Model Description

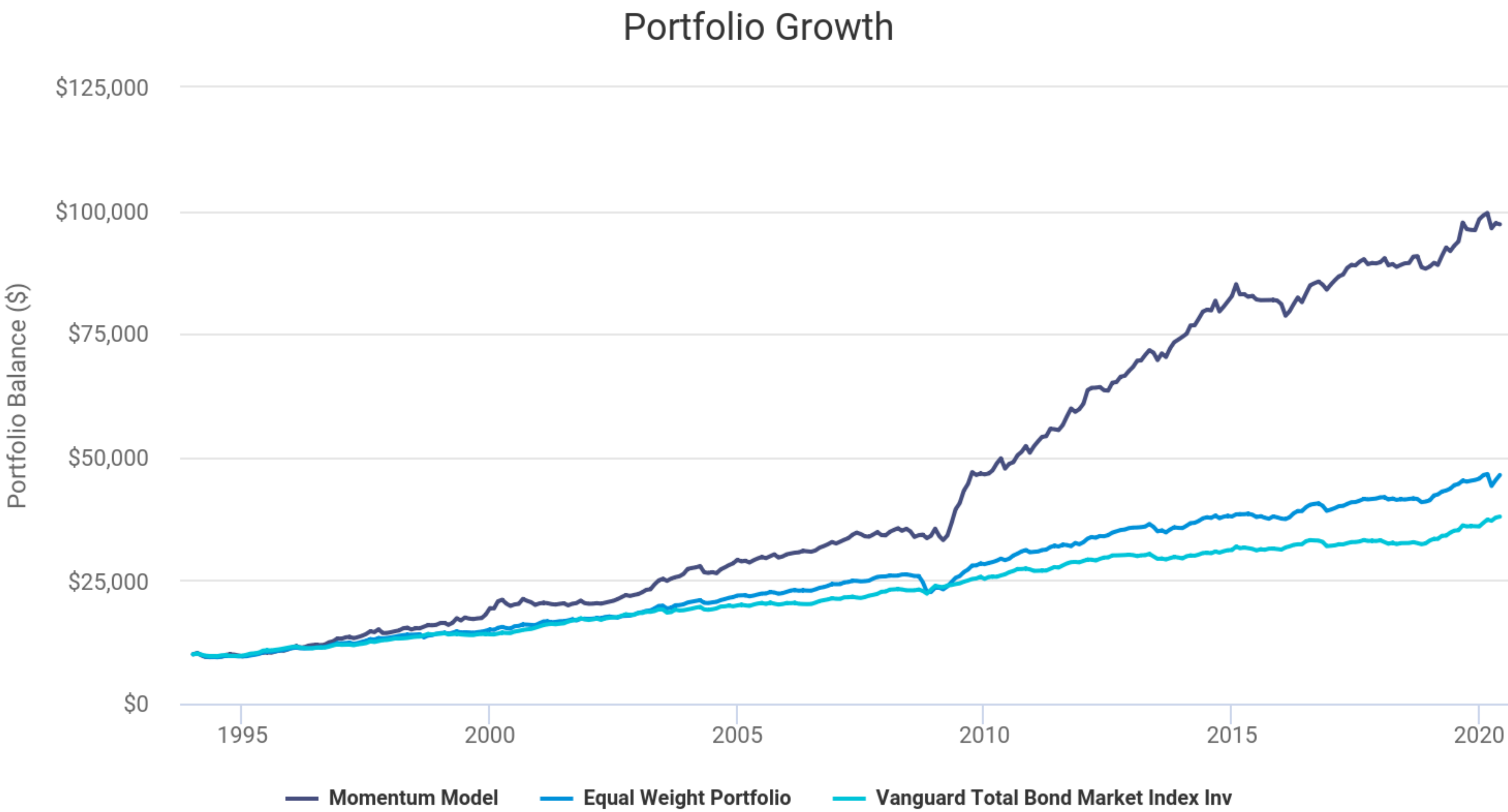
Tactical asset allocation model results from Jan 1994 to May 2020 are based on relative strength model holding the top performing assets. Tactical asset allocation model trades are executed using the end of month close price each month based on the end of month signals. The time period was constrained by the available data for Fidelity New Markets Income (FNMIX) [Jun 1993 - May 2020].

