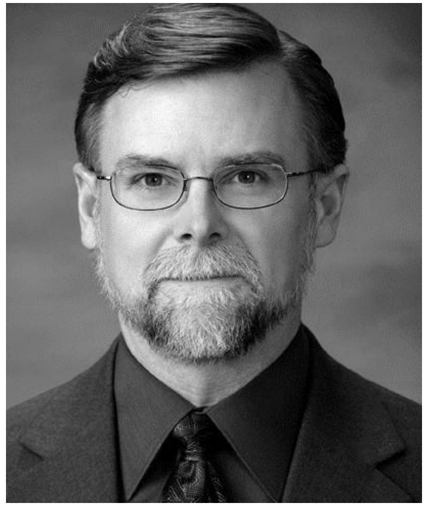
TAA - What is it, does it really work, over what time period?

Rob Brown, PhD, CFA

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



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Tactical asset allocation

What is it

Tactical asset allocation - what is it?

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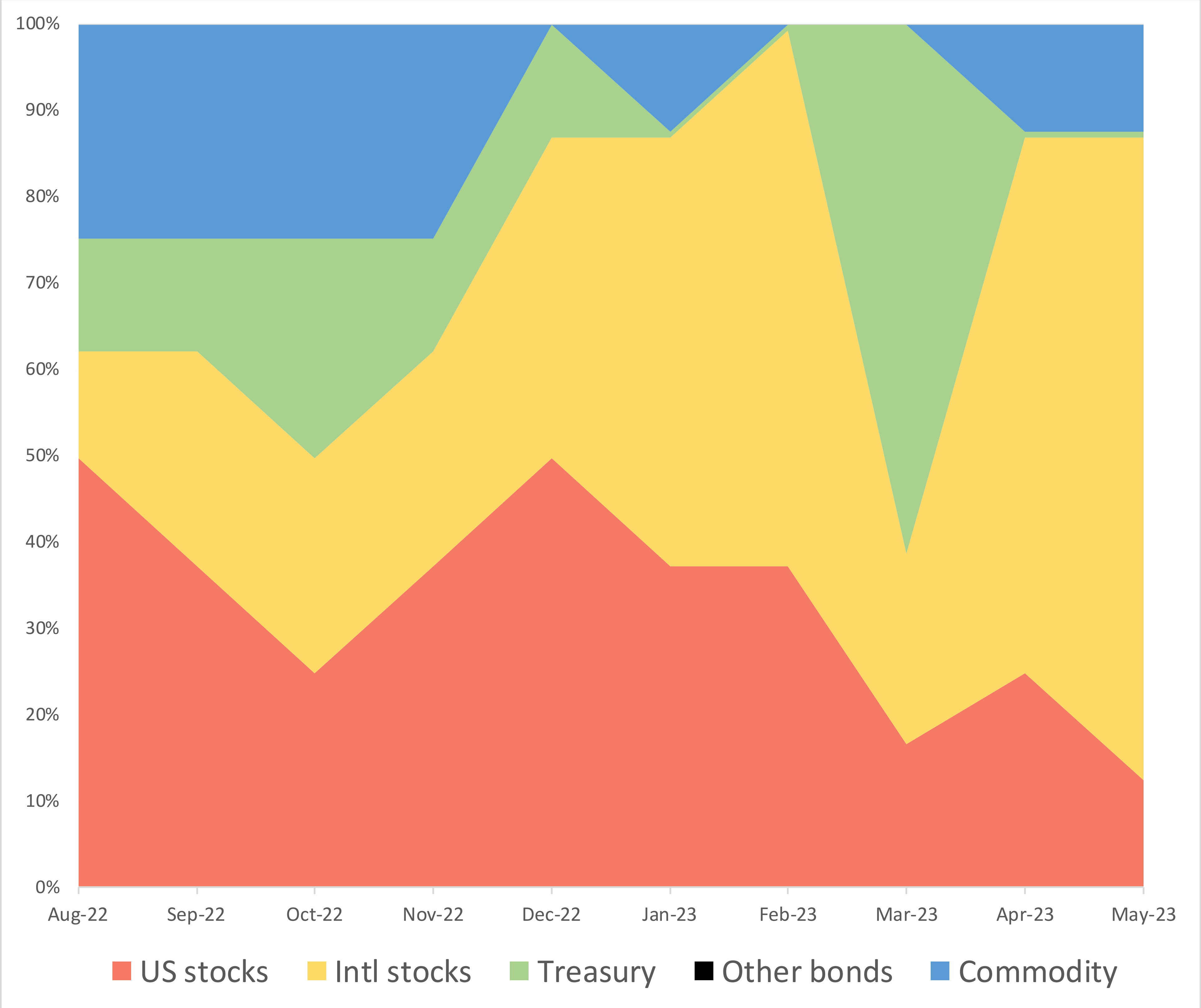
- Also called "*sector rotation*"
- Asset mix changes quickly and in size
- If you expect or are only used to "*traditional*" portfolios . . . you will be scared, worried, and surprised
- Solutions
  - Don't use it
  - Water it down
  - Reset your expectations and understandings
  - Appreciate . . . .
    - Average asset allocation is incredibly "***normal***" and "***comfort giving***"
    - But any given month . . . the current asset mix will be significantly more conservative or more aggressive
- Success requires
  - Setting and maintaining appropriate client expectations



Ultra-simple TAA model

Bucket-3

14.9-year investment time horizon

Came from a live-client solution

	MINIMUM allowed	MAXIMUM allowed	Long-run AVERAGE
U.S. stocks	0.0%	86.9%	33.2%
International stocks	0.0%	99.3%	36.7%
U.S. Treasury bonds	0.7%	89.0%	18.3%
Other bonds	0.0%	0.0%	0.0%
Commodities	0.0%	49.7%	11.9%

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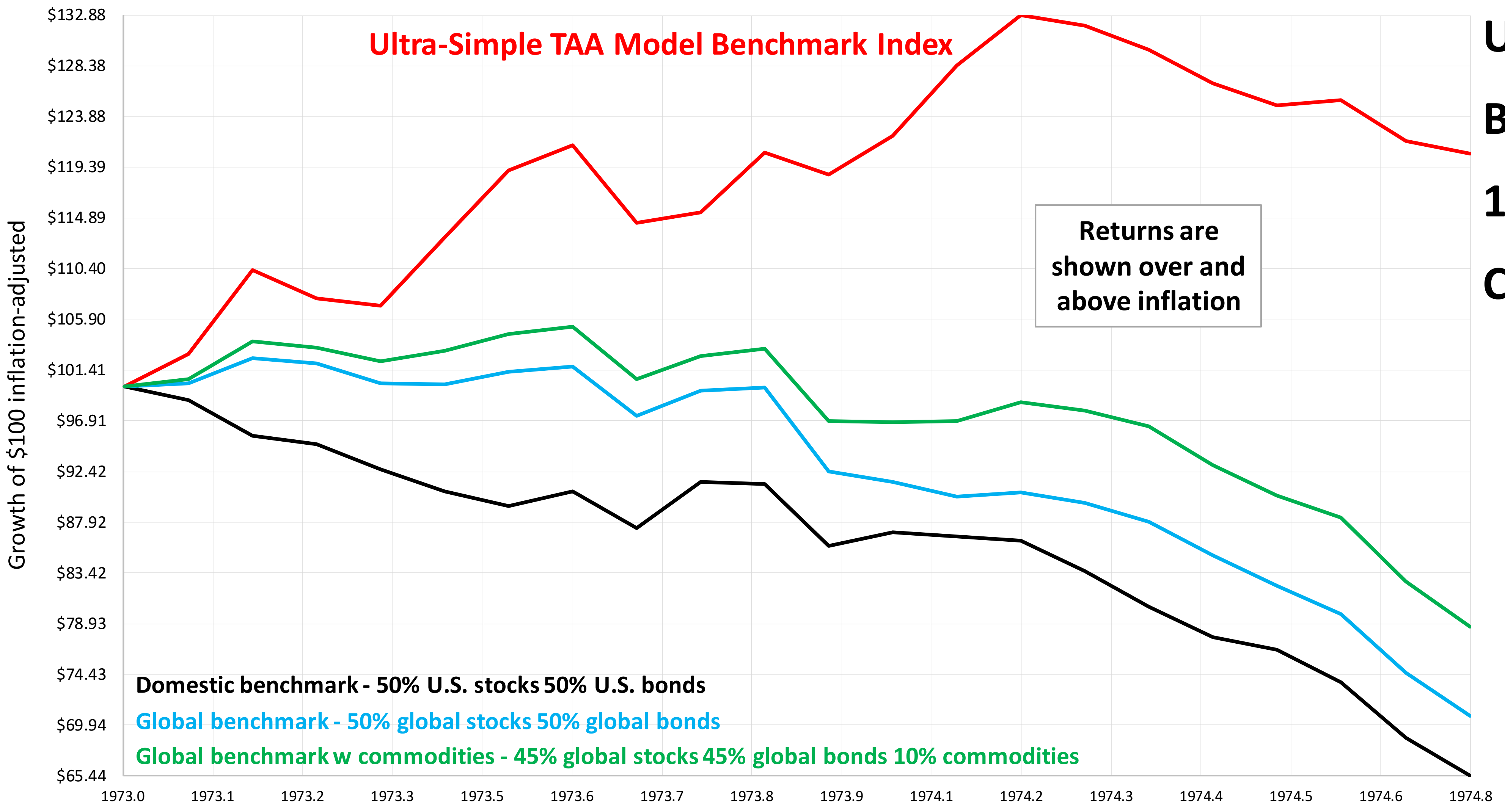

