The Value Spread

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Key Takeaways.

1. The value spread has retreated from its pandemic wides but remains significantly elevated (+1.8 standard deviations)
2. This cannot be explained by excluding the top decile of stocks on size or R&D/SG&A intensity
3. Wide spreads are correlated with high future returns

Q1: Is the Value Spread Still Wide?

What does the “value of value” look like today?

How Wide Is the Spread Today?

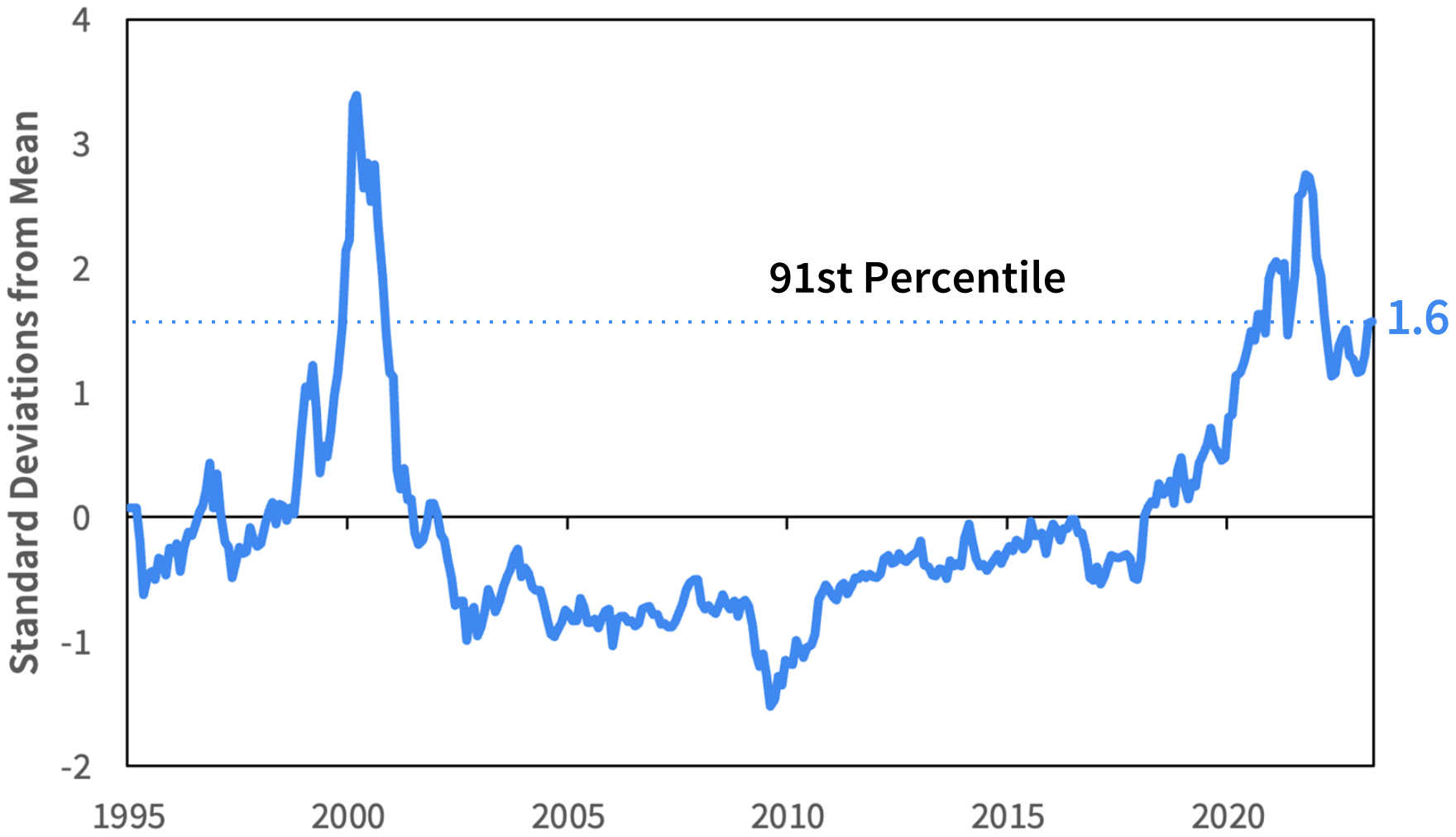
Value spread remains 1.8 standard deviations above the mean

Value Spreads for Hypothetical AQR Industry-and-Dollar-Neutral Value Portfolios*
All Country Universe**
March 1, 1988 – March 31, 2023

* Spreads are constructed using the Hypothetical AQR Value portfolio as described below, and are adjusted to be dollar-neutral, but not necessarily beta-neutral through time.
** The Developed and Emerging weights are roughly 90%/10% and derived based on the ACWI cap-weights and ex-ante risk of each of Developed and Emerging sleeves as of 3/31/2023.
Source: AQR. Hypothetical value composite includes five value measures: book-to-price, earnings-to-price, forecast earnings-to-price, sales-to-enterprise value, and cash flow-to-enterprise value; spreads are measured based on ratios. To construct industry-neutrality, the value spreads are constructed by comparing the aforementioned value measures within each industry, which are then aggregated up to represent an entire portfolio. Hypothetical data has inherent limitations, some of which are disclosed in the Appendix. Please see the Hypothetical AQR Developed and Emerging Valuation Model Theme Descriptions in the Appendix. For illustrative purposes only and not representative of an actual portfolio AQR currently manages. Please read the Appendix for important disclosures.

Is This Replicable? Yes.

Robust to a variety of universes, value metrics, and industry-neutralization



Source: SEC, Sparkline. Universe is the U.S. top 2000 universe. Composite Value consists of the average across five valuation metrics, which are first cross-sectionally normalized. We compare the results for the top 30% vs. bottom 30%, equal weighted. The red line takes the intersection of stocks with high (low) composite value and high (low) intangible value. We calculate spread for each metric from the Composite Value, and compute the in-sample Z-score based on its own history. We then average across the various metrics. No transaction or financing costs. From 3/31/1995 to 4/28/2023. See important backtest disclosures below.

