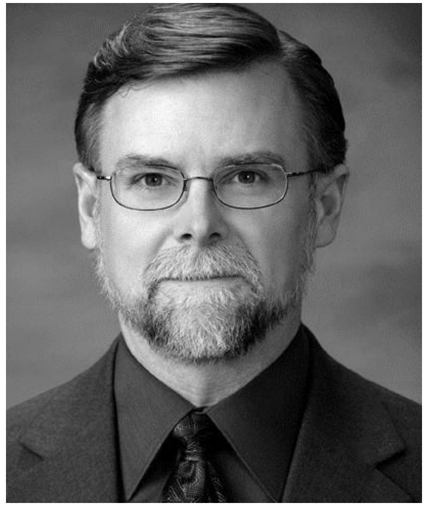
The time for small cap - is now the time?

Rob Brown, PhD, CFA

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



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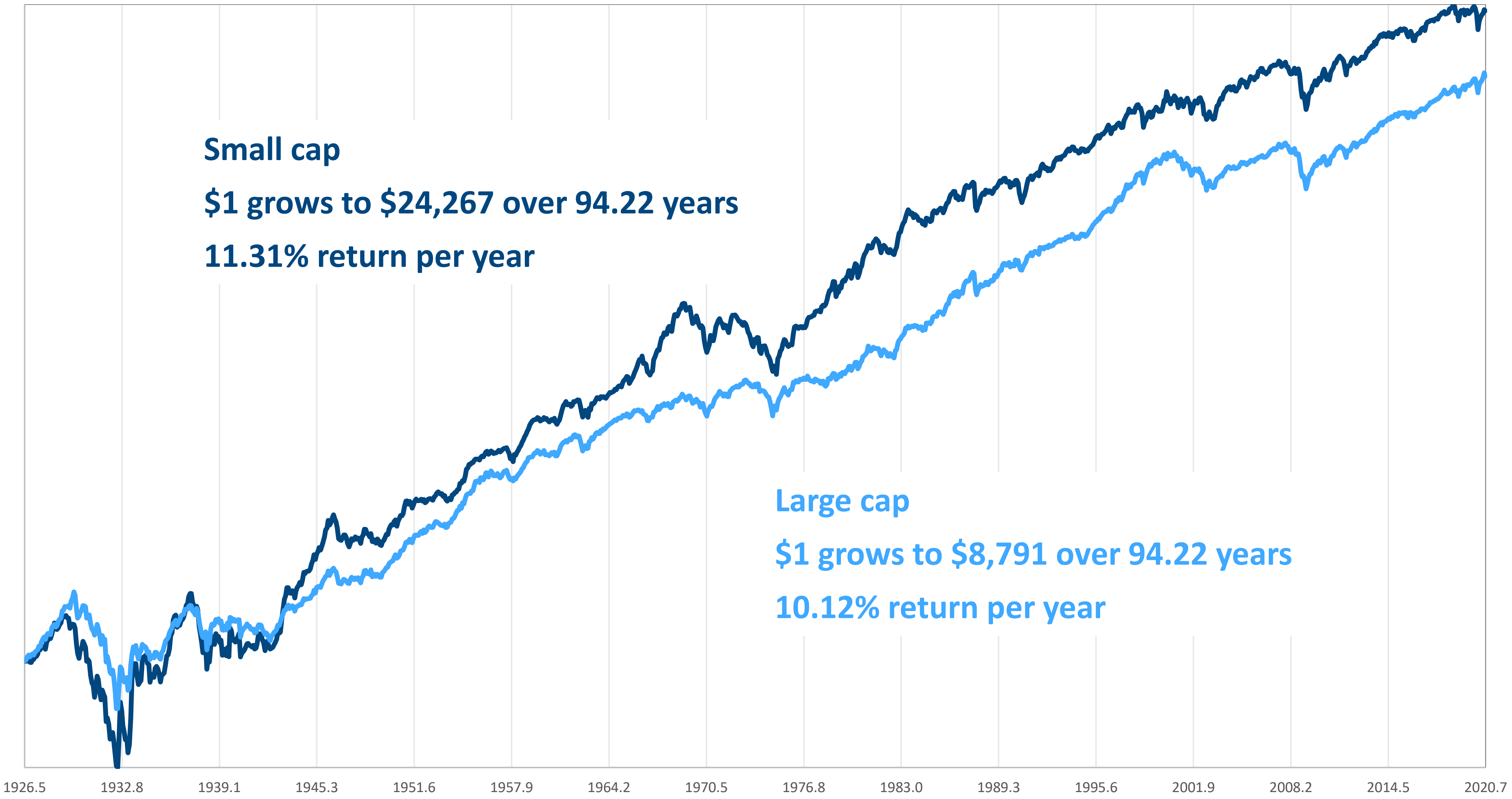
Conventional wisdom

- Conventional wisdom prescribes a permanent fixed allocation to small cap
- This conclusion is based on the following assumptions about the small cap risk premium
  - Sufficient size
  - Sufficient consistency
  - Some diversification benefit
- Convention wisdom is wrong
- It lacks even the slightest degree of consistency, and instead is painfully episodic

Sufficient size

YES

Small cap premium of 1.19% per year over the last 94.22 years

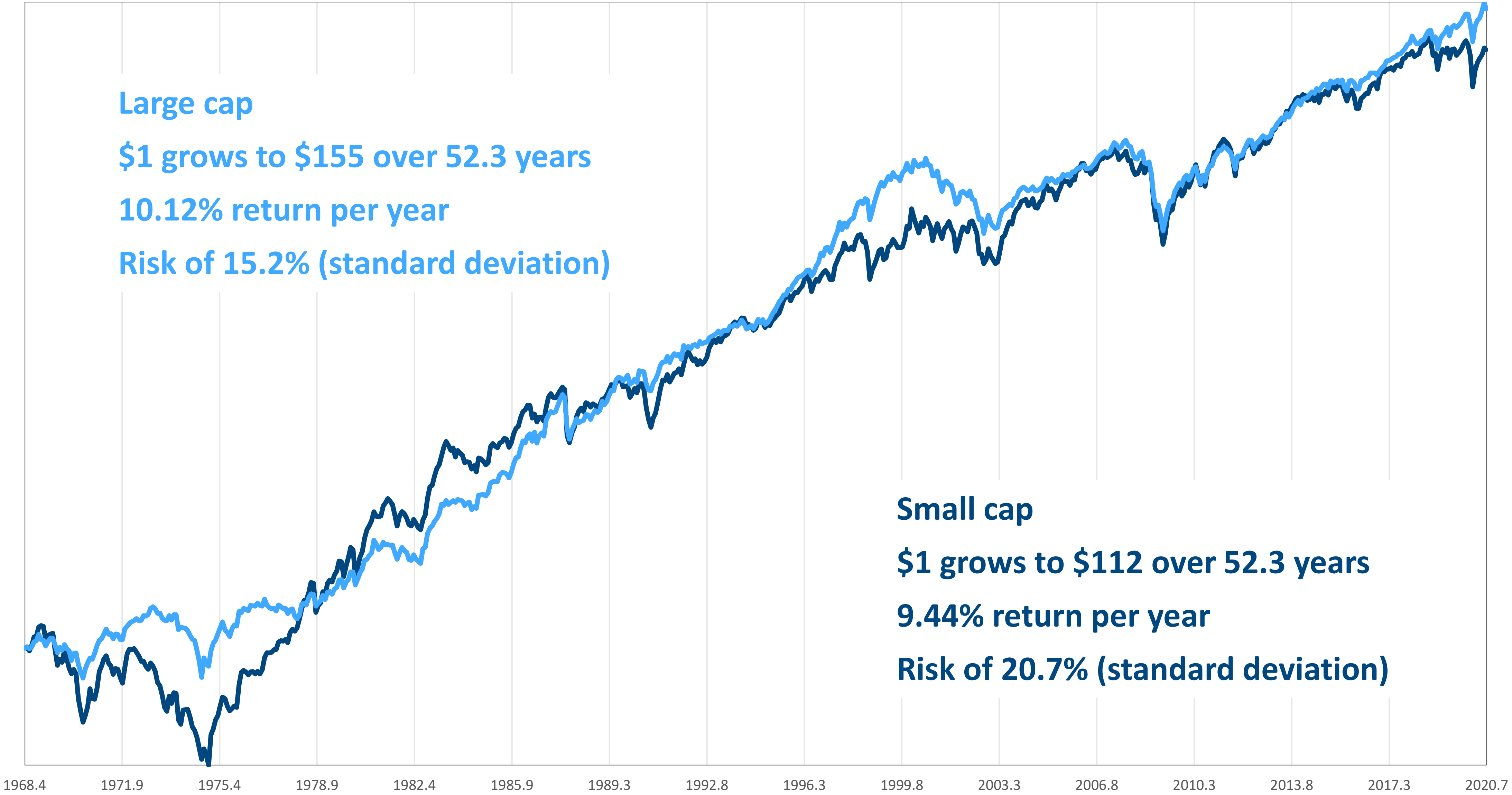


Sufficient consistency

NO

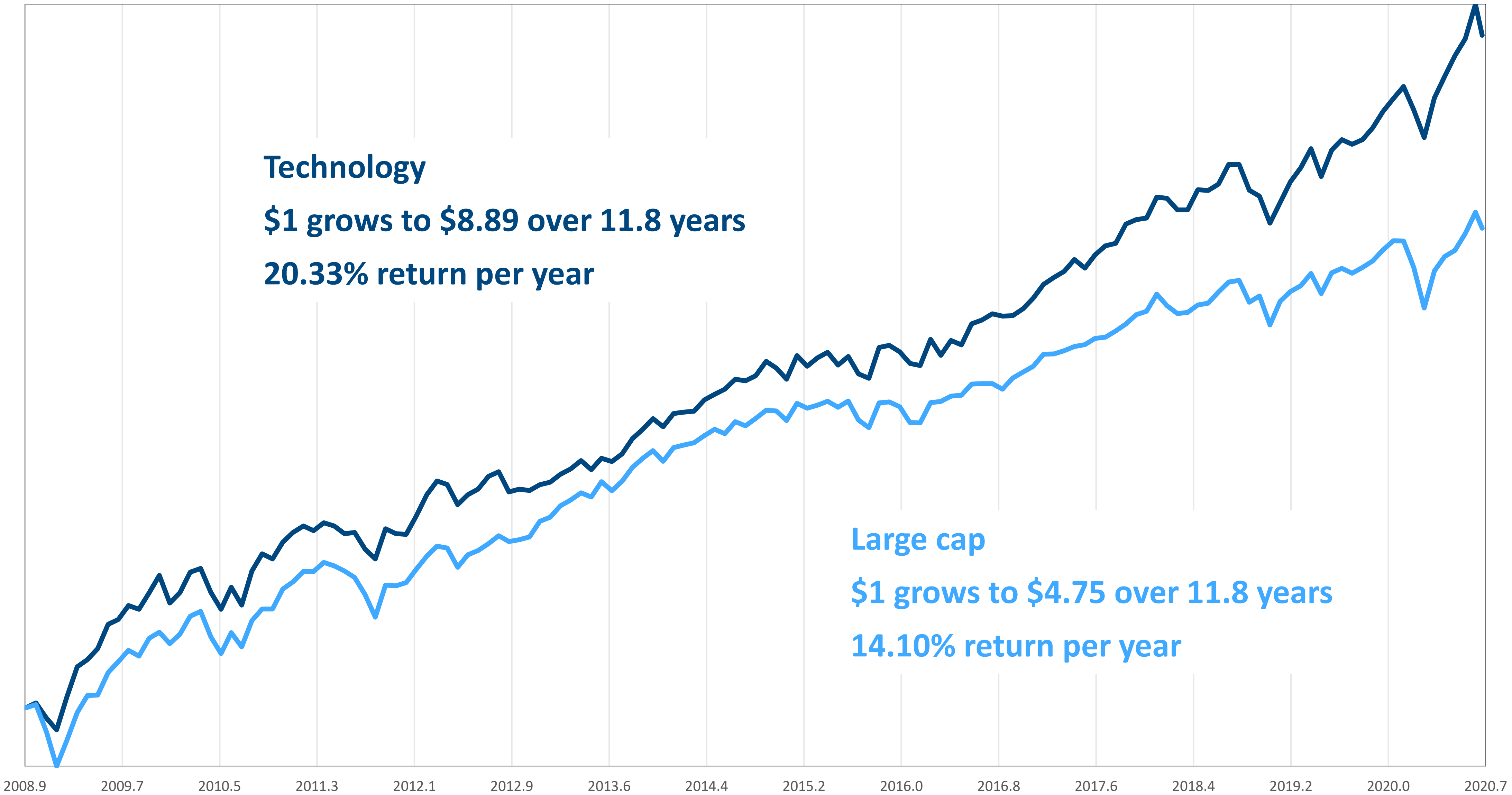
Conventional wisdom closed its eyes to the last 50+ years