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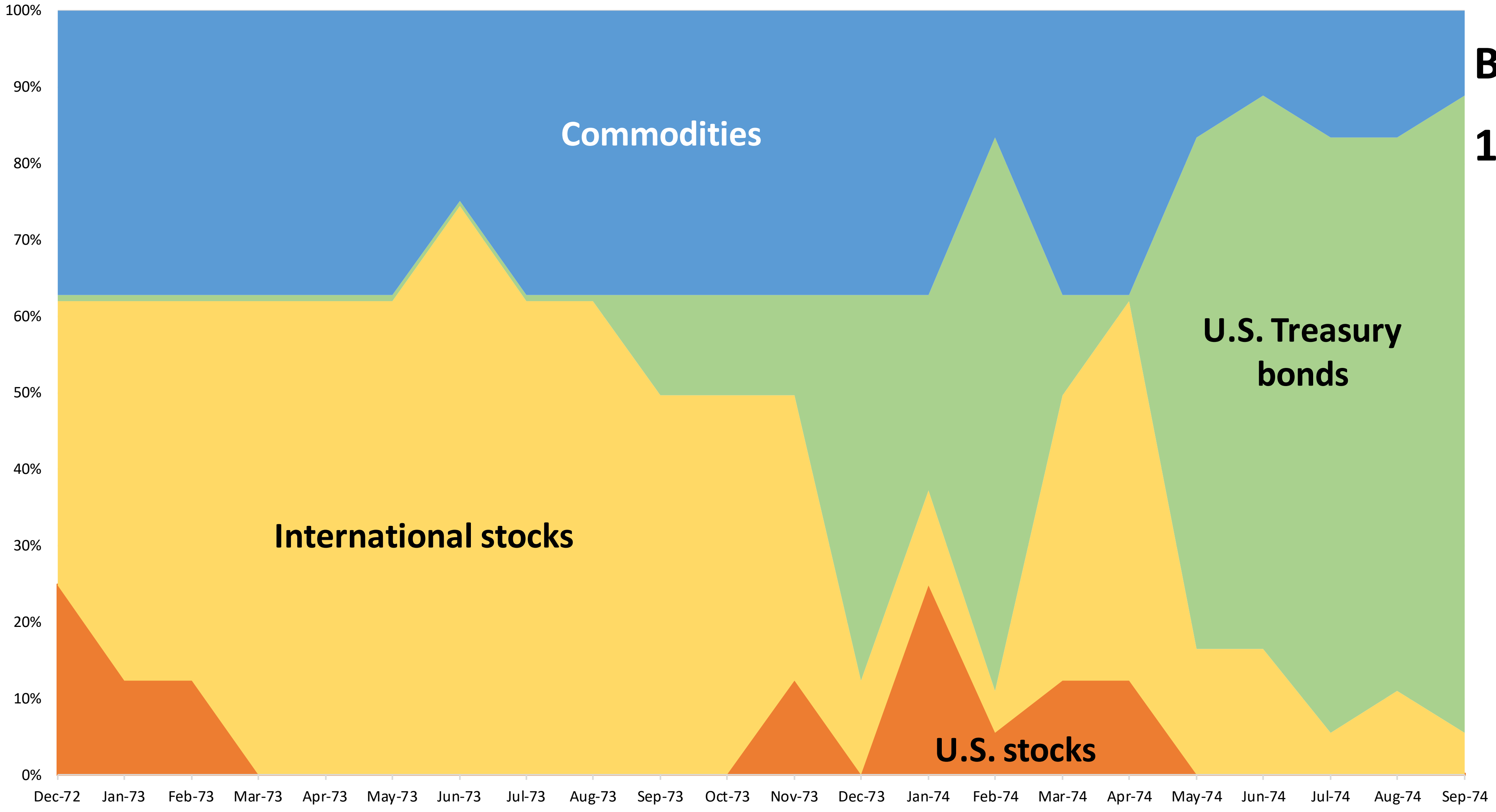

Why use it?

Do “strange” or “big” things . . . ever happen?

Asset Categories Experience Long/Extended Periods of Loss

Asset category	Number of years real return was negative	Start of losing period	End of losing period	Cumulative loss (in %)
Gold bullion	131.1	Jan 1875	Feb 2006	-0.3
	12.4	May 2010	Oct 2022	-1.7
	1.5	Feb 2008	Aug 2009	-4.2
International treasury bonds (GDP-weighted)	90.2	Dec 1894	Feb 1985	-0.1
	17.8	Dec 2004	Oct 2022	-1.2
	3.8	Jun 1879	Apr 1883	-0.3
10-year U.S. Treasury bonds	86.7	Dec 1894	Sep 1981	-0.2
	19.4	May 2003	Oct 2022	-0.7
	4.7	Feb 1889	Oct 1893	-0.2
U.S. corporate bonds (investment grade)	45.8	Jan 1936	Oct 1981	-0.6
	28.5	Jan 1892	Jul 1920	-0.6
	11.0	Feb 2012	Feb 2023	-0.1
Diversified commodities	39.7	Aug 1980	Apr 2020	-1.4
	32.1	May 1917	Jun 1949	-3.0
	21.6	Dec 1950	Jul 1972	-5.4
U.S. stocks	21.2	May 1961	Jul 1982	-1.3
	19.8	Aug 1929	Jun 1949	-5.5
	16.4	Mar 1905	Aug 1921	-2.6
International stocks	18.7	Aug 1914	Apr 1933	-0.2
	16.9	Jan 1936	Dec 1952	-0.5
	15.3	May 2007	Sep 2022	-2.1
60/40 portfolio	25.7	Apr 1895	Dec 1920	-0.1
	15.4	Dec 1936	May 1952	-0.1
	10.5	Jan 1972	Jul 1982	-1.5

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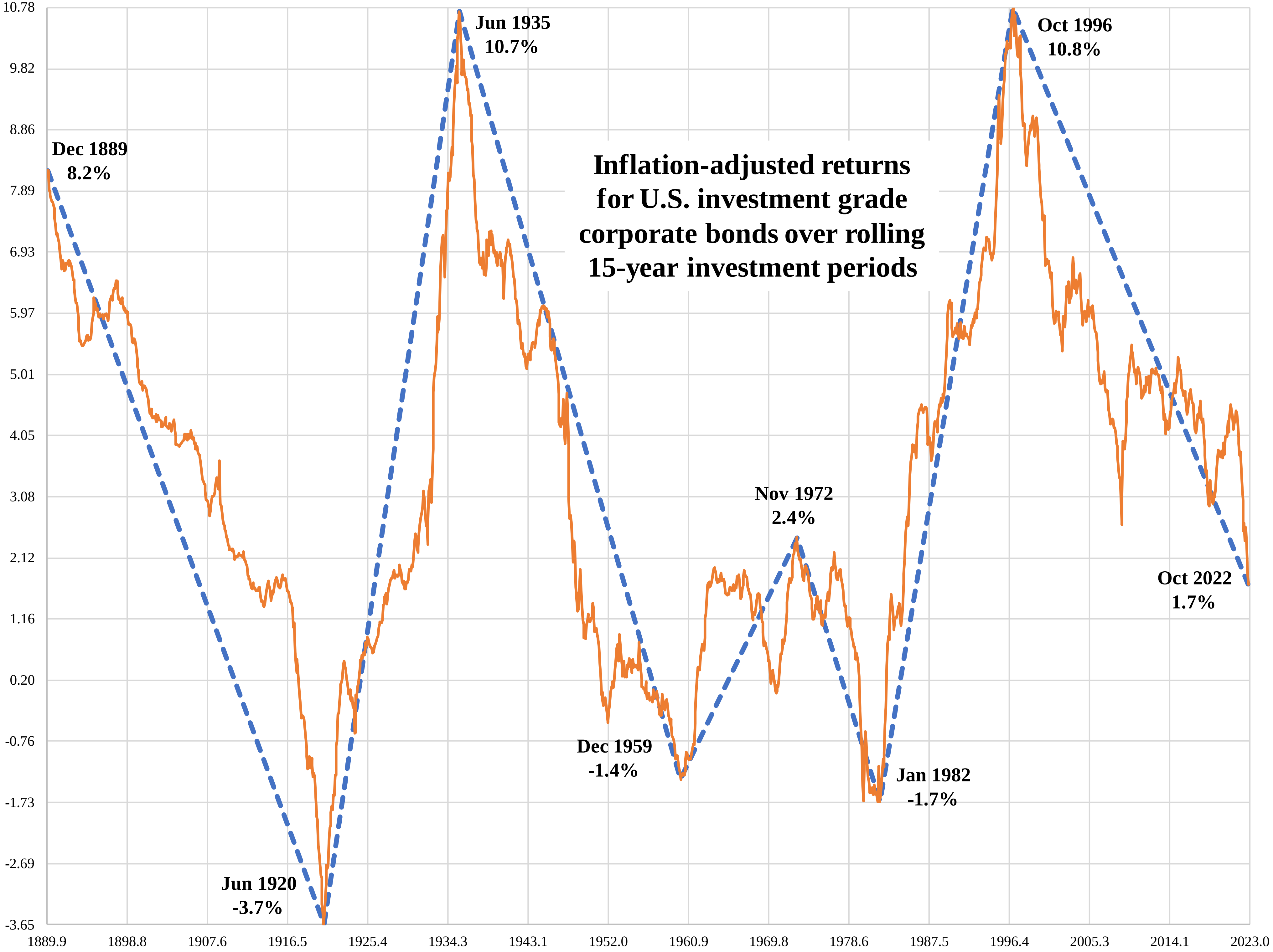
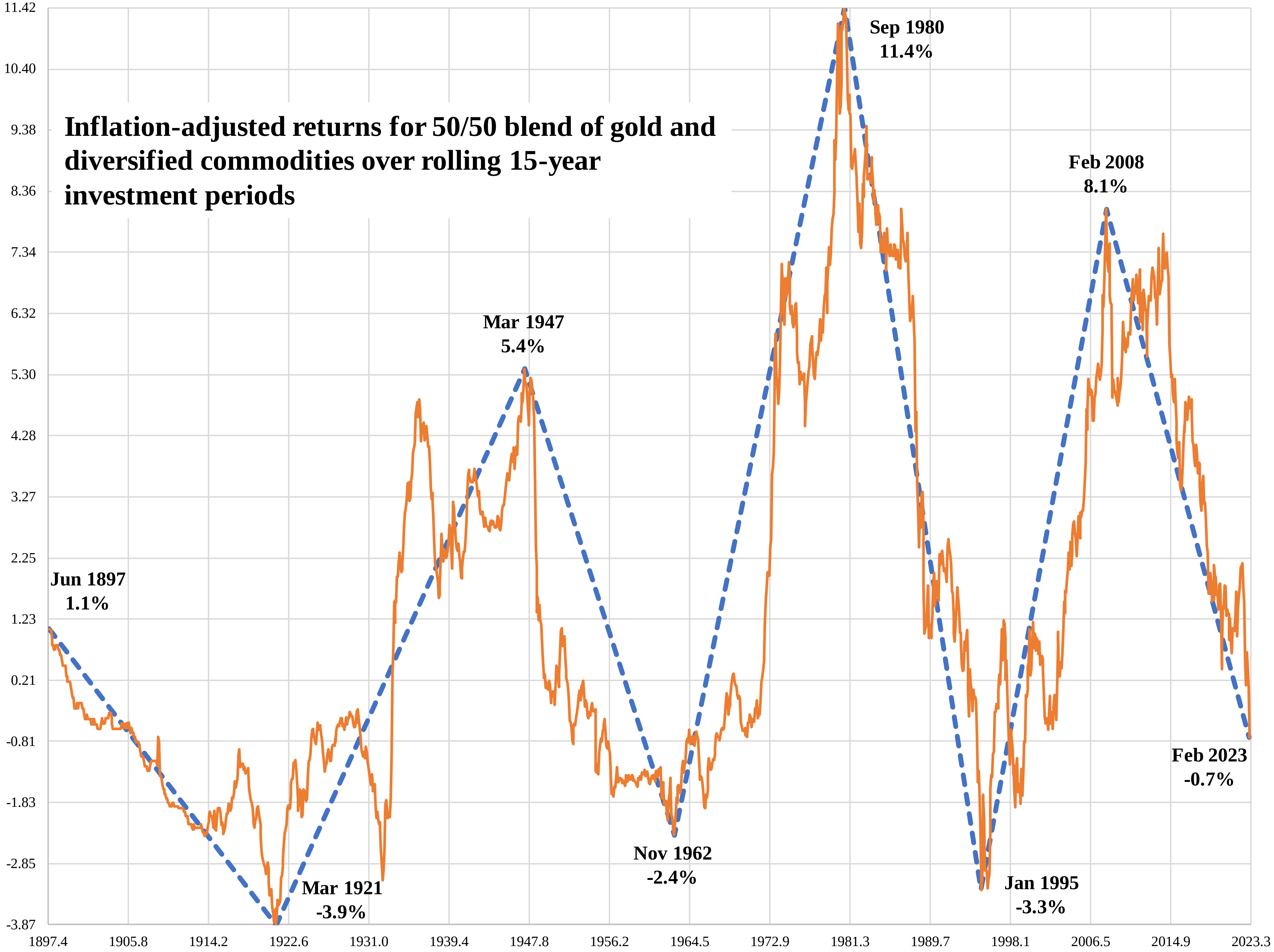
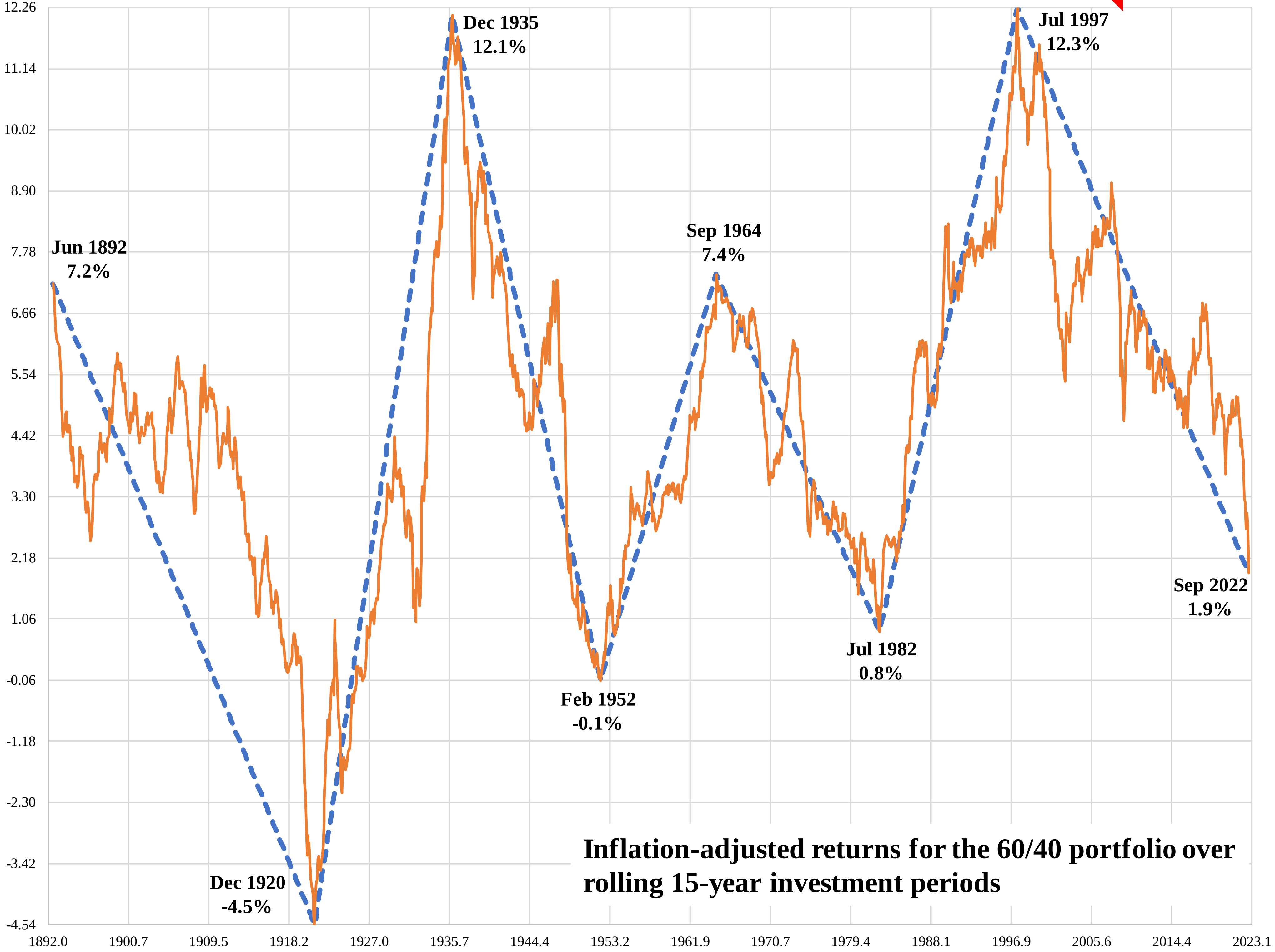
Returns are Strongly Episodic for U.S. Investment Grade Corporate Bonds



