

**JULEX** CAPITAL

**Value - Is it too late or is there more to come**

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- **SPDR® Portfolio S&P 500 Growth ETF (SPYG)**

- 0.97% current yield
- 21.2x P/E ratio
- 3.3x P/Sales ratio
- 6.4x P/Book ratio
- 15.6% Return on assets

- **SPDR® Portfolio S&P 500 Value ETF (SPYV)**

- 2.08% current yield
- 19.7x P/E ratio
- 1.9x P/Sales ratio
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- 6.7% Return on assets

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- **Invesco S&P 500® Pure Value ETF (RPV)**

- 2.09% current yield
- 9.5x P/E ratio
- 0.6x P/Sales ratio
- 1.1x P/Book ratio
- 3.7% Return on assets

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## • Invesco S&P 500® Pure Value ETF (RPV)

- 2.09% current yield
- 9.5x P/E ratio
- 0.6x P/Sales ratio
- 1.1x P/Book ratio
- 3.7% Return on assets

## • Invesco S&P SmallCap 600® Pure Value ETF (RZV)

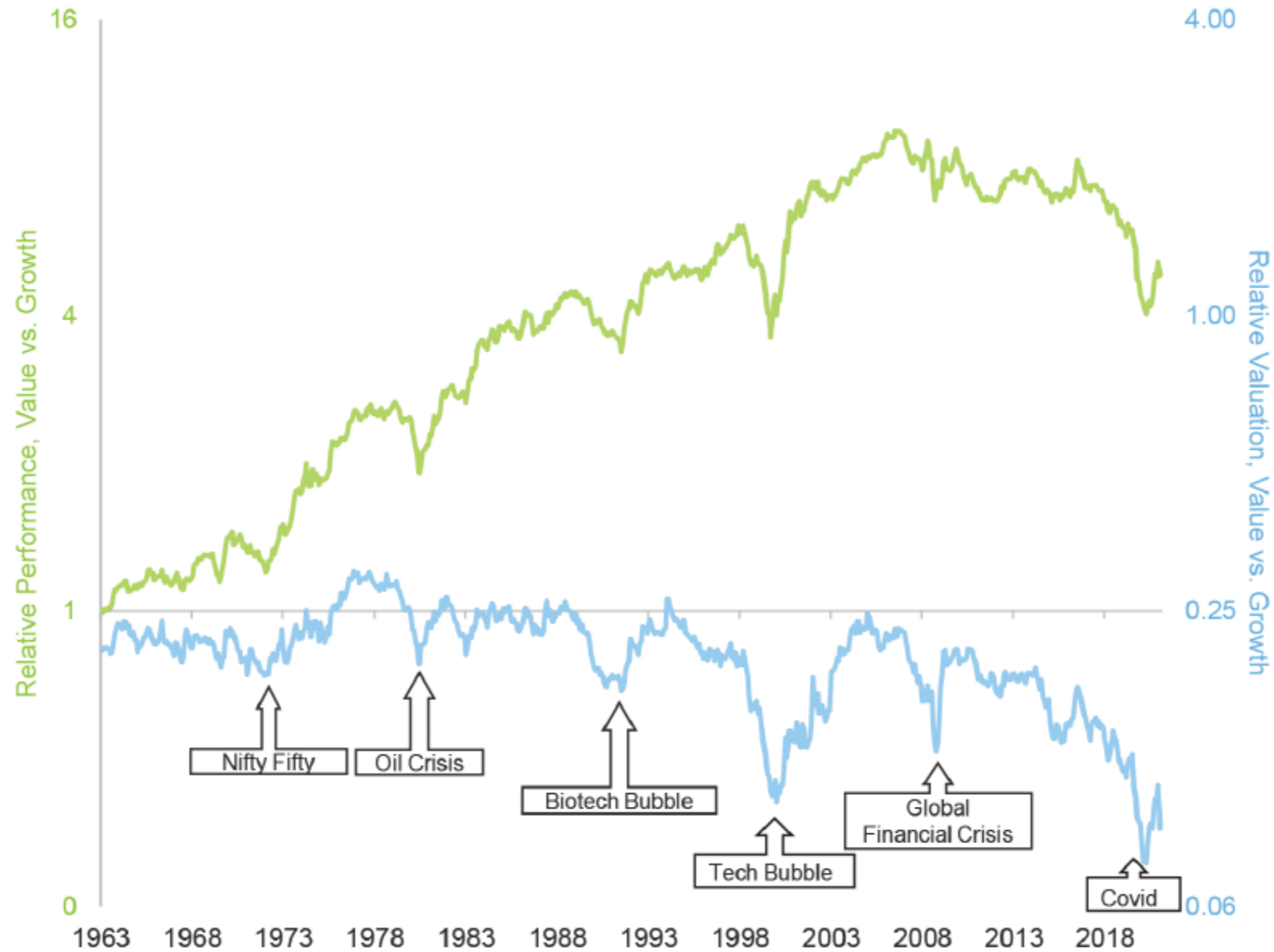
- 1.22% current yield
- 8.3x P/E ratio
- 0.3x P/Sales ratio
- 0.9x P/Book ratio
- 4.1% Return on assets

