

**JULEX** CAPITAL

# Risk managed deep value

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- The opportunity in value
  - As good as it will ever be . . . ever
  - Deep value
    - Greatest opportunity
    - But . . . it has to be **risk-managed**

## Value vs Growth . . . . it is not like a light-switch

- Value and growth . . . Lie along a continuum
- Most value/growth products are
  - Watered-down
  - Diluted things
  - Lie somewhere in the vast middle
- **The greatest opportunity**
  - Deep value
  - But not the ultra extreme end

# The watered down, diluted industry products

- **RPV . . . Invesco S&P 500 Pure Value**

- Factor loading to value of 1.12x
- Factor loading to growth of -0.53x

- **SPYV . . . SPDR S&P 500 Value**

- Factor loading to value of 0.14x
- Factor loading to growth of -0.28x

- **SPYG . . . SPDR S&P 500 Growth**

- Microsoft 6.2%
- Amazon 2.1%
- Johnson & Johnson 1.7%

- **SPYV . . . SPDR S&P 500 Value**

- Microsoft 4.9%
- Amazon 2.7%
- Johnson & Johnson 1.2%

# Research Affiliates expected future returns . . . as of 08/22/2023

Asset Type	Category	Asset Class	Nominal Return (Expected 10Y)	Real Return (Expected 10Y)
Public Equity	Multi-Country	Dev ex US Small Value	11.5	9.1
Public Equity	Multi-Country	Dev ex US Value	11.0	8.7
Public Equity	Multi-Country	Emerging Markets	10.2	7.8
Public Equity	Multi-Country	Dev ex US Small	9.6	7.2
Public Equity	Multi-Country	Dev ex US	8.9	6.5
Public Equity	Developed Markets	US Small Value	7.7	5.4
Real Estate and Infrastructure	Real Estate	Global REITS	7.3	5.0
Real Estate and Infrastructure	Real Estate	REITS	6.7	4.3
Public Equity	Developed Markets	US Small	6.5	4.2
Public Equity	Multi-Country	Dev ex US Small Growth	6.3	3.9
Public Equity	Developed Markets	US Large Value	6.2	3.8
Public Equity	Multi-Country	Dev ex US Growth	5.6	3.2
Public Equity	Multi-Country	Developed Markets	5.2	2.9
Public Equity	Developed Markets	US Small Growth	4.2	1.9
Public Equity	Developed Markets	US Large	3.8	1.5
Public Equity	Developed Markets	US Large Growth	2.8	0.5

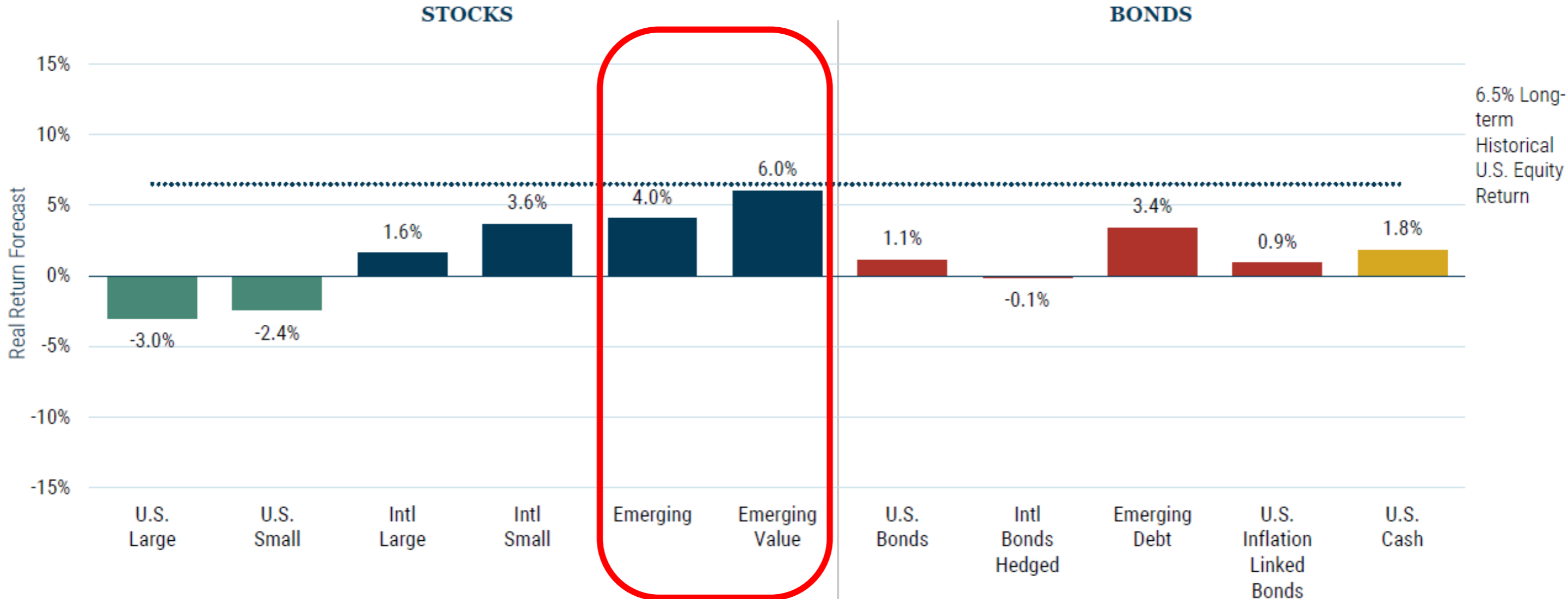
Forecasts current as of Aug 22 2023

Asset Type	Category	Asset Class	Nominal Return (Expected 10Y)	Real Return (Expected 10Y)
Public Equity	Multi-Country	Dev ex US Small Value	11.5	9.1
Public Equity	Multi-Country	Dev ex US Value	11.0	8.7
Public Equity	Multi-Country	Emerging Markets	10.2	7.8

**If these numbers pan out . . . . that’s an extra +224% by being in the top-player vs. the bottom (US Large Growth, i.e., “tech”)**