Returns are Strongly Episodic for 50/50 Blend Gold and Diversified Commodities



Returns are Strongly Episodic for the Ultra-Diversified 60/40 Portfolio



Tactical asset allocation - The solution for *"What If"*

- US stocks return 0% and international stocks return 10% . . . . for the next ten years
- US stocks return 12% and international stocks return 0% . . . . For the next ten years
- Inflation doesn't go down . . . it goes up
- Interest rates don't go down . . . they go up
- China cold war turns hot
- European war goes nuclear

Tactical asset allocation - The solution for *"What If"*

- Federal government defaults on its debt
- Bank failures spiral out of control
- Demographic trends prove to be catastrophic
- A terrorist . . . takes out NYC
- Bioengineering advances . . . results in crop yields tripling around the globe
- Nuclear fusion is perfected . . . . and energy costs drop to near-zero

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Because tactical asset allocation

- **Adjusts <u>quickly</u>**
- **And <u>in size</u>**

Do the rules of a superior TAA portfolio ever change?

Yes . . . at the edges

But never . . . the approach or the process

Yes - but only at the edges

- With the passage of time
- New ETF products arrive
- New data arrives
  - A new year of data has arrived
  - Liquidity has improved or changed for ETFs
    - DBO . . . Oil
    - EWA . . . Australia
    - EWG . . . Germany
    - GLTR . . . Diversified precious metals
  - Reevaluate trading costs . . . . unusually important for all commodities

Probability of success

How is this even possible?

Are the numbers made up?

Is it even possible to state honest, genuine probabilities of success?

JULEX CAPITAL

- Yes
- But . . . the following have to be true
  - Simple quantitative rule that doesn't change over time
  - Rule wasn't back-fitted
    - In other words, you didn't try 1,000 rules . . . and then just selected the one that worked best

Hyper critical

RUN, from anyone who violates this rule

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  - The underlying data covers numerous and radically different investment environments
    - For example . . . restricting your analysis to the last 74 years (the post-industrial era) and restricting yourself to U.S. asset classes doesn't cut it
    - Such an approach is an abomination

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    - For example . . . restricting your analysis to the last 74 years (the post-industrial era) and restricting yourself to U.S. asset classes doesn't cut it
    - Such an approach is an abomination
  - Take into account **trading costs** . . . direct and indirect
  - The past has to be sufficiently **representative** of the future

Data source

- Global Financial Data, Inc.
  - Monthly total returns
  - In U.S. Dollar terms

- Supplemented by Kenneth R. French Data Library
  - Dartmouth College

- Spans the time period Jan 1919 - Jul 2023

If you randomly (blindly) select a 14.9-year time period out of all of history, what will you earn over and above inflation?

This table tells you what the probability is that you will earn more than a certain return

Probability	Ultra-Simple TAA Model	US benchmark (50/0/50/0/0)	Global benchmark (25/25/25/25/0)	Global benchmark with commodities (22.5/22.5/22.5/22.5/10)
99.8	3.2	-0.7	0.1	0.1
99.5	3.5	-0.4	0.3	0.3
99	3.7	-0.2	0.4	0.5
98	4.0	0.0	0.7	0.6
97	4.3	0.3	0.9	0.8
96	4.5	0.9	1.1	1.0
95	4.7	1.2	1.2	1.2
90	5.6	2.4	1.8	1.9
85	6.2	3.7	2.2	2.5
80	7.3	4.1	2.6	2.7

Based on data spanning the time period Jan 1919 through Dec 2022

You are suspicious of the results, just say so, and we will provide you with all of the data, so that you can check the results

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Numbers are as follows:

- 1st = US stocks
- 2nd = Int'l stocks
- 3rd = US bonds
- 4th = Int'l bonds
- 5th = Broadly diversified commodities

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These are "above inflation" numbers

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What does this tell you about the short-run?

- One or even . . . several years
- Absolutely . . . . nothing . . . . just nothing
- Just NOTHING . . . TAA doesn’t work in the short-run

This speaks to the issue . . . Of never over-promising

- Examples of over-promising

- When a bear market comes along . . . you will be protected
- You'll be protected on the downside . . . and will still win on the upside
- You will get "*30% of the downside*" and you'll also get "*80% of the upside*"

- I can't be critical enough . . . concerning this type of Disneyesque story-telling

Important qualifications

- The data is honest, credible, even bomb-proof
- But <u>is it relevant</u> to today . . . is it relevant to the next 14.9 years

- The <u>NEXT</u> 14.9 years is not representative of the last 104 years . . . instead it is unique . . . maybe even seriously weird

- In using these probabilities . . . . you have to consider
  - How do I adjust . . . to how the next 14.9 years will differ from the past
  - How are they different from the last 104 years
  - Worse or better . . . . or just a different journey

