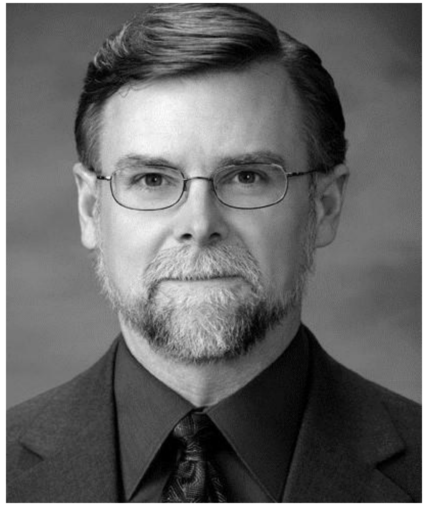
TAA - How to separate the good from the bad

Rob Brown, PhD, CFA

Julex Capital Advisory Board Member, Website www.robbrownonline.com



40 Grove Street, Suite 140, Wellesley, MA 02482
Phone 781-489-5398
Email info@julexcapital.com
Web www.julexcapital.com

"I have a friend who's a fisherman he says, 'I have a simple rule for success in fishing. Fish where the fish are.' ***You want to fish where the bargains are. That simple. If the fishing is really lousy where you are you should probably look for another place to fish."***

Charlie Munger

TAA - How to separate the good from the bad

What are the criteria you should look at . . . or look for

The determine which are the good TAA models, and which are the bad

Key criteria

- External cost
- Internal cost
- Playing field
- Balance between opportunity and risk
- Built for sales . . . or built for results
- Transparency and understandability
- Foundation
- Whipsaw
- Testable
- Subjective overlay
- Macroeconomic overlay

External cost

Fee charged by the investment manager and/or platform provider

External cost

- What's the fee?
- Charged by the investment manager or the platform provider
- If you're paying 75bps
- You're being taken advantage of

Internal cost

Impact of trading

. . . . Not talking about trade commissions

Internal cost

- This is a serious and a valid complaint by the honest researchers who have evaluated TAA strategies
- Internal costs are the indirect trading impact costs
- They result from
  - Turnover
  - Using ETFs with poor bid/ask spreads
- It is relatively easy to destroy all of the benefits of TAA with inadequate attention to internal costs
- Solution
  - Don't trade too much
  - Only use ETFs with super tiny bid/ask spreads

Playing field

Asset categories being drawn from

Board enough?

Different enough?

Playing field

- Playing field is hyper important
- Need it to be
- Broad enough
- Different enough
- Broad enough
    - Span the full range of return opportunities and risk mitigants
- Different enough
    - Each asset category needs to be different from the others
    - Example . . . Smallcap and midcap are just too similar

Playing field

JULEX CAPITAL

Table 1: Dynamic Series Model Portfolios (May 1, 2021)