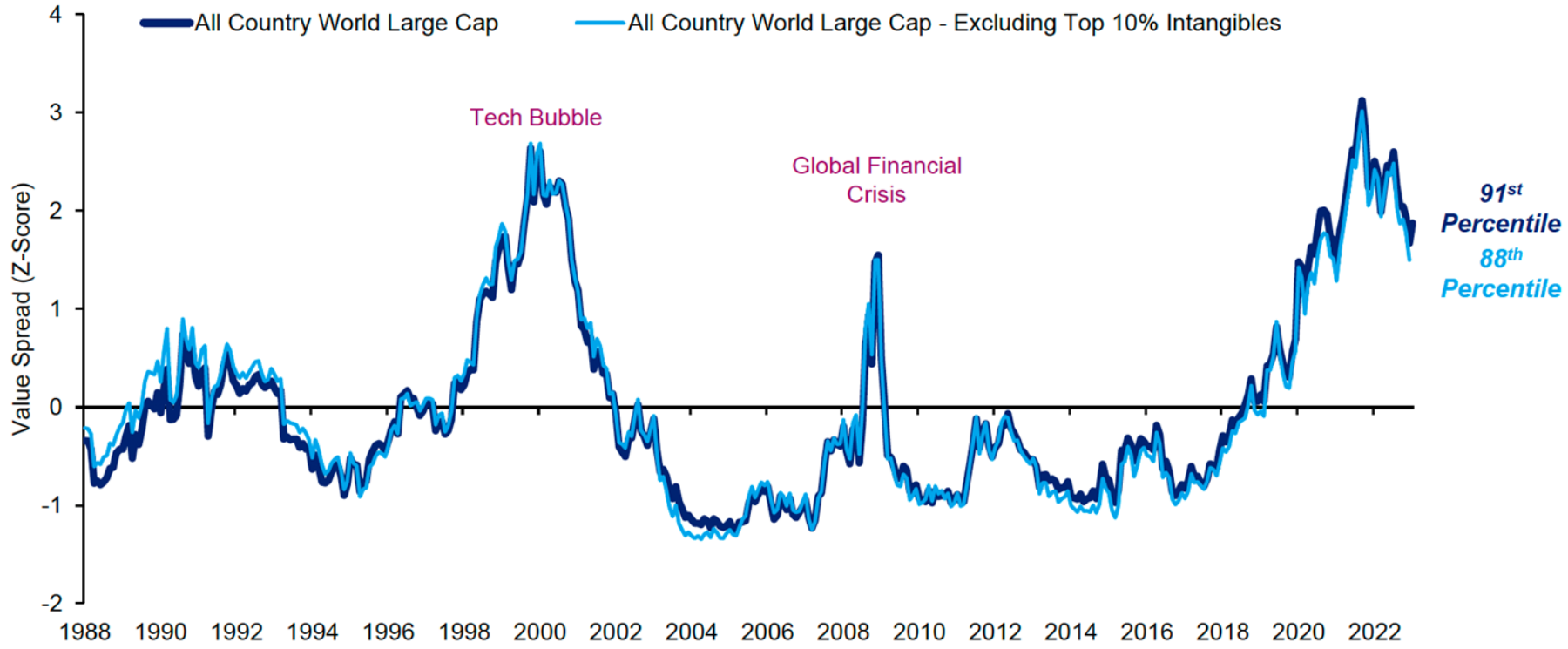
Q2: Can the Spread be Explained by Intangible Assets?

Has value rotated into a bet on stocks with low intangible assets (implying weaker fundamental growth)?

Shouldn't Intangibles Matter?

Let's explore this further…

Value Spreads for Hypothetical AQR Industry-and-Dollar-Neutral Value Portfolios*
All Country Universe** with and without Stocks with Top 10% Intangible Asset Values in Each Region ***
March 1, 1988 – March 31, 2023



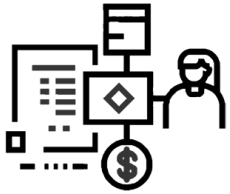
Note: The Excluding Top 10% Intangibles line and percentile above are only through February 28, 2023 due to data availability.
* Spreads are constructed using the Hypothetical AQR Value portfolio as described below, and are adjusted to be dollar-neutral, but not necessarily beta-neutral through time.
** The Developed and Emerging weights are 90%/10% and derived based on the ACWI cap-weights and ex-ante risk of each of Developed and Emerging sleeves as of 3/31/2023.
*** Top 10% of names with the largest intangible asset values are removed from both the Developed and Emerging regions. Intangibles are defined as capitalized Research and Development (RD) and Selling, General & Administrative (SGA) costs divided by total assets. We capitalize RD and SGA by summing up the discounted costs over the past six years.
Source: AQR. Hypothetical value composite includes five value measures: book-to-price, earnings-to-price, forecast earnings-to-price, sales-to-enterprise value, and cash flow-to-enterprise value; spreads are measured based on ratios. To construct industry-neutrality, the value spreads are constructed by comparing the aforementioned value measures within each industry, which are then aggregated up to represent an entire portfolio. Hypothetical data has inherent limitations, some of which are disclosed in the Appendix. Please see the Hypothetical AQR Global Developed and Emerging Valuation Model Theme Descriptions in the Appendix. For illustrative purposes only and not representative of an actual portfolio AQR currently manages. Please read the Appendix for important disclosures.

What Are Intangible Assets?

