



DUAL MOMENTUM SYSTEMS

**Process driven investment decisions
driving better long term results with more
shallow drawdowns and better risk
adjusted performance.**



Disclosure

Nothing in this report should be construed as investment advice, an offer, recommendation, or solicitation to buy or sell any investment. All investing involves risk, including the possible loss of money you invest, and past performance does not guarantee future performance.

Fair Use

The investment strategies and their investment selections presented within this report are free for your personal use, noting the disclosure above. These strategies are not allowed to be used by any CFA, CFP, RIA, CPA, CLU, CHFC, IAFP, NAPFA, PFS or any other investment professional - please inquire for licensing.



DMS Allocation Strategies

Dual Momentum Systems, aka DMS, was brought about because I think it's a much better approach than buy and hold. It can lag the market in a hot market, although it has great potential with reasonable risk to outperform when Smart Leverage kicks in. And where it really shines is keeping you out of protracted down markets. But dual momentum investment requires attention and possible changes of investment with each new month. There are people who would rather set it and forget it. There may also be people, like myself, who wish to set and forget certain accounts while still using dual momentum in other accounts.

The Bamboo Portfolio allocation strategies are going to be inherently more volatile than the dual momentum strategies because they are always invested. The Bamboo+ Portfolio and Bamboo++ Portfolio strategies use 2X and 3X leverage with the US Large Cap allocation by using the same Smart Leverage as the dual momentum strategies.

These allocation strategies do not trade each month, they just require a re-balancing at the start of every year. The exception is if you are in the + or ++ version, there could be additional trades going into and out of Smart Leverage. But the leveraged versions have averaged less than 2 trades per year from 2000 forward, so it isn't excessive at all.

Investment Strategies

Investments for the month of April 2024

Strategy Components Invested:

←Conservative

Aggressive →

Month	Bamboo Portfolio	Bamboo+ Portfolio	Bamboo++ Portfolio
Apr 2023	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	IWB: 0%, BND: 20%, DBMF: 20%, SGOL: 20%	IWB: 0%, BND: 20%, DBMF: 20%, SGOL: 20%
May 2023	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	IWB: 0%, BND: 20%, DBMF: 20%, SGOL: 20%	IWB: 0%, BND: 20%, DBMF: 20%, SGOL: 20%
Jun 2023	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	IWB: 0%, BND: 20%, DBMF: 20%, SGOL: 20%	IWB: 0%, BND: 20%, DBMF: 20%, SGOL: 20%
Jul 2023	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	IWB: 0%, BND: 20%, DBMF: 20%, SGOL: 20%	IWB: 0%, BND: 20%, DBMF: 20%, SGOL: 20%
Aug 2023	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	IWB: 0%, BND: 20%, DBMF: 20%, SGOL: 20%	IWB: 0%, BND: 20%, DBMF: 20%, SGOL: 20%
Sep 2023	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	IWB: 0%, BND: 20%, DBMF: 20%, SGOL: 20%	IWB: 0%, BND: 20%, DBMF: 20%, SGOL: 20%
Oct 2023	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%
Nov 2023	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%
Dec 2023	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%
Jan 2024	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%
Feb 2024	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%
Mar 2024	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%
Apr 2024	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%

For April, here are the investments by strategy:

Bamboo Portfolio

This is an allocation strategy, rebalanced annually.

Bamboo+ Portfolio

This is an allocation strategy, which rebalanced annually and will put the IWB portion into leveraged 2X SSO using Smart Leverage.

Bamboo++ Portfolio

This is an allocation strategy, which rebalanced annually and will put the IWB portion into leveraged 3X UPRO using Smart Leverage.

** When you rebalance, if you have gains, rebalance 1 year + 1 day so that you get long term capital gains if not in a taxed advantaged account.

DMS Allocation Investment Strategies

Rolling 12 Month Returns
Through March 28, 2024

Returns and Maximum Drawdown:

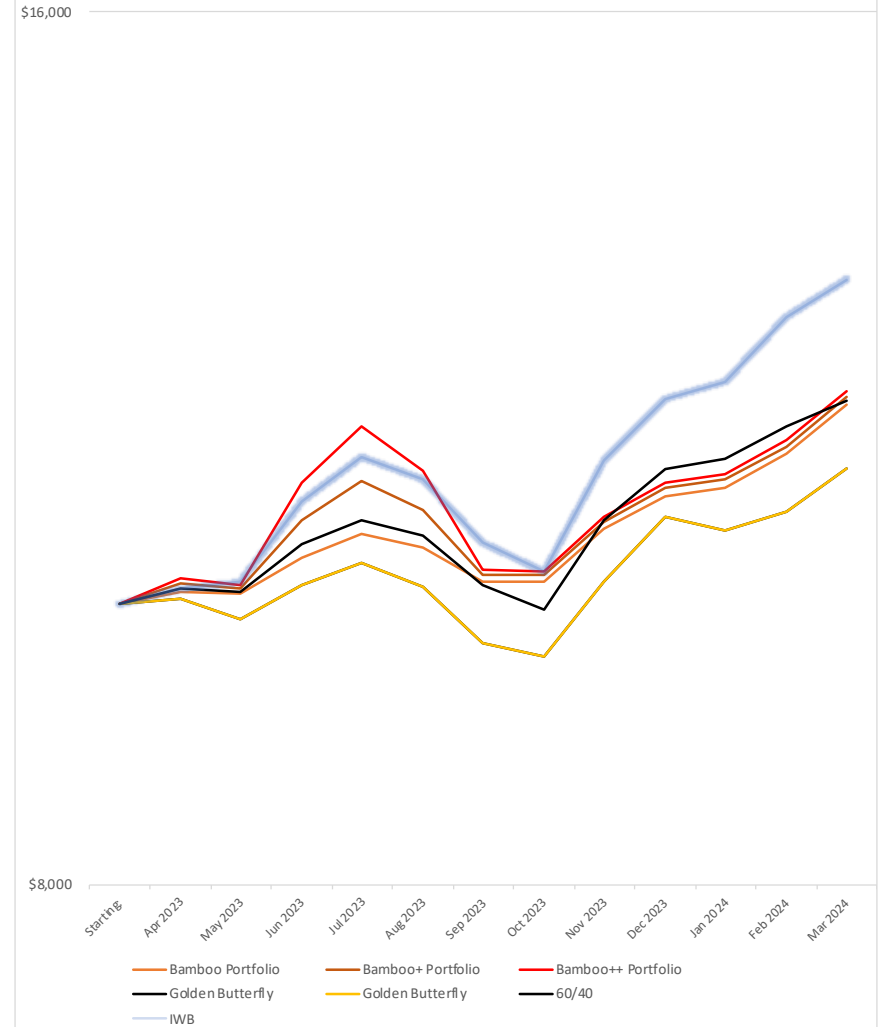
Month	←Conservative			Aggressive →		
	US Market IWB	Balanced 60/40	Golden Butterfly	Bamboo Portfolio	Bamboo+ Portfolio	Bamboo++ Portfolio
Apr 2023	1.23%	1.20%	0.35%	1.00%	1.57%	2.01%
May 2023	0.47%	-0.19%	-1.53%	-0.22%	-0.29%	-0.47%
Jun 2023	6.70%	3.80%	2.67%	2.91%	5.48%	8.37%
Jul 2023	3.46%	1.91%	1.87%	1.88%	3.13%	4.60%
Aug 2023	-1.74%	-1.24%	-1.88%	-1.08%	-2.18%	-3.43%
Sep 2023	-4.79%	-3.84%	-4.46%	-2.69%	-5.09%	-7.61%
Oct 2023	-2.38%	-1.91%	-1.01%	0.02%	-0.01%	-0.03%
Nov 2023	9.33%	7.29%	6.17%	4.31%	4.37%	4.43%
Dec 2023	5.00%	4.16%	5.18%	2.65%	2.68%	2.71%
Jan 2024	1.34%	0.89%	-0.97%	0.70%	0.70%	0.70%
Feb 2024	5.27%	2.59%	1.45%	2.67%	2.67%	2.67%
Mar 2024	2.97%	2.04%	3.49%	3.99%	3.99%	3.99%
12 Mo Rtrn:	29.31%	17.48%	11.33%	17.12%	17.84%	18.37%
Max DD:	-8.67%	-6.84%	-7.21%	-3.74%	-7.17%	-10.81%

