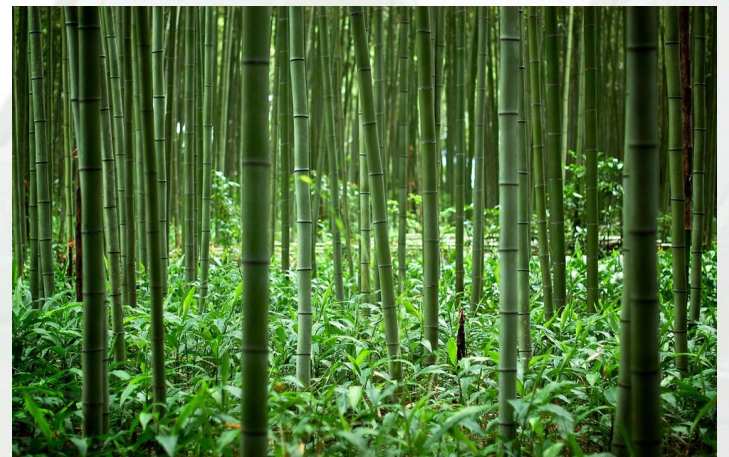# DUAL MOMENTUM SYSTEMS

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

DUAL MOMENTUM SYSTEMS

Disclosure

Fair Use

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DMS Allocation Strategies

Dual Momentum Systems, aka DMS, was the brought about because I think it's a much better approach than buy and hold. It can lag the market in a hot market, althought 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
May 2024

Strategy Components Invested:

←Conservative   Aggressive →

Month	Bamboo Portfolio	Bamboo+ Portfolio	Bamboo++ Portfolio
May 2023	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	SSO: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	UPRO: 40%, BND: 20%, DBMF: 20%, SGOL: 20%
Jun 2023	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	SSO: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	UPRO: 40%, BND: 20%, DBMF: 20%, SGOL: 20%
Jul 2023	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	SSO: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	UPRO: 40%, BND: 20%, DBMF: 20%, SGOL: 20%
Aug 2023	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	SSO: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	UPRO: 40%, BND: 20%, DBMF: 20%, SGOL: 20%
Sep 2023	IWB: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	SSO: 40%, BND: 20%, DBMF: 20%, SGOL: 20%	UPRO: 40%, 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%
May 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 May, 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.

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DMS Bamboo Portfolios
Rolling 24 Month Returns
Through April 30, 2024

Returns and Maximum Drawdown:

←Conservative   Aggressive →

Month	US Market IWB	Balanced 60/40	Golden Butterfly	Bamboo Portfolio	Bamboo+ Portfolio	Bamboo++ Portfolio
May 2022	-0.23%	0.47%	-0.66%	-0.85%	-0.85%	-0.85%
Jun 2022	-8.37%	-5.61%	-4.40%	-2.73%	-2.73%	-2.73%
Jul 2022	9.27%	6.48%	3.54%	2.06%	2.06%	2.06%
Aug 2022	-3.84%	-3.57%	-2.87%	-1.82%	-1.82%	-1.82%
Sep 2022	-9.17%	-7.22%	-6.06%	-3.05%	-3.05%	-3.05%
Oct 2022	7.90%	4.41%	2.40%	2.30%	2.30%	2.30%
Nov 2022	5.35%	4.80%	5.23%	1.62%	1.62%	1.62%
Dec 2022	-5.75%	-3.78%	-2.06%	-1.51%	-3.69%	-5.81%
Jan 2023	6.64%	5.10%	6.00%	3.83%	6.06%	8.42%
Feb 2023	-2.38%	-2.57%	-3.15%	-2.46%	-3.84%	-5.23%
Mar 2023	3.17%	3.30%	2.22%	1.98%	1.99%	2.00%
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	3.26%	2.30%	3.76%	4.30%	4.30%	4.30%
Apr 2024	-4.18%	-3.38%	-2.79%	-0.64%	-0.64%	-0.64%
24 Mo Rtrn:	**24.74%**	**14.50%**	**7.82%**	**15.66%**	**14.61%**	**13.45%**
CAGR	**11.69%**	**7.01%**	**3.84%**	**7.55%**	**7.06%**	**6.51%**
Max DD:	-8.67%	-6.84%	-7.21%	-3.74%	-7.17%	-10.81%
b/(w) S&P 500:	0.0%	-10.2%	-16.9%	-9.1%	-10.1%	-11.3%

$10,000 turns into:

←Conservative   Aggressive →

Month	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
May 2022	$ 9,977	$ 10,047	$ 9,934	$ 9,915	$ 9,915	$ 9,915
Jun 2022	$ 9,142	$ 9,483	$ 9,496	$ 9,644	$ 9,644	$ 9,644
Jul 2022	$ 9,989	$ 10,097	$ 9,833	$ 9,843	$ 9,843	$ 9,843
Aug 2022	$ 9,606	$ 9,737	$ 9,551	$ 9,664	$ 9,664	$ 9,664
Sep 2022	$ 8,725	$ 9,034	$ 8,972	$ 9,370	$ 9,370	$ 9,370
Oct 2022	$ 9,414	$ 9,433	$ 9,188	$ 9,585	$ 9,585	$ 9,585
Nov 2022	$ 9,918	$ 9,886	$ 9,668	$ 9,740	$ 9,740	$ 9,740
Dec 2022	$ 9,348	$ 9,512	$ 9,469	$ 9,594	$ 9,381	$ 9,175
Jan 2023	$ 9,968	$ 9,997	$ 10,037	$ 9,961	$ 9,949	$ 9,947
Feb 2023	$ 9,731	$ 9,740	$ 9,721	$ 9,716	$ 9,567	$ 9,428
Mar 2023	$ 10,040	$ 10,061	$ 9,936	$ 9,908	$ 9,758	$ 9,616
Apr 2023	$ 10,163	$ 10,182	$ 9,971	$ 10,008	$ 9,911	$ 9,810
May 2023	$ 10,211	$ 10,162	$ 9,818	$ 9,986	$ 9,882	$ 9,763
Jun 2023	$ 10,895	$ 10,549	$ 10,081	$ 10,276	$ 10,424	$ 10,581
Jul 2023	$ 11,272	$ 10,750	$ 10,269	$ 10,469	$ 10,751	$ 11,068
Aug 2023	$ 11,076	$ 10,617	$ 10,076	$ 10,357	$ 10,517	$ 10,688
Sep 2023	$ 10,545	$ 10,210	$ 9,626	$ 10,078	$ 9,981	$ 9,875
Oct 2023	$ 10,294	$ 10,015	$ 9,529	$ 10,081	$ 9,980	$ 9,872
Nov 2023	$ 11,255	$ 10,745	$ 10,117	$ 10,515	$ 10,416	$ 10,308
Dec 2023	$ 11,817	$ 11,192	$ 10,641	$ 10,794	$ 10,696	$ 10,588
Jan 2024	$ 11,976	$ 11,292	$ 10,538	$ 10,869	$ 10,771	$ 10,662
Feb 2024	$ 12,607	$ 11,584	$ 10,690	$ 11,160	$ 11,058	$ 10,947
Mar 2024	$ 13,018	$ 11,851	$ 11,091	$ 11,640	$ 11,534	$ 11,418
Apr 2024	$ 12,474	$ 11,450	$ 10,782	$ 11,566	$ 11,461	$ 11,345