Public Equity	Multi-Country	Developed Markets	5.2	2.9
Public Equity	Developed Markets	US Small Growth	4.2	1.9
Public Equity	Developed Markets	US Large	3.8	1.5
Public Equity	Developed Markets	US Large Growth	2.8	0.5

# GMO 7-year return forecast . . . as of Aug 22, 2023



STOCKS

BONDS

15%

**If these numbers pan out . . . . that's an extra +186%  
by being in the top-player vs. the bottom (the S&P  
500 Index)**

6.5% Long-term  
Historical  
U.S. Equity  
Return

-15%

U.S.  
Large

U.S.  
Small

Intl  
Large

Intl  
Small

Emerging

Emerging  
Value

U.S.  
Bonds

Intl  
Bonds  
Hedged

Emerging  
Debt

U.S.  
Inflation  
Linked  
Bonds

U.S.  
Cash



# How did we get here?

# Growth . . . grew to the sky . . . how, why, to what extent

- Bull and bear markets for the value risk premium
- Spanning 1926 . . . Through today

## Bull and bear markets for the value risk premium since 1926

	Cumulative percentage return, unannualized	Duration in years	Start date	End date	Volatility, annualized standard deviation of monthly returns	Percentage of monthly returns that were POSITIVE	Annualized return
	-52	5.25	Feb 1927	May 1932	16.1	32	-13.1
	78	0.25	May 1932	Aug 1932	42.3	100	902.9
	-38	0.33	Aug 1932	Dec 1932	13.2	0	-76.4
	94	0.67	Dec 1932	Aug 1933	33.0	75	170.7
	-50	1.58	Aug 1933	Mar 1935	23.6	26	-35.5
	86	2.00	Mar 1935	Mar 1937	15.4	71	36.3
	-46	2.42	Mar 1937	Aug 1939	15.4	34	-22.5
	2376	49.25	Aug 1939	Nov 1988	10.6	54	6.7
	-28	3.08	Nov 1988	Dec 1991	5.7	38	-10.1
	49	6.42	Dec 1991	May 1998	8.3	57	6.4
	-33	1.58	May 1998	Dec 1999	10.2	26	-22.4
	162	7.00	Dec 1999	Dec 2006	11.2	69	14.7
	-37	2.17	Dec 2006	Feb 2009	16.1	27	-19.0
	28	0.58	Feb 2009	Sep 2009	11.8	86	51.7
	-58	11.00	Sep 2009	Sep 2020	11.0	40	-7.7
	75	2.25	Sep 2020	?	18.1	63	28.2

Median BULL market	86	2.00			11.8	71	36.3
Median BEAR market	-42	2.29			14.3	29	-20.7

Bull and bear markets are defined as moves of at least 25% using month-end stock index total returns

Data spans the time period June 1926 through Dec 2022

## The longest cycle favoring growth

- Since 1926
- The **longest** cycle favoring growth
  - 11.0 years
  - Started Sep 2009
  - Ended Sep 2020
- Value **underperformed** growth by a cumulative -58% during this 11 years
- Or -7.7% per year . . . for 11 uninterrupted years

## But why . . . why did growth grow to the sky . . . 5 reasons

- Interest rates . . . fell
- Inflation . . . fell
- 2<sup>nd</sup> wave of the tech boom
- COVID
  - Hitting the capital- and labor-intensive sectors associated with value stocks the hardest
  - The virtual economy (frothy growth stocks) was largely unscathed
  - Legitimate bankruptcy fears drove investors to shun these value stocks and pursue growth stocks
- Tech was allowed to grow without regulation . . . or controls
  
- Each of these has now ended . . . and reversed direction

## Current . . . value bull market

- The current cycle favors value
- Started Sep 2020
- Through Dec 2022 . . . Value has outperformed growth by a cumulative **+75%**
  
- For comparison . . . consider how value performed immediately following the Tech Wreck of Dec 1999
  - Value outperformed growth for 7.0 years
  - Started on Dec 1999
  - Ended on Dec 2006
  - Cumulative outperformance for value (over growth) was **+162%**
  - Or 14.7% of outperformance per year . . . for 7 years

# Risk Managed Deep Value U.S.

Targeting . . . the value opportunity

## Value vs Growth . . . . it is not like a light-switch

- Value and growth . . . lie along a continuum
- Most value/growth products are
  - Watered-down
  - Diluted things
  - Lie somewhere in . . . the vast middle
- **The greatest opportunity**
  - Deep value
  - But not . . . the ultra extreme end



# Risk Managed Deep Value U.S.

Targeting . . . the value opportunity

## How does it work

- It stays 99.3% in U.S. deep value stocks (using 25 equal-weighted deep value stocks)
- Unless
- The risk-on/risk-off metrics indicate otherwise

- How often does it do this
- “10%” of the time
- And this happens episodically . . . . i.e., it clumps

