
INVESTOR SYMPOSIUM

Behind the Curtain: Systematic Investing

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Global Head of Research

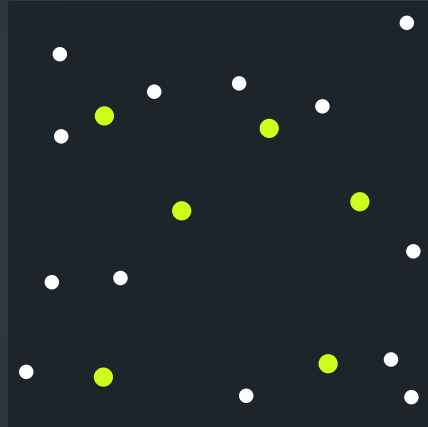
May 20, 2026

Setting the Scene

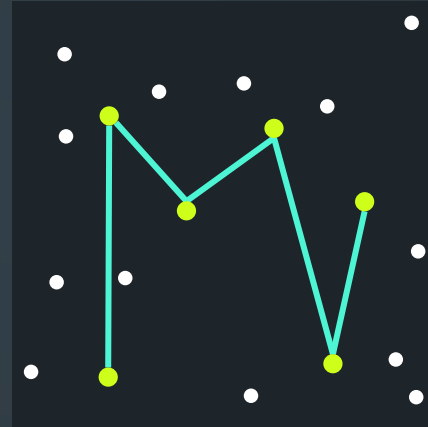
DATA



INFORMATION



INSIGHT



DATA MINING



Lots of Incentives to Discover Shiny Objects

Academics need to publish or perish

Journals rarely accept papers
with negative results

Attention to bold claims and
high statistical significance

Investment managers need to gather assets

New factors can help distinguish
from competition

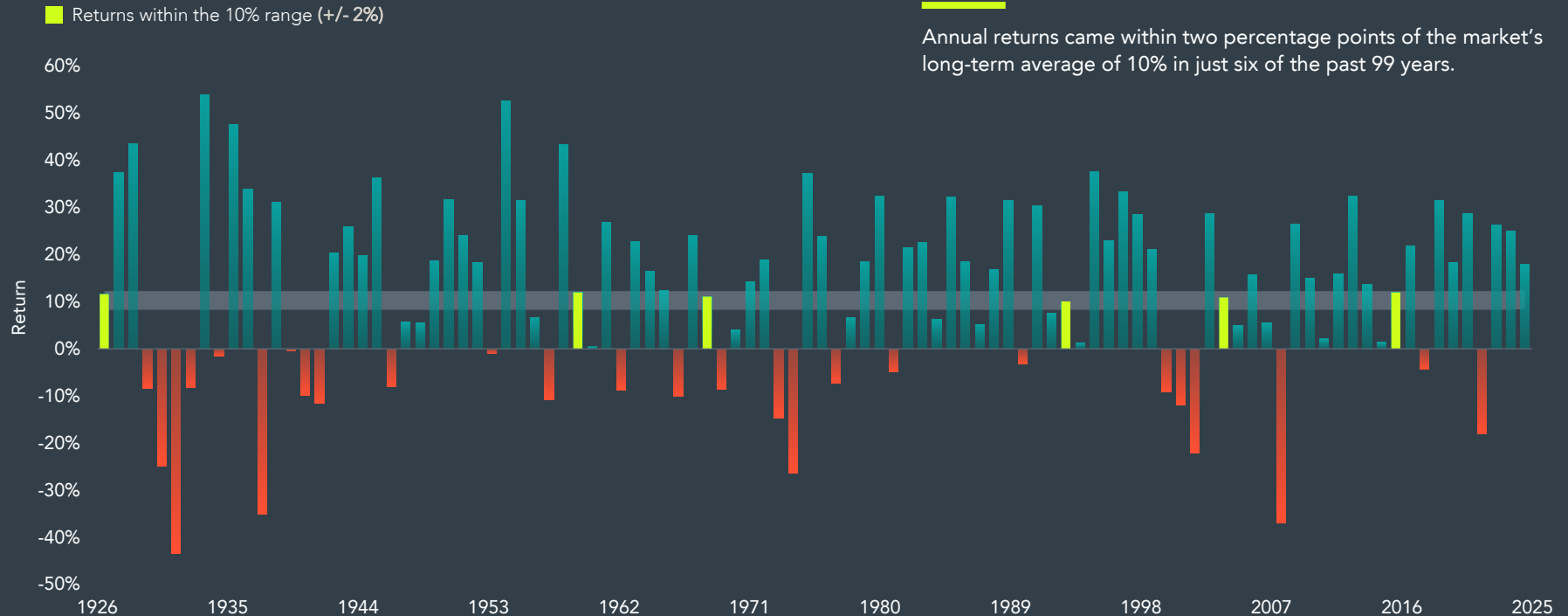
New factors can signal
innovation and alleviate FOMO