Collateral

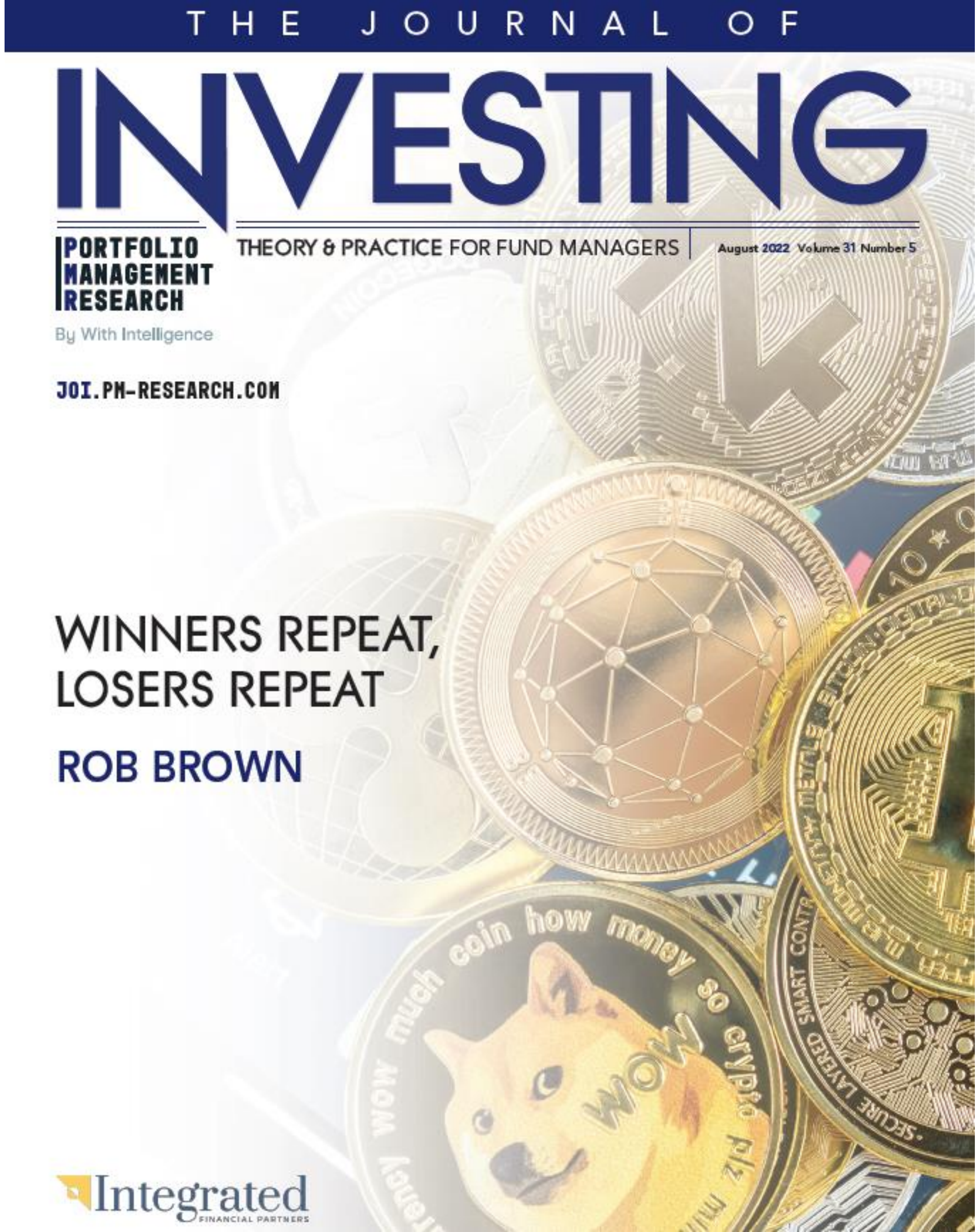
Client-facing


The Journal of Portfolio Management

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

A Century of Evidence on Trend-Following Investing

BRIAN HURST, YAO HUA OOI, AND LASSE HEJE PEDERSEN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WINNERS REPEAT, LOSERS REPEAT

ROB BROWN

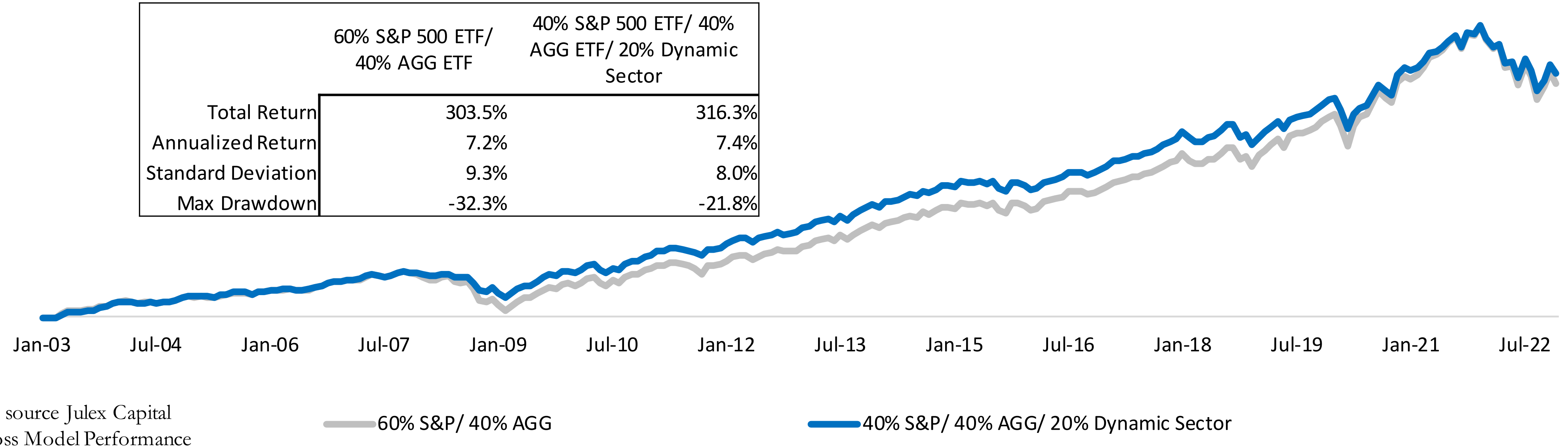
Integrated FINANCIAL PARTNERS

20 years of performance . . . A hypothetical portfolio

JULEX CAPITAL

40% S&P 500 Index ETF , 40% AGG ETF, 20% Dynamic Sector*

	60% S&P 500 ETF/ 40% AGG ETF	40% S&P 500 ETF/ 40% AGG ETF/ 20% Dynamic Sector
Total Return	303.5%	316.3%
Annualized Return	7.2%	7.4%
Standard Deviation	9.3%	8.0%
Max Drawdown	-32.3%	-21.8%



Data source Julex Capital
*Gross Model Performance

40% S&P 500 Index ETF, 30% AGG ETF, 30% Dynamic Sector*

	60% S&P 500 ETF/ 40% AGG ETF	40% S&P 500 ETF/ 30% AGG ETF/ 30% Dynamic Sector
Total Return	303.5%	378.6%
Annualized Return	7.2%	8.1%
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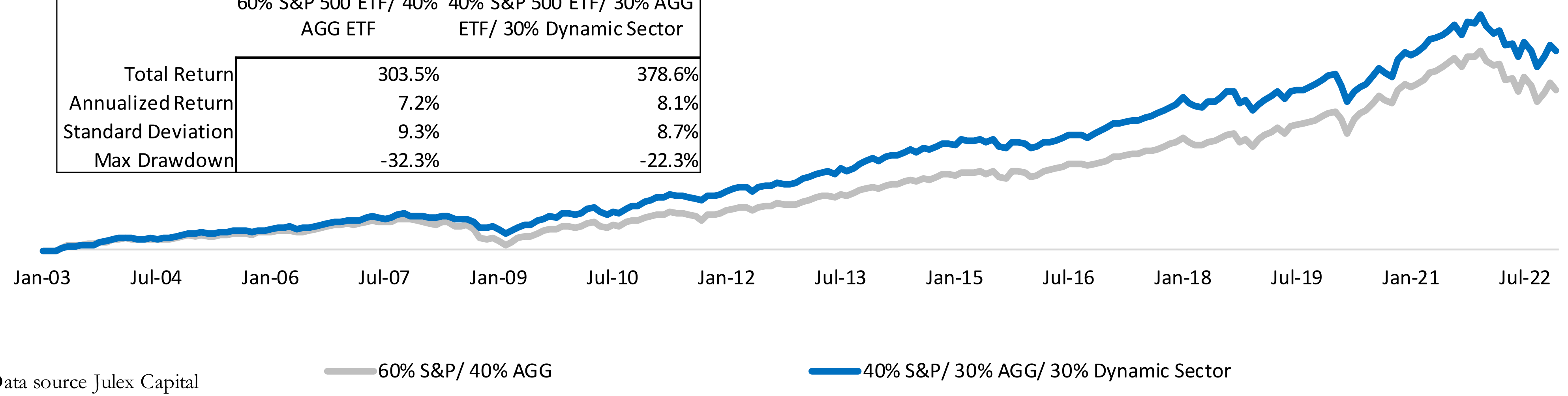

Data source Julex Capital
*Gross Model Performance

I could invest in anything

What am I using?

How are Judy and I invested

- 44.99% in physical assets . . . and locked-up positions that can't be moved (hedge funds, venture capital, annuities)
- 55.01% in tactical asset allocation

- We've moved every single dollar (we can) into TAA

- We use
  - TAA targeting a 7.5-year investment time horizon . . . . Julex has such a portfolio
  - A version targeting a 22.5-year investment time horizon . . . . . such as the Julex product described earlier

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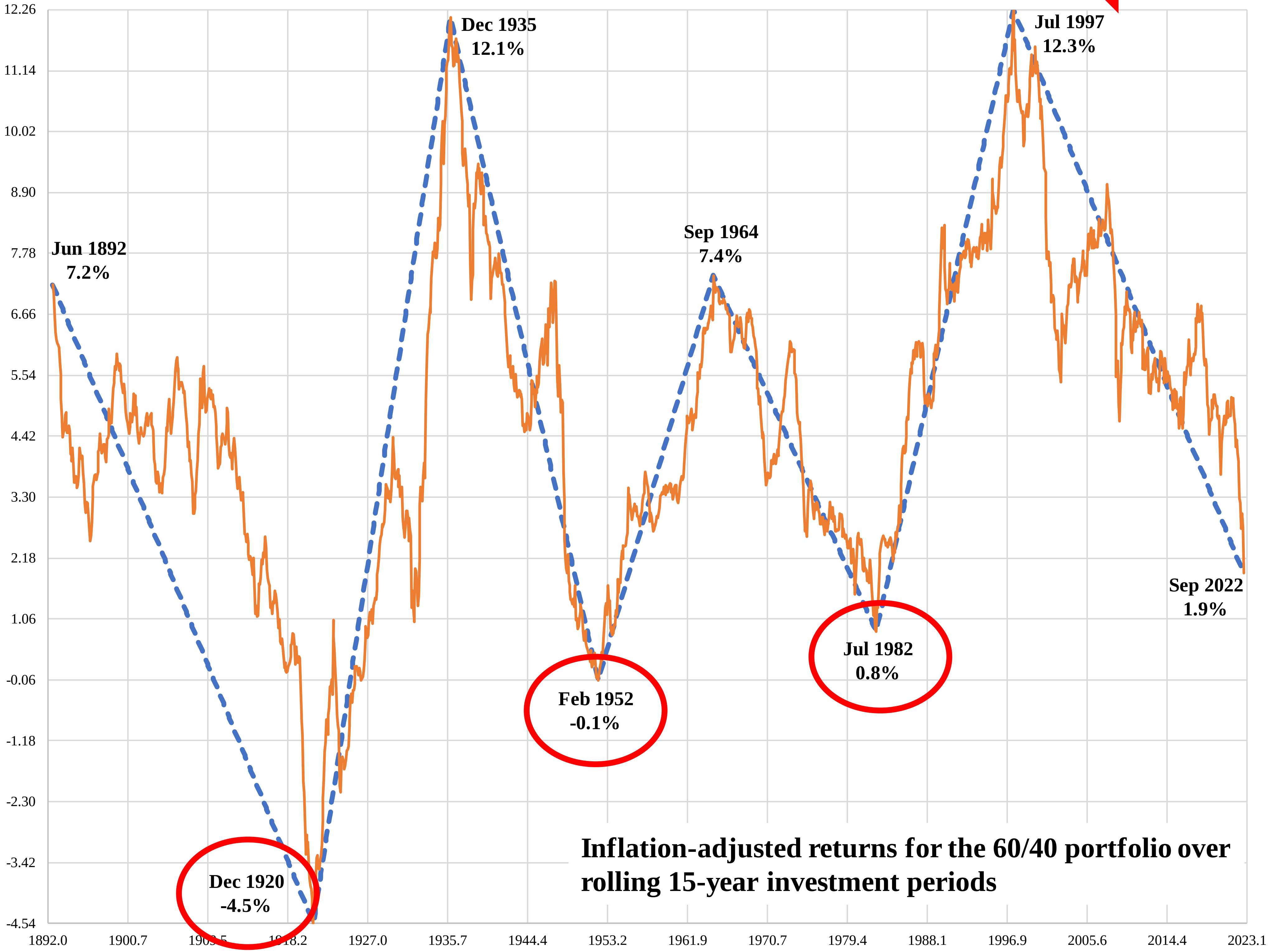
Returns are Strongly Episodic for the Ultra-Diversified 60/40 Portfolio



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The investment performance shown, if indicated, 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.