b(w) S&P 500: 0.0% -11.8% -18.0% -12.2% -11.5% -10.9%

\$10,000 turns into:

Month	←Conservative			Aggressive →		
	US Market IWB	Balanced 60/40	Golden Butterfly	Bamboo Portfolio	Bamboo+ Portfolio	Bamboo++ Portfolio
Starting:	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Apr 2023	\$ 10,123	\$ 10,120	\$ 10,035	\$ 10,100	\$ 10,157	\$ 10,201
May 2023	\$ 10,171	\$ 10,101	\$ 9,881	\$ 10,078	\$ 10,127	\$ 10,153
Jun 2023	\$ 10,852	\$ 10,484	\$ 10,145	\$ 10,371	\$ 10,682	\$ 11,003
Jul 2023	\$ 11,227	\$ 10,685	\$ 10,335	\$ 10,566	\$ 11,017	\$ 11,509
Aug 2023	\$ 11,032	\$ 10,552	\$ 10,140	\$ 10,452	\$ 10,777	\$ 11,114
Sep 2023	\$ 10,504	\$ 10,148	\$ 9,688	\$ 10,171	\$ 10,228	\$ 10,269
Oct 2023	\$ 10,254	\$ 9,954	\$ 9,590	\$ 10,174	\$ 10,228	\$ 10,265
Nov 2023	\$ 11,210	\$ 10,680	\$ 10,182	\$ 10,612	\$ 10,675	\$ 10,720
Dec 2023	\$ 11,771	\$ 11,124	\$ 10,709	\$ 10,893	\$ 10,961	\$ 11,010
Jan 2024	\$ 11,929	\$ 11,223	\$ 10,605	\$ 10,970	\$ 11,038	\$ 11,087
Feb 2024	\$ 12,557	\$ 11,514	\$ 10,758	\$ 11,263	\$ 11,333	\$ 11,383
Mar 2024	\$ 12,931	\$ 11,748	\$ 11,133	\$ 11,712	\$ 11,784	\$ 11,837

Rolling 12 Month Returns



DMS Allocation Investment Strategies

2000 through March 28, 2024

Annual returns:

Year End	Benchmarks		
	US Market IWB	Balanced 60/40	Golden Butterfly
2000	-6.15%	-1.49%	7.27%
2001	-12.15%	-3.81%	3.01%
2002	-22.31%	-9.80%	3.13%
2003	30.05%	18.19%	18.45%
2004	11.02%	8.00%	9.97%
2005	6.34%	3.87%	8.09%
2006	15.41%	10.95%	12.56%
2007	5.32%	5.94%	9.55%
2008	-37.40%	-21.86%	-4.89%
2009	28.33%	18.66%	12.71%
2010	16.08%	12.04%	16.51%
2011	1.23%	4.38%	8.31%
2012	16.51%	11.39%	9.01%
2013	32.78%	17.44%	5.64%
2014	13.07%	10.56%	9.72%
2015	0.79%	1.11%	-3.27%
2016	12.04%	8.34%	9.56%
2017	21.53%	14.26%	10.96%
2018	-4.89%	-2.47%	-3.93%
2019	31.04%	21.98%	17.86%
2020	20.77%	14.93%	14.53%
2021	26.32%	15.74%	8.76%
2022	-19.19%	-15.86%	-12.84%
2023	26.42%	17.66%	12.38%
2024	9.85%	5.61%	3.96%
+/- S&P YTD:			
CAGR			

←Conservative

Aggressive →

Allocation Strategies		
Bamboo Portfolio	Bamboo+ Portfolio	Bamboo++ Portfolio
0.65%	0.65%	0.65%
-2.65%	-2.65%	-2.65%
0.64%	-1.32%	-3.13%
19.97%	34.90%	54.45%
6.40%	10.39%	14.63%
7.17%	6.54%	6.01%
12.73%	12.73%	12.73%
11.48%	11.48%	11.48%
-10.40%	-10.40%	-10.40%
16.66%	29.25%	43.46%
15.40%	19.94%	25.36%
3.00%	3.71%	4.35%
8.24%	14.05%	20.36%
7.16%	7.16%	7.16%
9.16%	9.16%	9.16%
-1.75%	-1.75%	-1.75%
6.38%	6.38%	6.38%
12.44%	12.44%	12.44%
-3.52%	-3.52%	-3.52%
20.11%	20.11%	20.11%
15.29%	24.14%	34.94%
11.65%	17.57%	23.48%
-6.09%	-8.17%	-10.19%
12.51%	14.02%	15.40%
7.51%	7.51%	7.51%
-2.3%		
-2.3%		
-2.3%		
7.1%		
9.1%		
11.3%		



Strategy Fact Sheets

Dual Momentum Strategies: Bamboo Portfolio

A fixed allocation strategy rebalanced annually

Results through 03/28/2024

Investment selection for April 2024:

IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%

Tax friendliness:

Bamboo Portfolio has mostly Long Term Cap Gains.

Average number of trades per year (including Rebalancing)

1.00

Portfolio size appropriateness:

Whale, Bamboo Portfolio can be used for any sized portfolio.

