

Investing Ideas from the Morningstar Index Team

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Index Strategist
June 25, 2019

MORNINGSTAR®

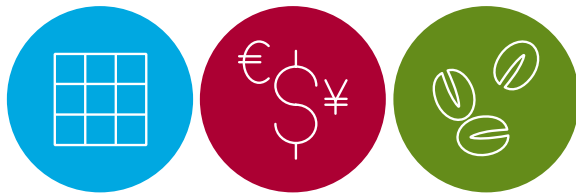
POLL: What's Your Highest Conviction Asset Class for the next 10 Years?

1. US Stocks
2. International Stocks
3. Bonds
4. Commodities

Poll Result

Morningstar Indexes

Market exposure



Multi-asset class



Strategic beta



Sustainable global economy



Unique Morningstar Indexes

800+

Investment Products Linked to Morningstar Indexes

95

AUM Linked/Benchmarked to Morningstar Indexes

\$58B/\$200B

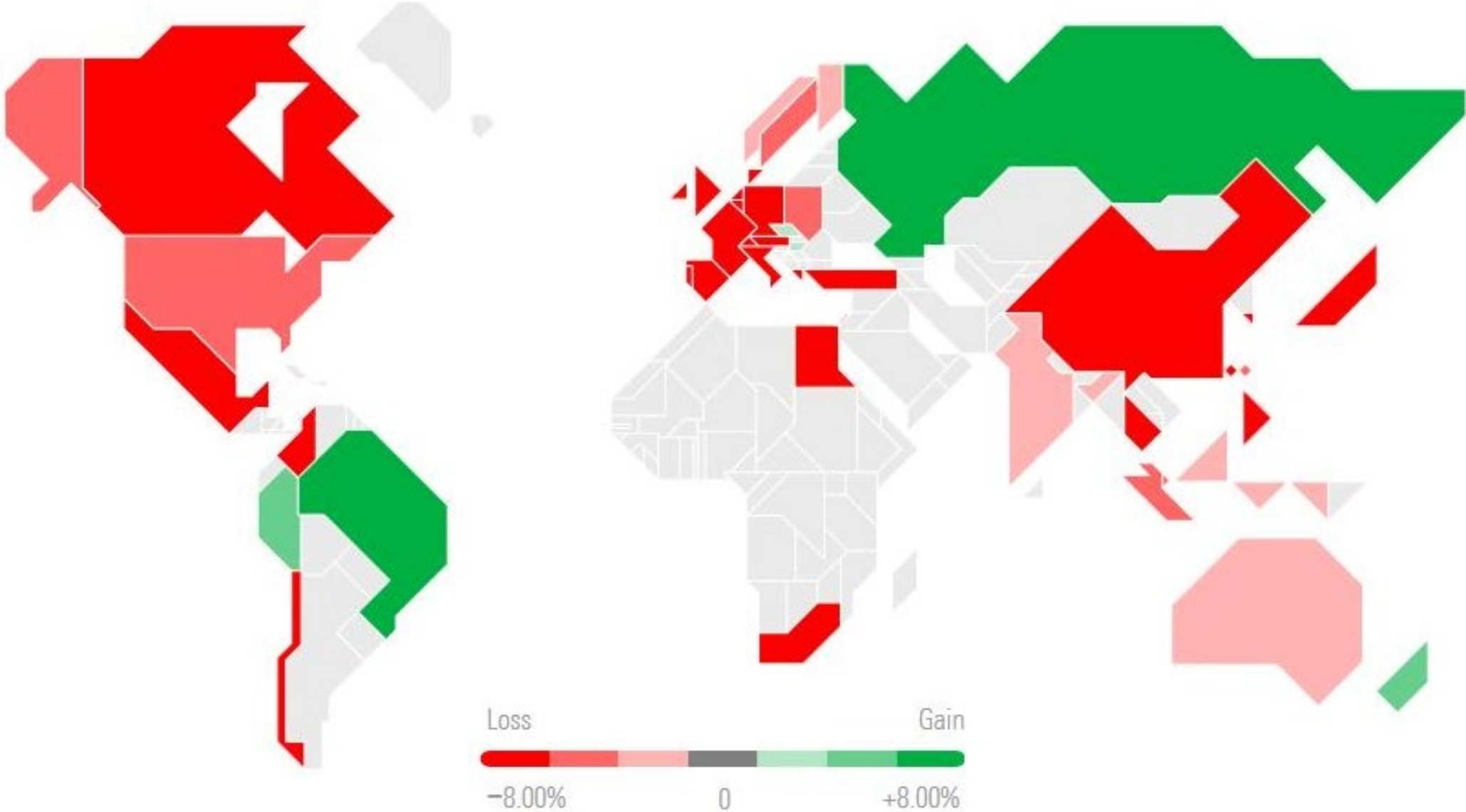
Source Morningstar. Data as of May 31, 2019.