Small cap premium of -0.68% per year over the last 52.3 years



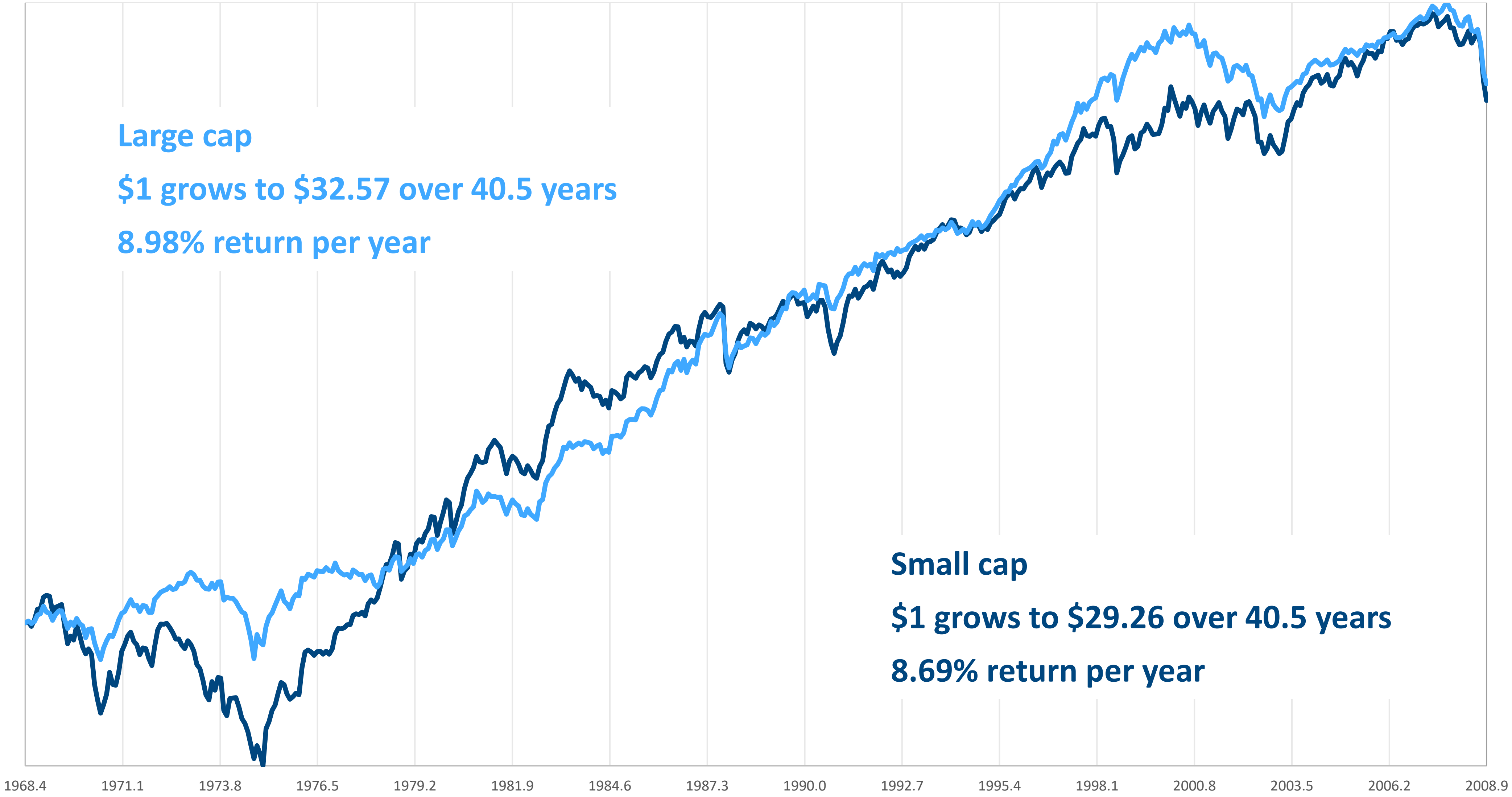
Is recent small cap disappoint just due to the recent 12 year tech rally

History making technology rally began Nov 30, 2008



NO - even after leaving out the tech rally, small cap still underperforms

After removing the 11.8-year technology rally, small cap's premium was still -0.29%

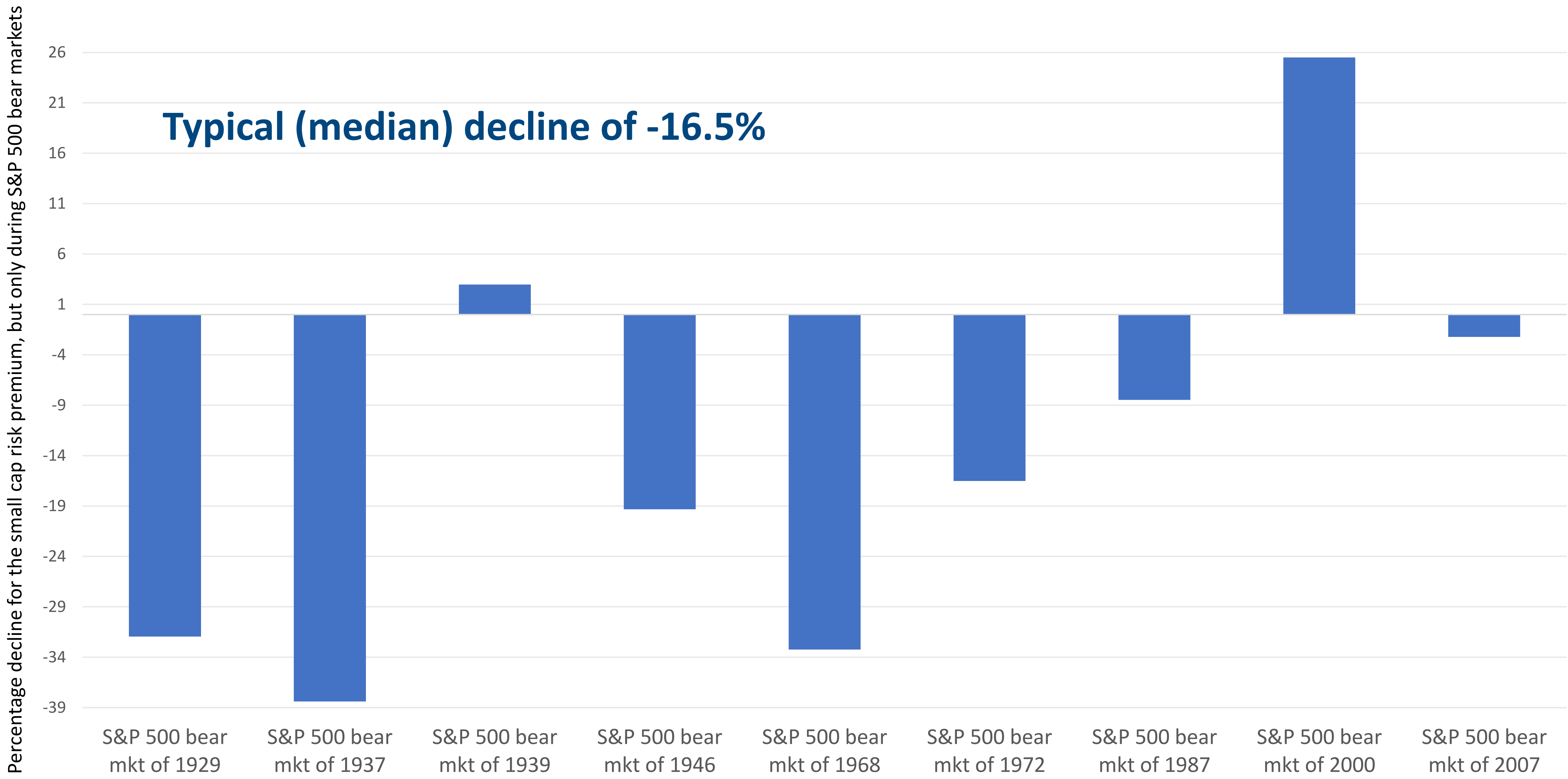


Some diversification benefit

NO

Diversification benefits are virtually non-existent

Small cap risk premium is negative during S&P 500 bear markets

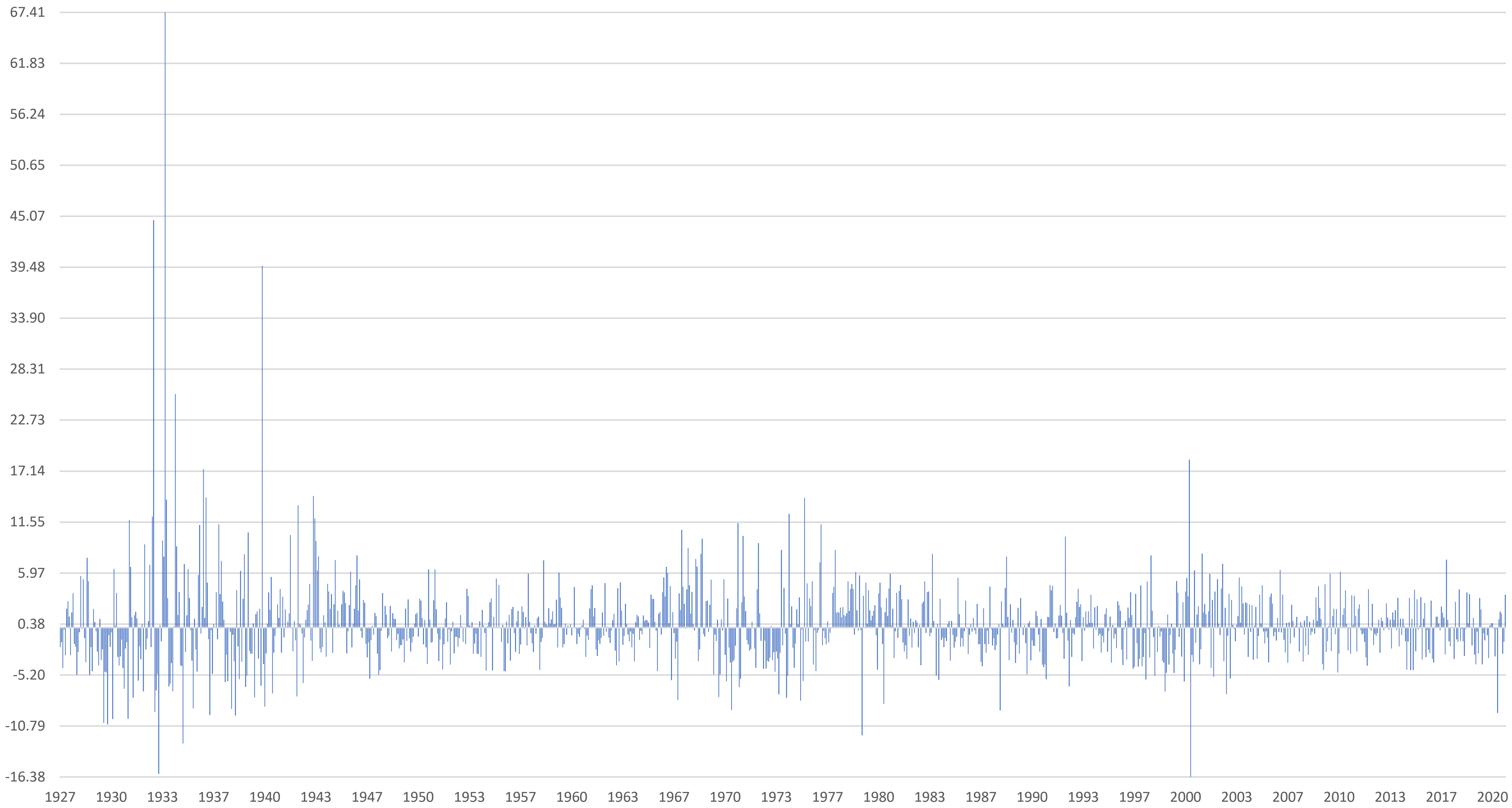


How consistent is the small cap risk premium?

Is it episodic?

