

# JULEX CAPITAL

## Is TAA voodoo?

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*“The most successful businessman is the man who holds onto the old just as long as it is good and grabs the new just as soon as it is better”*

Lee Iacocca

# Is TAA voodoo?

Is it real . . . or just another false promise?

# Why even ask such a question?

- Two reasons
- You've been burned in the past - so many disappointments
- Because the historic results are so GOOD

# You've been burned in the past - so many disappointments

- Past disappointments are voluminous
- Source of these disappointments . . .
  - Salesmen who over-promise and subsequently under-deliver
  - Misspecification of what TAA does and how it works
  - Bad product design

- **WRONG**

- It will protect me against any market decline
- It will outperform the S&P 500
- It is an absolute return strategy

- **RIGHT**

- It doesn't work in the short-run
- BUT . . . If you give it a sufficient number of years . . . the benefits are tremendous
- It does a better job of *“Making time your friend”* than any other strategy

- Ignores trading costs
- Trades too frequently
- Uses too narrow a playing field
- Attempts to beat a specific passive index benchmark
- Is based in part or whole on forecasts or predictions of the future . . . crystal ball

Because the historic results are so GOOD

- 11.5% per annum . . . since 1919
- 11.8% over the typical 7½ year time window
- Probability of earning AT LEAST “x” over a randomly selected 7½ years
  - 99.9% chance earn  $\geq$  5%
  - 99% chance  $\geq$  6%
  - 96% chance  $\geq$  7%
  - 92.4% chance  $\geq$  7.5%
- Worst thing that ever happened was +4.82% . . . since 1919 . . . 7½ year window

## A Pretty Good Outcome

### Let's try a thought experiment - What if . . .

What if we build a passive portfolio from the 32 asset categories shown in the graphic below using the following weights: 30.3% US stocks, 29.3% international stocks, 5.0% US Treasury bonds, 31.5% US investment grade corporate bonds, 1.4% international bonds, 1.3% gold, and 1.2% other commodities. Over the last 102 years (ending 1/31/2021) this portfolio would have delivered 11.53% per annum. That's pretty good.

But none of us can wait for 102 years to pass. Maybe we only have 7½ years to wait. Maybe we need to spend the account 7½ years from today. What then?

Over the typical (or median) 7½ year investment time window, this portfolio returned 11.8%. But that's the typical result. Maybe you only needed to earn say 5%. If you put a blindfold on and randomly selected a 7½ year time window (from out of the last 102 years), what was your chance of earning 5% (or better), the answer is 99.9%.

Instead, maybe you needed to earn 6%, in which case the probability was 99.0%. Or 7% which resulted in 96.0% probability. Or even 7½% where the likelihood fell to 92.4%. In fact, if you only needed to earn 4.82%, then selecting a random 7½ year investment time window from out of the last 102 years gave you a 100.0% probability of success. Not bad. In fact, the typical or median outcome is for an initial \$100 investment to grow to \$231 by the end of the 7½ year period.



### So, what's the trick?

For this passive portfolio to deliver an 11.8% annualized return over the typical or median 7½ year time window (selected from out of the last 102 years), there must be a gimmick or a trick. Well, there isn't.

So, what's the rest of the story? Think about other popular passive indices, for example, the S&P 500 for US stocks, the Bloomberg Barclays Aggregate Bond for bonds, or the MSCI EAFE for international stocks. Each of these is a passive Buy&Hold index. But each also follows pre-specified rules that drive their continuous redefinition and rebalancing. For example, sometimes the S&P 500 has 495 stocks, sometimes it has 508 stocks, companies are coming and going from the index regularly, the weights



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### What are reasonable objections?

**Transactions costs erode performance** - The asset categories that comprise the relative winners and relative losers generally change from month to month. Reflecting these changes entails trading and trading induces transactions costs.

