

# Performance of the Premiums (and what's a *premium*?)

presented by Dr. Dave Yeske, CFP®



### Performance of "Premiums" in the Stock Markets

- Market Prices Contain Relevant Information
- Dimensions of Expected Returns
- Yearly Observations of the Premiums
- Historical Observations of Five-Year Premiums
- Historical Observations of 10-Year Premiums
- Historical Performance of the Premiums over Rolling Periods



**Market Prices Contain Relevant Information** 

Prices reflect the aggregate expectations of market participants.

Fairly priced securities can have different expected returns.

Efficiently capturing higher expected returns requires the rational use of information contained in security prices.



### **Dimensions of Expected Returns**

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

DIMENSIONS POINT TO SYSTEMATIC DIFFERENCES IN EXPECTED RETURNS



To be considered a dimension of expected return, a premium must be:

- Sensible
- Persistent
- Pervasive
- Robust
- Cost-effective

These are also known as "Risk Factors" or "Priced Risk Factors."



## Relative Price, aka "Value"

The total value of all of a company's stuff is called its "Book Value"





	ABC, Inc	XYZ, Inc
Book value per share	\$3	\$3
Market price per share	\$6	\$15
Price-to-Book Ratio	2.00	5.00
	"Value"	"Growth"



### **Dimensions of Expected Returns**

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



#### 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 parther

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Equity, size, and relative price: US Markets



Equity, size, and relative price: Developed ex US Markets



Equity, size, and relative price: Emerging Markets



Market minus one-month Treasury bills: US Markets 1928–2018



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In USD. Yearly premiums are calculated as the difference in one-year returns between the two indices described. Market minus Bills: Fama/French Total US Market Research Index minus the One-Month US Treasury Bill. 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.

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Small cap minus large cap: US Markets 1928–2018



· Arithmetic Average of Annual Premiums

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In USD. Yearly premiums are calculated as the difference in one-year returns between the two indices described. Small Cap minus Large Cap: Dimensional US Small Cap Index minus the S&P 500 Index.

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Value minus growth: US Markets 1928–2018



· Arithmetic Average of Annual Premiums

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Equity, size, and relative price: US Markets



Equity, size, and relative price: **Developed ex US Markets** 



Equity, size, and relative price: **Emerging Markets** 



Market minus one-month Treasury bills: US Markets 1932–2018



#### 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. 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.

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Small company minus large company returns: US Markets 1932–2018



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Value minus growth: US Markets 1932–2018



#### 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. Value minus Growth: Fama/French US Value Research Index minus the Fama/French US Growth Research Index.

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Equity, size, and relative price: US Markets



Equity, size, and relative price: **Developed ex US Markets** 



Equity, size, and relative price: Emerging Markets



Market minus one-month Treasury bills: US Markets 1937–2018



#### Information provided by Dimensional Fund Advisors LP.

In USD. 10-year premiums are calculated as the difference in annualized 10-year returns between the two indices described. Market minus Bills: Fama/French Total US Market Research Index minus the One-Month US Treasury Bill. 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.

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Small company minus large company returns: US Markets 1937–2018



#### Information provided by Dimensional Fund Advisors LP.

In USD. 10-year premiums are calculated as the difference in annualized 10-year returns between the two indices described. Small Cap minus Large Cap: Dimensional US Small Cap Index minus the S&P 500 Index. 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.

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Value minus growth: US Markets 1937–2018



#### Information provided by Dimensional Fund Advisors LP.

In USD. 10-year premiums are calculated as the difference in annualized 10-year returns between the two indices described. Value minus Growth: Fama/French US Value Research Index minus the Fama/French US Growth Research Index.

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### Value minus growth: US Markets 1937–2018

LOWEST TO HIGHEST



#### Information provided by Dimensional Fund Advisors LP.

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### **Dimensions of Expected Returns**

<u>10-year annualized premiums (2009–2018)</u>: US, Developed ex US, and Emerging Markets



#### Information provided by Dimensional Fund Advisors LP.

All returns are in USD. MSCI indices are gross div. 10-year premiums are calculated as the difference in annualized 10-year returns between the two indices described. 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 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 Growth Index. High Prof minus Low Prof: Dimensional International High Profitability Index minus the Dimensional Value Index minus the Fama/French International Growth Index. High Prof minus Low Prof: Dimensional International High Profitability Index minus the Dimensional International Cow 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 Growth Index. High Prof minus Low Prof: Dimensional 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 minus the Dimensional Emerging Markets High Profitability Index minus the Dimensional Emerging Markets Low Profitability Index. Profitability Index minus the Dimensional Emerging Markets Low Profitability Index. Profitability Index minus the Dimensional Emerging Markets Low Profitability Index. Profitability Index minus the Dimensional Emerging Markets Low Profitability Index. Profitability Index minus the Dimensional Emerging Markets Low Profitability Index. Profitability Index minus the Dimensional Emerging Markets Low Profitability Index. P

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### Historical Performance of Premiums over Rolling Periods US Markets



There are 991 overlapping 10-year periods, 1,051 overlapping 5-year periods, and 1,099 overlapping 1-year periods.



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 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.

#### 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 partire 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 Odivision of S&P Global. All rights reserved.



### Historical Performance of Premiums over Rolling Periods **Developed ex US Markets**



Growth is Fama/French International Growth Index.

There are 409 overlapping 10-year periods, 469 overlapping 5-year periods, and 517 overlapping 1-year periods.

#### Overlapping Periods: January 1970–December 2018

and 517 overlapping 1-year periods.



Small is Dimensional International Small Cap Index.

Large is MSCI World ex USA Index (gross div.).

There are 469 overlapping 10-year periods, 529 overlapping 5-year periods, and 577 overlapping 1-year periods.

There are 409 overlapping 10-year periods, 469 overlapping 5-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.

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### Historical Performance of Premiums over Rolling Periods **Emerging Markets**



T-Bills is One-Month US Treasury Bills.

There are 241 overlapping 10-year periods, 301 overlapping 5-year periods, and 349 overlapping 1-year periods.



Value is Fama/French Emerging Markets Value Index. Growth is Fama/French Emerging Markets Growth Index. There are 241 overlapping 10-year periods, 301 overlapping 5-year periods, and 349 overlapping 1-year periods.

#### Overlapping Periods: January 1989–December 2018



Small is Dimensional Emerging Markets Small Index.

Large is MSCI Emerging Markets Index (gross div.).

There are 241 overlapping 10-year periods, 301 overlapping 5-year periods, and 349 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 quarantee 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. All rights reserved. MSCI data @ MSCI 2019, all rights reserved.



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