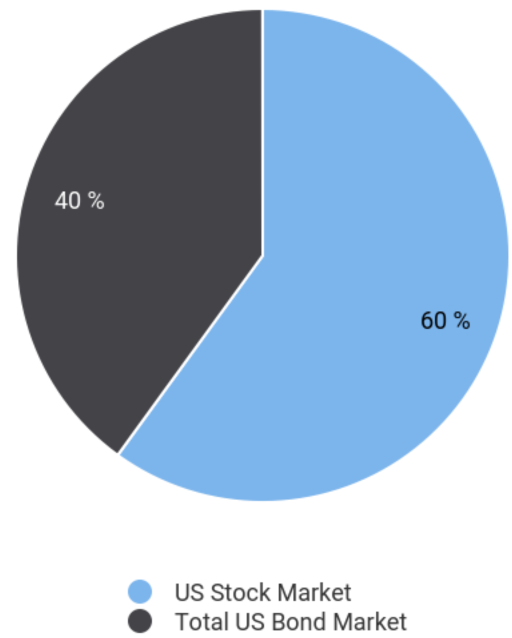
Report Parameters

Start Date	01/01/1994
End Date	08/31/2026
Initial Balance	$10,000
Rebalancing	Rebalance annually
Reinvest Dividends	Yes

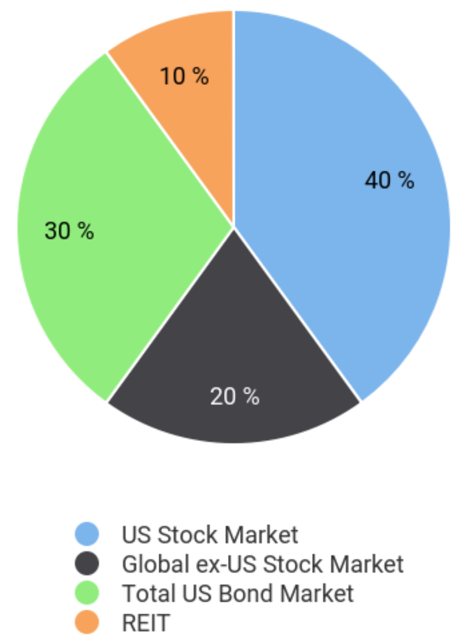
Portfolio 1

Asset Class	Allocation
US Stock Market	60.00%
Total US Bond Market	40.00%



Portfolio 2

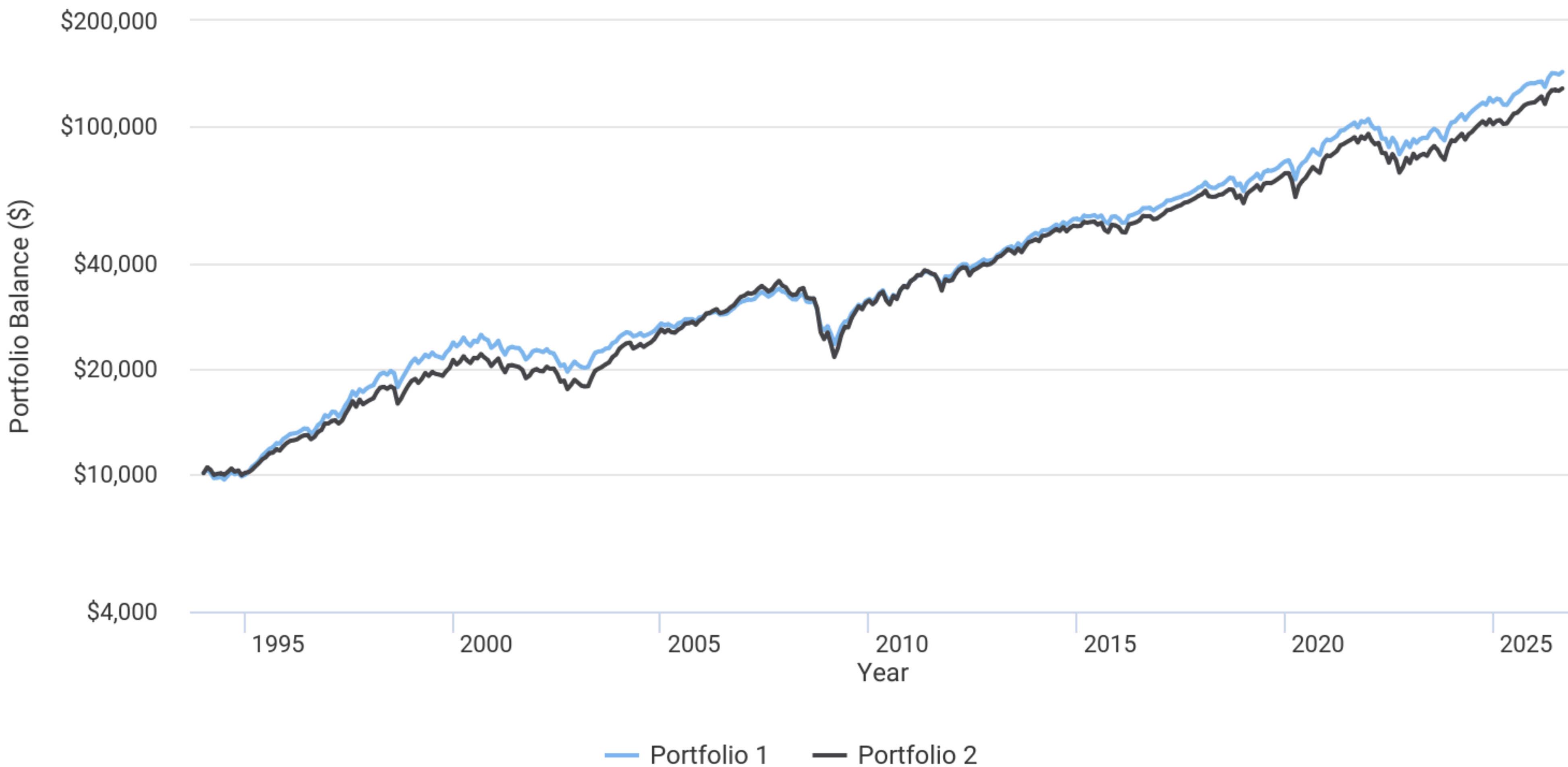
Asset Class	Allocation
US Stock Market	40.00%
Global ex-US Stock Market	20.00%
Total US Bond Market	30.00%
REIT	10.00%