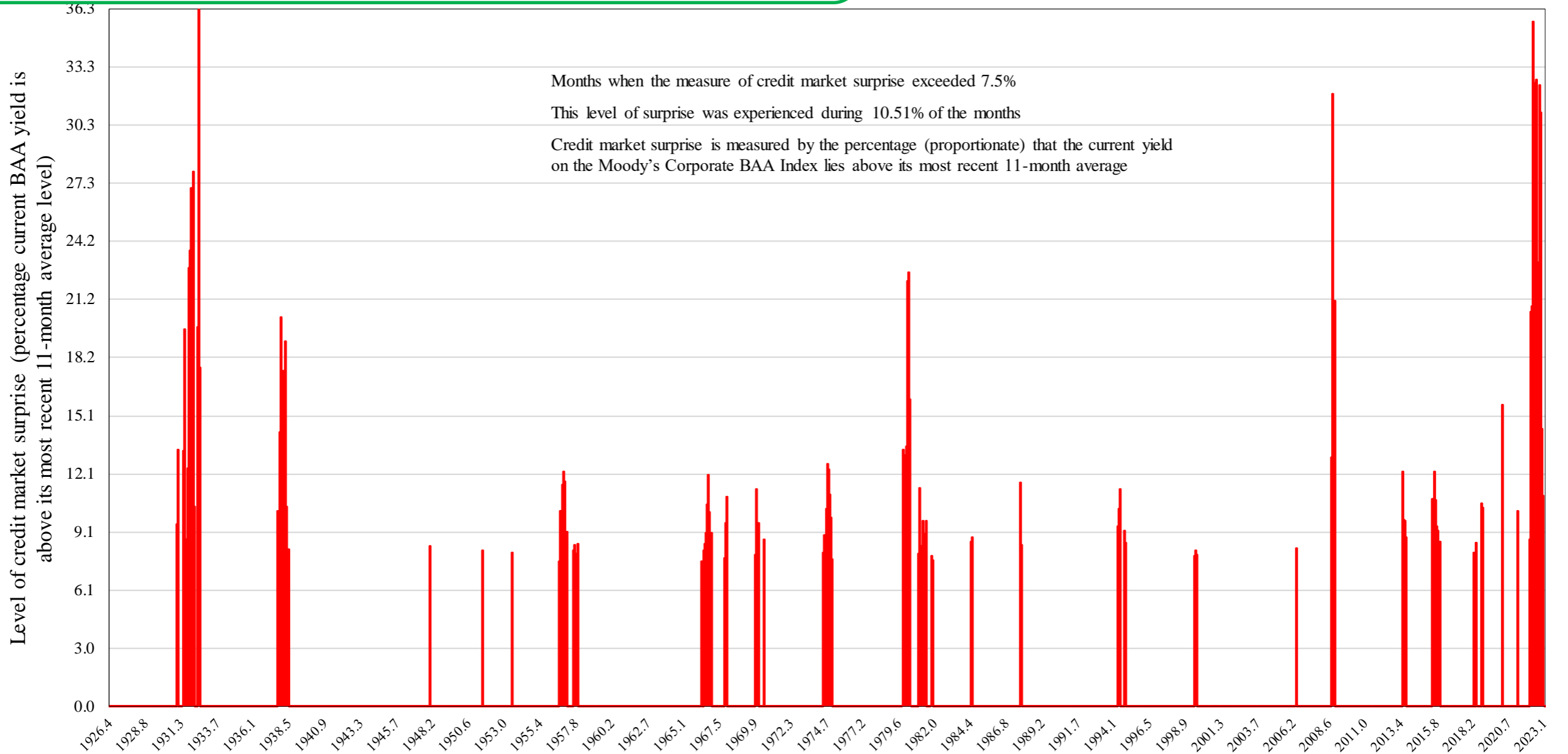
# How can we test this opportunity?

Simple rule

Applied over the long span of time

..... actual implementation would be accomplished with greater thoughtfulness

# Credit market surprise, when and how severe



Summary statistic	Total market	Traditional commonly-used value	Moderate deep value	Risk managed moderate deep value
Return (geometric annualized mean)	10.81	11.85	12.74	15.12
Risk adjusted return (return divided by standard deviation)	0.54	0.53	0.51	0.70
Risk (annualized standard deviation of monthly returns)	19.97	22.53	24.97	21.66
Autocorrelation (from one month to the next)	0.133	0.151	0.150	0.110
Probability of earning at least 5% (annualized) over a 12.5-year investment time period	87.1	88.0	88.1	95.0

## Annualized return (for 12.5-year investment time windows) at different percentile levels

Portfolio	Different percentile levels (in %)										
	0.5	1	2	3	5	7.5	10	15	20	25	50
Total market	-3.8 %	-2.6 %	-2.0 %	-0.8 %	1.2 %	2.4 %	3.5 %	5.6 %	6.6 %	7.4 %	12.1 %
Traditional commonly-used value	-4.0	-3.0	-2.4	-1.5	0.4	2.0	3.7	6.0	7.0	7.9	13.4
Moderate deep value	-3.9	-3.2	-2.6	-1.8	0.3	2.2	4.3	5.8	7.0	8.4	14.4
Risk managed moderate deep value	1.1	2.0	2.7	3.3	4.9	6.3	7.5	10.1	11.2	11.8	15.5

## Comparative knockout risk for the risk-managed deep value portfolios

Portfolio	Eight worst non-overlapping 12-month investment periods (in %)							
Total market	-72.9	-50.7	-49.2	-46.4	-34.7	-26.6	-24.4	-23.7
Traditional commonly-used value	-73.9	-57.9	-52.5	-51.1	-38.3	-29.9	-26.9	-26.7
Moderate deep value	-72.2	-64.8	-54.4	-54.1	-48.4	-30.8	-28.5	-28.1
Risk managed moderate deep value	-48.4	-44.7	-37.9	-33.0	-32.8	-30.8	-27.3	-26.5