Rolling 24 Month Returns

Legend: Bamboo Portfolio — Bamboo+ Portfolio — Bamboo++ Portfolio — Golden Butterfly — Golden Butterfly — 60/40 — IWB

randy@dualmomentumsystems.com
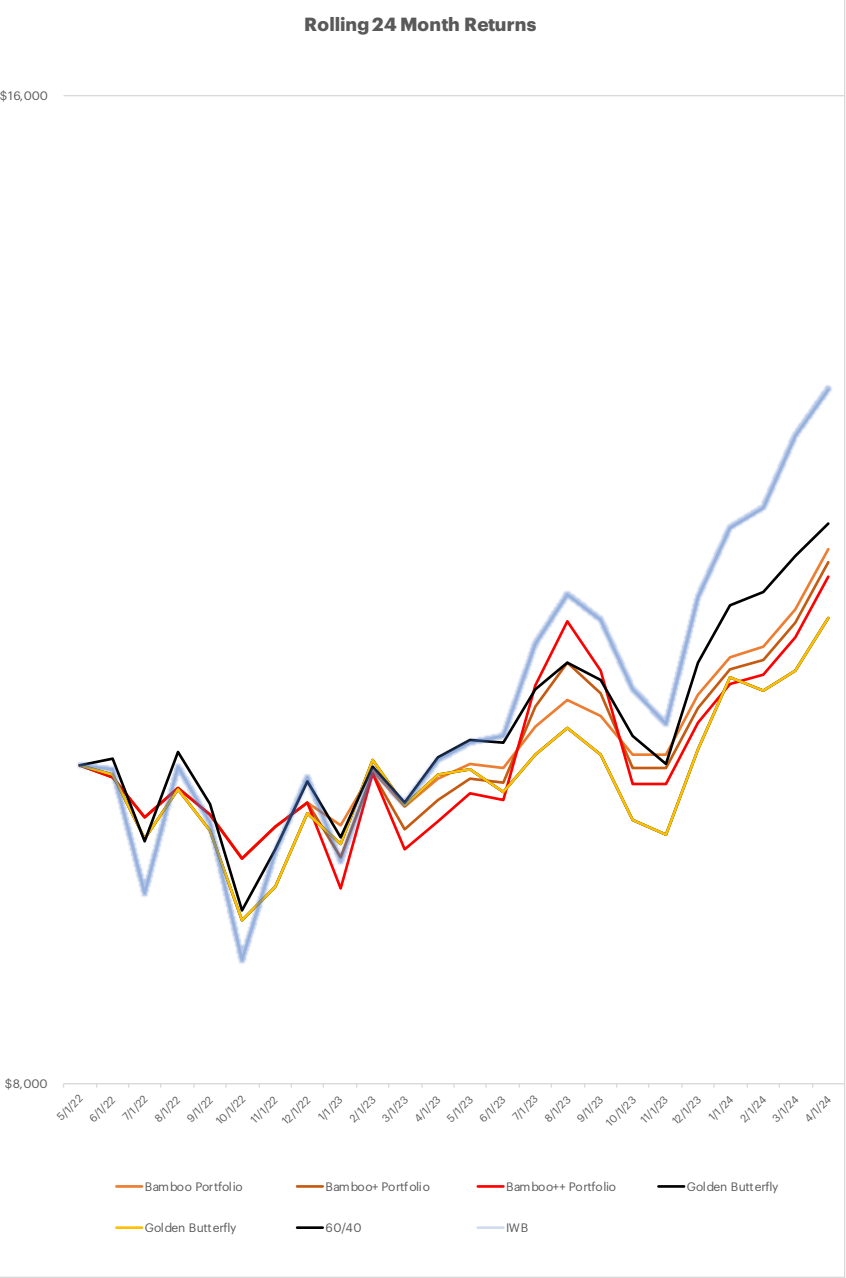
DMS Allocation Investment Strategies
1980 through April 30, 2024