Characteristics:

Drawdowns: Bamboo Portfolio has more conservative drawdowns than the S&P and very similar to 60/40.

Volatility: Bamboo Portfolio is usually less volatile than the S&P and 60/40 over time.

Returns: Bamboo Portfolio will perform more similar to a 60/40, but can outperform it and the S&P over longer cycles.

Leverage: Bamboo Portfolio never uses any leverage.

Annualized Returns, actual YTD for current year.

Investment	YTD	1 Year	3 Year	5 Year	10 Year	2000+
Bamboo Portfolio	7.51%	17.12%	7.85%	10.48%	7.85%	7.13%
Balanced 60/40	5.61%	17.48%	5.76%	9.19%	8.43%	6.22%
S&P 500	10.07%	29.25%	11.23%	14.90%	12.83%	7.30%

Maximum Drawdown, single largest drawdown.

Investment	YTD	1 Year	3 Year	5 Year	10 Year	2000+
Bamboo Portfolio	0	-3.74%	-8.38%	-8.38%	-8.38%	-16.44%
Balanced 60/40	0	-6.84%	-20.09%	-20.09%	-20.09%	-32.33%
S&P 500	0	-8.33%	-23.92%	-23.92%	-23.92%	-50.79%

Ulcer Index, the higher the number the more painful downside volatility. Considers all downside.

Investment	YTD	1 Year	3 Year	5 Year	10 Year	2000+
Bamboo Portfolio	-	1.49	3.14	2.82	2.67	3.55
Balanced 60/40	-	2.38	9.01	7.26	5.32	7.93
S&P 500	-	2.93	9.89	8.37	6.39	16.37

Sortino Ratio, risk adjusted performance measure - bigger number is better.

Investment	YTD	1 Year	3 Year	5 Year	10 Year	2000+
Bamboo Portfolio	N/A	3.07	0.50	0.92	0.53	0.38
Balanced 60/40	N/A	2.21	0.13	0.50	0.48	0.18
S&P 500	N/A	3.50	0.58	0.85	0.79	0.27

Strategy Description:

The Bamboo Portfolio allocations strategies are for somebody who doesn't want straight up S&P, or a 60/40, but they want something not as volatile and with as much downside as holding the S&P, but also something that is more suited to the changing market conditions than is a 60/40. The base Bamboo Portfolio never uses any leverage, the Bamboo+ Portfolio uses 2X Leverage only for the 55% US Large Cap position using the Smart Leverage rules of the Dual Momentum Strategies, and the Bamboo++ Portfolio uses 3X Leverage using Smart Leverage.

Leverage	2000+
Average	100%
Maximum	100%

Metric	2000+
Beta	0.39
Alpha	4.05%

Minimum, Average, and Maximum monthly performance.

	Bamboo	Bamboo+	Bamboo++
MIN	-9.2%	-9.16%	-9.16%
AVE	0.3%	0.37%	0.46%
MAX	7.1%	8.88%	13.52%

Allocation Stats from 2000+

	Bamboo	Bamboo+	Bamboo++
Winning Months	180	177	178
Ave Winning Month	1.93%	2.37%	2.82%
Total Gain	347%	420%	503%
Net Gain	174%	222%	276%

Win to Loss Ratio	2.00	2.13	2.22
Gain to Pain Ratio	1.00	1.13	1.22

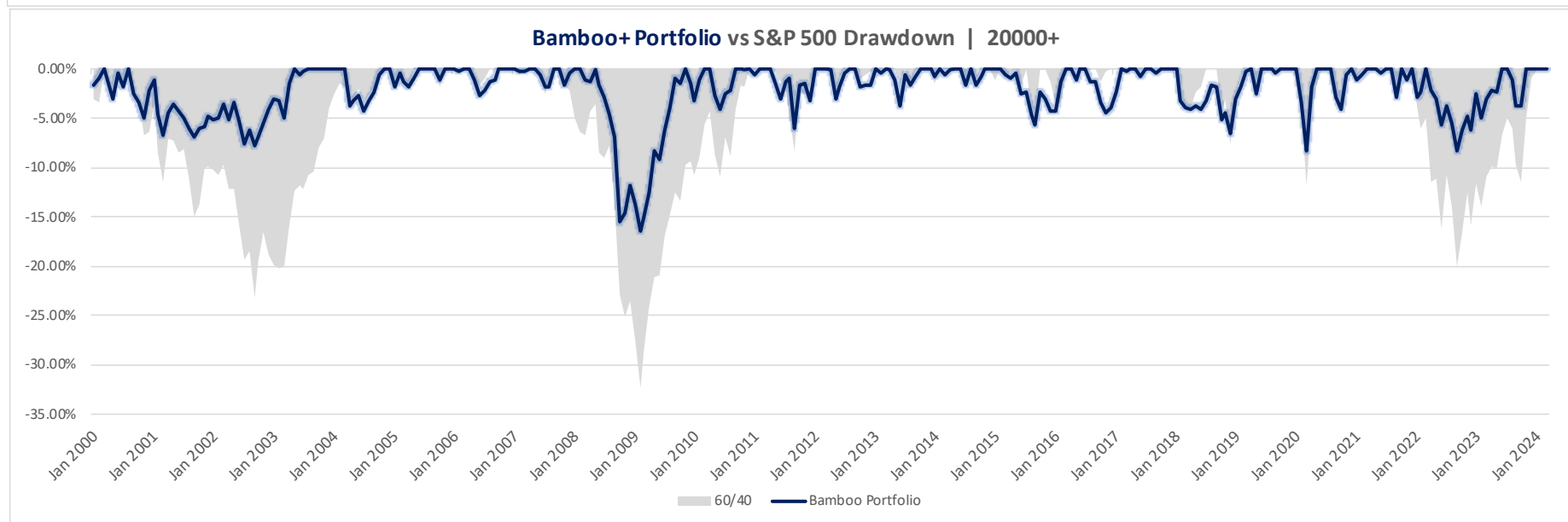
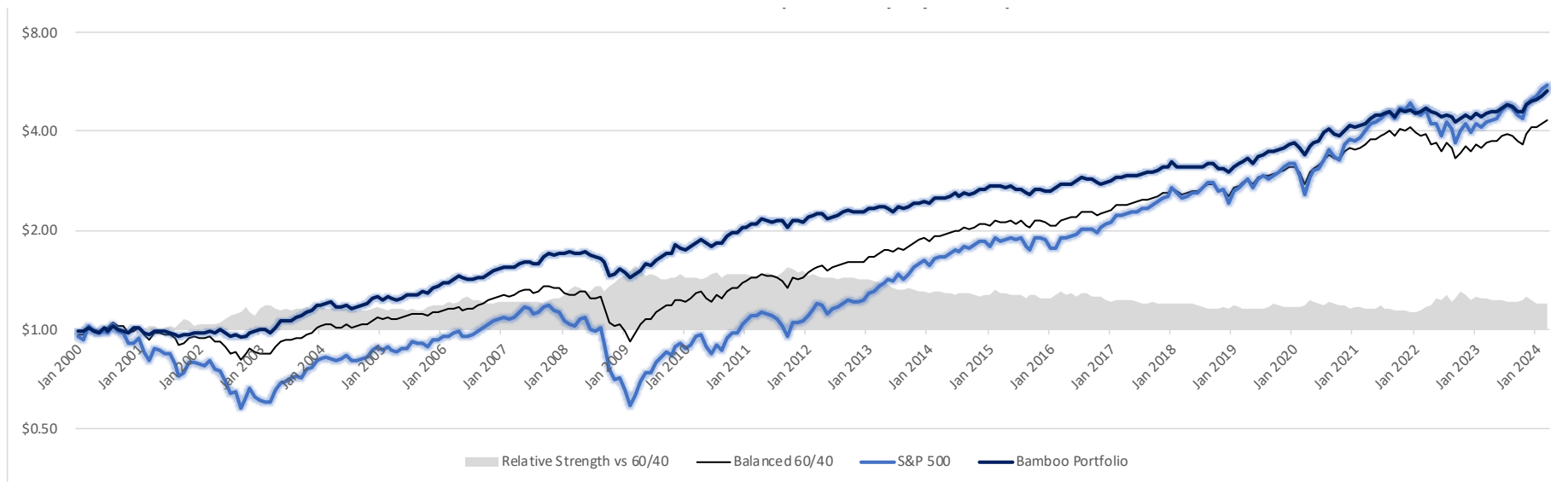
Losing Months	111	114	113
Ave Losing Month	-1.56%	-1.73%	-2.00%
Total Loss	-173%	-197%	-226%