Index	Return (geometric annualized mean)	Risk adjusted return (return divided by standard deviation)	Risk (annualized standard deviation of monthly returns)	Autocorrelation (from one month to the next)
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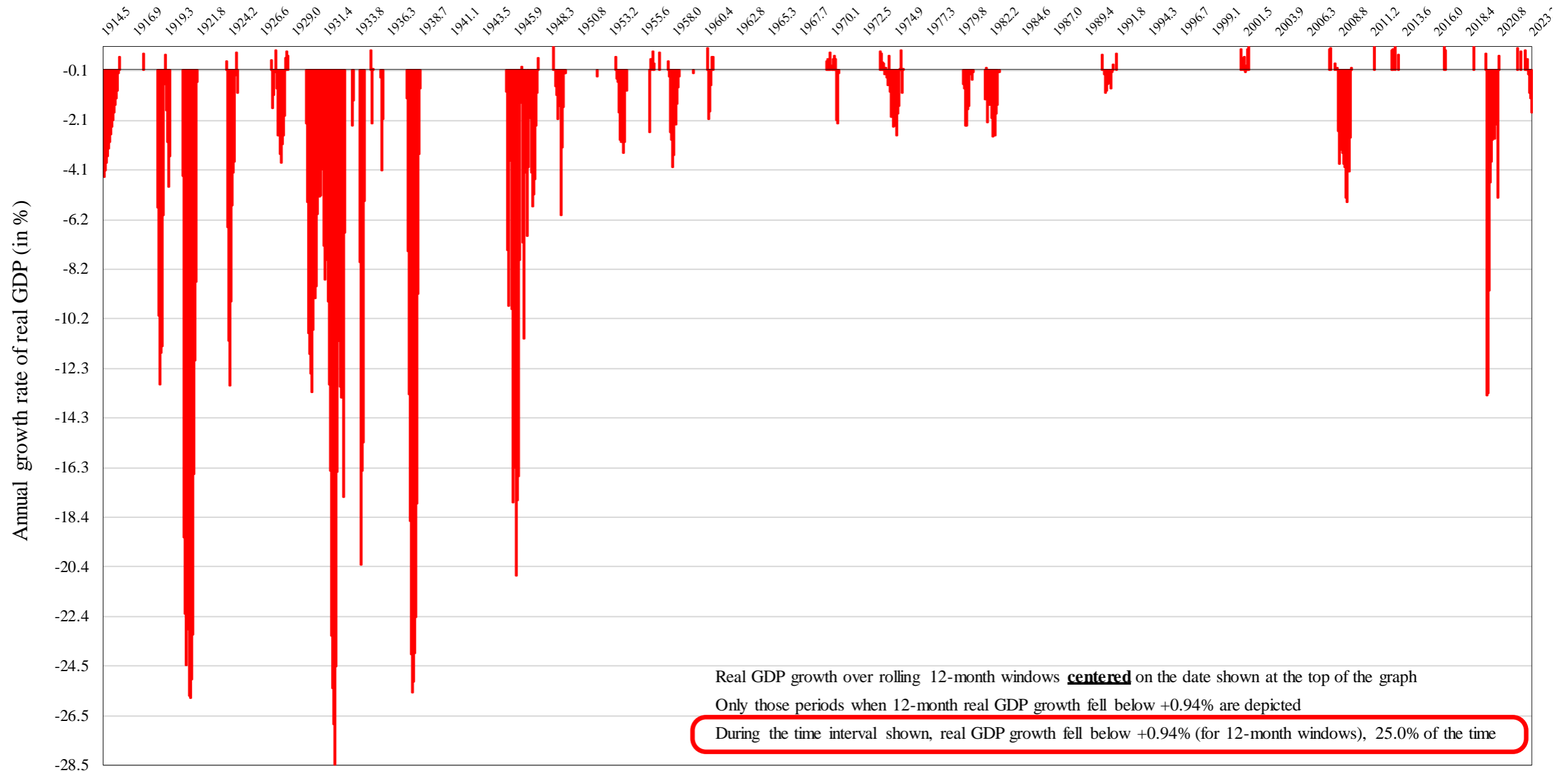
**During rising episodic interest rate environments (covering 4 episodic eras, spanning 39.5% of the months)**

Total market	15.00	1.10	13.6	0.00
Growth	12.95	0.88	14.8	0.02
Value	18.59	1.16	16.1	-0.01
Value risk premium	5.00	0.51	9.9	0.09
Traditional commonly-used value	16.92	1.16	14.6	-0.01
Moderate deep value	18.59	1.16	16.1	-0.01
Risk managed moderate deep value	19.12	1.26	15.2	0.03



Index	Return (geometric annualized mean)	Risk adjusted return (return divided by standard deviation)	Risk (annualized standard deviation of monthly returns)	Autocorrelation (from one month to the next)
<b>During rising episodic expected inflation environments (covering 3 such eras, spanning 53.2% of the months)</b>				
Total market	7.68	0.33	23.4	0.16
Growth	6.61	0.33	20.3	0.09
Value	10.17	0.34	30.3	0.17
Value risk premium	3.34	0.21	15.9	0.19
Traditional commonly-used value	8.97	0.33	27.0	0.17
Moderate deep value	10.17	0.34	30.3	0.17
Risk managed moderate deep value	12.49	0.49	25.6	0.13

# When has U.S. economic growth disappointed, and by how much



Statistic	Total market	Growth	Value	Value risk premium	Traditional commonly-used value	Moderate deep value	Risk managed moderate deep value
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**WEAK growth - When real U.S. GDP growth was less than 0.94% (covers 23.32% of the months)**

Return (geometric annualized mean)	-1.19	0.23	-0.85	-1.08	-1.25	-0.85	5.29
Risk adjusted return (return divided by standard deviation)	na	0.01	na	na	na	na	0.19
Risk (annualized standard deviation of monthly returns)	29.14	25.48	37.16	18.00	33.46	37.16	28.15

Statistic	Total market	Growth	Value	Value risk premium	Traditional commonly-used value	Moderate deep value	Risk managed moderate deep value
<b>WEAK growth - When real U.S. GDP growth was less than 0.94% (covers 23.32% of the months)</b>							
Return (geometric annualized mean)	-1.19	0.23	-0.85	-1.08	-1.25	-0.85	5.29
Risk adjusted return (return divided by standard deviation)	na	0.01	na	na	na	na	0.19
Risk (annualized standard deviation of monthly returns)	29.14	25.48	37.16	18.00	33.46	37.16	28.15

## Bull and bear markets for the value risk premium since 1926

	Cumulative percentage return, unannualized	Duration in years	Start date	End date	Volatility, annualized standard deviation of monthly returns	Percentage of monthly returns that were POSITIVE	Annualized return
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Median BULL market

86	2.00				11.8	71	36.3
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Median BEAR market

-42	2.29				14.3	29	-20.7
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Statistic	Total market	Growth	Value	Value risk premium	Traditional commonly-used value	Moderate deep value	Risk managed moderate deep value
<b>During those months when the value risk premium is in a BULL phase (71.6% of the time)</b>							
Return	17.63	11.74	24.13	11.09	21.44	24.13	24.27
Risk-adjusted return (return divided by risk)	0.96	0.69	1.05	0.87	1.03	1.05	1.17
Risk (standard deviation)	18.37	17.02	23.07	12.71	20.80	23.07	20.82