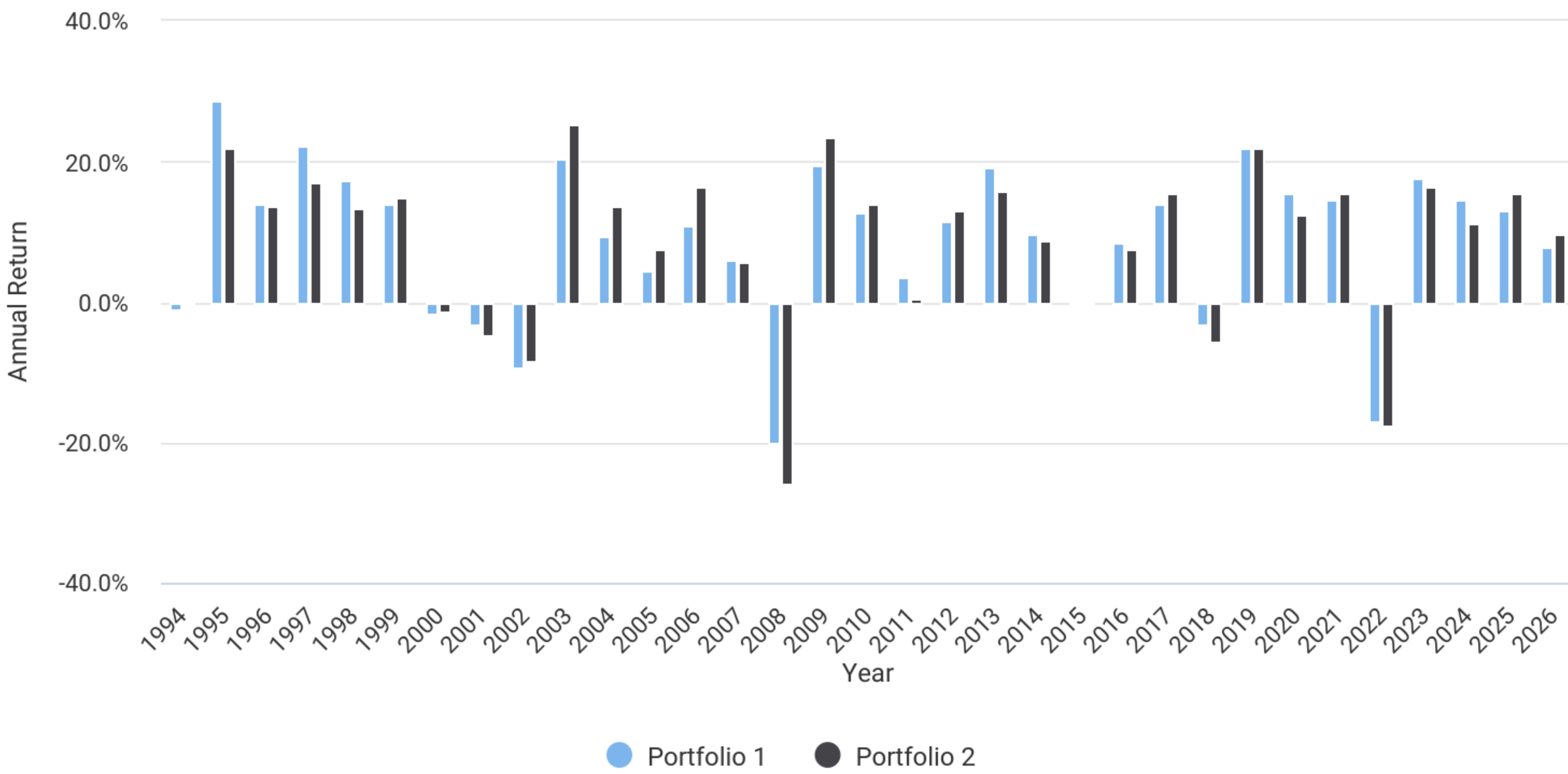
Portfolio Performance (Jan 1994 - Aug 2026)

Metric	Portfolio 1	Portfolio 2
Start Balance	$10,000	$10,000
End Balance	$142,594	$127,773
End Balance (inflation adjusted)	$62,064	$55,613
Annualized Return (CAGR)	8.47%	8.11%
Annualized Return (CAGR, inflation adjusted)	5.75%	5.39%
Standard Deviation	9.48%	10.56%
Best Year	28.74%	25.37%
Worst Year	-20.20%	-25.82%
Maximum Drawdown	-30.72%	-39.59%
Sharpe Ratio	0.65	0.56
Sortino Ratio	0.96	0.81

Portfolio Growth



Annual Returns



Trailing Returns

Name	Total Return			Annualized Return					Annualized Standard Deviation	
	3 Month	Year To Date	1 year	3 year	5 year	10 year	20 year	Full	3 year	5 year
Portfolio 1	0.83%	7.93%	12.85%	13.93%	6.93%	9.44%	8.23%	8.47%	9.48%	11.44%
Portfolio 2	1.08%	9.64%	14.73%	14.41%	6.66%	8.83%	7.52%	8.11%	9.94%	12.19%

Trailing return and volatility are as of last calendar month ending August 2026

Risk and Return Metrics (Jan 1994 - Aug 2026)

