holding's share price relative to the sales per share. Stocks that have Revenue per Share < 0 are excluded in this calculation.

**Yield:** The stated yield for the hypothetical portfolio is based

on the weighted average of trailing 12-month yields for the underlying securities. It is no indication or guarantee of future yield.

**7-Day SEC Yield:** Annualized yield calculated using interest and dividends earned and paid out over a 7-day period. It is primarily used for money market funds. The unsubsidized version of this yield reflects what the value would be without any fee waivers or expense reimbursements.

**30-Day SEC Yield:** Annualized yield calculated using net investment income per share earned over a 30-day period. The unsubsidized version of this yield reflects what the value would be without any fee waivers or expense reimbursements.

## IMPORTANT DISCLOSURES

This report does not reflect the performance of any account actually managed by your Adviser. This is supplemental material, and when applicable, should be accompanied by a prospectus or equivalent document.

The data contained in or used in generating this report has not been audited or verified by your Adviser or any other party, and any use of this report should be made with this understanding. This report is not an official account statement or other official document of your Adviser or any other party.

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INVESTMENTS IN SECURITIES INVOLVE INVESTMENT RISKS, INCLUDING POSSIBLE LOSS OF PRINCIPAL AND FLUCTUATION IN VALUE. See "INVESTMENT RISKS" below for a brief summary of certain risks. The investment return and principal value of securities and other financial instruments will fluctuate so that an investor's investments, when sold or redeemed, may be worth more or less than the original cost. Investment results are not guaranteed. No investment strategy (including asset allocation and diversification strategies) can guarantee a profit or protect against a loss of principal.

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current to the most recent month-ended, visit each fund's respective website.

The performance of a portfolio is calculated by taking a weighted average of the stated target weights and the securities' total return, assuming reinvestment of all dividends and other distributions on the related ex-date, since the latest rebalance date. The portfolio(s) portrayed in this report are assumed to rebalance to the exact designated weights on a monthly, quarterly or annual basis, whichever you and/or your Adviser selected in generating this report. The performance illustrated in this report may assume that rebalancing occurred in a manner different from how your Adviser rebalances a client portfolio. Your Adviser may recommend rebalancing when an asset class varies from its targeted allocation. In general, your Adviser reinvests dividends generated by investments. The way your Adviser invests dividends may be different than how the portfolio(s) invest dividends.

All stated target weights are based on allocation choices input by your and/or your Adviser. These weights represent the values used at rebalance periods. All weightings ignore the concept of whole shares and instead use the exact percentage chosen when creating the portfolio(s).

Unless otherwise noted, no transaction costs (e.g., commissions, sales loads), taxes, or advisory fees are deducted from the performance results generated by the portfolios(s). Any expense ratio shown is inclusive of the underlying fees in the securities included in the portfolio(s), and as such should be considered for illustrative purposes only. As discussed above, such fees do not include transaction costs (e.g., commissions, sales loads), taxes, or advisory fees.

The stated yield for a hypothetical portfolio is based on the weighted average of trailing 12-month yields for the underlying securities. It is no indication or guarantee of future yield.

ACCORDINGLY, ALL PORTFOLIO RETURNS ARE HYPOTHETICAL OR SIMULATED AND SHOULD NOT BE CONSIDERED PERFORMANCE REPORTING. No representation is made that your investments will achieve results similar to those shown, and actual performance results may differ materially from those shown. Returns portrayed in this report do not reflect actual trading and investment activities, but are hypothetical or simulated results of a hypothetical portfolio over the time period indicated and do not reflect the performance of actual accounts managed by your Adviser or any other person. The mutual funds and other components of the hypothetical portfolio(s) were selected with the full benefit of hindsight, after their performance during the time period was known. In general, hypothetical returns generally exceed the results of client portfolios actually managed by advisers due to several factors, including

the fact that actual portfolio allocations differed from the allocations represented by the market indices used to create the hypothetical portfolios over the time periods shown, new research was applied at different times to the relevant indices, and index performance does not reflect the deduction of any fees and expenses. Results also assume that asset allocations would not have changed over time and in response to market conditions, which is likely to have occurred if an actual account had been managed during the time period shown.