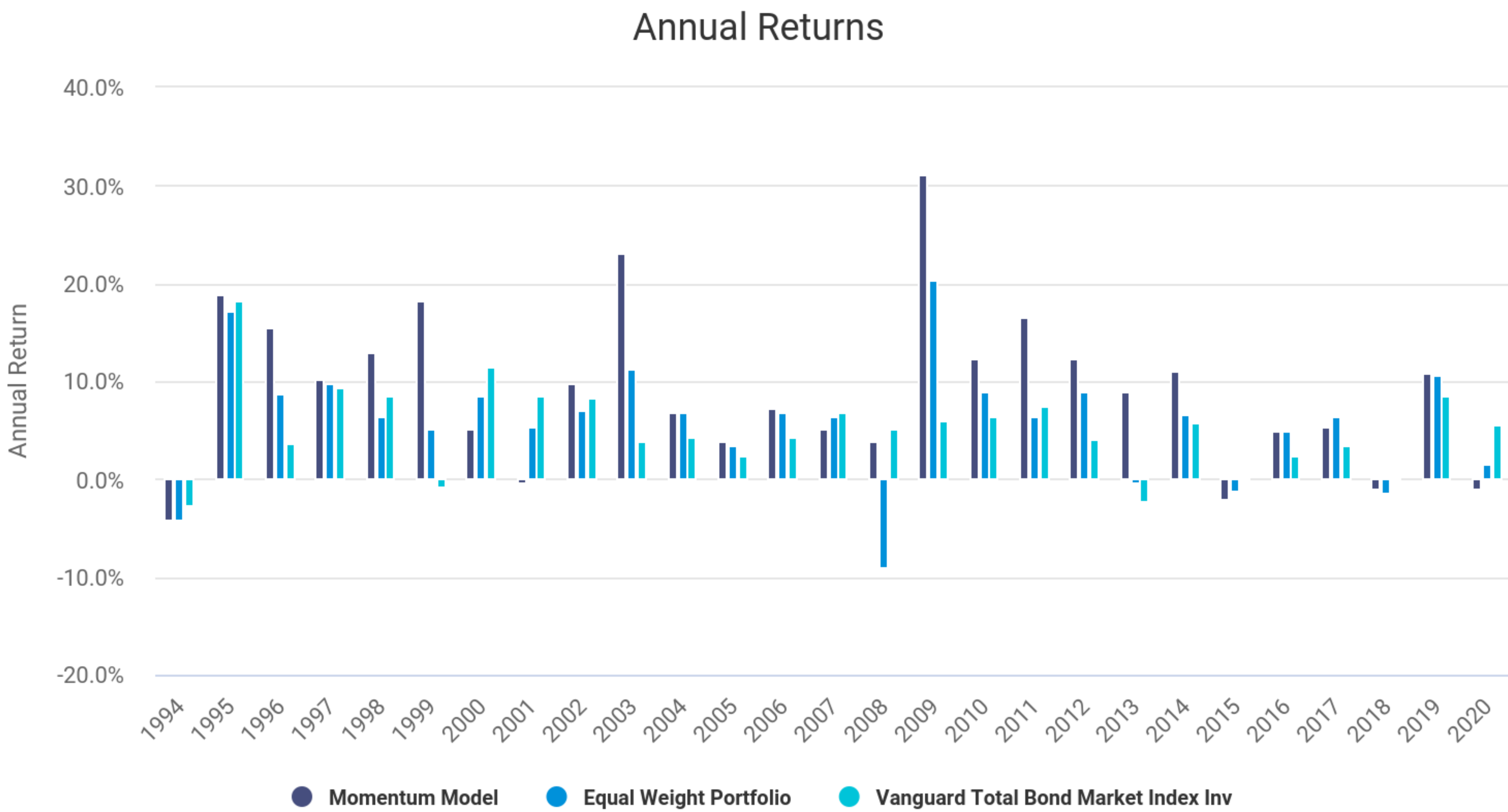
Tactical Asset Allocation Model Assets

Ticker	Name
PRCIX	T. Rowe Price New Income
LUBIX	Thrivent Income A
VFIIX	Vanguard GNMA Inv
PRHYX	T. Rowe Price High Yield
PRFHX	T. Rowe Price Tax-Free High Yield
VUSTX	Vanguard Long-Term Treasury Inv
RPIBX	T. Rowe Price International Bond
FCVSX	Fidelity Convertible Securities
PTSHX	PIMCO Short-Term Instl
FNMIX	Fidelity New Markets Income
EVGOX	Eaton Vance Government Opportunities A

Portfolio Performance (Jan 1994 - May 2020)

Metric	Momentum Model	Equal Weight Portfolio	Vanguard Total Bond Market Index Inv
Start Balance	$10,000	$10,000	$10,000
End Balance	$97,236	$46,369	$37,930
CAGR	8.99%	5.98%	5.18%
Stdev	6.66%	4.58%	3.57%
Best Year	31.04%	20.37%	18.18%
Worst Year	-4.19%	-8.93%	-2.66%
Max. Drawdown	-8.31%	-13.56%	-5.01%
Sharpe Ratio	0.97	0.77	0.77
Sortino Ratio	1.72	1.12	1.28
US Stock Market Correlation	0.43	0.60	0.00


Portfolio Growth
$125,000
$100,000
$75,000
$50,000
$25,000
$0
Portfolio Balance ($)
1995
2000
2005
2010
2015
2020
Momentum Model
Equal Weight Portfolio
Vanguard Total Bond Market Index Inv


Annual Returns
40.0%
30.0%
20.0%
10.0%
0.0%
-10.0%
-20.0%
Annual Return
1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020
Momentum Model
Equal Weight Portfolio
Vanguard Total Bond Market Index Inv

Risk and Return Metrics (Jan 1994 - May 2020)

Metric	Momentum Model	Equal Weight Portfolio	Vanguard Total Bond Market Index Inv
Arithmetic Mean (monthly)	0.74%	0.49%	0.43%
Arithmetic Mean (annualized)	9.23%	6.09%	5.24%
Geometric Mean (monthly)	0.72%	0.49%	0.42%
Geometric Mean (annualized)	8.99%	5.98%	5.18%
Volatility (monthly)	1.92%	1.32%	1.03%
Volatility (annualized)	6.66%	4.58%	3.57%
Downside Deviation (monthly)	0.99%	0.85%	0.53%
Max. Drawdown	-8.31%	-13.56%	-5.01%
US Market Correlation	0.43	0.60	0.00
Beta (*)	0.85	0.85	1.00
Alpha (annualized)	4.52%	1.57%	0.00%
R Squared	20.59%	43.92%	100.00%
Sharpe Ratio	0.97	0.77	0.77
Sortino Ratio	1.72	1.12	1.28
Treynor Ratio (%)	7.65	4.17	2.75
Calmar Ratio	0.96	0.83	1.95
Active Return	3.82%	0.80%	N/A
Tracking Error	5.96%	3.47%	N/A
Information Ratio	0.64	0.23	N/A
Skewness	0.25	-1.49	-0.14
Excess Kurtosis	1.72	7.46	0.97
Historical Value-at-Risk (5%)	-2.48%	-1.46%	-1.11%
Analytical Value-at-Risk (5%)	-2.42%	-1.68%	-1.27%
Conditional Value-at-Risk (5%)	-3.49%	-3.13%	-1.94%
Upside Capture Ratio (%)	133.28	102.55	100.00
Downside Capture Ratio (%)	58.67	78.95	100.00
Safe Withdrawal Rate	8.56%	6.33%	5.82%
Perpetual Withdrawal Rate	6.36%	3.66%	2.91%
Positive Periods	222 out of 317 (70.03%)	231 out of 317 (72.87%)	214 out of 317 (67.51%)
Gain/Loss Ratio	1.19	1.05	1.41

(*) Vanguard Total Bond Market Index Inv is used as the benchmark for calculations. Value-at-risk metrics are based on monthly values.

