

# **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.

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## 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 Allocation allocation strategies are going to be inherently more volatile than the dual momentum strategies because they are always invested. The Bamboo+ Allocation and Bamboo++ Allocation 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 November 2024

**Strategy Components Invested:**

←Conservative

Aggressive →

| Month           | Bamboo Allocation                        | Bamboo+ Allocation                       | Bamboo++ Allocation                      |
|-----------------|------------------------------------------|------------------------------------------|------------------------------------------|
| 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% |
| Jun 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% |
| Jul 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% |
| Aug 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% |
| Sep 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% |
| Oct 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% |
| <b>Nov 2024</b> | 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 November, here are the investments by strategy:**

**Bamboo Allocation**

This is an allocation strategy, rebalanced annually.

**Bamboo+ Allocation**

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

**Bamboo++ Allocation**

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 Bamboo Allocations

### Rolling 24 Month Returns Through October 31, 2024

Returns and Maximum Drawdown:

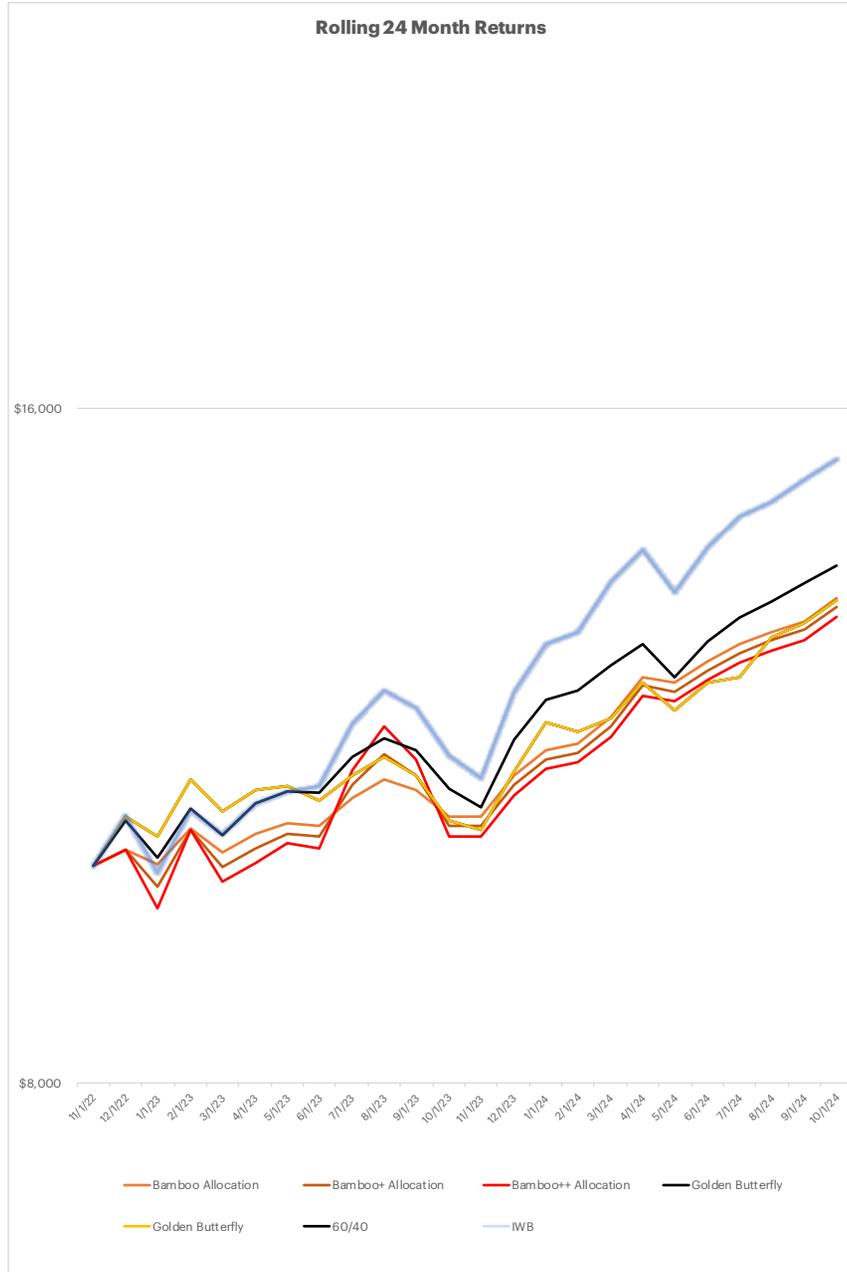
| Month              | ←Conservative    |                   |                  | Aggressive →      |                    |                     |
|--------------------|------------------|-------------------|------------------|-------------------|--------------------|---------------------|
|                    | US Market<br>IWB | Balanced<br>60/40 | Golden Butterfly | Bamboo Allocation | Bamboo+ Allocation | Bamboo++ Allocation |
| 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%              |
| May 2024           | 4.67%            | 3.71%             | 2.88%            | 2.25%             | 2.25%              | 2.25%               |
| Jun 2024           | 3.26%            | 2.47%             | 0.57%            | 1.76%             | 1.76%              | 1.76%               |
| Jul 2024           | 1.47%            | 1.67%             | 4.14%            | 1.32%             | 1.32%              | 1.32%               |
| Aug 2024           | 2.37%            | 1.98%             | 1.45%            | 1.07%             | 1.07%              | 1.07%               |
| Sep 2024           | 2.07%            | 1.78%             | 2.41%            | 2.41%             | 2.41%              | 2.41%               |
| Oct 2024           | -0.68%           | -1.52%            | -0.48%           | -0.59%            | -0.59%             | -0.59%              |
| <b>24 Mo Rtrn:</b> | <b>50.79%</b>    | <b>34.07%</b>     | <b>30.74%</b>    | <b>30.88%</b>     | <b>29.69%</b>      | <b>28.38%</b>       |
| <b>CAGR</b>        | <b>22.80%</b>    | <b>15.79%</b>     | <b>14.34%</b>    | <b>14.40%</b>     | <b>13.88%</b>      | <b>13.30%</b>       |
| <b>Max DD:</b>     | <b>-4.18%</b>    | <b>-3.38%</b>     | <b>-2.79%</b>    | <b>-0.64%</b>     | <b>-0.64%</b>      | <b>-0.64%</b>       |

b/(w) 60/40: 16.7% 0.0% -3.3% -3.2% -4.4% -5.7%

\$10,000 turns into:

| Month            | ←Conservative    |                   |                  | Aggressive →      |                    |                     |
|------------------|------------------|-------------------|------------------|-------------------|--------------------|---------------------|
|                  | US Market<br>IWB | Balanced<br>60/40 | Golden Butterfly | Bamboo Allocation | Bamboo+ Allocation | Bamboo++ Allocation |
| <b>Starting:</b> | \$ 10,000        | \$ 10,000         | \$ 10,000        | \$ 10,000         | \$ 10,000          | \$ 10,000           |
| Nov 2022         | \$ 10,535        | \$ 10,480         | \$ 10,523        | \$ 10,162         | \$ 10,162          | \$ 10,162           |
| Dec 2022         | \$ 9,929         | \$ 10,084         | \$ 10,306        | \$ 10,009         | \$ 9,786           | \$ 9,571            |
| Jan 2023         | \$ 10,589        | \$ 10,598         | \$ 10,925        | \$ 10,392         | \$ 10,379          | \$ 10,378           |
| Feb 2023         | \$ 10,337        | \$ 10,326         | \$ 10,581        | \$ 10,136         | \$ 9,981           | \$ 9,835            |
| Mar 2023         | \$ 10,664        | \$ 10,666         | \$ 10,815        | \$ 10,337         | \$ 10,180          | \$ 10,032           |
| Apr 2023         | \$ 10,795        | \$ 10,794         | \$ 10,853        | \$ 10,441         | \$ 10,340          | \$ 10,234           |
| May 2023         | \$ 10,846        | \$ 10,773         | \$ 10,686        | \$ 10,417         | \$ 10,310          | \$ 10,186           |
| Jun 2023         | \$ 11,573        | \$ 11,183         | \$ 10,972        | \$ 10,721         | \$ 10,875          | \$ 11,039           |
| Jul 2023         | \$ 11,973        | \$ 11,397         | \$ 11,177        | \$ 10,922         | \$ 11,216          | \$ 11,546           |
| Aug 2023         | \$ 11,765        | \$ 11,255         | \$ 10,967        | \$ 10,805         | \$ 10,971          | \$ 11,150           |
| Sep 2023         | \$ 11,201        | \$ 10,823         | \$ 10,477        | \$ 10,514         | \$ 10,413          | \$ 10,302           |
| Oct 2023         | \$ 10,935        | \$ 10,617         | \$ 10,372        | \$ 10,517         | \$ 10,412          | \$ 10,299           |
| Nov 2023         | \$ 11,955        | \$ 11,391         | \$ 11,012        | \$ 10,970         | \$ 10,867          | \$ 10,754           |
| Dec 2023         | \$ 12,553        | \$ 11,865         | \$ 11,582        | \$ 11,261         | \$ 11,158          | \$ 11,046           |
| Jan 2024         | \$ 12,721        | \$ 11,971         | \$ 11,469        | \$ 11,339         | \$ 11,236          | \$ 11,123           |
| Feb 2024         | \$ 13,391        | \$ 12,281         | \$ 11,635        | \$ 11,643         | \$ 11,537          | \$ 11,420           |
| Mar 2024         | \$ 13,828        | \$ 12,563         | \$ 12,072        | \$ 12,144         | \$ 12,033          | \$ 11,912           |
| Apr 2024         | \$ 13,250        | \$ 12,138         | \$ 11,735        | \$ 12,066         | \$ 11,957          | \$ 11,836           |
| May 2024         | \$ 13,868        | \$ 12,588         | \$ 12,073        | \$ 12,338         | \$ 12,226          | \$ 12,103           |
| Jun 2024         | \$ 14,320        | \$ 12,899         | \$ 12,142        | \$ 12,556         | \$ 12,442          | \$ 12,316           |
| Jul 2024         | \$ 14,530        | \$ 13,115         | \$ 12,645        | \$ 12,721         | \$ 12,606          | \$ 12,478           |
| Aug 2024         | \$ 14,875        | \$ 13,375         | \$ 12,828        | \$ 12,857         | \$ 12,740          | \$ 12,611           |
| Sep 2024         | \$ 15,183        | \$ 13,613         | \$ 13,137        | \$ 13,166         | \$ 13,046          | \$ 12,915           |
| Oct 2024         | \$ 15,079        | \$ 13,407         | \$ 13,074        | \$ 13,088         | \$ 12,969          | \$ 12,838           |

Rolling 24 Month Returns



# DMS Allocation Investment Strategies

1980 through October 31, 2024

Annual returns:

← Conservative

Aggressive →

| Year End       | Benchmarks    |                |                  | Allocation Strategies |                    |                     |
|----------------|---------------|----------------|------------------|-----------------------|--------------------|---------------------|
|                | US Market IWB | Balanced 60/40 | Golden Butterfly | Bamboo Allocation     | Bamboo+ Allocation | Bamboo++ Allocation |
| 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           | 20.13%        | 12.99%         | 12.88%           | 16.23%                | 16.23%             | 16.23%              |
| +/- 60/40 YTD: | 7.1%          | 0.0%           | -0.1%            | 3.2%                  | 3.2%               | 3.2%                |
| CAGR           | 11.9%         | 10.0%          | 9.0%             | 9.2%                  | 11.2%              | 13.3%               |

**DUAL  
MOMENTUM  
SYSTEMS**

# **Strategy Fact Sheets**

# Dual Momentum Strategies: Bamboo Allocation

A fixed allocation strategy rebalanced annually

Results through 10/31/2024

## Investment selection for November 2024:

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

## Tax friendliness:

Bamboo Allocation has mostly Long Term Cap Gains.

## Average number of trades per year (including Rebalancing)

1.00

## Portfolio size appropriateness:

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

## Characteristics:

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

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

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

Leverage: Bamboo Allocation never uses any leverage.

## Strategy Description:

The Bamboo Allocation 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 Allocation never uses any leverage, the Bamboo+ Allocation uses 2X Leverage only for the 55% US Large Cap position using the Smart Leverage rules of the Dual Momentum Strategies, and the Bamboo++ Allocation uses 3X Leverage using Smart Leverage.

| Leverage | 2000+ |
|----------|-------|
| Average  | 100%  |
| Maximum  | 100%  |

| Metric | 2000+ |
|--------|-------|
| Beta   | 0.39  |
| Alpha  | 4.16% |

## Annualized Returns actual YTD for current year.

| Investment        | YTD    | 1 Year | 3 Year | 5 Year | 10 Year | 2000+ | 1980+  |
|-------------------|--------|--------|--------|--------|---------|-------|--------|
| Bamboo Allocation | 16.23% | 24.45% | 7.51%  | 10.23% | 8.26%   | 7.29% | 9.20%  |
| Balanced 60/40    | 12.99% | 26.28% | 4.58%  | 9.05%  | 8.45%   | 6.36% | 10.00% |
| Russell 1000      | 20.13% | 37.90% | 8.00%  | 14.85% | 12.61%  | 7.71% | 11.93% |

## Maximum Drawdown single largest drawdown.

| Investment        | YTD    | 1 Year | 3 Year  | 5 Year  | 10 Year | 2000+   | 1980+   |
|-------------------|--------|--------|---------|---------|---------|---------|---------|
| Bamboo Allocation | -0.64% | -0.64% | -8.38%  | -8.38%  | -8.38%  | -16.44% | -16.44% |
| Balanced 60/40    | -3.38% | -3.38% | -20.09% | -20.09% | -20.09% | -32.33% | -32.33% |
| Russell 1000      | -4.18% | -4.18% | -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 Allocation | 0.26 | 0.24   | 3.11   | 2.80   | 2.66    | 3.51  | 3.02  |
| Balanced 60/40    | 1.12 | 1.03   | 9.01   | 7.26   | 5.33    | 7.84  | 6.19  |
| Russell 1000      | 1.28 | 1.18   | 10.55  | 8.87   | 6.77    | 16.32 | 12.87 |

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

| Investment        | YTD  | 1 Year | 3 Year | 5 Year | 10 Year | 2000+ | 1980+ |
|-------------------|------|--------|--------|--------|---------|-------|-------|
| Bamboo Allocation | 9.05 | 12.71  | 0.62   | 1.06   | 0.79    | 0.58  | 0.98  |
| Balanced 60/40    | 2.29 | 4.64   | 0.09   | 0.58   | 0.60    | 0.32  | 0.87  |
| Russell 1000      | 3.55 | 6.15   | 0.40   | 0.92   | 0.84    | 0.38  | 0.77  |

## Minimum, Average, and Maximum monthly performance.

|     | Bamboo | Bamboo+ | Bamboo++ |
|-----|--------|---------|----------|
| MIN | -9.2%  | -9.16%  | -9.16%   |
| AVE | 0.5%   | 0.59%   | 0.70%    |
| MAX | 9.4%   | 11.61%  | 16.51%   |

