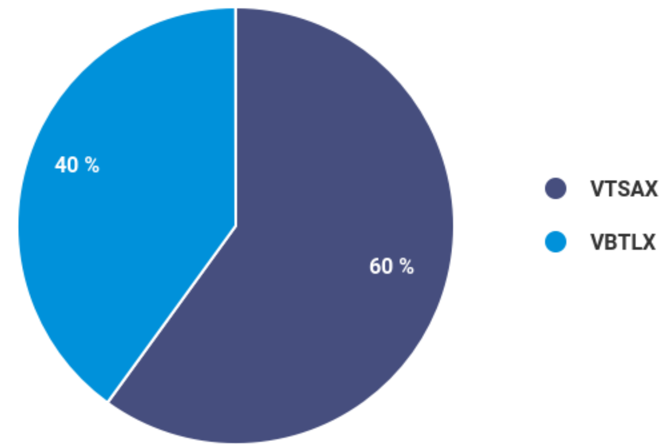
Report Parameters

Start Date	01/01/2002
End Date	05/31/2020
Initial Balance	$10,000
Periodic Adjustment	None
Rebalancing	Rebalance bands (100.00% absolute, 25.00% relative)
Reinvest Dividends	Yes
Benchmark	SPDR S&P 500 ETF Trust

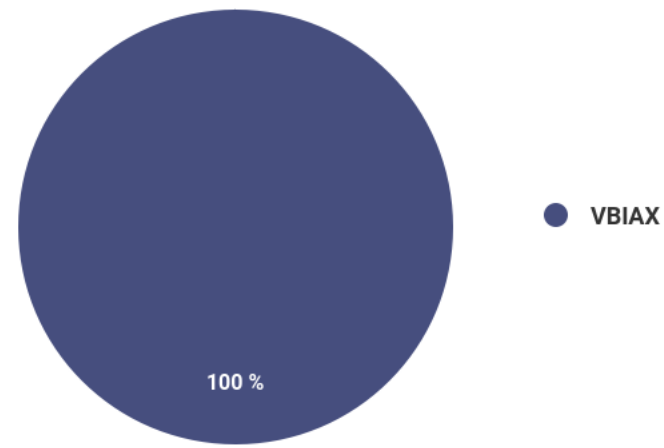
Balanced Portfolio with Optimal Rebalancing

Ticker	Name	Allocation
VTSAX	Vanguard Total Stock Mkt Idx Adm	60.00%
VBTLX	Vanguard Total Bond Market Index Adm	40.00%



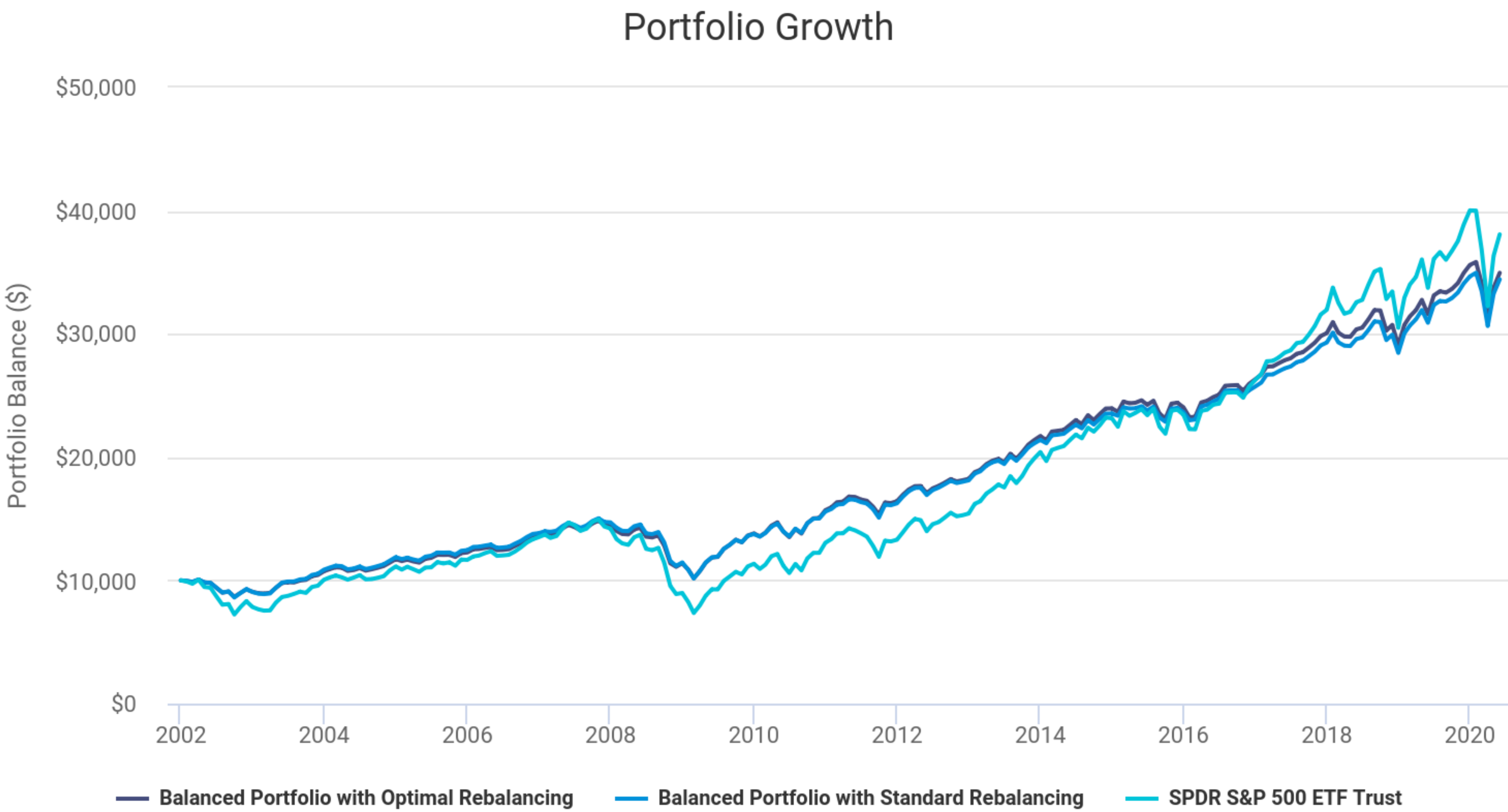
Balanced Portfolio with Standard Rebalancing