Dual Momentum Systems: LT Gain+

Bamboo Portfolio inception date June 2023.

Bamboo Portfolio vs Benchmarks | 2000+ Equity Chart | logarithmic scale chart

randy@dualmomentumsystems.com



Bamboo Portfolio inception date June 2023.

Dual Momentum Strategies: **Bamboo+ Portfolio**

A fixed allocation strategy rebalanced annually

Results through 03/28/2024

Investment selection for April 2024:

IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%

Tax friendliness:

Bamboo+ Portfolio has mostly Long Term Cap Gains.

Average number of trades per year (including Rebalancing)

1.86

Portfolio size appropriateness:

Whale, Bamboo+ Portfolio can be used for any sized portfolio.

Characteristics:

Drawdowns: Bamboo+ Portfolio has more conservative drawdowns than the S&P and very similar to 60/40.

Volatility: Bamboo+ Portfolio is usually less volatile than the S&P and 60/40 over time.

Returns: Bamboo+ Portfolio will perform more similar to a 60/40, but can outperform it and the S&P over longer cycles.

Leverage: Bamboo+ Portfolio never uses any leverage.

Annualized Returns, actual YTD for current year.

Investment	YTD	1 Year	3 Year	5 Year	10 Year	2000+
Bamboo+ Portfolio	7.51%	17.84%	8.53%	13.09%	9.12%	9.11%
Balanced 60/40	5.61%	17.48%	5.76%	9.19%	8.43%	6.22%
S&P 500	10.07%	29.25%	11.23%	14.90%	12.83%	7.30%

Maximum Drawdown, single largest drawdown.

Investment	YTD	1 Year	3 Year	5 Year	10 Year	2000+
Bamboo+ Portfolio	0	-7.17%	-8.38%	-8.38%	-8.38%	-16.44%
Balanced 60/40	0	-6.84%	-20.09%	-20.09%	-20.09%	-32.33%
S&P 500	0	-8.33%	-23.92%	-23.92%	-23.92%	-50.79%

Ulcer Index, the higher the number the more painful downside volatility. Considers all downside.

Investment	YTD	1 Year	3 Year	5 Year	10 Year	2000+
Bamboo+ Portfolio	-	3.00	3.76	3.37	2.98	3.83
Balanced 60/40	-	2.38	9.01	7.26	5.32	7.93
S&P 500	-	2.93	9.89	8.37	6.39	16.37

Sortino Ratio, risk adjusted performance measure - bigger number is better.

Investment	YTD	1 Year	3 Year	5 Year	10 Year	2000+
Bamboo+ Portfolio	N/A	1.91	0.52	1.14	0.70	0.70
Balanced 60/40	N/A	2.21	0.13	0.50	0.48	0.18
S&P 500	N/A	3.50	0.58	0.85	0.79	0.27

Strategy Description:

The Bamboo Portfolio allocations strategies are for somebody who doesn't want straight up S&P, or a 60/40, but they want something not as volatile and with as much downside as holding the S&P, but also something that is more suited to the changing market conditions than is a 60/40. The base Bamboo Portfolio never uses any leverage, the Bamboo+ Portfolio uses 2X Leverage only for the 55% US Large Cap position using the Smart Leverage rules of the Dual Momentum Strategies, and the Bamboo++ Portfolio uses 3X Leverage using Smart Leverage.

Leverage	2000+
Average	110%
Maximum	140%

Metric	2000+
Beta	0.46
Alpha	5.49%

Minimum, Average, and Maximum monthly performance.

	Bamboo	Bamboo+	Bamboo++
MIN	-9.2%	-9.16%	-9.16%
AVE	0.3%	0.37%	0.46%
MAX	7.1%	8.88%	13.52%

Allocation Stats from 2000+

	Bamboo	Bamboo+	Bamboo++
Winning Months	180	177	178
Ave Winning Month	1.93%	2.37%	2.82%
Total Gain	347%	420%	503%
Net Gain	174%	222%	276%