Annual returns: ←Conservative   Aggressive →

| Year End | Benchmarks | | | Allocation Strategies | | |
	US Market IWB	Balanced 60/40	Golden Butterfly	Bamboo Portfolio	Bamboo+ Portfolio	Bamboo++ Portfolio
1980	31.87%	21.02%	15.32%	27.82%	27.82%	27.82%
1981	-5.10%	0.07%	-1.44%	-2.15%	-2.15%	-2.15%
1982	20.31%	25.68%	27.28%	20.12%	28.39%	37.83%
1983	22.13%	16.21%	12.26%	11.66%	20.09%	29.98%
1984	4.75%	9.84%	3.87%	2.70%	2.70%	2.70%
1985	32.26%	27.65%	24.78%	23.22%	23.22%	23.22%
1986	17.87%	17.65%	17.37%	14.97%	14.97%	14.97%
1987	2.93%	4.81%	5.17%	16.92%	16.92%	16.92%
1988	17.26%	12.64%	9.73%	9.33%	10.47%	11.62%
1989	30.43%	24.20%	15.06%	14.67%	28.22%	45.57%
1990	-4.21%	1.56%	-2.54%	3.30%	3.30%	3.30%
1991	33.04%	24.30%	19.73%	15.24%	20.75%	26.77%
1992	8.93%	7.35%	9.25%	3.69%	3.69%	3.69%
1993	10.18%	9.66%	14.57%	11.44%	11.44%	11.44%
1994	0.39%	-0.77%	-1.93%	-0.93%	-0.93%	-0.93%
1995	37.77%	29.81%	22.05%	21.45%	21.45%	21.45%
1996	22.45%	14.70%	8.36%	10.46%	10.46%	10.46%
1997	32.85%	23.58%	13.25%	12.75%	12.75%	12.75%
1998	27.02%	21.01%	7.91%	13.65%	16.55%	19.58%
1999	20.91%	11.65%	3.66%	8.16%	10.22%	12.10%
2000	-6.15%	-1.49%	7.27%	0.65%	0.65%	0.65%
2001	-12.15%	-3.81%	3.01%	-2.65%	-2.65%	-2.65%
2002	-22.31%	-9.80%	3.13%	0.64%	-1.32%	-3.13%
2003	30.05%	18.19%	18.45%	19.97%	34.90%	54.45%
2004	11.02%	8.00%	9.97%	6.40%	10.39%	14.63%
2005	6.34%	3.87%	8.09%	7.17%	6.54%	6.01%
2006	15.41%	10.95%	12.56%	12.73%	12.73%	12.73%
2007	5.32%	5.94%	9.55%	11.48%	11.48%	11.48%
2008	-37.40%	-21.86%	-4.89%	-10.40%	-10.40%	-10.40%
2009	28.33%	18.66%	12.71%	16.66%	29.25%	43.46%
2010	16.08%	12.04%	16.51%	15.40%	19.94%	25.36%
2011	1.23%	4.38%	8.31%	3.00%	3.71%	4.35%
2012	16.51%	11.39%	9.01%	8.24%	14.05%	20.36%
2013	32.78%	17.44%	5.64%	7.16%	7.16%	7.16%
2014	13.07%	10.56%	9.72%	9.16%	9.16%	9.16%
2015	0.79%	1.11%	-3.27%	-1.75%	-1.75%	-1.75%
2016	12.04%	8.34%	9.56%	6.38%	6.38%	6.38%
2017	21.53%	14.26%	10.96%	12.44%	12.44%	12.44%
2018	-4.89%	-2.47%	-3.93%	-3.52%	-3.52%	-3.52%
2019	31.04%	21.98%	17.86%	20.11%	20.11%	20.11%
2020	20.77%	14.73%	14.53%	15.20%	24.05%	34.84%
2021	26.32%	15.74%	8.89%	11.65%	17.57%	23.48%
2022	-19.19%	-15.86%	-12.84%	-6.09%	-8.17%	-10.19%
2023	26.42%	17.66%	12.38%	12.51%	14.02%	15.40%
2024	5.55%	5.02%	4.11%	9.34%	9.34%	9.34%
+/- 60/40 YTD:	0.5%	0.0%	-0.9%	4.3%	4.3%	4.3%
CAGR	11.7%	9.9%	8.9%	9.1%	11.1%	13.2%

Strategy Fact Sheets

Dual Momentum Strategies: **Bamboo Portfolio**

A fixed allocation strategy rebalanced annually

Investment selection for May 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.

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	4.08%

Annualized Returns actual YTD for current year.

Investment	YTD	1 Year	3 Year	5 Year	10 Year	2000+	1980+
Bamboo Portfolio	9.34%	15.57%	6.50%	9.94%	7.75%	7.08%	9.10%
Balanced 60/40	5.02%	12.46%	3.44%	7.95%	7.99%	6.06%	9.88%
Russell 1000	5.55%	22.74%	6.85%	12.74%	12.00%	7.30%	11.75%

Maximum Drawdown, single largest drawdown.

Investment	YTD	1 Year	3 Year	5 Year	10 Year	2000+	1980+
Bamboo Portfolio	-0.64%	-3.74%	-8.38%	-8.38%	-8.38%	-16.44%	-16.44%
Balanced 60/40	-3.38%	-6.84%	-20.09%	-20.09%	-20.09%	-32.33%	-32.33%
Russell 1000	-4.18%	-8.67%	-24.57%	-24.57%	-24.57%	-51.03%	-51.03%

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+	1980+
Bamboo Portfolio	0.29	1.50	3.14	2.82	2.67	3.54	3.04
Balanced 60/40	1.51	2.56	9.03	7.27	5.33	7.92	6.23
Russell 1000	1.87	3.25	10.58	8.91	6.77	16.49	12.95

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

Investment	YTD	1 Year	3 Year	5 Year	10 Year	2000+	1980+
Bamboo Portfolio	8.52	2.57	0.25	0.82	0.51	0.37	0.77
Balanced 60/40	0.29	1.10	(0.11)	0.36	0.42	0.16	0.71
Russell 1000	1.48	2.10	0.24	0.68	0.70	0.27	0.67

Mininum, Average, and Maximum monthly performance.

	Bamboo	Bamboo+	Bamboo++
MIN	-9.2%	-9.16%	-9.16%
AVE	0.5%	0.58%	0.70%
MAX	9.4%	11.61%	16.51%

Allocation Stats from 1980+

	Bamboo	Bamboo+	Bamboo++
Winning Months	346	342	342
Ave Winning Month	1.01%	1.18%	1.35%
Total Gain	686%	809%	950%
Net Gain	401%	487%	583%
Win to Loss Ratio	2.41	2.51	2.59
Gain to Pain Ratio	1.41	1.51	1.59
Losing Months	186	190	190
Ave Losing Month	-1.53%	-1.70%	-1.93%
Total Loss	-284%	-322%	-367%

Dual Momentum Systems: LT Gain+

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

Legend: Relative Strength vs 60/40 — Balanced 60/40 — Russell 1000 — Bamboo Portfolio

Bamboo+ Portfolio vs S&P 500 Drawdown | 20000+

Legend: 60/40 — Bamboo Portfolio

Bamboo Portfolio inception date June 2023.