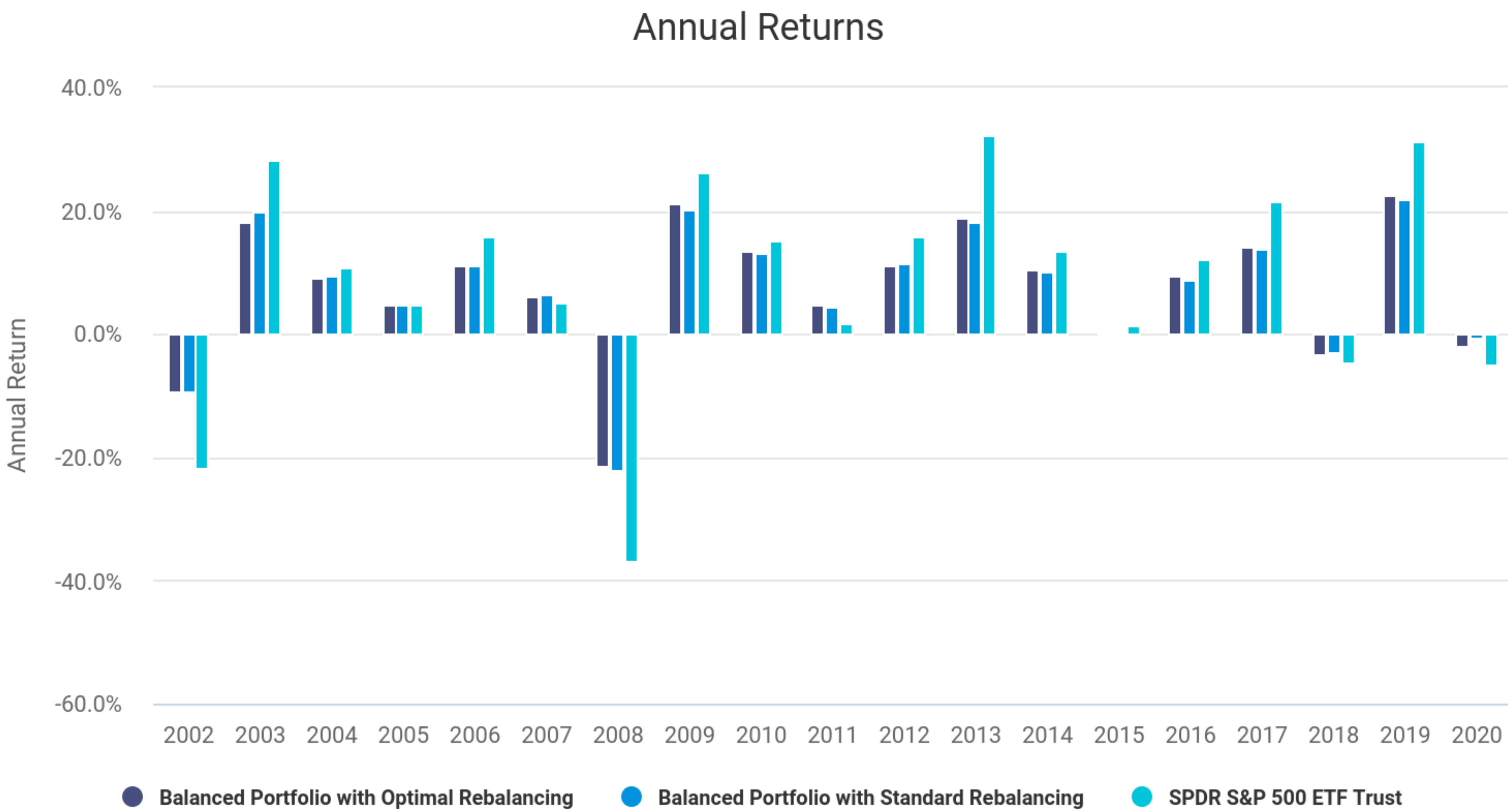
Ticker	Name	Allocation
VBIAX	Vanguard Balanced Index Adm	100.00%



Portfolio Performance (Jan 2002 - May 2020)

Metric	Balanced Portfolio with Optimal Rebalancing	Balanced Portfolio with Standard Rebalancing	SPDR S&P 500 ETF Trust
Start Balance	$10,000	$10,000	$10,000
End Balance	$34,957	$34,424	$38,075
End Balance (inflation adjusted)	$24,092	$23,725	$26,241
CAGR	7.03%	6.94%	7.53%
CAGR (inflation adjusted)	4.89%	4.80%	5.38%
Stdev	9.17%	9.02%	14.57%
Best Year	22.43%	21.79%	32.31%
Worst Year	-21.31%	-22.12%	-36.81%
Max. Drawdown	-31.44%	-32.45%	-50.80%
Sharpe Ratio	0.64	0.65	0.48
Sortino Ratio	0.95	0.95	0.69
US Stock Market Correlation	0.99	0.99	1.00


Portfolio Growth
Portfolio Balance ($)
$50,000
$40,000
$30,000
$20,000
$10,000
$0
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
Balanced Portfolio with Optimal Rebalancing
Balanced Portfolio with Standard Rebalancing
SPDR S&P 500 ETF Trust


Annual Returns
40.0%
20.0%
0.0%
-20.0%
-40.0%
-60.0%
Annual Return
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Balanced Portfolio with Optimal Rebalancing
Balanced Portfolio with Standard Rebalancing
SPDR S&P 500 ETF Trust

Risk and Return Metrics (Jan 2002 - May 2020)

Metric	Balanced Portfolio with Optimal Rebalancing	Balanced Portfolio with Standard Rebalancing	SPDR S&P 500 ETF Trust
Arithmetic Mean (monthly)	0.60%	0.59%	0.70%
Arithmetic Mean (annualized)	7.48%	7.38%	8.68%
Geometric Mean (monthly)	0.57%	0.56%	0.61%
Geometric Mean (annualized)	7.03%	6.94%	7.53%
Volatility (monthly)	2.65%	2.60%	4.21%
Volatility (annualized)	9.17%	9.02%	14.57%
Downside Deviation (monthly)	1.77%	1.74%	2.91%
Max. Drawdown	-31.44%	-32.45%	-50.80%
US Market Correlation	0.99	0.99	1.00
Beta (*)	0.62	0.61	1.00
Alpha (annualized)	2.07%	2.05%	0.00%
R Squared	96.62%	97.01%	100.00%
Sharpe Ratio	0.64	0.65	0.48
Sortino Ratio	0.95	0.95	0.69
Treynor Ratio (%)	9.60	9.59	7.06
Calmar Ratio	0.59	0.66	0.52
Active Return	-0.50%	-0.59%	N/A
Tracking Error	5.81%	5.90%	N/A
Information Ratio	-0.09	-0.10	N/A
Skewness	-0.76	-0.77	-0.67
Excess Kurtosis	2.32	2.67	1.62
Historical Value-at-Risk (5%)	-4.48%	-4.38%	-7.83%
Analytical Value-at-Risk (5%)	-3.69%	-3.69%	-6.22%
Conditional Value-at-Risk (5%)	-6.12%	-6.05%	-9.89%
Upside Capture Ratio (%)	65.51	63.87	100.00
Downside Capture Ratio (%)	58.31	56.53	100.00
Safe Withdrawal Rate	7.47%	7.45%	6.81%
Perpetual Withdrawal Rate	4.77%	4.68%	5.22%
Positive Periods	150 out of 221 (67.87%)	151 out of 221 (68.33%)	145 out of 221 (65.61%)
Gain/Loss Ratio	0.86	0.85	0.80

(*) SPDR S&P 500 ETF Trust is used as the benchmark for calculations. Value-at-risk metrics are based on monthly values.