ETF	Name	Destination 5	Destination 4	Destination 3	Destination 2
XLB	Materials Select Sector SPDR Fund	4.82%	4.34%	3.85%	3.37%
XLE	Energy Select Sector SPDR Fund	-	-	-	-
XLF	Financial Select Sector SPDR Fund	3.92%	3.53%	3.13%	2.74%
XLI	Industrial Select Sector SPDR Fund	4.28%	3.86%	3.43%	3.00%
XLK	Technology Select Sector SPDR Fund	-	-	-	-
XLP	Consumer Staples Select Sector SPDR Fund	-	-	-	-
XLU	Utilities Select Sector SPDR Fund	-	-	-	-
XLV	Health Care Select Sector SPDR Fund	-	-	-	-
XLY	Consumer Discretionary Select Sector SPDR Fund	-	-	-	-
XLRE	Real Estate Select Sector SPDR Fund	-	-	-	-
XLC	Communication Services Select Sector SPDR Fund	-	-	-	-
IBB	iShares NASDAQ Biotechnology ETF	-	-	-	-
KBE	SPDR S&P Bank ETF	2.56%	2.31%	2.05%	1.79%
FDN	FT Internet	-	-	-	-
IGV	iShares Expanded Tech-Software Sector ETF				
SOXX	iShares PHLX Semiconductor ETF	4.10%	3.69%	3.28%	2.87%
SPYV	SPDR Portfolio S&P 500 Value ETF	-	-	-	-
SPYG	SPDR Portfolio S&P 500 Growth ETF	-	-	-	-
IWS	iShares Russell Mid-Cap Value ETF	3.96%	3.56%	3.17%	2.77%
IWP	iShares Russell Mid-Cap Growth ETF	-	-	-	-
IWN	iShares Russell 2000 Value ETF	2.99%	2.69%	2.39%	2.09%
IWO	iShares Russell 2000 Growth ETF	3.37%	3.03%	2.70%	2.36%
SPY	SPDR S&P 500 ETF Trust	-	-	-	-
EWA	iShares MSCI Australia ETF	4.05%	3.64%	3.24%	2.83%
EWC	iShares MSCI Canada ETF	-	-	-	-
EWD	iShares MSCI Sweden ETF	4.80%	4.32%	3.84%	3.36%
EWG	iShares MSCI Germany ETF	-	-	-	-
EWH	iShares MSCI Hong Kong ETF	-	-	-	-
EWI	iShares MSCI Italy ETF	4.13%	3.72%	3.31%	2.89%
EWJ	iShares MSCI Japan ETF	-	-	-	-
EWL	iShares MSCI Switzerland ETF	-	-	-	-
EWN	iShares MSCI Netherlands ETF	4.75%	4.28%	3.80%	3.33%
EWP	iShares MSCI Spain ETF	-	-	-	-
EWQ	iShares MSCI France ETF	4.05%	3.64%	3.24%	2.83%
EWS	iShares MSCI Singapore ETF	4.09%	3.68%	3.27%	2.86%
EWU	iShares MSCI United Kingdom ETF	-	-	-	-
DEM	WisdomTree Emerging Markets High Dividend	-	-	-	-
EPI	WisdomTree India Earnings Fund	4.68%	4.21%	3.74%	3.28%
EWT	iShares MSCI Taiwan ETF	5.63%	5.07%	4.51%	3.94%
EWW	iShares MSCI Mexico ETF	-	-	-	-
EWY	iShares MSCI South Korea ETF	3.82%	3.43%	3.05%	2.67%
EWZ	iShares MSCI Brazil ETF	-	-	-	-
FXI	iShares China Large-Cap ETF	-	-	-	-
RSX	VanEck Vectors Russia ETF	-	-	-	-
EEM	iShares MSCI Emerging Markets ETF	-	-	-	-
AGG	iShares Core U.S. Aggregate Bond ETF	-	5.00%	10.00%	15.00%
TIP	iShares TIPS Bond ETF	-	-	-	-
IEF	iShares 7-10 Year Treasury Bond ETF	-	5.00%	10.00%	15.00%
TLT	iShares 20+ Year Treasury Bond ETF	-	-	-	-
SHY	iShares 1-3 Year Treasury Bond ETF	-	-	-	-
SHV	iShares Short Treasury Bond ETF	30.00%	27.00%	24.00%	21.00%
LQD	iShares IBOXX Investment Grade Corp				

Balance between opportunity and risk

Success can only be derived by equal focus on realizing return and mitigating risk

Balance between opportunity and risk

- Balance is critical
- Equal emphasis must be maintained on
  - Opportunities for return
  - Risk mitigation
- Overemphasis on either can quickly turn disastrous

Built for sales . . . or built for results

Most/many are just built for sales . . . and the results WILL suffer

Built for sales . . . or built for results

- Rotate between a narrow definition of U.S. industry sectors
- Perhaps 7 or 8 sectors
- And cash

- Classic example of being built for sales . . . . instead of results
- Violates all of the critical elements defining a robust TAA model

Transparency and understandability

Are they trying to hide something?

Do they actually understand what they're doing?