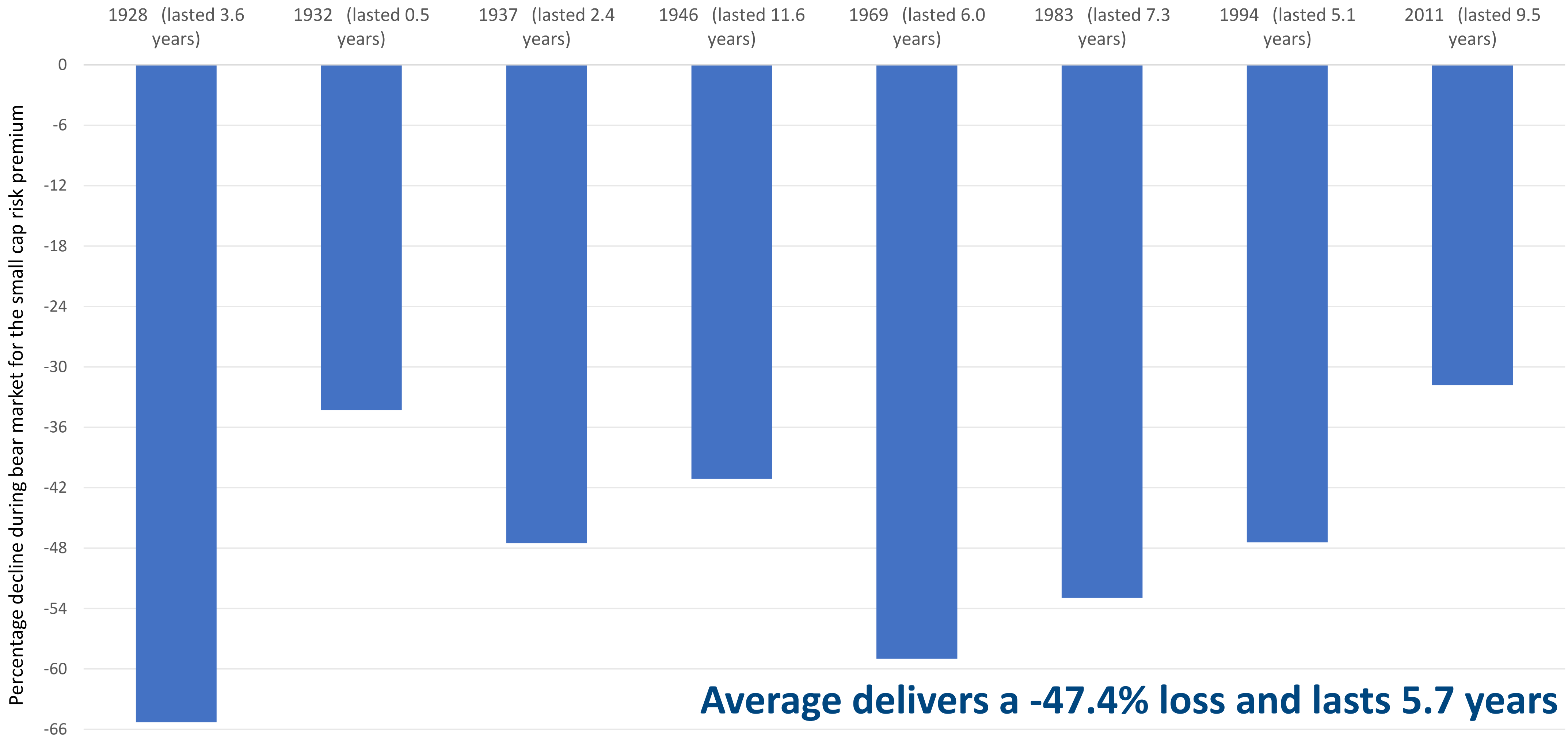
Month-by-month small cap risk premium

Monthly small cap premium has varied significantly over time



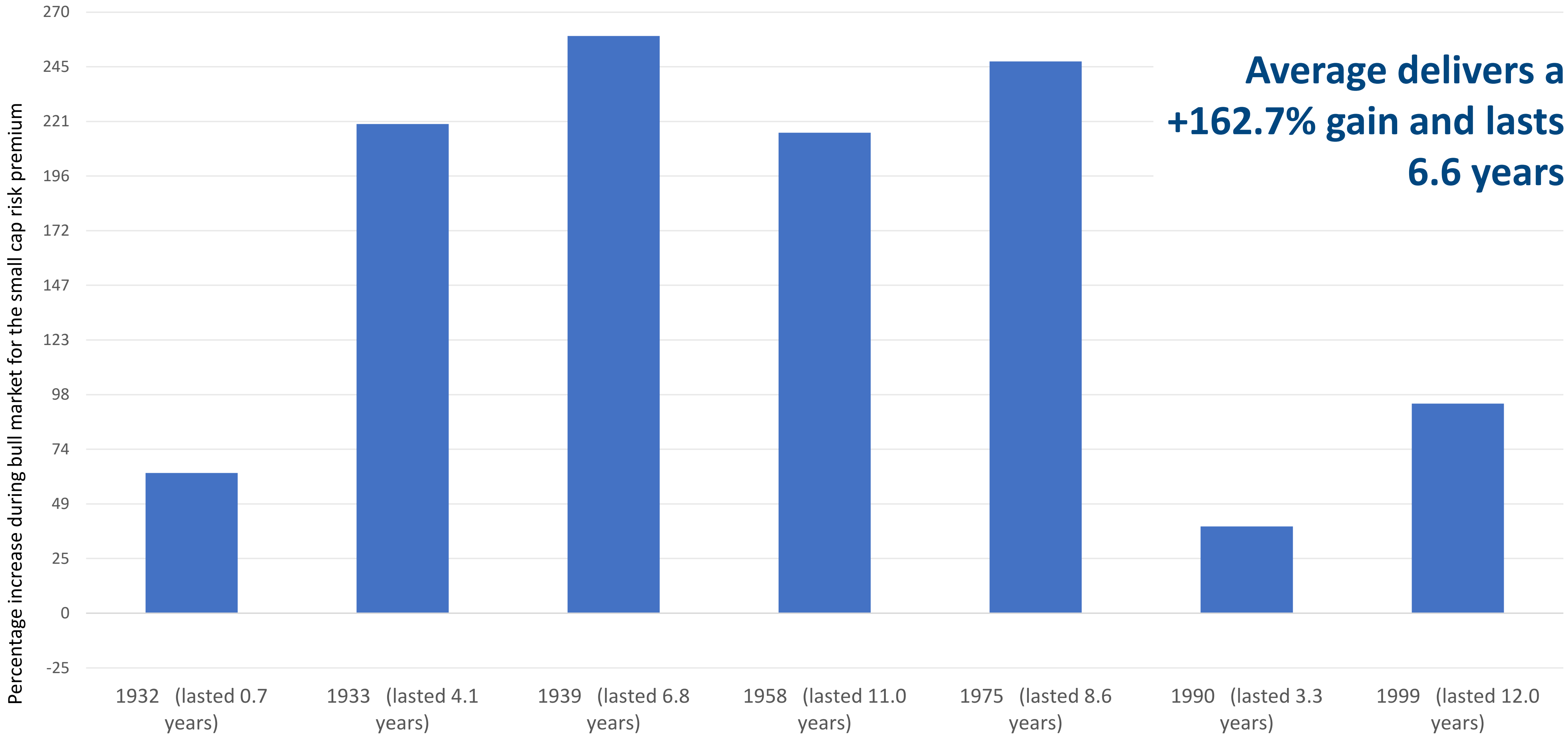
Small cap risk premium bear markets

Bear markets for the small cap risk premium have been both severe and long-lasting



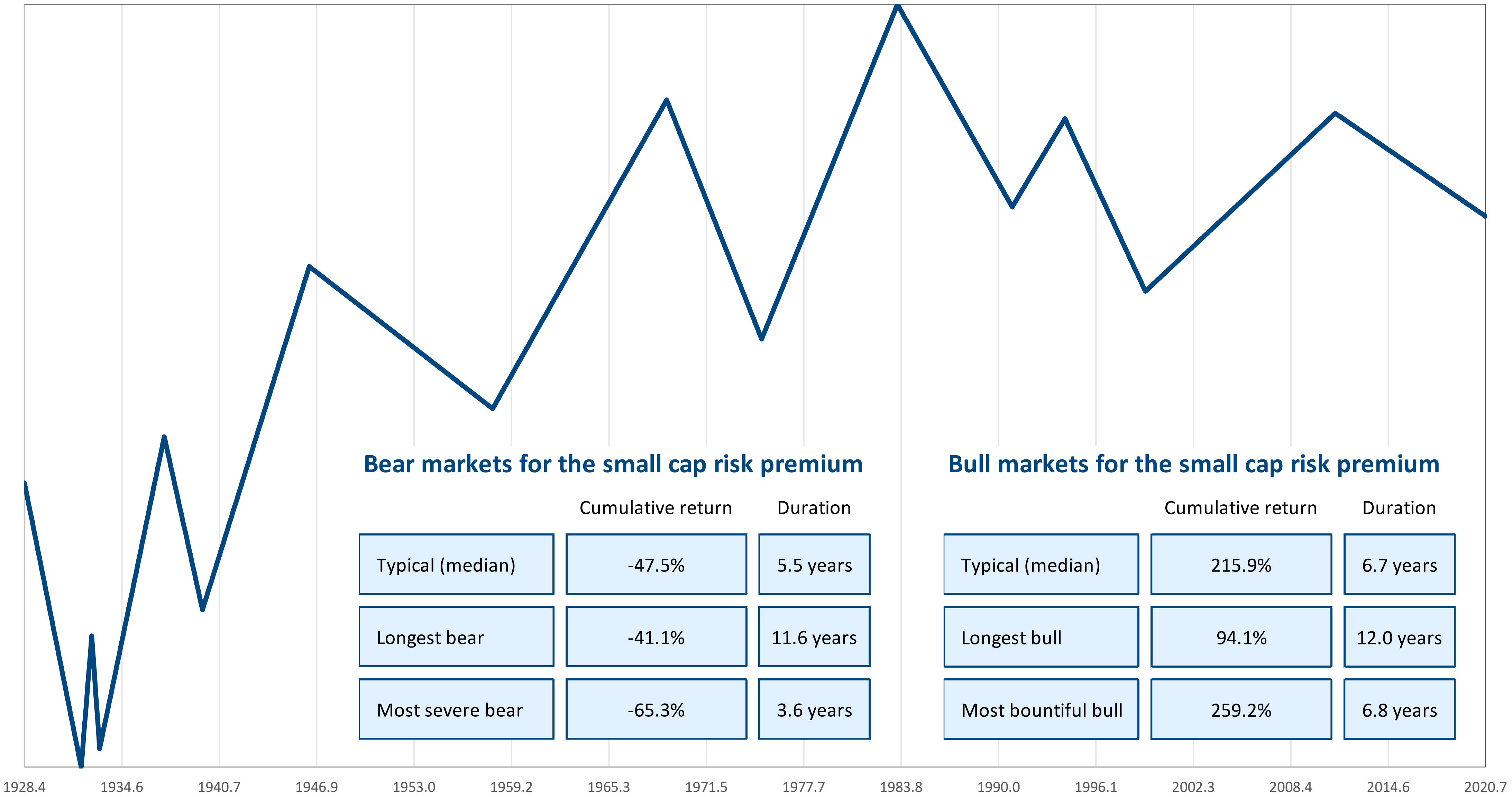
Small cap risk premium bull markets

Bull markets for the small cap risk premium have been both bountiful and long-lasting



Episodic nature of the small cap risk premium

History of bear & bull markets for the small cap risk premium since 1926



Bear markets for the small cap risk premium

	Cumulative return	Duration
Typical (median)	-47.5%	5.5 years
Longest bear	-41.1%	11.6 years
Most severe bear	-65.3%	3.6 years

Bull markets for the small cap risk premium

	Cumulative return	Duration
Typical (median)	215.9%	6.7 years
Longest bull	94.1%	12.0 years
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Episodic nature of the small cap risk premium, continued

Bear markets for the small cap risk premium

	Cumulative return	Duration
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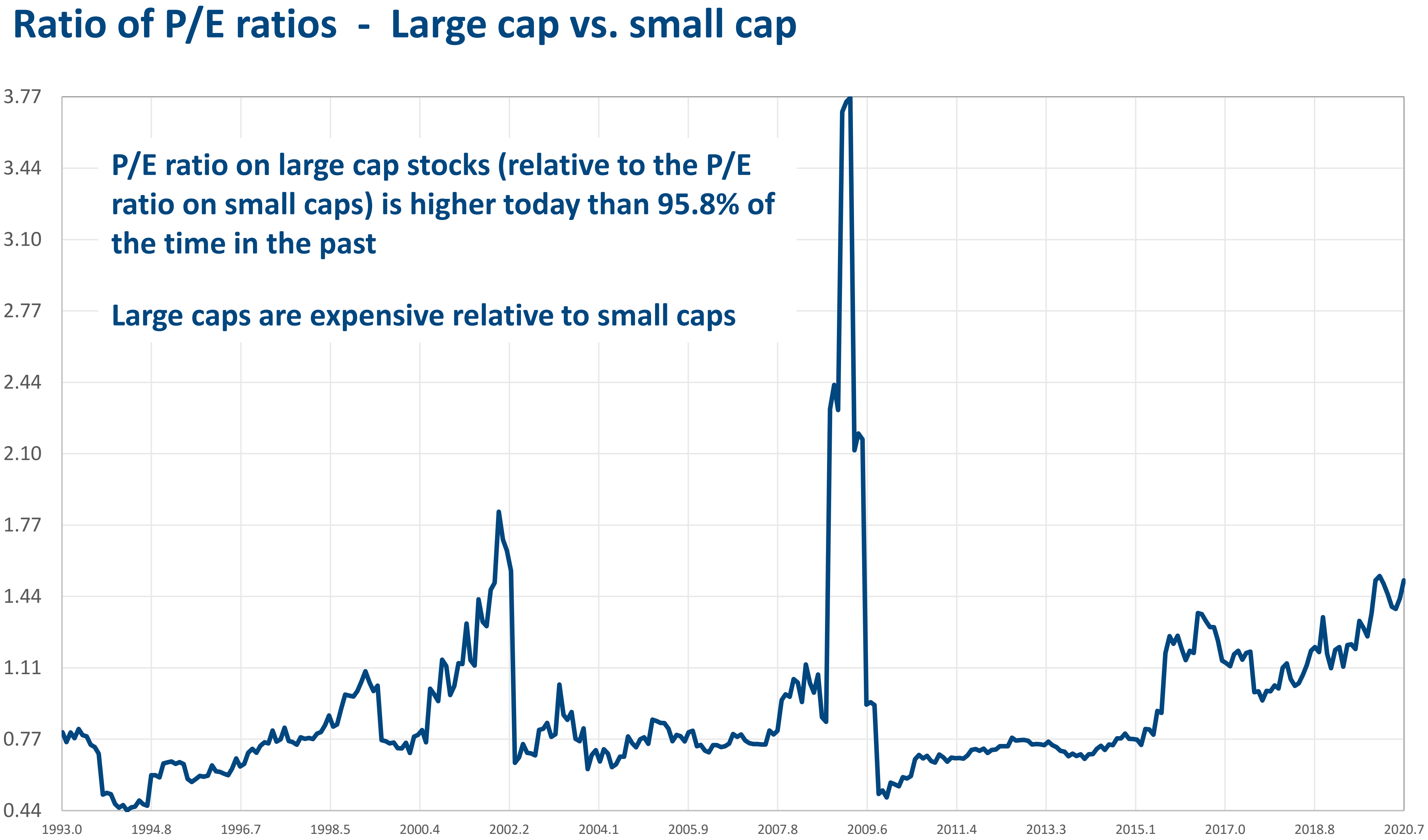
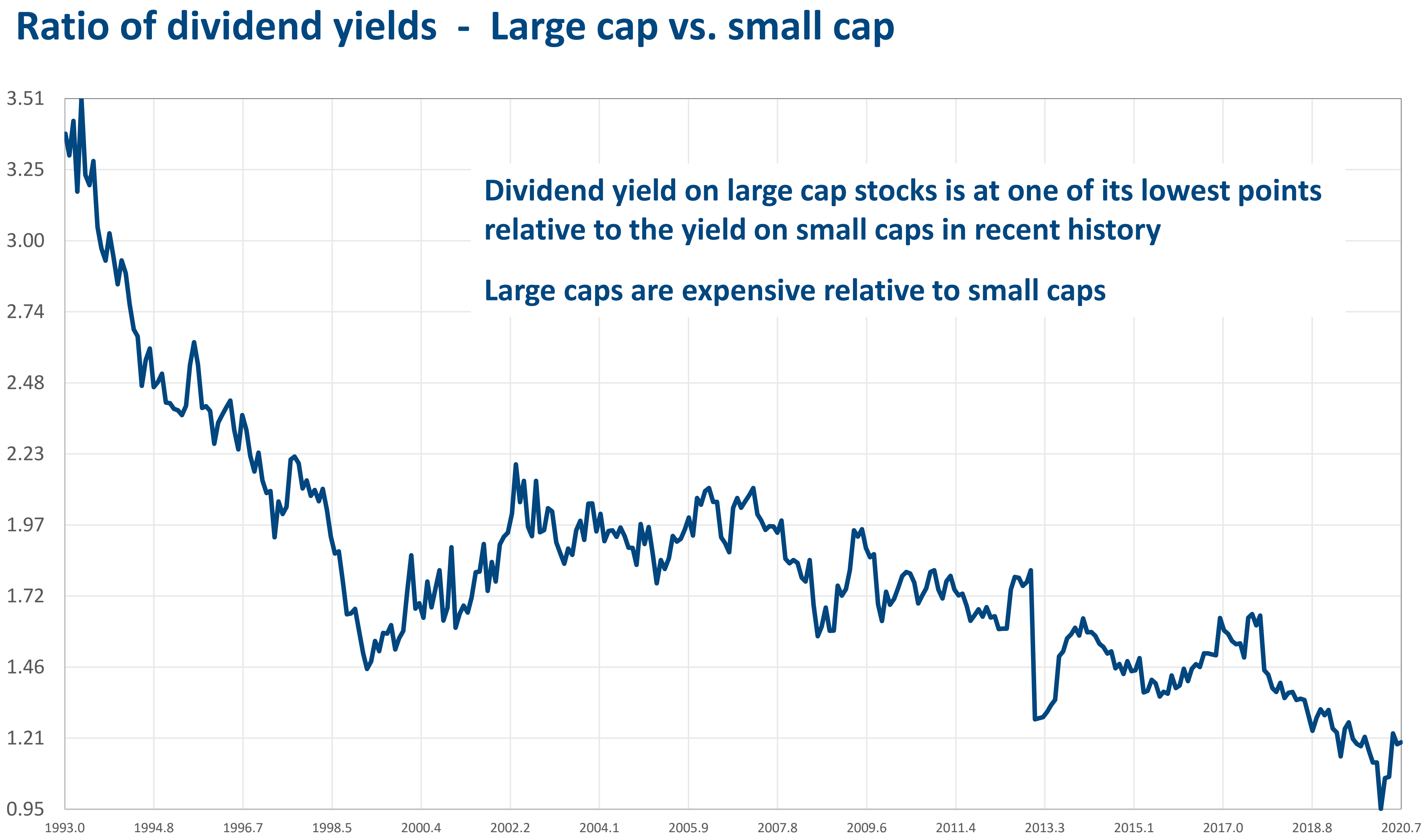
But, why now