Balanced Portfolio with Optimal Rebalancing Returns

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Inflation	Balance
2002	-0.49%	-0.87%	1.98%	-2.27%	-0.36%	-4.00%	-4.30%	1.08%	-4.72%	3.58%	3.21%	-2.06%	-9.24%	2.38%	$9,076
2003	-1.30%	-0.20%	0.50%	4.62%	4.09%	0.72%	-0.24%	1.60%	0.55%	2.95%	0.93%	2.93%	18.35%	1.88%	$10,741
2004	1.66%	1.29%	-0.30%	-2.32%	0.63%	1.45%	-1.84%	1.00%	1.08%	1.35%	2.38%	2.52%	9.14%	3.26%	$11,722
2005	-1.34%	0.99%	-1.25%	-0.83%	2.65%	0.72%	2.09%	-0.07%	0.07%	-1.44%	2.60%	0.47%	4.64%	3.42%	$12,266
2006	2.09%	0.17%	0.72%	0.61%	-2.05%	0.17%	0.46%	2.06%	1.71%	2.48%	1.81%	0.53%	11.20%	2.54%	$13,640
2007	1.16%	-0.47%	0.72%	2.74%	2.08%	-1.22%	-1.89%	1.41%	2.56%	1.51%	-2.20%	-0.30%	6.10%	4.08%	$14,473
2008	-3.19%	-1.78%	-0.23%	2.89%	1.00%	-5.07%	-0.46%	1.25%	-5.99%	-11.25%	-2.52%	2.57%	-21.31%	0.09%	$11,388
2009	-4.50%	-6.44%	5.65%	6.41%	3.60%	0.43%	5.45%	2.69%	3.17%	-1.55%	4.14%	1.29%	21.25%	2.72%	$13,808
2010	-1.76%	2.26%	4.10%	1.84%	-5.11%	-3.15%	4.83%	-2.57%	6.04%	2.72%	0.20%	4.18%	13.65%	1.50%	$15,693
2011	1.53%	2.55%	0.31%	2.49%	-0.17%	-1.21%	-0.66%	-2.88%	-3.97%	6.32%	-0.29%	0.94%	4.64%	2.96%	$16,422
2012	3.26%	2.44%	1.56%	0.09%	-3.29%	2.28%	1.18%	1.48%	1.56%	-0.99%	0.52%	0.64%	11.08%	1.74%	$18,241
2013	2.98%	0.99%	2.42%	1.40%	0.81%	-1.39%	3.52%	-2.02%	2.69%	3.01%	1.76%	1.53%	19.02%	1.50%	$21,711
2014	-1.55%	3.28%	0.30%	0.30%	1.80%	1.75%	-1.41%	3.17%	-1.65%	2.15%	1.86%	0.04%	10.33%	0.76%	$23,953
2015	-1.14%	3.49%	-0.56%	0.17%	0.81%	-1.48%	1.37%	-4.23%	-1.73%	5.23%	0.30%	-1.51%	0.39%	0.73%	$24,047
2016	-3.38%	0.20%	4.98%	0.56%	1.20%	0.79%	2.88%	0.14%	0.08%	-1.77%	2.19%	1.42%	9.43%	2.07%	$26,316
2017	1.44%	2.49%	0.02%	0.94%	0.89%	0.57%	1.29%	0.43%	1.30%	1.39%	1.84%	0.80%	14.25%	2.11%	$30,064
2018	2.97%	-2.76%	-1.04%	-0.06%	2.02%	0.45%	2.18%	2.44%	-0.08%	-5.13%	1.53%	-5.39%	-3.28%	1.91%	$29,077
2019	5.73%	2.22%	1.63%	2.58%	-3.57%	4.86%	1.01%	-0.33%	0.87%	1.44%	2.43%	1.83%	22.43%	2.29%	$35,599
2020	0.66%	-4.79%	-8.96%	8.66%	3.57%								-1.80%	-0.23%	$34,957

Balanced Portfolio with Standard Rebalancing Returns

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Inflation	Balance
2002	-0.39%	-0.84%	1.95%	-2.30%	-0.40%	-3.95%	-4.22%	1.01%	-5.42%	4.19%	3.58%	-2.56%	-9.45%	2.38%	$9,055
2003	-1.47%	-0.39%	0.59%	5.22%	4.40%	0.84%	0.06%	1.72%	0.37%	3.21%	0.96%	3.10%	20.02%	1.88%	$10,868
2004	1.64%	1.29%	-0.35%	-2.31%	0.66%	1.50%	-1.89%	0.99%	1.17%	1.36%	2.52%	2.53%	9.36%	3.26%	$11,885
2005	-1.34%	0.99%	-1.27%	-0.84%	2.81%	0.69%	2.11%	-0.05%	0.08%	-1.42%	2.58%	0.47%	4.79%	3.42%	$12,455
2006	2.07%	0.15%	0.71%	0.59%	-2.01%	0.23%	0.45%	2.00%	1.70%	2.43%	1.80%	0.49%	11.06%	2.54%	$13,833
2007	1.08%	-0.32%	0.67%	2.60%	1.95%	-1.18%	-1.67%	1.38%	2.48%	1.47%	-1.94%	-0.25%	6.31%	4.08%	$14,706
2008	-2.95%	-1.78%	-0.17%	2.83%	0.98%	-4.96%	-0.44%	1.23%	-5.97%	-11.59%	-3.42%	2.47%	-22.12%	0.09%	$11,452
2009	-5.24%	-6.42%	6.06%	6.40%	3.58%	0.52%	5.28%	2.62%	3.01%	-1.33%	3.88%	1.06%	20.11%	2.72%	$13,755
2010	-1.45%	2.10%	3.73%	1.74%	-4.45%	-2.71%	4.50%	-2.28%	5.57%	2.52%	0.14%	3.69%	13.29%	1.50%	$15,583
2011	1.36%	2.26%	0.27%	2.35%	-0.18%	-1.18%	-0.72%	-2.77%	-4.40%	6.98%	-0.28%	0.95%	4.29%	2.96%	$16,252
2012	3.40%	2.53%	1.60%	0.09%	-3.38%	2.36%	1.17%	1.55%	1.59%	-1.01%	0.55%	0.65%	11.49%	1.74%	$18,118
2013	3.03%	0.98%	2.40%	1.43%	0.70%	-1.38%	3.33%	-1.92%	2.56%	2.87%	1.56%	1.33%	18.10%	1.50%	$21,397
2014	-1.24%	3.02%	0.24%	0.36%	1.75%	1.56%	-1.28%	2.95%	-1.54%	2.09%	1.77%	0.02%	9.99%	0.76%	$23,535
2015	-0.74%	2.92%	-0.41%	0.10%	0.66%	-1.42%	1.31%	-3.69%	-1.45%	4.64%	0.20%	-1.38%	0.51%	0.73%	$23,654
2016	-2.81%	0.28%	4.63%	0.54%	1.07%	0.93%	2.64%	0.10%	0.07%	-1.68%	1.64%	1.21%	8.77%	2.07%	$25,728
2017	1.25%	2.51%	0.02%	0.96%	0.89%	0.55%	1.28%	0.45%	1.26%	1.34%	1.76%	0.81%	13.89%	2.11%	$29,302
2018	2.74%	-2.61%	-0.93%	-0.09%	1.96%	0.40%	2.01%	2.34%	-0.13%	-4.73%	1.45%	-4.90%	-2.86%	1.91%	$28,466
2019	5.58%	2.10%	1.65%	2.39%	-3.21%	4.67%	0.97%	-0.11%	0.83%	1.39%	2.24%	1.65%	21.79%	2.29%	$34,667
2020	0.84%	-4.22%	-8.47%	8.55%	3.48%								-0.70%	-0.23%	$34,424