Momentum Model Returns

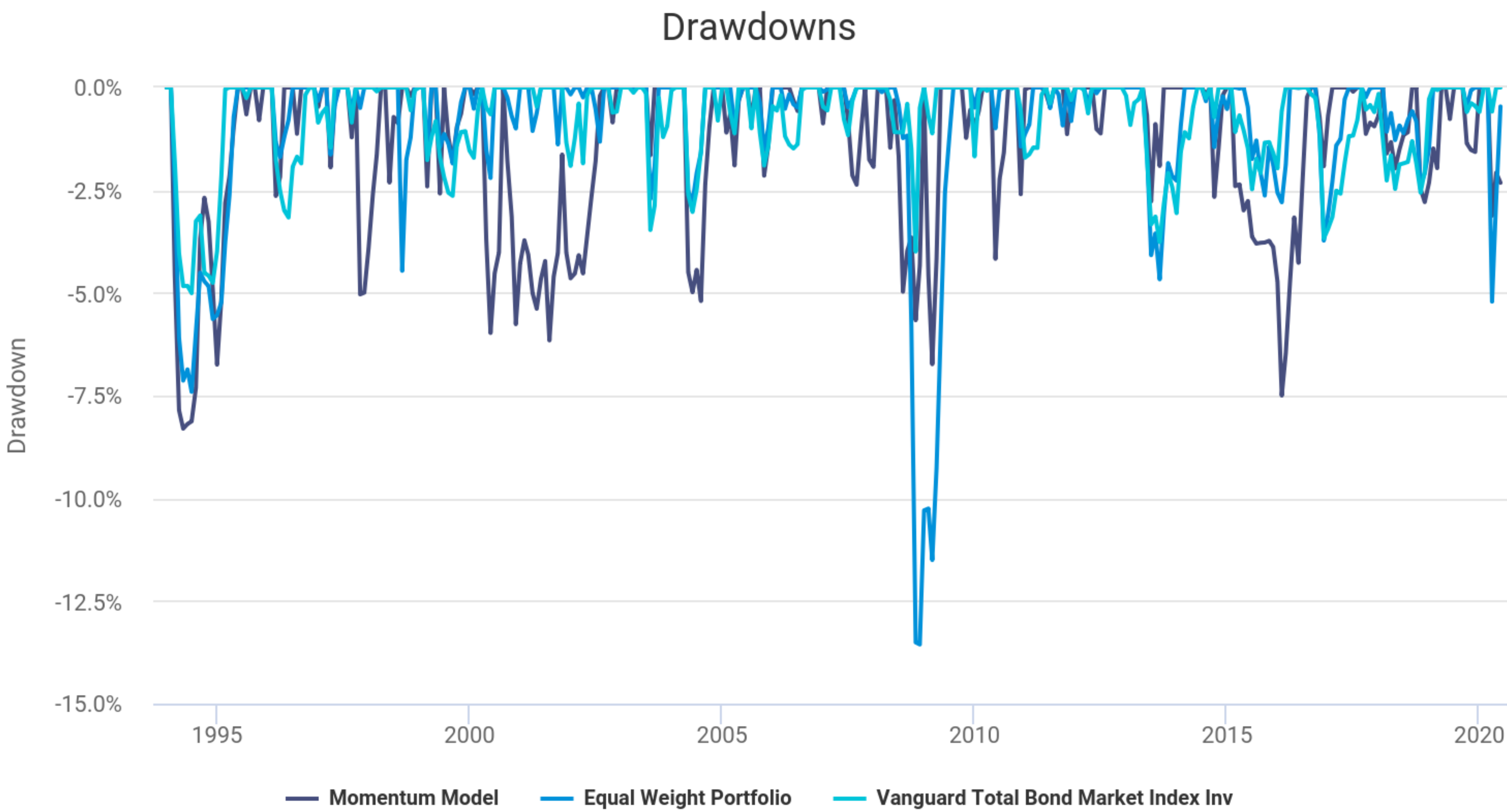
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Inflation	Balance
1994	2.74%	-4.57%	-3.45%	-0.49%	0.12%	0.07%	0.89%	3.92%	1.03%	-0.60%	-1.70%	-1.93%	-4.19%	2.67%	$9,581
1995	1.71%	2.46%	0.68%	1.19%	1.31%	0.88%	-0.65%	2.16%	2.43%	-0.80%	2.35%	3.71%	18.80%	2.54%	$11,383
1996	2.60%	-2.64%	0.48%	2.87%	1.03%	0.69%	-1.13%	1.50%	3.73%	1.66%	4.44%	-0.47%	15.54%	3.32%	$13,151
1997	2.29%	0.56%	-1.94%	1.63%	1.99%	2.61%	4.00%	-1.21%	4.03%	-5.04%	0.05%	1.14%	10.17%	1.70%	$14,488
1998	1.36%	0.98%	3.02%	0.76%	-2.31%	1.63%	-0.15%	2.24%	2.03%	-0.21%	0.55%	2.37%	12.86%	1.61%	$16,351
1999	0.05%	-2.41%	2.70%	5.58%	-2.58%	3.51%	-1.20%	-0.60%	0.85%	0.33%	4.05%	7.19%	18.31%	2.68%	$19,345
2000	-0.16%	7.46%	1.53%	-3.70%	-2.36%	1.55%	0.53%	5.00%	-1.80%	-1.37%	-2.71%	1.57%	5.07%	3.39%	$20,327
2001	0.59%	-0.36%	-0.98%	-0.40%	0.77%	0.45%	-2.02%	1.66%	0.59%	2.50%	-2.42%	-0.65%	-0.38%	1.55%	$20,249
2002	0.12%	0.47%	-0.46%	0.96%	0.99%	0.89%	1.62%	2.00%	1.88%	-0.85%	0.98%	0.76%	9.71%	2.38%	$22,216
2003	1.81%	2.05%	0.46%	4.29%	3.36%	1.30%	-1.65%	1.85%	1.11%	0.73%	1.81%	3.90%	23.00%	1.88%	$27,326
2004	0.65%	0.50%	0.93%	-4.50%	-0.51%	0.57%	-0.79%	3.00%	1.44%	1.73%	1.19%	2.55%	6.75%	3.26%	$29,170
2005	-1.10%	0.46%	-1.26%	1.61%	1.30%	0.96%	-0.77%	1.34%	1.24%	-2.15%	0.74%	1.47%	3.82%	3.42%	$30,283
2006	0.60%	0.49%	0.24%	0.99%	-0.31%	-0.26%	0.84%	1.85%	0.95%	1.18%	1.39%	-0.87%	7.28%	2.54%	$32,489
2007	1.15%	1.12%	1.00%	2.05%	1.25%	-0.79%	-1.36%	-0.23%	1.25%	1.51%	-1.76%	-0.18%	5.04%	4.08%	$34,128
2008	2.09%	1.10%	0.99%	-1.47%	1.17%	-1.37%	-3.36%	1.04%	0.34%	-2.09%	1.41%	4.26%	3.97%	0.09%	$35,484
2009	-4.32%	-2.28%	2.76%	7.24%	7.88%	3.07%	6.31%	3.19%	5.28%	-1.23%	0.69%	-0.42%	31.04%	2.72%	$46,500
2010	0.39%	1.37%	2.98%	2.09%	-4.17%	2.02%	0.66%	2.90%	1.34%	2.34%	-2.60%	2.63%	12.34%	1.50%	$52,236
2011	1.95%	1.61%	0.26%	2.76%	-0.15%	-0.32%	1.81%	3.16%	2.73%	-1.14%	0.89%	1.89%	16.48%	2.96%	$60,845
2012	4.55%	0.71%	0.04%	0.21%	-1.01%	-0.11%	2.51%	0.22%	1.65%	0.27%	1.47%	1.23%	12.26%	1.74%	$68,302
2013	1.87%	0.05%	1.61%	1.34%	-0.67%	-2.11%	1.93%	-1.03%	2.48%	1.75%	0.72%	0.78%	8.96%	1.50%	$74,424
2014	0.83%	2.23%	0.06%	1.73%	1.87%	0.44%	-0.17%	2.47%	-2.66%	1.22%	1.31%	1.35%	11.09%	0.76%	$82,679
2015	2.90%	-2.40%	0.04%	-0.65%	0.23%	-0.89%	-0.17%	0.02%	0.01%	0.04%	-0.15%	-0.88%	-1.96%	0.73%	$81,058
2016	-2.91%	1.11%	1.88%	1.63%	-1.14%	2.13%	2.03%	0.49%	0.40%	-0.73%	-1.20%	1.26%	4.91%	2.07%	$85,040
2017	1.07%	0.86%	0.41%	1.55%	0.68%	-0.10%	0.84%	0.57%	-1.13%	0.27%	-0.09%	0.26%	5.30%	2.11%	$89,547
2018	0.92%	-1.61%	0.28%	-0.65%	0.47%	0.36%	0.07%	1.45%	0.10%	-2.47%	-0.32%	0.48%	-0.98%	1.91%	$88,670
2019	0.85%	-0.48%	2.12%	1.80%	-0.77%	1.20%	0.91%	4.08%	-1.36%	-0.16%	-0.05%	2.30%	10.82%	2.29%	$98,264
2020	0.81%	0.49%	-3.12%	1.08%	-0.25%								-1.05%	-0.23%	$97,236