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Dual Momentum Strategies: Bamboo+ Portfolio

A fixed allocation strategy rebalanced annually

Investment selection for May 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)
1.69

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	109%
Maximum	140%

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 60/40over 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.

Metric	2000+
Beta	0.46
Alpha	5.53%

Annualized Returns actual YTD for current year.

Investment	YTD	1 Year	3 Year	5 Year	10 Year	2000+	1980+
Bamboo+ Portfolio	9.34%	15.64%	6.38%	12.54%	9.01%	9.06%	11.08%
Balanced 60/40	5.02%	12.46%	3.44%	7.95%	7.99%	6.06%	9.88%
Russell 1000	5.55%	22.74%	6.85%	12.74%	12.00%	7.30%	11.75%

Maximum Drawdown, single largest drawdown.

Investment	YTD	1 Year	3 Year	5 Year	10 Year	2000+	1980+
Bamboo+ Portfolio	-0.64%	-7.17%	-8.38%	-8.38%	-8.38%	-16.44%	-16.44%
Balanced 60/40	-3.38%	-6.84%	-20.09%	-20.09%	-20.09%	-32.33%	-32.33%
Russell 1000	-4.18%	-8.67%	-24.57%	-24.57%	-24.57%	-51.03%	-51.03%

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+	1980+
Bamboo+ Portfolio	0.29	3.01	3.76	3.37	2.98	3.82	3.24
Balanced 60/40	1.51	2.56	9.03	7.27	5.33	7.92	6.23
Russell 1000	1.87	3.25	10.58	8.91	6.77	16.49	12.95

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

Investment	YTD	1 Year	3 Year	5 Year	10 Year	2000+	1980+
Bamboo+ Portfolio	8.52	1.57	0.21	1.06	0.67	0.68	1.06
Balanced 60/40	0.29	1.10	(0.11)	0.36	0.42	0.16	0.71
Russell 1000	1.48	2.10	0.24	0.68	0.70	0.27	0.67

Mininum, Average, and Maximum monthly performance.

	Bamboo	Bamboo+	Bamboo++
MIN	-9.2%	-9.16%	-9.16%
AVE	0.5%	0.58%	0.70%
MAX	9.4%	11.61%	16.51%

Allocation Stats from 1980+
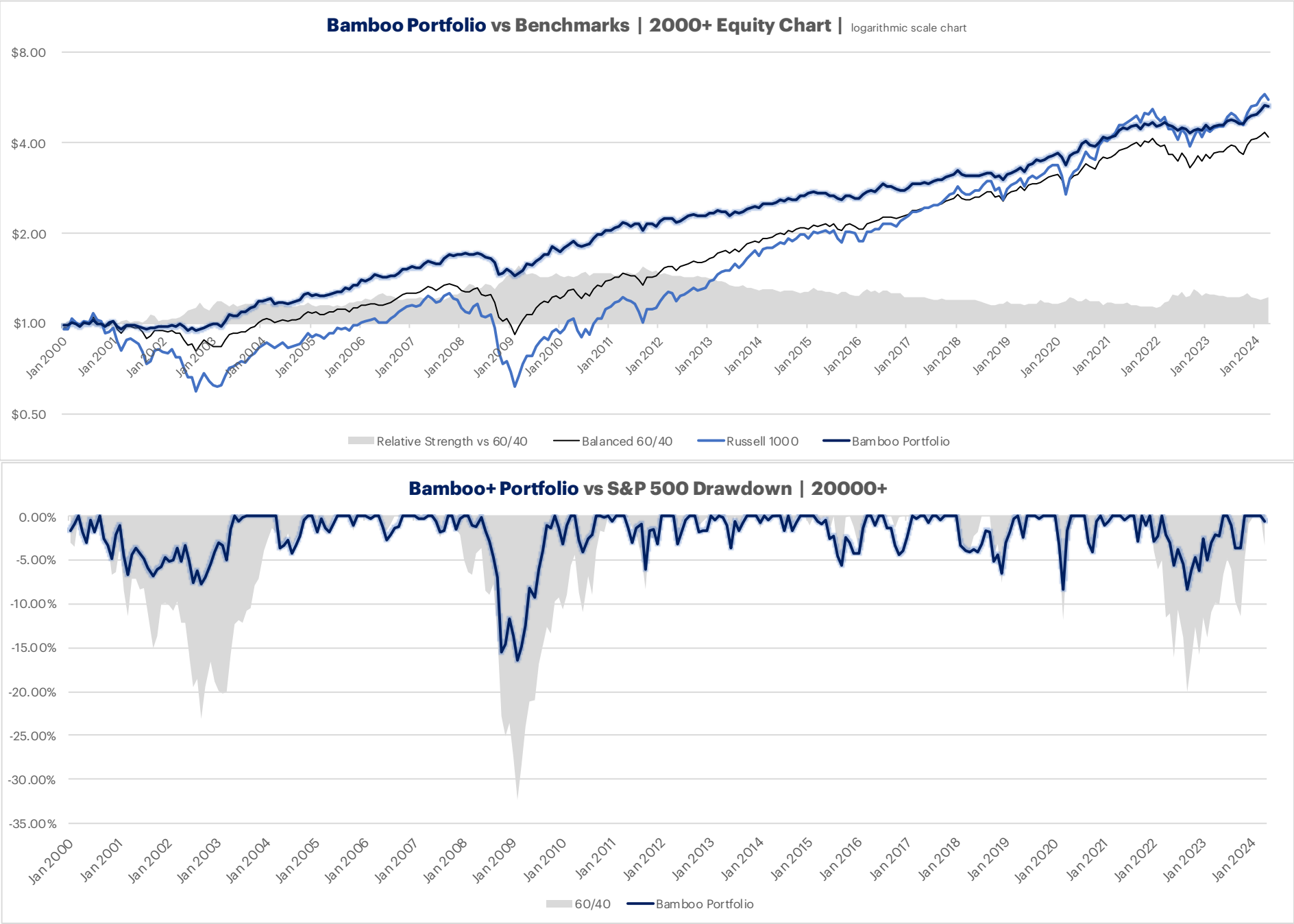
	Bamboo	Bamboo+	Bamboo++
Winning Months	346	342	342
Ave Winning Month	1.01%	1.18%	1.35%
Total Gain	686%	809%	950%
Net Gain	401%	487%	583%
Win to Loss Ratio	2.41	2.51	2.59
Gain to Pain Ratio	1.41	1.51	1.59
Losing Months	186	190	190
Ave Losing Month	-1.53%	-1.70%	-1.93%
Total Loss	-284%	-322%	-367%