## FORWARD P/E ratios as of 02/20/2023

- Russell 1000 Growth
  - P/E = 23.8x
- Russell 1000 Value
  - P/E = 15.5x

From January 2007 to September 2020, the relative valuation of value stocks to growth stocks moved from the most expensive quartile (22nd most expensive percentile) to the cheapest percentile in history (100th percentile), explaining more than 100% of value's underperformance.

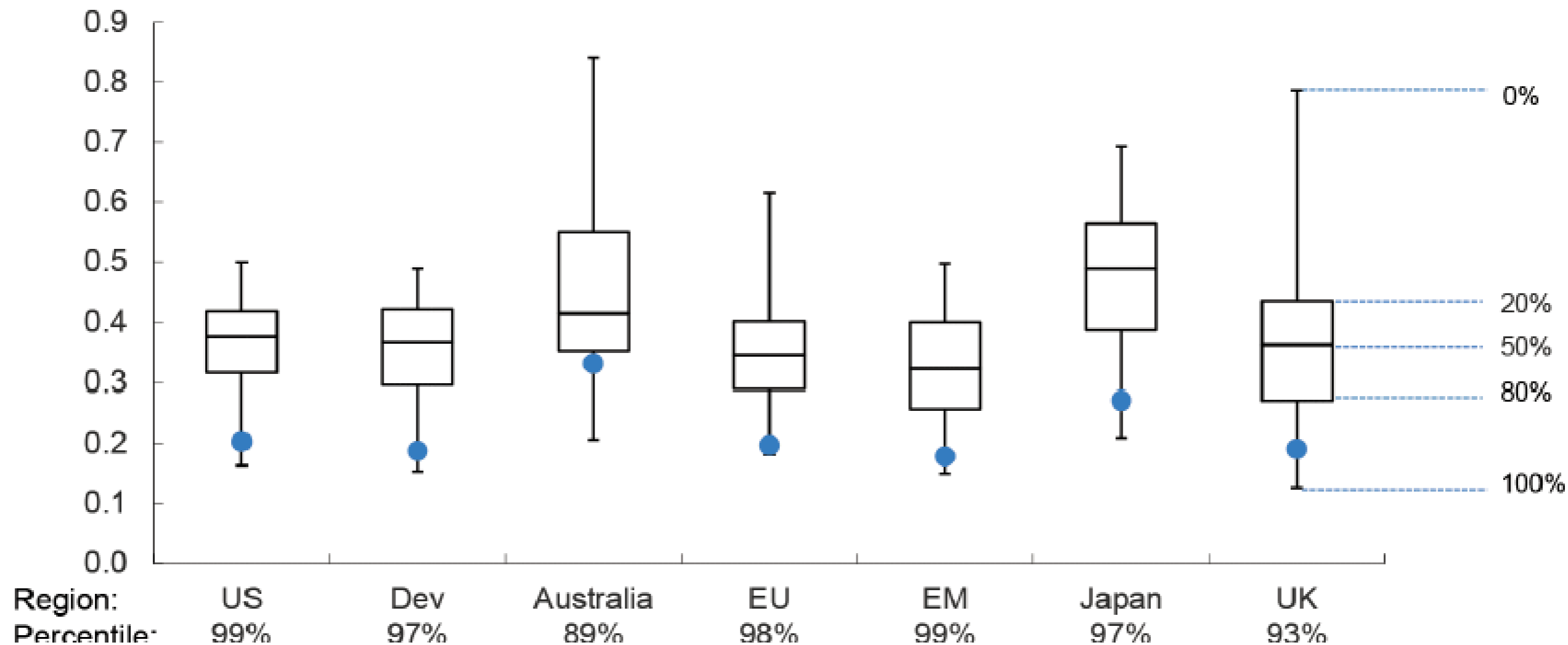
Performance of Value and Value vs. Growth Relative Valuations, United States, Jul 1963–Jun 2021