Intangibles are modern economic moats

Intellectual Property

Patents, proprietary knowledge, technology and data



Brand Equity

Brand recognition and customer loyalty

Human Capital

Skilled, aligned and motivated workforce

Network Effects

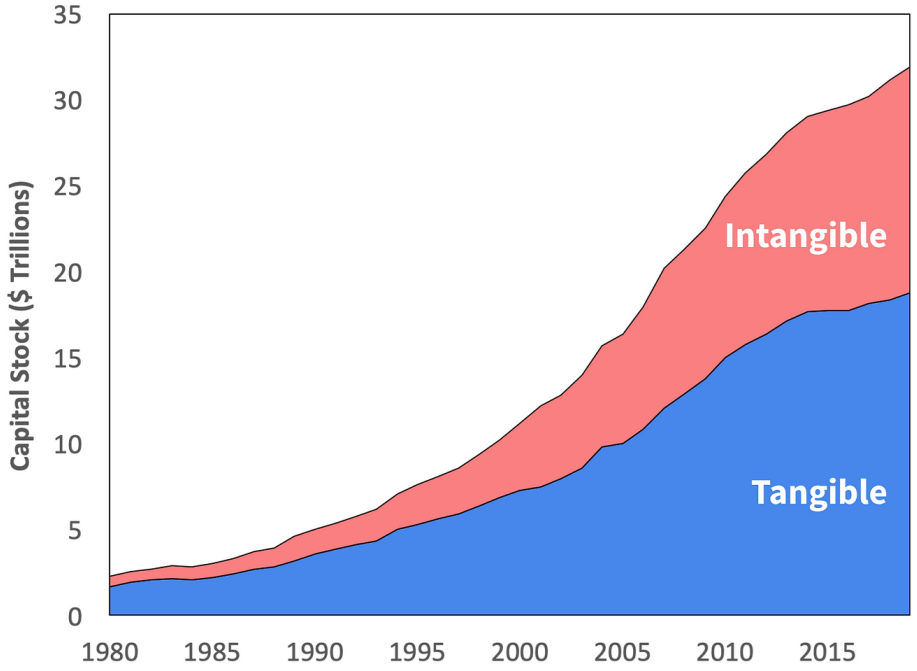
Ecosystem of external producers and consumers

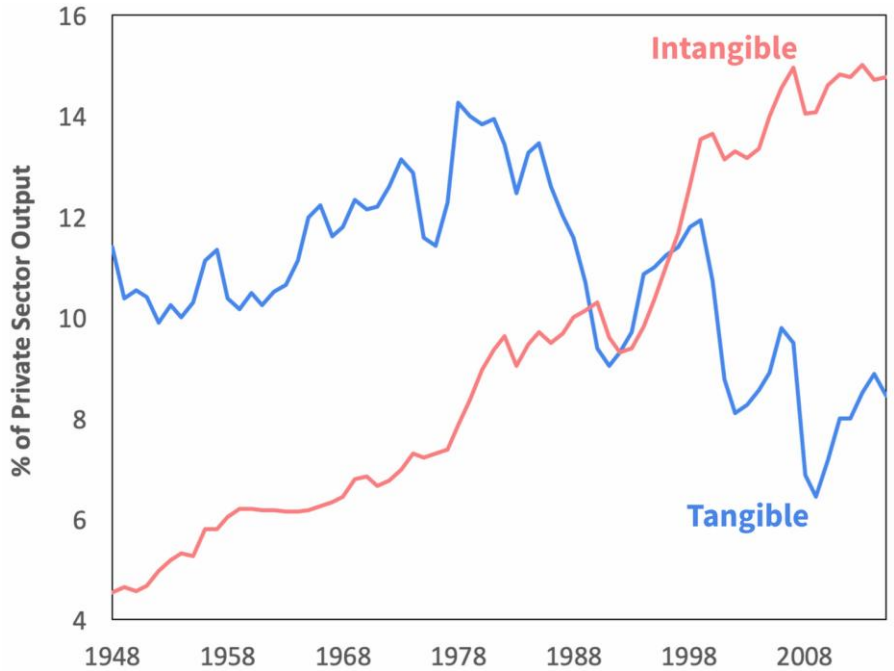
Why Do Intangibles Matter?

The economy has transformed from industrial to intangible

> Warren Buffett

The four largest companies today by market value do not need any net tangible assets. They are not like AT&T, GM, or Exxon Mobil, requiring lots of capital to produce earnings. We have become an **asset-light economy**.





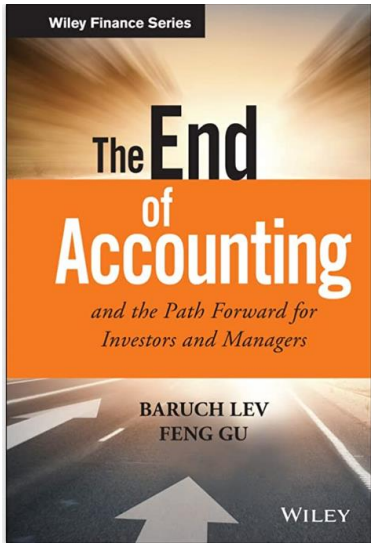
Source: S&P, Sparkline. As of 2019. Source: Corrado and Hulten (2010), Lev (2018), Sparkline. As of 2015.

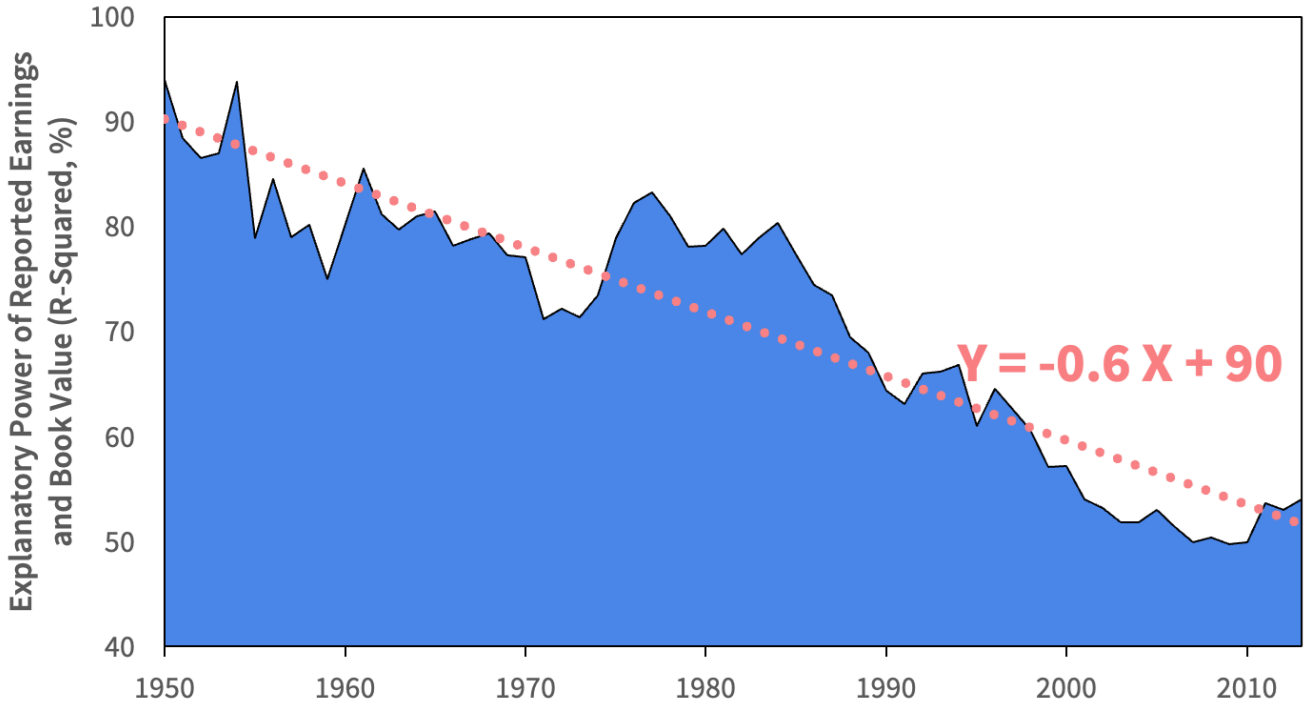
Accounting Has Failed to Adapt.

