



Master's Advisors

MANAGING WEALTH

Investment Philosophy Overview

**The Master's Investment
Review Committee (IRC)**

Efficient Markets Hypothesis

Eugene F. Fama

- **The Hypothesis States:**
 - Current prices incorporate all available information and expectations.
 - Current prices are the best approximation of intrinsic value.
 - Price changes are due to unforeseen events.
 - “Mispricings” can occur but not in predictable patterns that can lead to consistent outperformance.
- **The Hypothesis Does not State:**
 - All investors are rational.
 - Prices are always right.
 - Prices should be stable.
 - Professional money managers can’t earn higher than market returns.

Eugene F. Fama, “Efficient Capital Markets: A Review of Theory and Empirical Work,” *Journal of Finance* 25, no. 2 (May 1970): 383-417.
Eugene F. Fama, “Foundations of Finance,” *Journal of Finance* 32, no. 3 (June 1977): 961-64.

Dimensions Point to Differences in Expected Returns

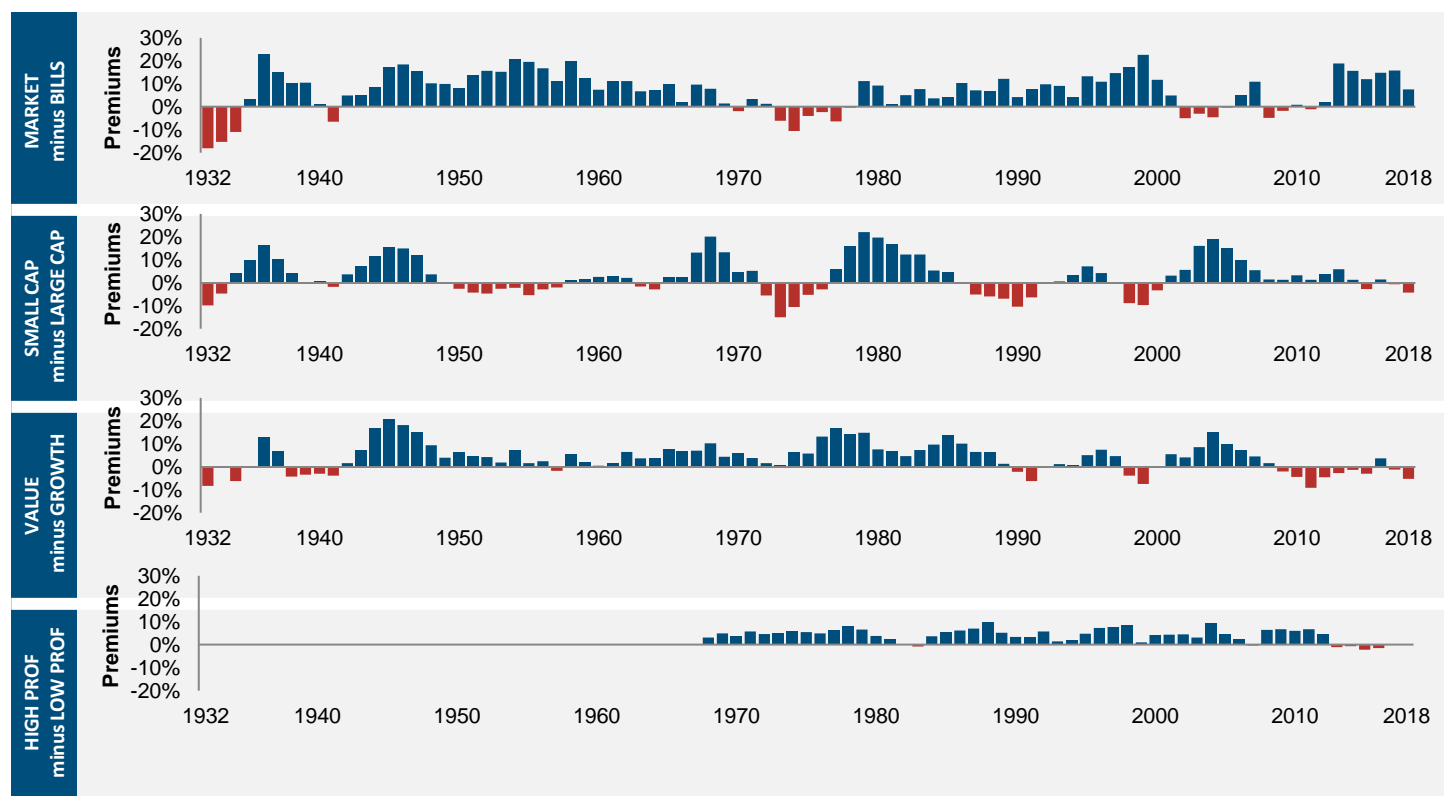
Academic research has identified these dimensions, which are well documented in markets around the world and across different time periods.