Signal vs. Noise

The Bumpy Road to the Market's Long-Term Average



S&P 500 Index annual returns, 1926–2025

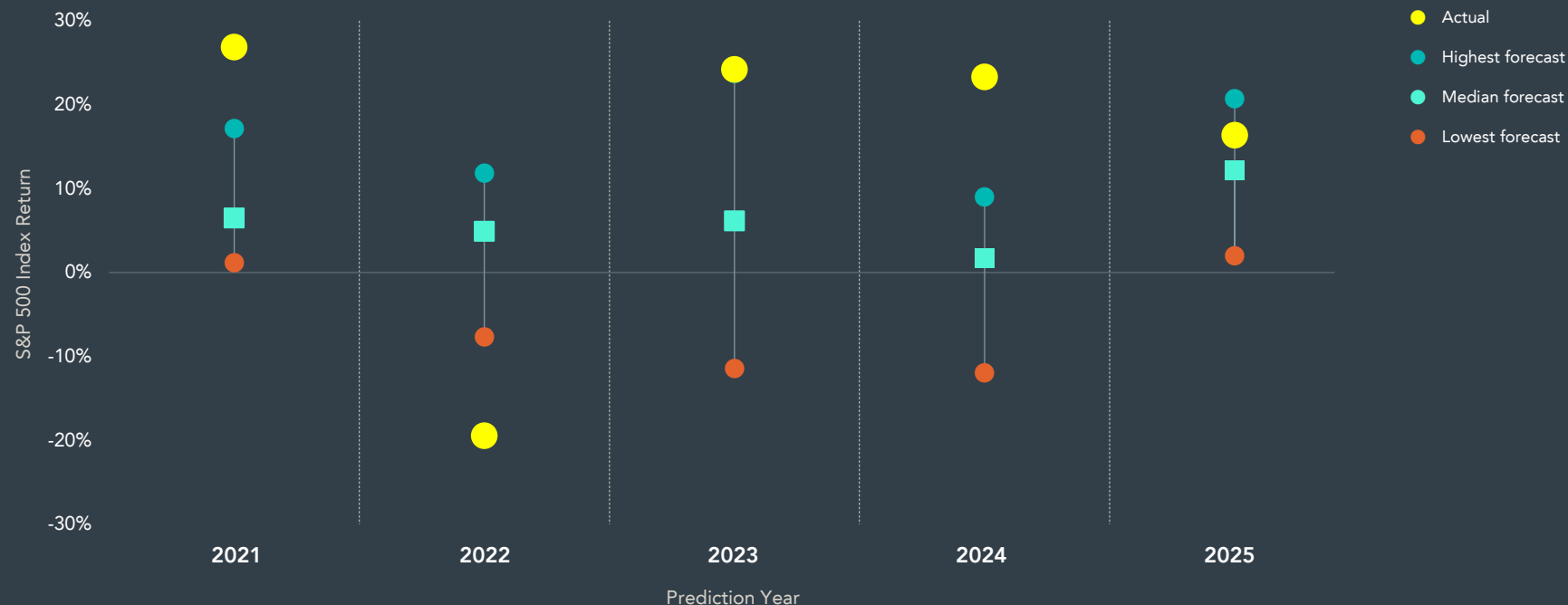


Past performance is no guarantee of future results. Actual returns may be lower.

In US dollars. S&P data © 2026 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. Indices are not available for direct investment. Index returns are not representative of actual portfolios and do not reflect costs and fees associated with an actual investment.

Forecasts vs. Reality in Recent Years

Equity analyst forecasts vs. actual for S&P 500 Index calendar year price returns