Win to Loss Ratio	2.00	2.13	2.22
Gain to Pain Ratio	1.00	1.13	1.22

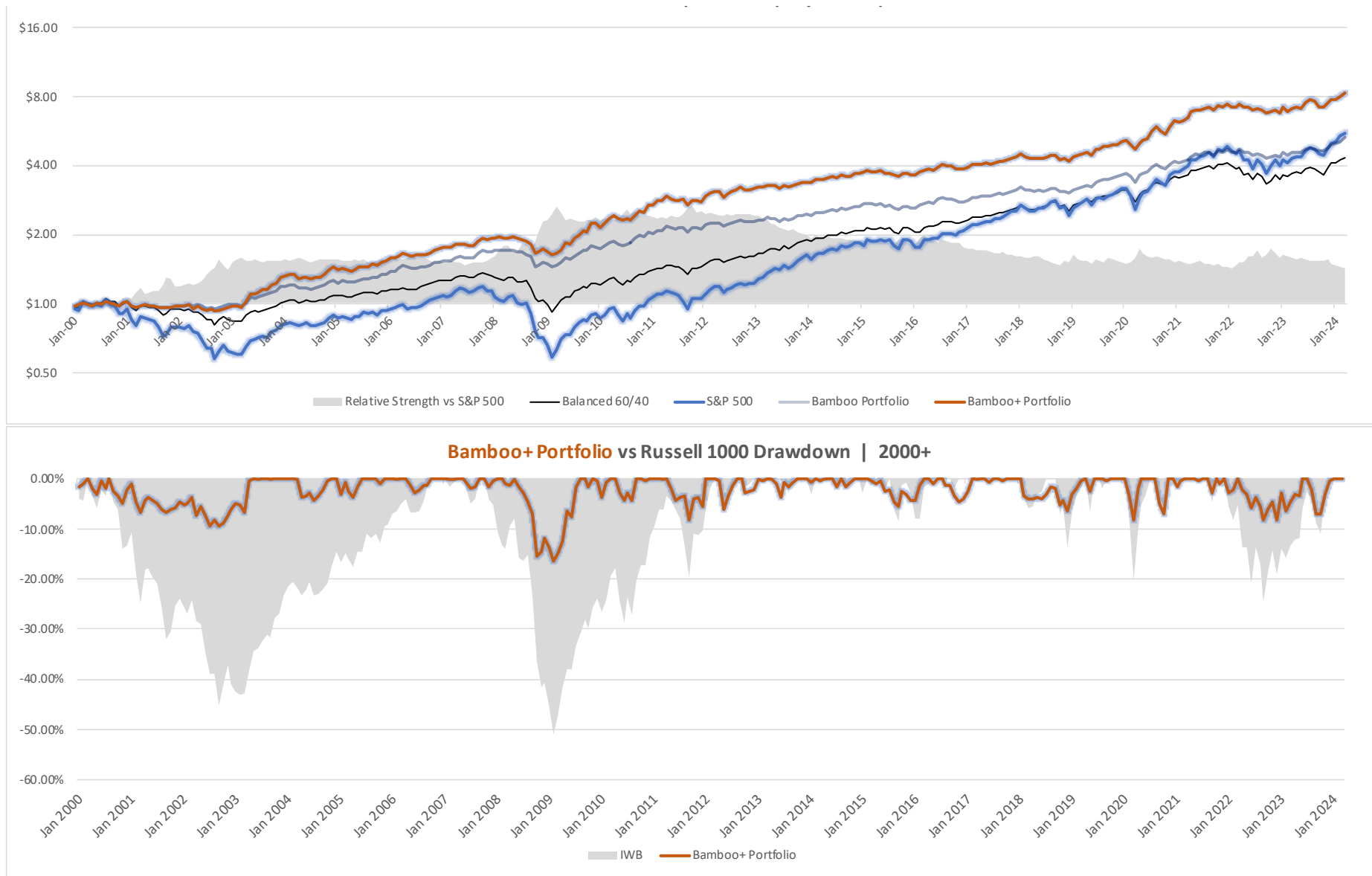
Losing Months	111	114	113
Ave Losing Month	-1.56%	-1.73%	-2.00%
Total Loss	-173%	-197%	-226%

Dual Momentum Systems: LT Gain+

Bamboo+ Portfolio inception date June 2023.

Bamboo+ Portfolio vs Benchmarks | 2000+ Equity Chart | logarithmic scale chart

randy@dualmomentumsystems.com



Bamboo+ Portfolio inception date June 2023.

Dual Momentum Strategies: **Bamboo++ Portfolio**

A fixed allocation strategy rebalanced annually

Results through 03/28/2024

Investment selection for April 2024:

IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%

Tax friendliness:

Bamboo++ Portfolio has mostly Long Term Cap Gains.

Average number of trades per year (including Rebalancing)

1.86

Portfolio size appropriateness:

Whale, Bamboo++ Portfolio can be used for any sized portfolio.

Characteristics:

Drawdowns: Bamboo++ Portfolio has more conservative drawdowns than the S&P and very similar to 60/40.

Volatility: Bamboo++ Portfolio is usually less volatile than the S&P and 60/40 over time.

Returns: Bamboo++ Portfolio will perform more similar to a 60/40, but can outperform it and the S&P over longer cycles.

Leverage: Bamboo++ Portfolio never uses any leverage.

Annualized Returns , actual YTD for current year.

Investment	YTD	1 Year	3 Year	5 Year	10 Year	2000+
Bamboo++ Portfolio	7.51%	18.37%	9.18%	15.89%	10.46%	11.30%
Balanced 60/40	5.61%	17.48%	5.76%	9.19%	8.43%	6.22%
S&P 500	10.07%	29.25%	11.23%	14.90%	12.83%	7.30%

Maximum Drawdown , single largest drawdown.

Investment	YTD	1 Year	3 Year	5 Year	10 Year	2000+
Bamboo++ Portfolio	0	-10.81%	-10.81%	-10.81%	-10.81%	-16.44%
Balanced 60/40	0	-6.84%	-20.09%	-20.09%	-20.09%	-32.33%
S&P 500	0	-8.33%	-23.92%	-23.92%	-23.92%	-50.79%

Ulcer Index , the higher the number the more painful downside volatility. Considers all downside.

Investment	YTD	1 Year	3 Year	5 Year	10 Year	2000+
Bamboo++ Portfolio	-	5.00	4.70	4.20	3.47	4.30
Balanced 60/40	-	2.38	9.01	7.26	5.32	7.93
S&P 500	-	2.93	9.89	8.37	6.39	16.37

Sortino Ratio , risk adjusted performance measure - bigger number is better.

Investment	YTD	1 Year	3 Year	5 Year	10 Year	2000+
Bamboo++ Portfolio	N/A	1.41	0.52	1.28	0.81	0.94
Balanced 60/40	N/A	2.21	0.13	0.50	0.48	0.18
S&P 500	N/A	3.50	0.58	0.85	0.79	0.27

Strategy Description:

The Bamboo Portfolio allocations strategies are for somebody who doesn't want straight up S&P, or a 60/40, but they want something not as volatile and with as much downside as holding the S&P, but also something that is more suited to the changing market conditions than is a 60/40. The base Bamboo Portfolio never uses any leverage, the Bamboo+ Portfolio uses 2X Leverage only for the 55% US Large Cap position using the Smart Leverage rules of the Dual Momentum Strategies, and the Bamboo++ Portfolio uses 3X Leverage using Smart Leverage.

Leverage	2000+
Average	121%
Maximum	180%

Metric	2000+
Beta	0.46
Alpha	5.49%

Minimum, Average, and Maximum monthly performance.