Valuations

Comparative P/E ratios, large cap vs small cap



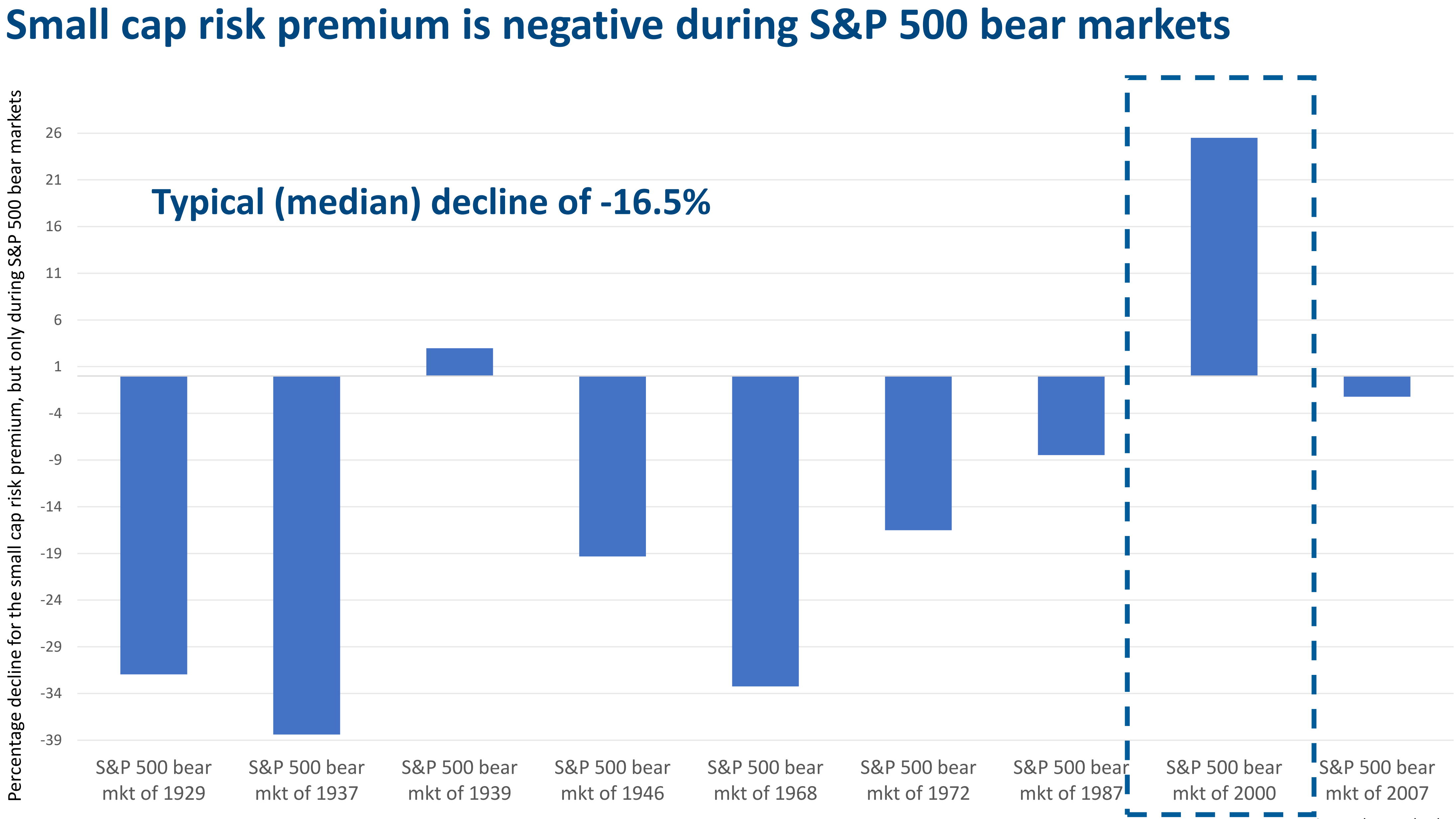
Comparative dividend yields, large cap vs small cap



But, why now

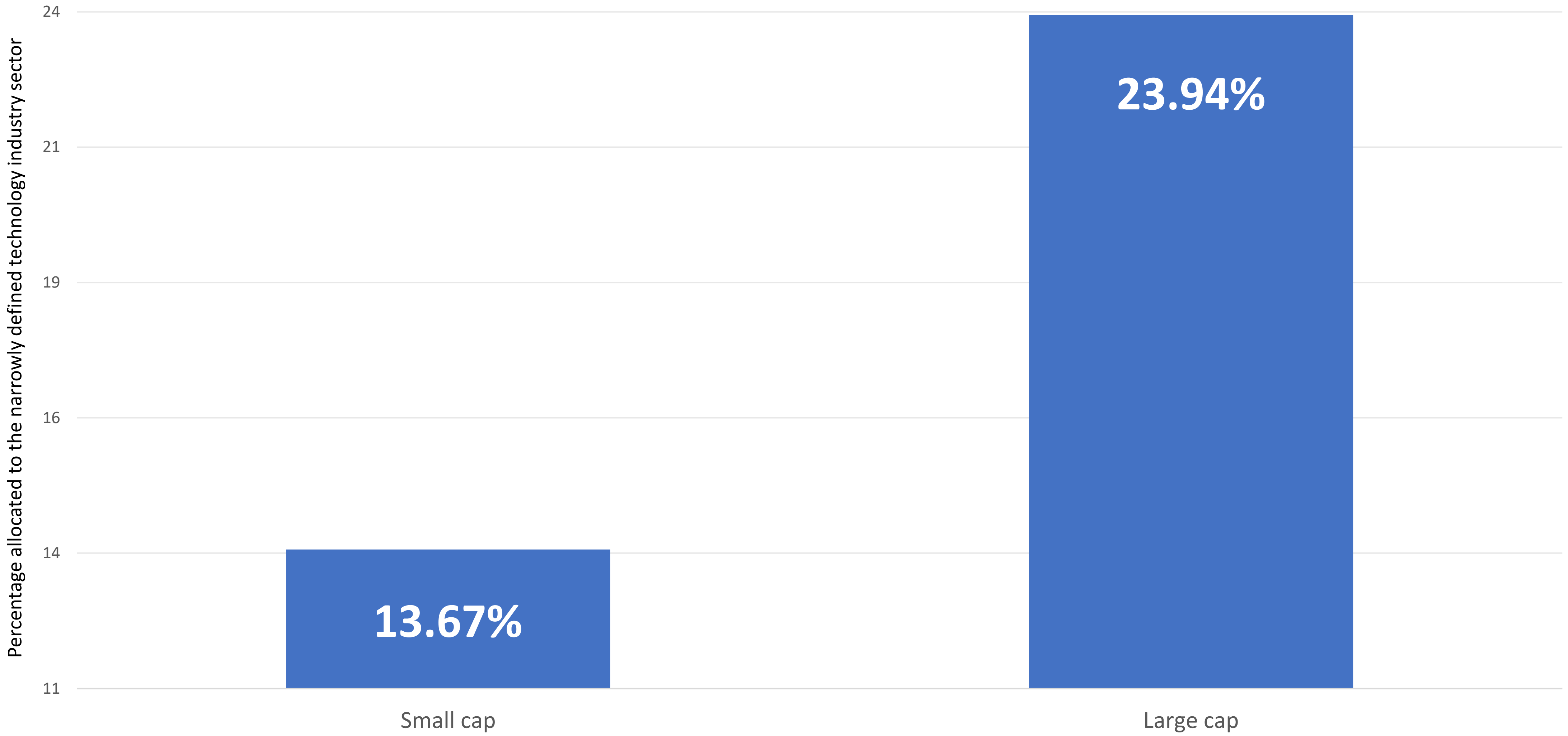
Technology, very similar to the 2000 bear market

Tech wreck of 2000 and the small cap risk premium



Large cap is remarkably over-weighted to technology

Small cap minimizes its exposure to the over-priced technology sector



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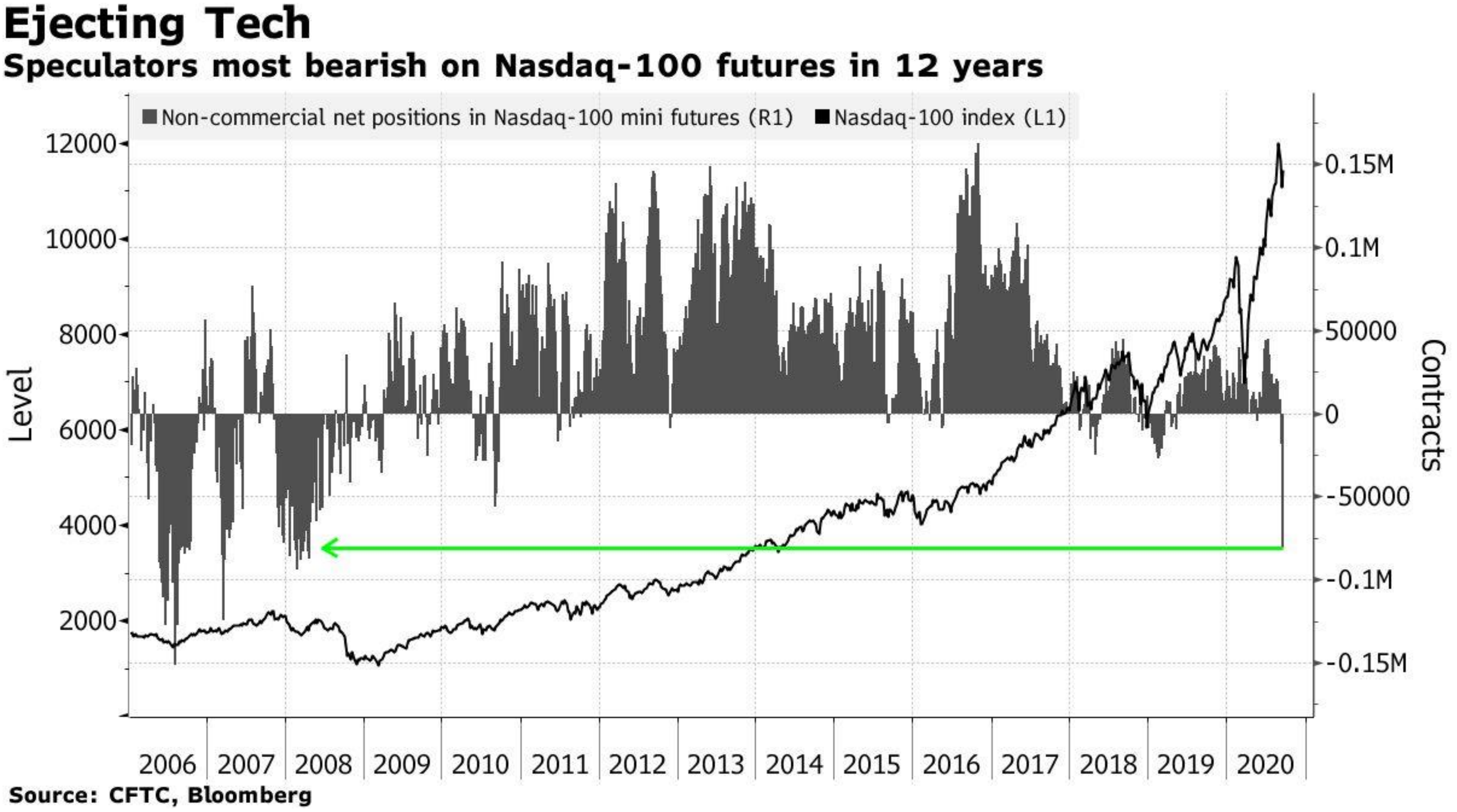
Recognition of technology's over-valuation building