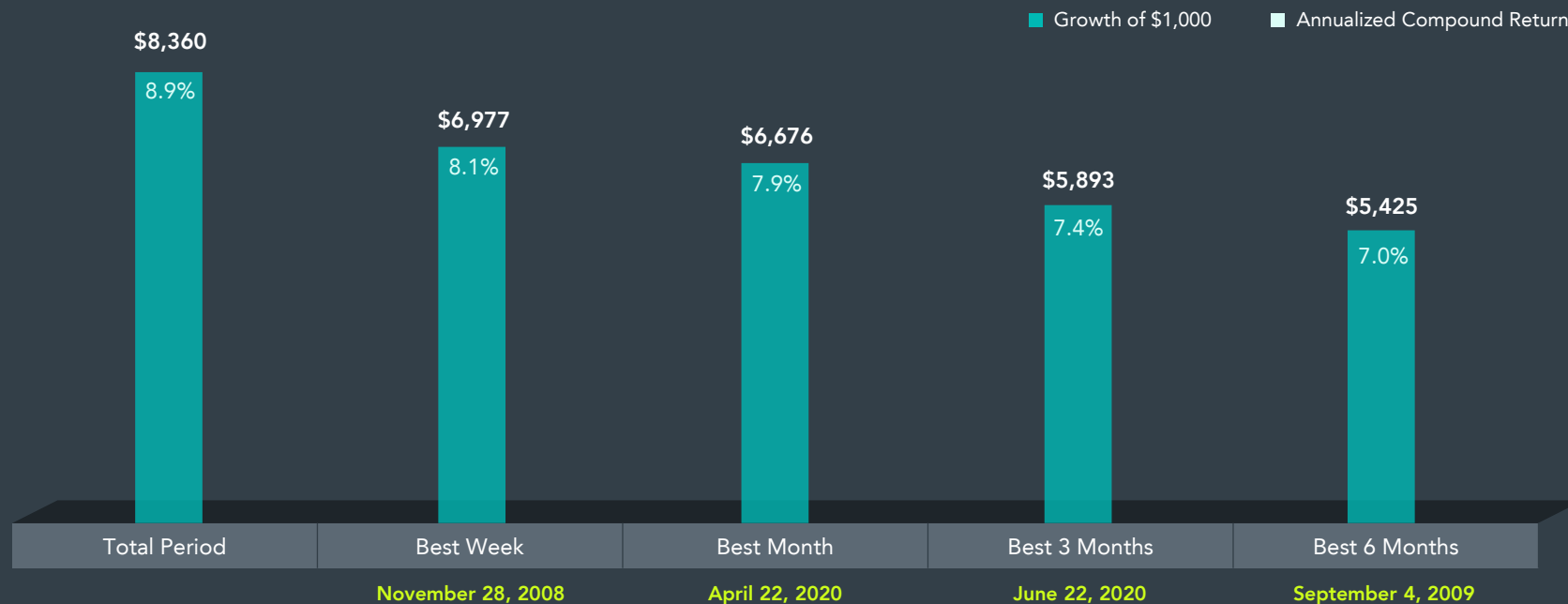


Past performance is not a guarantee of future results. In USD. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio. Source: Bloomberg, using the "Strategists' S&P 500 Index Estimates for Year-End...". Analyst predictions for each year are as of December in the year prior. Analyst forecasts and returns are price returns. There were 17 predictions for 2021, 19 for 2022, 22 for 2023, 19 for 2024, and 19 for 2025. Price return represents the change in price of an investment and does not include dividends and other earnings. S&P data © 2026 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved.

Missing the Best Consecutive Days



Russell 3000 Index, January 2001–December 2025



Best performance dates represent end of period.

Indices are not available for direct investment. Their performance does not reflect the expenses associated with the management of an actual portfolio. Past performance is not a guarantee of future results. In US dollars. For illustrative purposes. The missed best consecutive days examples assume that the hypothetical portfolio fully divested its holdings at the end of the day before the missed best consecutive days, held cash for the missed best consecutive days, and reinvested the entire portfolio in the Russell 3000 Index at the end of the missed best consecutive days. Annualized returns for the missed best consecutive days examples were calculated by substituting actual returns for the missed best consecutive days with zero. Data presented in the Growth of \$1,000 chart is hypothetical and assumes reinvestment of income and no transaction costs or taxes. The chart is for illustrative purposes only and is not indicative of any investment. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes.

Markets Have Rewarded Discipline



Growth of a dollar—MSCI World Index (net dividends), 1970–2025



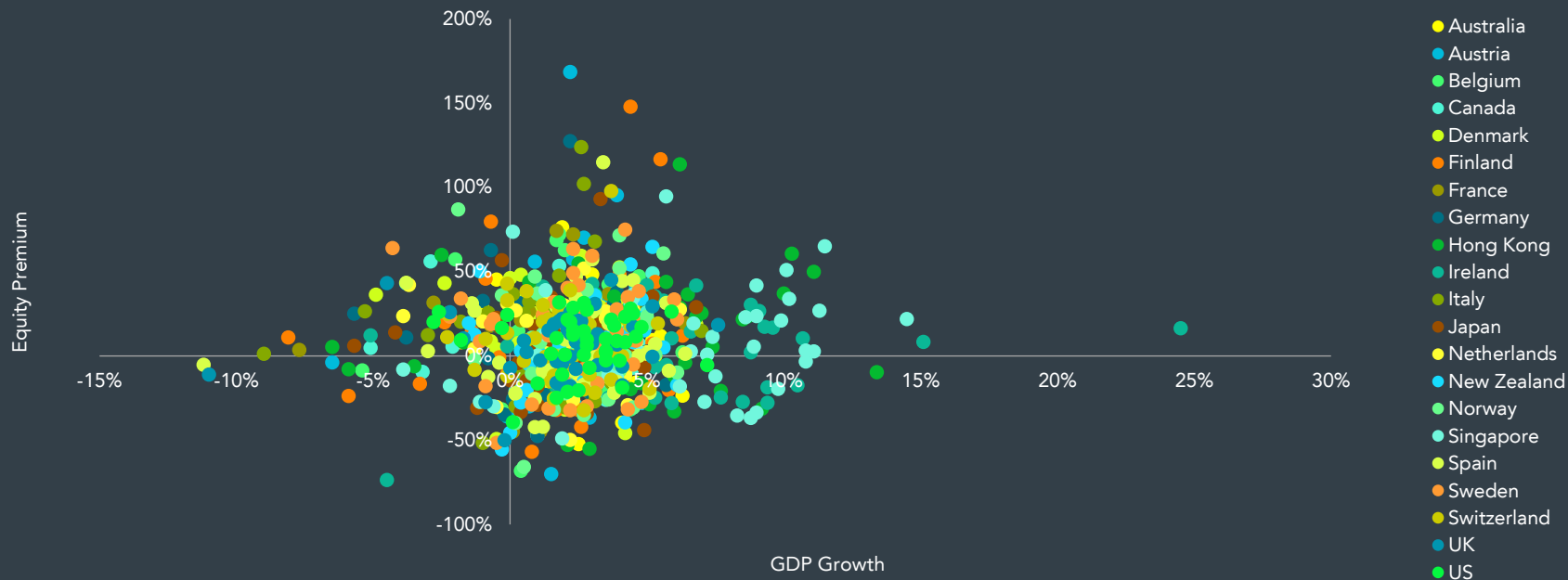
A disciplined investor looks beyond the concerns of today to the long-term growth potential of markets.