Knowledgeable investment researchers have observed that failure to take these transactions costs into account will make the results look better than what could have been obtained. To correct for this problem, the results stated above assume a high level of transactions costs, ones that are overly conservative. For example, it is assumed that the one-way cost to trade a diversified package of precious metals using the most popular ETF would cost approximately 33 basis points (i.e., 0.33%).

**Trust but verify** - One of our nation's past presidents often used the phrase "trust but verify." This is a prudent approach when dealing with all investment strategies. Thankfully, the portfolio construction rules and the underlying data that define the thought-experiment portfolio are fully transparent and readily available. It is a simple and straightforward exercise to confirm the validity of the numbers presented above. And we will help anyone who would like to give it a try.

# Your first objection

It's all back-tested

- We'll give you all of the data and you can check the results yourself
- When is back-testing dangerous or problematic?
  - When the results were backfitted . . . i.e., designed to just look good
  - When it worked in one period, but not in others
- **RESPONSE**
  - We didn't back-fit the model
  - As shown on the previous slide . . . it worked in all periods, not just some

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# Your second objection

How do I know that it's real?

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- Supported by endless academic research
- A dead simple model worked . . . and worked across time
- That's not any different from you observing that a 60/40 stock/bond passive portfolio worked pretty well . . . and then using such a portfolio
- Check the results yourself



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## A Century of Evidence on Trend-Following Investing

BRIAN HURST, YAO HUA OOI, AND LASSE HEJE PEDERSEN



## A dead simple model worked

- Start with a menu of 32 asset categories
- Once each month reconstruct the portfolio
- Pick the 7 that trended most strongly over the last eleven months
- Equal-weight them
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# Your third objection

How do I know that TAA's advantage will continue into the future?

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- The answer is pretty simple
- Why did it work in the past?
- Will those past behaviors . . . continue into the future?

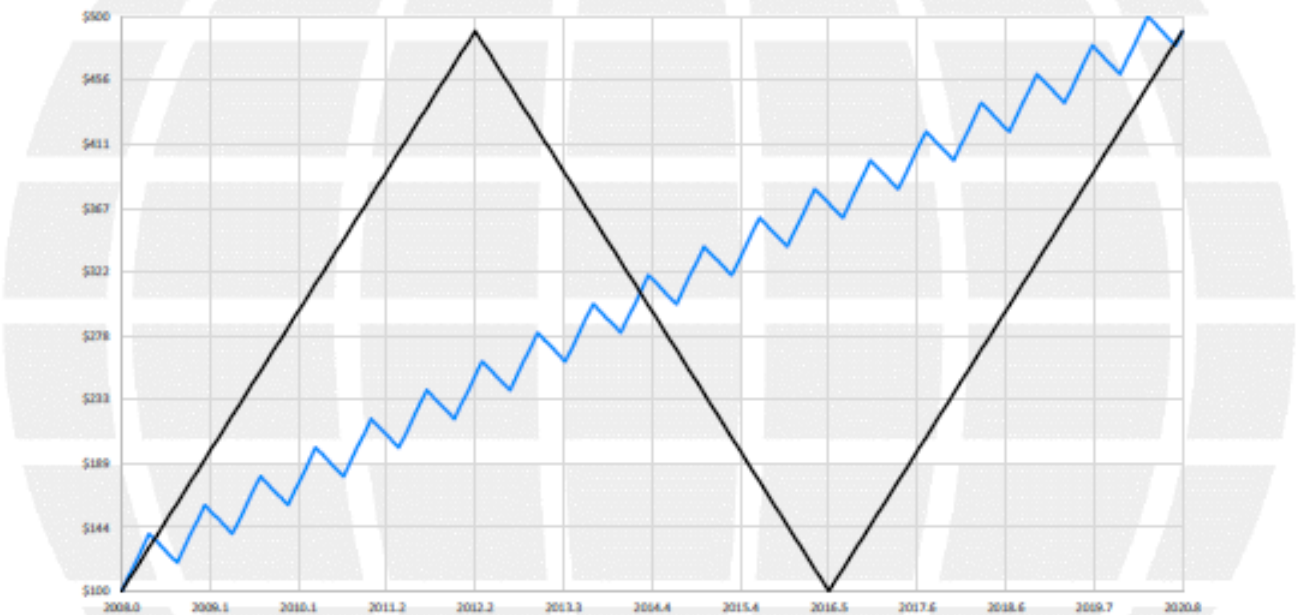
- Because markets trend
- And there are good reasons why they trend