Metric	Portfolio 1	Portfolio 2
Arithmetic Mean (monthly)	0.72%	0.70%
Arithmetic Mean (annualized)	8.96%	8.72%
Geometric Mean (monthly)	0.68%	0.65%
Geometric Mean (annualized)	8.47%	8.11%
Standard Deviation (monthly)	2.74%	3.05%
Standard Deviation (annualized)	9.48%	10.56%
Downside Deviation (monthly)	1.74%	2.03%
Maximum Drawdown	-30.72%	-39.59%
Sharpe Ratio	0.65	0.56
Sortino Ratio	0.96	0.81
Calmar Ratio	2.28	2.18
Skewness	-0.60	-0.76
Excess Kurtosis	1.04	2.13
Historical Value-at-Risk (5%)	4.15%	4.84%
Analytical Value-at-Risk (5%)	3.78%	4.31%
Conditional Value-at-Risk (5%)	5.83%	6.86%
Positive Periods	261 out of 392 (66.58%)	263 out of 392 (67.09%)
Gain/Loss Ratio	0.97	0.88

Value-at-risk metrics are monthly values.

Portfolio 1 Returns

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Inflation	Balance
1994	2.40%	-2.06%	-3.59%	0.20%	0.59%	-1.72%	2.58%	2.70%	-1.69%	0.92%	-2.31%	1.06%	-1.16%	2.67%	$9,884
1995	2.08%	3.30%	1.87%	2.04%	3.66%	2.08%	2.38%	1.11%	2.62%	-0.20%	3.15%	1.51%	28.74%	2.54%	$12,725
1996	1.85%	0.28%	0.40%	1.30%	1.60%	-0.06%	-3.27%	1.83%	3.98%	1.72%	4.92%	-1.12%	14.01%	3.32%	$14,507
1997	3.37%	-0.02%	-3.10%	3.30%	4.67%	3.16%	5.94%	-2.69%	4.19%	-1.68%	2.23%	1.46%	22.37%	1.70%	$17,753
1998	0.79%	4.35%	3.24%	0.88%	-1.32%	2.50%	-1.34%	-8.96%	4.67%	4.16%	3.91%	4.12%	17.39%	1.61%	$20,841
1999	2.51%	-2.96%	2.59%	3.01%	-1.55%	2.97%	-2.16%	-0.60%	-1.04%	3.98%	2.15%	4.63%	13.98%	2.68%	$23,755
2000	-2.58%	1.98%	3.94%	-3.34%	-2.08%	3.47%	-0.79%	4.82%	-2.47%	-0.95%	-5.03%	1.78%	-1.79%	3.39%	$23,330
2001	3.00%	-5.33%	-3.66%	4.37%	0.89%	-0.73%	-0.04%	-2.92%	-4.53%	2.21%	3.37%	0.71%	-3.21%	1.55%	$22,582
2002	-0.47%	-0.87%	1.97%	-2.28%	-0.38%	-3.98%	-4.30%	1.05%	-4.71%	3.58%	3.21%	-2.07%	-9.27%	2.38%	$20,488
2003	-1.50%	-0.44%	0.58%	5.19%	4.42%	0.83%	0.19%	1.74%	0.25%	3.48%	0.99%	3.21%	20.40%	1.88%	$24,667
2004	1.68%	1.27%	-0.33%	-2.31%	0.64%	1.48%	-1.94%	0.97%	1.10%	1.34%	2.48%	2.58%	9.20%	3.26%	$26,938
2005	-1.34%	0.97%	-1.24%	-0.83%	2.65%	0.71%	2.03%	-0.04%	0.07%	-1.45%	2.58%	0.47%	4.55%	3.42%	$28,163
2006	2.06%	0.15%	0.70%	0.60%	-2.03%	0.15%	0.45%	2.05%	1.70%	2.44%	1.80%	0.52%	11.01%	2.54%	$31,265
2007	1.09%	-0.38%	0.67%	2.61%	1.94%	-1.18%	-1.78%	1.41%	2.46%	1.49%	-2.02%	-0.27%	6.06%	4.08%	$33,160
2008	-2.93%	-1.74%	-0.21%	2.69%	0.93%	-4.84%	-0.44%	1.20%	-5.75%	-10.81%	-2.21%	2.62%	-20.20%	0.09%	$26,461
2009	-5.23%	-6.25%	5.46%	6.22%	3.55%	0.42%	5.30%	2.63%	3.09%	-1.47%	4.03%	1.20%	19.59%	2.72%	$31,645
2010	-1.47%	2.06%	3.70%	1.74%	-4.56%	-2.68%	4.40%	-2.17%	5.40%	2.49%	0.12%	3.66%	12.82%	1.50%	$35,704
2011	1.34%	2.24%	0.27%	2.34%	-0.22%	-1.24%	-0.77%	-3.01%	-4.13%	6.50%	-0.29%	0.91%	3.60%	2.96%	$36,989
2012	3.40%	2.58%	1.68%	0.01%	-3.53%	2.39%	1.17%	1.54%	1.64%	-1.06%	0.53%	0.67%	11.37%	1.74%	$41,195
2013	3.01%	0.99%	2.42%	1.41%	0.82%	-1.41%	3.57%	-2.06%	2.70%	3.02%	1.77%	1.53%	19.10%	1.50%	$49,065
2014	-1.25%	2.98%	0.25%	0.35%	1.72%	1.57%	-1.30%	2.97%	-1.59%	2.03%	1.73%	0.03%	9.76%	0.76%	$53,854
2015	-0.74%	2.94%	-0.46%	0.11%	0.66%	-1.43%	1.29%	-3.80%	-1.43%	4.59%	0.22%	-1.38%	0.29%	0.73%	$54,013
2016	-2.83%	0.25%	4.47%	0.53%	1.07%	0.91%	2.61%	0.09%	0.06%	-1.66%	1.61%	1.28%	8.52%	2.07%	$58,615
2017	1.26%	2.50%	0.01%	0.94%	0.88%	0.57%	1.30%	0.42%	1.31%	1.39%	1.85%	0.79%	14.01%	2.11%	$66,828
2018	2.75%	-2.68%	-0.97%	-0.10%	1.93%	0.43%	2.05%	2.33%	-0.10%	-4.92%	1.47%	-5.02%	-3.20%	1.91%	$64,686
2019	5.55%	2.14%	1.63%	2.50%	-3.41%	4.72%	0.99%	-0.24%	0.83%	1.39%	2.34%	1.76%	21.83%	2.29%	$78,808
2020	0.80%	-4.17%	-8.10%	7.87%	3.25%	1.60%	3.91%	3.78%	-2.13%	-1.53%	7.68%	2.81%	15.57%	1.36%	$91,076
2021	-0.52%	1.31%	1.59%	3.56%	0.36%	1.88%	1.53%	1.75%	-3.22%	4.26%	-0.86%	2.33%	14.65%	7.04%	$104,416
2022	-4.49%	-1.97%	0.73%	-6.96%	0.08%	-5.53%	6.34%	-3.34%	-7.15%	4.05%	4.60%	-3.75%	-17.06%	6.45%	$86,601
2023	5.41%	-2.42%	2.60%	0.85%	-0.18%	4.04%	2.22%	-1.45%	-3.96%	-2.24%	7.55%	4.72%	17.76%	3.35%	$101,985
2024	0.57%	2.70%	2.30%	-3.68%	3.57%	2.31%	2.00%	1.86%	1.77%	-1.38%	4.64%	-2.59%	14.62%	2.89%	$116,895
2025	2.10%	-0.34%	-3.51%	-0.22%	3.36%	3.66%	1.25%	1.71%	2.65%	1.58%	0.41%	-0.14%	13.02%	2.68%	$132,112