SPDR S&P 500 ETF Trust Returns

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Inflation	Balance
2002	-0.98%	-1.79%	3.32%	-5.82%	-0.59%	-7.38%	-7.88%	0.68%	-10.49%	8.23%	6.17%	-5.66%	-21.59%	2.38%	$7,841
2003	-2.46%	-1.35%	0.21%	8.46%	5.48%	1.07%	1.80%	2.06%	-1.09%	5.35%	1.09%	5.03%	28.18%	1.88%	$10,051
2004	1.98%	1.36%	-1.32%	-1.89%	1.71%	1.85%	-3.22%	0.24%	1.00%	1.29%	4.45%	3.02%	10.70%	3.26%	$11,126
2005	-2.24%	2.09%	-1.83%	-1.87%	3.22%	0.15%	3.83%	-0.94%	0.80%	-2.37%	4.40%	-0.19%	4.83%	3.42%	$11,663
2006	2.40%	0.57%	1.65%	1.26%	-3.01%	0.26%	0.45%	2.18%	2.70%	3.15%	1.99%	1.34%	15.85%	2.54%	$13,512
2007	1.50%	-1.96%	1.16%	4.43%	3.39%	-1.46%	-3.13%	1.28%	3.87%	1.36%	-3.87%	-1.13%	5.14%	4.08%	$14,206
2008	-6.05%	-2.58%	-0.90%	4.77%	1.51%	-8.35%	-0.90%	1.55%	-9.44%	-16.52%	-6.96%	0.98%	-36.81%	0.09%	$8,977
2009	-8.21%	-10.74%	8.35%	9.93%	5.85%	-0.07%	7.46%	3.69%	3.55%	-1.92%	6.16%	1.91%	26.36%	2.72%	$11,344
2010	-3.63%	3.12%	6.09%	1.55%	-7.95%	-5.17%	6.83%	-4.50%	8.96%	3.82%	0.00%	6.68%	15.06%	1.50%	$13,052
2011	2.33%	3.47%	0.01%	2.90%	-1.12%	-1.69%	-2.00%	-5.50%	-6.94%	10.91%	-0.41%	1.04%	1.89%	2.96%	$13,298
2012	4.64%	4.34%	3.22%	-0.67%	-6.01%	4.05%	1.18%	2.51%	2.54%	-1.82%	0.57%	0.90%	15.99%	1.74%	$15,425
2013	5.12%	1.28%	3.80%	1.92%	2.36%	-1.34%	5.17%	-3.00%	3.17%	4.63%	2.96%	2.59%	32.31%	1.50%	$20,408
2014	-3.52%	4.55%	0.83%	0.70%	2.32%	2.06%	-1.34%	3.95%	-1.38%	2.36%	2.75%	-0.26%	13.46%	0.76%	$23,155
2015	-2.96%	5.62%	-1.57%	0.98%	1.29%	-2.03%	2.26%	-6.10%	-2.54%	8.51%	0.37%	-1.72%	1.25%	0.73%	$23,445
2016	-4.98%	-0.08%	6.72%	0.39%	1.70%	0.35%	3.65%	0.12%	0.01%	-1.73%	3.68%	2.03%	12.00%	2.07%	$26,259
2017	1.79%	3.93%	0.13%	0.99%	1.41%	0.64%	2.06%	0.29%	2.01%	2.36%	3.06%	1.21%	21.70%	2.11%	$31,957
2018	5.64%	-3.64%	-2.74%	0.52%	2.43%	0.58%	3.70%	3.19%	0.59%	-6.91%	1.85%	-8.79%	-4.56%	1.91%	$30,501
2019	8.01%	3.24%	1.81%	4.09%	-6.38%	6.96%	1.51%	-1.67%	1.95%	2.21%	3.62%	2.90%	31.22%	2.29%	$40,024
2020	-0.04%	-7.92%	-12.46%	12.70%	4.76%								-4.87%	-0.23%	$38,075

Portfolio Returns Based Style Analysis

Style Category	Balanced Portfolio with Optimal Rebalancing	Balanced Portfolio with Standard Rebalancing	SPDR S&P 500 ETF Trust
Large-cap Value	20.19%	20.56%	46.04%
Large-cap Growth	29.51%	28.99%	53.15%
Mid-cap Value	6.09%	5.80%	0.00%
Mid-cap Growth	3.64%	4.13%	0.49%
Small-cap Value	0.00%	0.00%	0.00%
Small-cap Growth	1.42%	1.38%	0.00%
Global ex-US Developed Markets	0.00%	0.00%	0.00%
Emerging Markets	0.88%	0.86%	0.00%
REITs	0.16%	0.22%	0.00%
Corporate Bonds	6.13%	5.63%	0.32%
Long-Term Treasuries	1.25%	1.14%	0.00%
Intermediate-Term Treasuries	10.39%	11.19%	0.00%
Short-Term Treasuries	20.33%	20.09%	0.00%
R Squared	**99.72%**	**99.69%**	**99.91%**

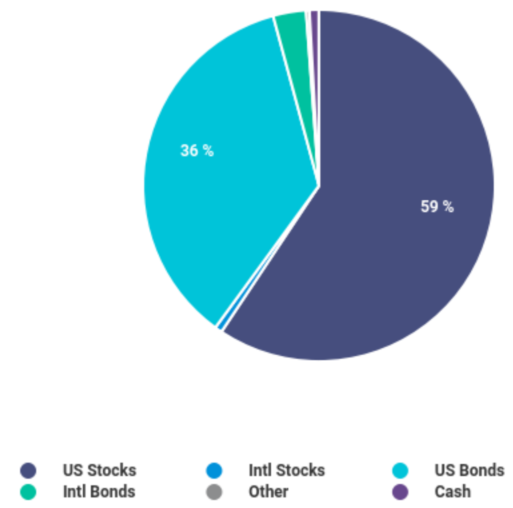
Style analysis is based on monthly returns from Apr 2005 to May 2020 and uses total portfolio return with monthly rebalancing. Returns based style analysis aims to explain the portfolio returns based on asset class exposures, it does not identify the actual portfolio holdings.