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Tactical Asset Allocation Views – July 2023

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Leading indicators predicts a recession

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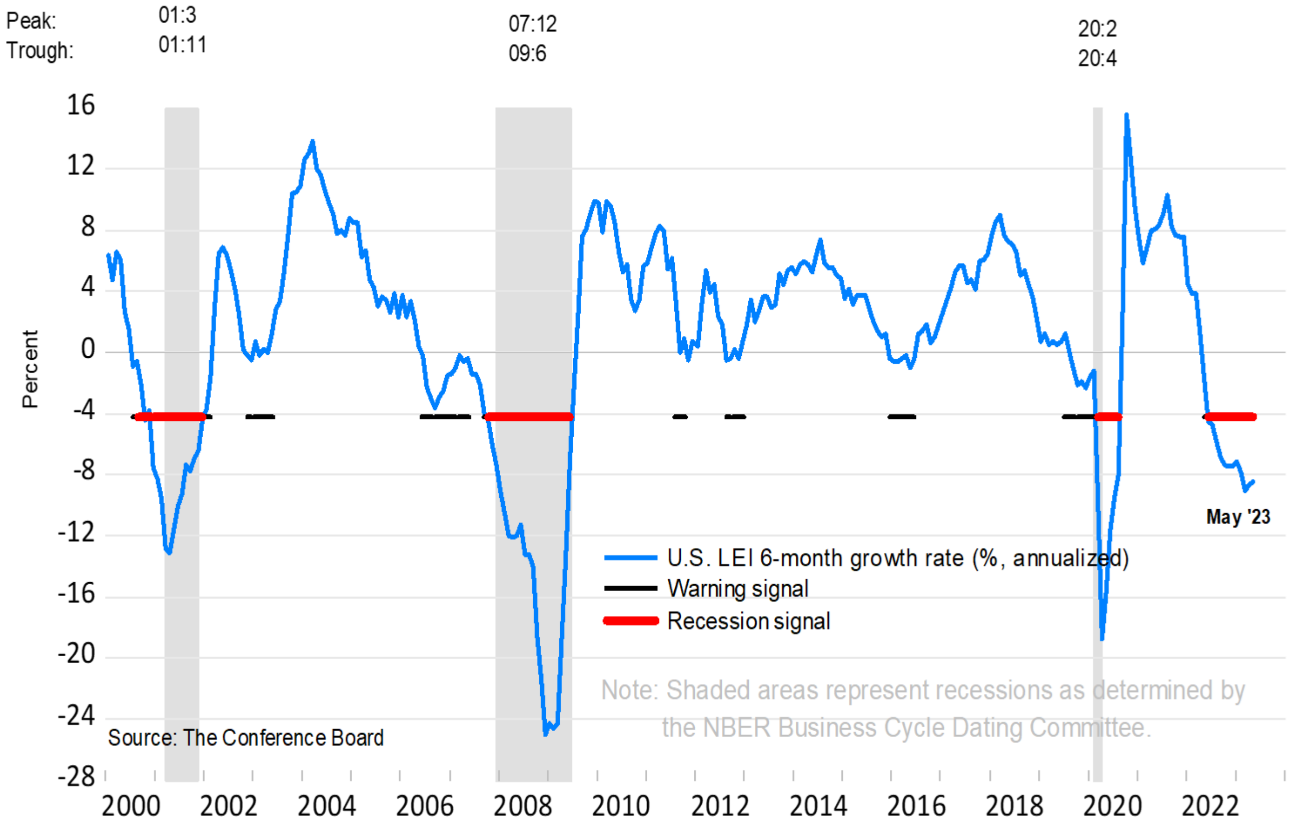
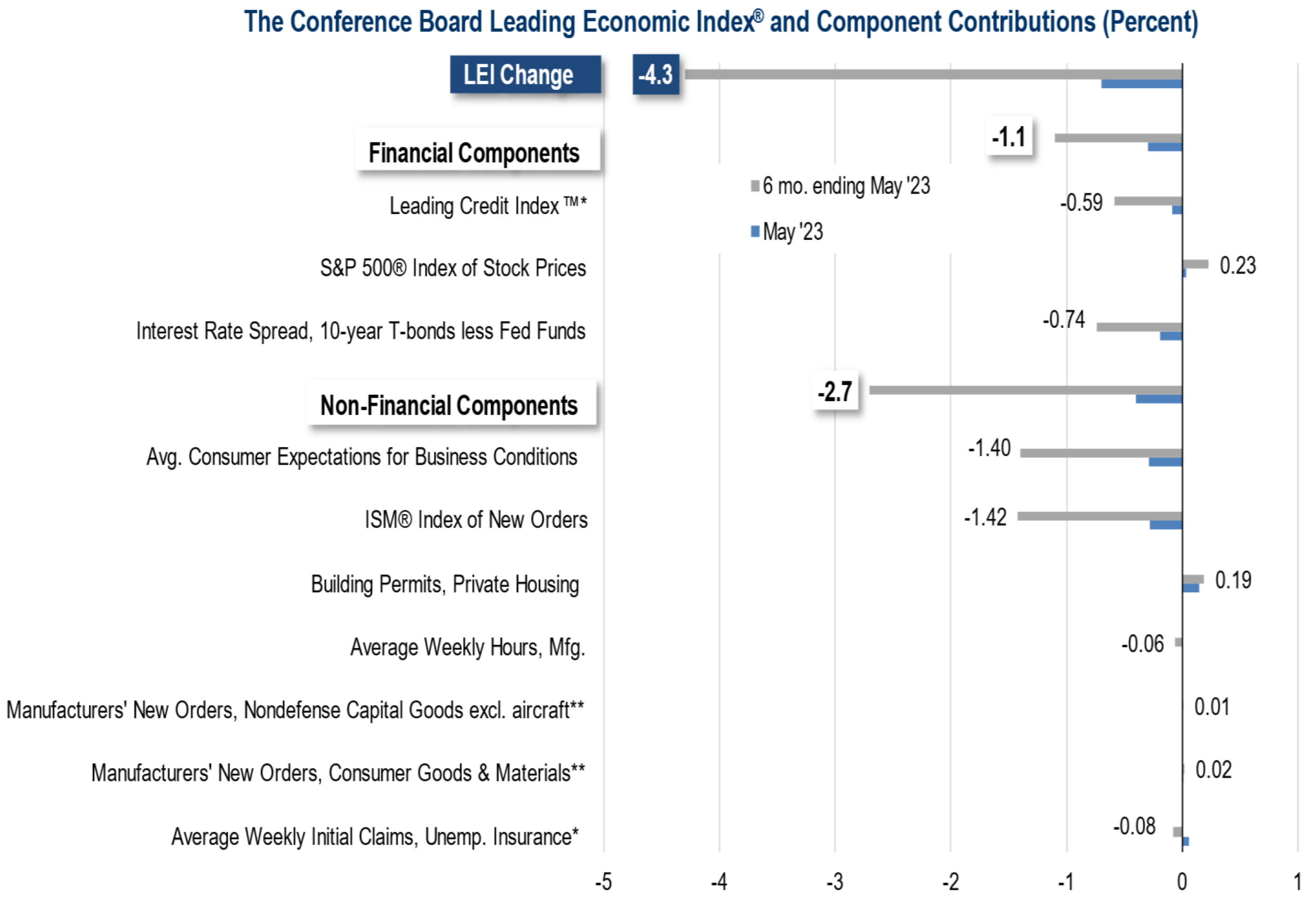
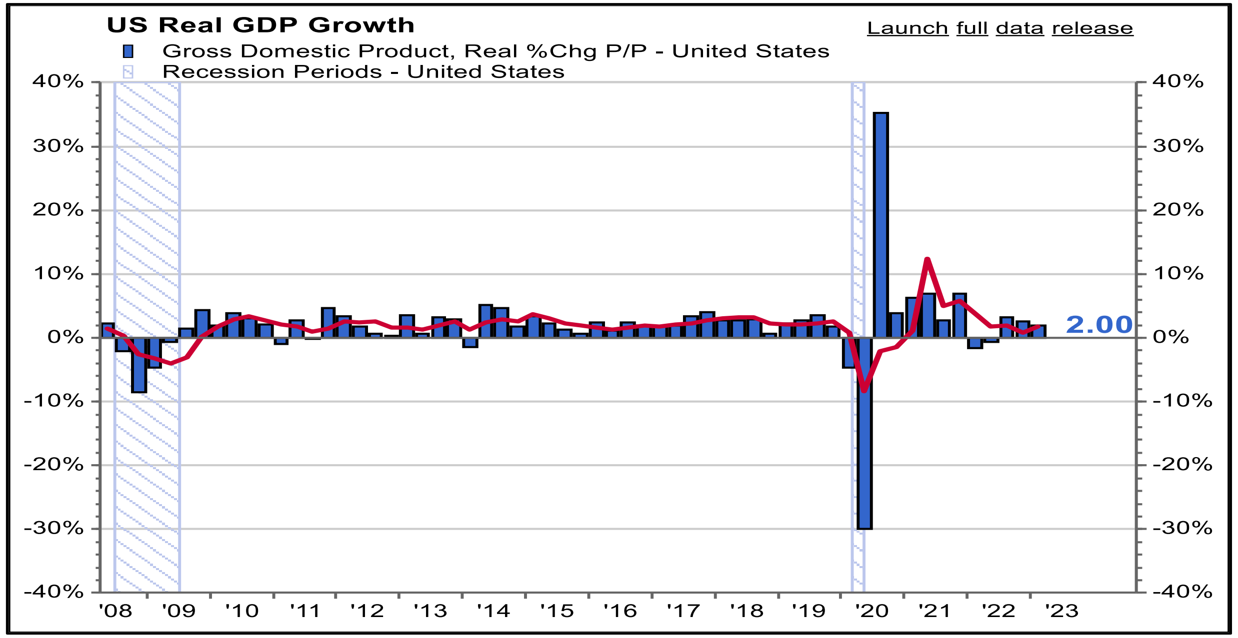