1. Relative price as measured by the price-to-book ratio; value stocks are those with lower price-to-book ratios. 2. Profitability is a measure of current profitability, based on information from individual companies' income statements.

Historical Observations of Five-Year Premiums

Equity, size, relative price, and profitability: US Markets



Information provided by Dimensional Fund Advisors LP.

In USD. Five-year premiums are calculated as the difference in annualized five-year returns between the two indices described. Market minus Bills: Fama/French Total US Market Research Index minus the One-Month US Treasury Bill. Small Cap minus Large Cap: Dimensional US Small Cap Index minus the S&P 500 Index. Value minus Growth: Fama/French US Value Research Index minus the Fama/French US Growth Research Index. High Prof minus Low Prof: Dimensional US High Profitability Index minus the Dimensional US Low Profitability Index. Profitability is measured as operating income before depreciation and amortization minus interest expense, scaled by book. **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. Past performance is no guarantee of future results. Actual returns may be lower.** See "Index Descriptions" in the appendix for descriptions of Dimensional and Fama/French index data. 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. "One-Month Treasury Bills" is the IA SBBI US 30 Day TBILL TR USD, provided by Morningstar. S&P data © 2019 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved.

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 (%)

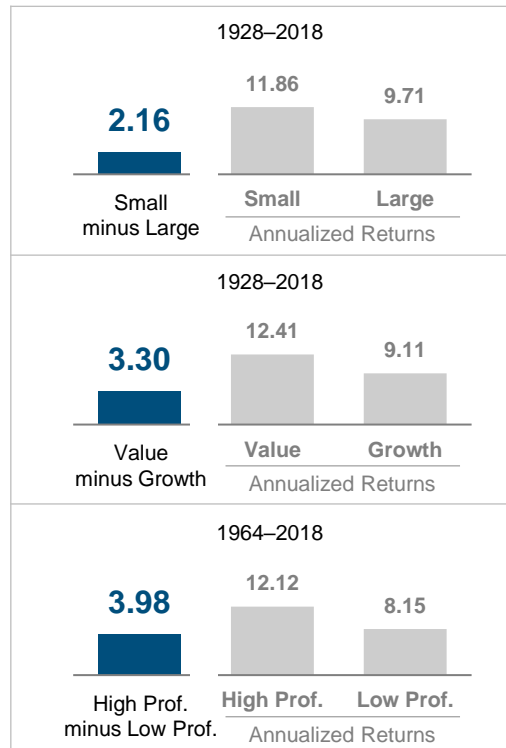
Relative Price

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

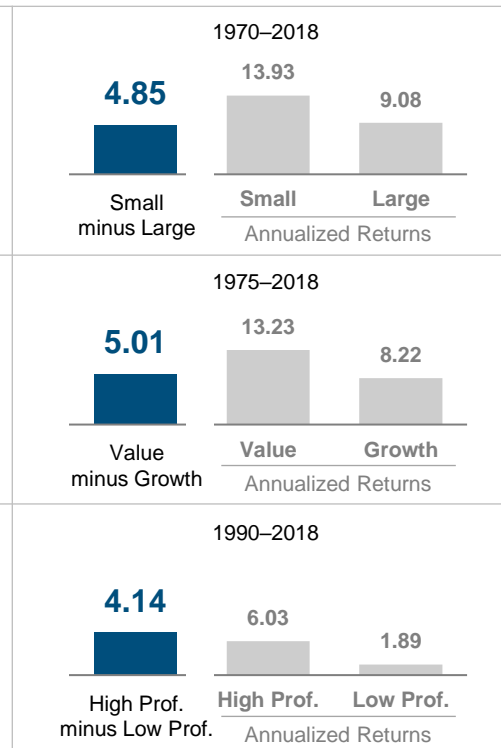
Profitability

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

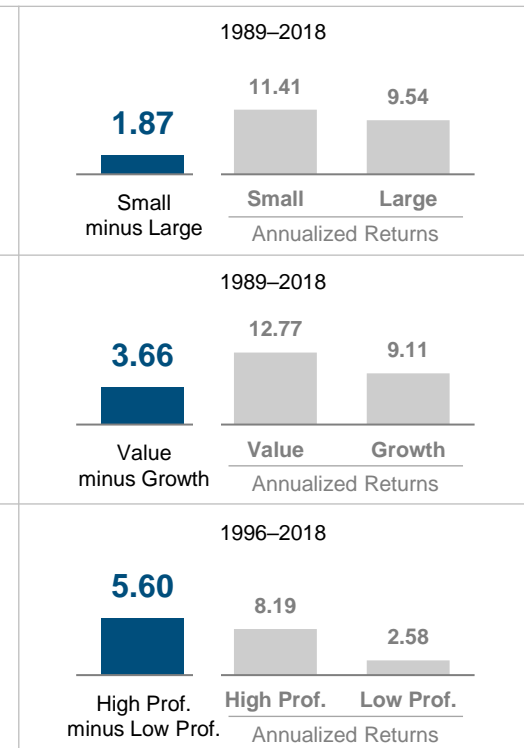
US Stocks



Developed ex US Markets Stocks



Emerging Markets Stocks



Information provided by Dimensional Fund Advisors LP.