	Bamboo	Bamboo+	Bamboo++
MIN	-9.2%	-9.16%	-9.16%
AVE	0.3%	0.37%	0.46%
MAX	7.1%	8.88%	13.52%

Allocation Stats from 2000+

	Bamboo	Bamboo+	Bamboo++
Winning Months	180	177	178
Ave Winning Month	1.93%	2.37%	2.82%
Total Gain	347%	420%	503%
Net Gain	174%	222%	276%

Win to Loss Ratio	2.00	2.13	2.22
Gain to Pain Ratio	1.00	1.13	1.22

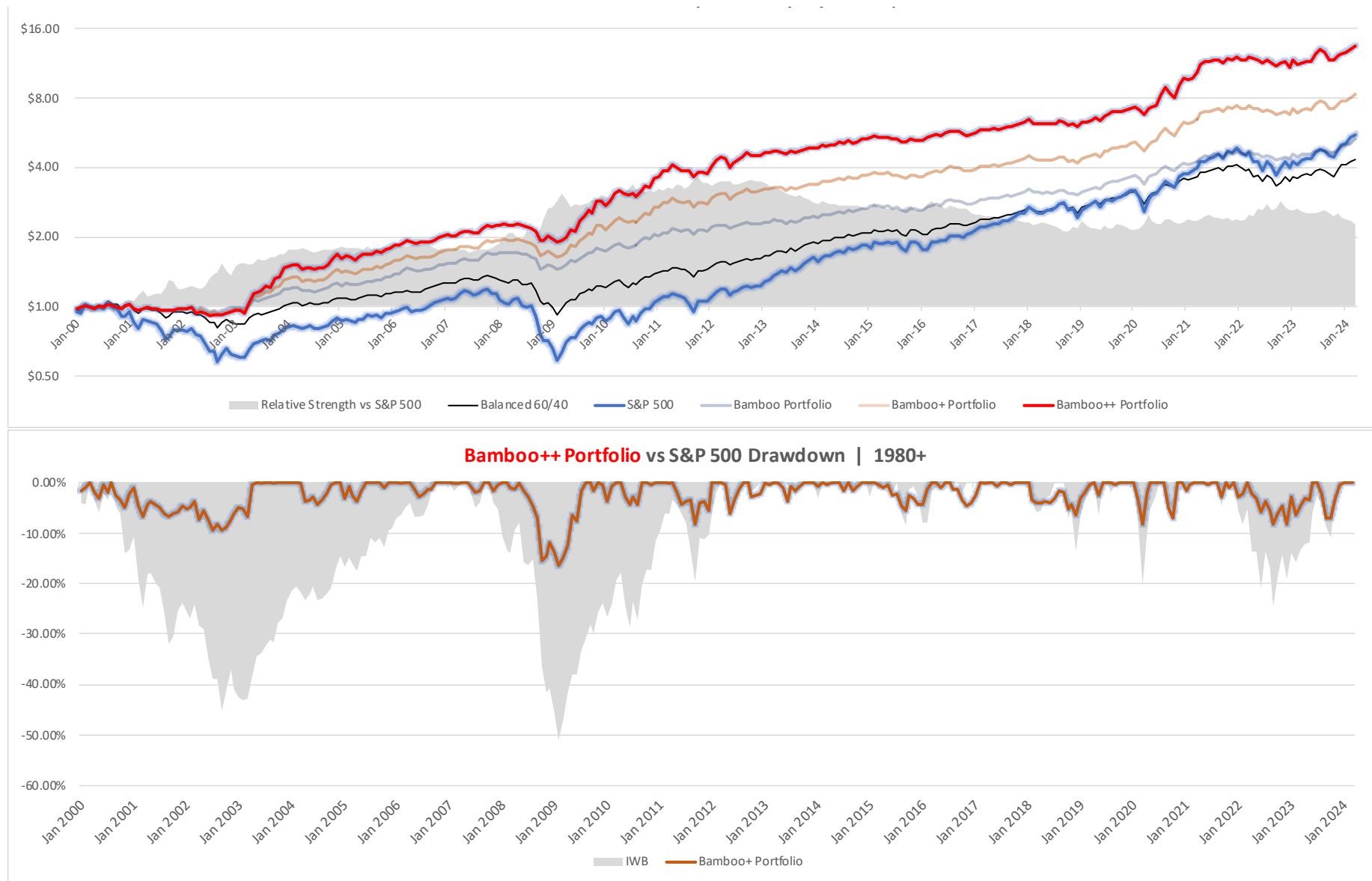
Losing Months	111	114	113
Ave Losing Month	-1.56%	-1.73%	-2.00%
Total Loss	-173%	-197%	-226%

Dual Momentum Systems: LT Gain+

Bamboo++ Portfolio inception date June 2023.