Financial statements mostly ignore intangibles

Lev & Gu (2016)

> The constant rise in the importance of intangibles in companies' performance and value creation, yet suppressed by accounting and reporting practices, renders financial information increasingly irrelevant.



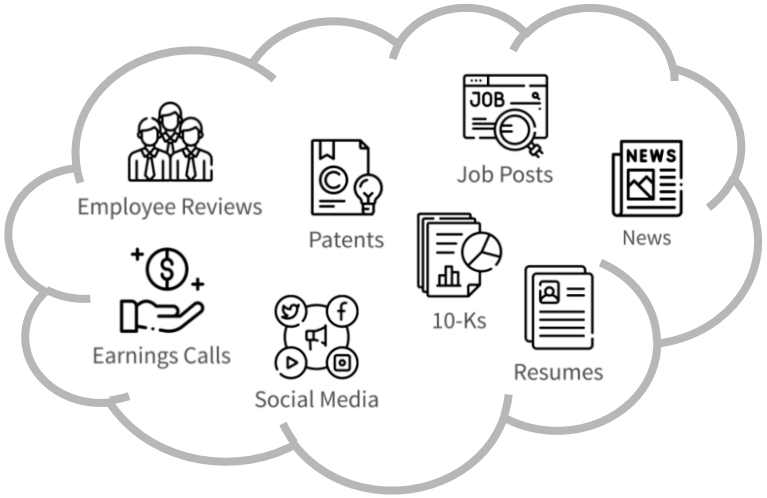


Source: Lev and Gu (2016), S&P, Russell, Sparkline. R-Squared measures the variance explained in a regression of market value on reported earnings and book value as of 2013. Value underperformance based on Fama-French value factor as of 12/31/2022.

Building an Intangible Value Factor.

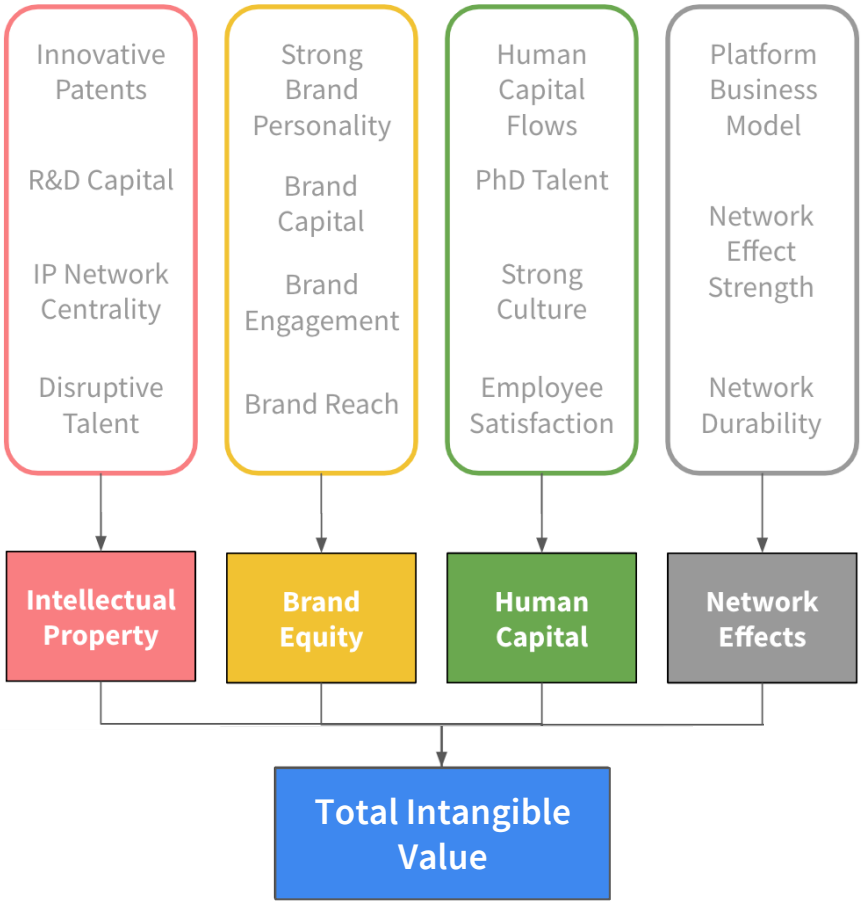
Due to limitations in accounting data, we rely heavily on alternative data