Equal Weight Portfolio Returns

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Inflation	Balance
1994	1.51%	-2.38%	-3.80%	-1.11%	0.29%	-0.58%	1.57%	1.54%	-0.22%	-0.12%	-0.84%	0.10%	-4.11%	2.67%	$9,589
1995	0.33%	1.54%	1.20%	1.96%	3.26%	0.72%	0.31%	0.83%	1.56%	0.85%	1.58%	1.87%	17.19%	2.54%	$11,237
1996	1.19%	-1.33%	-0.37%	0.50%	0.42%	1.05%	0.10%	0.68%	2.34%	1.84%	2.42%	-0.32%	8.76%	3.32%	$12,222
1997	0.63%	0.31%	-1.63%	1.21%	2.09%	1.59%	2.58%	-0.60%	2.30%	-0.50%	0.59%	0.97%	9.88%	1.70%	$13,429
1998	1.21%	1.18%	0.97%	0.57%	-0.00%	0.34%	0.29%	-4.46%	2.84%	0.54%	2.08%	0.85%	6.41%	1.61%	$14,289
1999	0.61%	-1.64%	1.77%	1.74%	-1.45%	0.33%	-0.23%	-0.50%	0.83%	0.69%	1.19%	1.77%	5.15%	2.68%	$15,025
2000	-0.52%	2.83%	1.20%	-1.51%	-0.70%	3.16%	0.43%	1.91%	-0.25%	-0.45%	-0.30%	2.55%	8.53%	3.39%	$16,307
2001	2.21%	0.06%	-1.06%	0.44%	0.82%	0.11%	0.88%	1.35%	-1.39%	1.90%	0.20%	-0.17%	5.42%	1.55%	$17,190
2002	0.26%	0.74%	-0.24%	1.46%	0.47%	-0.54%	-0.79%	1.95%	0.25%	0.17%	1.35%	1.88%	7.14%	2.38%	$18,418
2003	0.73%	1.46%	0.42%	2.20%	2.57%	0.10%	-2.72%	0.82%	2.54%	0.12%	0.83%	1.84%	11.36%	1.88%	$20,510
2004	0.81%	0.74%	0.71%	-2.52%	-0.26%	0.71%	0.51%	1.70%	0.96%	1.28%	0.63%	1.46%	6.86%	3.26%	$21,918
2005	0.22%	0.03%	-0.97%	0.67%	1.07%	0.84%	0.04%	1.31%	-0.37%	-1.15%	0.53%	1.22%	3.47%	3.42%	$22,678
2006	1.18%	0.32%	-0.52%	0.35%	-0.24%	-0.08%	1.17%	1.37%	0.60%	1.09%	1.50%	-0.10%	6.82%	2.54%	$24,225
2007	0.06%	1.44%	0.32%	1.00%	-0.03%	-0.46%	0.20%	0.45%	1.68%	1.27%	0.35%	0.07%	6.51%	4.08%	$25,803
2008	0.66%	-0.11%	0.08%	0.87%	0.03%	-0.42%	-0.81%	0.06%	-4.70%	-8.17%	-0.06%	3.78%	-8.93%	0.09%	$23,499
2009	0.05%	-1.39%	2.53%	3.68%	3.60%	1.32%	3.18%	1.89%	3.03%	0.04%	1.41%	-0.49%	20.37%	2.72%	$28,286
2010	0.88%	0.60%	1.04%	1.36%	-0.99%	0.94%	2.25%	1.26%	1.50%	0.88%	-1.44%	0.31%	8.87%	1.50%	$30,795
2011	0.23%	0.92%	0.27%	1.69%	0.84%	-0.50%	1.13%	-0.17%	-0.76%	2.04%	-0.82%	1.34%	6.35%	2.96%	$32,750
2012	2.23%	0.90%	-0.40%	1.03%	-0.14%	0.66%	1.53%	0.73%	0.76%	0.27%	0.82%	0.30%	9.03%	1.74%	$35,708
2013	0.05%	0.19%	0.34%	1.44%	-1.56%	-2.56%	0.55%	-1.16%	1.68%	1.27%	-0.33%	-0.10%	-0.28%	1.50%	$35,606
2014	1.39%	1.42%	0.19%	1.02%	1.46%	0.54%	-0.33%	1.29%	-1.45%	0.87%	0.39%	-0.31%	6.60%	0.76%	$37,958
2015	1.15%	0.08%	-0.03%	0.25%	-0.48%	-1.26%	0.46%	-0.81%	-0.55%	1.23%	-0.45%	-0.69%	-1.14%	0.73%	$37,526
2016	-0.24%	0.94%	2.19%	1.14%	-0.01%	2.05%	1.28%	0.37%	0.28%	-1.20%	-2.56%	0.66%	4.90%	2.07%	$39,366
2017	0.83%	0.90%	0.16%	0.98%	0.86%	0.08%	0.69%	0.86%	-0.24%	0.22%	0.19%	0.61%	6.32%	2.11%	$41,854
2018	0.02%	-1.08%	0.46%	-0.66%	0.36%	-0.19%	0.32%	0.22%	-0.25%	-1.56%	0.28%	0.63%	-1.47%	1.91%	$41,240
2019	2.41%	0.45%	1.41%	0.48%	0.86%	1.66%	0.51%	1.56%	-0.48%	0.42%	0.32%	0.58%	10.64%	2.29%	$45,630
2020	1.61%	0.47%	-5.21%	2.65%	2.30%								1.62%	-0.23%	$46,369