Bamboo++ Portfolio vs Benchmarks | 2000+ Equity Chart | logarithmic scale chart

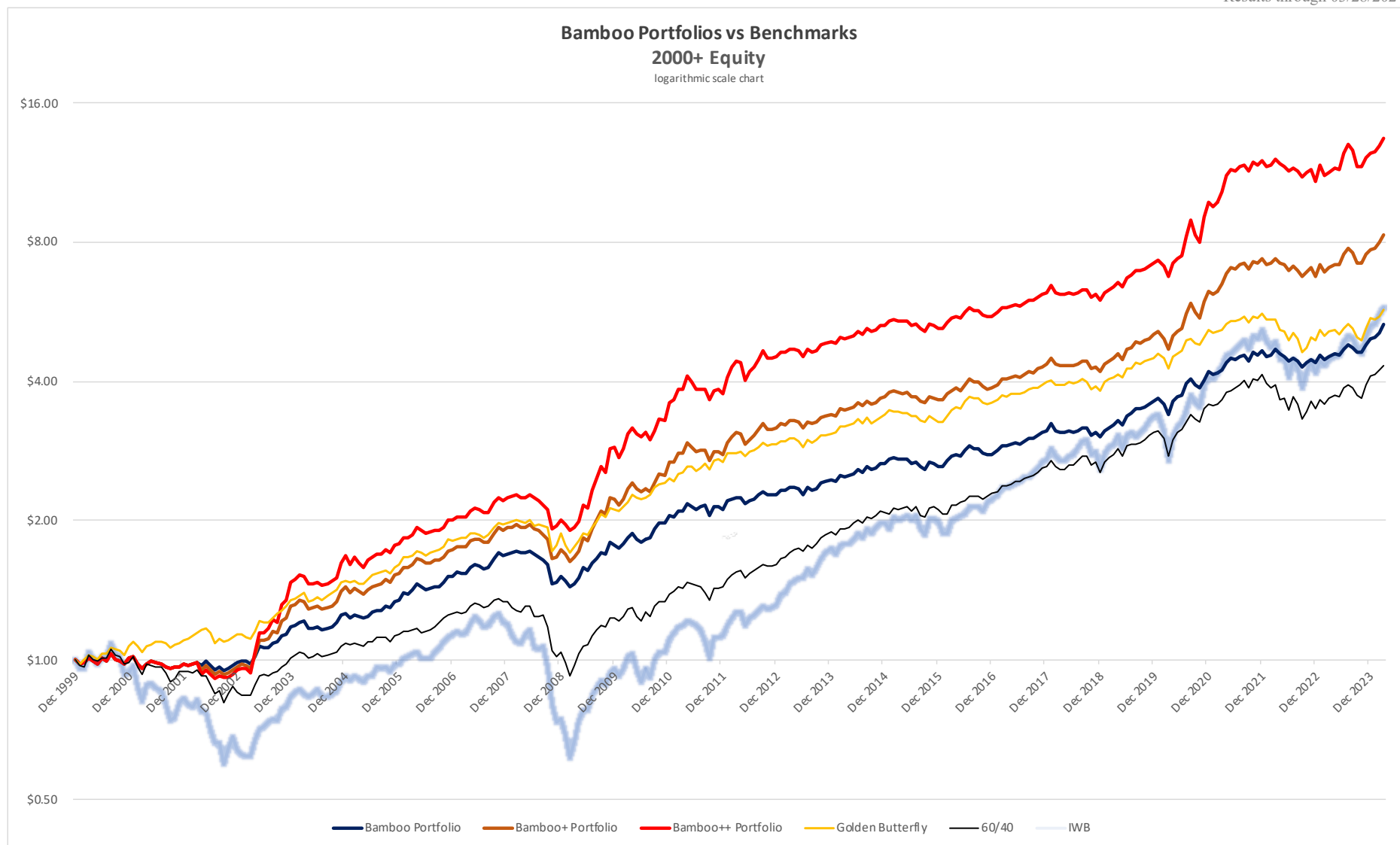
randy@dualmomentumsystems.com

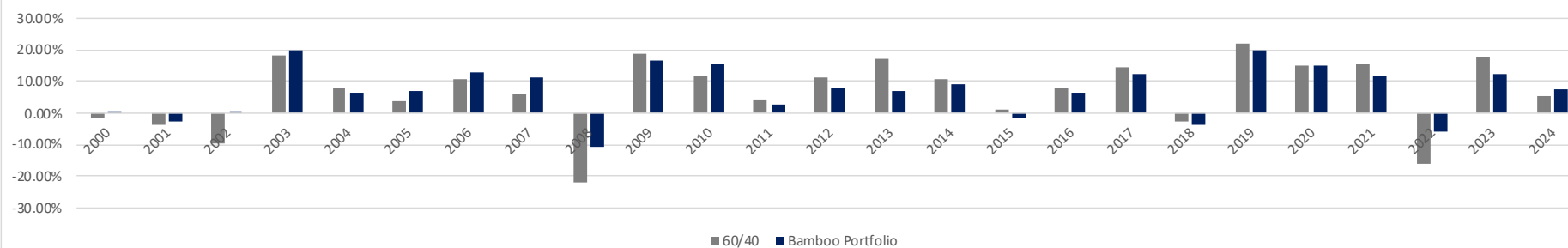
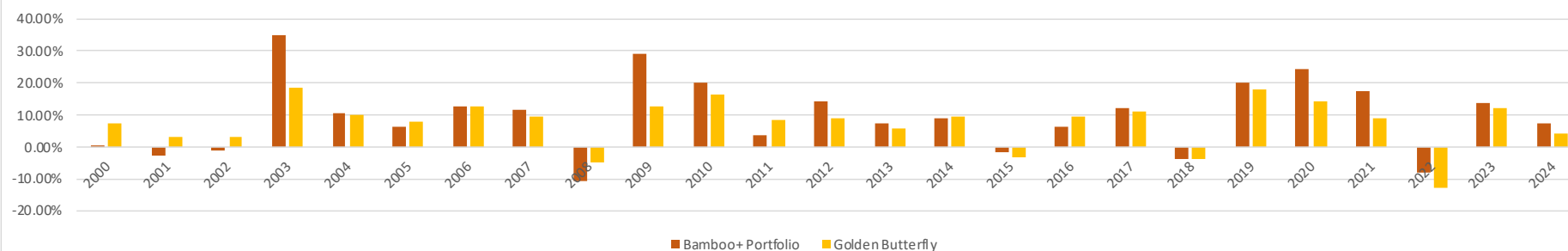
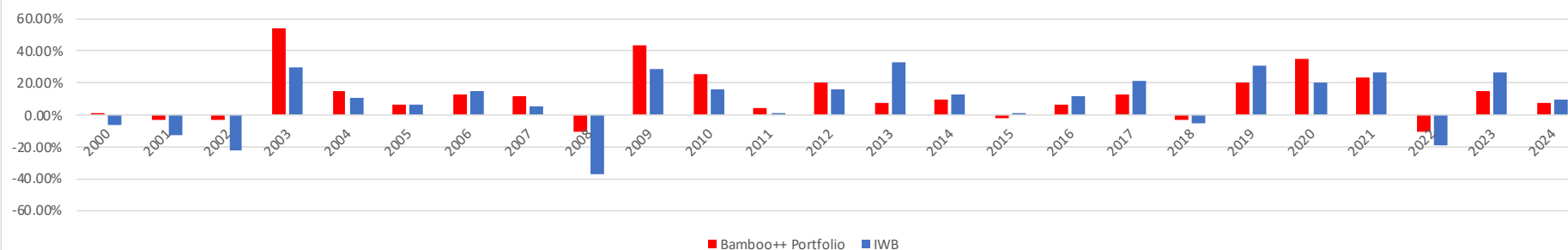


Bamboo++ Portfolio inception date June 2023.