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Inflation	Balance
2026	1.03%	0.29%	-3.65%	6.15%	3.29%	-0.13%	-0.82%	1.79%					7.93%	3.37%	$142,594

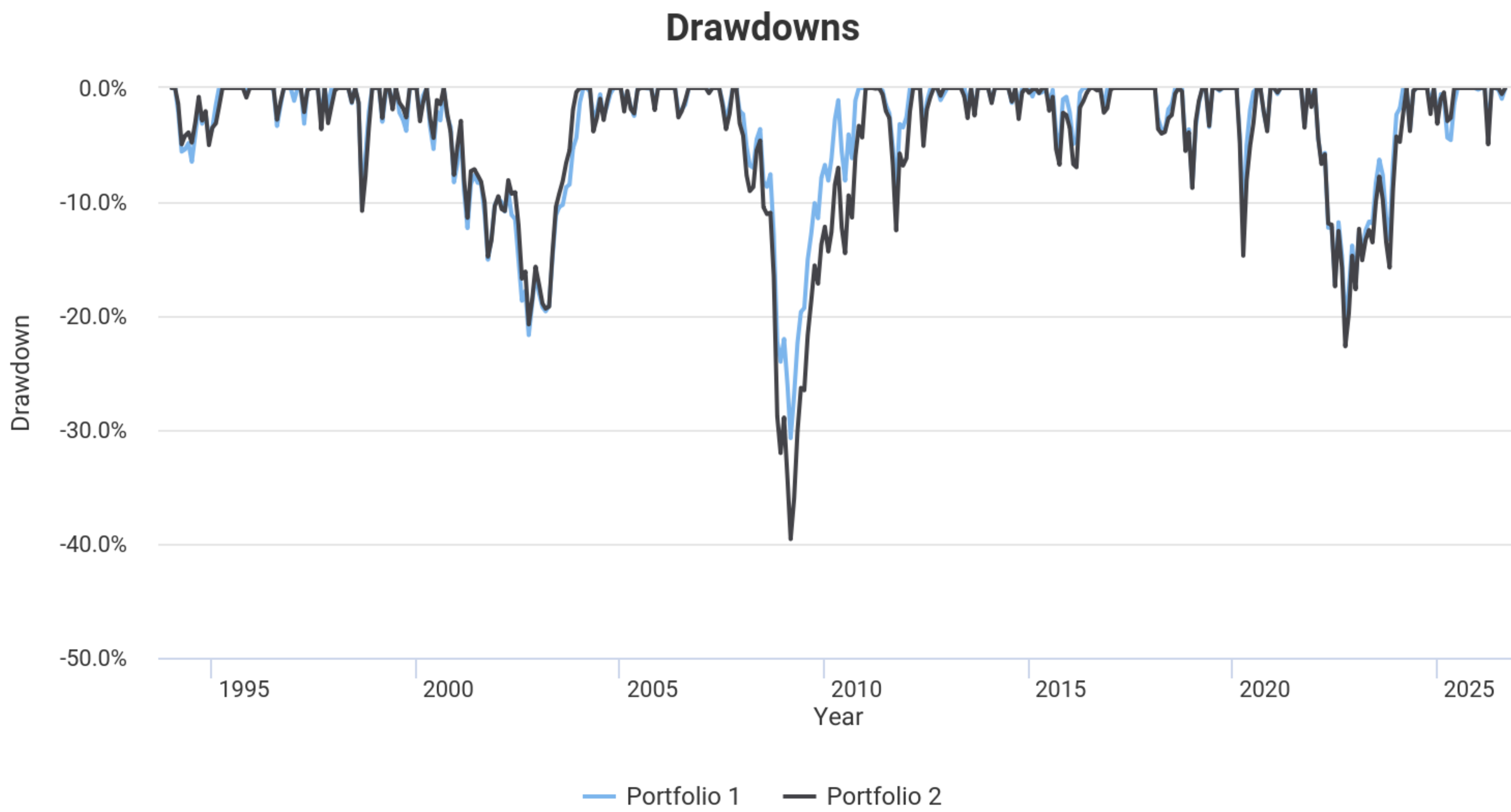
Annual return for 2026 is from 01/01/2026 to 08/31/2026