Vanguard Total Bond Market Index Inv Returns

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Inflation	Balance
1994	1.39%	-1.78%	-2.30%	-0.83%	0.00%	-0.18%	1.84%	0.14%	-1.44%	-0.07%	-0.18%	0.80%	-2.66%	2.67%	$9,734
1995	1.90%	2.17%	0.67%	1.31%	3.95%	0.66%	-0.25%	1.18%	0.95%	1.47%	1.44%	1.44%	18.18%	2.54%	$11,504
1996	0.63%	-1.76%	-0.77%	-0.49%	-0.17%	1.27%	0.25%	-0.16%	1.70%	2.21%	1.76%	-0.85%	3.58%	3.32%	$11,916
1997	0.25%	0.11%	-0.97%	1.49%	0.87%	1.16%	2.80%	-0.85%	1.45%	1.45%	0.33%	1.04%	9.44%	1.70%	$13,042
1998	1.32%	-0.10%	0.33%	0.51%	1.02%	0.81%	0.23%	1.90%	1.96%	-0.55%	0.49%	0.38%	8.58%	1.61%	$14,161
1999	0.79%	-1.77%	0.56%	0.40%	-0.88%	-0.50%	-0.39%	-0.08%	1.26%	0.33%	0.02%	-0.48%	-0.76%	2.68%	$14,053
2000	-0.17%	1.18%	1.40%	-0.49%	-0.16%	2.15%	0.88%	1.40%	0.76%	0.57%	1.58%	1.79%	11.39%	3.39%	$15,654
2001	1.76%	0.91%	0.54%	-0.46%	0.73%	0.52%	2.23%	1.11%	0.89%	1.86%	-1.34%	-0.58%	8.43%	1.55%	$16,973
2002	0.69%	0.85%	-1.46%	1.69%	0.80%	0.29%	0.48%	1.66%	1.53%	-0.61%	0.02%	2.07%	8.26%	2.38%	$18,375
2003	0.05%	1.38%	-0.13%	0.87%	1.82%	-0.13%	-3.34%	0.61%	2.71%	-0.96%	0.27%	0.88%	3.97%	1.88%	$19,105
2004	0.86%	1.03%	0.80%	-2.61%	-0.43%	0.56%	0.96%	1.94%	0.16%	0.85%	-0.81%	0.92%	4.24%	3.26%	$19,915
2005	0.65%	-0.63%	-0.49%	1.35%	1.05%	0.55%	-0.99%	1.36%	-1.10%	-0.81%	0.48%	0.99%	2.40%	3.42%	$20,392
2006	-0.11%	0.37%	-1.00%	-0.21%	-0.09%	0.10%	1.35%	1.64%	0.81%	0.72%	1.11%	-0.48%	4.27%	2.54%	$21,262
2007	-0.08%	1.50%	0.02%	0.51%	-0.78%	-0.39%	0.84%	1.34%	0.72%	0.93%	1.91%	0.22%	6.92%	4.08%	$22,734
2008	1.69%	0.19%	0.30%	-0.30%	-0.79%	-0.01%	0.00%	0.70%	-1.10%	-2.53%	3.64%	3.32%	5.05%	0.09%	$23,883
2009	-0.70%	-0.42%	1.48%	0.36%	0.85%	0.54%	1.43%	1.01%	1.19%	0.41%	1.36%	-1.68%	5.93%	2.72%	$25,300
2010	1.57%	0.20%	-0.08%	1.06%	0.87%	1.61%	0.94%	1.48%	-0.01%	0.36%	-0.57%	-1.15%	6.42%	1.50%	$26,924
2011	0.08%	0.16%	-0.01%	1.32%	1.30%	-0.39%	1.58%	1.46%	0.89%	0.16%	-0.30%	1.08%	7.56%	2.96%	$28,959
2012	0.87%	-0.05%	-0.58%	1.14%	0.95%	0.04%	1.39%	0.03%	0.11%	0.11%	0.19%	-0.20%	4.05%	1.74%	$30,132
2013	-0.71%	0.54%	0.08%	0.91%	-1.71%	-1.65%	0.20%	-0.64%	0.96%	0.78%	-0.35%	-0.65%	-2.26%	1.50%	$29,450
2014	1.54%	0.48%	-0.15%	0.77%	1.05%	0.11%	-0.26%	1.13%	-0.72%	0.94%	0.65%	0.09%	5.76%	0.76%	$31,146
2015	2.31%	-1.08%	0.41%	-0.36%	-0.45%	-1.01%	0.76%	-0.36%	0.76%	0.01%	-0.27%	-0.38%	0.30%	0.73%	$31,239
2016	1.43%	0.66%	0.94%	0.38%	0.01%	1.94%	0.64%	-0.17%	-0.09%	-0.81%	-2.64%	0.24%	2.50%	2.07%	$32,019
2017	0.29%	0.66%	-0.07%	0.76%	0.67%	0.01%	0.39%	0.85%	-0.54%	0.11%	-0.17%	0.44%	3.46%	2.11%	$33,127
2018	-1.09%	-1.03%	0.63%	-0.83%	0.61%	0.03%	0.03%	0.52%	-0.54%	-0.73%	0.53%	1.80%	-0.13%	1.91%	$33,085
2019	1.01%	-0.06%	1.96%	0.04%	1.83%	1.15%	0.23%	2.78%	-0.60%	0.21%	-0.06%	-0.15%	8.61%	2.29%	$35,932
2020	2.11%	1.71%	-0.59%	1.69%	0.54%								5.56%	-0.23%	$37,930