## Sometimes people just don't fact-check

Some have falsely claimed that market cycles are getting shorter

Tactical Asset Allocation (TAA) relies on trending or momentum for its success. Some have falsely claimed that market cycles are getting shorter, and therefore TAA no longer has the inherent advantage that it once did. Let's fact-check this claim in order to determine its truth or falsehood.

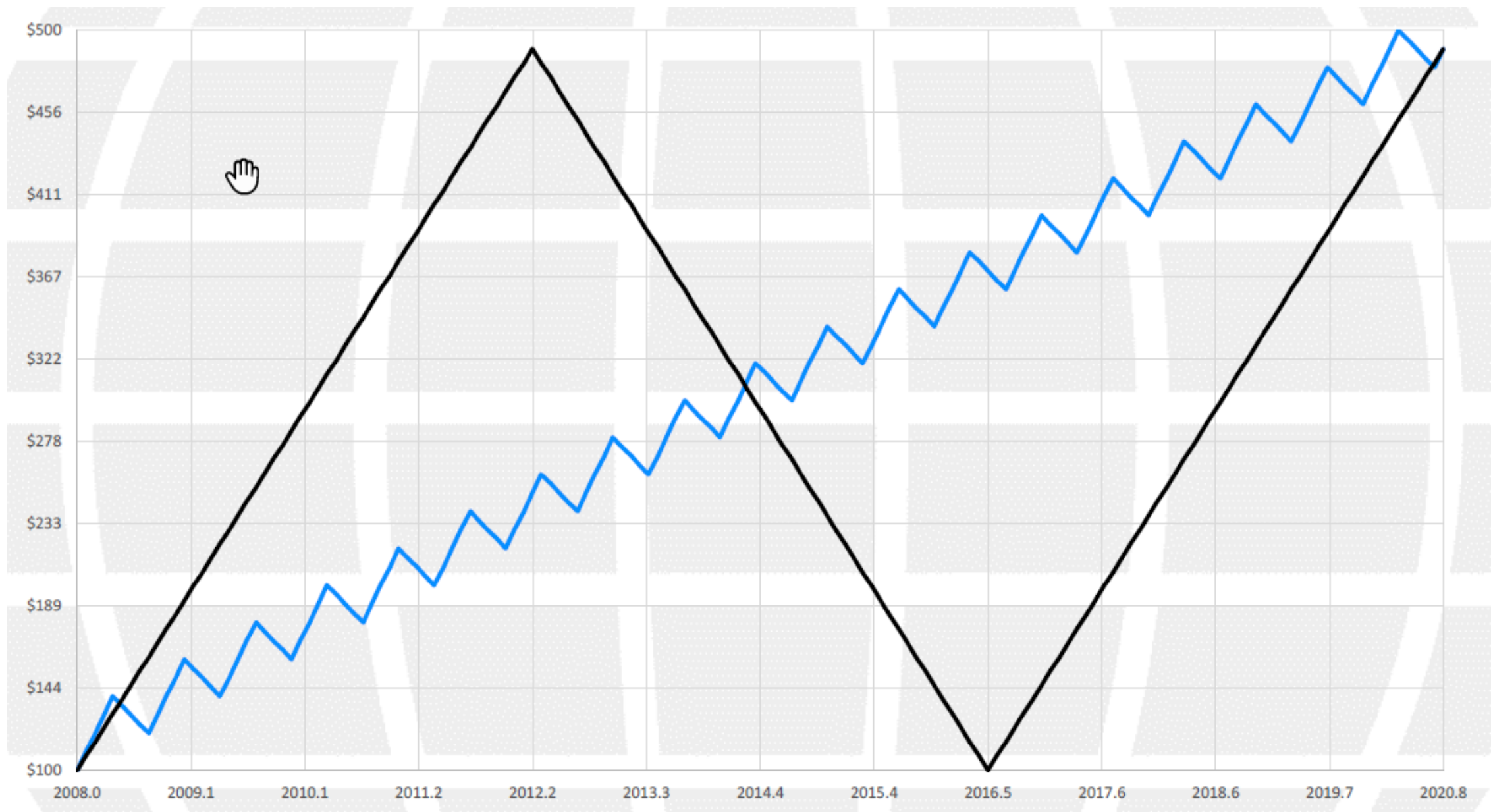
But first, let's work to better understand this issue. The following graph shows two different market paths. Each starts and ends at the same spot, and therefore both generate the same total return after many years.