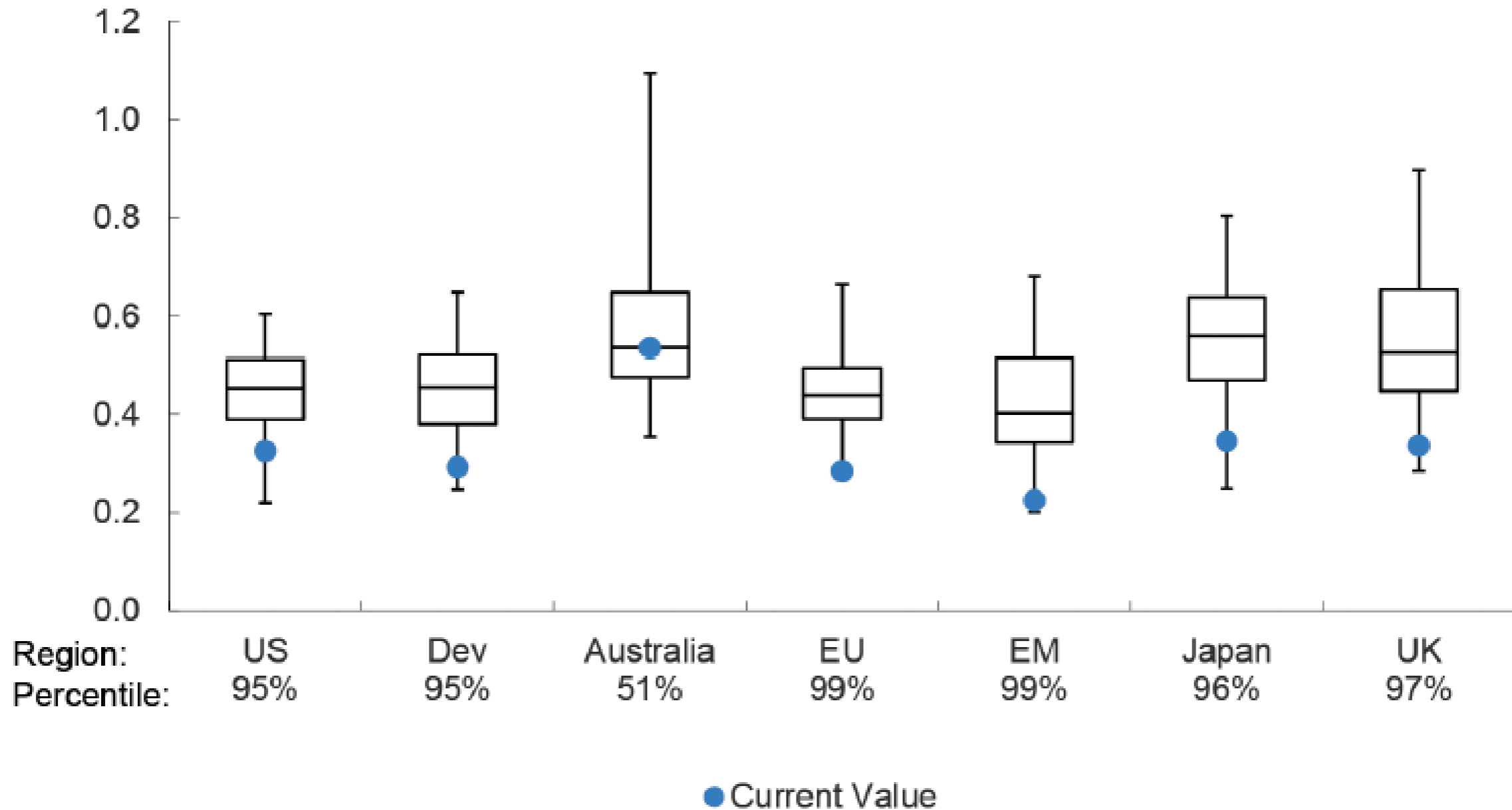
Value remains impressively cheap across all regions in our analysis, with the sole exception of Australia (where value is quite cheap based on price-to-book value ratio and neutral based on composite valuation).