Exposures for Balanced Portfolio with Optimal Rebalancing

Ticker	Name	Category	Weight	ER	P/E	Duration
VTSAX	Vanguard Total Stock Mkt Idx Adm	Large Blend	60.00%	0.04%	19.23	
VBTLX	Vanguard Total Bond Market Index Adm	Intermediate Core Bond	40.00%	0.05%		6.21
			100.00%	**0.04%**	**19.23**	**6.21**

Asset Allocation for Balanced Portfolio with Optimal Rebalancing

Category	Weight
US Stocks	59.36%
Intl Stocks	0.67%
US Bonds	35.78%
Intl Bonds	3.02%
Other	0.30%
Cash	0.87%



Equity Market Capitalization for Balanced Portfolio with Optimal Rebalancing

Category	Weight
Large Cap	76.11%
Mid Cap	17.49%
Small Cap	6.40%

Stock Sectors for Balanced Portfolio with Optimal Rebalancing

Category	Weight
Basic Materials	2.31%
Consumer Cyclical	10.59%
Financial Services	13.45%
Real Estate	3.91%
Consumer Defensive	7.14%
Healthcare	15.71%
Utilities	3.18%
Communication Services	10.03%
Energy	2.85%
Industrials	8.98%
Technology	21.85%

Fixed Income Credit Quality for Balanced Portfolio with Optimal Rebalancing

Category	Weight
AAA	67.55%
AA	3.43%
A	11.37%
BBB	17.65%
Non-Investment Grade	0.00%

Fixed Income Maturity for Balanced Portfolio with Optimal Rebalancing

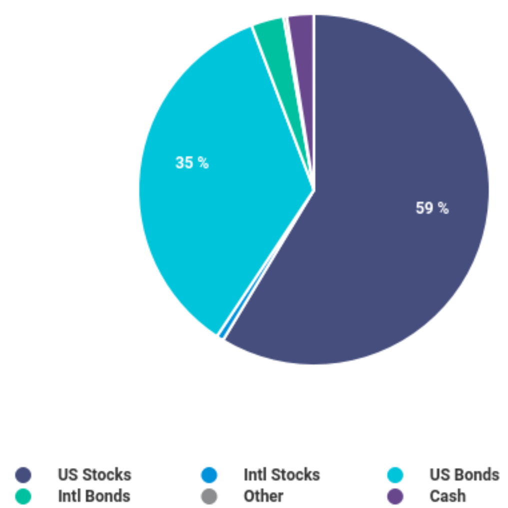
Category	Weight
Under 1 Year	60.37%
1 - 3 Years	7.84%
3 - 5 Years	6.04%
5 - 7 Years	4.35%
7 - 10 Years	3.81%
10 - 15 Years	1.54%
15 - 20 Years	1.74%
20 - 30 Years	13.02%
Over 30 Years	1.29%

Exposures for Balanced Portfolio with Standard Rebalancing

Ticker	Name	Category	Weight	ER	P/E	Duration
VBIAX	Vanguard Balanced Index Adm	50% to 70% Equity	100.00%	0.07%	19.23	6.18

Asset Allocation for Balanced Portfolio with Standard Rebalancing

Category	Weight
US Stocks	58.66%
Intl Stocks	0.66%
US Bonds	34.91%
Intl Bonds	2.99%
Other	0.30%
Cash	2.48%



Equity Market Capitalization for Balanced Portfolio with Standard Rebalancing

Category	Weight
Large Cap	76.04%
Mid Cap	17.51%
Small Cap	6.45%

Stock Sectors for Balanced Portfolio with Standard Rebalancing

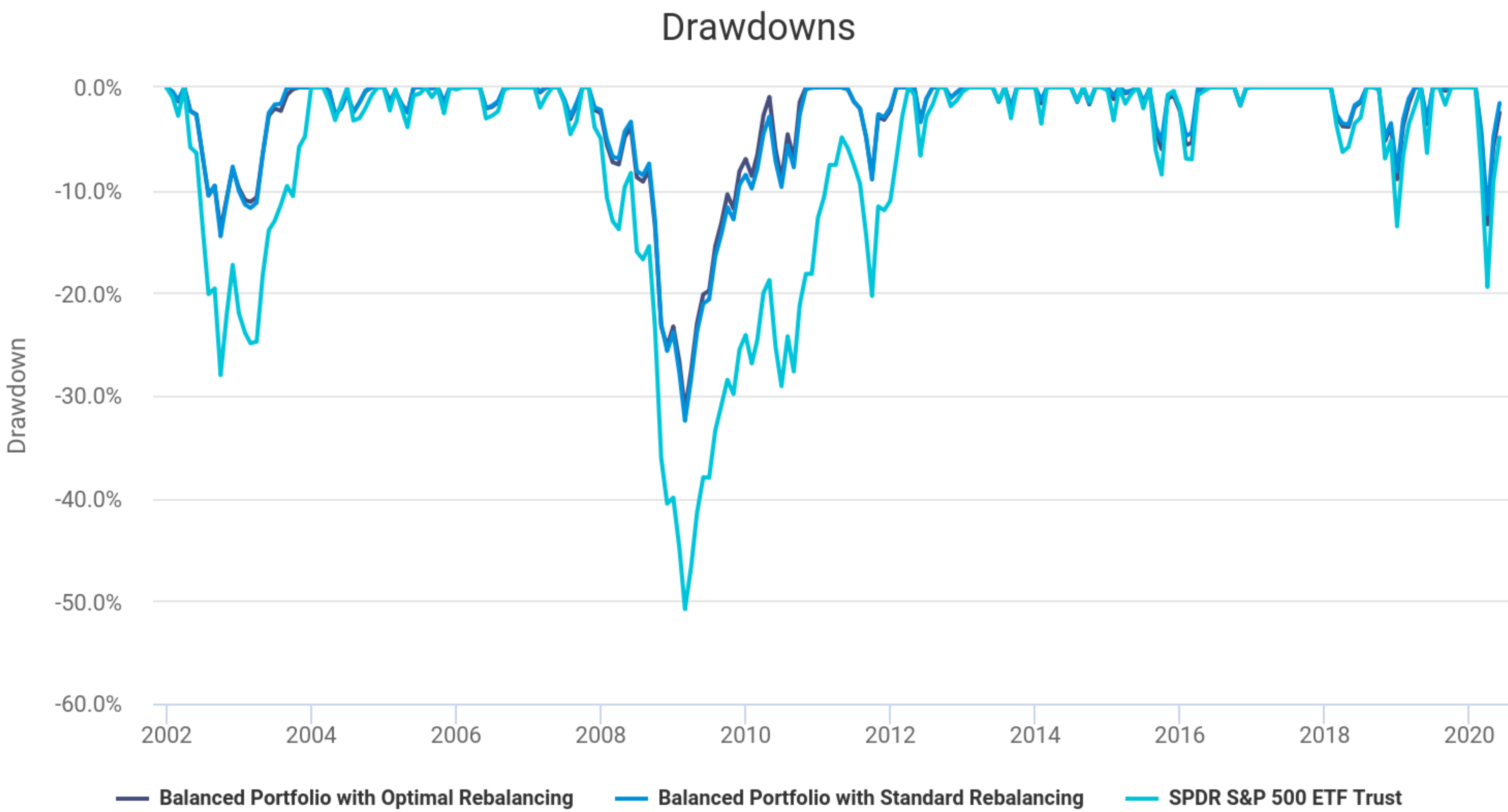
Category	Weight
Basic Materials	2.31%
Consumer Cyclical	10.57%
Financial Services	13.51%
Real Estate	3.91%
Consumer Defensive	7.13%
Healthcare	15.70%
Utilities	3.17%
Communication Services	10.03%
Energy	2.85%
Industrials	8.97%
Technology	21.85%