Unstructured Data



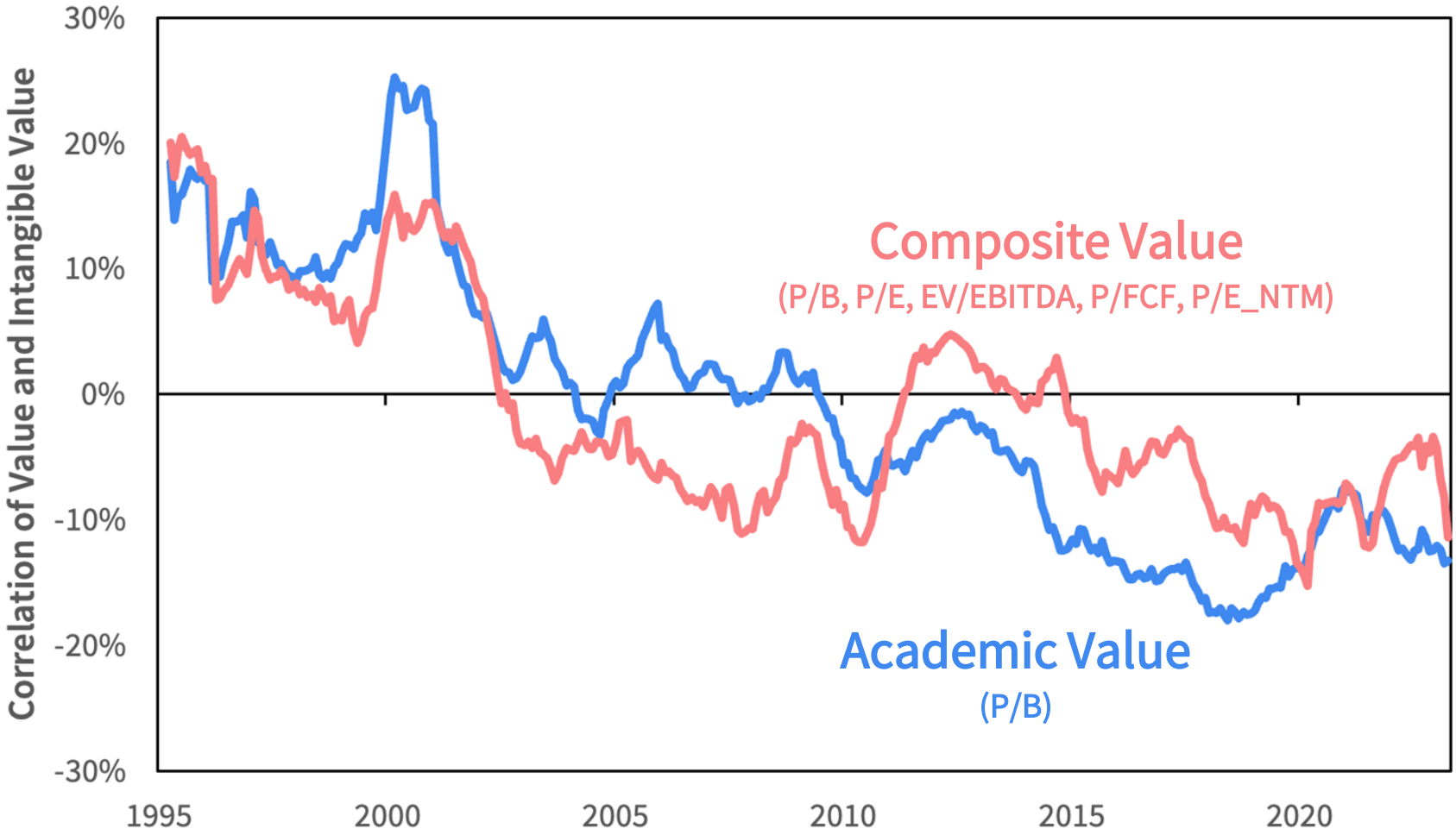
AI/NLP

Intangible Value Factors



Value Is Short Intangible Value.