## Allocation Stats from 1980+

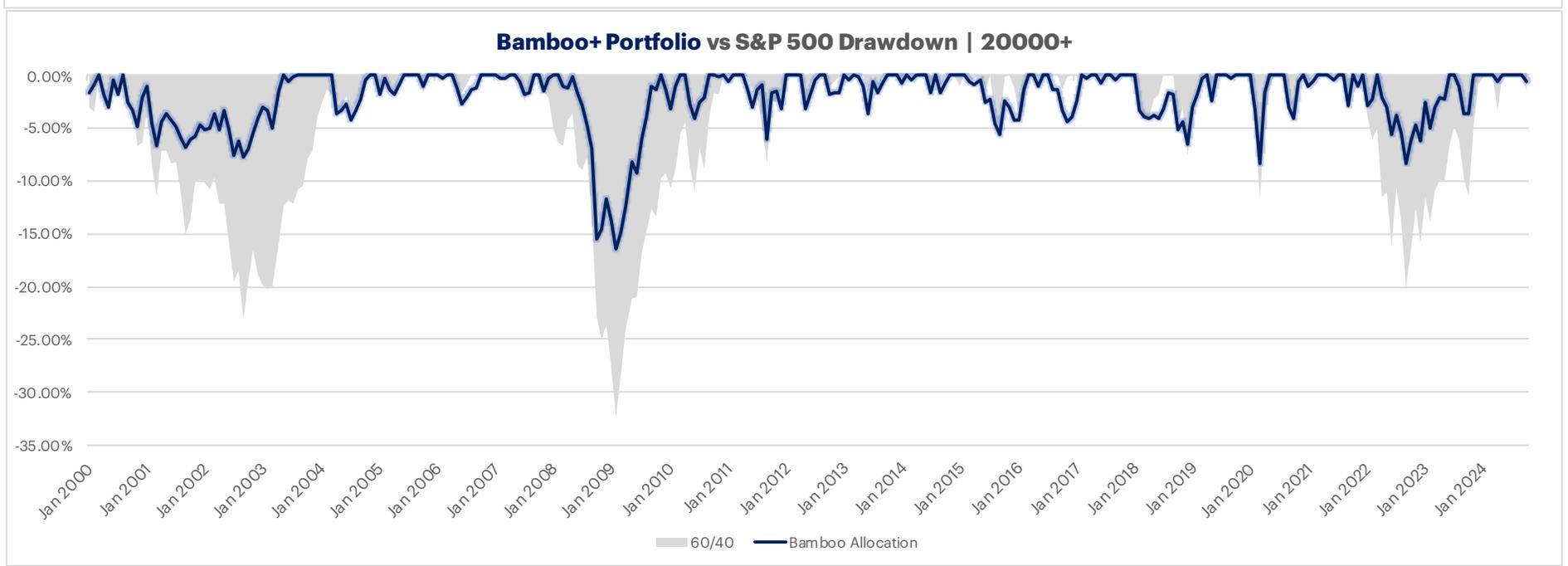
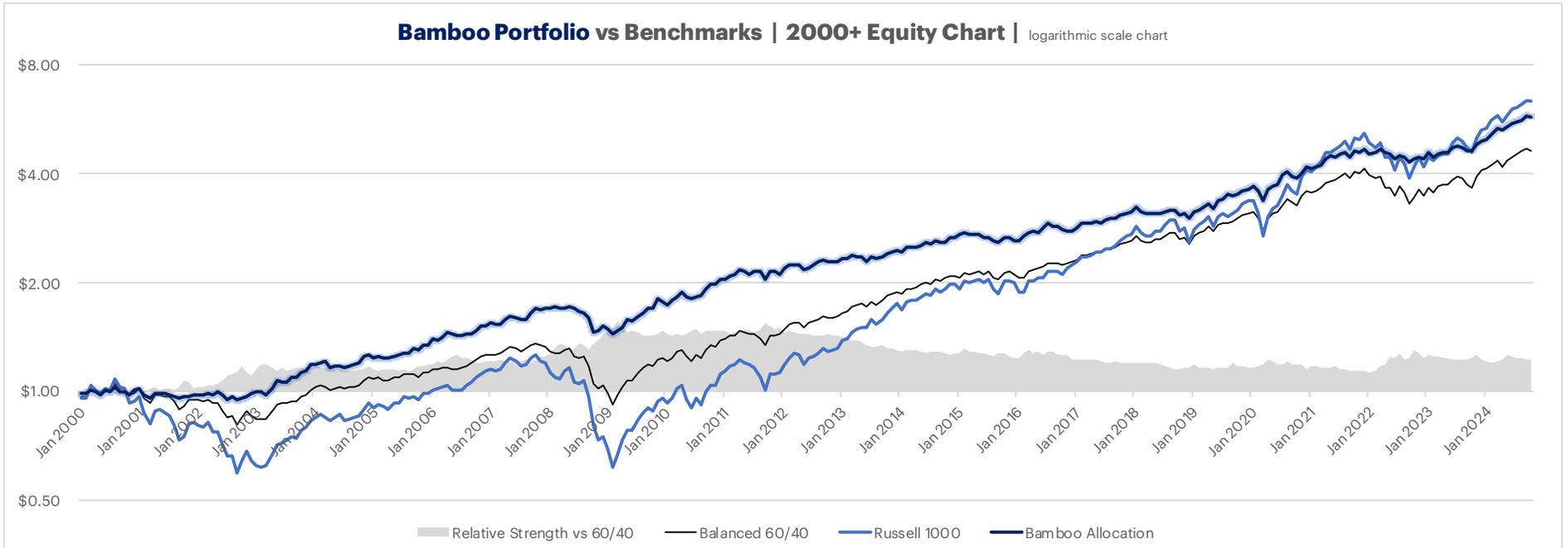
|                    | Bamboo | Bamboo+ | Bamboo++ |
|--------------------|--------|---------|----------|
| Winning Months     | 351    | 347     | 347      |
| Ave Winning Month  | 1.00%  | 1.16%   | 1.33%    |
| Total Gain         | 695%   | 818%    | 959%     |
| Net Gain           | 410%   | 495%    | 591%     |
| Win to Loss Ratio  | 2.44   | 2.53    | 2.61     |
| Gain to Pain Ratio | 1.44   | 1.53    | 1.61     |

|                  | Bamboo | Bamboo+ | Bamboo++ |
|------------------|--------|---------|----------|
| Losing Months    | 187    | 191     | 191      |
| Ave Losing Month | -1.52% | -1.69%  | -1.92%   |
| Total Loss       | -285%  | -323%   | -367%    |

Bamboo Allocation inception date Mar 2024.

randy@dualmomentumsystems.com

Dual Momentum Systems: LT Gain+



Bamboo Allocation inception date June 2023.

# Dual Momentum Strategies: Bamboo+ Allocation

A fixed allocation strategy rebalanced annually

Results through 10/31/2024

## Investment selection for November 2024:

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

## Tax friendliness:

Bamboo+ Allocation has mostly Long Term Cap Gains.

## Average number of trades per year (including Rebalancing)

1.67

## Portfolio size appropriateness:

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

## Characteristics:

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

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

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

Leverage: Bamboo+ Allocation never uses any leverage.

## Strategy Description:

The Bamboo Allocation 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 Allocation never uses any leverage, the Bamboo+ Allocation uses 2X Leverage only for the 55% US Large Cap position using the Smart Leverage rules of the Dual Momentum Strategies, and the Bamboo++ Allocation uses 3X Leverage using Smart Leverage.

| Leverage | 2000+ |
|----------|-------|
| Average  | 109%  |
| Maximum  | 140%  |

| Metric | 2000+ |
|--------|-------|
| Beta   | 0.46  |
| Alpha  | 5.54% |

## Annualized Returns actual YTD for current year.

| Investment                | YTD    | 1 Year | 3 Year | 5 Year | 10 Year | 2000+ | 1980+  |
|---------------------------|--------|--------|--------|--------|---------|-------|--------|
| <b>Bamboo+ Allocation</b> | 16.23% | 24.56% | 7.21%  | 12.83% | 9.53%   | 9.23% | 11.15% |
| Balanced 60/40            | 12.99% | 26.28% | 4.58%  | 9.05%  | 8.45%   | 6.36% | 10.00% |
| Russell 1000              | 20.13% | 37.90% | 8.00%  | 14.85% | 12.61%  | 7.71% | 11.93% |

## Maximum Drawdown single largest drawdown.

| Investment                | YTD    | 1 Year | 3 Year  | 5 Year  | 10 Year | 2000+   | 1980+   |
|---------------------------|--------|--------|---------|---------|---------|---------|---------|
| <b>Bamboo+ Allocation</b> | -0.64% | -0.64% | -8.38%  | -8.38%  | -8.38%  | -16.44% | -16.44% |
| Balanced 60/40            | -3.38% | -3.38% | -20.09% | -20.09% | -20.09% | -32.33% | -32.33% |
| Russell 1000              | -4.18% | -4.18% | -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+ |
|---------------------------|------|--------|--------|--------|---------|-------|-------|
| <b>Bamboo+ Allocation</b> | 0.26 | 0.24   | 3.73   | 3.35   | 2.97    | 3.78  | 3.22  |
| Balanced 60/40            | 1.12 | 1.03   | 9.01   | 7.26   | 5.33    | 7.84  | 6.19  |
| Russell 1000              | 1.28 | 1.18   | 10.55  | 8.87   | 6.77    | 16.32 | 12.87 |