## Relative Valuations of Value vs. Growth, as of June 30, 2021

### Panel A. Relative Valuation Using Price-to-Book Value Ratio



**Panel B. Relative Valuation Using an Average of Four Valuation Ratios**



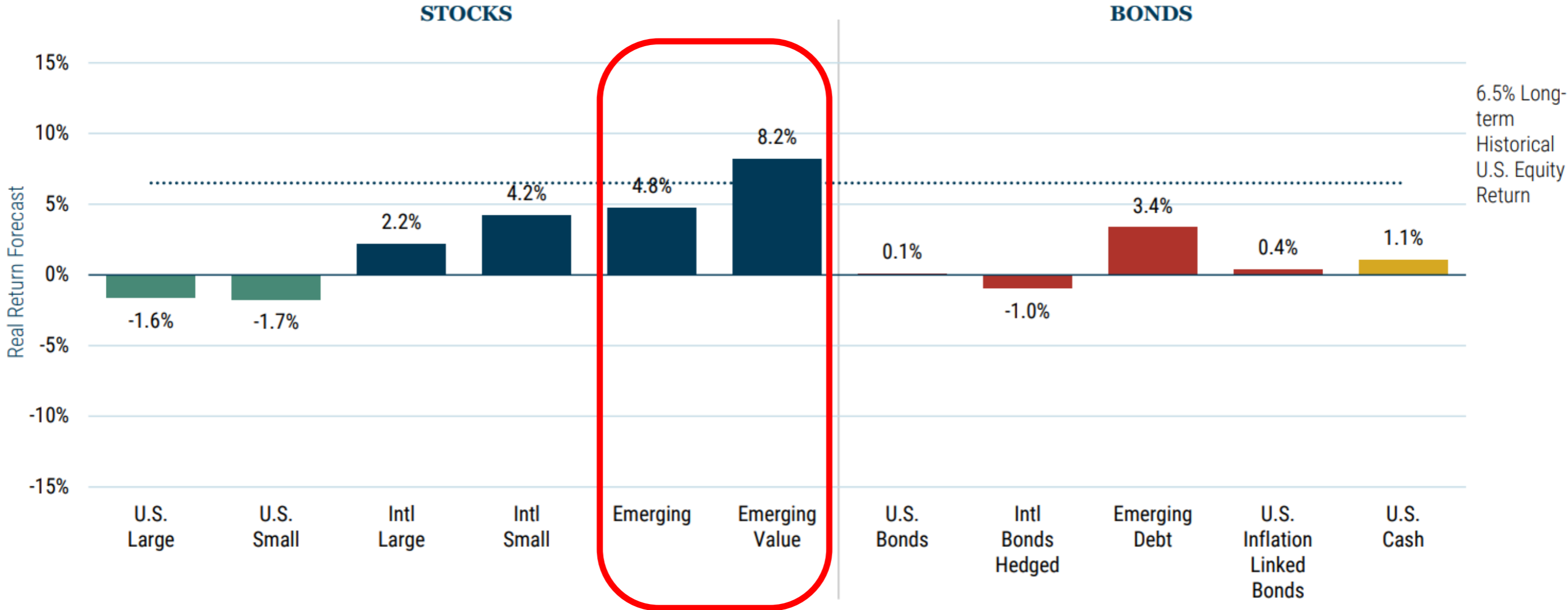


# Research Affiliates expected future returns

Asset Type	Category	Asset Class	Index Name	Nominal Return (Expected 10Y)	Real Return (Expected 10Y)	Delta relative to the S&P 500
Public Equity	Developed Markets	US Large Growth	Russell 1000 Growth	4.81	1.49	<b>-0.42</b>
Public Equity	Developed Markets	US Large	S&P 500	5.23	1.90	0
Public Equity	Developed Markets	US Large Value	Russell 1000 Value	6.92	3.60	<b>1.69</b>
Public Equity	Multi-Country	EAFE Growth	MSCI EAFE Growth	7.00	3.67	<b>1.77</b>
Public Equity	Multi-Country	EAFE	MSCI EAFE	10.26	6.93	<b>5.03</b>
Public Equity	Multi-Country	EAFE Value	MSCI EAFE Value	12.36	9.03	<b>7.13</b>