Past performance is no guarantee of future results. Indices are not available for direct investment. Their performance does not reflect the expenses associated with the management of an actual portfolio. In USD. MSCI data © MSCI 2026, all rights reserved. Data presented in the Growth of \$1 chart is hypothetical and assumes reinvestment of income and no transaction costs or taxes. The chart is for illustrative purposes only and is not indicative of any investment.

The Real Economy vs. The Stock Market

GDP Growth and the Equity Premium

Annual equity premium vs. annual GDP growth, Developed Markets, 1980–2023

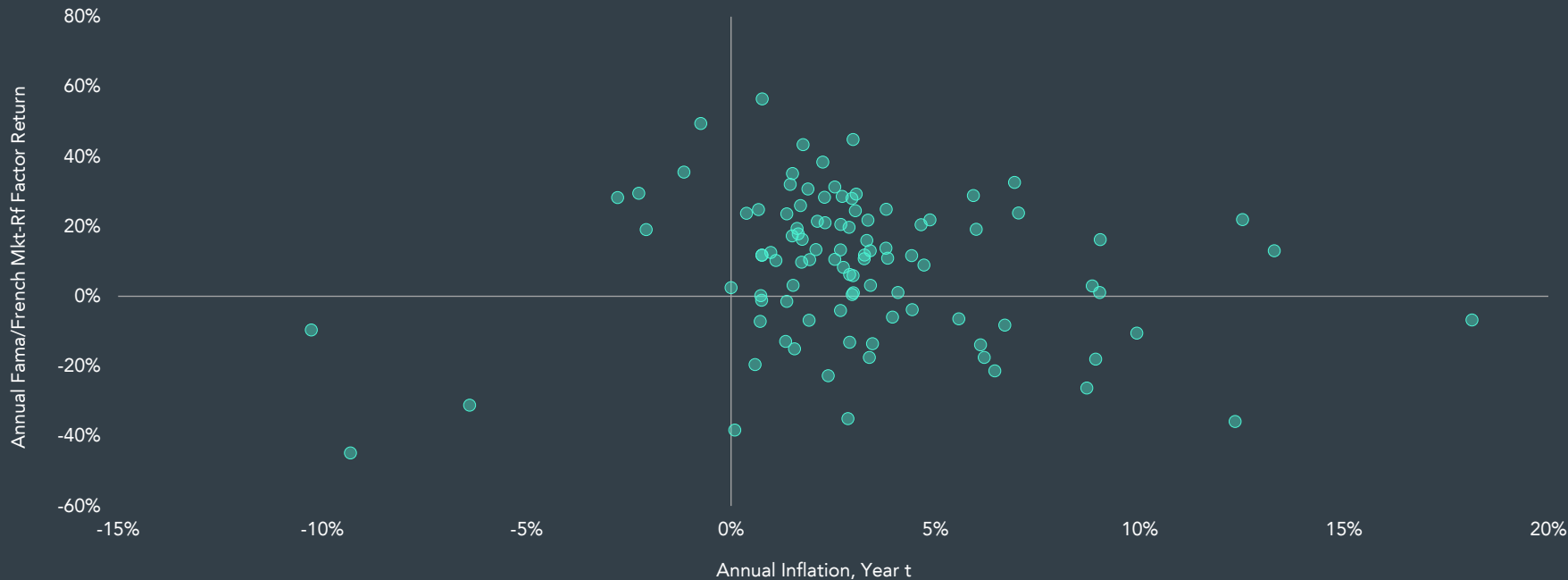


Past performance is no guarantee of future results.

In USD. GDP growth data from the IMF World Economic Outlook. Equity premium is computed as MSCI Country Indices—One-Month US Treasury Bills. Data provided by MSCI. Sample period by country: Developed Markets equity premium (from 1980 unless stated differently): Australia, Austria, Belgium, Canada, Denmark, Finland (from 1988), France, Germany, Hong Kong, Ireland (from 1988), Italy, Japan, Netherlands (from 1981), New Zealand (from 1988), Norway, Singapore, Spain, Sweden, Switzerland, UK, US.