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

| Investment                | YTD  | 1 Year | 3 Year | 5 Year | 10 Year | 2000+ | 1980+ |
|---------------------------|------|--------|--------|--------|---------|-------|-------|
| <b>Bamboo+ Allocation</b> | 9.05 | 12.78  | 0.46   | 1.26   | 0.93    | 0.88  | 1.25  |
| Balanced 60/40            | 2.29 | 4.64   | 0.09   | 0.58   | 0.60    | 0.32  | 0.87  |
| Russell 1000              | 3.55 | 6.15   | 0.40   | 0.92   | 0.84    | 0.38  | 0.77  |

## Minimum, Average, and Maximum monthly performance.

|            | Bamboo | Bamboo+ | Bamboo++ |
|------------|--------|---------|----------|
| <b>MIN</b> | -9.2%  | -9.16%  | -9.16%   |
| <b>AVE</b> | 0.5%   | 0.59%   | 0.70%    |
| <b>MAX</b> | 9.4%   | 11.61%  | 16.51%   |

## Allocation Stats from 1980+

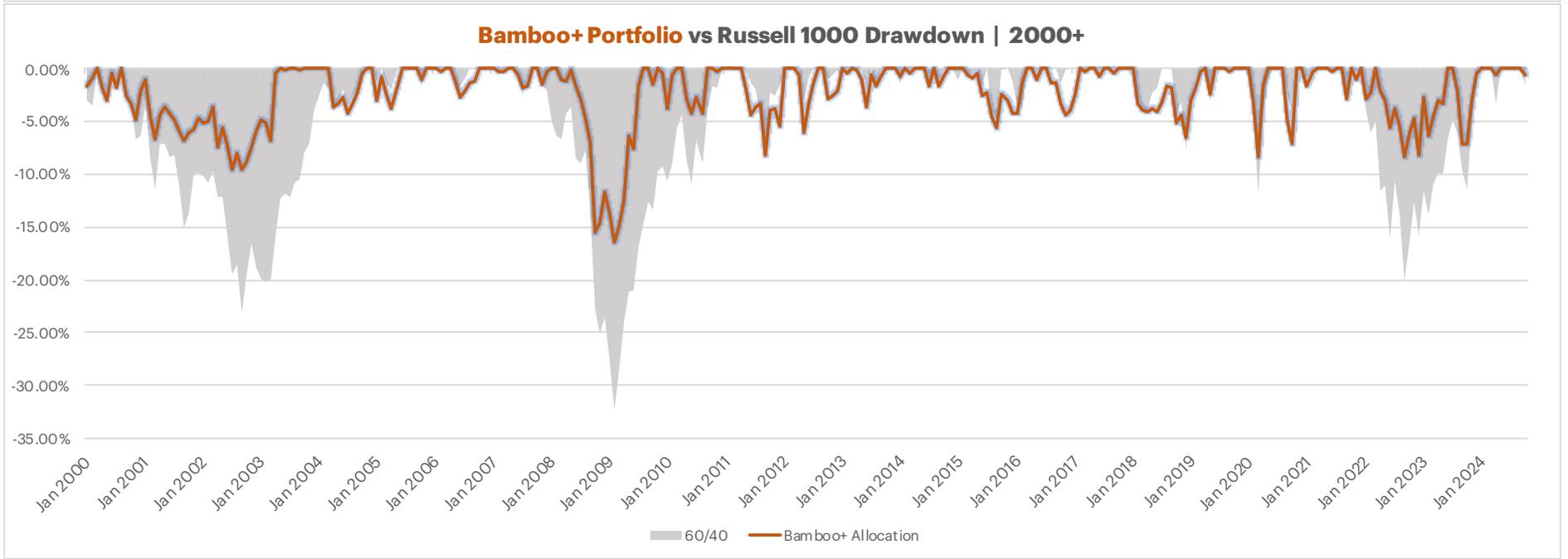
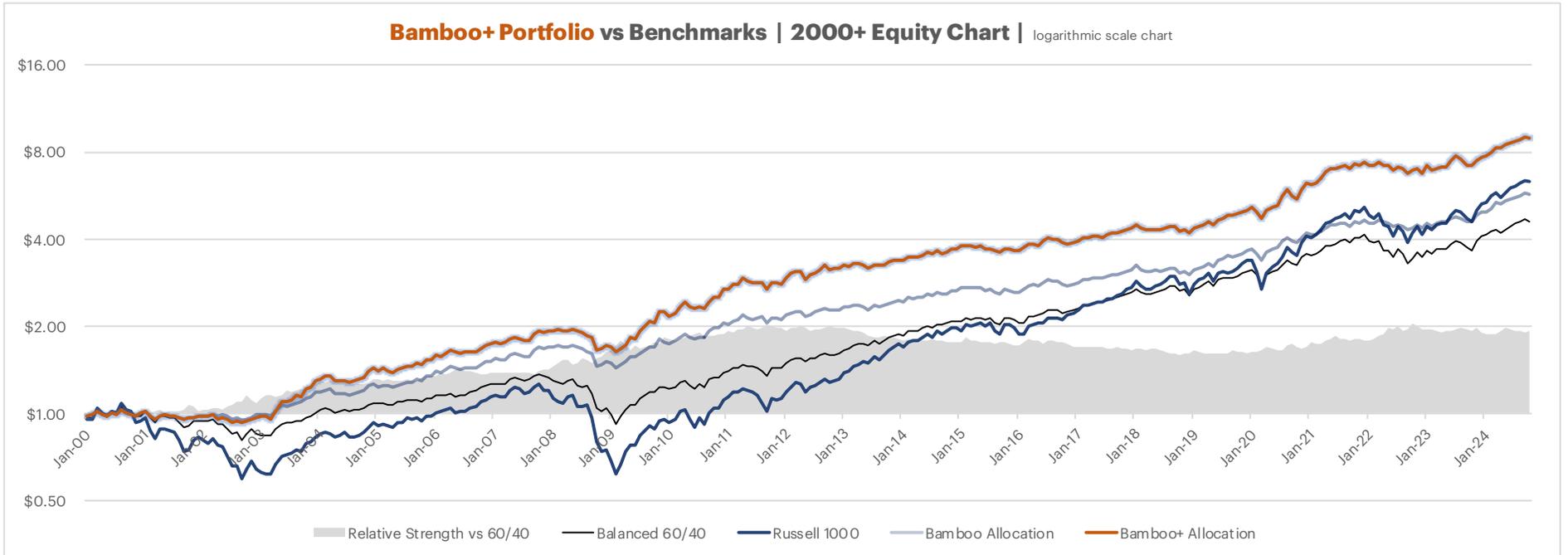
|                           | Bamboo       | Bamboo+      | Bamboo++     |
|---------------------------|--------------|--------------|--------------|
| <b>Winning Months</b>     | <b>351</b>   | <b>347</b>   | <b>347</b>   |
| <b>Ave Winning Month</b>  | <b>1.00%</b> | <b>1.16%</b> | <b>1.33%</b> |
| <b>Total Gain</b>         | <b>695%</b>  | <b>818%</b>  | <b>959%</b>  |
| <b>Net Gain</b>           | <b>410%</b>  | <b>495%</b>  | <b>591%</b>  |
| <b>Win to Loss Ratio</b>  | 2.44         | 2.53         | 2.61         |
| <b>Gain to Pain Ratio</b> | 1.44         | 1.53         | 1.61         |

|                         |               |               |               |
|-------------------------|---------------|---------------|---------------|
| <b>Losing Months</b>    | <b>187</b>    | <b>191</b>    | <b>191</b>    |
| <b>Ave Losing Month</b> | <b>-1.52%</b> | <b>-1.69%</b> | <b>-1.92%</b> |
| <b>Total Loss</b>       | <b>-285%</b>  | <b>-323%</b>  | <b>-367%</b>  |

Bamboo Allocation inception date Mar 2024.

randy@dualmomentumsystems.com

Dual Momentum Systems: LT Gain+



Bamboo+ Allocation inception date June 2023.