**PAST PERFORMANCE IS NOT INDICATIVE OF FUTURE RESULTS.** To the extent this report portrays historical performance of particular securities or other financial instruments, past performance of such securities or other instruments is not indicative of future results. Further, when reviewing past performance records of actual accounts, it is important to note that different accounts (even if they are managed pursuant to the same strategy), can have varying results. The reasons for this include: 1) the period of time in which the accounts are active; 2) the timing of contributions and withdrawals; 3) the account size; 4) the minimum investment requirements and/or withdrawal restrictions; 5) the rate of advisory, brokerage commissions and transaction fees charged to an account; and 6) restrictions or limitations on whether the account can be rebalanced annually, quarterly or otherwise.

**ALL RISK CALCULATIONS ARE FOR ILLUSTRATIVE PURPOSES ONLY.** They are calculated at the portfolio level using a benchmark (discussed below) selected by you and/or your Adviser. The benchmark is displayed for comparison purposes and is used to calculate portfolio level risk data when necessary.

For a glossary of terms relating to risk calculations that may be used in this report, see "DEFINITIONS," below.

**DO NOT RELY UPON THIS REPORT FOR DETERMINING THE VALUE OF YOUR ASSETS.** This report was generated based on information provided by you and by various other sources. If your Adviser generated this report, you should consult with your Adviser to determine what sources of information were used by it in connection with generating this report besides information that was provided by you. You should refer to official final account statements or other final official documents you receive from your Adviser or your other financial services providers when determining the value of your assets.

## INVESTMENT RISKS

**International/Emerging Market Equities:** Investing in international securities involves special additional risks. These risks include, but are not limited to, currency risk, political risk, and risk associated with varying accounting stan-

dards. Investing in emerging markets may accentuate these risks. **Sector Strategies:** Portfolios that invest exclusively in one sector or industry involve additional risks. The lack of industry diversification subjects the investor to increased industry-specific risks.

**Non-Diversified Strategies:** Portfolios that invest a significant percentage of assets in a single issuer involve additional risks, including share price fluctuations, because of the increased concentration of investments.

**Small Cap Equities:** Portfolios that invest in stocks of small companies involve additional risks. Smaller companies typically have a higher risk of failure, and are not as well established as larger blue-chip companies. Historically, smaller-company stocks have experienced a greater degree of market volatility than the overall market average.

**Mid-Cap Equities:** Portfolios that invest in companies with market capitalization below \$10 billion involve additional risks. The securities of these companies may be more volatile and less liquid than the securities of larger companies.

**High-Yield Bonds:** Portfolios that invest in lower-rated debt securities (commonly referred to as junk bonds) involve additional risks because of the lower credit quality of the securities in the portfolio. The investor should be aware of the possible higher level of volatility, and increased risk of default.

**Tax-Free Municipal Bonds:** The investor should note that the income from tax-free municipal bond funds may be subject to state and local taxation and the Alternative Minimum Tax.

**Bonds:** Bonds are subject to interest rate risk. As the prevailing level of bond interest rates rise, the value of bonds already held in a portfolio declines. Portfolios that hold bonds are subject to declines and increases in value due to general changes in interest rates.

**Hedge Funds:** The investor should note that hedge fund investing involves specialized risks that are dependent upon the type of strategies undertaken by the fund's manager. This can include distressed or event-driven strategies, long/short strategies, using arbitrage (exploiting price inefficiencies), international investing, and use of leverage, options and/or derivatives. Although the goal of hedge fund managers may be to reduce volatility and produce positive absolute return under a variety of market conditions, hedge funds may involve a high degree of risk and are suitable only for investors of substantial financial means who could bear the entire loss of their investment.