Portfolio 2 Returns

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Inflation	Balance
1994	3.85%	-1.37%	-3.61%	0.79%	0.31%	-0.93%	1.86%	2.31%	-2.09%	0.84%	-3.03%	1.61%	0.25%	2.67%	$10,025
1995	0.38%	1.48%	2.45%	2.06%	2.66%	1.33%	2.76%	0.27%	2.30%	-0.83%	2.81%	2.27%	21.78%	2.54%	$12,208
1996	1.45%	0.32%	0.65%	1.64%	0.99%	0.26%	-2.78%	1.58%	3.35%	1.24%	4.43%	0.00%	13.78%	3.32%	$13,890
1997	1.80%	0.31%	-2.11%	1.98%	4.75%	3.73%	4.67%	-3.61%	4.84%	-3.08%	1.52%	1.46%	16.95%	1.70%	$16,245
1998	1.05%	4.13%	3.08%	0.40%	-1.25%	1.64%	-1.28%	-9.62%	3.32%	4.74%	3.90%	3.36%	13.37%	1.61%	$18,417
1999	1.33%	-2.63%	2.70%	3.96%	-1.87%	2.64%	-1.29%	-0.43%	-0.88%	3.23%	2.17%	5.38%	14.88%	2.68%	$21,156
2000	-2.91%	1.76%	3.72%	-2.64%	-1.79%	3.47%	-0.36%	2.94%	-2.20%	-1.70%	-3.91%	2.74%	-1.30%	3.39%	$20,881
2001	2.32%	-5.22%	-3.73%	4.63%	0.17%	-0.55%	-0.62%	-1.94%	-5.33%	1.65%	3.48%	0.97%	-4.65%	1.55%	$19,910
2002	-1.24%	-0.18%	3.03%	-1.30%	0.15%	-3.15%	-5.36%	0.74%	-5.52%	2.78%	3.50%	-1.85%	-8.55%	2.38%	$18,208
2003	-2.02%	-0.55%	0.22%	5.78%	4.79%	1.31%	1.19%	1.74%	1.18%	3.78%	1.57%	4.12%	25.37%	1.88%	$22,827
2004	1.90%	1.55%	0.45%	-3.80%	1.18%	1.77%	-1.88%	1.67%	1.29%	2.15%	3.53%	3.17%	13.52%	3.26%	$25,913
2005	-2.05%	1.84%	-1.60%	-0.38%	2.14%	1.25%	2.77%	0.18%	1.03%	-1.93%	2.70%	1.39%	7.41%	3.42%	$27,834
2006	3.49%	0.15%	1.59%	1.06%	-2.57%	0.57%	0.95%	2.32%	1.39%	3.13%	2.52%	0.76%	16.32%	2.54%	$32,377
2007	1.77%	-0.45%	0.76%	2.54%	1.89%	-1.56%	-2.08%	1.38%	3.39%	2.41%	-3.11%	-1.10%	5.73%	4.08%	$34,232
2008	-3.64%	-1.49%	0.39%	3.53%	0.90%	-6.14%	-0.67%	0.13%	-6.25%	-14.71%	-4.55%	4.58%	-25.82%	0.09%	$25,392
2009	-7.64%	-7.97%	5.90%	9.16%	5.50%	-0.28%	6.63%	3.78%	3.84%	-1.89%	4.18%	1.77%	23.56%	2.72%	$31,375
2010	-2.47%	1.97%	4.79%	1.61%	-5.65%	-2.55%	5.93%	-2.14%	6.03%	2.88%	-1.05%	4.49%	13.82%	1.50%	$35,710
2011	1.37%	2.50%	-0.05%	3.23%	-0.54%	-1.49%	-0.60%	-4.19%	-6.20%	7.70%	-1.12%	0.68%	0.59%	2.96%	$35,919
2012	4.40%	2.64%	1.44%	-0.03%	-5.05%	3.34%	1.12%	1.54%	1.61%	-0.68%	0.69%	1.66%	13.10%	1.74%	$40,623
2013	3.02%	0.56%	2.07%	2.35%	-0.72%	-1.92%	3.37%	-2.41%	3.57%	3.16%	0.72%	1.30%	15.90%	1.50%	$47,083
2014	-1.32%	3.57%	0.29%	0.87%	1.80%	1.51%	-1.18%	2.53%	-2.71%	2.41%	1.36%	-0.42%	8.86%	0.76%	$51,257
2015	0.28%	2.63%	-0.44%	0.49%	0.19%	-1.99%	1.23%	-4.64%	-1.42%	4.87%	-0.19%	-1.16%	-0.45%	0.73%	$51,027
2016	-3.29%	-0.29%	5.65%	0.55%	0.75%	1.20%	3.06%	-0.21%	0.11%	-2.06%	0.39%	1.72%	7.53%	2.07%	$54,869
2017	1.62%	2.33%	0.34%	1.12%	1.17%	0.69%	1.72%	0.41%	1.22%	1.24%	1.62%	0.96%	15.42%	2.11%	$63,328
2018	2.49%	-3.60%	-0.42%	0.15%	1.26%	0.27%	1.94%	1.41%	-0.29%	-5.24%	1.72%	-5.07%	-5.64%	1.91%	$59,757
2019	6.43%	1.83%	1.72%	2.20%	-3.32%	4.50%	0.45%	-0.13%	1.26%	1.70%	1.63%	2.09%	22.01%	2.29%	$72,907
2020	0.06%	-4.76%	-10.45%	7.75%	3.29%	2.12%	3.83%	3.41%	-2.07%	-1.76%	8.59%	3.30%	12.39%	1.36%	$81,937
2021	-0.39%	1.63%	1.87%	3.79%	0.95%	1.45%	1.28%	1.73%	-3.47%	4.12%	-1.66%	3.42%	15.45%	7.04%	$94,595
2022	-4.45%	-2.31%	0.90%	-6.44%	-0.12%	-6.15%	5.88%	-3.73%	-8.14%	3.67%	6.37%	-3.44%	-17.66%	6.45%	$77,893
2023	6.43%	-3.14%	2.13%	0.96%	-1.23%	4.10%	2.47%	-2.21%	-4.10%	-2.60%	8.04%	5.19%	16.28%	3.35%	$90,574
2024	-0.49%	2.57%	2.37%	-3.77%	3.69%	1.58%	2.69%	2.29%	2.06%	-2.28%	3.53%	-3.13%	11.28%	2.89%	$100,788
2025	2.25%	0.57%	-2.52%	0.29%	3.26%	3.34%	0.61%	2.38%	2.59%	1.15%	0.56%	0.29%	15.63%	2.68%	$116,540