Statistic	Total market	Growth	Value	Value risk premium	Traditional commonly-used value	Moderate deep value	Risk managed moderate deep value
<b>During those months when the value risk premium is in a BULL phase (71.6% of the time)</b>							
Return	17.63	11.74	24.13	11.09	21.44	24.13	24.27
Risk-adjusted return (return divided by risk)	0.96	0.69	1.05	0.87	1.03	1.05	1.17
Risk (standard deviation)	18.37	17.02	23.07	12.71	20.80	23.07	20.82

# The Julex solution

I use it with several of my clients . . . Yes, I do  
. . . . it's solid and robust



• Concentrated Multi-Cap Value Strategy Highlights

**High Probability of Achieving Investment Goals**

- High probability of achieving **16-20 yr.** investment horizon goal (7.4% ann. return)
- High probability of outperforming benchmark\*
- Turnover < 100%

**Quantitative and Disciplined Approach**

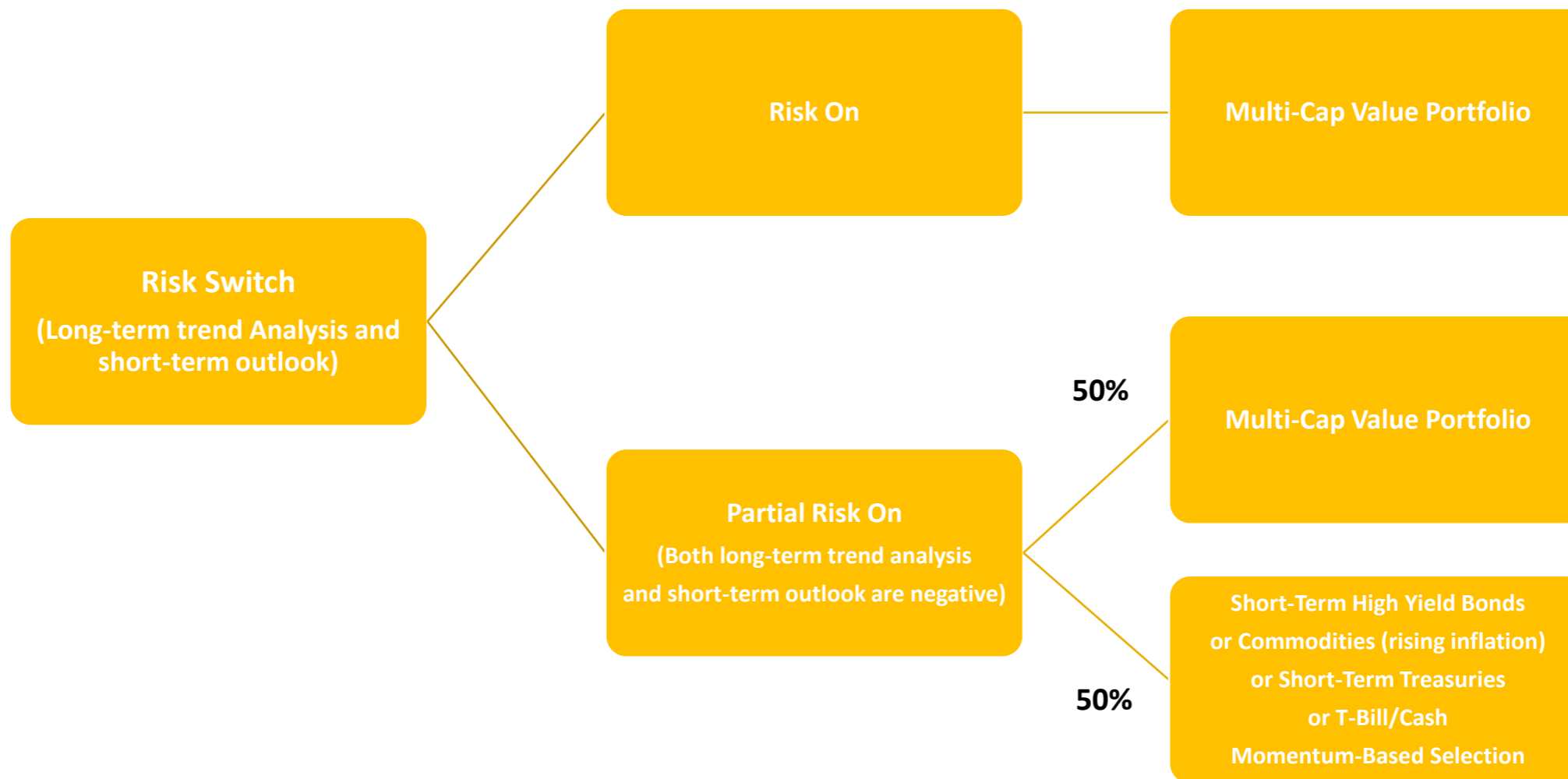
- Model driven investment process
- **Quarterly** stock portfolio update
- **Monthly risk overlay to limit downside risk**