Inflation and the Equity Premium

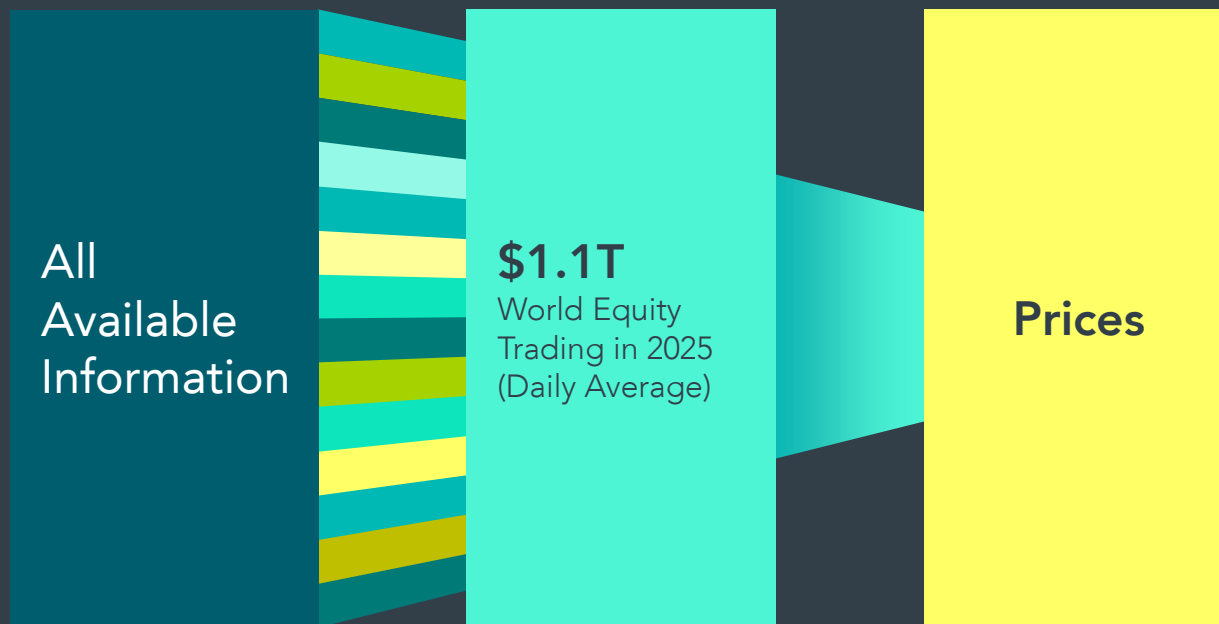
US inflation against contemporaneous Fama/French US Mkt-Rf Factor, 1927–2025



Past performance is not a guarantee of future results.

In USD. Inflation is measured by the annual percentage change in the US Consumer Price Index. Fama/French Factors shown are provided by Ken French. Factors are not available for direct investment; their performance does not reflect the expenses associated with the management of an actual portfolio. Eugene Fama and Ken French are members of the Board of Directors of the general partner of, and provide consulting services to, Dimensional Fund Advisors LP. See “Data Appendix—Fama/French Factors” for more information regarding the factors shown.

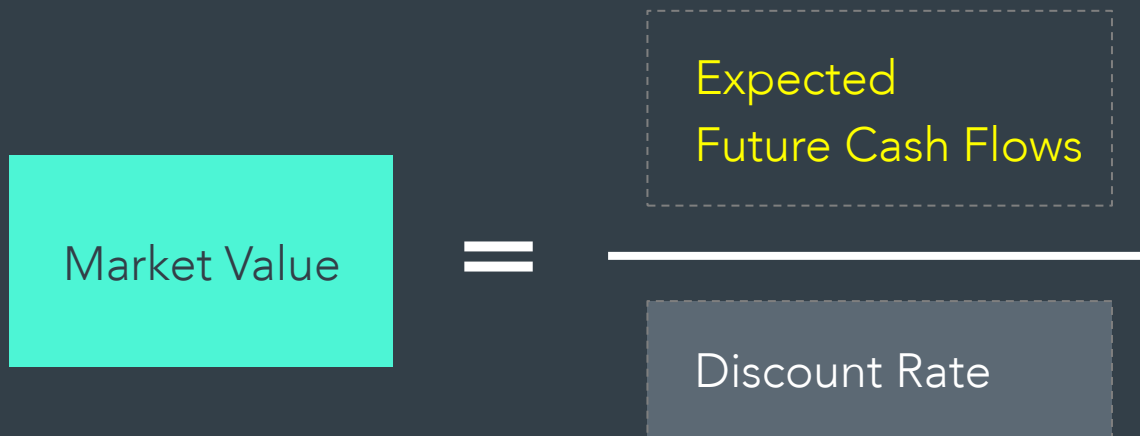
Embrace Market Pricing



In USD. Source: Dimensional, using data from Bloomberg LP. Includes primary and secondary exchange trading volume globally for equities. Funds are excluded. Daily averages were computed by calculating the trading volume of each stock daily as the closing price multiplied by shares traded that day. All such trading volume is summed up and divided by 252 as an approximate number of annual trading days.

Valuation Equation: A Framework to Understand Returns

Not all securities have the same expected return



The diagram illustrates the Valuation Equation. On the left, a solid cyan rectangle contains the text "Market Value". To its right is an equals sign. Further right is a horizontal line. Above this line is a dashed yellow rectangle containing the text "Expected Future Cash Flows". Below the line is a dashed grey rectangle containing the text "Discount Rate".

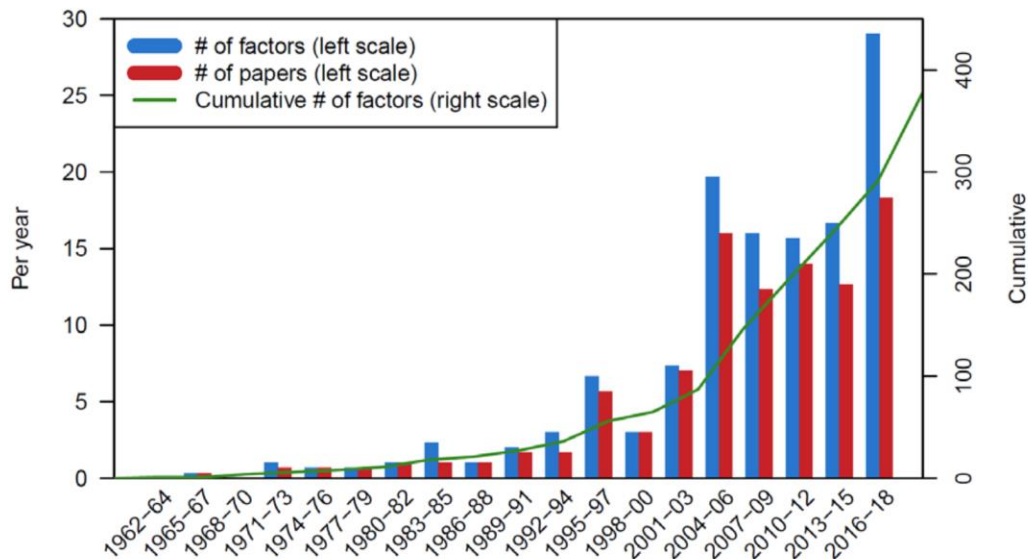
$$\text{Market Value} = \frac{\text{Expected Future Cash Flows}}{\text{Discount Rate}}$$