All returns are in USD. Premiums are calculated as the difference in annualized returns between the two indices described over the period shown. MSCI indices are gross div. For US stocks, indices are used as follows. Small Cap minus Large Cap: Dimensional US Small Cap Index minus the S&P 500 Index. Value minus Growth: Fama/French US Value Research Index minus the Fama/French US Growth Research Index. High Prof minus Low Prof: Dimensional US High Profitability Index minus the Dimensional US Low Profitability Index. For developed ex US stocks, indices are used as follows. Small Cap minus Large Cap: Dimensional International Small Cap Index minus the MSCI World ex USA Index (gross div.). Value minus Growth: Fama/French International Value Index minus the Fama/French International Growth Index. High Prof minus Low Prof: Dimensional International High Profitability Index minus the Dimensional International Low Profitability Index. For Emerging Markets stocks, indices are used as follows. Small Cap minus Large Cap: Dimensional Emerging Markets Small Cap Index minus MSCI Emerging Markets Index (gross div.). Value minus Growth: Fama/French Emerging Markets Value Index minus Fama/French Emerging Markets Growth Index. High Prof minus Low Prof: Dimensional Emerging Markets High Profitability Index minus the Dimensional Emerging Markets Low Profitability Index. Profitability is measured as operating income before depreciation and amortization minus interest expense, scaled by book. **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. Past performance is no guarantee of future results. Actual returns may be lower.** See "Index Descriptions" in the appendix for descriptions of Dimensional and Fama/French index data. 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. S&P data © 2019 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. MSCI data © MSCI 2019, all rights reserved.

Historical Performance of Premiums Over Rolling Periods

US Markets

Overlapping Periods: July 1926–December 2018

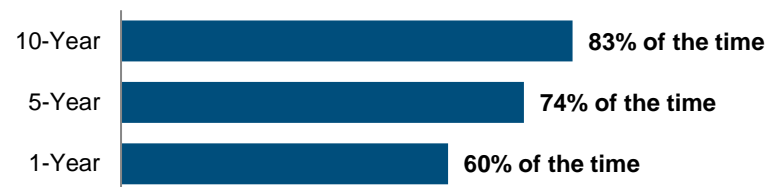
MARKET beat T-BILLS



Market is Fama/French Total US Market Research Index.
T-Bills is One-Month US Treasury Bills.
There are 991 overlapping 10-year periods, 1,051 overlapping 5-year periods, and 1,099 overlapping 1-year periods.

Overlapping Periods: July 1926–December 2018

VALUE beat GROWTH



Value is Fama/French US Value Research Index.
Growth is Fama/French US Growth Research Index.
There are 991 overlapping 10-year periods, 1,051 overlapping 5-year periods, and 1,099 overlapping 1-year periods.