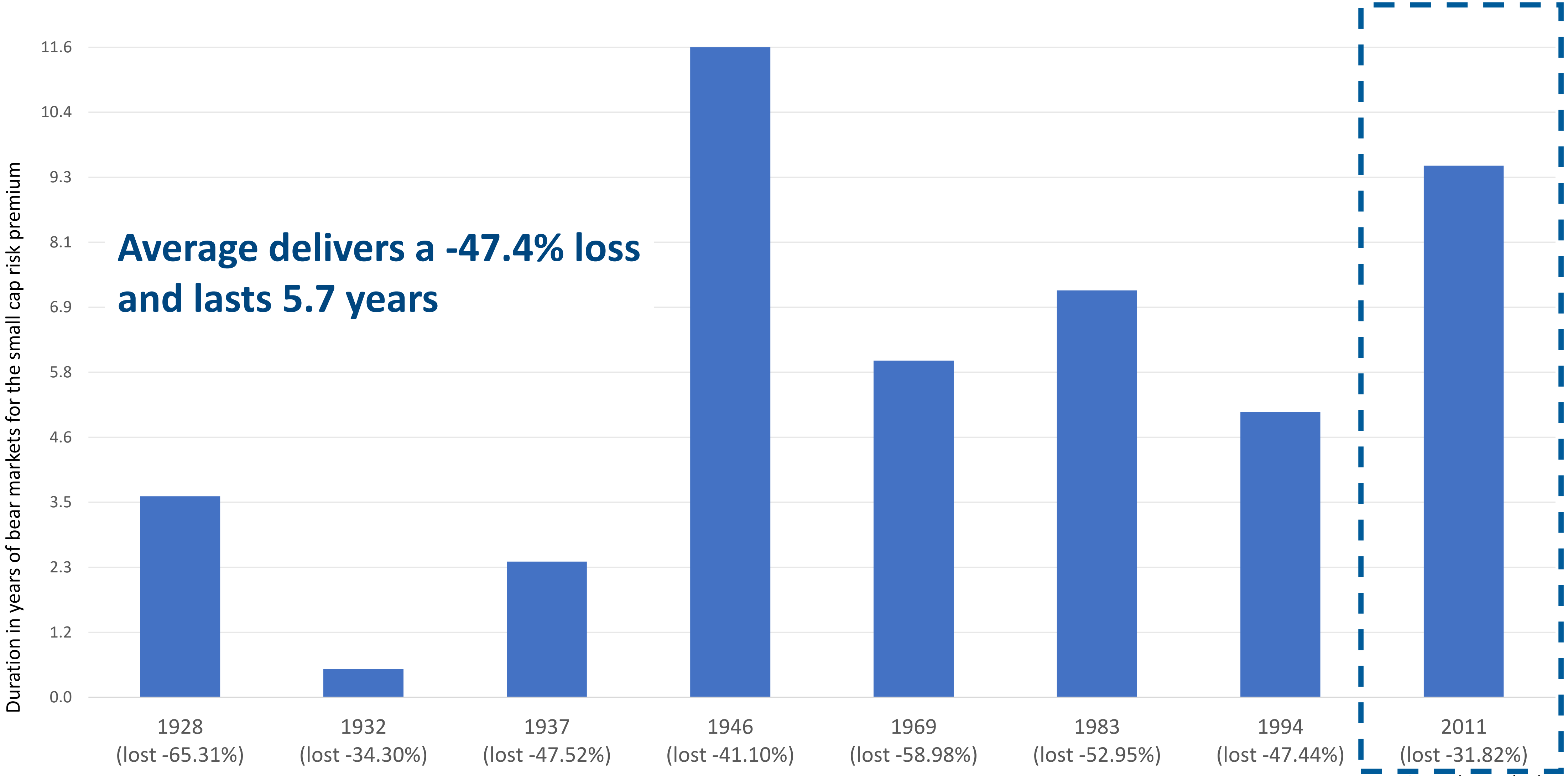


But, why now

The current small cap bear market is long in the tooth

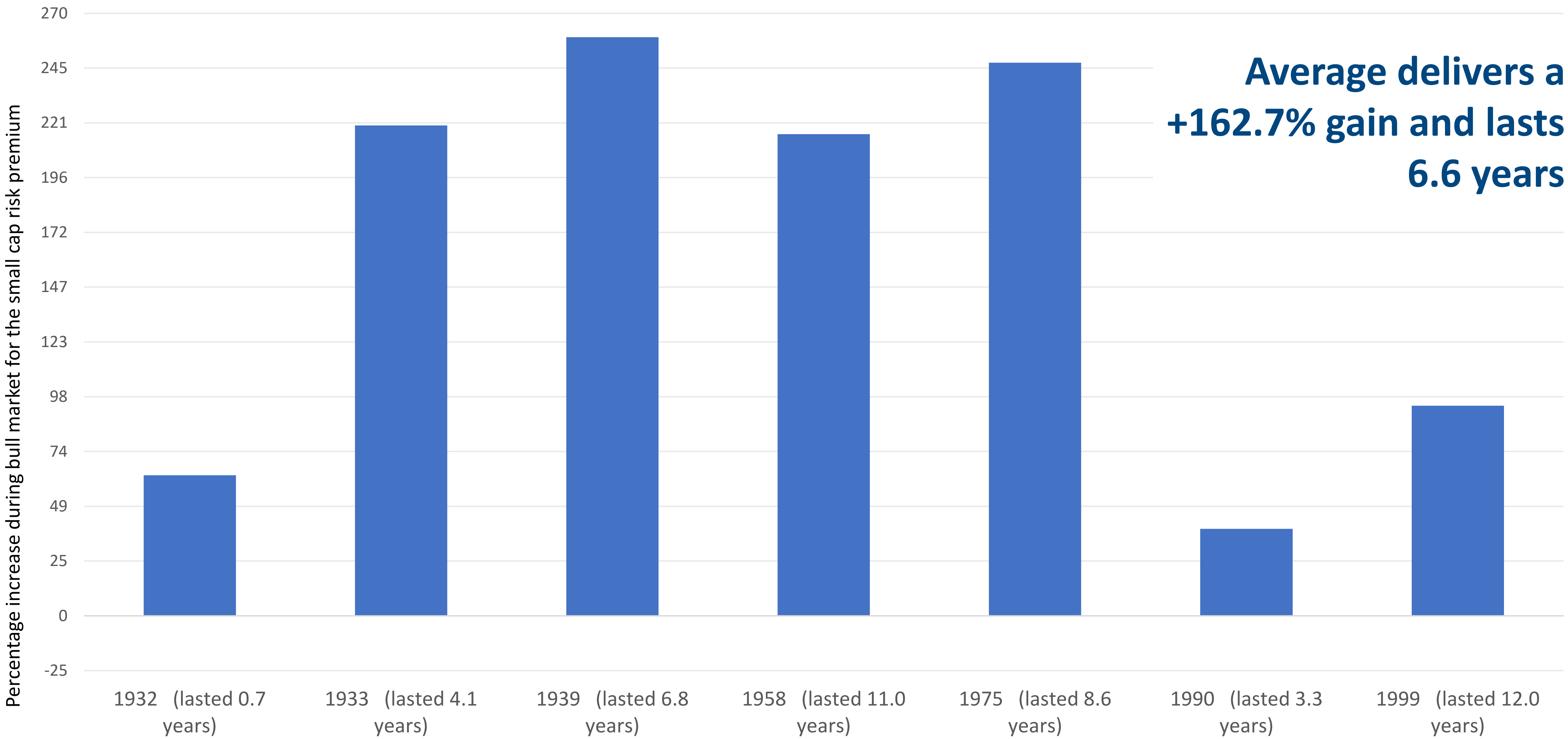
Current bear market for the small cap risk premium is long in the tooth

Bear markets for the small cap risk premium have been both severe and long-lasting



The reward is large during small cap risk premium bull markets

Average bull market delivers an extra +163% return over and above the return on stocks (large cap)



Small cap risk premium spans all geographies

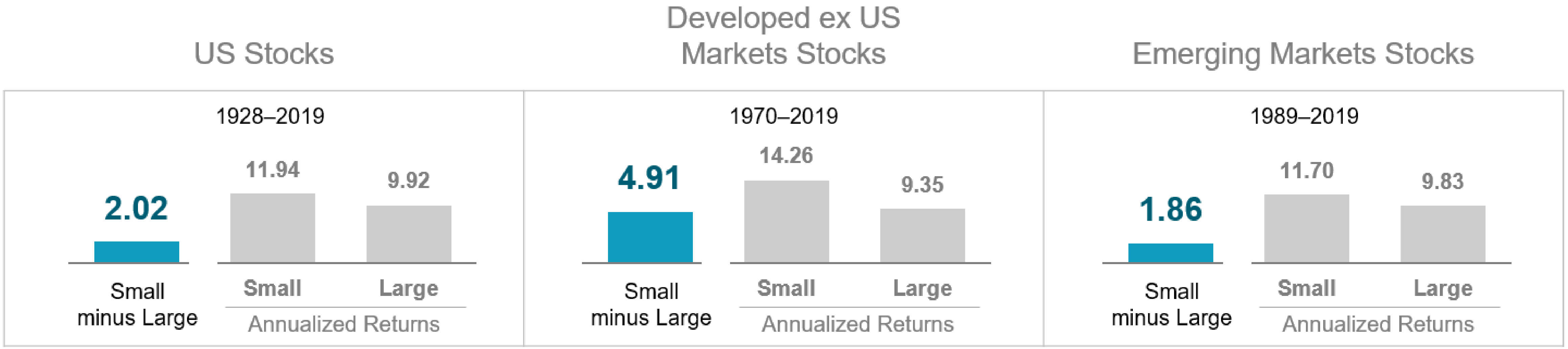
But, the data must be carefully interpreted

Small cap risk premium across different geographies

Historical premiums and returns (annualized): US, Developed ex US, and Emerging Markets

Company Size

Relative performance of small cap stocks vs. large cap stocks (%)



But, the data must be carefully interpreted

Dimensional US Small Cap Index was created by Dimensional in March 2007 and is compiled by Dimensional. It represents a market-capitalization-weighted index of securities of the smallest US companies whose market capitalization falls in the lowest 8% of the total market capitalization of the Eligible Market. The Eligible Market is composed of securities of US companies traded on the NYSE, NYSE MKT (formerly AMEX), and Nasdaq Global Market. Exclusions: non-US companies, REITs, UITs, and investment companies. From January 1975 to the present, the index excludes companies with the lowest profitability and highest relative price within the small cap universe. The index also excludes those companies with the highest asset growth within the small cap universe. Profitability is measured as operating income before depreciation and amortization minus interest expense scaled by book. Source: CRSP and Compustat. The index monthly returns are computed as the simple average of the monthly returns of 12 subindices, each one reconstituted once a year at the end of a different month of the year. The calculation

Why now and is the juice worth the squeeze

- Why now
  - Relative valuations, large cap vs small cap
  - The problem with technology, it’s a large cap problem
  - Current small cap risk premium bear market is long in the tooth
  - Historically, the small cap risk premium has been positive after a recession
- Is the juice worth the squeeze
  - Average small cap risk premium bull market delivers an extra +163%

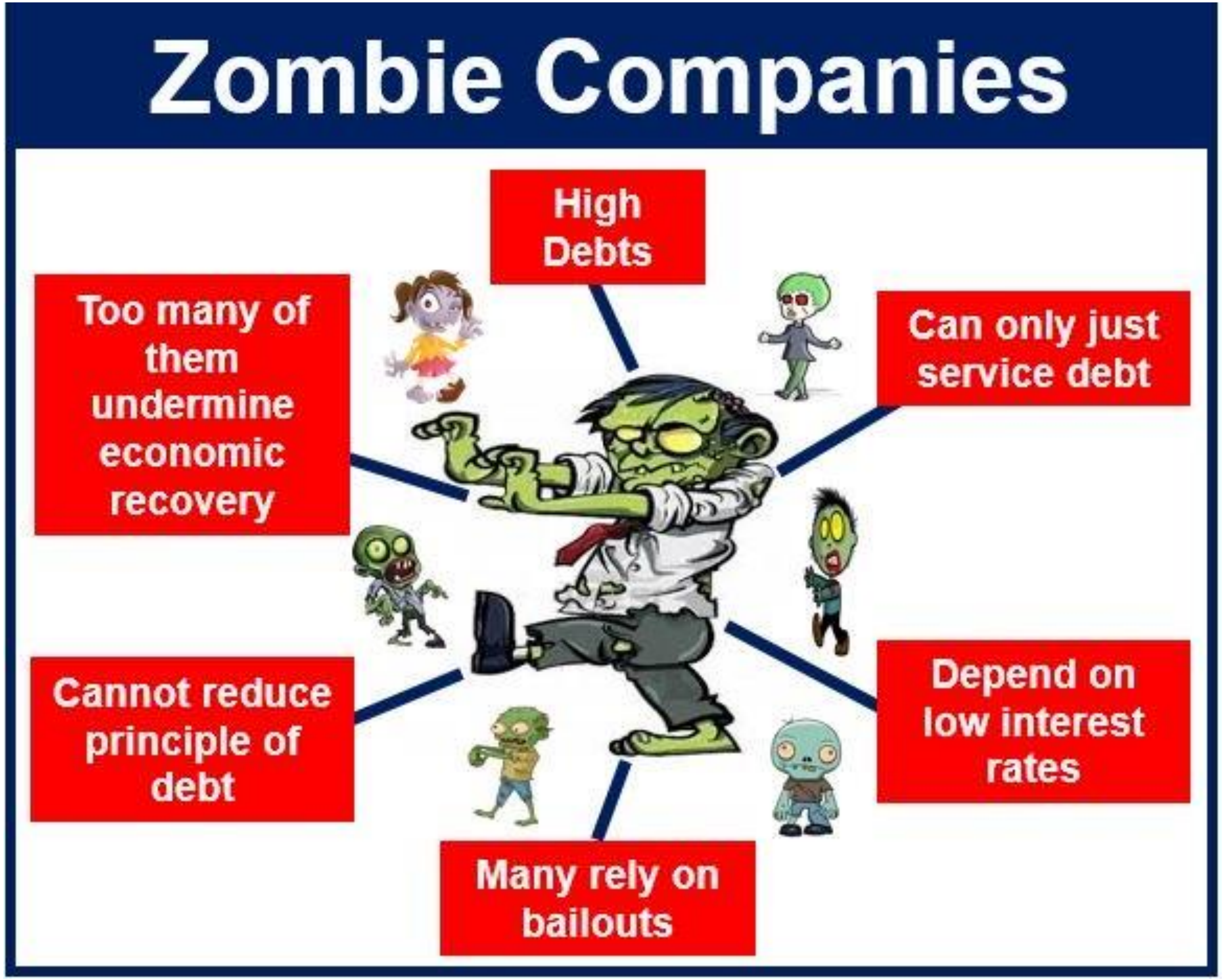
Two challenges to overcome

- Two possible impediments to a successful implementation
- Zombies
- Multiple risk premia

Zombies

- Successful forest management
- Consider the unqualified need for regular and periodic controlled forest fires
  - While it may sound counterproductive to the average person
  - Controlled burns are actually the safest way to manage overgrowth and promote new, healthy growth in wooded areas, wetlands, crop fields and prairies
  - Controlled burns get rid of dead timber and brush, which can easily catch fire and spread an uncontrolled wildfire more easily.