Expected returns are driven by prices investors pay and cash flows they expect to receive.

Complexity vs. Sophistication

A Zoo of Factors

Figure 1. Out of control factor production - through January 2019



Evaluating Research: Which Premiums?

Backed by Theory?	Constructed according to well-established standards?
Robust to other definitions?	Incremental to what we already know?
Statistically reliable and economically significant?	Pervasive across market segments and consistent over time?
Implementable as a value-add after costs?	A good fit for your investment goals?

There are lots of incentives to discover premiums, but not all premiums are created equal.

A good systematic manager can distinguish signal from noise.

Continuously Testing for Information about Expected Returns

Equity Markets: Examples of Variables Tested Under Varying Methods and Specifications

Profitability	Value	Quality	Volatility	Investment
Sales Gross Profits (Sales – COGS) EBIT (Sales – COGS – SG&A) Operating Income Before Depreciation and Amortisation Less Interest Expense Net Income Cash-Based Profits Profits Adjusted for Intangibles Profitability Growth	Price-to-Book Price-to-Book Adjusted for Intangibles Estimated Internally Developed Intangibles Estimated Knowledge Capital Estimated Organisational Capital External Intangibles Goodwill Price-to-Earnings Price-to-Cash Flow Price-to-Sales Price-to-Dividend Price-to-Book Equity Less Retained Earnings Price-to-Retained Earnings Blended Value Metrics Enterprise Value-to-EBITDA Enterprise Value-to-Assets	Profitability Volatility of Profitability Return on Equity Leverage F-score Ohlson's O-score	Standard Deviation Beta Idiosyncratic Volatility Fama-French 3-factor model residuals CAPM residuals	Year-on-Year Asset Growth Year-on-Year Book Equity Growth Cumulative Asset Growth Cumulative Book Equity Growth Growth in Equity Financing Growth in Debt Financing Growth in External Financing Growth in Liabilities Growth in Retained Earnings Growth in Physical Capital Growth in Intangible Capital Net Stock Issue Capital Expenditure, Scaled by Assets Growth in Capital Expenditure, Scaled by Capital Expenditure R&D, Scaled by Assets Cumulative R&D, Scaled by Assets
<i>Each tested as scaled by book equity and assets.</i>			<i>Each tested over varying periods (e.g., daily, weekly, quarterly).</i>	<i>Unless otherwise noted, growth measures are scaled by assets. Growth in book equity, equity financing, and retained earnings are also tested as scaled by book. Equity.</i>

"In science, what you want is the minimum number of factors that will explain something, not the maximum."