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Inflation	Balance
2026	2.11%	1.87%	-4.94%	6.61%	2.88%	0.05%	-0.52%	1.57%					9.64%	3.37%	$127,773

Annual return for 2026 is from 01/01/2026 to 08/31/2026



Drawdowns for Historical Market Stress Periods

Stress Period	Start	End	Portfolio 1	Portfolio 2
Asian Crisis	Jul 1997	Jan 1998	-2.69%	-3.61%
Russian Debt Default	Jul 1998	Oct 1998	-10.18%	-10.77%
Dotcom Crash	Mar 2000	Oct 2002	-21.68%	-20.74%
Subprime Crisis	Nov 2007	Mar 2009	-30.72%	-39.59%
COVID-19 Start	Jan 2020	Mar 2020	-11.94%	-14.71%

Drawdowns for Portfolio 1 (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	-30.72%
2	Sep 2000	Sep 2002	2 years 1 month	Jan 2004	1 year 4 months	3 years 5 months	-21.68%
3	Jan 2022	Sep 2022	9 months	Feb 2024	1 year 5 months	2 years 2 months	-20.83%
4	Feb 2020	Mar 2020	2 months	Jul 2020	4 months	6 months	-11.94%
5	Jul 1998	Aug 1998	2 months	Nov 1998	3 months	5 months	-10.18%
6	May 2011	Sep 2011	5 months	Jan 2012	4 months	9 months	-9.08%
7	Sep 2018	Dec 2018	4 months	Mar 2019	3 months	7 months	-8.46%
8	Feb 1994	Jun 1994	5 months	Feb 1995	8 months	1 year 1 month	-6.47%
9	Apr 2000	May 2000	2 months	Aug 2000	3 months	5 months	-5.35%
10	Jun 2015	Sep 2015	4 months	Apr 2016	7 months	11 months	-5.33%

Drawdowns for Portfolio 2 (worst 10)

Rank	Start	End	Length	Recovery By	Recovery Time	Underwater Period	Drawdown
1	Nov 2007	Feb 2009	1 year 4 months	Jan 2011	1 year 11 months	3 years 3 months	-39.59%
2	Jan 2022	Sep 2022	9 months	Mar 2024	1 year 6 months	2 years 3 months	-22.67%
3	Sep 2000	Sep 2002	2 years 1 month	Dec 2003	1 year 3 months	3 years 4 months	-20.74%
4	Feb 2020	Mar 2020	2 months	Jul 2020	4 months	6 months	-14.71%
5	May 2011	Sep 2011	5 months	Feb 2012	5 months	10 months	-12.49%
6	Jul 1998	Aug 1998	2 months	Nov 1998	3 months	5 months	-10.77%
7	Sep 2018	Dec 2018	4 months	Mar 2019	3 months	7 months	-8.77%
8	Jun 2015	Feb 2016	9 months	Jun 2016	4 months	1 year 1 month	-6.95%
9	Apr 2012	May 2012	2 months	Aug 2012	3 months	5 months	-5.07%
10	Feb 1994	Nov 1994	10 months	Mar 1995	4 months	1 year 2 months	-5.01%

Portfolio Components (Jan 1994 - Aug 2026)

Name	CAGR	Stdev	Best Year	Worst Year	Max Drawdown	Sharpe Ratio	Sortino Ratio
US Stock Market	10.74%	15.34%	35.79%	-37.04%	-50.89%	0.58	0.85
Total US Bond Market	4.13%	4.13%	18.18%	-13.25%	-17.57%	0.40	0.60
Global ex-US Stock Market	6.09%	16.48%	40.34%	-44.10%	-58.50%	0.29	0.41
REIT	8.46%	19.08%	40.19%	-37.05%	-68.28%	0.39	0.57

Monthly Correlations (Jan 1994 - Aug 2026)

Name	US Stock Market	Total US Bond Market	Global ex-US Stock Market	REIT	Portfolio 1	Portfolio 2
US Stock Market	1.00	0.15	0.84	0.63	0.98	0.96
Total US Bond Market	0.15	1.00	0.17	0.31	0.33	0.32
Global ex-US Stock Market	0.84	0.17	1.00	0.60	0.83	0.91
REIT	0.63	0.31	0.60	1.00	0.65	0.75

Portfolio Asset Performance

Name	Total Return			Annualized Return		
	3 Month	Year To Date	1 year	3 year	5 year	10 year
US Stock Market	1.80%	13.42%	20.17%	20.54%	11.59%	14.68%
Total US Bond Market	-0.76%	-0.30%	2.03%	3.93%	-0.43%	1.27%
Global ex-US Stock Market	1.87%	16.29%	25.90%	19.72%	9.05%	9.53%
REIT	1.64%	11.01%	8.48%	9.46%	1.33%	4.74%

Trailing returns as of last calendar month ending August 2026

Portfolio Return Decomposition (Jan 1994 - Aug 2026)

Name	Portfolio 1	Portfolio 2
US Stock Market	$115,830	$70,680
Total US Bond Market	$16,764	$11,820
Global ex-US Stock Market		$23,569
REIT		$11,703

Return attribution decomposes portfolio gains into its constituent parts and identifies the contribution to returns by each of the assets.