Overlapping Periods: June 1927–December 2018

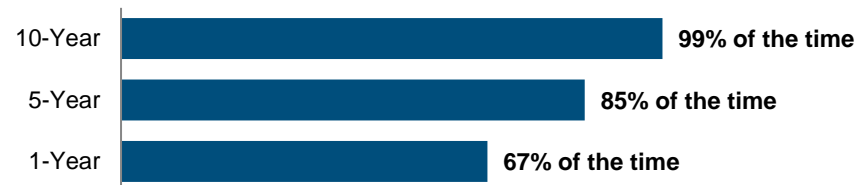
SMALL beat LARGE



Small is Dimensional US Small Cap Index.
Large is S&P 500 Index.
There are 980 overlapping 10-year periods, 1,040 overlapping 5-year periods, and 1,088 overlapping 1-year periods.

Overlapping Periods: July 1963–December 2018

HIGH PROFITABILITY beat LOW PROFITABILITY

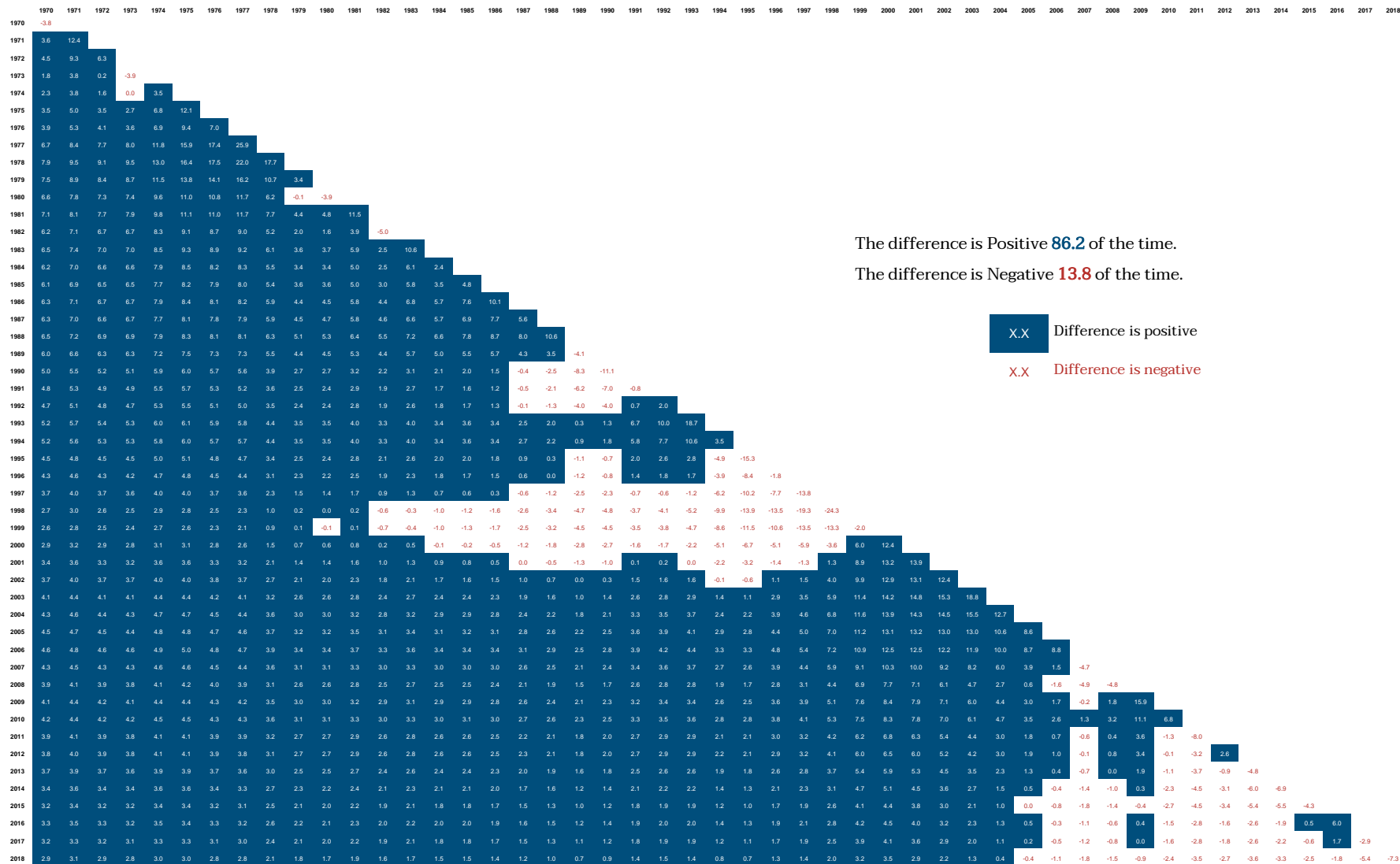


High is Dimensional US High Profitability Index.
Low is Dimensional US Low Profitability Index.
There are 547 overlapping 10-year periods, 607 overlapping 5-year periods, and 655 overlapping 1-year periods.