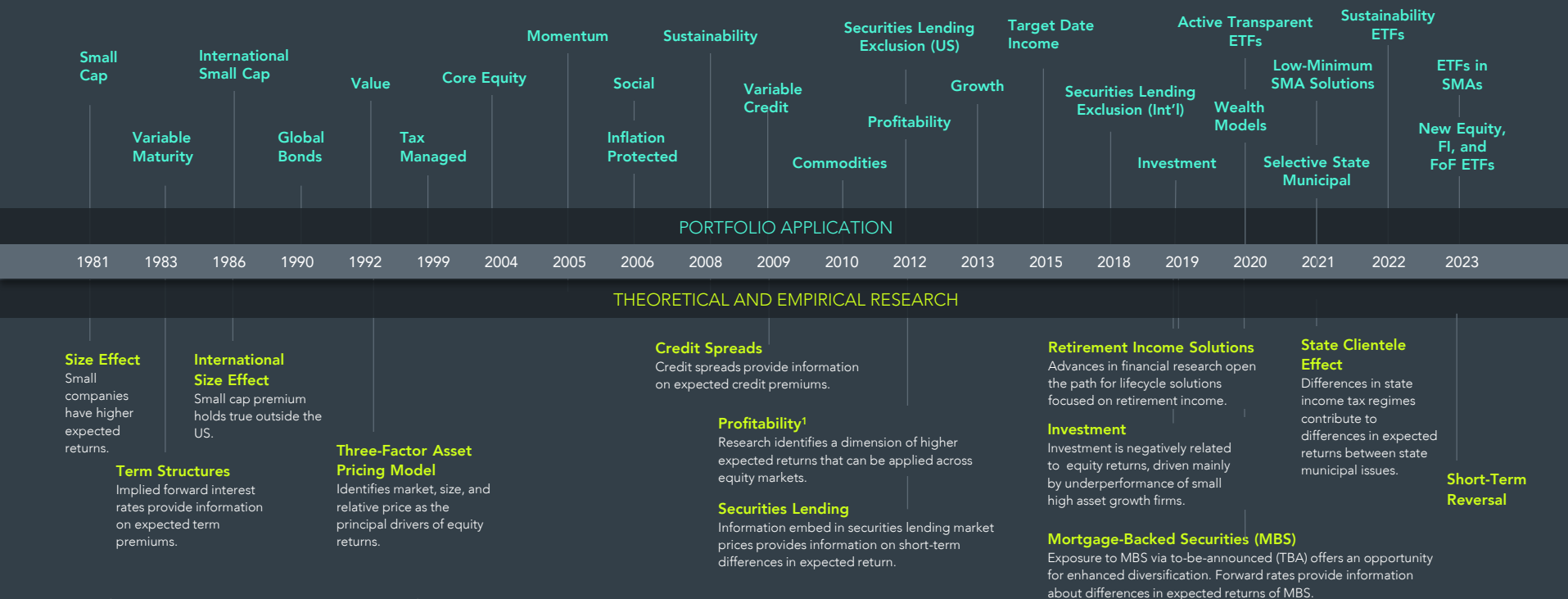
EUGENE F. FAMA

Standing the Test of Time

Dimensional Evolves as Financial Science Progresses



New strategy development is a result of continually applying research to meet investor goals and has contributed to a high survivorship rate for Dimensional strategies relative to industry peers



1. Profitability is a company's operating income before depreciation and amortisation minus interest expense scaled by book equity.

"Dimensional" refers to the Dimensional entities generally, rather than to one particular entity. These companies are Dimensional Fund Advisors LP (founded in 1981), Dimensional Fund Advisors Ltd., Dimensional Ireland Limited, DFA Australia Limited, Dimensional Fund Advisors Canada ULC, Dimensional Fund Advisors Pte. Ltd., and Dimensional Japan Ltd., and Dimensional Hong Kong Limited. Dimensional Hong Kong Limited is licensed by the Securities and Futures Commission to conduct Type 1 (dealing in securities) regulated activities only and does not provide asset management services.

“Ideas alone are cheap —
implementation is what really counts.”

MYRON SCHOLES

Appendix

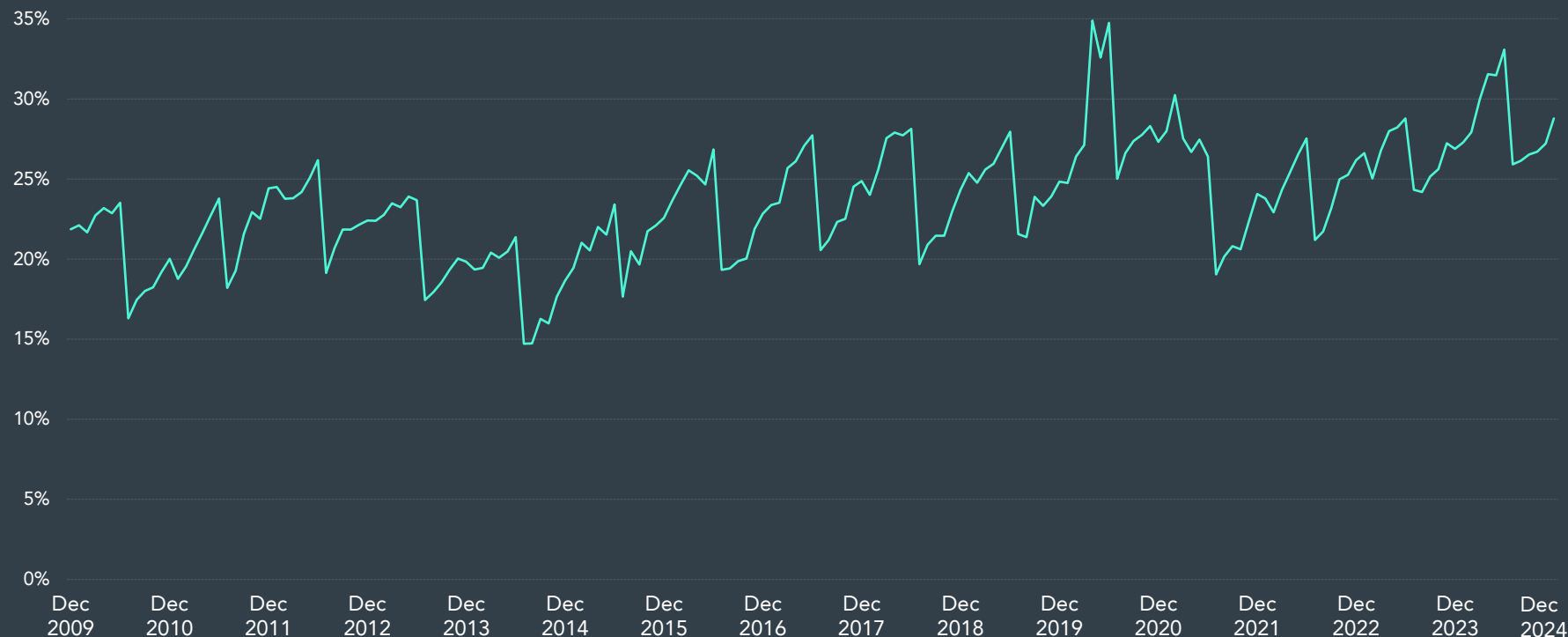
Continuously Testing for Information about Expected Returns