**Bank Loan/Senior Debt:** Bank loans and senior loans are impacted by the risks associated with fixed income in general,

including interest rate risk and default risk. They are often non-investment grade, therefore, the risk of default is high. These securities are also relatively illiquid. Managed products that invest in bank loans/senior debt are often highly leveraged, producing a high risk of return volatility.

**Exchange Traded Notes (ETNs):** ETNs are unsecured debt obligations. Any repayment of note is subject to the issuer's ability to repay its obligations. ETNs do not typically pay interest.

**Leveraged ETFs:** Leveraged investments are designed to meet multiples of the return performance of the index they track and seek to meet their daily fund objectives (or other time period stated within the prospectus objective). The leverage/gearing ratio is the amount of excess return that a leveraged investment is designed to achieve in comparison to its index performance (i.e., 200%, 300%, or -300% or 2X, 3X, -2X, -3X). Compounding could affect the performance of the fund to be either greater or less than the index performance multiplied by the multiple stated within the funds objective over a stated time period.

**Short Positions:** When a short position moves in an unfavorable way, the losses are theoretically unlimited. The broker may demand more collateral and a manager might have to close out a short position at an inopportune time to limit further losses.

**Long-Short:** Due to strategies used by long-short funds, which may include but are not limited to leverage, short selling, short-term trading, and investing in derivatives, these funds may have greater risk, volatility, and expenses than those focusing on traditional investment strategies.

**Liquidity Risk:** Closed-end fund, ETF, and HOLDR trading may be halted due to market conditions, impacting an investor's ability to sell a fund.

**Market Price Risk:** The market price of ETFs, HOLDRs, and closed-end funds traded on the secondary market is subject to the forces of supply and demand and thus independent of the NAV. This can result in the market price trading at a premium or discount to the NAV, which will affect an investor's value.

**Market Risk:** The market price of ETFs and HOLDRs can fluctuate because of several factors, such as security-specific factors or general investor sentiment. Therefore, investors should be aware of the prospect of market fluctuations and the impact it may have on the market price.

**Target-Date Funds:** Target-date funds typically invest in other mutual funds and are designed for investors who are planning to retire during the target date year. The fund's target date is the approximation date when investors expect to begin withdrawing their money. A target-date fund's invest-

ment objective/strategy typically becomes more conservative over time, primarily by reducing its allocation to equity mutual funds and increasing its allocations in fixed-income mutual funds. An investor's principal value in a target-date fund is not guaranteed at any time, including the fund's target date.

**Money Market Funds:** Investments in these funds are not guaranteed by the FDIC or any other government agency. You can lose money by investing in these funds. The fund strives to preserve your investment, however, it can not guarantee to do so.

## INDEXES AND BENCHMARK DISCLOSURES

Indices and benchmarks are unmanaged and cannot be invested in directly. Returns represent past performance, are not a guarantee of future performance, and are not indicative of any specific investment. Index return information is provided by vendors and although deemed reliable, is not guaranteed by Logicy, your Adviser or any other person. Benchmark returns may or may not be adjusted to reflect ongoing expenses such as sales charges. An investment portfolio may differ significantly from the securities in the benchmark. Due to timing of information, benchmarks may be adjusted after the publication of this report. Following is a brief description of the common market indexes and benchmarks.

**Bloomberg Barclays Municipal Bond Index:** Covers the USD-denominated long-term tax exempt bond market. The index has four main sectors: state and local general obligation bonds, revenue bonds, insured bonds, and prefunded bonds.

**Bloomberg Barclays U.S. Aggregate Index:** Covers the USD-denominated, investment-grade, fixed-rate, taxable bond market of SEC-registered securities. The index includes bonds from the Treasury, Government-Related, Corporate, MBS (agency fixed-rate and hybrid ARM pass-through securities), ABS, and CMBS sectors.