Fixed Income Credit Quality for Balanced Portfolio with Standard Rebalancing

Category	Weight
AAA	67.78%
AA	3.29%
A	11.08%
BBB	17.85%
Non-Investment Grade	0.00%

Fixed Income Maturity for Balanced Portfolio with Standard Rebalancing

Category	Weight
Under 1 Year	0.45%
1 - 3 Years	21.06%
3 - 5 Years	15.16%
5 - 7 Years	10.65%
7 - 10 Years	8.64%
10 - 15 Years	3.77%
15 - 20 Years	4.48%
20 - 30 Years	32.71%
Over 30 Years	3.09%



Drawdowns for Historical Market Stress Periods

Stress Period	Start	End	Balanced Portfolio with Optimal Rebalancing	Balanced Portfolio with Standard Rebalancing	SPDR S&P 500 ETF Trust
Subprime Crisis	Nov 2007	Mar 2009	-31.44%	-32.45%	-50.80%

Drawdowns for Balanced Portfolio with Optimal Rebalancing (worst 10)

Rank	Start	End	Length	Recovery By	Recovery Time	Underwater Period	Drawdown
1	Nov 2007	Feb 2009	1 year 4 months	Oct 2010	1 year 8 months	3 years	-31.44%
2	Apr 2002	Sep 2002	6 months	Oct 2003	1 year 1 month	1 year 7 months	-13.83%
3	Feb 2020	Mar 2020	2 months				-13.32%
4	Sep 2018	Dec 2018	4 months	Mar 2019	3 months	7 months	-8.94%
5	May 2011	Sep 2011	5 months	Jan 2012	4 months	9 months	-8.64%
6	Jun 2015	Sep 2015	4 months	May 2016	8 months	1 year	-6.01%
7	Feb 2018	Apr 2018	3 months	Jul 2018	3 months	6 months	-3.84%
8	May 2019	May 2019	1 month	Jun 2019	1 month	2 months	-3.57%
9	May 2012	May 2012	1 month	Jul 2012	2 months	3 months	-3.29%
10	Jun 2007	Jul 2007	2 months	Sep 2007	2 months	4 months	-3.08%

Drawdowns for Balanced Portfolio with Standard Rebalancing (worst 10)

Rank	Start	End	Length	Recovery By	Recovery Time	Underwater Period	Drawdown
1	Nov 2007	Feb 2009	1 year 4 months	Dec 2010	1 year 10 months	3 years 2 months	-32.45%
2	Apr 2002	Sep 2002	6 months	Aug 2003	11 months	1 year 5 months	-14.48%
3	Feb 2020	Mar 2020	2 months				-12.34%
4	May 2011	Sep 2011	5 months	Jan 2012	4 months	9 months	-8.96%
5	Sep 2018	Dec 2018	4 months	Mar 2019	3 months	7 months	-8.21%
6	Jun 2015	Sep 2015	4 months	Apr 2016	7 months	11 months	-5.20%
7	Feb 2018	Apr 2018	3 months	Jul 2018	3 months	6 months	-3.60%
8	May 2012	May 2012	1 month	Jul 2012	2 months	3 months	-3.38%
9	May 2019	May 2019	1 month	Jun 2019	1 month	2 months	-3.21%
10	Jun 2007	Jul 2007	2 months	Sep 2007	2 months	4 months	-2.83%

Drawdowns for SPDR S&P 500 ETF Trust (worst 10)

Rank	Start	End	Length	Recovery By	Recovery Time	Underwater Period	Drawdown
1	Nov 2007	Feb 2009	1 year 4 months	Mar 2012	3 years 1 month	4 years 5 months	-50.80%
2	Apr 2002	Sep 2002	6 months	Dec 2003	1 year 3 months	1 year 9 months	-28.01%
3	Jan 2020	Mar 2020	3 months				-19.43%
4	Oct 2018	Dec 2018	3 months	Apr 2019	4 months	7 months	-13.52%
5	Aug 2015	Sep 2015	2 months	May 2016	8 months	10 months	-8.48%
6	Apr 2012	May 2012	2 months	Aug 2012	3 months	5 months	-6.63%
7	May 2019	May 2019	1 month	Jun 2019	1 month	2 months	-6.38%
8	Feb 2018	Mar 2018	2 months	Jul 2018	4 months	6 months	-6.28%
9	Jun 2007	Jul 2007	2 months	Sep 2007	2 months	4 months	-4.55%
10	Jan 2005	Apr 2005	4 months	Jul 2005	3 months	7 months	-3.86%

Portfolio Components (Jan 2002 - May 2020)

Ticker	Name	CAGR	Stdev	Best Year	Worst Year	Max DD	Sharpe Ratio	Sortino Ratio	US Mkt Correlation
VTSAX	Vanguard Total Stock Mkt Idx Adm	7.95%	15.06%	33.52%	-36.99%	-50.84%	0.50	0.71	1.00
VBTLX	Vanguard Total Bond Market Index Adm	4.56%	3.45%	8.71%	-2.15%	-3.94%	0.93	1.59	-0.07
VBIAX	Vanguard Balanced Index Adm	6.94%	9.02%	21.79%	-22.12%	-32.45%	0.65	0.95	0.99

Monthly Correlations (Jan 2002 - May 2020)

Ticker	Name	VTSAX	VBTLX	VBIAX	Balanced Portfolio with Optimal Rebalancing	Balanced Portfolio with Standard Rebalancing	SPDR S&P 500 ETF Trust
VTSAX	Vanguard Total Stock Mkt Idx Adm	1.00	-0.07	0.99	0.99	0.99	1.00
VBTLX	Vanguard Total Bond Market Index Adm	-0.07	1.00	0.09	0.08	0.09	-0.06
VBIAX	Vanguard Balanced Index Adm	0.99	0.09	1.00	1.00	1.00	0.98

Portfolio Return Decomposition (Jan 2002 - May 2020)

Ticker	Name	Balanced Portfolio with Optimal Rebalancing	Balanced Portfolio with Standard Rebalancing
VTSAX	Vanguard Total Stock Mkt Idx Adm	$19,461	
VBTLX	Vanguard Total Bond Market Index Adm	$5,496	
VBIAX	Vanguard Balanced Index Adm		$24,424