# Dual Momentum Strategies: Bamboo++ Allocation

A fixed allocation strategy rebalanced annually

Results through 10/31/2024

## Investment selection for November 2024:

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

## Tax friendliness:

Bamboo++ Allocation has mostly Long Term Cap Gains.

## Average number of trades per year (including Rebalancing)

1.67

## Portfolio size appropriateness:

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

## Characteristics:

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

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

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

Leverage: Bamboo++ Allocation never uses any leverage.

## Strategy Description:

The Bamboo Allocation 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 Allocation never uses any leverage, the Bamboo++ Allocation uses 2X Leverage only for the 55% US Large Cap position using the Smart Leverage rules of the Dual Momentum Strategies, and the Bamboo++ Allocation uses 3X Leverage using Smart Leverage.

| Leverage | 2000+ |
|----------|-------|
| Average  | 118%  |
| Maximum  | 180%  |

| Metric | 2000+ |
|--------|-------|
| Beta   | 0.46  |
| Alpha  | 5.54% |

## Annualized Returns, actual YTD for current year.

| Investment                 | YTD    | 1 Year | 3 Year | 5 Year | 10 Year | 2000+  | 1980+  |
|----------------------------|--------|--------|--------|--------|---------|--------|--------|
| <b>Bamboo++ Allocation</b> | 16.23% | 24.66% | 6.87%  | 15.62% | 10.88%  | 11.36% | 13.30% |
| Balanced 60/40             | 12.99% | 26.28% | 4.58%  | 9.05%  | 8.45%   | 6.36%  | 10.00% |
| Russell 1000               | 20.13% | 37.90% | 8.00%  | 14.85% | 12.61%  | 7.71%  | 11.93% |

## Maximum Drawdown, single largest drawdown.

| Investment                 | YTD    | 1 Year | 3 Year  | 5 Year  | 10 Year | 2000+   | 1980+   |
|----------------------------|--------|--------|---------|---------|---------|---------|---------|
| <b>Bamboo++ Allocation</b> | -0.64% | -0.64% | -10.81% | -10.81% | -10.81% | -16.44% | -16.44% |
| Balanced 60/40             | -3.38% | -3.38% | -20.09% | -20.09% | -20.09% | -32.33% | -32.33% |
| Russell 1000               | -4.18% | -4.18% | -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+ |
|----------------------------|------|--------|--------|--------|---------|-------|-------|
| <b>Bamboo++ Allocation</b> | 0.26 | 0.24   | 4.68   | 4.19   | 3.46    | 4.25  | 3.60  |
| Balanced 60/40             | 1.12 | 1.03   | 9.01   | 7.26   | 5.33    | 7.84  | 6.19  |
| Russell 1000               | 1.28 | 1.18   | 10.55  | 8.87   | 6.77    | 16.32 | 12.87 |

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

| Investment                 | YTD  | 1 Year | 3 Year | 5 Year | 10 Year | 2000+ | 1980+ |
|----------------------------|------|--------|--------|--------|---------|-------|-------|
| <b>Bamboo++ Allocation</b> | 9.05 | 12.84  | 0.36   | 1.37   | 1.01    | 1.10  | 1.45  |
| Balanced 60/40             | 2.29 | 4.64   | 0.09   | 0.58   | 0.60    | 0.32  | 0.87  |
| Russell 1000               | 3.55 | 6.15   | 0.40   | 0.92   | 0.84    | 0.38  | 0.77  |

## Minimum, Average, and Maximum monthly performance.

|            | Bamboo | Bamboo++ | Bamboo++ |
|------------|--------|----------|----------|
| <b>MIN</b> | -9.2%  | -9.16%   | -9.16%   |
| <b>AVE</b> | 0.5%   | 0.59%    | 0.70%    |
| <b>MAX</b> | 9.4%   | 11.61%   | 16.51%   |

## Allocation Stats from 1980+

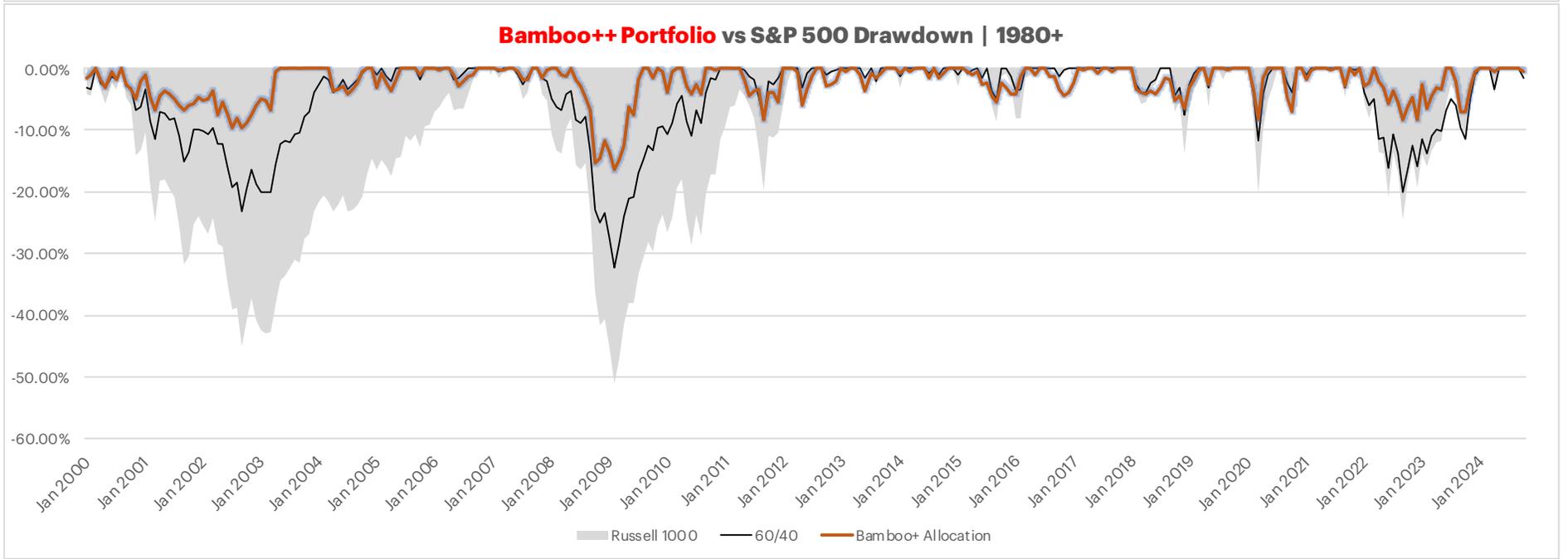
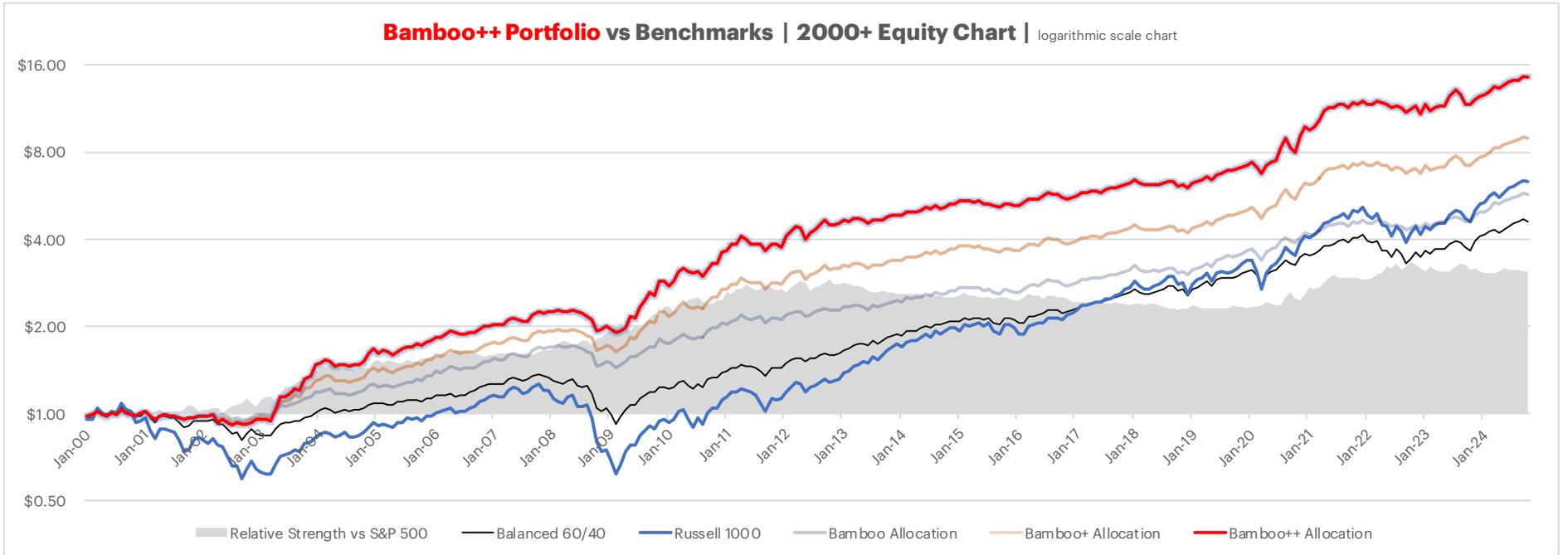
|                           | Bamboo       | Bamboo++     | Bamboo++     |
|---------------------------|--------------|--------------|--------------|
| <b>Winning Months</b>     | <b>351</b>   | <b>347</b>   | <b>347</b>   |
| <b>Ave Winning Month</b>  | <b>1.00%</b> | <b>1.16%</b> | <b>1.33%</b> |
| <b>Total Gain</b>         | <b>695%</b>  | <b>818%</b>  | <b>959%</b>  |
| <b>Net Gain</b>           | <b>410%</b>  | <b>495%</b>  | <b>591%</b>  |
| <b>Win to Loss Ratio</b>  | 2.44         | 2.53         | 2.61         |
| <b>Gain to Pain Ratio</b> | 1.44         | 1.53         | 1.61         |