Drawdowns for Historical Market Stress Periods

Stress Period	Start	End	Momentum Model	Equal Weight Portfolio	Vanguard Total Bond Market Index Inv
Asian Crisis	Jul 1997	Jan 1998	-5.04%	-0.60%	-0.85%
Russian Debt Default	Jul 1998	Oct 1998	-0.21%	-4.46%	-0.55%
Dotcom Crash	Mar 2000	Oct 2002	-6.16%	-2.20%	-1.91%
Subprime Crisis	Nov 2007	Mar 2009	-6.74%	-13.56%	-3.99%

Drawdowns for Momentum Model (worst 10)

Rank	Start	End	Length	Recovery By	Recovery Time	Underwater Period	Drawdown
1	Feb 1994	Apr 1994	3 months	May 1995	1 year 1 month	1 year 4 months	-8.31%
2	Feb 2015	Jan 2016	1 year	Aug 2016	7 months	1 year 7 months	-7.50%
3	Apr 2008	Feb 2009	11 months	Apr 2009	2 months	1 year 1 month	-6.74%
4	Sep 2000	Jul 2001	11 months	Aug 2002	1 year 1 month	2 years	-6.16%
5	Apr 2000	May 2000	2 months	Aug 2000	3 months	5 months	-5.98%
6	Apr 2004	Jul 2004	4 months	Oct 2004	3 months	7 months	-5.20%
7	Oct 1997	Oct 1997	1 month	Mar 1998	5 months	6 months	-5.04%
8	May 2010	May 2010	1 month	Aug 2010	3 months	4 months	-4.17%
9	Mar 2020	Mar 2020	1 month				-3.12%
10	Oct 2018	Nov 2018	2 months	Mar 2019	4 months	6 months	-2.79%

Drawdowns for Equal Weight Portfolio (worst 10)

Rank	Start	End	Length	Recovery By	Recovery Time	Underwater Period	Drawdown
1	Jun 2008	Nov 2008	6 months	Jul 2009	8 months	1 year 2 months	-13.56%
2	Feb 1994	Jun 1994	5 months	May 1995	11 months	1 year 4 months	-7.41%
3	Mar 2020	Mar 2020	1 month				-5.21%
4	May 2013	Aug 2013	4 months	Feb 2014	6 months	10 months	-4.67%
5	Aug 1998	Aug 1998	1 month	Nov 1998	3 months	4 months	-4.46%
6	Oct 2016	Nov 2016	2 months	May 2017	6 months	8 months	-3.73%
7	May 2015	Jan 2016	9 months	Mar 2016	2 months	11 months	-2.79%
8	Apr 2004	May 2004	2 months	Aug 2004	3 months	5 months	-2.78%
9	Jul 2003	Jul 2003	1 month	Sep 2003	2 months	3 months	-2.72%
10	Feb 2018	Oct 2018	9 months	Jan 2019	3 months	1 year	-2.37%

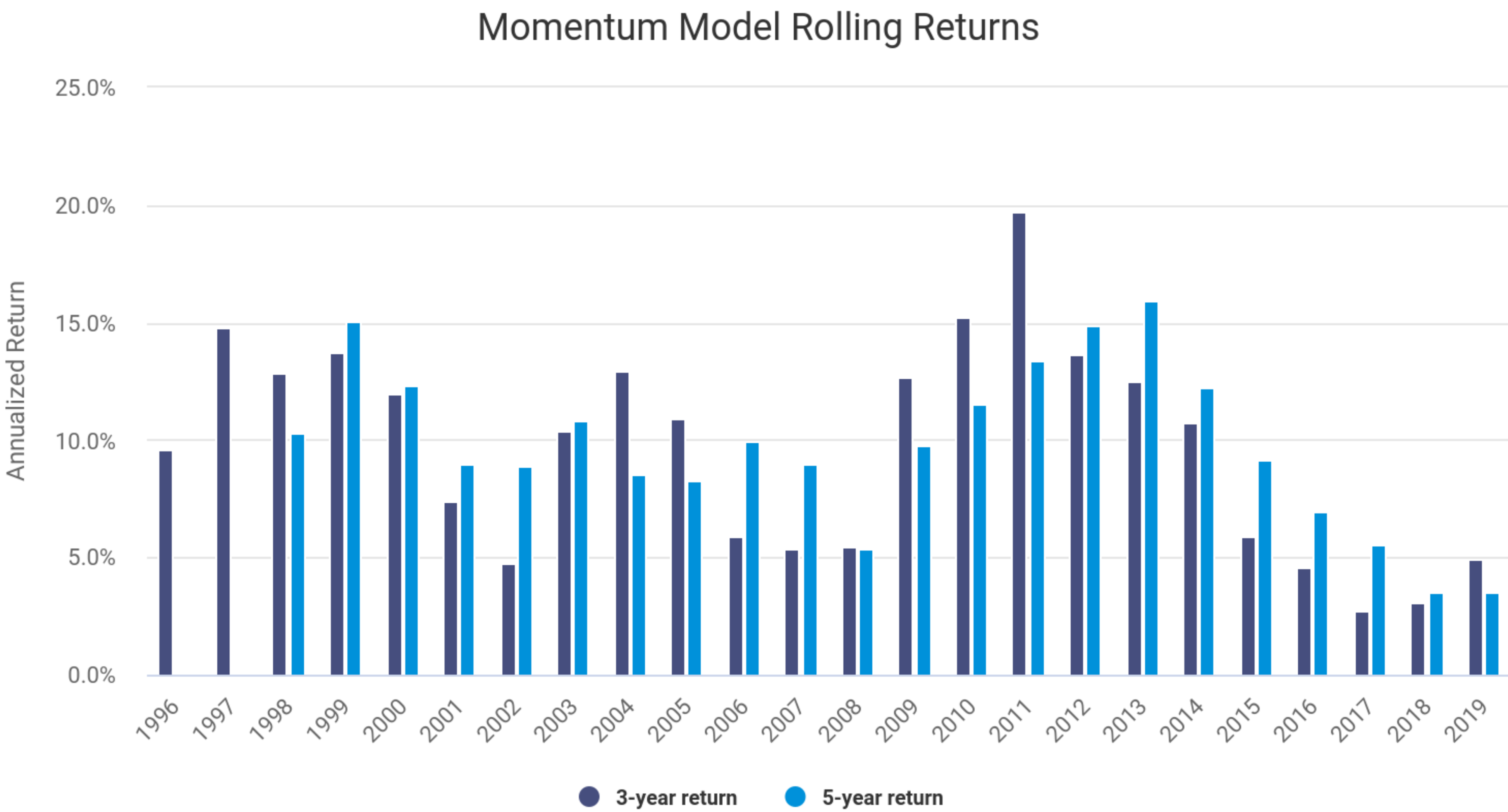
Drawdowns for Vanguard Total Bond Market Index Inv (worst 10)