Correlation increasingly negative due to rising intangible relevance

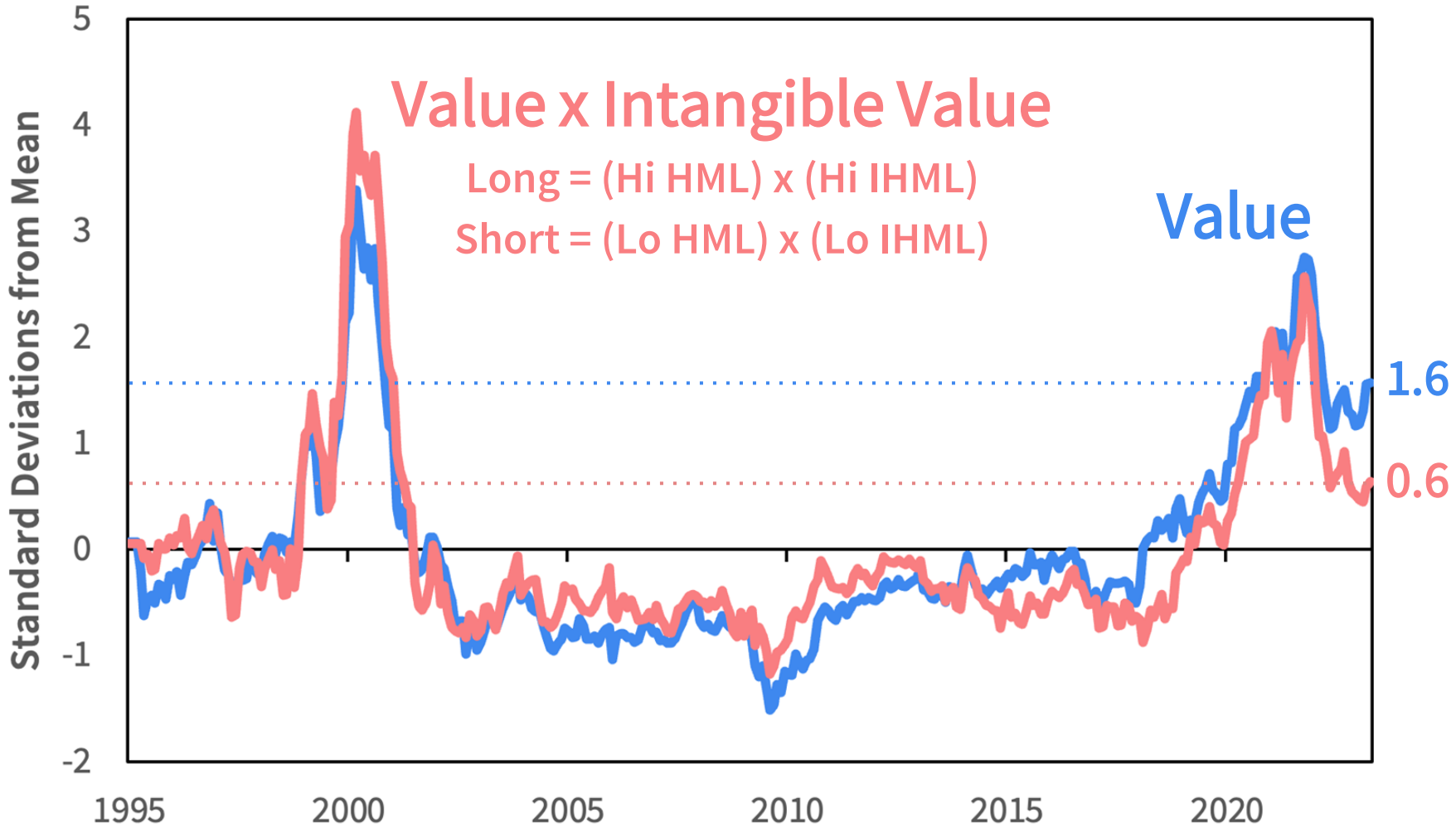


SPARKLINE CAPITAL

Source: SEC, Sparkline. Cross-sectional position-level correlations. Universe is the U.S. top 2000 universe. Value ratios (P/B etc) are cross-sectionally normalized. Composite value consists of the average across five metrics. From 3/31/1995 to 4/28/2023. See important backtest disclosures below.

Intangible-Adjusted Value Spread.

Explains ~60% of the spread today



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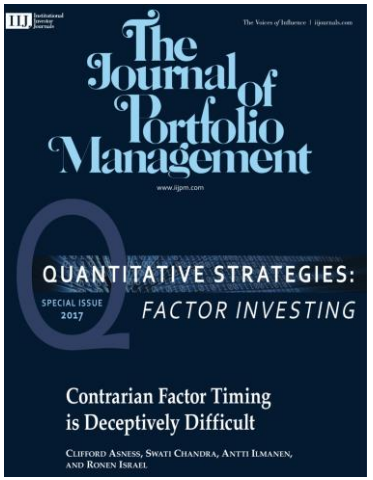
Q3: Does the Value Spread Predict Future Returns?

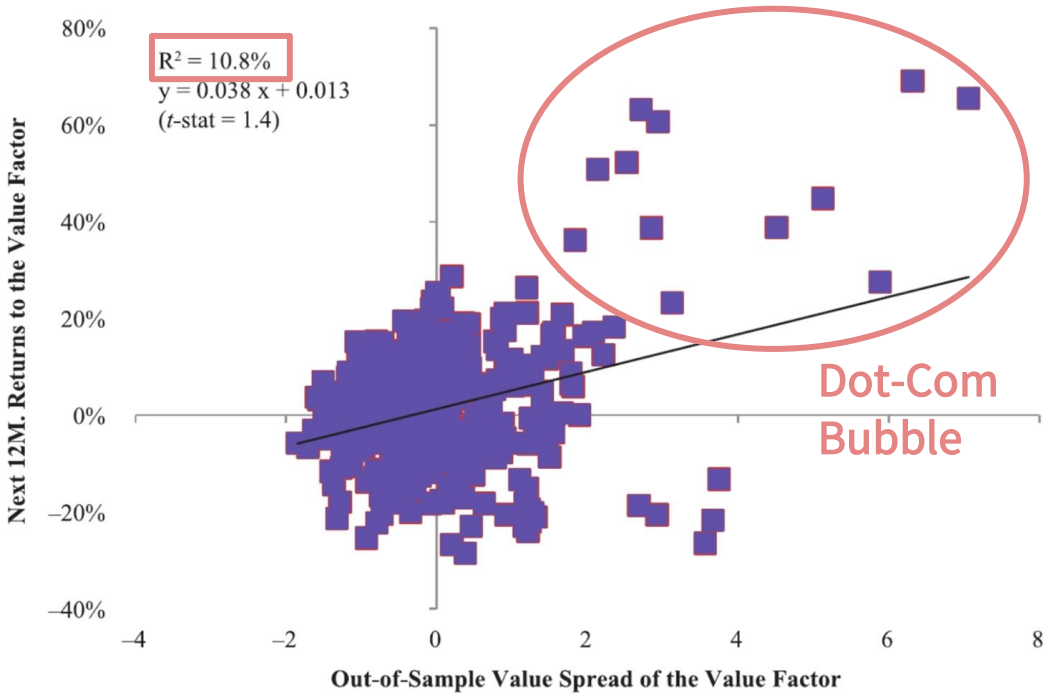
How much should we bet when spreads are extended?

Contrarian Factor Timing Is Deceptively Difficult.



Asness, Chandra, Ilmanen, and Israel (2017)

- Extreme spreads obvious only in hindsight (e.g., 1997)
- More realistic out-of-sample test shows weak link between spread and future returns
- Why? Low breadth (one bet) and reliance on rare events (e.g., dot-com bubble)

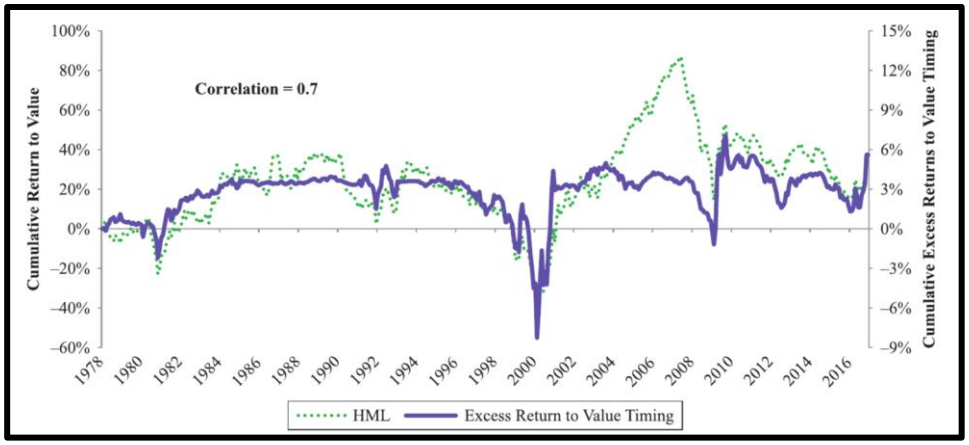


https://www.iijournalseprint.com/JPM/AQR/Quant17ContrarianFactorTiming3gy/index.html

Timing in a Portfolio Context.