Transparency and understandability

- If its not 100% transparent . . . Then they are trying to hide something important

- If its not fully understandable (OK, so you do need to invest a little time yourself) . . . then they probably
  - Don’t understand what they themselves actually built
  - And/or are trying to hide something

Foundation

Market trend, they have momentum

Foundation

JULEX CAPITAL

- The only foundation of every TAA model is
  - Markets trend
  - ALL markets trend
  - ALL markets have always trended
  - There exist serious good/solid reasons why markets trend

- The foundation upon which every valid TAA model is built is that markets trend

Whipsaw

All TAA models suffer from whipsaw - all of them

Whipsaw

- Every TAA model will suffer from whipsaw
- This is because they are built on trending
- The task of a “good” TAA model is to mitigate (not eliminate) this deficiency

- The simplest and most straightforward way to reduce whipsaw is to reduce the interval between trades

- TAA models that use weekly trading . . . can be a disaster

Testable?

If not . . . . that’s pretty bad

Testable?

- The beauty of TAA models is that they generally follow testable quantitative rules
- This is mission critical
- Because it allows one to ask and answer how the model would have performed in different environments
- AND . . . To get an honest reliable answer back

Subjective overlay?

If so . . . . that’s pretty bad

Subjective overlay?

JULEX CAPITAL

- If there is a human subjective overlay . . .
- Just turnaround and walk the other way
- With a human subjective overlay . . . Absolutely anything can and will happen
- This turns the strategy into nothing more than undisciplined “market timing”

Macroeconomic overlay?

How to make it better

Macroeconomic overlay?

JULEX CAPITAL

- Many TAA models take a modest step beyond or in addition to piggybacking off of the fact that markets trend
- They attempt to enhance and improve the
  - Trend following
  - Trend reversal
  - Whipsaw
- This is all to the good
- BUT
  - It must not go to far
  - Must never become human subjective overlay
  - Unduly undermine the testability of the model

Key criteria

- External cost
- Internal cost
- Playing field
- Balance between opportunity and risk
- Built for sales . . . or built for results
- Transparency and understandability
- Foundation
- Whipsaw
- Testable
- Subjective overlay
- Macroeconomic overlay

Key criteria - Applying them to the failed F-Squared

JULEX CAPITAL

- X External cost
- Internal cost
- X Playing field
- Balance between opportunity and risk
- X Built for sales . . . or built for results
- X Transparency and understandability
- Foundation
- Whipsaw
- Testable
- Subjective overlay
- Macroeconomic overlay

Investment Library collateral

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.

Read More

Which Portfolio is Lower Risk?

We care most about risk when the sky is falling

When the market is going up, we don't care about risk. But when it's collapsing, we do. Since 1920, there have been nine stock bear markets. Let's compare how four hypothetical portfolios performed during these nine traumatic events.

Read More

But Has TAA Worked Better Than Bonds?

Investment Library collateral

JULEX CAPITAL

PERSPECTIVES ON TACTICAL ASSET ALLOCATION (AKA SECTOR ROTATION)

JULEX CAPITAL

What happens when interest rates rise?

How does TAA perform during rising/falling interest rate environments?

To answer this question, we must:

- Identify a time period to examine,
- Specify how we define rising and falling interest rate environments,
- Identify a simple transparent TAA portfolio that anyone could replicate, and
- Provide comparative passive index benchmarks.

PERSPECTIVES ON TACTICAL ASSET ALLOCATION (AKA SECTOR ROTATION)

JULEX CAPITAL

Time - Can be your best friend

Matching a need - with an investment portfolio

I've determined how much I plan to spend (and gift) during years 10 through 15 (in the future). To support this plan, my portfolio will be invested for 12 ½ years (on average), the midpoint of this interval.

Many would suggest that an appropriate and common-sense asset mix would be 50% stocks and 50% bonds given this investment time horizon. No, not necessarily today, given current market valuations, but certainly as a normal average asset mix when one's investing for 12 ½ years.

PERSPECTIVES ON TACTICAL ASSET ALLOCATION (AKA SECTOR ROTATION)

JULEX CAPITAL

Why doesn't BlackRock offer TAA?

If TAA is so good, then why doesn't everyone offer it?

First off, BlackRock, Nationwide, Invesco, and Fidelity all offer TAA products. Nevertheless, the investment industry widely appreciates that TAA is not commercially viable, i.e., it won't sell well. How do we understand this seeming contradiction? As we explore this question, keep in mind the distinction between a product selling well in a commercial setting . . . and that same product being the best possible investment solution for an individual investor. The two have little if any overlap. Let's begin.