**Bloomberg Commodity Index:** A liquid and diversified benchmark for commodities as an asset class. The index is composed of futures contracts on 19 physical commodities which include oil, metals and agricultural products such as corn or soybean. The Bloomberg Commodity Index family includes nine sub-indexes that group commodities based on type, plus single-commodity indexes for each of the 19 individual commodities in the broad index, plus Cocoa, Lead, Platinum and Tin.

**Dow Jones U.S. Select REIT Index:** Comprised of companies whose charters are the equity ownership and operation of commercial real estate and which operate under the REIT Act of 1960. Each REIT in the REIT Index is weighted by its float-adjusted market capitalization. The total return



version of the index is calculated with gross dividends reinvested.

MSCI EAFE® Index-Net Total Return: Measures the equity market performance of developed markets, excluding the US & Canada. The index returns are calculated with reinvestment of net dividends after the deduction of applicable non-resident withholding taxes. Prior to July 1, 2016, the returns of the MSCI EAFE index were calculated with gross dividends, before application of local taxes, to approximate the maximum possible dividend reinvestment.

MSCI Emerging Markets® Index-Net Total Return: Measures the equity market performance of emerging markets. The index returns are calculated with reinvestment of net dividends, after the deduction of applicable nonresident withholding taxes. Prior to July 1, 2016, the returns of the MSCI Emerging Markets index were calculated with gross dividends, before application of local taxes, to approximate the maximum possible dividend reinvestment.

S&P 500® Index: Capitalization-weighted index of 500 stocks. The index is designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries. The total return version of the index is used, which reflects the effects of dividend reinvestment.

S&P MidCap 400® Index: Covers 7% of the U.S. equity market and is comprised of companies with market capitalization in the range of US \$1.4 billion to US \$5.9 billion. The total return version of the index is used, which reflects the effects of dividend reinvestment.

S&P SmallCap 600® Index: Covers approximately 3% of the domestic equities market covering companies with market capitalization in the range of US \$400 million to US \$1.8 billion. The total return version of the index is used, which reflects the effects of dividend reinvestment.

## DEFINITIONS

The following terms, if used in this Report, have the following meanings:

1. Alpha: Alpha measures the risk and market-adjusted returns for the portfolio. The metric is calculated on the specified lookback period using the benchmark that is set for the portfolio.

Formula Alpha = Annualized security return - risk free rate - beta \* (annualized benchmark return - risk free rate) \* 100  
Note: Risk free rate = average 1 month treasury rate throughout the lookback period.

2. Beta: Beta measures the movement of the portfolio in comparison to the benchmark based on the lookback period. It is a statistical measure that can be used to measure

the volatility of price movements.

Formula Beta = Covariance ( Portfolio Return , Benchmark Return) / Variance (Benchmark Return)

3. Standard Deviation: Standard deviation measures the range of return values that you can statistically expect from your portfolio compared to its mean return. This measure is annualized for the specified lookback period.

Formula Standard Deviation = SQRT(Variance of Monthly Returns for Lookback Period)

4. Historical Sharpe: Sharpe measures the risk-adjusted return for the specified lookback period.

Formula Sharpe = (Average monthly return over lookback period) / (Historical standard deviation)

5. Historical Sortino: Sortino Ratio measures the downside risk-adjusted outperformance of the portfolio versus the benchmark.

Formula Historical Sortino = (Average Monthly Returns - risk free rate) / downside deviation

6. Max Drawdown: Max drawdown is an indicator of the risk of a portfolio chosen based on a certain strategy. It measures the largest single drop from peak to bottom in the value of a portfolio (before a new peak is achieved).

Formula: Max Drawdown = (Peak value before largest drop - Lowest value before new high established) / (Peak value before largest drop)

7. Monthly Value at Risk (VaR) 5%: The VaR calculates the potential loss of an investment with a given time frame and confidence level. This metric is a statistical measure that gives an idea of the statistical chance of a drawdown occurring.