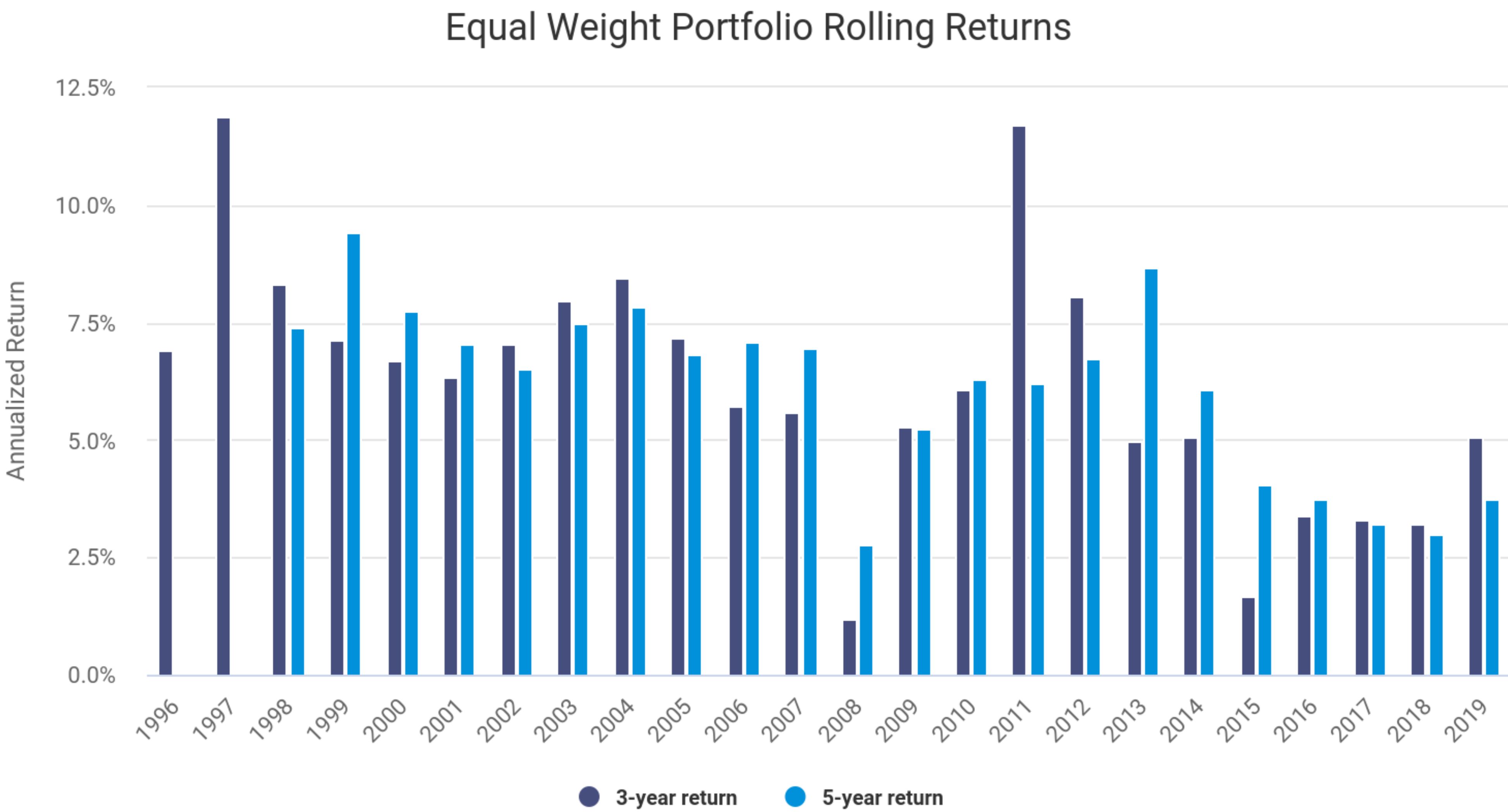
Rank	Start	End	Length	Recovery By	Recovery Time	Underwater Period	Drawdown
1	Feb 1994	Jun 1994	5 months	Mar 1995	9 months	1 year 2 months	-5.01%
2	Apr 2008	Oct 2008	7 months	Dec 2008	2 months	9 months	-3.99%
3	May 2013	Aug 2013	4 months	May 2014	9 months	1 year 1 month	-3.76%
4	Aug 2016	Nov 2016	4 months	Aug 2017	9 months	1 year 1 month	-3.67%
5	Jun 2003	Jul 2003	2 months	Jan 2004	6 months	8 months	-3.47%
6	Feb 1996	May 1996	4 months	Oct 1996	5 months	9 months	-3.16%
7	Apr 2004	May 2004	2 months	Aug 2004	3 months	5 months	-3.03%
8	Feb 1999	Aug 1999	7 months	Mar 2000	7 months	1 year 2 months	-2.64%
9	Sep 2017	Oct 2018	1 year 2 months	Jan 2019	3 months	1 year 5 months	-2.56%
10	Feb 2015	Jun 2015	5 months	Feb 2016	8 months	1 year 1 month	-2.48%