PERSPECTIVES ON TACTICAL ASSET ALLOCATION (AKA SECTOR ROTATION)

JULEX CAPITAL

But has TAA worked better than bonds?

Is TAA versus bonds the right comparison?

Probably not. But to answer this question, we must first identify the all-important investment timeframe. I'm assuming here that the investor is targeting needs arriving between 5 and 20 years in the future. Therefore, their investment holding period or time horizon is 5 to 20 years.

For such an investor, a pure 100% bond portfolio won't work. It won't be able to generate the needed returns. Similarly, a pure 100% stock portfolio won't work. It'll be too volatile, exposing the investor to an undue likelihood of having to liquidate at an unfortunate point in time (when their account value is down).

SPECTIVES ON TACTICAL ASSET ALLOCATION (AKA SECTOR ROTATION)

JULEX CAPITAL

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 weighs: 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.

The Journal of Portfolio Management

VOLUME 44, NUMBER 1 www.iijpm.com FALL 2017

A Century of Evidence
on Trend-Following Investir

PERSPECTIVES ON TACTICAL ASSET ALLOCATION (AKA SECTOR ROTATION)

JULEX CAPITAL

Which portfolio is lower risk?

We care most about risk when the sky is falling

When the market is going up, we don't care about risk. But when it's collapsing, we do. Since 1920, there have been nine stock bear markets. Let's compare how four hypothetical portfolios performed during these nine traumatic events.

AQR

PERSPECTIVES ON TACTICAL ASSET ALLOCATION (AKA SECTOR ROTATION)

JULEX CAPITAL

The way back is closed, only the path forward remains open

There are different types of change

It's a trite phrase to say *"change is the natural order of things,"* sounds too much like an excuse.

Worse yet, it serves to mask the different types of change - and how the best approach for dealing with one type of change is the worst for another.

Different types of change are distinguished by two attributes:

- Speed or pace
- Smoothness or direction

A Century of Evidence on Trend-Following Investing

Brian Hurst
Principal

Yao Hua Ooi
Principal

Lasse H. Pedersen, Ph.D.*
Principal

Fall 2014

Executive Summary

We study the performance of tren investing across global markets s extending the existing evidence by mor years. We find that trend following ha

PERSPECTIVES ON TACTICAL ASSET ALLOCATION (AKA SECTOR ROTATION)

JULEX CAPITAL

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.

Time - Can be your best friend

PERSPECTIVES ON TACTICAL ASSET ALLOCATION (AKA SECTOR ROTATION)

Time - Can be your best friend

Matching a need - with an investment portfolio

I've determined how much I plan to spend (and gift) during years 10 through 15 (in the future). To support this plan, my portfolio will be invested for 12 ½ years (on average), the midpoint of this interval.

Many would suggest that an appropriate and common-sense asset mix would be 50% stocks and 50% bonds given this investment time horizon. No, not necessarily today, given current market valuations, but certainly as a normal average asset mix when one's investing for 12 ½ years.

Financial planning - My all-critical assumption

I've deposited sufficient funds into my new 50/50 portfolio, so that my needs/wants will be met during years 10 through 15. But, to accomplish this end, I had to assume a specific rate of return, a guess about the future. I assumed that my 50/50 portfolio would earn at least 6 ¾%. This seemed like a reasonable assumption to me.

But was it reasonable? To answer this question, I turned to history, examining what stocks and bonds returned during every possible 12 ½ year time period since 1919 (the last 102 years). Essentially, I'm asking the question: *"If I were to draw a random 12 ½ year period out of history, what's the chance that I would have earned at least 6 ¾%?"*