**SOURCE: Research Affiliates as of Feb 20, 2023**

# GMO 7-year return forecast . . . as of Feb 2023



- 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

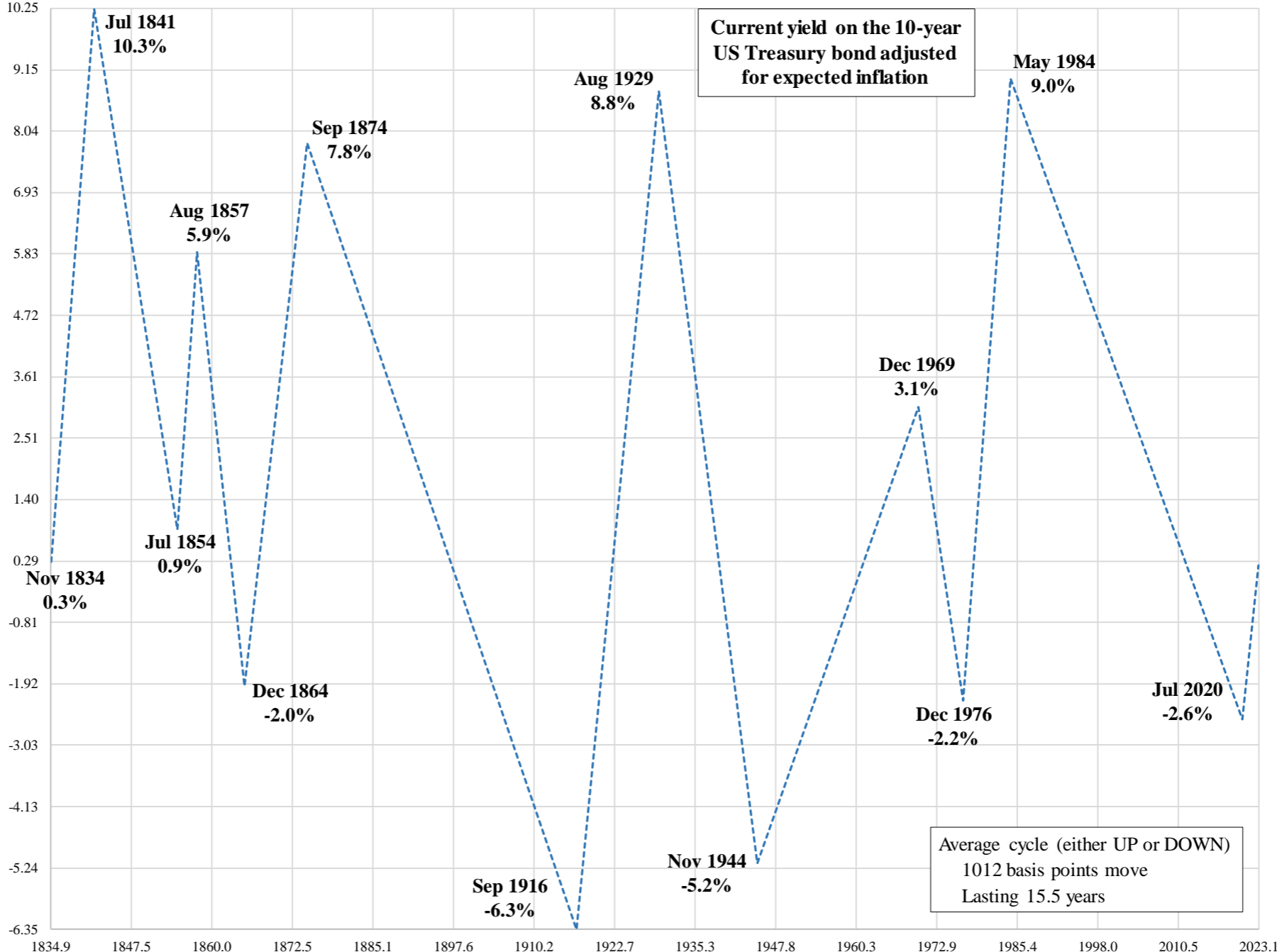
## But why . . . Why did growth grow to the sky

- 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
  - Very 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