Definition


Zombie Companies
High Debts
Too many of them undermine economic recovery
Can only just service debt
Cannot reduce principle of debt
Depend on low interest rates
Many rely on bailouts

Zombies span geographies

13% of the world's companies are 'zombies.' That's not healthy


By Matt Egan and Julia Horowitz, CNN Business

Updated 7:55 AM ET, Sun March 31, 2019

New York (CNN Business) – 1. Easy money: The past decade of ultra-low interest rates has spawned the rise of "zombie" companies.

These debt-laden firms don't make enough to even cover their interest payments. That's never a good sign.

The number of zombie companies in advanced economies last year stood at 536, or 13% of the total, according to Bank of America Merrill Lynch.

Zombies feeding off of COVID-19 stimulus

ECONOMY

COVID-19 is Making the Zombie Company Problem Worse

Yet many governments continue to support, and in some cases, even bail out these companies. Unfortunately, government subsidies that prop dying businesses up only delay the inevitable, as evidenced by what's occurring in Europe...

Via The New York Times,

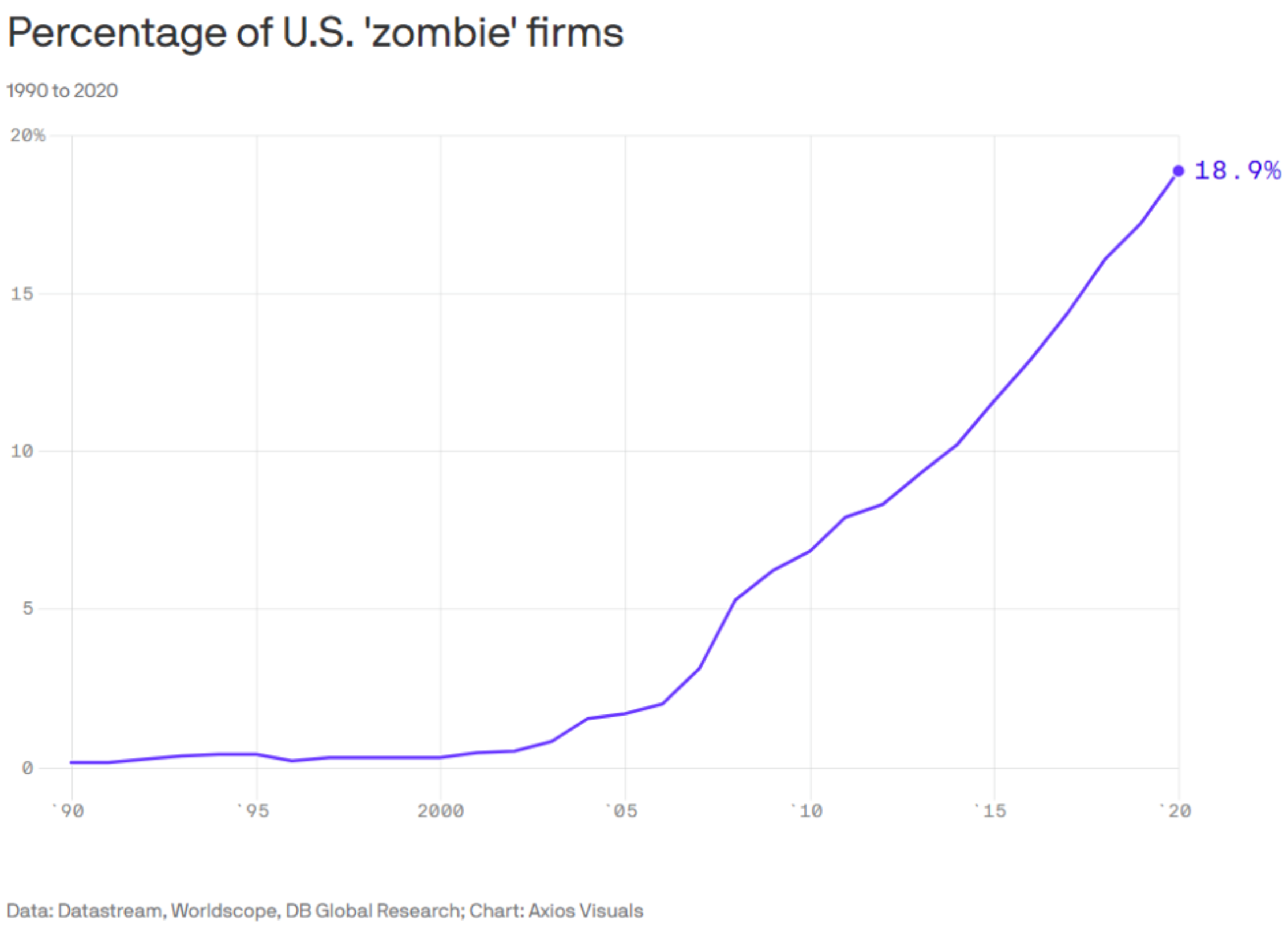
> *"About nine million European workers, up to a fifth of those currently enrolled in the short-work programs, are in what the German bank Allianz has called* "zombie jobs" — *positions in the auto and airline industries, restaurants, shops and hotels and other sectors ill equipped to confront shifting consumer behavior. Many of these jobs are still on the books almost solely because of government subsidies, the bank said."*

Deloitte sounded the horn on Canada's zombie companies two years ago to the day.

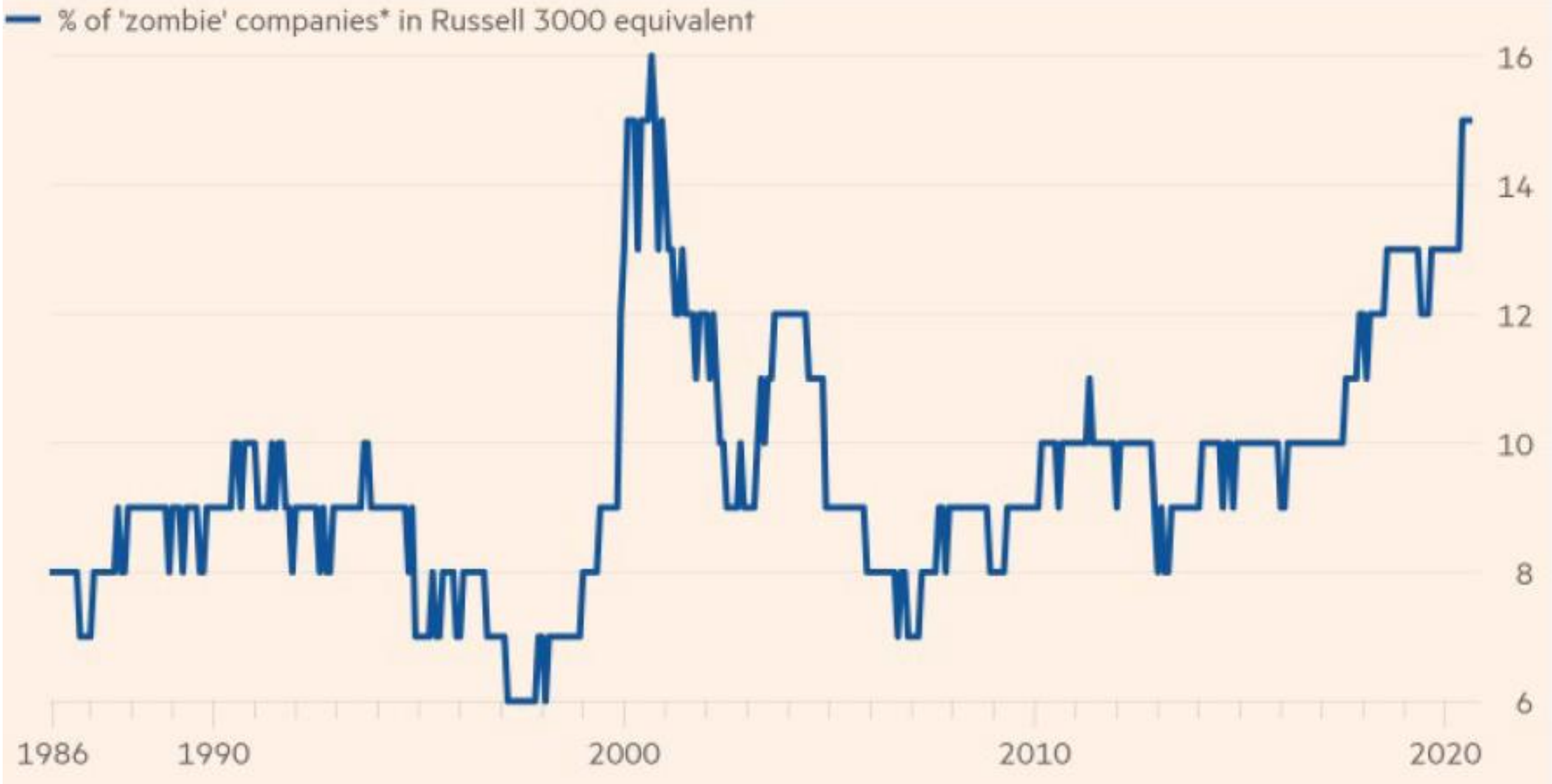
According to a Financial Post article published in September 2018,

> *"...a new report from Deloitte ... found that at least 16 per cent of [Canadian] publicly traded firms ... could be classified as "zombies" — defined as mature firms more than 10 years old that lack sufficient revenue to cover interest payments on their debt."*

Zombie prevalence



Zombie prevalence, continued



*Companies where profits are less than the interest paid on their debts for at least 3 years / Data based on the Leuthold 3000 Universe (Russell 3000 equivalent)
Source: The Leuthold Group

How to maximize your exposure to zombies

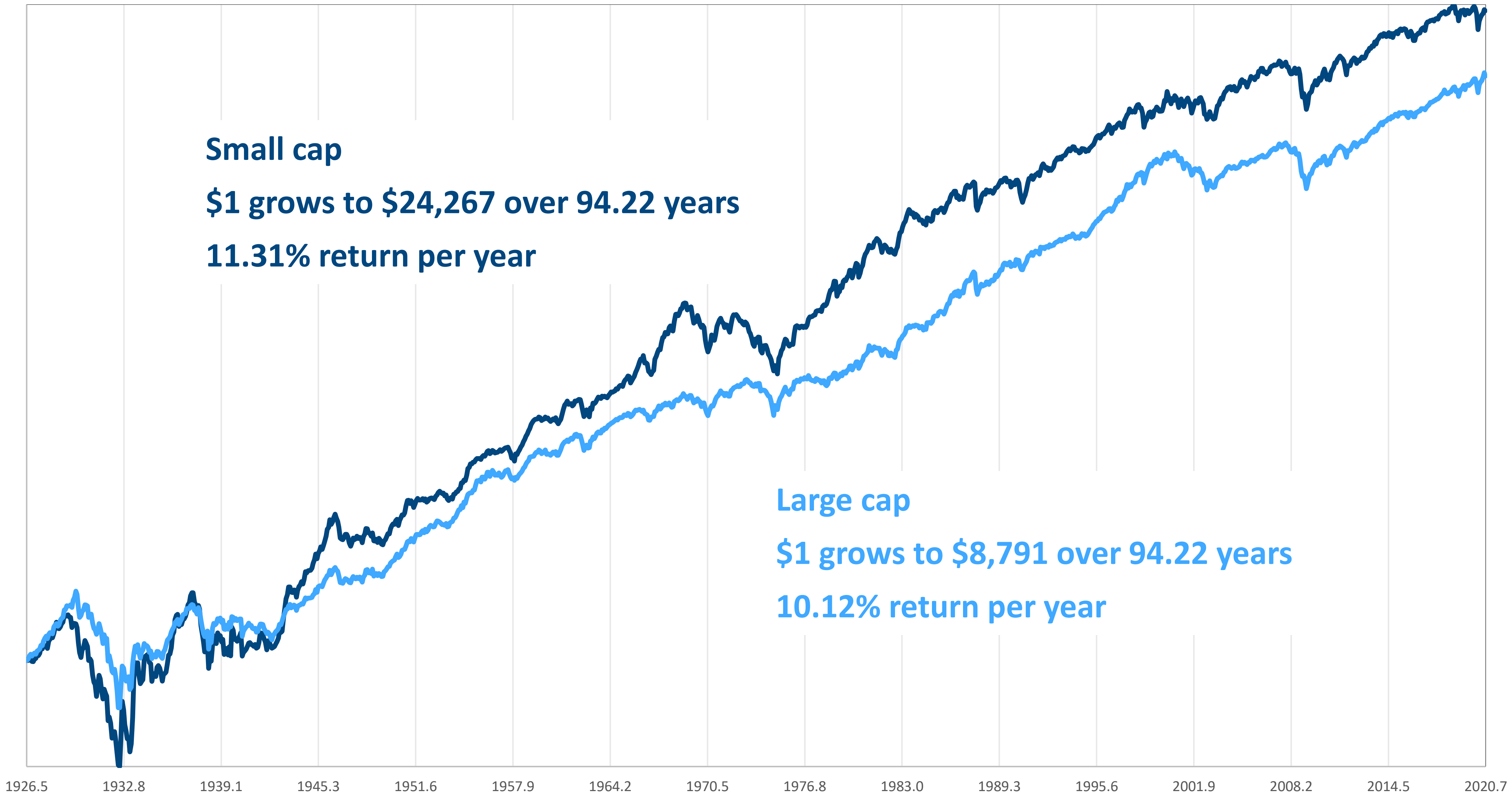
iShares Russell 2000 Value ETF (IWN)