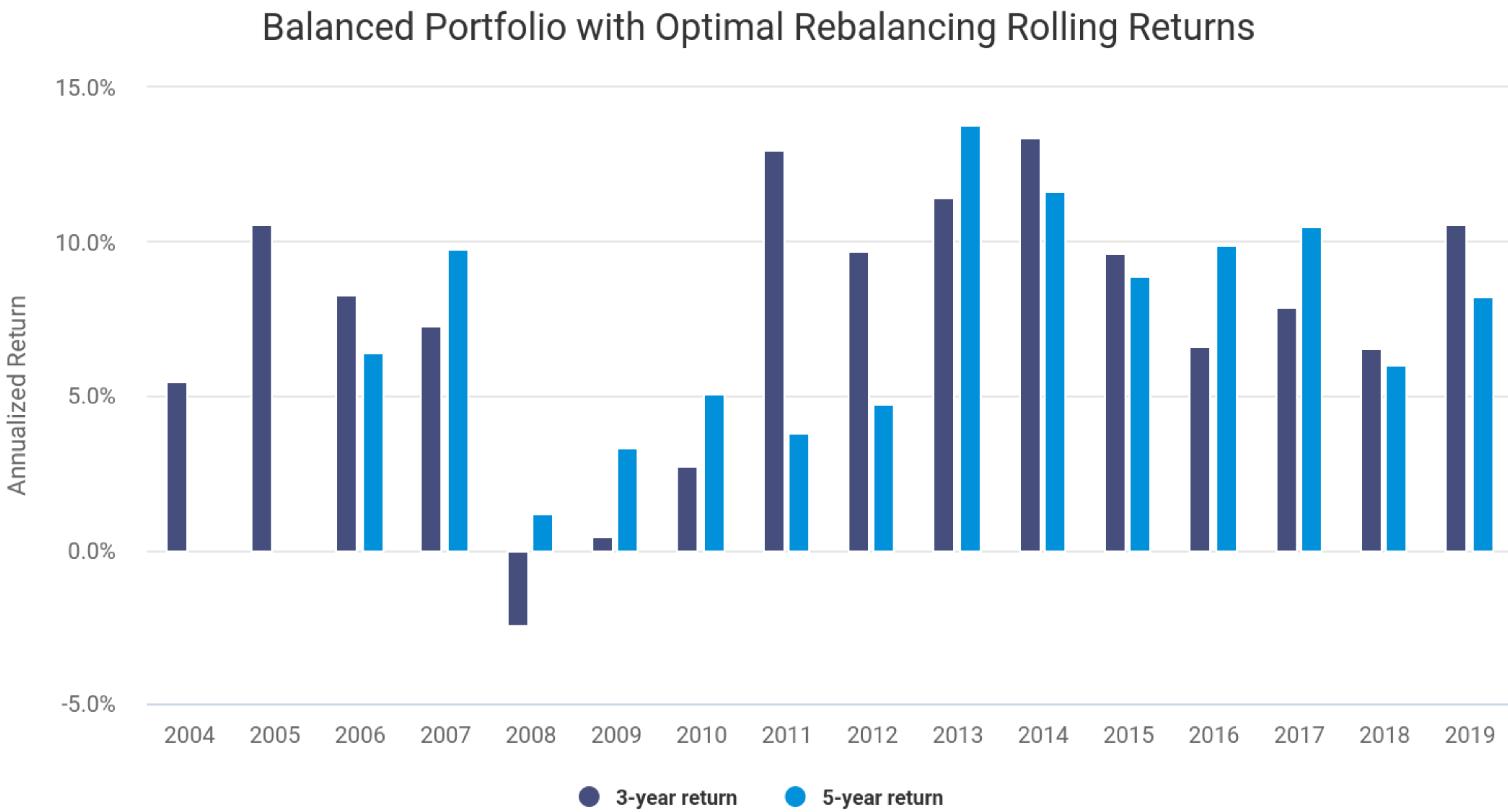
Portfolio Risk Decomposition (Jan 2002 - May 2020)

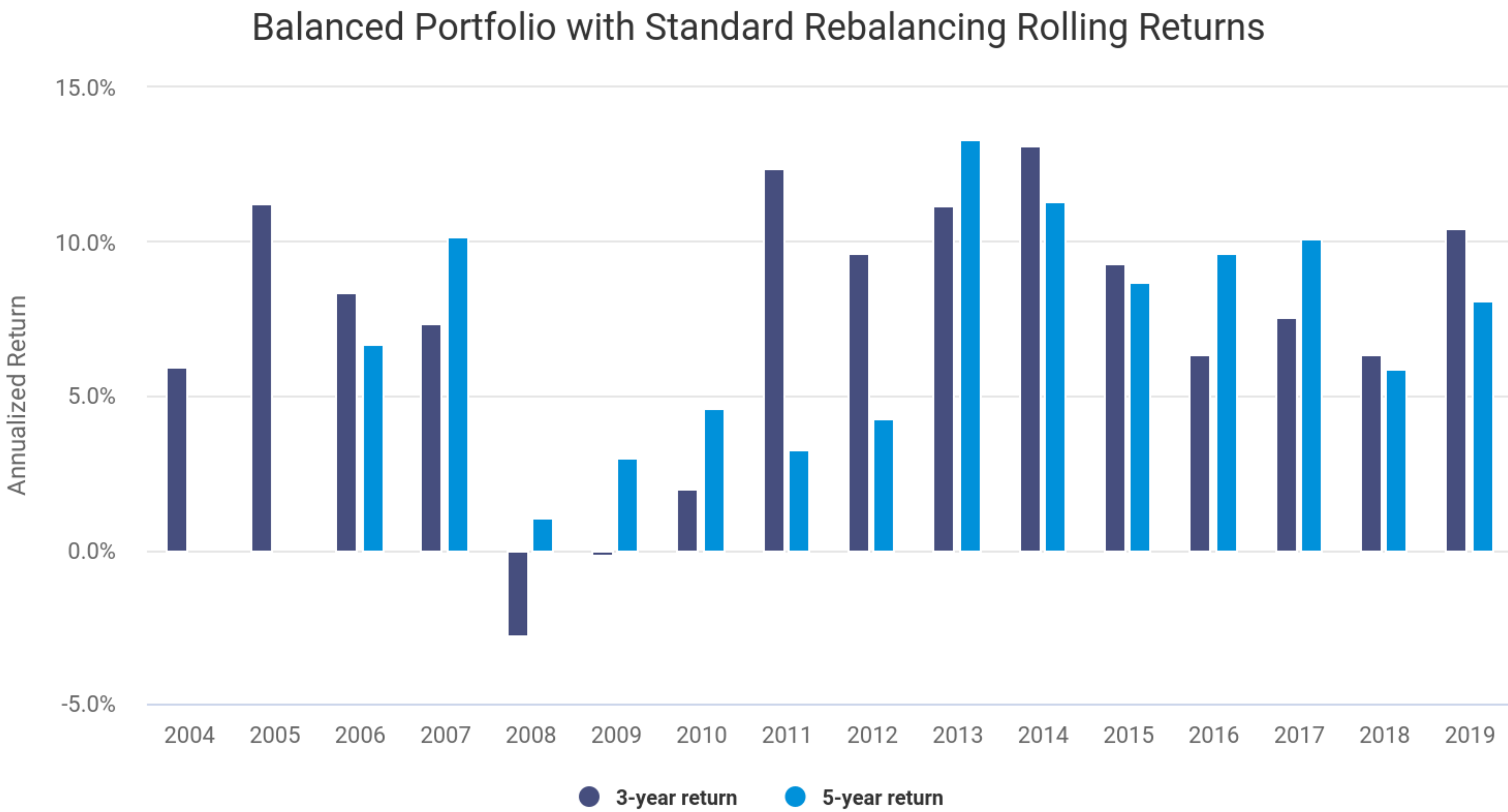
Ticker	Name	Balanced Portfolio with Optimal Rebalancing	Balanced Portfolio with Standard Rebalancing
VTSAX	Vanguard Total Stock Mkt Idx Adm	98.82%	
VBTLX	Vanguard Total Bond Market Index Adm	1.18%	
VBIAX	Vanguard Balanced Index Adm		100.00%