|                         |               |               |               |
|-------------------------|---------------|---------------|---------------|
| <b>Losing Months</b>    | <b>187</b>    | <b>191</b>    | <b>191</b>    |
| <b>Ave Losing Month</b> | <b>-1.52%</b> | <b>-1.69%</b> | <b>-1.92%</b> |
| <b>Total Loss</b>       | <b>-285%</b>  | <b>-323%</b>  | <b>-367%</b>  |

Bamboo Allocation inception date Mar 2024.

randy@dualmomentumsystems.com

Dual Momentum Systems: LT Gain+



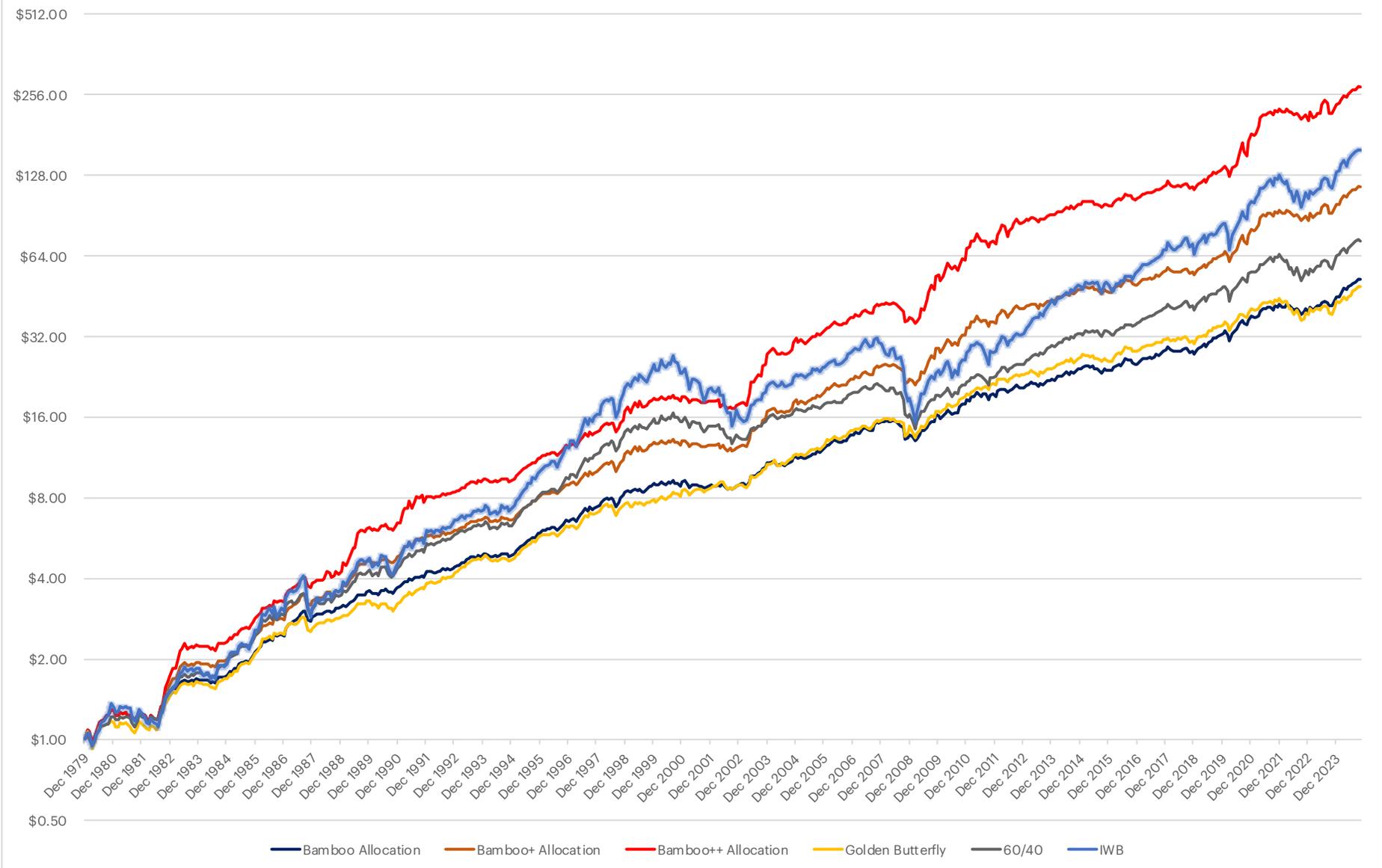
Bamboo++ Allocation inception date June 2023.