Historical results

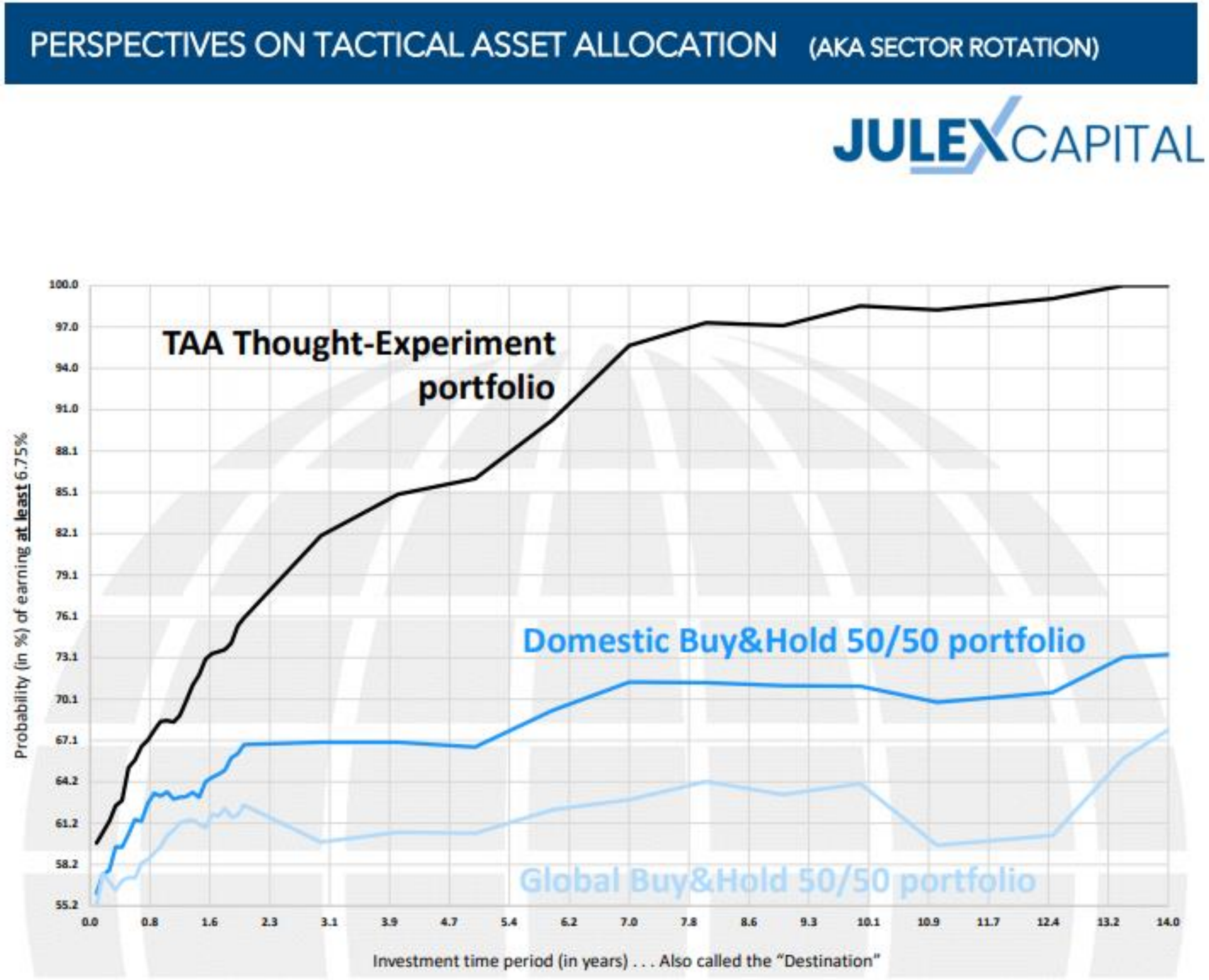
Let's consider three cases, each utilizing a different portfolio.

First Case - The first case is a passive portfolio allocated 50% to stocks and 50% to bonds, and is ultra-diversified across both domestic and international markets. It is a global portfolio.

Second Case - The second case is a passive portfolio allocated 50% to stocks and 50% to bonds, and is ultra-diversified across U.S. markets, it excludes all international investments. It is a domestic portfolio.