Equity & Return Charts



DMS-4ETF vs 60/40 Annual Returns**DMS-4ETF+ vs Golden Butterfly****DMS-4ETF++ vs IWB Annual Returns**



Metrics, Annual Returns and Correlations

CAGR: Compound Annual Growth Rate, on average how much the strategy has returned per year

Ulcer Performance Index: A risk adjusted performance ratio which uses the Ulcer Index in it's calculations

Sortino Ratio: A risk adjusted performance ratio commonly used

Gain to Pain: Used by the famous Jack Schwager, simply the total net gain divided by net loses along the way

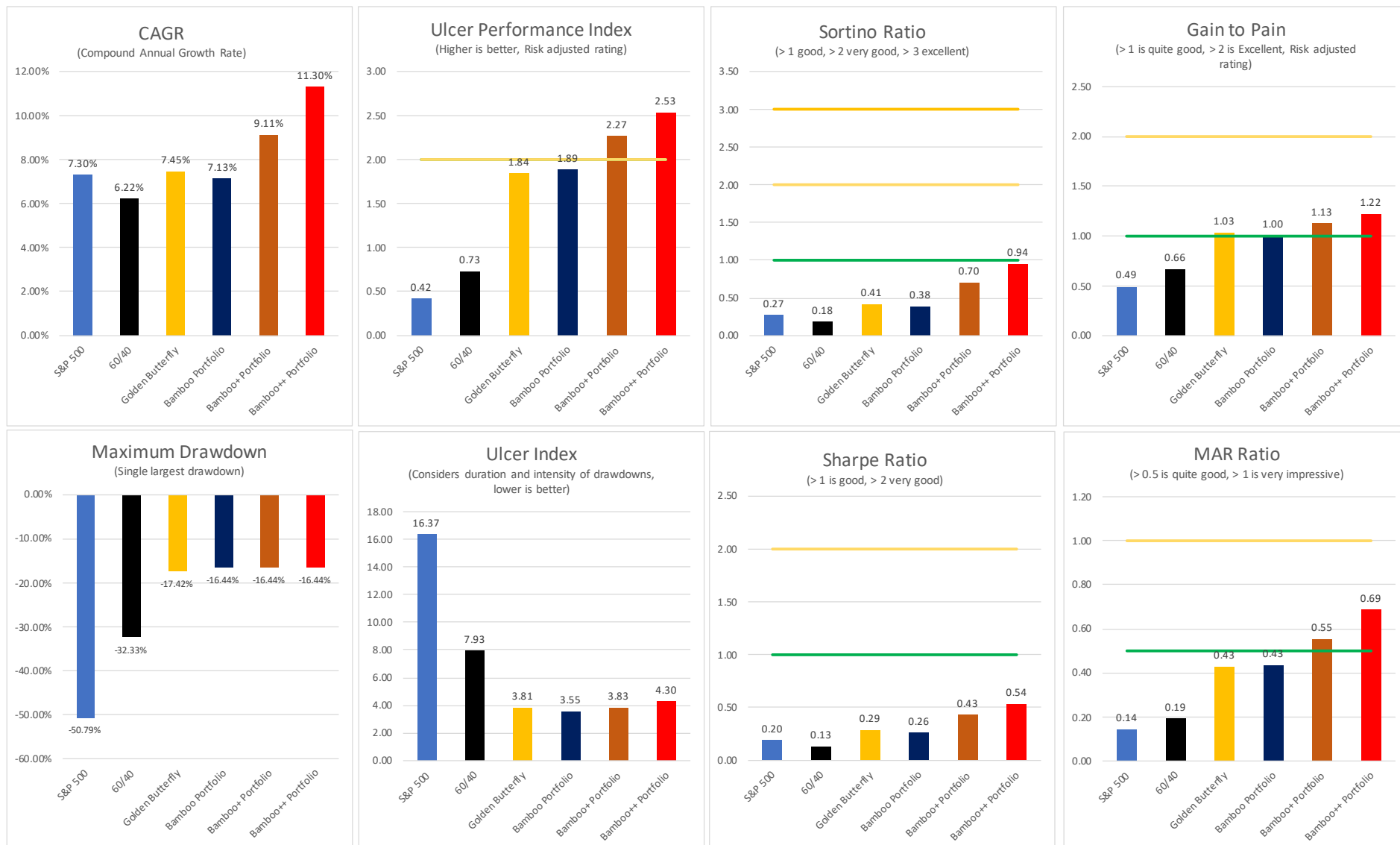
Maximum Drawdown: The largest negative drawdown for the strategy, on a month end basis

Ulcer Index: Measures how bad drawdowns are for an investment, not related to gains, just drawdowns

Sharpe Ratio: A commonly used risk adjusted performance measure, however, it penalizes for upside volatility

MAR Ratio: A risk adjusted performance ratio, uses maximum drawdown in it's calculations

Metrics Comparisons: Bamboo Portfolios vs S&P 500 & 60/40 & Golden Butterfly 2000 to current



All Metrics are calculated from Monthly returns

36 Month Strategy Return Correlations

		←Conservative			Aggressive →	
	S&P 500	Balanced 60/40	Golden Butterfly	Bamboo Portfolio	Bamboo+ Portfolio	Bamboo++ Portfolio
S&P 500	1.00					
Balanced 60/40	0.99	1.00				
Golden Butterfly	0.90	0.94	1.00			
Bamboo Portfolio	0.89	0.88	0.92	1.00		
Bamboo+ Portfolio	0.85	0.84	0.88	0.96	1.00	
Bamboo++ Portfolio	0.79	0.78	0.98	0.89	0.98	1.00



Thank you for your time, my hope is that these strategies may help you grow your investments more than a market index fund, with less drawdowns along the way.

Countless hours of thought, development, and modeling have gone into the DMS strategies which were inspired from the work of Gary Antonacci at www.OptimalMomentum.com. I have entrusted my invested net worth into these strategies, I am not looking to gain from anybody else who choose to use them, I simply want to share what I think are fantastic ways to invest money for the long run. Receive the strategy information free by emailin me and getting on the distribution list, your information is kept private.

A handwritten signature in black ink, appearing to read "Randy".



Extended Data & Out of Sample

Extended Data

The strategies use ETF monthly total return data. Leveraged ETF data is used as far back as it is available, it is simulated using the available daily return total data to extend the leverage returns back in time. At this time, only the leveraged S&P 500 from 1970 through 1979 had to be simulated on monthly data instead of daily, if that information becomes available to me it will be updated. This deck is reporting back to 1980 for all strategies, I do have Global Navigator and LT Gain 3 back to 1970 but as mentioned the extended data for the 1970's should be based on daily returns.

The Nasdaq 100 benchmark data is based on Nasdaq 100 back to 1986, however, it didn't exist or data can't be found before that time, so the Nasdaq Composite is used pre-1986 as a proxy. I couldn't reliably emulate Nasdaq 100 from Nasdaq comp.

In Sample, and Out of Sample

The strategies were created with available data from 2000 through the time each strategy was created. Because this data was available and used in the modeling of each strategy, it is considered "In Sample". "Out of Sample" is the period that the strategy is looking at for which returns were not available when the strategies were created. 1980 through 2000, and from when the strategy was finalized forward is all out of sample.

Nothing was changed to any of the strategies after seeing the additional 20 years from 1980 through 2000, nor were any of the strategies changed or modified due to any returns which have resulted after the strategies were created. I use these strategies myself to invest my hard earned dollars in them, I don't want to fool anybody, most especially not myself by tweaking the strategies to handle some big incident better than it was originally designed to do, no data mining!