Information provided by Dimensional Fund Advisors LP.

In USD. Based on monthly rolling differences in annualized returns over the periods listed. Rolling multiyear periods overlap and are not independent. Profitability is measured as operating income before depreciation and amortization minus interest expense, scaled by book. 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. Past performance is no guarantee of future results. Actual returns may be lower. See "Index Descriptions" in the appendix for descriptions of Dimensional and Fama/French index data. 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. "One-Month Treasury Bills" is the IA SBBI US 30 Day TBILL TR USD, provided by Morningstar. S&P data © 2019 S&P Dow Jones Indices LLC, a Division of S&P Global. All rights reserved.

Global Exposure to Higher Expected Returns



The difference is Positive **86.2** of the time.

The difference is Negative **13.8** of the time.

X.X Difference is positive

x.x Difference is negative

Annual:
January 1970–
December 2018

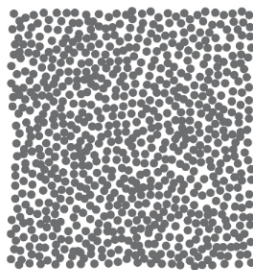
In US dollars. Sources: Dimensional Index data compiled by Dimensional; S&P data © 2019 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. See "Dimensional Equity Balanced Strategy Index Description" slides in the Appendix for more information. The indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio. Past performance is no guarantee of future results.

Portfolios Can Be Structured to Pursue Dimensions

● Company → Higher Expected Return

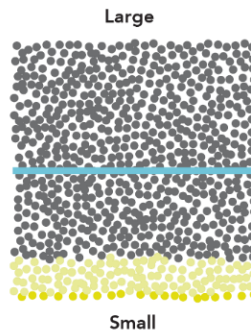
MARKET

Beta¹
(Equity Premium)



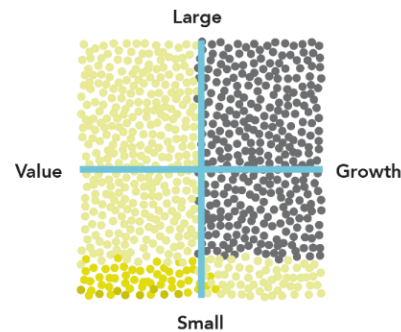
COMPANY SIZE

Market Cap
(Small Cap Premium)



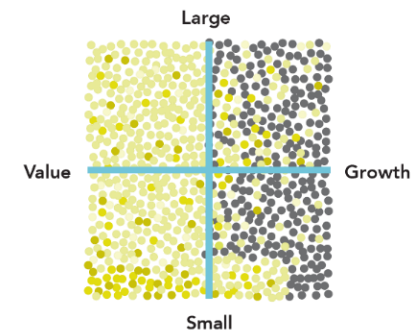
RELATIVE PRICE

Price-to-Book²
(Value Premium)



PROFITABILITY

Profitability³
(Profitability Premium)



Investors can pursue higher expected returns through a low-cost, well-diversified portfolio that targets these dimensions.

1. Beta: A quantitative measure of the co-movement of a given stock, mutual fund, or portfolio with the overall market.

2. Price-to-Book Ratio: A company's capitalization divided by its book value. It compares the market's valuation of a company to the value of that company as indicated on its financial statements.

3. Profitability: A measure of a company's current profits. We define this as operating income before depreciation and amortization minus interest expense, scaled by book equity.