# **DUAL MOMENTUM SYSTEMS**

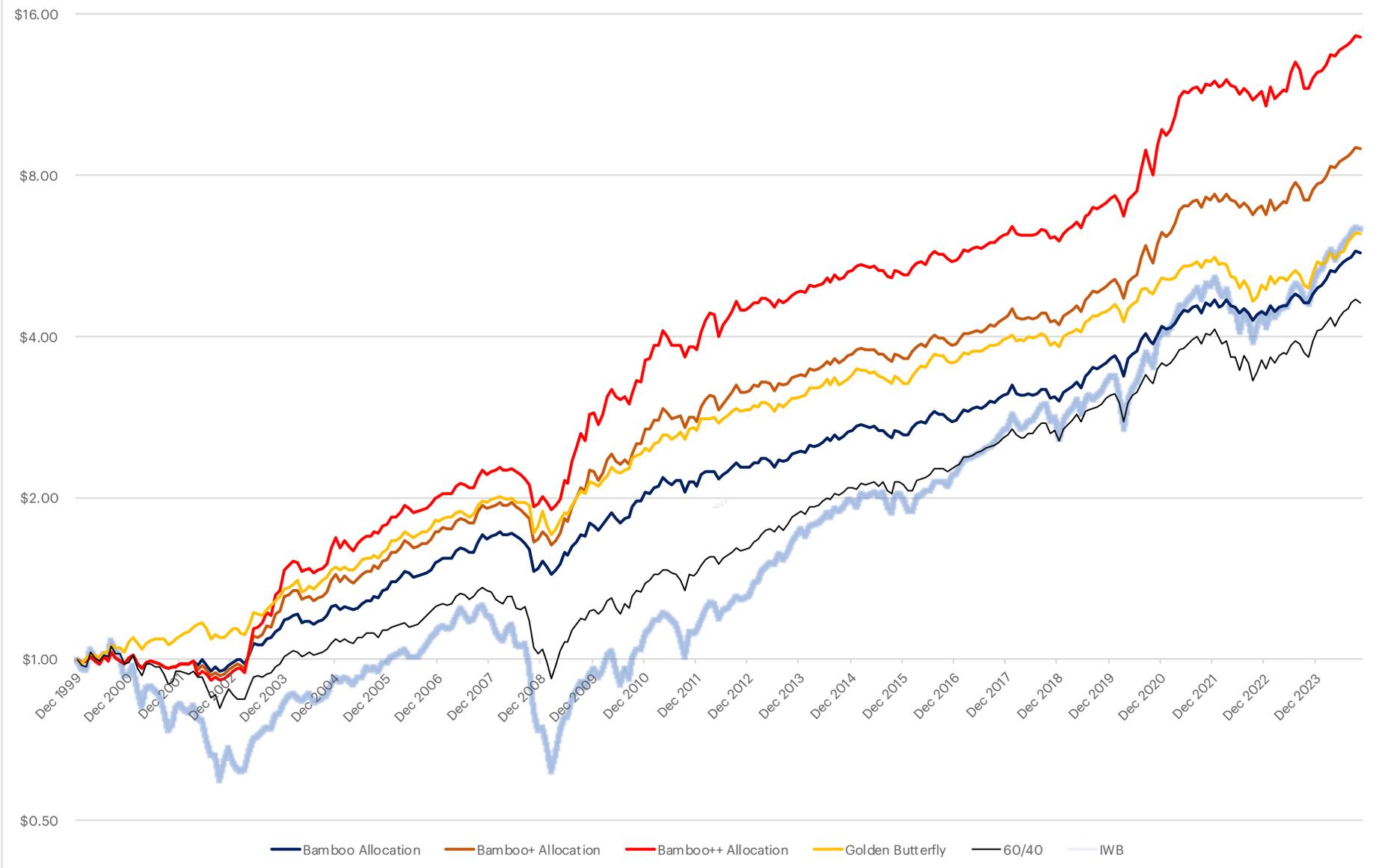
## **Equity & Return Charts**

### Bamboo Portfolios vs Benchmarks 1980+ Equity

logarithmic scale chart



### Bamboo Portfolios vs Benchmarks 2000+ Equity logarithmic scale chart



## 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

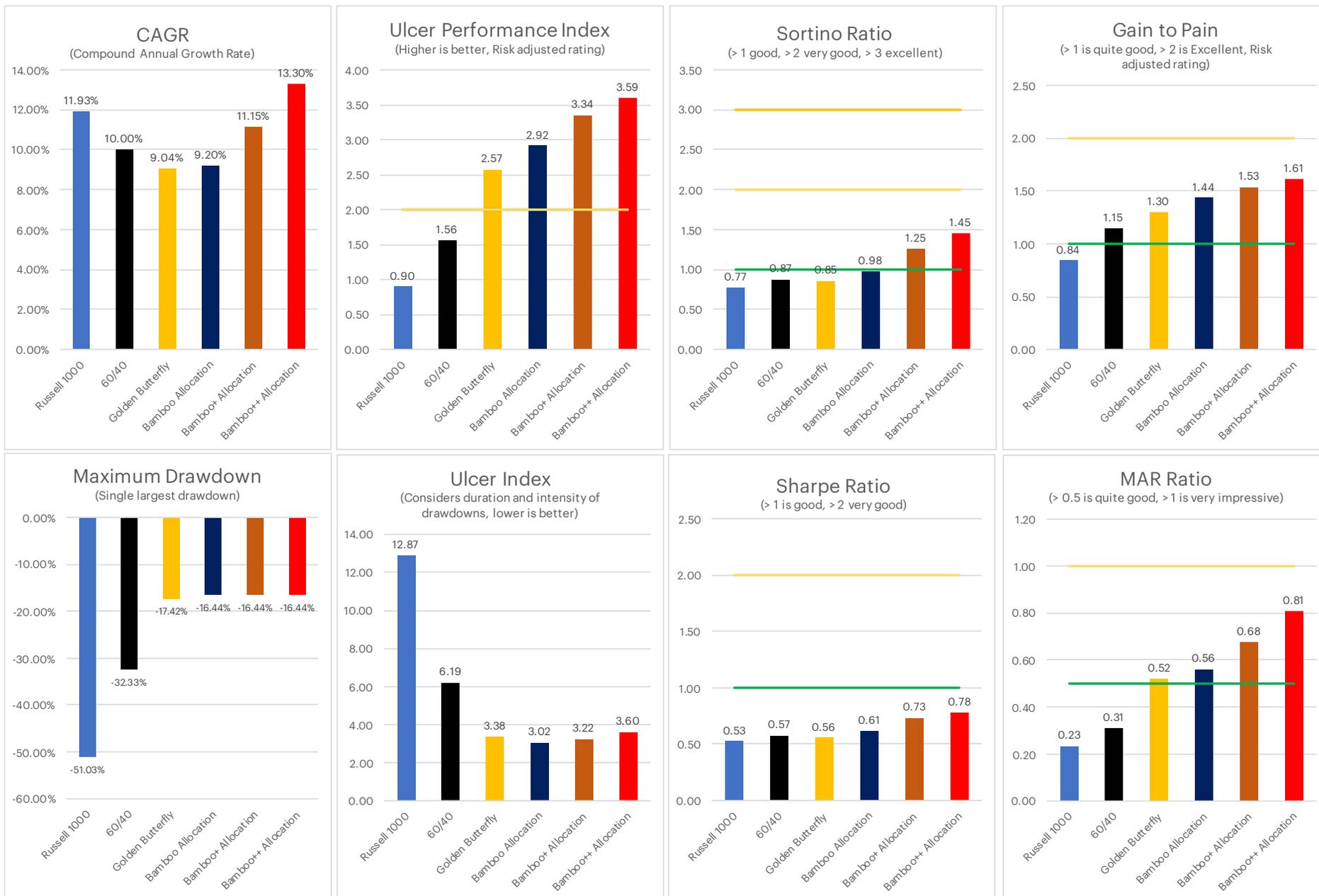
**Maximum Drawdown:** The largest negative drawdown for the strategy, on a month end basis