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

Legend: Relative Strength vs 60/40 — Balanced 60/40 — Russell 1000 — Bamboo Portfolio — Bamboo+ Portfolio

Bamboo+ Portfolio vs Russell 1000 Drawdown | 2000+

Legend: 60/40 — Bamboo+ Portfolio

Bamboo+ Portfolio inception date June 2023.

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Dual Momentum Strategies: Bamboo++ Portfolio

A fixed allocation strategy rebalanced annually

Investment selection for May 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)
1.69

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.

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	118%
Maximum	180%

Metric	2000+
Beta	0.46
Alpha	5.53%

Annualized Returns, actual YTD for current year.

Investment	YTD	1 Year	3 Year	5 Year	10 Year	2000+	1980+
Bamboo++ Portfolio	9.34%	15.65%	6.16%	15.32%	10.36%	11.24%	13.25%
Balanced 60/40	5.02%	12.46%	3.44%	7.95%	7.99%	6.06%	9.88%
Russell 1000	5.55%	22.74%	6.85%	12.74%	12.00%	7.30%	11.75%

Maximum Drawdrown , single largest drawdown.

Investment	YTD	1 Year	3 Year	5 Year	10 Year	2000+	1980+
Bamboo++ Portfolio	-0.64%	-10.81%	-10.81%	-10.81%	-10.81%	-16.44%	-16.44%
Balanced 60/40	-3.38%	-6.84%	-20.09%	-20.09%	-20.09%	-32.33%	-32.33%
Russell 1000	-4.18%	-8.67%	-24.57%	-24.57%	-24.57%	-51.03%	-51.03%

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+	1980+
Bamboo++ Portfolio	0.29	5.01	4.71	4.20	3.47	4.29	3.62
Balanced 60/40	1.51	2.56	9.03	7.27	5.33	7.92	6.23
Russell 1000	1.87	3.25	10.58	8.91	6.77	16.49	12.95

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

Investment	YTD	1 Year	3 Year	5 Year	10 Year	2000+	1980+
Bamboo++ Portfolio	8.52	1.14	0.17	1.21	0.79	0.93	1.28
Balanced 60/40	0.29	1.10	(0.11)	0.36	0.42	0.16	0.71
Russell 1000	1.48	2.10	0.24	0.68	0.70	0.27	0.67

Mininum, Average, and Maximum monthly performance.