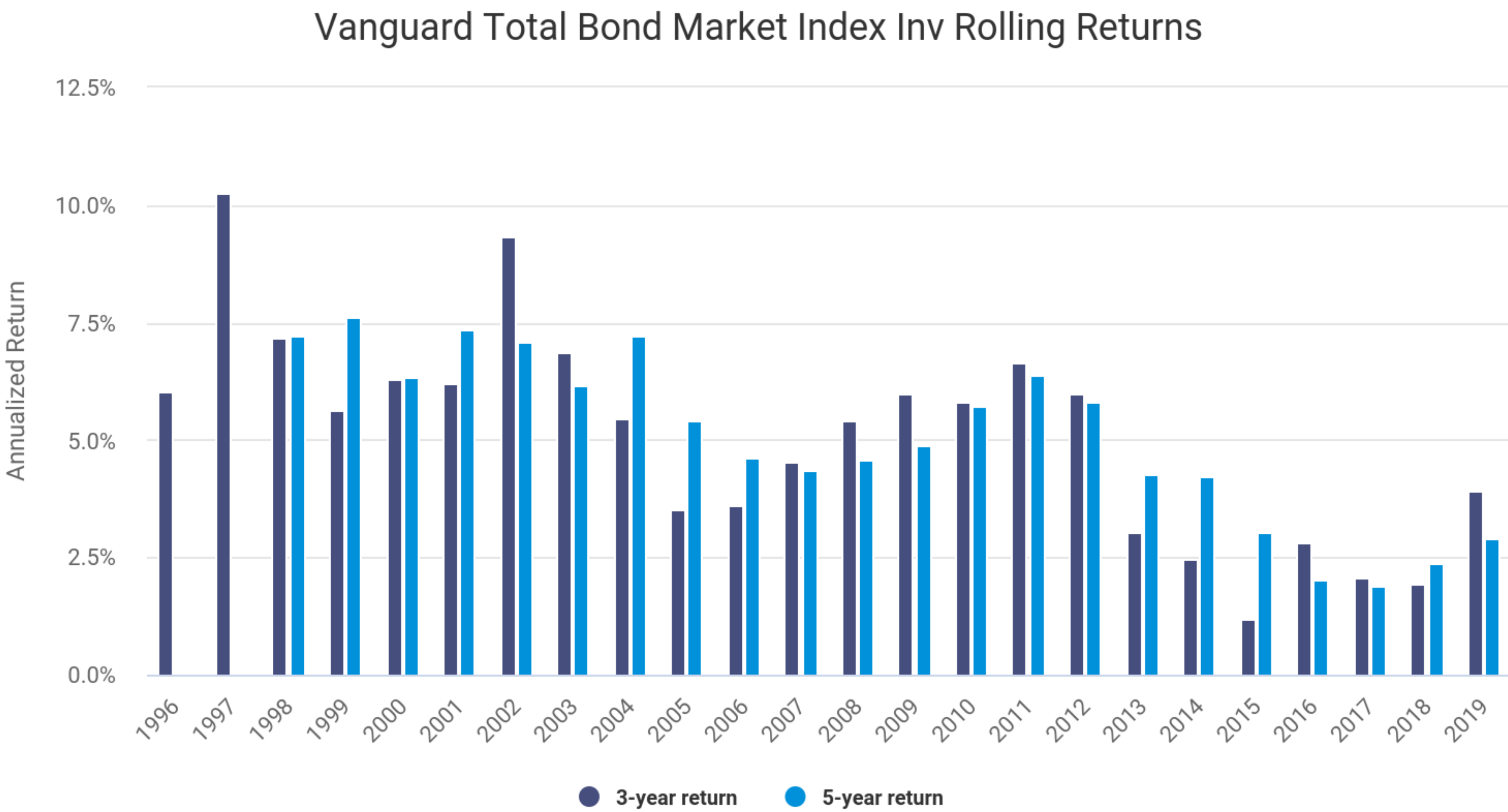
Rolling Returns (Jan 1994 - May 2020)

Roll Period	Momentum Model			Equal Weight Portfolio			Vanguard Total Bond Market Index Inv		
	Average	High	Low	Average	High	Low	Average	High	Low
1 year	9.46%	31.04%	-4.19%	6.18%	20.37%	-8.93%	5.13%	18.18%	-2.66%
3 years	9.65%	19.69%	2.70%	6.17%	11.88%	1.19%	5.09%	10.24%	1.21%
5 years	9.73%	15.97%	3.51%	6.09%	9.40%	2.76%	5.07%	7.62%	1.91%
7 years	9.85%	13.47%	5.33%	6.14%	8.70%	3.35%	5.10%	8.27%	1.92%
10 years	10.07%	11.89%	7.77%	6.23%	8.62%	4.90%	5.15%	7.42%	3.31%
15 years	9.92%	11.11%	8.16%	6.11%	7.48%	4.77%	5.12%	6.57%	3.73%

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


Momentum Model Rolling Returns
Annualized Return
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
3-year return
5-year return


Equal Weight Portfolio Rolling Returns
12.5%
10.0%
7.5%
5.0%
2.5%
0.0%
Annualized Return
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
3-year return
5-year return


Vanguard Total Bond Market Index Inv Rolling Returns
12.5%
10.0%
7.5%
5.0%
2.5%
0.0%
Annualized Return
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
3-year return
5-year return

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 backtested performance results are created by retroactively applying the specified investment strategy or methodology to historical data. Backtested models are developed with the benefit of hindsight but might not have foresight of the future.
- 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 full calendar months from January to May.
- The selected portfolio allocation for comparison assumes monthly rebalancing
- An equal-weight allocation is used for the assets held by the momentum model
- The results for the tactical asset allocation model assume monthly rebalancing trades
- The relative strength signal is based on total return including dividends
- Additional trading costs and taxes for tactical asset allocation models are not reflected in the results
- 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 the risk free rate (3-month treasury bill)
- Stock market correlation is based on the correlation of monthly returns
- Drawdowns are calculated based on monthly returns excluding cashflows
- Refer to the FAQ section regarding the data sources and methodology descriptions