Different Approaches to Fixed Income Investing

AN ALTERNATIVE APPROACH

Gains insights about fixed income markets and expected returns from academic research

Uses information in current yield curves to adjust portfolio to target higher expected returns

Adds value by integrating research, portfolio design, portfolio management, and trading

Drivers of Expected Returns in Fixed Income Markets

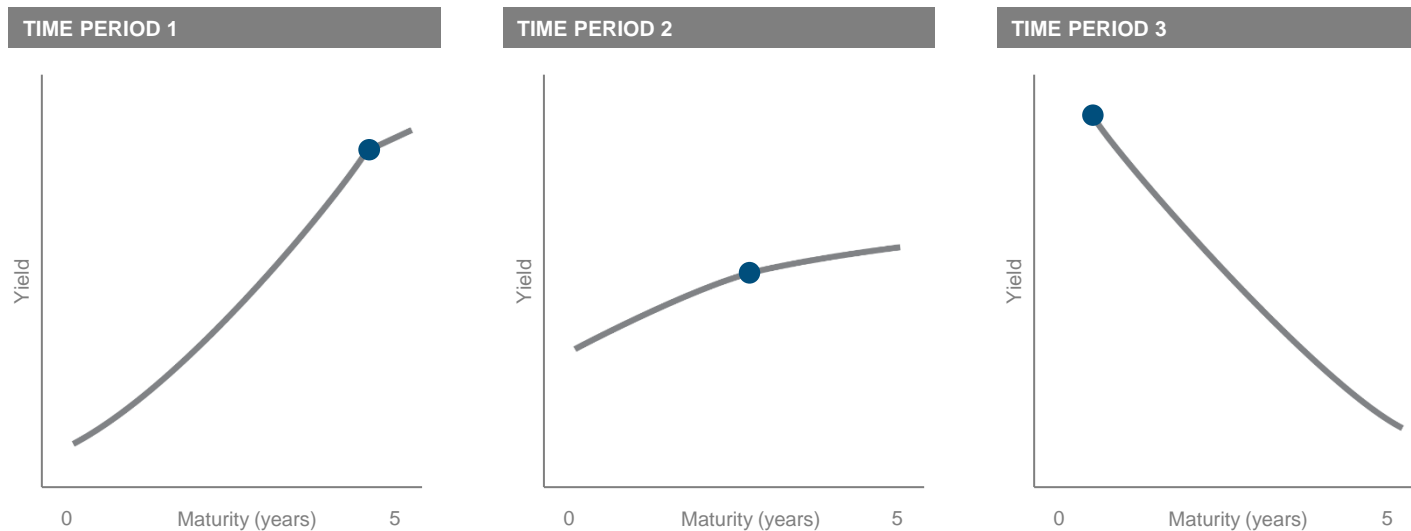
Duration

**Credit
Quality**

Currency

- Market prices tell us about the risk and return of bonds, which we can group along certain dimensions such as duration, credit quality, and the currency in which the bond is issued.
- Investors can impact the risk and return potential of their fixed income investments through the types of bonds included in their portfolios.

Vary Portfolio Duration to Pursue Higher Expected Returns



- The level and shape of yield curves tell us about the expected returns of different bonds.
- Because yield curves change through time, the bonds that offer the highest expected returns through time also change.
- A flexible, market-based approach can invest in these bonds to improve the expected return of a bond portfolio over a fixed or index-based approach.

For illustrative purposes only. Investing involves risks, including possible loss of principal. There is no guarantee that any strategy will be successful.

Diversification Helps Take the Guesswork out of Investing

You never know which markets will outperform from year to year.

By holding a globally diversified portfolio, investors are positioned to capture returns wherever they occur.

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
33.9	34.5	36.0	39.8	8.8	79.0	28.1	9.4	18.6	38.8	32.0	5.4	21.3	37.8	2.1
33.2	25.2	32.6	8.2	6.6	49.4	26.9	3.4	18.6	32.4	13.7	4.5	12.0	32.1	1.9
26.0	13.8	25.0	6.3	4.7	28.5	22.9	2.3	17.1	27.2	4.9	1.4	11.6	21.8	1.5
18.3	4.9	18.4	5.9	-33.8	27.2	19.2	2.1	16.3	1.2	1.9	1.0	6.7	14.6	-4.2
10.9	4.6	15.8	5.5	-37.0	26.5	15.1	0.6	16.0	0.6	1.2	0.9	5.5	3.8	-4.4
2.7	3.1	4.3	5.3	-39.2	2.3	3.7	-4.2	2.1	0.3	0.2	0.2	1.5	1.1	-11.0
1.3	2.4	4.1	-1.6	-47.0	0.8	2.0	-13.6	0.9	-0.1	-1.8	-4.4	1.0	0.7	-14.2
0.8	1.3	3.8	-17.6	-53.2	0.2	0.8	-18.2	0.2	-2.3	-5.8	-14.6	0.8	0.6	-18.8