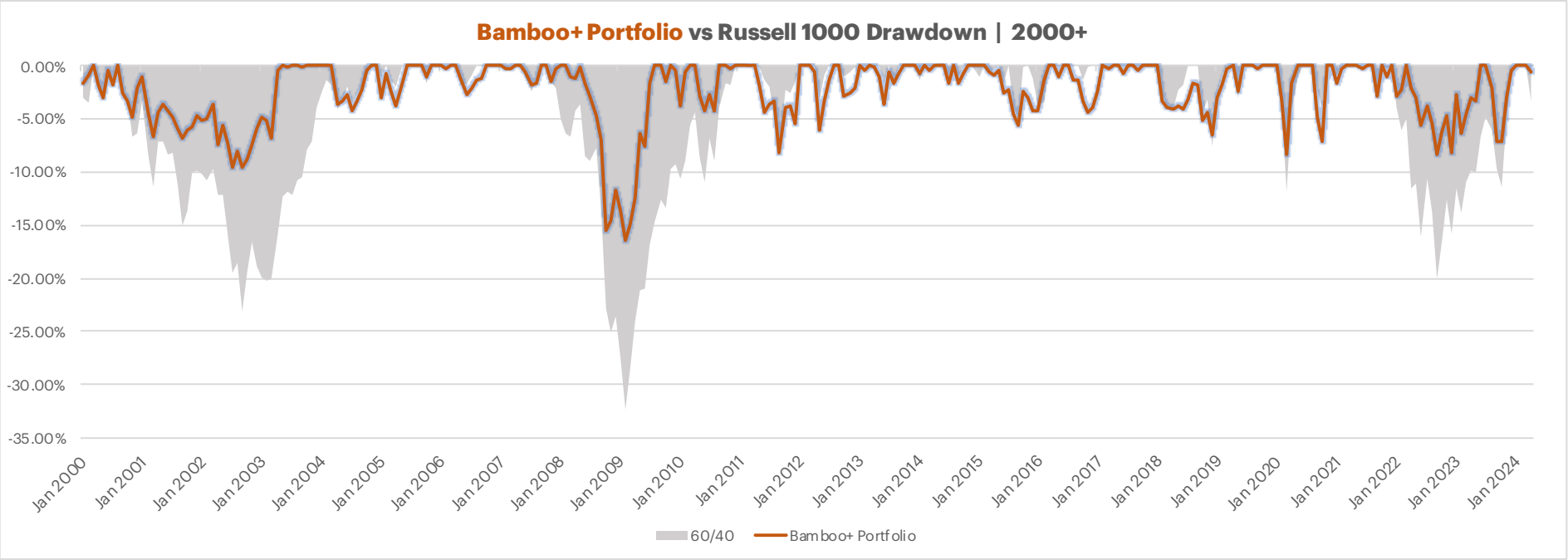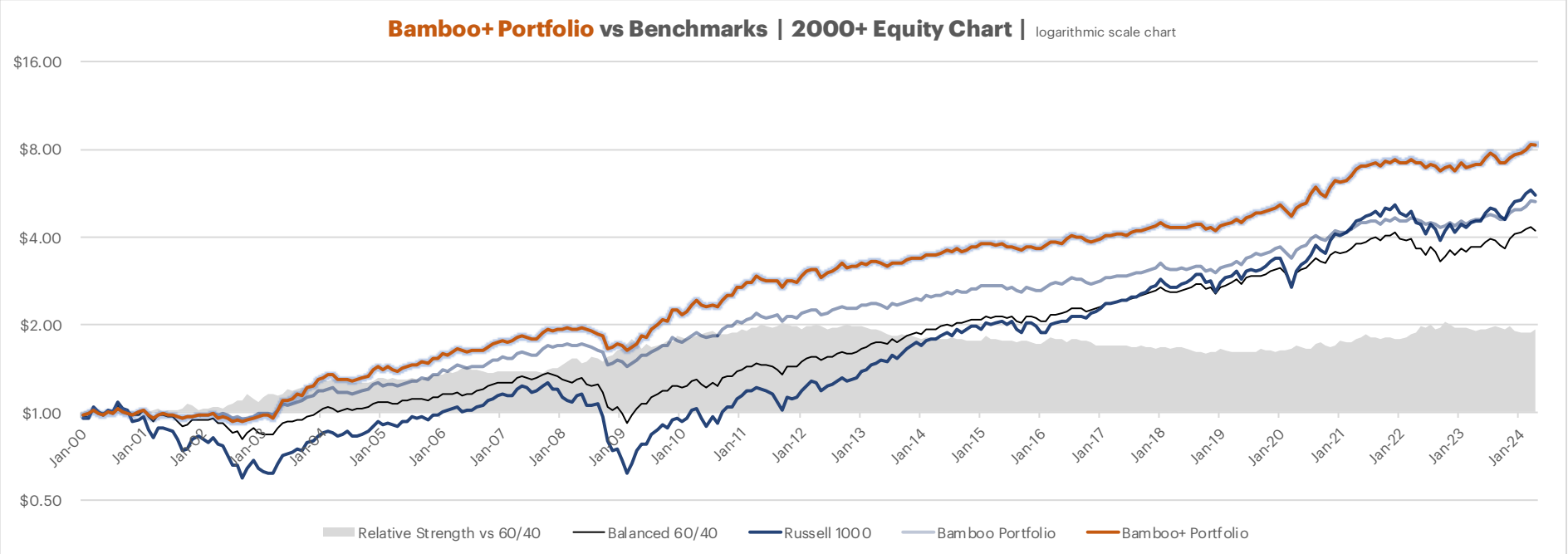|	Bamboo	Bamboo+	Bamboo++
MIN	-9.2%	-9.16%	-9.16%
AVE	0.5%	0.58%	0.70%
MAX	9.4%	11.61%	16.51%

Allocation Stats from 1980+

	Bamboo	Bamboo+	Bamboo++
Winning Months	346	342	342
Ave Winning Month	1.01%	1.18%	1.35%
Total Gain	686%	809%	950%
Net Gain	401%	487%	583%
Win to Loss Ratio	2.41	2.51	2.59
Gain to Pain Ratio	1.41	1.51	1.59
Losing Months	186	190	190
Ave Losing Month	-1.53%	-1.70%	-1.93%
Total Loss	-284%	-322%	-367%

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

Legend: Relative Strength vs S&P 500 — Balanced 60/40 — Russell 1000 — Bamboo Portfolio — Bamboo+ Portfolio — Bamboo++ Portfolio

Bamboo++ Portfolio vs S&P 500 Drawdown | 1980+

Legend: Russell 1000 — 60/40 — Bamboo+ Portfolio

Bamboo++ Portfolio inception date June 2023.

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Equity & Return Charts

Bamboo Portfolios vs Benchmarks
1980+ Equity
logarithmic scale chart

Results through 04/30/2024

Legend: Bamboo Portfolio — Bamboo+ Portfolio — Bamboo++ Portfolio — Golden Butterfly — 60/40 — IWB

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Bamboo Portfolios vs Benchmarks
2000+ Equity
logarithmic scale chart

Legend: Bamboo Portfolio — Bamboo+ Portfolio — Bamboo++ Portfolio — Golden Butterfly — 60/40 — IWB