8. Dividend Yield (TTM) - For the underlying holdings of the portfolio, the dividend yield measures the total amount of dividends per share paid over the last 12 months, divided by the price per share of the security. To calculate the portfolio's dividend yield, a weighted average of the underlying holdings' dividend yield is taken.

9. 7-Day SEC Yield - Annualized yield calculated using interest and dividends earned and paid out over a 7-day period. It is primarily used for money market funds. The unsubsidized version of this yield reflects what the value would be without any fee waivers or expense reimbursements.

10. 30-Day SEC Yield - Annualized yield calculated using net investment income per share earned over a 30-day period. The unsubsidized version of this yield reflects what the value would be without any fee waivers or expense reimbursements.

11. Distribution Yield (TTM) - Measures the total amount of distributions received from common dividends paid in the underlying holdings over the last 12 months.

12. Weighted Average PE Ratio - A weighted average of each underlying holding's share price relative to the net income per share. Stocks that have EPS < 0 are excluded in this calculation.

13. Weighted Average Price to Sales Ratio - A weighted average of each underlying holding's share price relative to the sales per share. Stocks that have Revenue per Share < 0 are excluded in this calculation.

14. Weighted Average Price to Book Ratio - A weighted average of each underlying holding's share price relative to the book value per share. Stocks that have Book Value per Share < 0 are excluded in this calculation.

15. Weighted Median ROE - Return on equity is measured as the Net Income / Average TTM shareholder's equity. On the portfolio level, the weighted median ROE of the underlying holdings is calculated.

16. Expense Ratio - A measure of the fees charged by a fund manager to the investors that own shares of the fund. The value is a percentage and represents the portion of the investor's assets that are paid to the fund manager on a periodic basis.

17. Weighted Median ROA - Return on assets is measured as the Net Income / Average Total assets of the last 5 quarters. On the portfolio level, the weighted median ROA of the underlying holdings is calculated.

18. Avg. Market Cap - Market capitalization is the share price multiplied by the total number of shares outstanding. For the portfolio, an average of the underlying holdings' market cap is taken.

19. Weighted Avg. Debt to Capital - The debt to capital for underlying stocks is calculated as the total long-term debt

divided by the capital of the firm. Capital is measured as the sum of common equity, preferred equity, and long term debt. For the portfolio, the weighted average is taken of the underlying holdings' debt to capital.

20. Upside/Downside Capture Ratio The upside/downside capture ratio measures the ratio of the upside and downside of an investment vs a benchmark. This ratio explains to you how an investment typically performs in relation to their benchmark index. An upside/downside ratio of 100 means that the investment typically performs the same as the benchmark regardless of if it is rising or falling. If the benchmark increases by 10%, the investment increases by 10%. If the benchmark decreases by 5%, the investment decreases by 5%. Investments usually don't have upside/downside ratios of 100. Sometimes, an investment may rise 15% when their benchmark rises by 10% but falls 12% when the market falls 10%. In this case, we calculate the upside/downside capture ratio by dividing the investment's upside return and dividing by the downside return:  $(.15/.10)/(.12/.10) = 1.25$ . Multiplying this by 100 gives us an upside/downside capture ratio of 125 for this investment. Formula Upside/Downside Capture Ratio = (Investment's Upside / Benchmark's Upside) / (Investment's Downside / Benchmark's Downside) \*100.

21. Portfolio Rebalance - Each portfolio listed on this report contains a rebalance frequency. This can be selected when creating portfolios on Logicly. The portfolios are rebalanced to the proper target weights at each target rebalance point. For monthly rebalancing, the portfolio will rebalance to the target weight at the end of each calendar month. For quarterly rebalancing, the portfolio will rebalance to the target weight at the end of each calendar quarter (March 31st, June 30th, September 30th, December 31st). For annual rebalancing, the portfolio will rebalance to the target weight at the end of each calendar year. Lastly, if the portfolio never rebalances, the target weights are implemented at the portfolio inception date, but will not change after that.