## 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

## Real interest rate cycles - large and long-lasting





# Value when . . . interest rates are rising

## Summary statistics for eras when interest rates are either rising or falling (episodically)

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 falling episodic interest rate environments (covering 3 episodic eras, spanning 60.5% of the months)</b>				
Total market	8.16	0.35	23.2	0.16
Growth	7.57	0.37	20.6	0.10
Value	9.08	0.31	29.3	0.18
Value risk premium	1.40	0.09	15.5	0.19
Traditional commonly-used value	8.67	0.33	26.5	0.18
Moderate deep value	9.08	0.31	29.3	0.18
Risk managed moderate deep value	12.57	0.50	25.0	0.13
Moderately aggressive deep value	9.55	0.29	32.9	0.18
Risk managed moderately aggressive deep value	13.37	0.47	28.5	0.12
<b>During rising episodic interest rate environments (covering 4 episodic eras, spanning 39.5% of the months)</b>				
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
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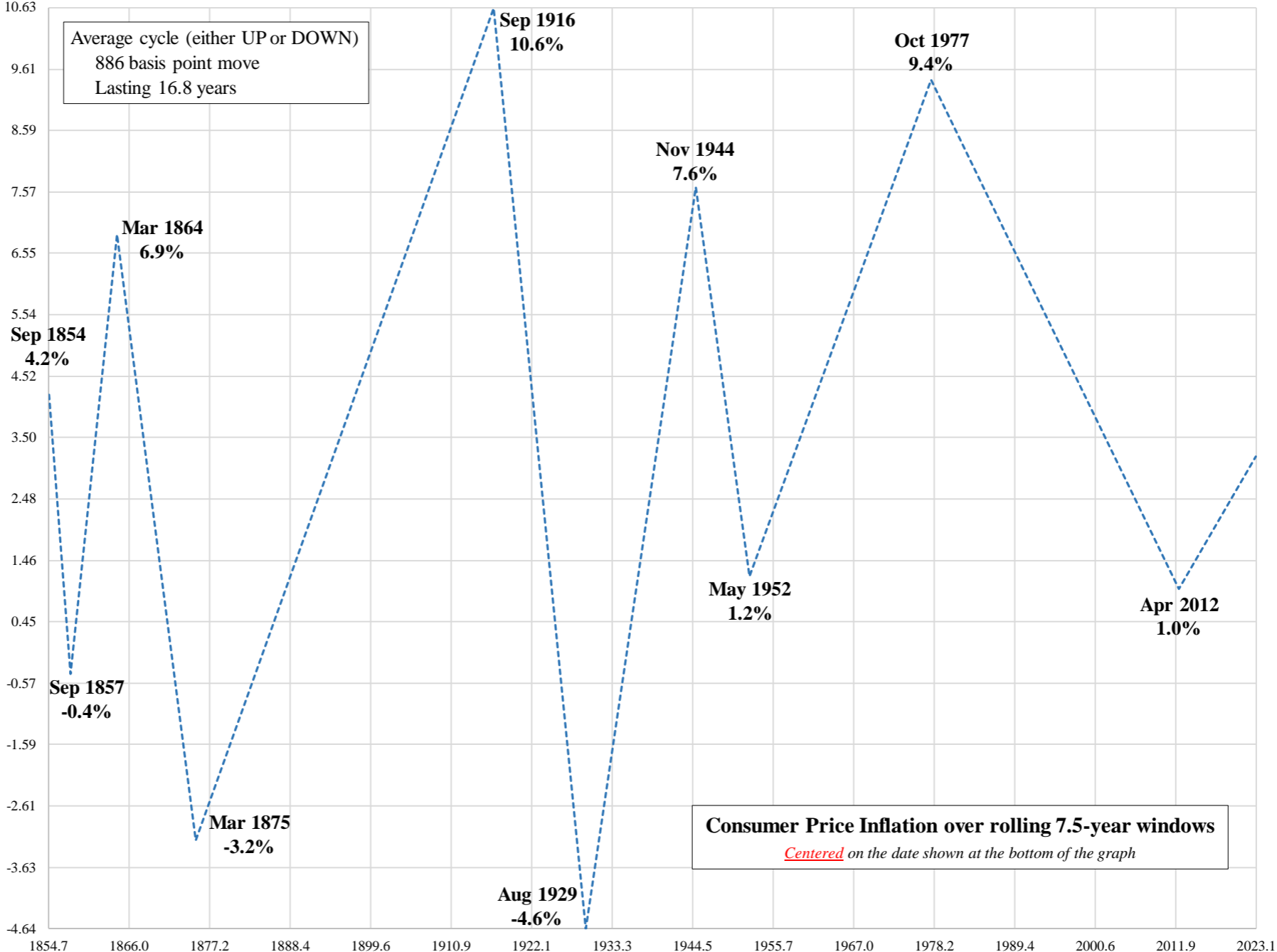
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## Expected inflation cycles - large and long-lasting