Equity Markets: Examples of Variables Tested Under Varying Methods and Specifications

Momentum	Reversals and Liquidity	Short Selling/Lending	Intra-Day Trading	ESG
Prior 12-1 and 12-2 Month Momentum Prior 9-1 and 9-2 Month Momentum Prior 6-1 and 6-2 Month Momentum Overlapping Prior 12-2, 9-2, and 6-2 Month Momentum Non-Overlapping Prior 12-10, 9-6, 5-2 Month Momentum Momentum Consistency	Prior 1, 5, 10, and 21-Days Performance Absolute Performance Industry Relative Performance With and Without Adjustments for Earnings Announcements With and Without Skipping a Day Prior 1-Month Performance Amihud Liquidity Pastor & Stambaugh Liquidity Beta Turnover Liquidity	Borrowing Fees Level of Fees Percentile of Fees Persistence of Fees Changes in Fees Utilisation Short Sale Volume Short Interest	Order Imbalance Trade Imbalance VPIN Prior Returns Order Book Events	Corporate Governance Emission Intensity Emission Level Change in Emission Level
	<i>Past performance variables tested by size, volatility, and liquidity groups.</i> <i>Also tested over holding periods between 1 and 60 days.</i>	<i>Variables also tested around occurrence of corporate actions, such as dividends.</i>	<i>Each tested over varying horizons (e.g., 1 hour, 30/15/5/1 minute(s), 30/15/1 second(s), sub-second).</i>	

Big Fish in a Small Pond

Russell 2000 Index weight in the 1,000 largest stocks, December 31, 2009–December 31, 2024



Source: Dimensional, using data from Russell. Data shown is the weight of the Russell 2000 Index in the 1,000 Largest Stocks. The 1,000 largest stocks identified based on the descending order of total issuer weight in Russell 3000 Index. Indices are not available for direct investment. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes.

Data Appendix—Fama/French Factors

Fama/French Mkt-Rf: The excess return on the market, value-weight return of all CRSP firms incorporated in the US and listed on the NYSE, AMEX, or NASDAQ that have a CRSP share code of 10 or 11 at the beginning of month t , good shares and price data at the beginning of t , and good return data for t minus the one-month Treasury bill rate (from Ibbotson Associates). Starting from June 2024, the one-month Treasury bill rate is from ICE BofA US 1-Month Treasury Bill Index.

Fama/French US SMB Research Factor: Constructed from six size/book-to-market research portfolios, six size/profitability research portfolios, and six size/investment research portfolios. SMB (Small minus Big) for July of year t to June $t + 1$ includes all NYSE, AMEX, and NASDAQ stocks for which we have market equity for December $t - 1$ and June of t , (positive) book-to-market equity data for fiscal year ending in $t - 1$, non-missing revenues and at least one of the following: cost of goods sold, selling, general and administrative expenses, or interest expense for $t - 1$, and total assets data for $t - 2$ and $t - 1$. SMB is $1/3$ (Small Value + Small Neutral + Small Growth) $- 1/3$ (Big Value + Big Neutral + Big Growth). Exclusions: ADRs, investment companies, tracking stocks, non-US incorporated companies, closed end funds, certificates, shares of beneficial interests, and negative book values.

Fama/French US HML Research Factor: Constructed from four size/book-to-market research portfolios. HML for July of year t to June $t + 1$ includes all NYSE, AMEX, and NASDAQ stocks for which we have market equity for December $t - 1$ and June of t , and (positive) book-to-market equity data for fiscal year ending in $t - 1$. HML (High minus Low) is the average return on two value research portfolios minus the average return on two growth research portfolios: $1/2$ (Small Value + Big Value) $- 1/2$ (Small Growth + Big Growth). Exclusions: ADRs, investment companies, tracking stocks, non-US incorporated companies, closed-end funds, certificates, shares of beneficial interests, and negative book values.

Fama/French US RMW Research Factor: Constructed from four size/profitability research portfolios. RMW for July of year t to June $t + 1$ includes all NYSE, AMEX, and NASDAQ stocks for which we have market equity data for June of t , (positive) book equity data for $t - 1$, non-missing revenues data for $t - 1$, and non-missing data for at least one of the following: cost of goods sold, selling, general and administrative expenses, or interest expense for $t - 1$. RMW (Robust minus Weak) is the average return on the two robust operating profitability portfolios minus the average return on the two weak operating profitability portfolios: $1/2$ (Small Robust + Big Robust) $- 1/2$ (Small Weak + Big Weak). Exclusions: ADRs, investment companies, tracking stocks, non-US incorporated companies, closed-end funds, certificates, and shares of beneficial interests.

Fama/French US CMA Research Factor: Constructed from four size/investment research portfolios that do not include hold ranges. CMA for July of year t to June $t + 1$ includes all NYSE, AMEX, and NASDAQ stocks for which we have market equity data for June of t , total assets data for $t - 2$ and $t - 1$. CMA (Conservative Minus Aggressive) is the average return on the two conservative investment portfolios minus the average return on the two aggressive investment portfolios: $1/2$ (Small Conservative + Big Conservative) $- 1/2$ (Small Aggressive + Big Aggressive). Exclusions: ADRs, investment companies, tracking stocks, non-US incorporated companies, closed-end funds, certificates, and shares of beneficial interests.