Rolling Returns (Jan 2002 - May 2020)

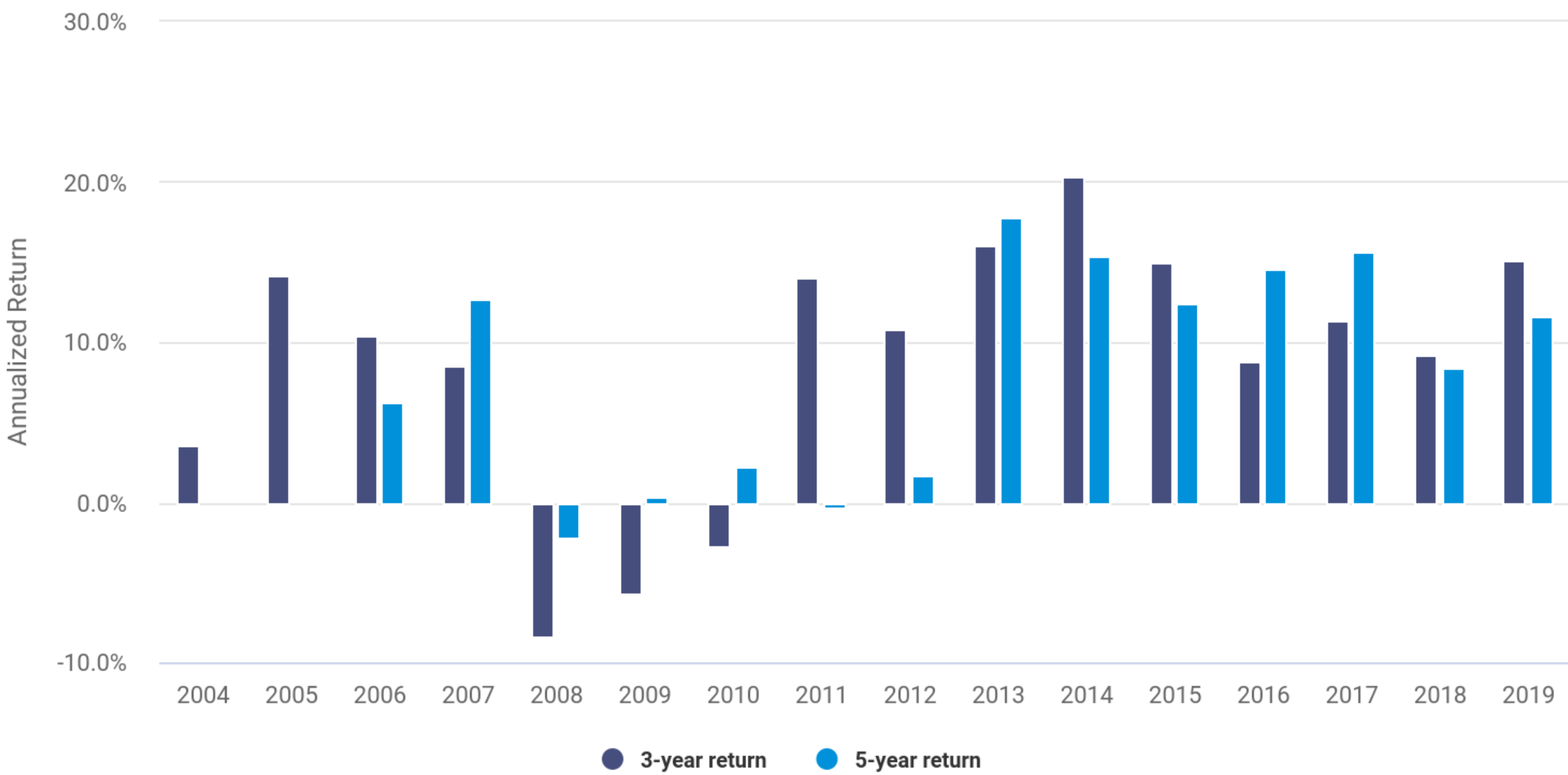
Roll Period	Balanced Portfolio with Optimal Rebalancing			Balanced Portfolio with Standard Rebalancing			SPDR S&P 500 ETF Trust		
	Average	High	Low	Average	High	Low	Average	High	Low
1 year	7.89%	22.43%	-21.31%	7.74%	21.79%	-22.12%	9.61%	32.31%	-36.81%
3 years	7.57%	13.41%	-2.45%	7.39%	13.14%	-2.76%	8.77%	20.31%	-8.36%
5 years	7.38%	13.77%	1.18%	7.15%	13.32%	1.05%	8.31%	17.85%	-2.23%
7 years	7.32%	11.27%	1.87%	7.05%	10.92%	1.96%	7.99%	14.70%	-1.53%
10 years	7.57%	9.93%	5.09%	7.29%	9.68%	4.98%	8.20%	13.44%	2.89%
15 years	7.38%	8.31%	6.66%	7.17%	8.14%	6.50%	8.26%	9.82%	6.65%

Result statistics are based on annualized rolling returns over full calendar year periods


Balanced Portfolio with Optimal Rebalancing Rolling Returns
15.0%
10.0%
5.0%
0.0%
-5.0%
Annualized Return
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
3-year return
5-year return


Balanced Portfolio with Standard Rebalancing Rolling Returns
15.0%
10.0%
5.0%
0.0%
-5.0%
Annualized Return
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
3-year return
5-year return

SPDR S&P 500 ETF Trust Rolling Returns



Notes:

- Past performance is no guarantee of future results, which may vary. All use is subject to terms of service.
- Investing involves risk, including possible loss of principal. The value of the investments and the income derived from them may fluctuate over time.
- All portfolio returns presented are hypothetical and backtested. Hypothetical returns do not reflect trading costs, transaction fees, or taxes.
- The results are based on information from a variety of sources we consider reliable, but we do not represent that the information is accurate or complete.
- The results do not constitute investment advice or recommendation, are provided solely for informational purposes, and are not an offer to buy or sell any securities.
- The results are based on the total return of assets and assume that all received dividends and distributions are reinvested.
- The annual results for 2020 are based on monthly returns from January to May
- CAGR = Compound Annual Growth Rate
- Stdev = Annualized standard deviation of monthly returns
- Sharpe and Sortino ratios are calculated and annualized from monthly excess returns over risk free rate (3-month treasury bill)
- Stock market correlation is based on the correlation of monthly returns
- Drawdown analysis is calculated based on monthly returns excluding cashflows
- The backtested results assume bands based (100.00% absolute, 25.00% relative) rebalancing of portfolio assets to match the specified allocation
- Fund fundamentals data as of 06/11/2020.