**Robust and Consistent Factors**

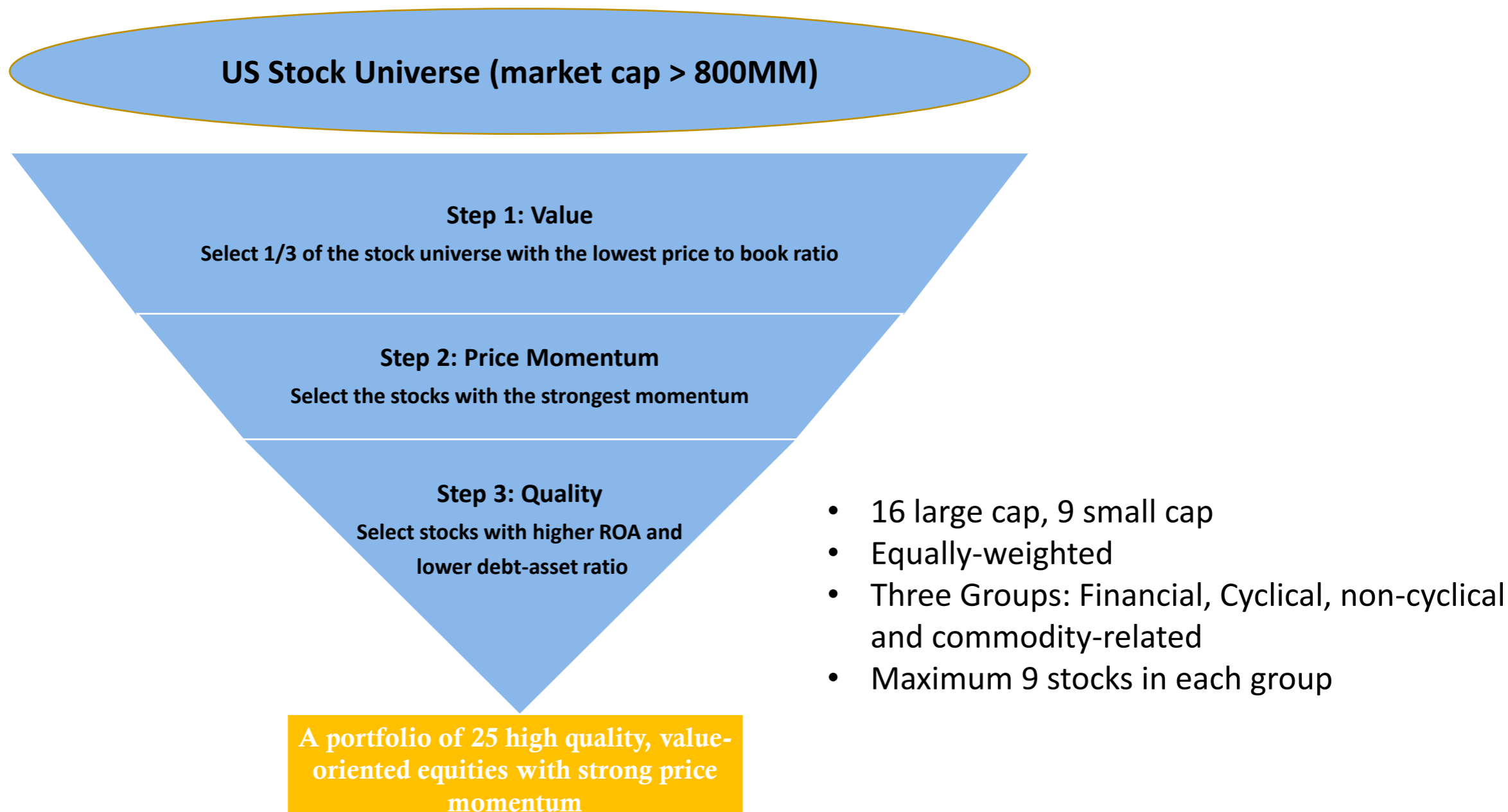
- Value factor: low price-to-book
- Momentum factor to avoid **“value trap”**
- Quality factors to avoid **“zombies”**

\* Benchmark: 65% Russell 1000 Value Index + 10% Russell 2000 Value Index + 24.1% Bloomberg US Bond Aggregate + 0.9% Bloomberg T-Bills (1-3month) Index