High correlation to static value factor limits portfolio utility

- Value-based timing is highly correlated to static value factor (70%)
- Thus, limited gain from adding it to portfolio that already includes value



	Non-Industry-Neutral				Industry-Neutral			
	Gross Returns		Gross Sharpe Ratios		Gross Returns		Gross Sharpe Ratios	
	Non-Timed	Value Timed	Non-Timed	Value Timed	Non-Timed	Value Timed	Non-Timed	Value Timed
Single Style Portfolios (V/M/D)								
HML	1.5%	2.2%	0.13	0.16	1.1%	1.4%	0.12	0.13
UMD	3.5%	4.0%	0.26	0.33	2.5%	2.7%	0.27	0.35
BAB	4.6%	3.9%	0.53	0.40	2.7%	2.7%	0.40	0.39
Style Portfolios with a Strategic Allocation to Value (V + M/D)								
UMD + HML	2.5%	2.9%	0.39	0.43	1.8%	1.9%	0.41	0.43
BAB + HML	4.1%	4.0%	0.52	0.49	2.5%	2.5%	0.46	0.45
Strategically Diversified Multi-Style Portfolios (V + M + D)								
HML + UMD + BAB	**3.2%**	**3.4%**	**0.55**	**0.54**	**2.1%**	**2.3%**	**0.52**	**0.54**

https://www.iijournalseprint.com/JPM/AQR/Quant17ContrarianFactorTiming3gy/index.html

Asness et al. (2017)

Our research supports the approach of sticking to a diversified portfolio of uncorrelated factors that you believe in for the long term, instead of seeking to tactically time them.

https://www.iijournalseprint.com/JPM/AQR/Quant17ContrarianFactorTiming3gy/index.html

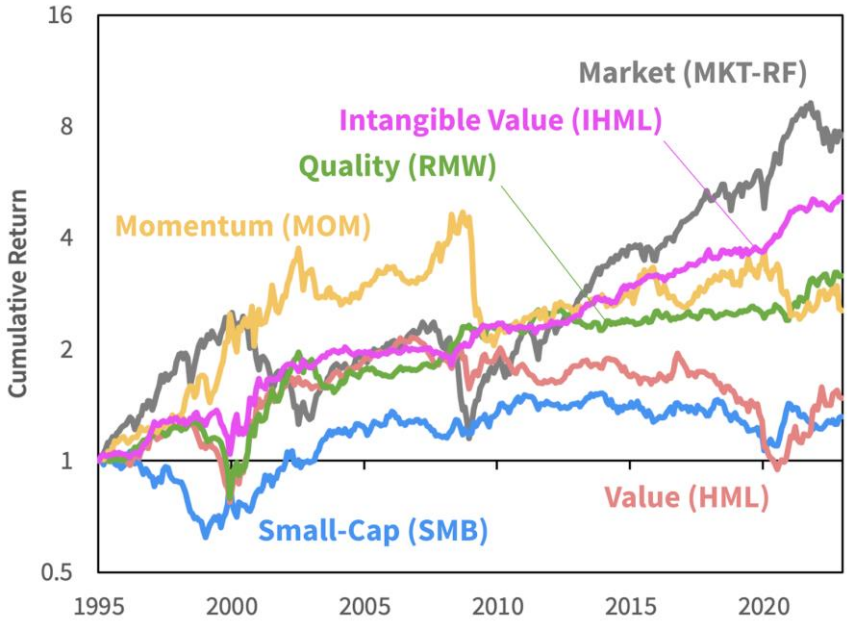
Summary.

1. The value spread remains significantly elevated
2. However, value is rotating into an increasingly negative bet on intangible value, which may help explain part of the spread
3. Moreover, it is unclear how investors should respond to the wide spread due to its low out-of-sample predictive power

Appendix

Intangible Value as a Factor.

Positive excess returns and low correlations to other factors



Source: Ken French, Sparkline. Market and long-short portfolios constructed per the Fama-French Rm-Rf, HML, SMB, RMW, and MOM factors. Intangible Value follows the HML methodology except it uses the intangible value factor. Analysis includes both large- and small-cap stocks. No transaction or financing costs. From 3/31/1995 to 3/31/2023. See more complete definitions and important backtest disclosure below.

	MKT-RF	SMB	HML	RMW	MOM	IHML	
MKT-RF		7%	-3%	-34%	-22%	1%	Market
SMB	7%		13%	-28%	-8%	-14%	Small-Cap
HML	-3%	13%		18%	-33%	9%	Value
RMW	-34%	-28%	18%		9%	11%	Quality
MOM	-22%	-8%	-33%	9%		-6%	Momentum
IHML	1%	-14%	9%	11%	-6%		Intangible Value

Source: Ken French, Sparkline. Daily return correlations. 3/31/1995 to 3/31/2023.

Intangible Value = Future Quality.

Leads to higher future profits and is not captured by existing factors (e.g. quality)