The **black line** represents a market experiencing long extended cycles (bulls and bears). In contrast, the **blue line** shows a lack of market cycles, and instead just whipsaws back and forth as it moves ever higher. TAA has a large inherent advantage if the market follows the **black line**, and is meaningfully disadvantaged if it follows the **blue**. Why is this? Because TAA's reliance on trending allows it to adopt a more beneficial dynamic asset mix, since the trends last for such extended periods of time (with the **black line**).

### Are stock market cycles shorter today?

There have been 16 bull markets for U.S. stocks since 1853. The table below shows the typical (median), average (mean), and the current still ongoing bull markets.





Stocks

	Cumulative percentage gain, unannualized	Duration in years	Start date	End date	Volatility, annualized standard deviation of monthly returns	Percentage of monthly returns that were positive	Annualized return during BULL market
Median <u>BULL</u> market	176.7	5.1			12.3	67	20.8
Mean <u>BULL</u> market	342.2	8.6			15.8	67	20.2
Current <u>BULL</u> market, not yet ended	479.2	12.1	Feb 2009	?	14.1	68	15.6

For greater detail and full disclosure, visit [www.robrownonline.com](http://www.robrownonline.com)

The current bull market (still ongoing) is significantly longer than the typical or average bull. In fact, it is longer than 73% of all past bull market cycles.

Bonds

	Cumulative percentage gain, unannualized	Duration in years	Start date	End date	Volatility, annualized standard deviation of monthly returns	Percentage of monthly returns that were positive	Annualized return during BULL market
Median <u>BULL</u> market	379.2	20.7			5.2	70	6.1
Mean <u>BULL</u> market	534.4	25.6			4.7	70	5.9
<u>BULL</u> market just ended	1007.6	38.8	Sep 1981	Jul 2020	6.8	61	6.4

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Once again, the recent bond bull market (that ended in the third quarter of 2020) was significantly longer than the median or average bull.

Commodities

	Cumulative percentage loss, unannualized	Duration in months	Start date	End date	Volatility, annualized standard deviation of monthly returns	Percentage of monthly returns that were negative	Annualized return during BEAR market
Median <u>BEAR</u> market	-38.1	32.0			12.6	67	-16.4
Mean <u>BEAR</u> market	-46.3	44.6			12.6	72	-23.7
<u>BEAR</u> market just ended	-70.6	108.0	Apr 2011	Apr 2020	15.5	56	-12.7

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As with bond and stock market cycles, the commodity cycle has not shortened. In fact, the commodity bear market that ended in April 2020 was the longest commodity bear in all of history (since data first became available).

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# Is TAA too complicated to explain to a client or prospect?

Monday - April 19<sup>th</sup>

All data and statistics were provided by Global Financial Data, Inc. on April 10, 2021

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