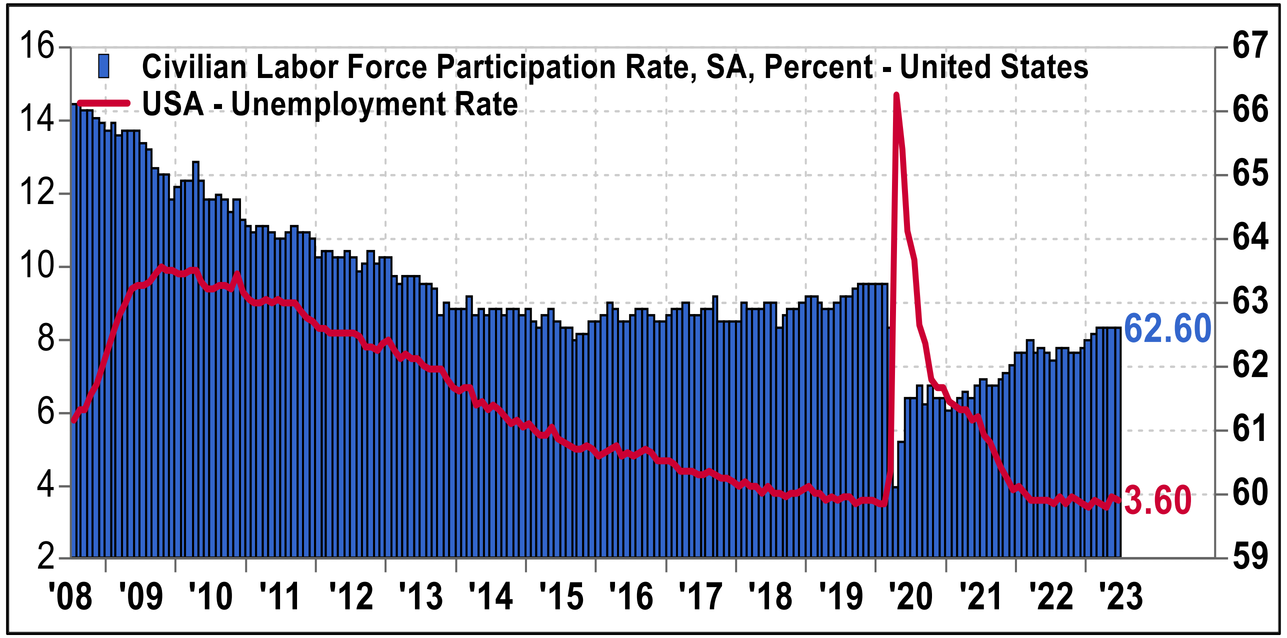


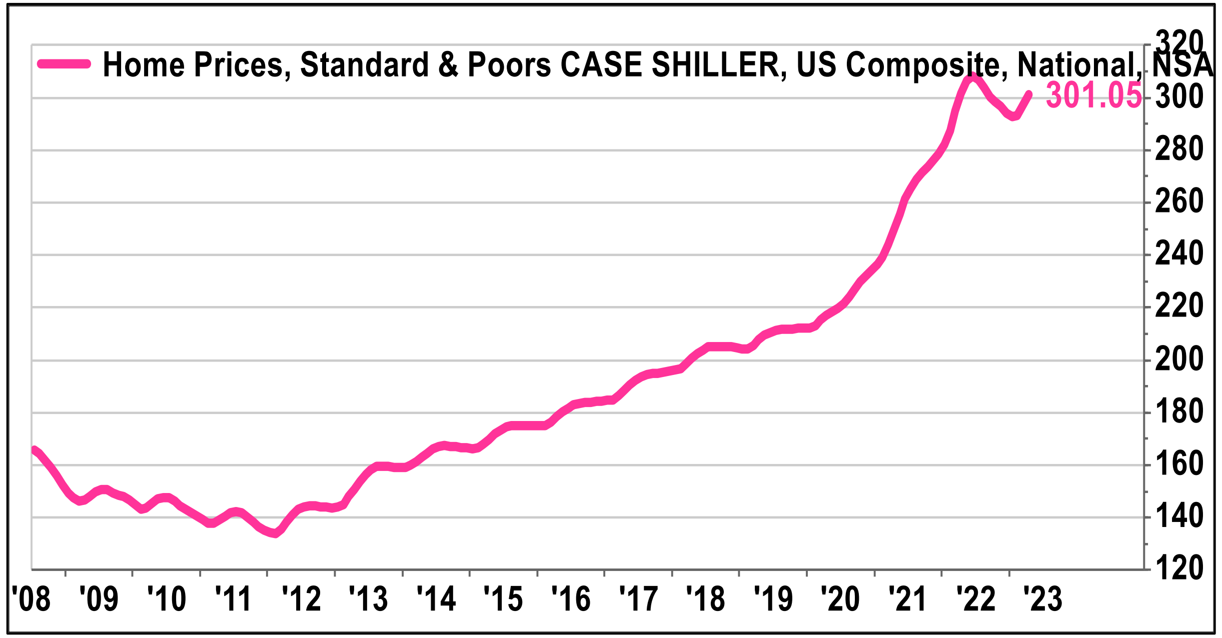
Source: The Conference Board
* Inverted series; a negative change in this component makes a positive contribution.
** Statistical Imputation
LEI change might not equal sum of its contributions due to application of trend adjustment factor

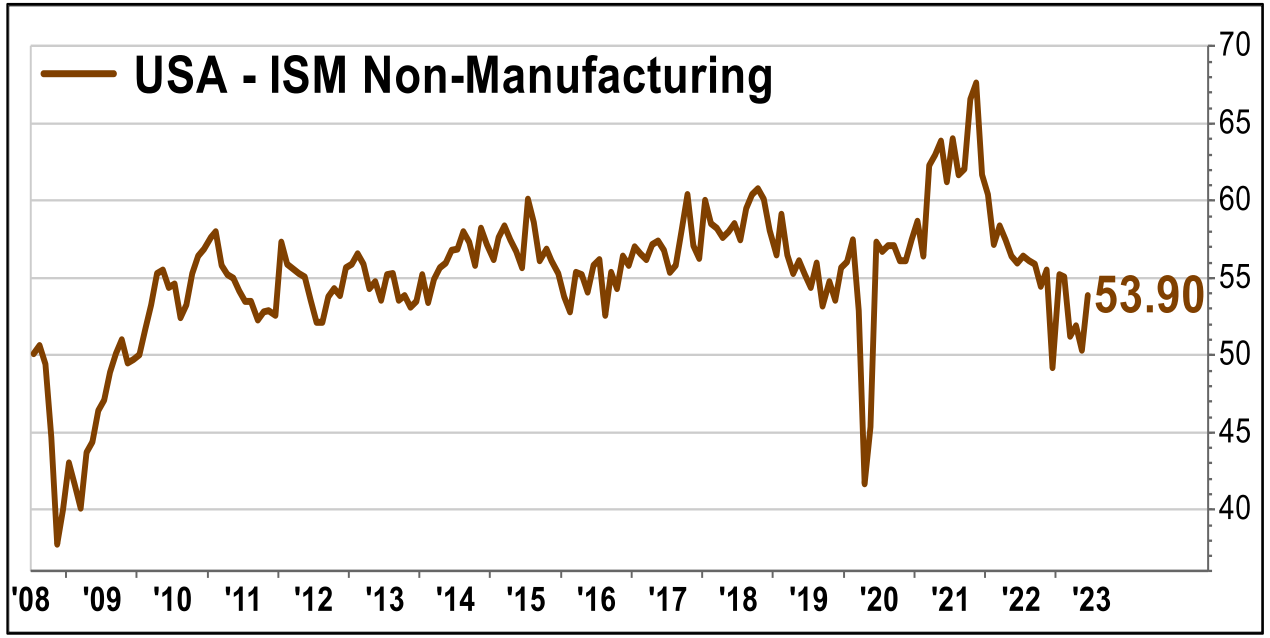
Date Source: Conference Board.