Portfolio Risk Decomposition (Jan 1994 - Aug 2026)

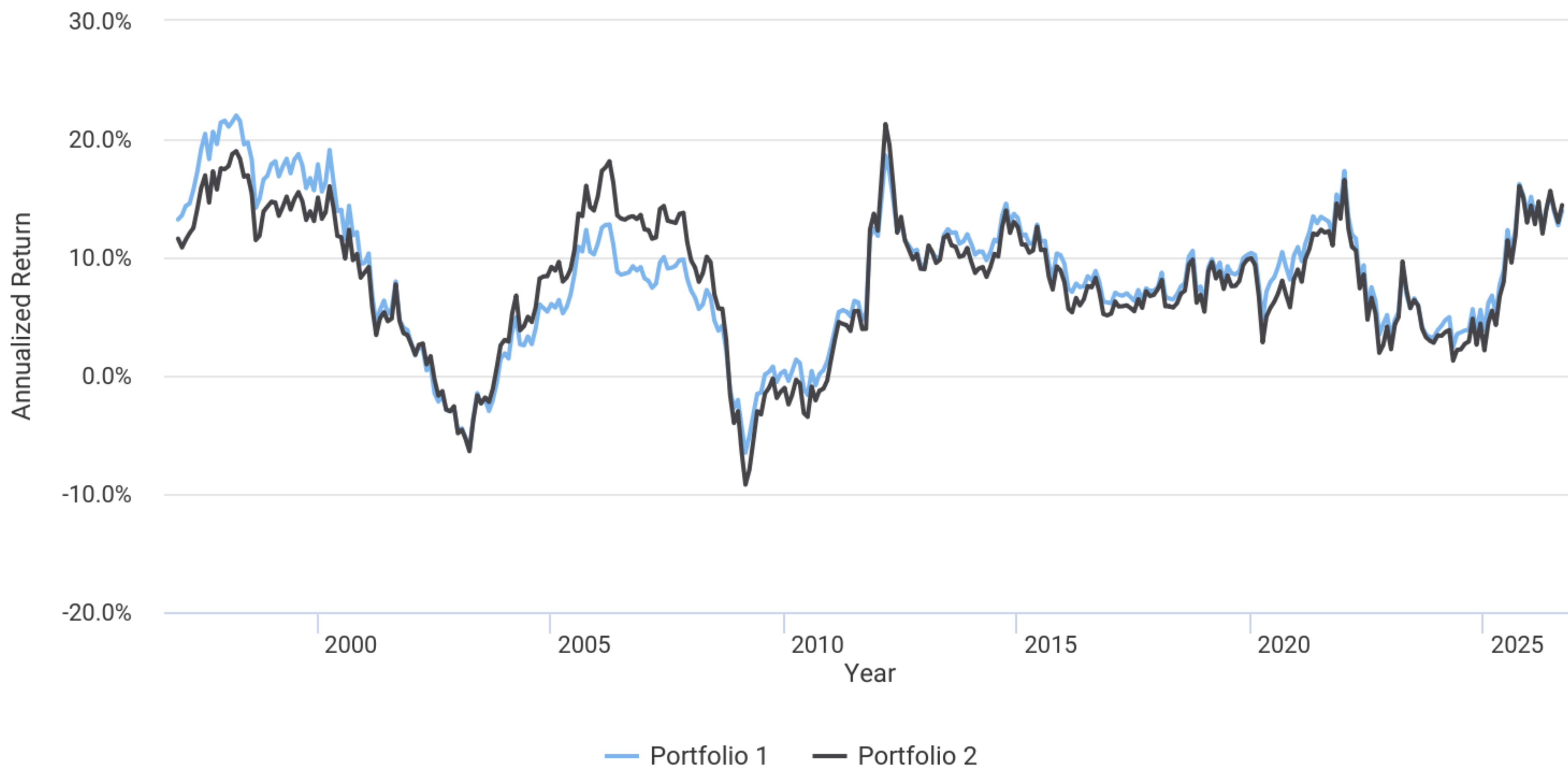
Name	Portfolio 1	Portfolio 2
US Stock Market	94.38%	54.91%
Total US Bond Market	5.62%	3.66%
Global ex-US Stock Market		28.02%
REIT		13.42%

Risk attribution decomposes portfolio risk into its constituent parts and identifies the contribution to overall volatility by each of the assets.

Rolling Returns (Jan 1994 - Aug 2026)

Roll Period	Portfolio 1			Portfolio 2		
	Average	High	Low	Average	High	Low
1 year	9.11%	35.35%	-25.66%	8.76%	44.58%	-33.58%
3 years	8.34%	22.00%	-6.52%	7.95%	21.27%	-9.22%
5 years	7.85%	19.17%	-1.54%	7.54%	17.40%	-1.79%
7 years	7.52%	13.27%	0.77%	7.31%	12.49%	1.37%
10 years	7.46%	11.49%	1.27%	7.36%	11.62%	1.74%
15 years	7.33%	10.52%	5.14%	7.19%	10.18%	5.06%

Annualized Rolling Return (36 months)



Annualized Rolling Return (60 months)

Notes:

- IMPORTANT: The projections or other information generated by Portfolio Visualizer regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results and are not guarantees of future results. Results may vary with each use and over time.
- 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. All use is subject to terms of service.
- Investing involves risk, including possible loss of principal. Past performance is not a guarantee of future results.
- Asset allocation and diversification strategies do not guarantee a profit or protect against a loss.
- Hypothetical returns do not reflect trading costs, transaction fees, commissions, or actual taxes due on investment returns.
- 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. Other investments not considered may have characteristics similar or superior to those being analyzed.
- Refer to the related documentation sections for more details on terms and definitions , methodology , and data sources.
- Portfolio model information represents a blended portfolio consisting of the model's underlying positions and assigned weights provided by the user and rebalanced at the specified schedule. The results were constructed using net of fee mutual fund performance. Portfolio Visualizer does not provide preferential treatment to any specific security or investment.
- The results are based on the total return of assets and assume that all received dividends and distributions are reinvested.
- Compound annualized growth rate (CAGR) is the annualized geometric mean return of the portfolio. It is calculated from the portfolio start and end balance and is thus impacted by any cashflows.
- The time-weighted rate of return (TWRR) is a measure of the compound rate of growth in a portfolio. This is calculated from the holding period returns (e.g. monthly returns), and TWRR will thus not be impacted by cashflows. If there are no external cashflows, TWRR will equal CAGR.
- The money-weighted rate of return (MWRR) is the internal rate of return (IRR) taking into account cashflows. This is the discount rate at which the present value of cash inflows equals the present value of cash outflows.
- Standard deviation (Stdev) is used to measure the dispersion of returns around the mean and is often used as a measure of risk. A higher standard deviation implies greater the dispersion of data points around the mean.
- Sharpe Ratio is a measure of risk-adjusted performance of the portfolio, and it is calculated by dividing the mean monthly excess return of the portfolio over the risk-free rate by the standard deviation of excess return, and the displayed value is annualized.
- Sortino Ratio is a measure of risk-adjusted return which is a modification of the Sharpe Ratio. While the latter is the ratio of average returns in excess of a risk-free rate divided by the standard deviation of those excess returns, the Sortino Ratio has the same denominator divided by the standard deviation of returns below the risk-free rate.
- Treynor Ratio is a measure of risk-adjusted performance of the portfolio. It is similar to the Sharpe Ratio, but it uses portfolio beta (systematic risk) as the risk metric in the denominator.
- Calmar Ratio is a measure of risk-adjusted performance of the portfolio. It is calculated as the annualized return over the past 36 months divided by the maximum drawdown over the past 36 months based on monthly returns.
- Downside deviation measures the downside volatility of the portfolio returns unlike standard deviation, which includes both upside and downside deviations. Downside deviation is calculated based on negative returns that hurt the portfolio performance.
- Risk-free returns are calculated based on U.S. 3-Month Treasury Bill Rate.
- Inflation is calculated based on U.S. Consumer Price Index.
- Correlation measures to what degree the returns of the two assets move in relation to each other. Correlation coefficient is a numerical value between -1 and +1. If one variable goes up by a certain amount, the correlation coefficient indicates which way the other variable moves and by how much. Asset correlations are calculated based on monthly returns.
- Skewness is a measure of the asymmetry of the probability distribution or returns from a normal Gaussian distribution shape about its mean. Negative skewness is associated with the left (typically negative returns) tail of the distribution extending further than the right tail; and positive skewness is associated with the right (typically positive returns) tail of the distribution extending further than the left tail.
- Excess kurtosis is a measure of whether a data distribution is peaked or flat relative to a normal distribution. Distributions with high kurtosis tend to have a distinct peak near the mean, decline rather rapidly, and have heavy or fat tails.
- A drawdown refers to the decline in value of a single investment or an investment portfolio from a relative peak value to a relative trough. A maximum drawdown (Max Drawdown) is the maximum observed loss from a peak to a trough of a portfolio before a new peak is attained. Drawdown values are calculated based on monthly returns.
- Value at Risk (VaR) measures the scale of loss at a given confidence level. For example, if the 95% confidence one-month VaR is 3%, there is 95% confidence that over the next month the portfolio will not lose more than 3%. Value at Risk can be calculated directly based on historical returns based on a given percentile or analytically based on the mean and standard deviation of the returns.
- Conditional Value at Risk (CVaR) measures the scale of the expected loss once the specific Value at Risk (VaR) breakpoint has been breached, i.e., it calculates the average tail loss by taking a weighted average between the value at risk and losses exceeding the value at risk.
- Beta is a measure of systematic risk and measures the volatility of a particular investment relative to the market or its benchmark. Alpha measures the active return of the investment compared to the market benchmark return. R-squared is the percentage of a portfolio's movements that can be explained by movements in the selected benchmark index.
- Active return is the investment return minus the return of its benchmark. For periods longer than 12 months this is displayed as annualized value, i.e., annualized investment return minus annualized benchmark return.
- Tracking error, also known as active risk, is the standard deviation of active return. This is displayed as annualized value based on the standard deviation of monthly active returns.
- Information ratio is the active return divided by the tracking error. It measures whether the investment outperformed its benchmark consistently.
- Gain/Loss ratio is a measure of downside risk, and it is calculated as the average positive return in up periods divided by the average negative return in down periods.
- Upside Capture Ratio measures how well the fund performed relative to the benchmark when the market was up, and Downside Capture Ratio measures how well the fund performed relative to the benchmark when the market was down. An upside capture ratio greater than 100 would indicate that the fund outperformed its benchmark when the market was up, and a downside capture ratio below 100 would indicate that the fund lost less than its benchmark when the market was down. To calculate upside capture ratio a new series from the portfolio returns is constructed by dropping all time periods where the benchmark return is less than equal to zero. The up capture is then the quotient of the annualized return of the resulting manager series, divided by the annualized return of the resulting benchmark series. The downside capture ratio is calculated analogously.
- All risk measures for the portfolio and portfolio assets are calculated based on monthly returns.

- Invesco QQQ is a paid sponsor of the SRL Analytics Tool, Portfolio Visualizer. The model portfolios are for illustrative purposes only and do not constitute a recommendation or suitability for any investor. Inveso is not affiliated with SRL Global.
- The annual results for 2026 are based on monthly returns from January to August.
- The results assume annual rebalancing of portfolio assets to match the specified allocation.