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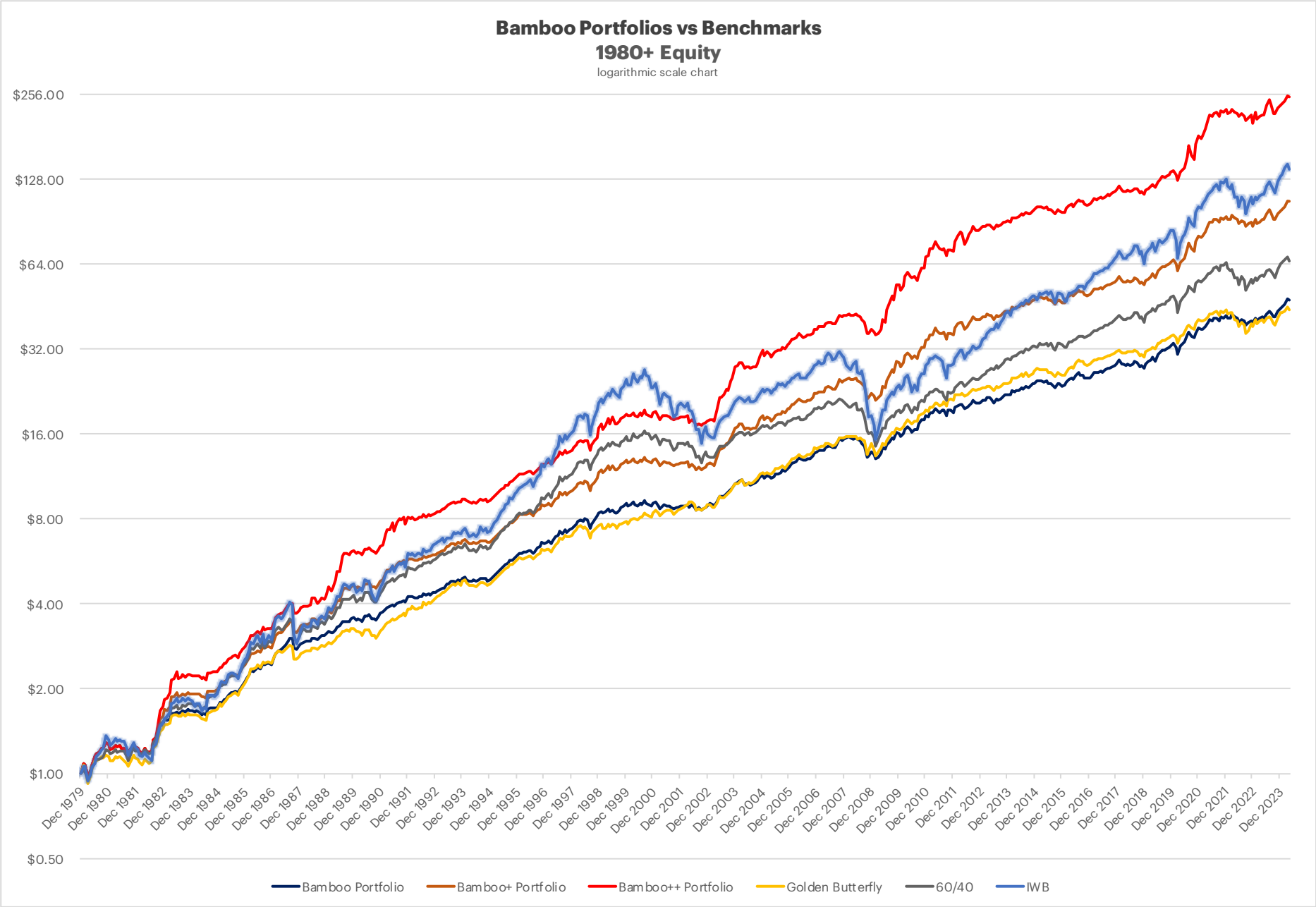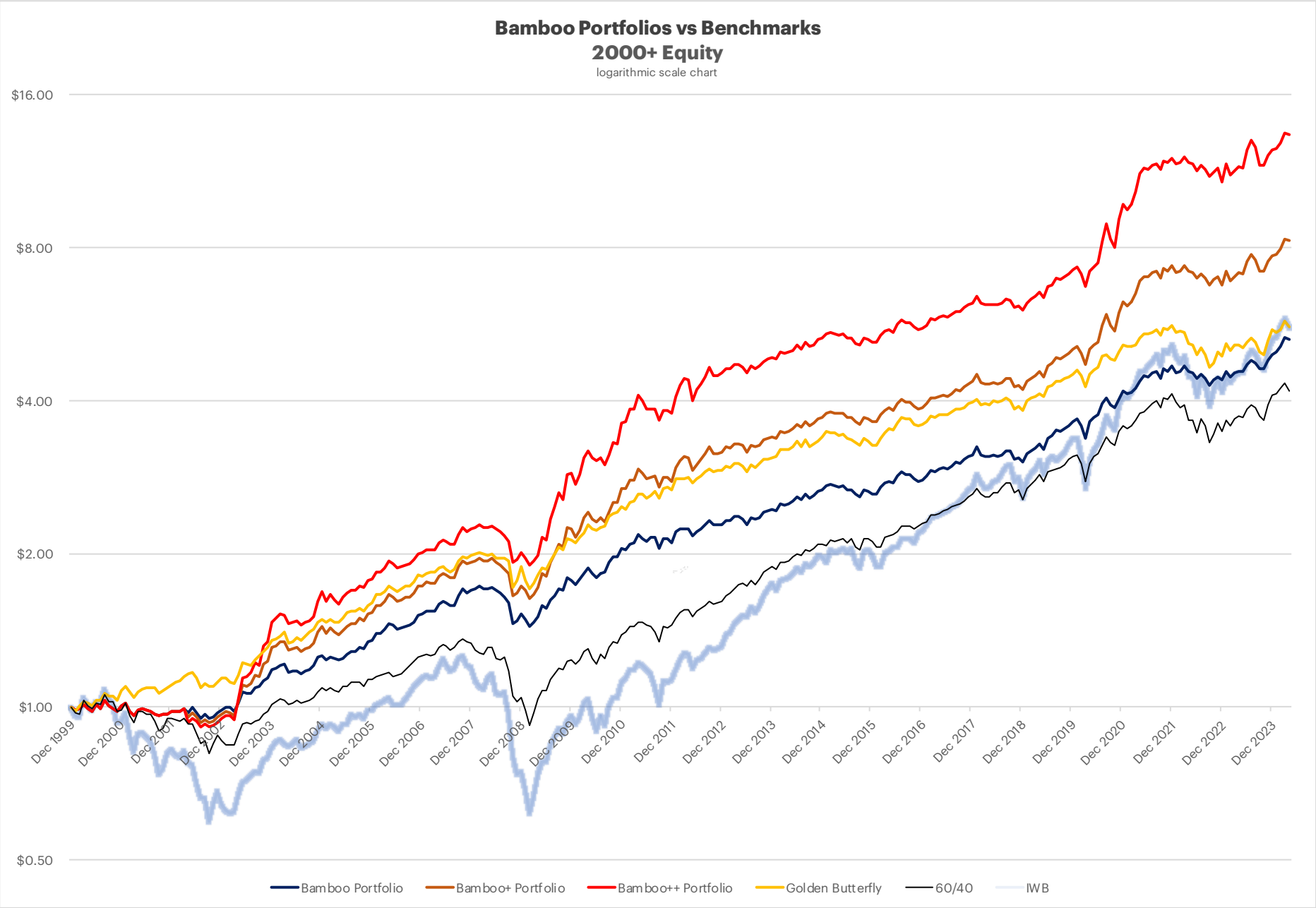
Metrics, Annual Returns