But current economic data is still resilient …



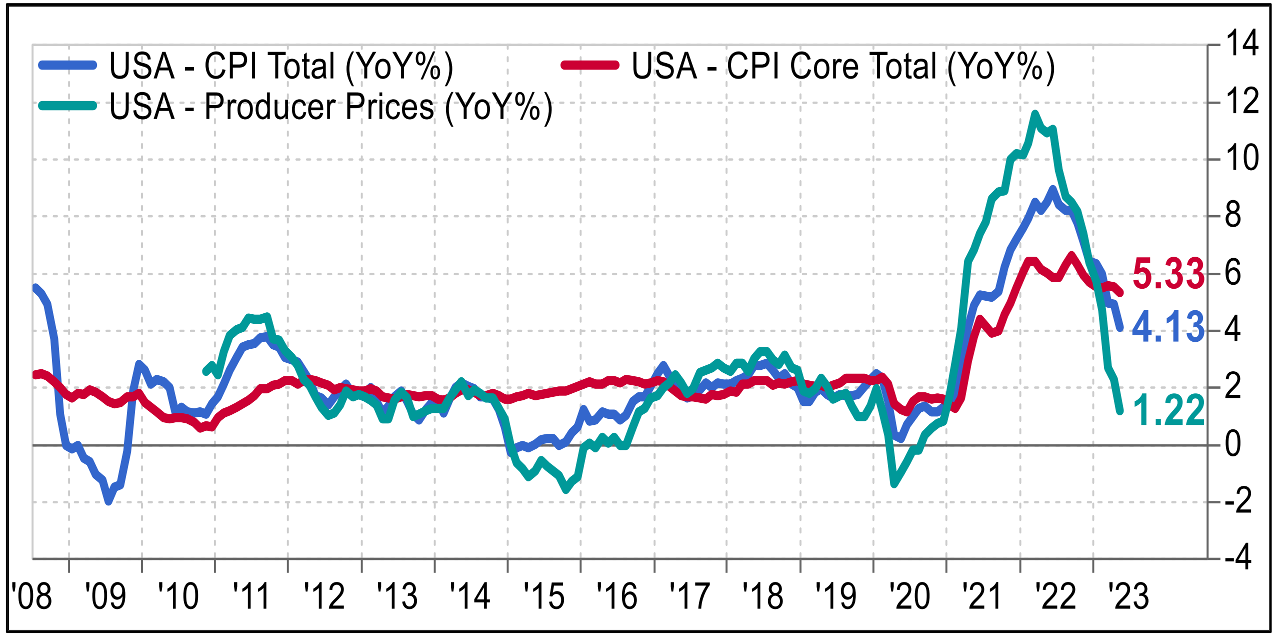


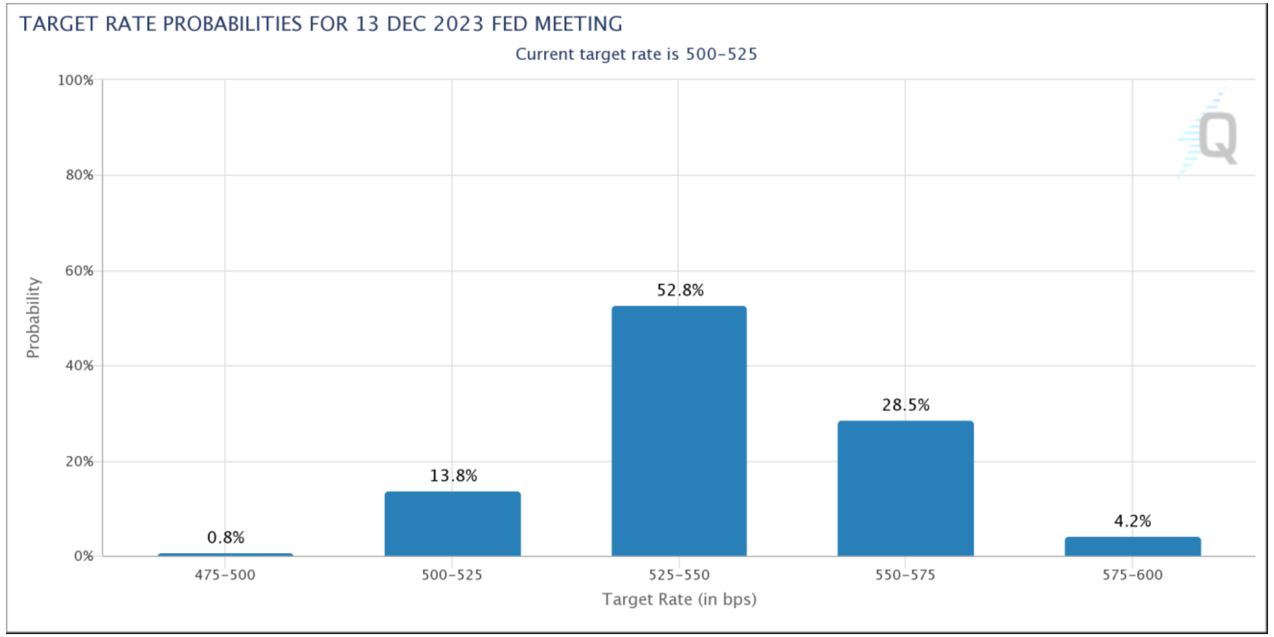


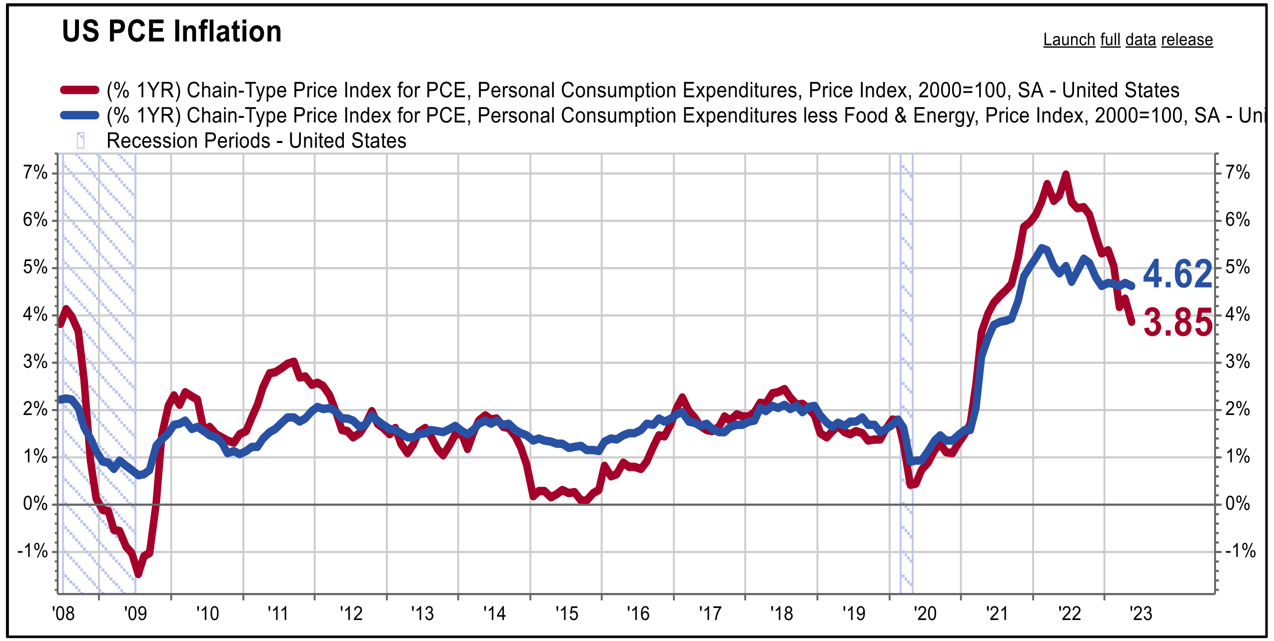


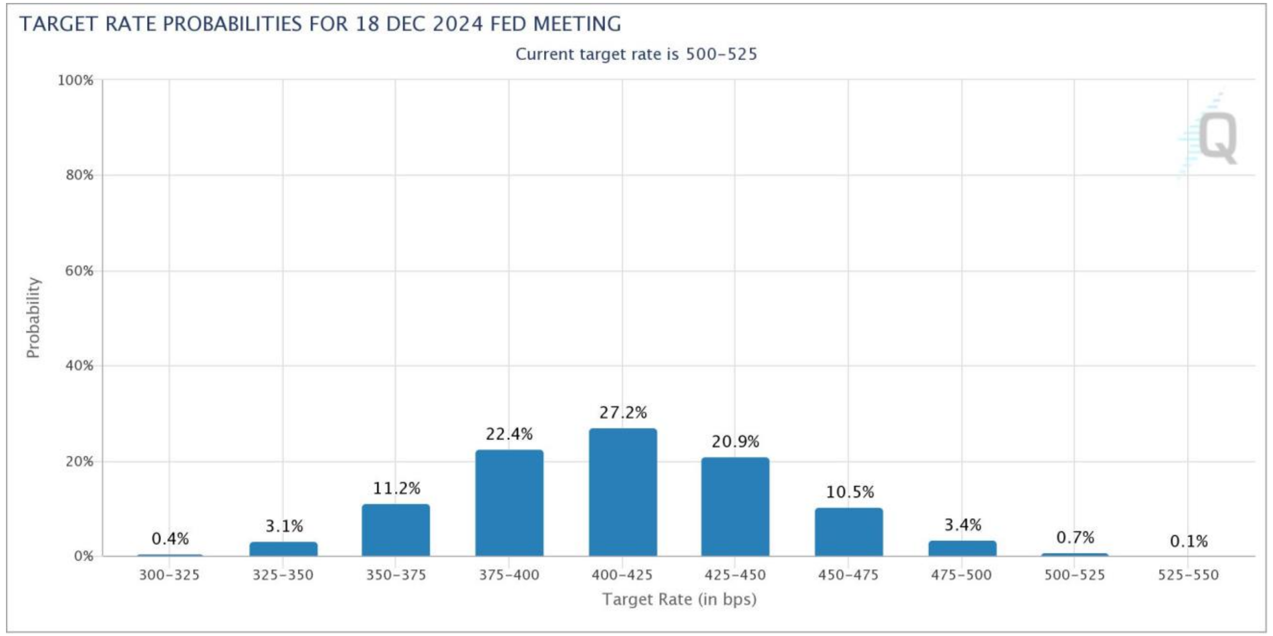
Date Source: FactSet.

Inflation has been trending lower, the tightening cycle is close to the end









Date Source: FactSet, CME.

US Equities are expensive, smaller cap and international stocks are better valued

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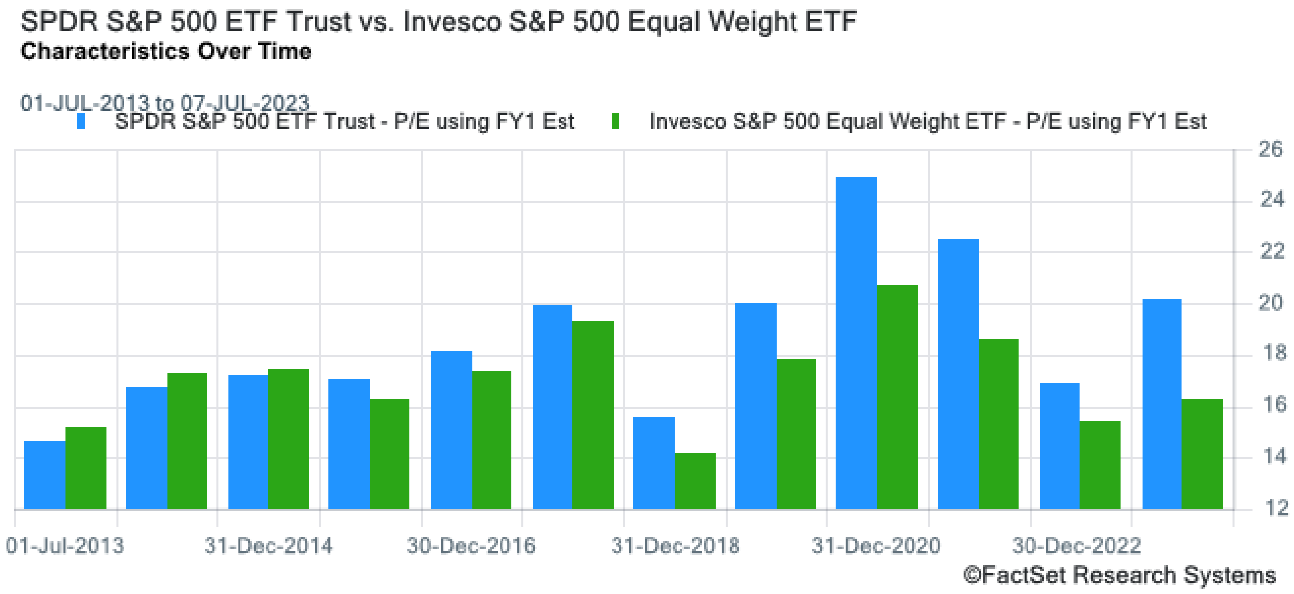