Multiple risk premia

Are you looking at one or multiple risk premia, all packaged up together

The origins of conventional wisdom's mistaken beliefs

Small cap premium of 1.19% per year over the last 94.22 years

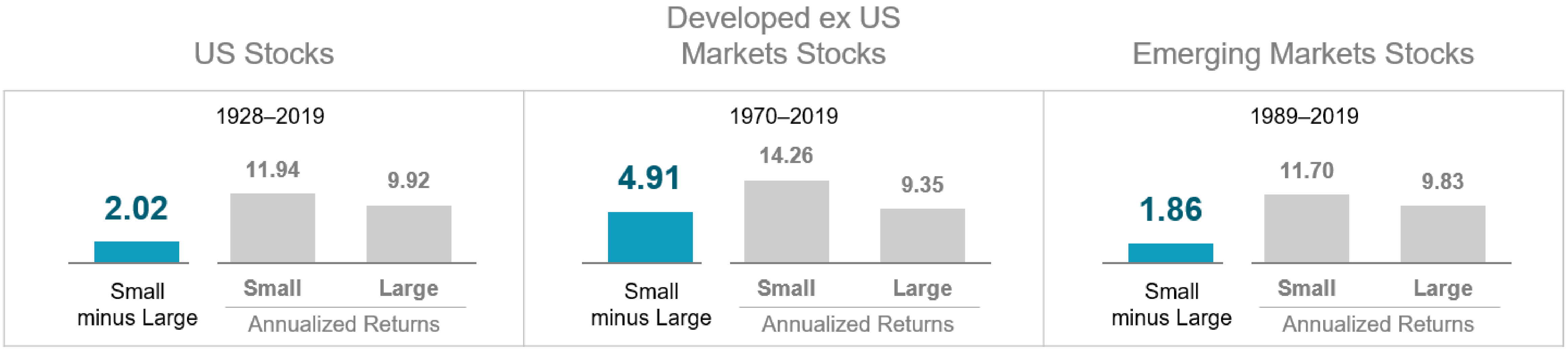


Small cap risk premium across different geographies

Historical premiums and returns (annualized): US, Developed ex US, and Emerging Markets

Company Size

Relative performance of small cap stocks vs. large cap stocks (%)



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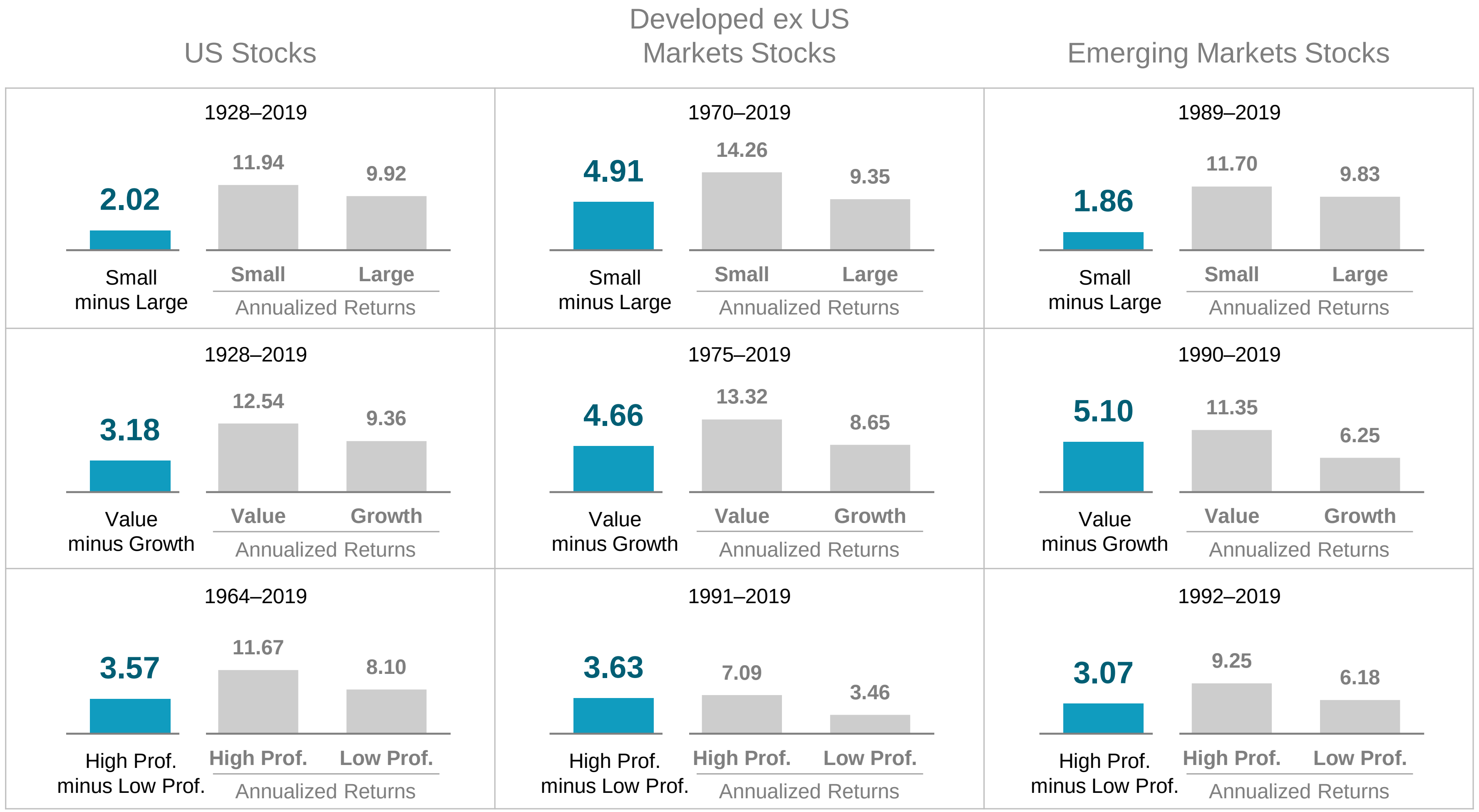
Dimensions of Expected Returns

Historical premiums and returns (annualized): US, Developed ex US, and Emerging Markets

Company Size
Relative performance of small cap stocks vs. large cap stocks (%)

Relative Price
Relative performance of value stocks vs. growth stocks (%)

Profitability
Relative performance of high profitability stocks vs. low profitability stocks (%)

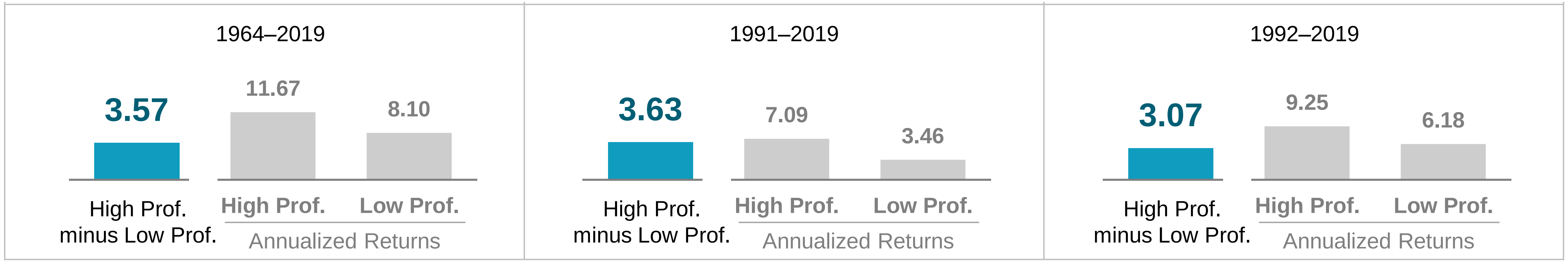


Zeroing in on the profitability risk factor

Profitability

Relative performance of high profitability stocks vs. low profitability stocks (%)

US Stocks | Developed ex US Markets Stocks | Emerging Markets Stocks



AQR's perspective on rewarded risk factors

Styles investing (also known as factor investing or smart beta) refers to the application of systematic investment themes that have historically provided long-term positive returns with low correlation to each other.

The underlying AQR Funds in the Styles Model Portfolios use a combination of styles to access return sources – generally preferring cheap, improving, higher-yielding, higher-quality assets over peers:

	Equities	Fixed Income	Commodities	Alternatives
Market	✓	✓	✓	
Volatility				✓
Value	✓	✓	✓	✓
Momentum	✓	✓	✓	✓
Carry		✓	✓	✓
Defensive/Quality	✓	✓		✓
Trend	✓	✓	✓	✓

Source: AQR.

AQR's perspective on rewarded risk factors - for equities

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	Equities
Market	✓
Value	✓
Momentum	✓
Defensive/Quality	✓
Trend	✓

Source: AQR.

Rob's perspective on the small cap risk premium

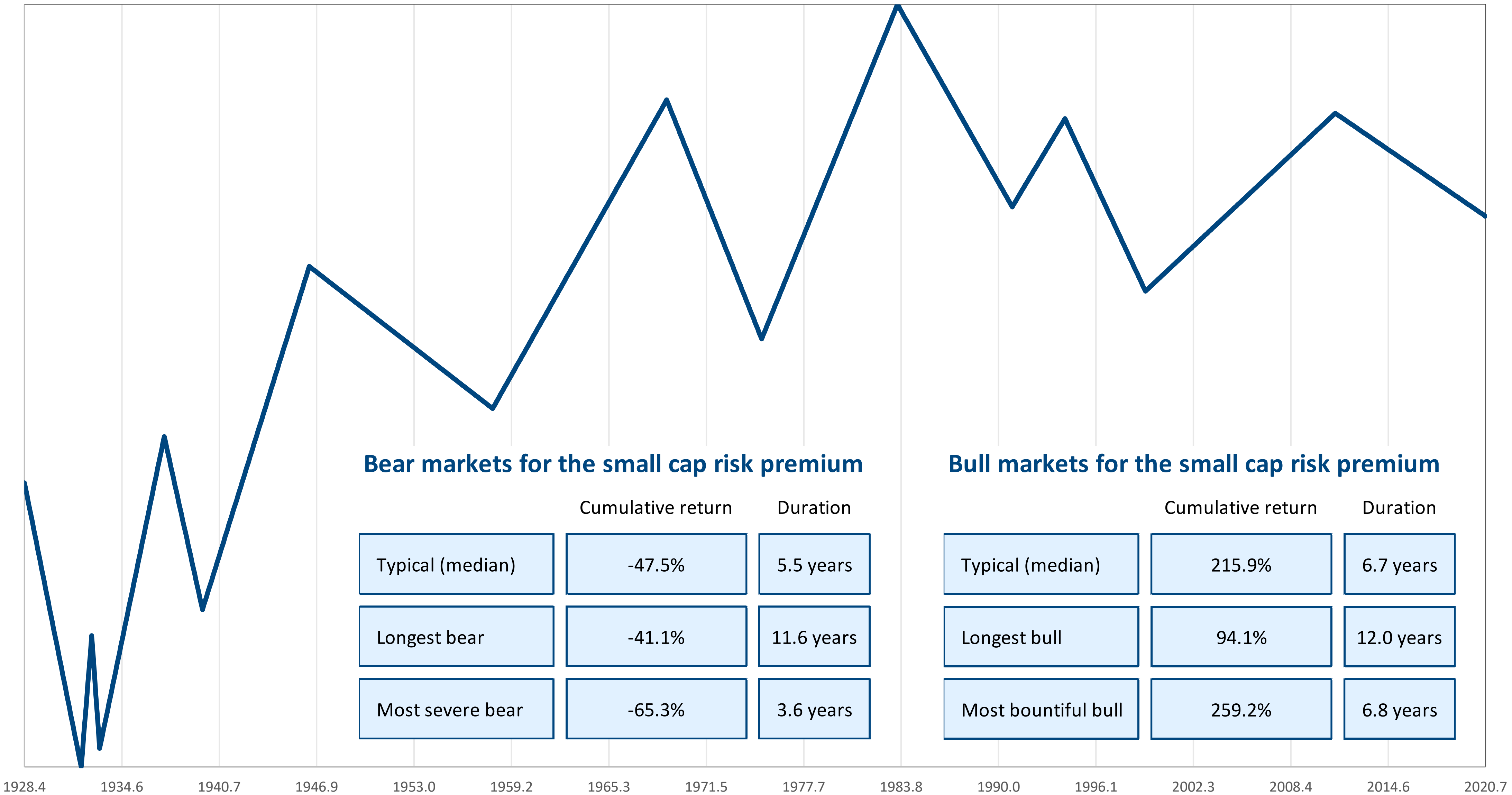
- The benefit is BIG . . . but episodic
- Now is the time
  - Relative valuations
  - Technology
  - Current small cap risk premium bear market is seriously long in the tooth
- Zombies
  - Are real
  - Big issue
  - Do **<u>not</u>** index your exposure
  - A "profitability" filter solves the problem
- Simultaneous multi-factor exposure
  - Tremendous synergy between the small cap risk premium and the "profitability" factor
  - Always combine them into one unified, inseparable whole

Rob's perspective on the small cap risk premium, continued

- AQR goes too far
- They've rejected the small cap risk premium due to its pronounced episodic nature
  - I get it . . .
  - But, they've thrown out the baby with the bath water
- The bear/bull cycles are there, and the payoffs are too large to ignore