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 Russell 1000 & 60/40 & Golden Butterfly
1980 to current

CAGR
(Compound Annual Growth Rate)

Portfolio	Value
Russell 1000	11.75%
60/40	9.88%
Golden Butterfly	8.89%
Bamboo Portfolio	9.10%
Bamboo+ Portfolio	11.08%
Bamboo++ Portfolio	13.25%

Ulcer Performance Index
(Higher is better, Risk adjusted rating)

Portfolio	Value
Russell 1000	0.87
60/40	1.52
Golden Butterfly	2.49
Bamboo Portfolio	2.85
Bamboo+ Portfolio	3.28
Bamboo++ Portfolio	3.54

Sortino Ratio
(> 1 good, > 2 very good, > 3 excellent)

Portfolio	Value
Russell 1000	0.67
60/40	0.71
Golden Butterfly	0.66
Bamboo Portfolio	0.77
Bamboo+ Portfolio	1.06
Bamboo++ Portfolio	1.28

Gain to Pain
(> 1 is quite good, > 2 is Excellent, Risk adjusted rating)

Portfolio	Value
Russell 1000	0.82
60/40	1.13
Golden Butterfly	1.27
Bamboo Portfolio	1.41
Bamboo+ Portfolio	1.51
Bamboo++ Portfolio	1.59

Maximum Drawdown
(Single largest drawdown)

Portfolio	Value
Russell 1000	-51.03%
60/40	-32.33%
Golden Butterfly	-17.42%
Bamboo Portfolio	-16.44%
Bamboo+ Portfolio	-16.44%
Bamboo++ Portfolio	-16.44%

Ulcer Index
(Considers duration and intensity of drawdowns, lower is better)

Portfolio	Value
Russell 1000	12.95
60/40	6.23
Golden Butterfly	3.39
Bamboo Portfolio	3.04
Bamboo+ Portfolio	3.24
Bamboo++ Portfolio	3.62

Sharpe Ratio
(> 1 is good, > 2 very good)

Portfolio	Value
Russell 1000	0.46
60/40	0.48
Golden Butterfly	0.44
Bamboo Portfolio	0.49
Bamboo+ Portfolio	0.63
Bamboo++ Portfolio	0.70

MAR Ratio
(> 0.5 is quite good, > 1 is very impressive)

Portfolio	Value
Russell 1000	0.23
60/40	0.31
Golden Butterfly	0.51
Bamboo Portfolio	0.55
Bamboo+ Portfolio	0.67
Bamboo++ Portfolio	0.81

All Metrics are calculated from Monthly returns

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Metrics Comparisons: Bamboo Portfolios vs Russell 1000 & 60/40 & Golden Butterfly
2000 to current

CAGR
(Compound Annual Growth Rate)

Portfolio	Value
Russell 1000	7.30%
60/40	6.06%
Golden Butterfly	7.31%
Bamboo Portfolio	7.08%
Bamboo+ Portfolio	9.06%
Bamboo++ Portfolio	11.24%

Ulcer Performance Index
(Higher is better, Risk adjusted rating)

Portfolio	Value
Russell 1000	0.42
60/40	0.71
Golden Butterfly	1.81
Bamboo Portfolio	1.88
Bamboo+ Portfolio	2.26
Bamboo++ Portfolio	2.52

Sortino Ratio
(> 1 good, > 2 very good, > 3 excellent)

Portfolio	Value
Russell 1000	0.27
60/40	0.16
Golden Butterfly	0.38
Bamboo Portfolio	0.37
Bamboo+ Portfolio	0.68
Bamboo++ Portfolio	0.93

Gain to Pain
(> 1 is quite good, > 2 is Excellent, Risk adjusted rating)

Portfolio	Value
Russell 1000	0.48
60/40	0.64
Golden Butterfly	1.01
Bamboo Portfolio	1.00
Bamboo+ Portfolio	1.12
Bamboo++ Portfolio	1.22

Maximum Drawdown
(Single largest drawdown)

Portfolio	Value
Russell 1000	-51.03%
60/40	-32.33%
Golden Butterfly	-17.42%
Bamboo Portfolio	-16.44%
Bamboo+ Portfolio	-16.44%
Bamboo++ Portfolio	-16.44%

Ulcer Index
(Considers duration and intensity of drawdowns, lower is better)

Portfolio	Value
Russell 1000	16.49
60/40	7.92
Golden Butterfly	3.81
Bamboo Portfolio	3.54
Bamboo+ Portfolio	3.82
Bamboo++ Portfolio	4.29

Sharpe Ratio
(> 1 is good, > 2 very good)

Portfolio	Value
Russell 1000	0.19
60/40	0.11
Golden Butterfly	0.27
Bamboo Portfolio	0.25
Bamboo+ Portfolio	0.42
Bamboo++ Portfolio	0.53

MAR Ratio
(> 0.5 is quite good, >1 is very impressive)

Portfolio	Value
Russell 1000	0.14
60/40	0.19
Golden Butterfly	0.42
Bamboo Portfolio	0.43
Bamboo+ Portfolio	0.55
Bamboo++ Portfolio	0.68

All Metrics are calculated from Monthly returns

36 Month Strategy Return Correlations

	IWB	Balanced 60/40	Golden Butterfly	Bamboo Portfolio	Bamboo+ Portfolio	Bamboo++ Portfolio
IWB	100%					
Balanced 60/40	99%	100%				
Golden Butterfly	90%	94%	100%			
Bamboo Portfolio	89%	88%	92%	100%		
Bamboo+ Portfolio	86%	84%	89%	96%	100%	
Bamboo++ Portfolio	80%	78%	98%	90%	98%	100%

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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 chooses 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 emailing me and getting on the distribution list, your information is kept private.

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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 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 periods 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!

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