**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

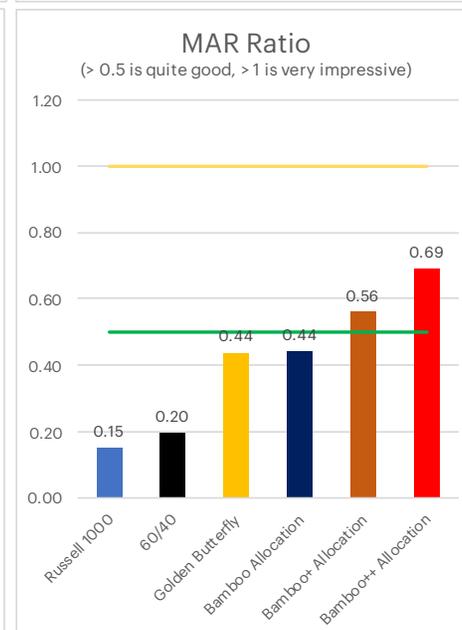
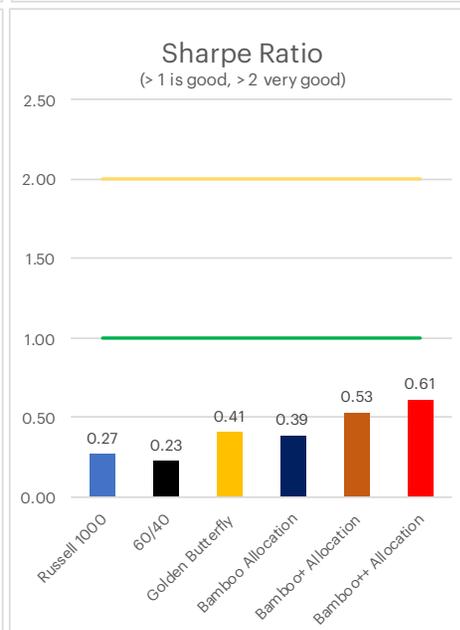
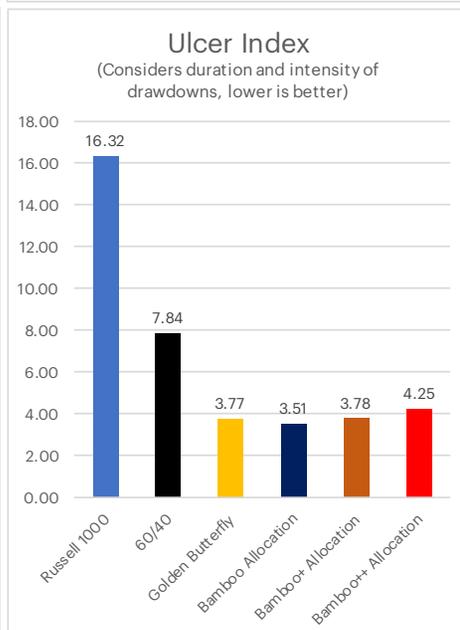
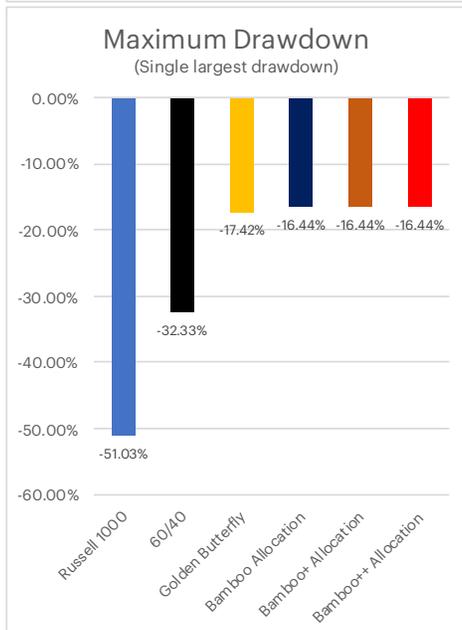
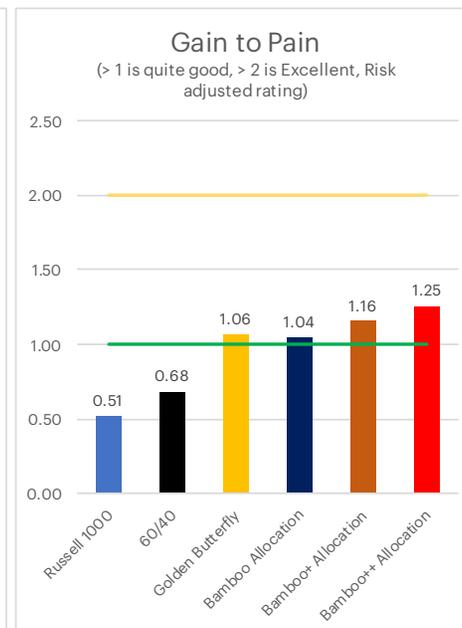
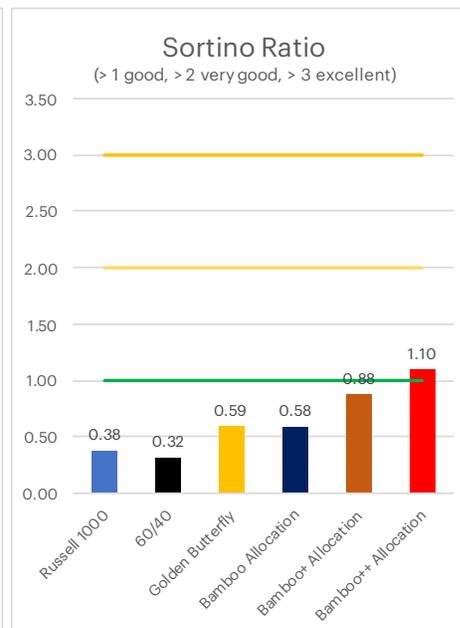
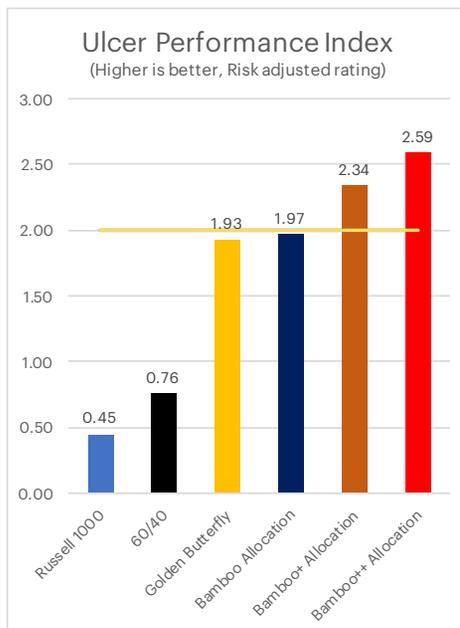
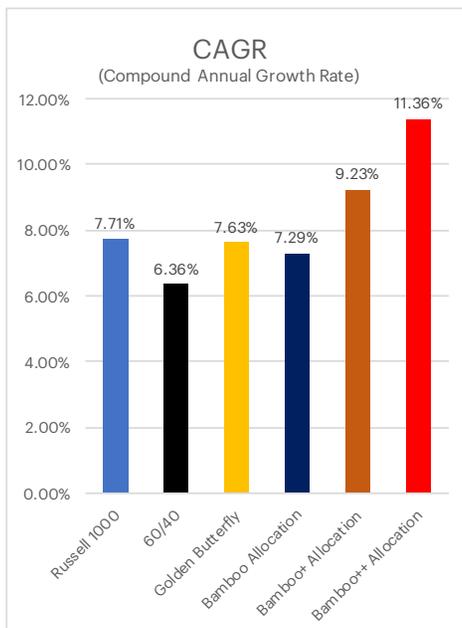
**MAR Ratio:** A risk adjusted performance ratio, uses maximum drawdown in it's calculations

## Metrics Comparisons: Bamboo Allocations vs Russell 1000 & 60/40 & Golden Butterfly 1980 to current



All Metrics are calculated from Monthly returns

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



All Metrics are calculated from Monthly returns

## 36 Month Strategy Return Correlations

|                     |             | ←Conservative  |                  |                   | Aggressive →       |                    |
|---------------------|-------------|----------------|------------------|-------------------|--------------------|--------------------|
|                     | IWB         | Balanced 60/40 | Golden Butterfly | Bamboo Allocation | Bamboo+ Allocation | Bamboo++ Allocatio |
| IWB                 | <b>100%</b> |                |                  |                   |                    |                    |
| Balanced 60/40      | <b>99%</b>  | <b>100%</b>    |                  |                   |                    |                    |
| Golden Butterfly    | <b>89%</b>  | <b>93%</b>     | <b>100%</b>      |                   |                    |                    |
| Bamboo Allocation   | <b>90%</b>  | <b>90%</b>     | <b>91%</b>       | <b>100%</b>       |                    |                    |
| Bamboo+ Allocation  | <b>86%</b>  | <b>85%</b>     | <b>87%</b>       | <b>96%</b>        | <b>100%</b>        |                    |
| Bamboo++ Allocation | <b>79%</b>  | <b>78%</b>     | <b>98%</b>       | <b>89%</b>        | <b>98%</b>         | <b>100%</b>        |

# DUAL MOMENTUM SYSTEMS

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](http://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.

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 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!