• Monthly Risk Overlay

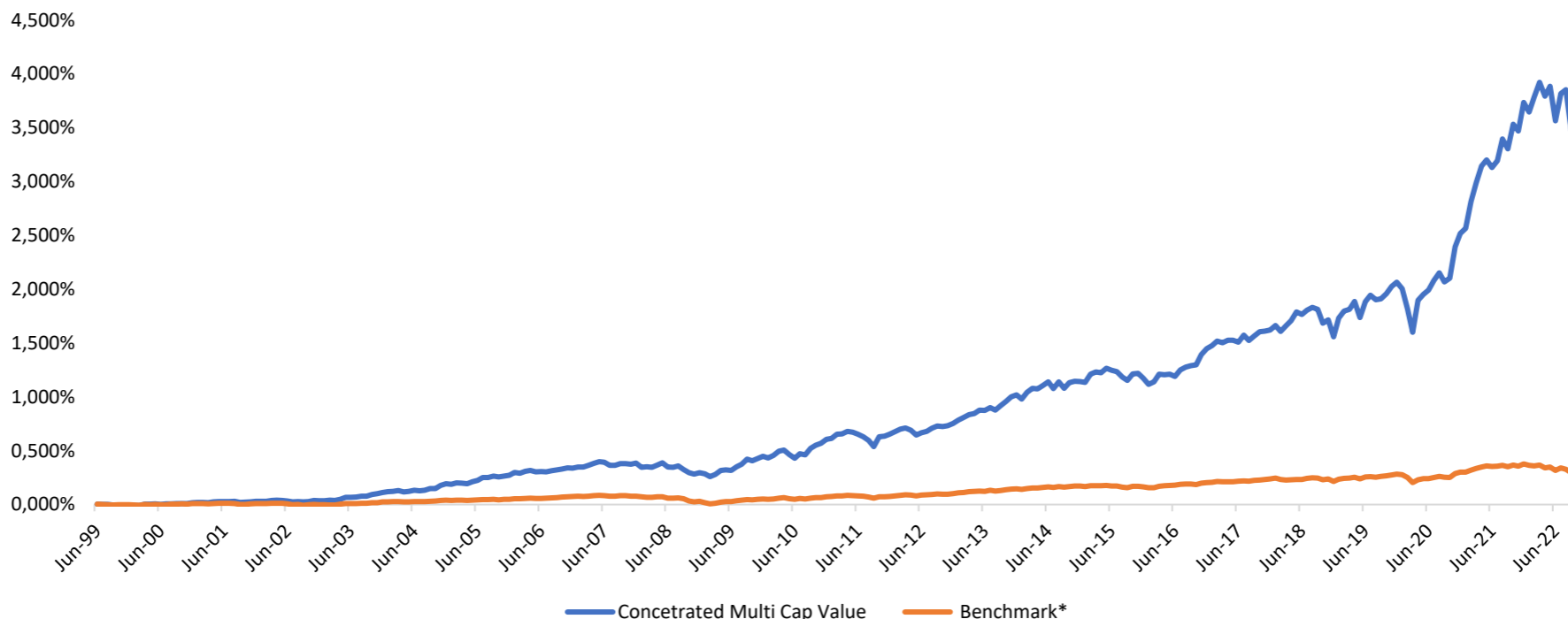


• Stock Selection Process



• Concentrated Multi-Cap Value Hypothetical Back Test Performance

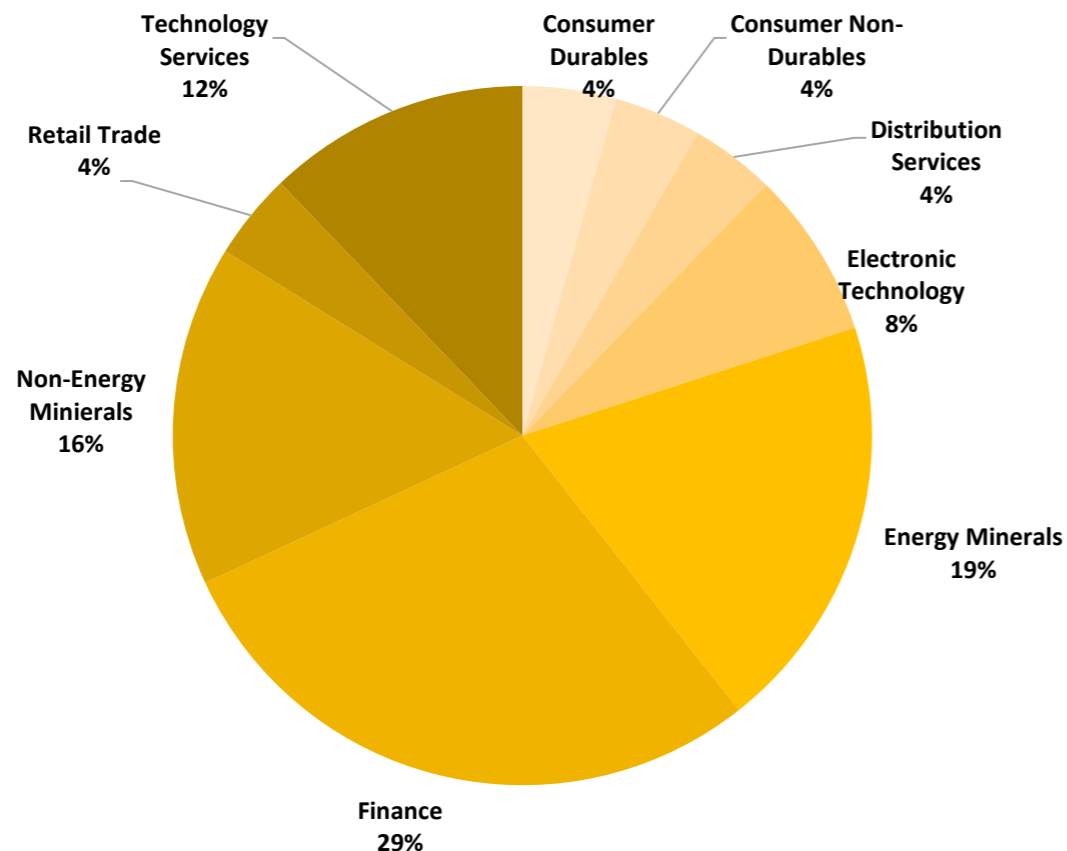
Concentrated Multi-Cap Value Back Test Performance (Cumulative)



June 1999 – December 2022	Concentrated Multi-Cap Value Portfolio (Gross)	Benchmark*
Annualized Return	17.1%	6.4%
Standard Deviation	15.4%	11.9%
Sharpe Ratio	1.01	0.40
Maximum Drawdown	-28.2%	-43.7%
Frequency achieving at least 7.4% annualized return over 17.5-year horizon	100%	35.6%
Frequency outperforming benchmark over 17.5-year horizon	100%	

\* Benchmark: 65% Russell 1000 Value Index + 10% Russell 2000 Value Index + 24.1% Bloomberg US Bond Aggregate + 0.9% Bloomberg T-Bills (1-3month) Index