6.0%

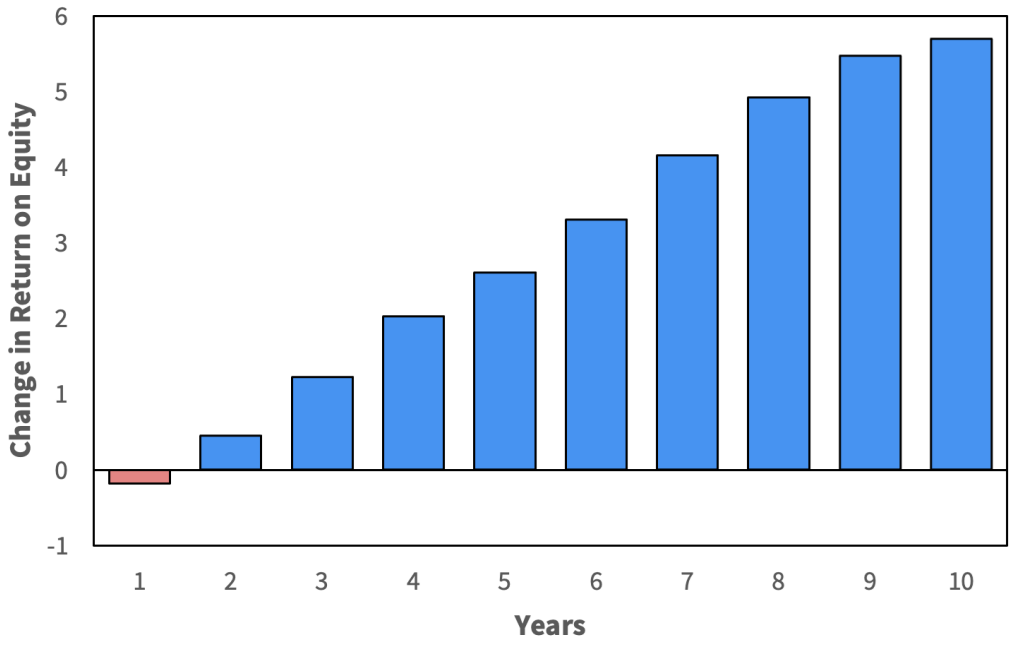
Annual backtested return of long-short Intangible Value factor (IHML)

-14 to 11%

Correlation between IHML and Fama-French factors

Source: Ken French, Sparkline. Market and long-short portfolios constructed per the Fama-French HML and RMW factors. Intangible Value follows the HML methodology except it uses the intangible value factor. Analysis includes both large- and small-cap stocks. No transaction or financing costs. From 3/31/1995 to 3/31/2023. See important backtest disclosure below. Cross-sectional position-level correlations between Intangible Value and other factors. All factors are themselves cross-sectionally normalized within the top 3000 U.S. stocks.

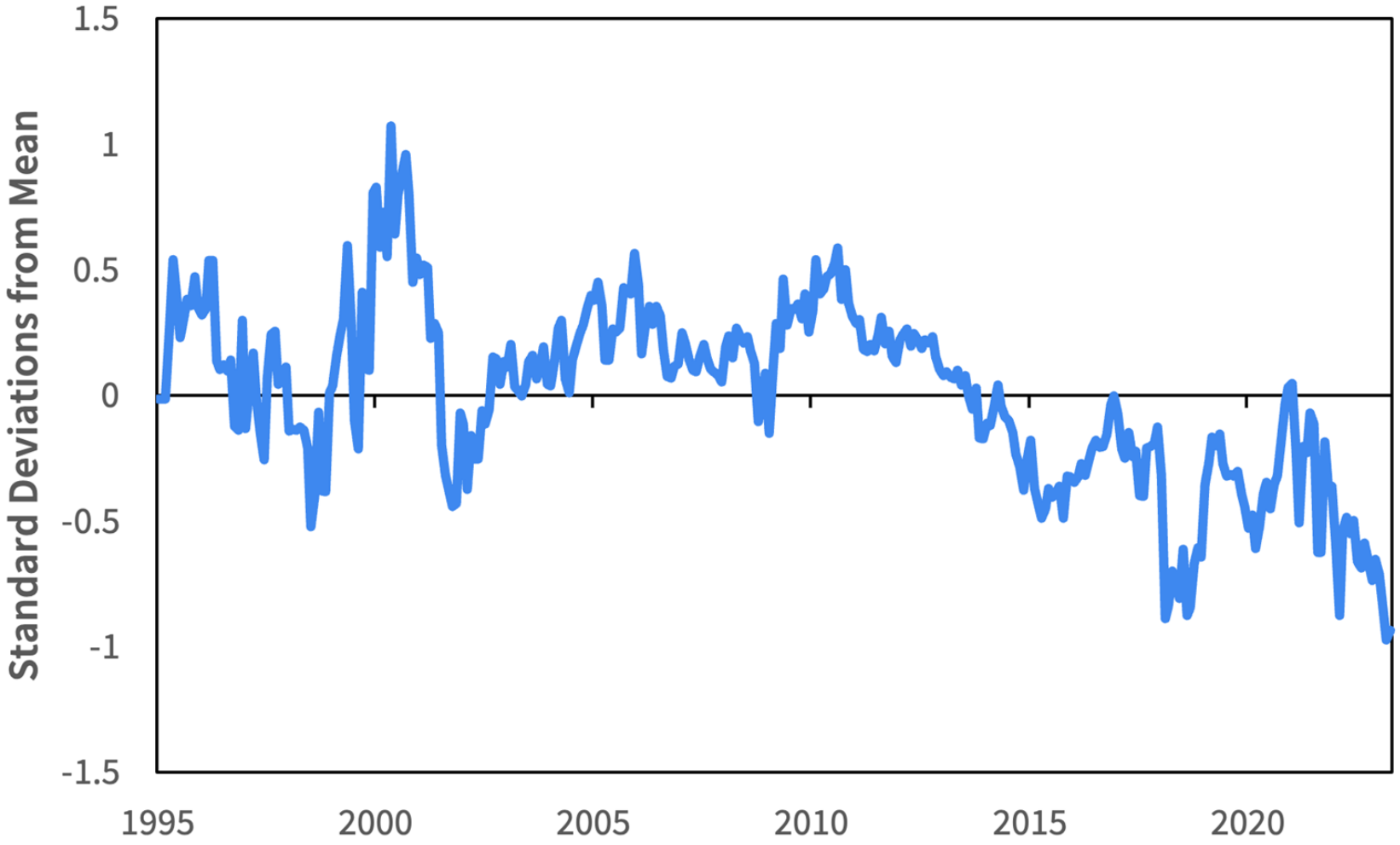
Building intangible moats requires large upfront investments that can take many years to pay off (e.g., R&D and advertising)



Source: S&P, Sparkline. Bars represent the coefficients of regressions where Y = ROE (T+N) - ROE (T) and X = INTANGIBLE (T). N is the number of years in the future. ROE is "return on equity" and INTANGIBLE is "intangible value" score. Both are cross-sectionally Z-scored. Regression includes a constant. Analysis covers top 1000 U.S. stocks from 3/31/1995 to 3/31/2023.

Intangibles Increasingly Important.

Difference between Value x Intangible Value and Value



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Disclaimers.

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