# Value when . . . inflation is rising

## Statistics for eras when EXPECTED inflation is either rising or falling (episodically)

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 falling episodic expected inflation environments (covering 3 such eras, spanning 46.8% of the months)</b>				
Total market	14.48	0.95	15.2	0.07
Growth	13.23	0.81	16.3	0.07
Value	15.73	0.92	17.1	0.09
Value risk premium	2.20	0.21	10.4	0.13
Traditional commonly-used value	15.23	0.95	16.0	0.08
Moderate deep value	15.73	0.92	17.1	0.09
Risk managed moderate deep value	18.17	1.13	16.0	0.05
Moderately aggressive deep value	17.00	0.93	18.2	0.08
Risk managed moderately aggressive deep value	19.47	1.12	17.3	0.05
<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
Moderately aggressive deep value	9.56	0.28	34.0	0.18
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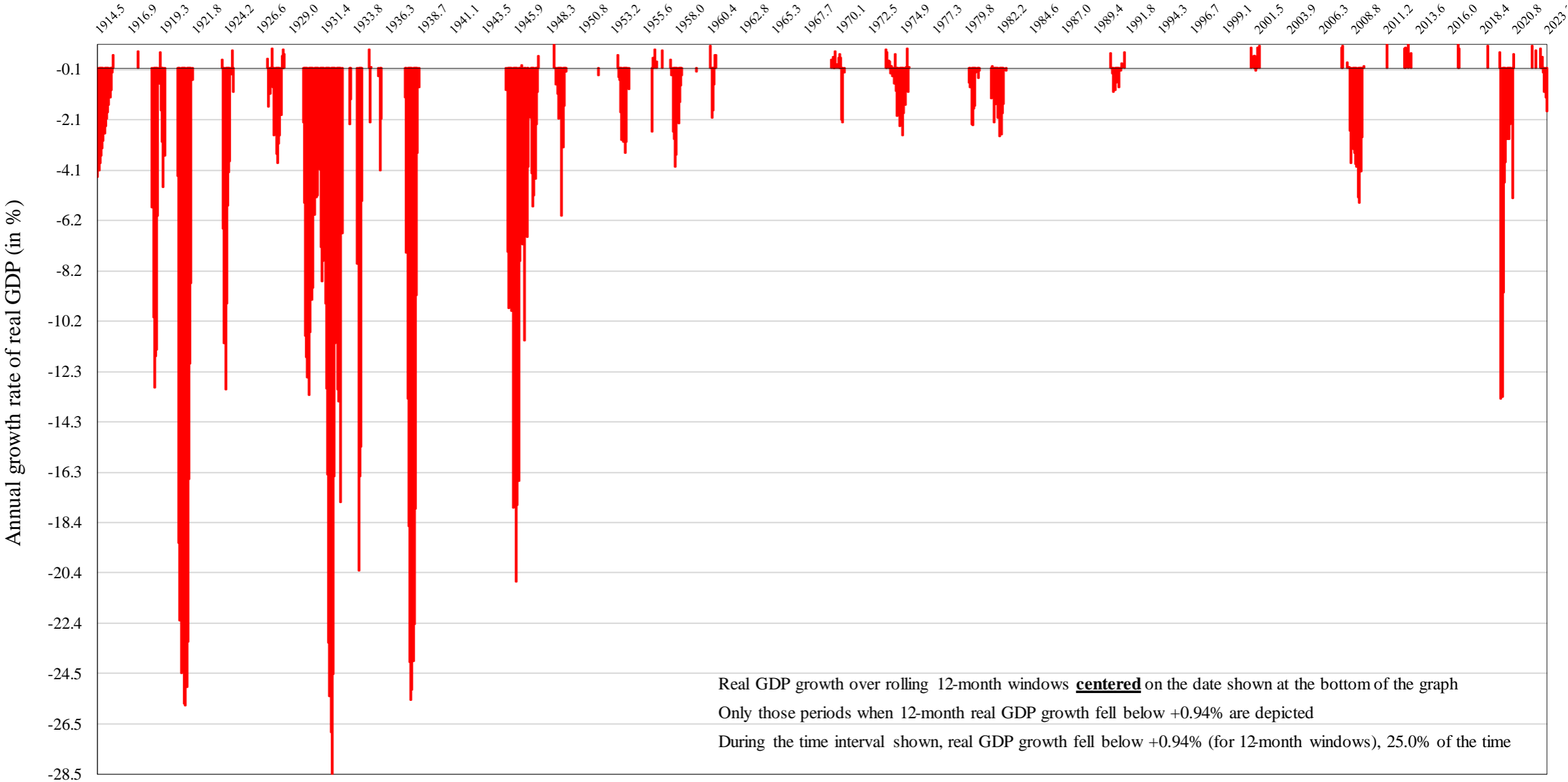
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# When has U.S. economic growth disappointed, and by how much