• Concentrated Multi-Cap Value Stock Portfolio



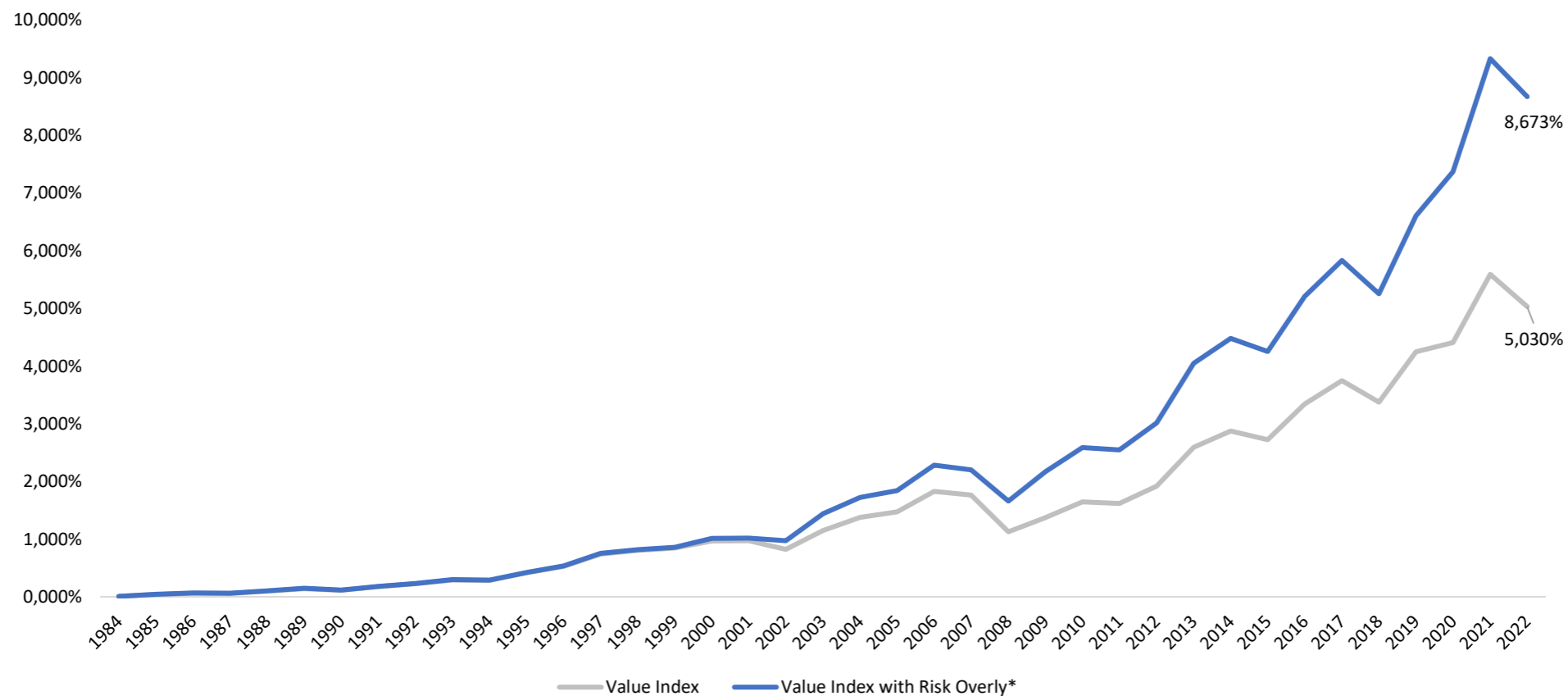
**Portfolio Characteristics**

December 31, 2022	Portfolio	Russell 1000 Value (IWD)	Russell 2000 Value (IWN)
# of Securities	25	854	1,385
Market Capitalization	67,019.7	151,231.6	2,348.9
Dividend Yield	1.6	2.2	2.2
Price/Earnings	5.9	15.1	9.3
Price/Book	1.2	2.3	1.3
Price/Sales	1.0	1.8	0.9
ROE	22.9	18.0	7.1
ROA	14.64	8.03	2.09
LT Debt to Capital	19.67	41.95	34.48

**A concentrated, equally-weighted portfolio of good quality, value-oriented equities**

Top 10 Holdings (12/31/2022)			
Arch Capital Group Ltd.	4.42%	Teck Resources Limited Class B	4.22%
Lennar Corporation Class A	4.32%	Meta Platforms Inc. Class A	4.21%
Amdocs Limited	4.25%	Old Republic International Corp	4.16%
Everest Re Group, Ltd.	4.22%	PVH Corp.	4.04%
American International Group, Inc.	4.22%	Reliance Steel & Aluminum Co.	4.02%

- Benefit of the Risk Overlay



August 1984 – December 2022	Value Index* with Risk Overlay	Value Index*
Annualized Return	12.4%	11.0%
Standard Deviation	14.4%	15.6%
Sharpe Ratio	0.86	0.70
Maximum Drawdown	-40.8%	-55.4%

\* \*\*Value Index = 2/3 Russell 1000 Value Index + 1/3 Russell 2000 Value Index

## Risk-mitigated deep value - Bigger bang less buck

Forthcoming in *The Journal of Beta Investment Strategies*

July 23, 2023 version

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### INTRODUCTION

This article has several objectives. First, to parameterize the long-run appeal of the value risk premium and value (instead of growth), more generally. Second, to identify several sharp-edged and problematic risk attributes inescapably associated with value. Third, to describe value's innate episodic nature, i.e., how it "pays off" or "works" only during periodic episodes (instead of continuously) and must therefore be accessed via an active process and not "always-on," much to the ruin of "value-only" shops. Fourth, to differentiate varying degrees or intensities of value, ranging from the traditional watered-down version of value to the most aggressive deep value expressions. Fifth, to demonstrate how the left-hand tail-risk characteristics of purer or more concentrated value expressions become unusually problematic when used without active risk management. Sixth, to suggest an active approach to risk-mitigation that historically (over the last 97 years) made various expressions of deep value highly attractive (higher return, lower risk, greater consistency). Seventh, to conclude with several possible practical business implications.

Several value-related topics are of major importance. These might include, how the operating-definition of value has changed over the last 100 years as the role, nature, and importance of intangibles has evolved, the multi-dimensionality of value (versus growth), how best to define value in the future, and how best to mitigate value's left-hand tail-risk (Arnott et al 2021, Arnott et al 2023, Kalivas 2022, Kalivas 2023, and Tierney 2022). Despite the importance of these related topics, they remain out of scope for this article.

To motivate the topics addressed by this article, I observe that the total U.S. stock market returned 10.81% (geometric mean return) and delivered a risk-adjusted return (return divided by risk, standard deviation) of 0.54x over the last 97 years. In contrast, the suggested risk-managed moderate deep value portfolio returned 15.12% (a 40% proportionate increase) and a risk-adjusted return of 0.70x (a 30% proportionate increase). While the proposed risk-managed moderately aggressive deep value portfolio returned an even greater 15.57% return (a 44% proportionate improvement over the total market).

### SEVEN DIFFERENT DEFINITIONS OR INTENSITIES OF VALUE

Value (and growth) are not simple binaries, instead they reside on a continuum. Value comes in degrees or intensities (GMO 2023b). For example, consider two popular and heavily used value ETFs, RPV (Invesco S&P 500 Pure Value) and SPYV (SPDR S&P 500 Value). According to Bloomberg LP (as of Dec 19, 2022), RPV and SPYV carried factor loadings to value of 1.12 and

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# TAA . . . does it work less well today, than in the past . . . prove it

Friday

September 8<sup>th</sup>

11:00 a.m. EASTERN

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.

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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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.

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

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