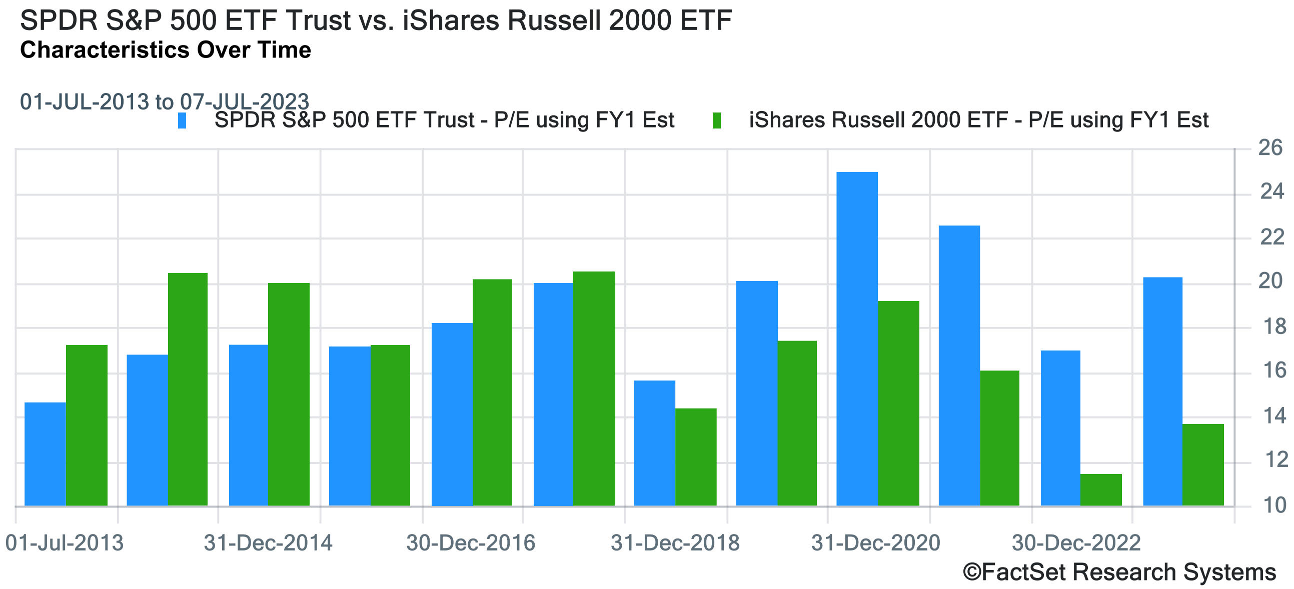

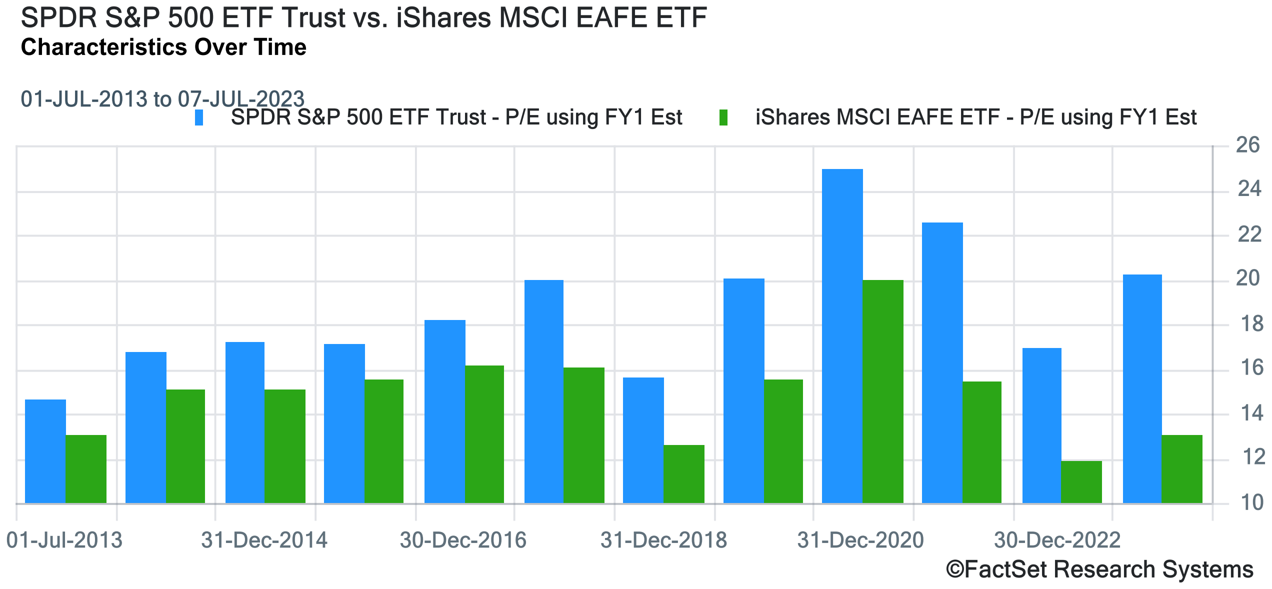

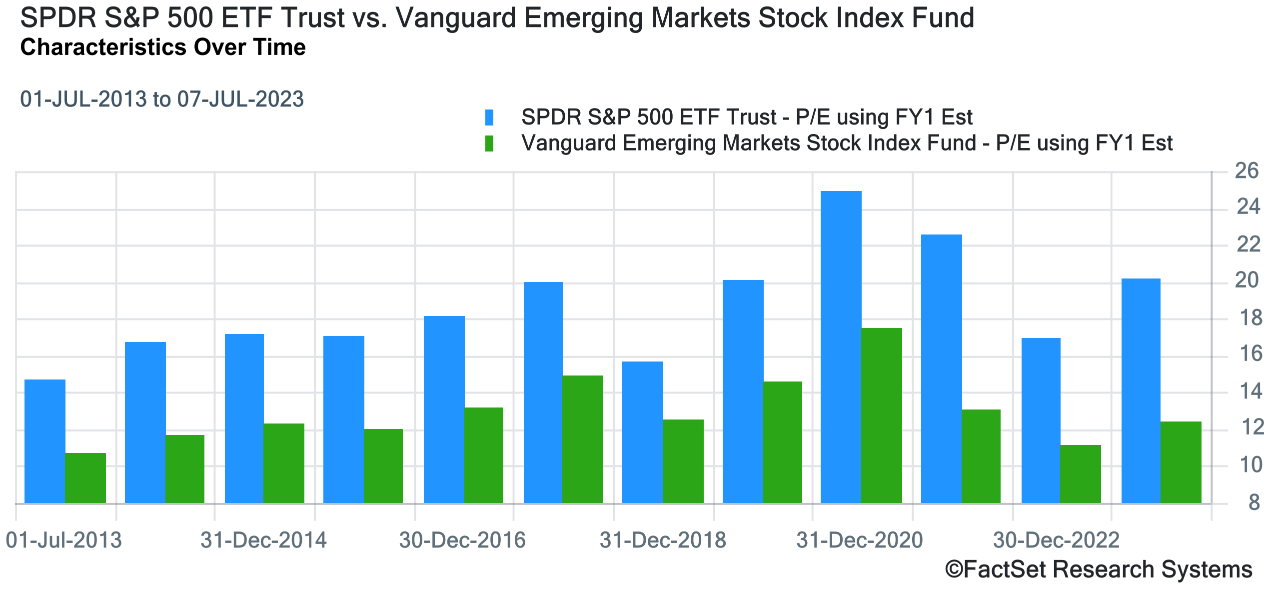

Date Source: FactSet

Asset Allocation Views – Asset Class

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SUW – Strong underweight; UW – Underweight; N – Neutral; OW – Overweight; SOW – Strong overweight

		CHANGE	SUW	UW	N	OW	SOW	
Asset Class	***Equities***				■			• Economic data are resilient despite weakness in manufacturing sector; • Inflation rates are trending lower and central bank rate hikes are close to the end. • Valuations, especially in the US are not cheap compared to fixed income assets. • Tight monetary policies and recession fears still present headwinds.
	Bonds			■				• Elevated inflation rates, though declining, are potential risks to bonds.
	Real Assets		■					• Declining inflation and slowing economic growth (potential recession) decrease the demand for commodities and real assets. • Real estate, especially the office buildings, could present another potential risk.
	Cash						■	• Cash offers attractive yields, low duration and good place for liquidity.

Asset Allocation Views – Regions and Styles

SUW – Strong underweight; UW – Underweight; N – Neutral; OW – Overweight; SOW – Strong overweight

		CHANGE	SUW	UW	N	OW	SOW	
Regions and Styles	***U.S.***				■			• Despite resilient labor market and consumer spendings, manufacturing and other leading indicators like business conditions, new orders and lending conditions have shown weakness. • Valuation are still expensive compared to historical average. • AI-induced tech rally offers tailwinds.
	International Markets (DM)					■		• Valuations are attractive compared to the US. • Currencies may appreciate as US dollar has peaked.
	Emerging Markets (EM)					■		• Valuations are attractive relative to the US. • Local currencies may appreciate further against USD. • China may adopt new stimulus measures as its economic recovery stalled.
	U.S. Growth vs. Value			■				• Value stocks are cheap compared to historical average. • Slowing economic growth and higher interest rates also makes the growth stocks unattractive. • However, the AI boom may offer a tailwind to tech sectors.
	U.S. Small vs. Large-Cap						■	• Small-caps offer the cheapest valuation in decades. • High quality small cap stocks should provide tremendous upside potential.
	Real Asset Equities		■					• Declining inflation and economic growth concerns should put pressure on commodity prices. • Higher interest rates and reduced demands for office space are unfavorable for commercial real estates.

Asset Allocation Views – Bonds

SUW – Strong underweight; UW – Underweight; N – Neutral; OW – Overweight; SOW – Strong overweight

		CHANGE	SUW	UW	N	OW	SOW	
Bonds	***U.S. Investment Grade***			■				• Corporate balance sheets remain solid. • The elevated inflation rate may last longer, and the FED may continue raising rates and keep interest rates high longer than expected.
	International Bonds			■				• International bond yields stay volatile as central banks continue hiking rates to combat inflation.
	U.S. Long-Term Treasury			■				• Elevated inflation may last longer than what most investors had expected.
	Inflation-Linked			■				• Declining inflation rates may make TIPs unattractive.
	High Yield				■			• Default rates are increasing. • Spreads are around historical average.
	Floating Rate and Bank Loans				■			• Spreads are attractive • Short-term rates are high. • Default rates are picking up.
	EM Bonds (USD)					■		• Yields are still attractive. • EM country fundamentals remain solid.

Asset Allocation Views – Julex RiskSwitch Model

	Negative	Neutral	Positive	
Overall Signal		■		Weakening manufacture sector and other leading indicators, tight monetary policies and expensive valuation are negative for risk assets; but strong market momentum, resilient labor market and personal consumptions, and AI booms offer tailwinds.
Economic Data				
Manufacturing activities	■			The ISM Manufacturing Index has contracted for seven months in a row.
Services Sector			■	The PMI Service Sector Index improved in June.
Consumptions			■	Personal Consumption Expenditure still increased in May.
Labor Market			■	US economy added 209K jobs in June and unemployment rate dropped to 3.6%.
Housing Market		■		Case/Shiller Housing Index has edged up again after declining for 7 months.
Leading Economic Index	■			Leading economic index continues to deteriorate.
Liquidity				
Monetary Policies	■			Money supplies have been declining and yield curve are strongly inverted.
Bank Lending	■			Fed Chicago financial condition index improved a bit recently, but the leverage subindex continues to indicate tightening lending condition after SVB crisis
Market Activities				
Long-term Trend			■	Equity markets are trading above their long-term averages.
Volatility			■	Market volatility falls below its long-term average.
Short-term Reversal	■			Short-term reversal signal indicates the probability of short-term correction increases after the market rally in June.
Equity Fundamentals				
Valuation	■			The current S&P 500 12-month forward PE is 18.9. It is above both the five-year and the 10-year averages.
Relative Valuation vs. Bonds/cash	■			Higher interest rates make equities less attractive.
Earnings	■			Corporate earnings have declined two quarters in a row, but more companies beat their estimates.

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JULEX CAPITAL

Interest rates, past, present, and future

Friday

July 28th

11:00 a.m. EASTERN

Disclosures

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Julex strategies follow strict quantitative processes. The portfolio recommendations here may not be the same as what are implemented in the Julex models. The opinions expressed here are mainly the CIO's.

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Disclosures Part II

All data and statistics were provided by Global Financial Data, Inc. and NDR, Inc. (unless otherwise indicated in the exhibit)

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