# Value when . . . economy is growing very slowly or poorly

## Summary statistics for when U.S. GDP was growing strongly or weakly

Statistic	Total market	Growth	Value	Value risk premium	Traditional commonly-used value	Moderate deep value	Risk managed moderate deep value	Moderately aggressive deep value	Risk managed moderately aggressive deep value
<b>STRONG growth - When real U.S. GDP growth was greater than 0.94% (covers 76.68% of the months)</b>									
Return (geometric annualized mean)	14.74	12.70	17.23	4.02	16.17	17.23	18.28	17.42	18.71
Risk adjusted return (return divided by standard deviation)	0.91	0.80	0.87	0.34	0.90	0.87	0.95	0.78	0.86
Risk (annualized standard deviation of monthly returns)	16.12	15.79	19.79	11.92	17.87	19.79	19.23	22.25	21.72
<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	-0.46	5.81
Risk adjusted return (return divided by standard deviation)	na	0.01	na	na	na	na	0.19	na	0.18
Risk (annualized standard deviation of monthly returns)	29.14	25.48	37.16	18.00	33.46	37.16	28.15	40.94	31.83

Based on the time period spanning 6/30/1926 through 12/31/2022

"Strong" and "Weak" growth is measured for each individual month, but looks back 6 months and forward 6 months (in other words, for a 12-month interval, but centered on the middle of that interval)

# Value when . . . economy is growing very slowly or poorly

Statistic	Total market	Growth	Value	Value risk premium	Traditional commonly-used value	Moderate deep value	Risk managed moderate deep value	Moderately aggressive deep value	Risk managed moderately aggressive 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	-0.46	5.81
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# How to define value

Old method . . . Price-to-book value ratio

New method . . . Multi-dimensional

- Price-to-earnings ratio
- Price-to-book value ratio adjusted for intangibles
- Price-to-sales ratio
- Fundamental-weight-to-cap-weight ratio
  - Where fundamental weight is a blend of
    - Five-year average sales, cash flows, and dividends and
    - The most recent book value

- Price-to-book ratio is only one of many ways to define value
- Intrinsic value is another definition, one introduced by Graham and Dodd
- They cautioned against the use of P/B as a substitute for intrinsic value
- In today's economy, this warning is even more relevant
- Today, companies' intangible assets – intellectual property, patents, brands, software, human capital, reputational capital, customer relationships - are often at the core of their ability to generate and maintain profit margins
- Yet these aspects are almost totally ignored by simple Book Value

Research

Financial Analysts Journal | A Publication of CFA Institute  
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# Reports of Value's Death May Be Greatly Exaggerated

**Robert D. Arnott , Campbell R. Harvey , Vitali Kalesnik ,**  
**and Juhani T. Linnainmaa **

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ARTICLE

# Did I Miss the Value Turn?

September 2021

In mid-March 2020, we wrote in “This Too Shall Pass” that disruptions such as the Covid-19 pandemic are not permanent and that investors can look beyond immediate travails to an eventual return to normalcy. Who knew that 17 months later the world would still be dealing with the pandemic and its fallout? Yet, the truism remains: This too shall pass.



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*Partner, Chair*



**Vitali Kalesnik, PhD**  
*Partner, Director of Research, Research  
Affiliates Global Advisors (Europe) Limited*



# Punchline

*“Value stocks stand out as the only asset class likely to generate a 5%–10% real return over the coming decade”* . . . . Research Affiliates

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# Will interest rates and inflation rise through 2040 . . . *“YES”*

Friday

March 3<sup>rd</sup>

11:00 a.m. EASTERN

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

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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.

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