Third Case - The third case is our Thought-Experiment Tactical Asset Allocation portfolio. It starts with a passive stock/bond portfolio ultra-diversified across both domestic and international markets, but since it is a TAA portfolio, it adjusts its weightings once each month so as to over-weight recent winning asset categories and under-weight recent losing asset categories. The exact specifications for our Thought-Experiment TAA portfolio can be found in the Disclosure language at the end of this article. Over the entire time period, the portfolio delivered an average asset allocation of 24.2% U.S. stocks, 28.8% international stocks, 14.0% U.S. Treasury bonds, 27.2% investment grade highly liquid U.S. corporate bonds, 0.7% international bonds, 1.4% gold, and 3.7% other commodities.

Time - Can be your best friend



Why TAA?

- Because “Modern Portfolio Theory” is so much crap
- It is such a gross over-simplification of the real world
- It abstracts far to much from the real world
- Mean variance optimization works in “the lab” . . . but not in the real world
- How do we understand this observation ?

Mean variance optimization is crap

The Next Global Disaster Is on Its Way, and We Aren't Ready

A major lesson of Covid-19 is that there is no distinction between natural and man-made catastrophes.

By Niall Ferguson

May 9, 2021, 12:00 AM PDT *Corrected May 9, 2021, 10:03 AM PDT*

Mean variance optimization is crap

JULEX CAPITAL

This is partly because many disastrous events are governed by power laws, rather than a normal probability distribution of the sort that our brains more readily comprehend. Plotted on a graph, the distribution of pandemics is not the familiar bell curve, with most outbreaks clustered around the mean. Rather, if you plot the size of pandemics against the frequency of their occurrence using logarithmic scales, you get a straight line. The same is true of earthquakes.

This means that there is no average pandemic or earthquake; there are a few very large ones and a great many quite small ones, and there is no way of attaching a probability to the timing of a very large one. The same goes for man-made disasters such as wars and revolutions (which are more often disastrous than not) as well as financial crises – economic disasters that have lower death tolls but, often, comparably disruptive consequences.

A defining feature of history is that there are many more black swans – not to mention what Didier Sornette calls "dragon kings," events so large in scale that they lie beyond even a power-law distribution – than a normally distributed world would lead us to expect. All such events lie in the realm of uncertainty, not of calculable risk.

For more information contact

Jeff Megar, CFA
Email jeff.megar@julexcapital.com
Office 781-772-1378

Bob Peatman
Email bob.peatman@julexcapital.com
Cell 617-875-9316

Important Disclosures

JULEX CAPITAL

This information in this presentation is for the purpose of information exchange. This is not a solicitation or offer to buy or sell any security. You must do your own due diligence and consult a professional investment advisor before making any investment decisions. The use of a proprietary technique, model or algorithm does not guarantee any specific or profitable results. Past performance is not indicative of future returns. The performance data presented are gross returns, unless otherwise noted.

The risk of loss in trading securities can be substantial. You should therefore carefully consider whether such trading is suitable for you in light of your financial condition. All information posted is believed to come from reliable sources. We do not warrant the accuracy or completeness of information made available and therefore will not be liable for any losses incurred.

Some part of the investment performance shown is HYPOTHETICAL. It is based on the back tests of historical data. Hypothetical performance results have many inherent limitations, some of which are described below. No representation is being made that any account will or is likely to achieve profits or losses similar to those shown. In fact, there are frequently sharp differences between hypothetical performance results and the actual results subsequently achieved by any particular trading program.

One of the limitations of hypothetical performance results is that they are generally prepared with the benefit of hindsight. In addition, hypothetical trading does not involve financial risk, and no hypothetical trading record can completely account for the impact of financial risk in actual trading. For example, the ability to withstand losses or adhere to a particular trading program in spite of trading losses are material points which can also adversely affect actual trading results. There are numerous other factors related to the markets in general or to the implementation of any specific trading program which cannot be fully accounted for in the presentation of hypothetical performance results and all of which can adversely affect actual trading results.

The composition of a benchmark index may not reflect the manner in which a Julex portfolio is constructed in relation to expected or achieved returns, investment holdings, portfolio guidelines, restrictions, sectors, correlations, concentrations, volatility, or tracking error targets, all of which are subject to change over time.

No representation or warranty is made to the reasonableness of the assumptions made or that all assumptions used to construct the performance provided have been stated or fully considered.