	S&P 500 Index
	Russell 2000 Index
	Dow Jones US Select REIT Index
	Dimensional International Small Cap index
	MSCI Emerging Markets Index (gross div.)
	ICE BofAML One-Year US Treasury Note Index
	Bloomberg Barclays US Treasury Bond Index 1–5 Years
	FTSE World Government Bond Index 1–5 Years (hedged to USD)

In US dollars. Source: S&P and Dow Jones data © 2019 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. Dimensional Index data compiled by Dimensional. MSCI data © 2019, all rights reserved. ICE BofAML index data © 2019 ICE Data Indices, LLC. Bloomberg Barclays data provided by Bloomberg. FTSE fixed income indices © 2019 FTSE Fixed Income LLC. All rights reserved. See "Index Descriptions" in the appendix for descriptions of Dimensional's index data. Diversification does not eliminate the risk of market loss. Past performance is not a guarantee of future results. Indices are not available for direct investment. Their performance does not reflect expenses associated with the management of an actual portfolio.

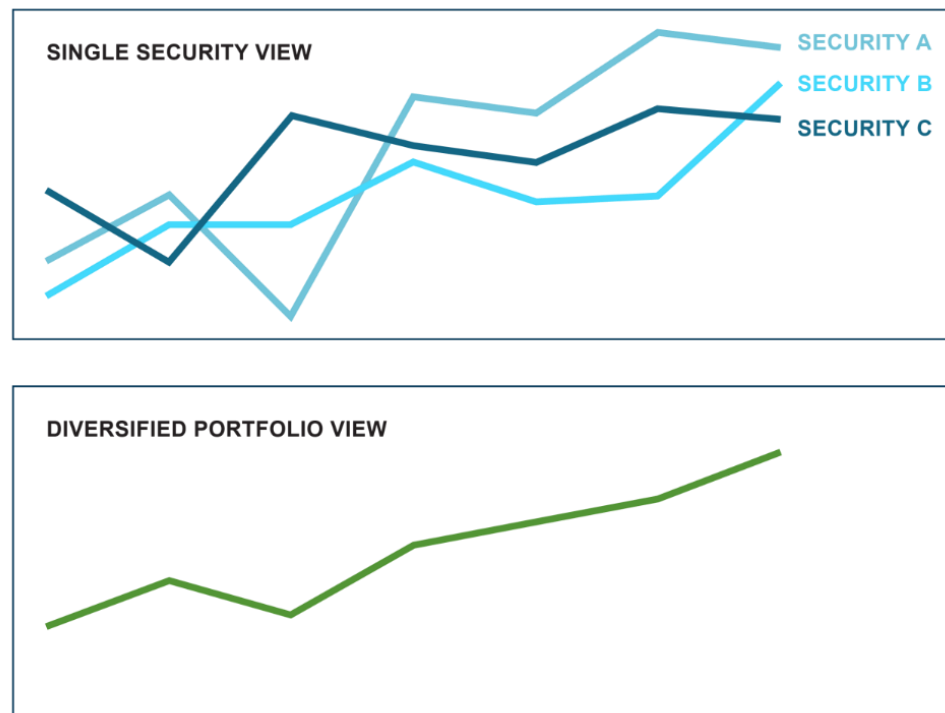
The Impact of Volatility

	Year 1 Return	Year 2 Return	Average Return	Compound Return	Value at End of Year 2
Portfolio 1	50%	-50%	0%	-13.4%	\$75,000
Portfolio 2	10%	-10%	0%	-0.5%	\$99,000

For illustrative purposes only.

Diversification Smooths Out Some of the Bumps

A well-diversified portfolio can provide the opportunity for a more stable outcome than a single security.



Illustrative examples. Diversification does not eliminate the risk of market loss.

Focus on What You Can Control

- **Create an investment plan to fit your needs and risk tolerance.**
- **Structure a portfolio along the dimensions of expected returns.**
- **Diversify globally.**
- **Manage expenses, turnover, and taxes.**
- **Stay disciplined through market dips and swings.**

A financial advisor can offer expertise and guidance to help you focus on actions that add value. This can lead to a better investment experience.

Investing involves risks including possible loss of principal. International investing involves special risks such as currency fluctuation and political instability. Investing in emerging markets may accentuate these risks. Diversification does not eliminate the risk of market loss. This is for informational purposes only and is not to be construed as investment or tax advice. Talk to your financial advisor prior to making an investment decision.



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MANAGING WEALTH

For a Life of Purpose

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