Episodic nature of the small cap risk premium

History of bear & bull markets for the small cap risk premium since 1926



Bear markets for the small cap risk premium

	Cumulative return	Duration
Typical (median)	-47.5%	5.5 years
Longest bear	-41.1%	11.6 years
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Bull markets for the small cap risk premium

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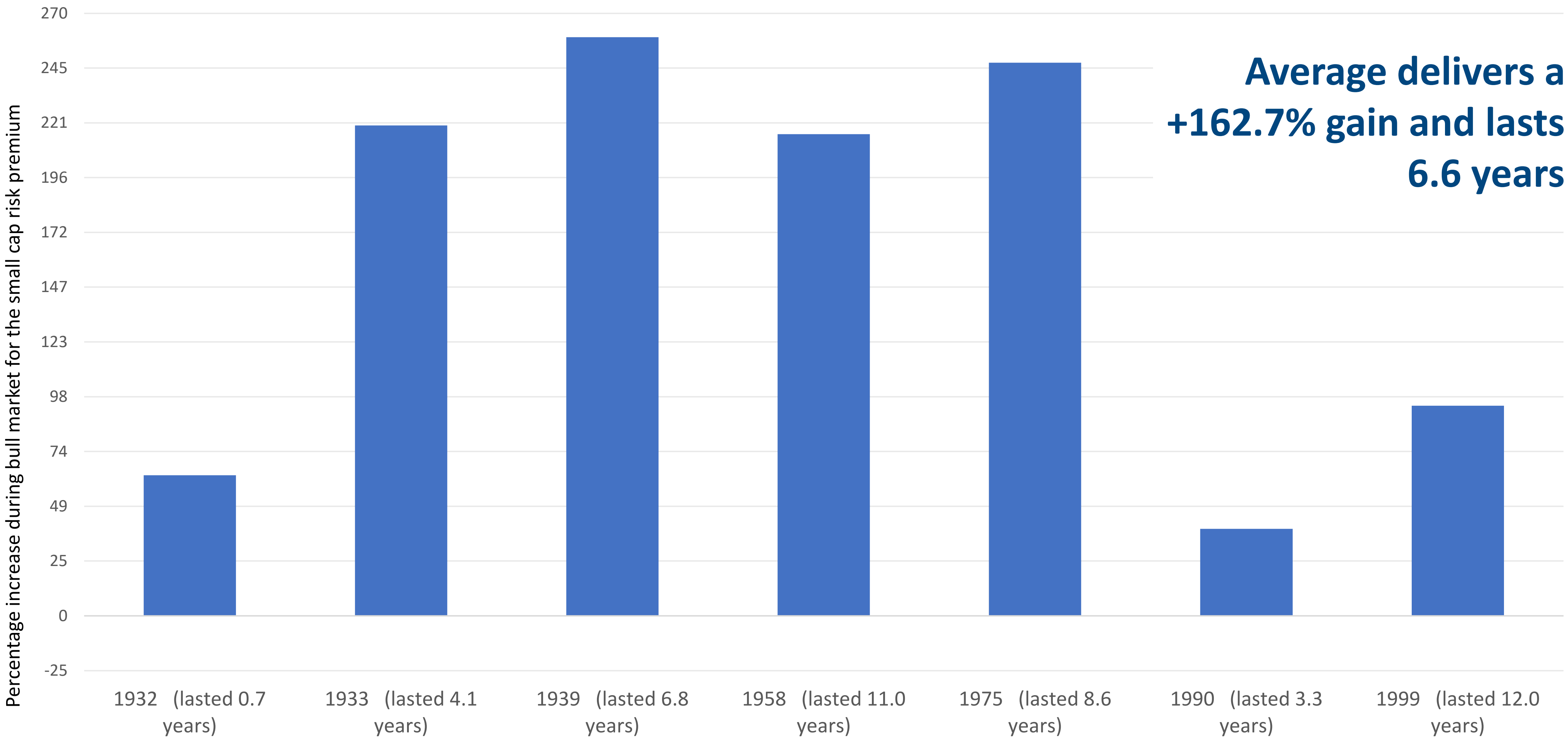

Average delivers a +162.7% gain and lasts 6.6 years

Rob’s perspective on accessing the small cap risk premium

- Combine small cap with a synergistic quality/profitability overlay
- Value versus growth is a different issue

- Use a purely quantitative approach

- Why?
- Because its testable
- The testing allows you to understand how the strategy will behave in different environments

I prefer the Julex small cap portfolio

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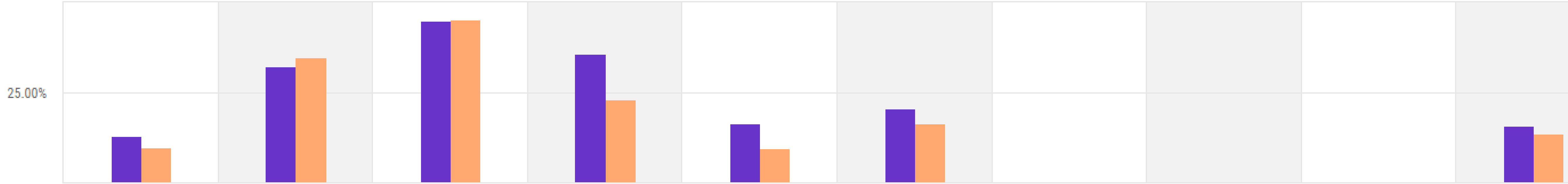
Periodic Total Returns Versus Peers



Name	1M	3M	6M	1Y	3Y	5Y	10Y	15Y	20Y	AT
Concentrated Small Cap Years 21 and Greater	13.13%	32.35%	44.97%	35.80%	16.49%	20.72%	--	--	--	15.95%
Small Cap (99.1% U.S. Small Cap stocks, 0.9% T-Bills)	9.95%	34.94%	45.22%	23.15%	9.60%	16.38%	--	--	--	13.56%

As of January 26, 2021. Returns for periods of 1 year and above are annualized.

NOTE: In the chart above, "AT" provides performance for the time period spanning 4/9/12 through 1/26/21 (this performance is before fees and expenses and has been annualized).

An approach that delivers each of the desired elements

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TrueAlpha™ Small Cap Strategy
September 30, 2020

Overview

- A quantitative U.S. small cap equity strategy aiming to deliver consistent excess returns with a concentrated portfolio.

Objectives

- Create an Alpha-Oriented Portfolio: Select high quality, undervalued companies with strong profitability.
- Outperform Benchmark: Achieve higher returns than the Russell 2000 Index over the long run.

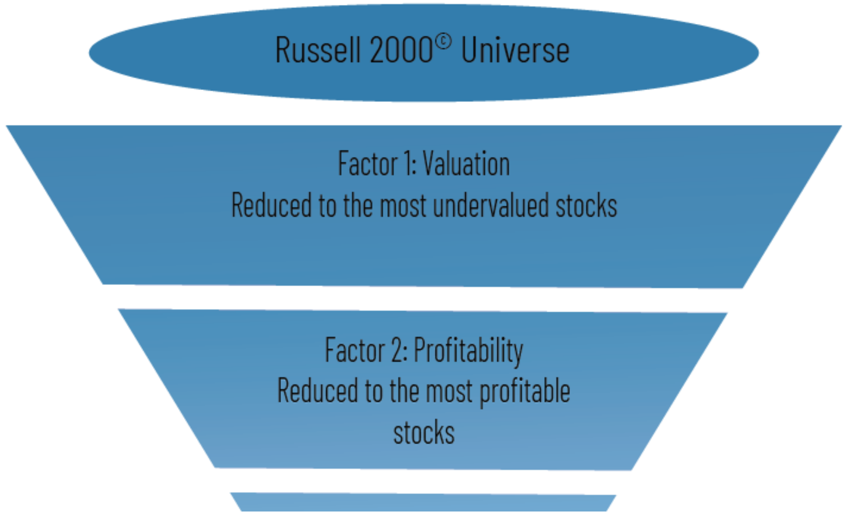
Facts

Inception Date:
04/01/2018

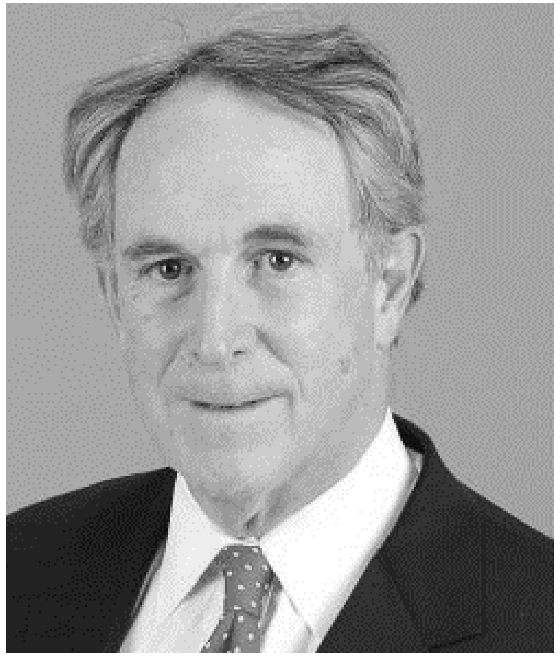
Firm AUM (9/30/2020):
$324 M

Multi Factor Sequential Screening Model

Julex develops a unique multi-factor approach with a proprietary fundamental valuation metric to help generate a consistent "true" stock selection alpha.



For more information contact



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Headsup . . .

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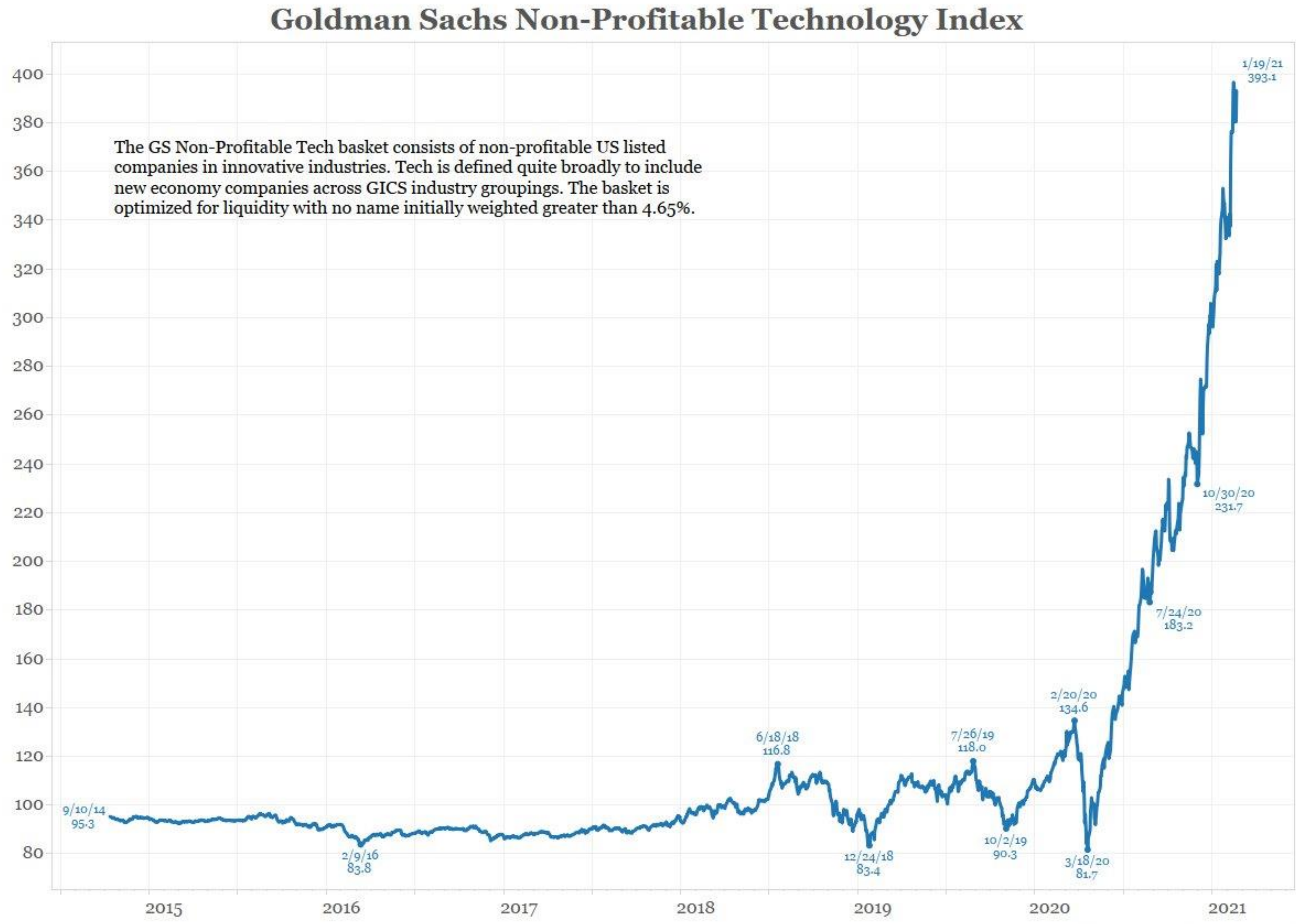

Source: Bloomberg

Important Disclosures

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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.

Important Disclosures - Data Sources

Data and statistics provided by Global Financial Data, Inc. and can be found at https://finaeon.globalfinancialdata.com/Account/Login.

Portfolio return data provided on the Julex Small Cap portfolio and associated performance benchmark provided by YCharts on January 27, 2021 and is current as of market close on January 26, 2021 - YCharts can be found at https://ycharts.com/dashboard/. It reflects the performance of model portfolios. The actual composite performance may be different due to trade execution and transaction costs. The Julex Small Cap Portfolio went live on April 1, 2018. The returns before that are back test results.

Ycharts uses a performance benchmark that YCharts defines as 99.05% IJR (the small cap ETF) and 0.95% BIL (the Treasury Bill ETF), with monthly rebalancing.