2019 – So Far, So Good for Global Equity Markets



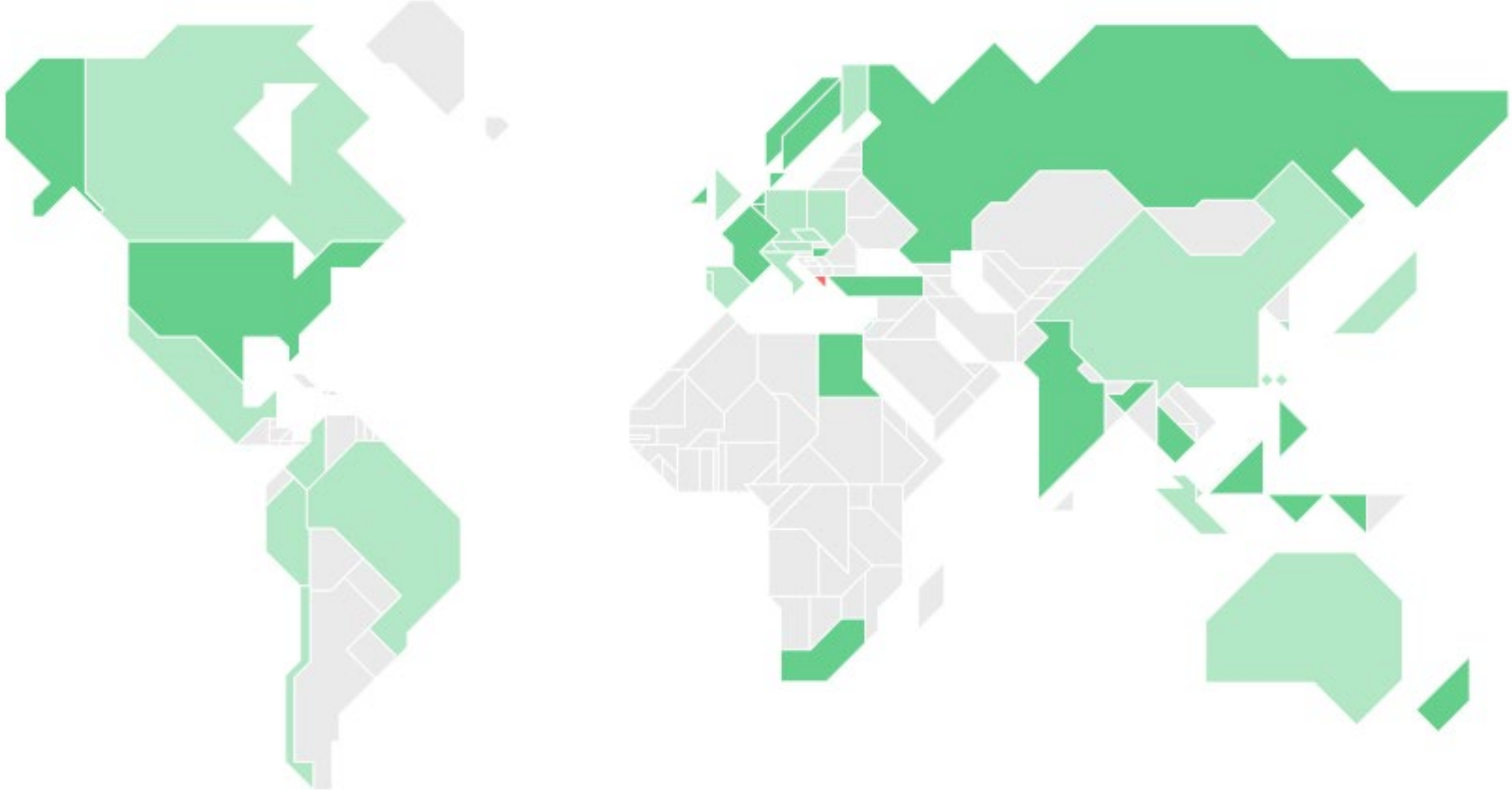
Source Morningstar. Data as of June 15, 2019.

2018 – A Difficult Year for Global Equity Markets

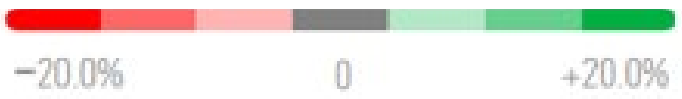


Source Morningstar. Data as of Dec 31, 2018.

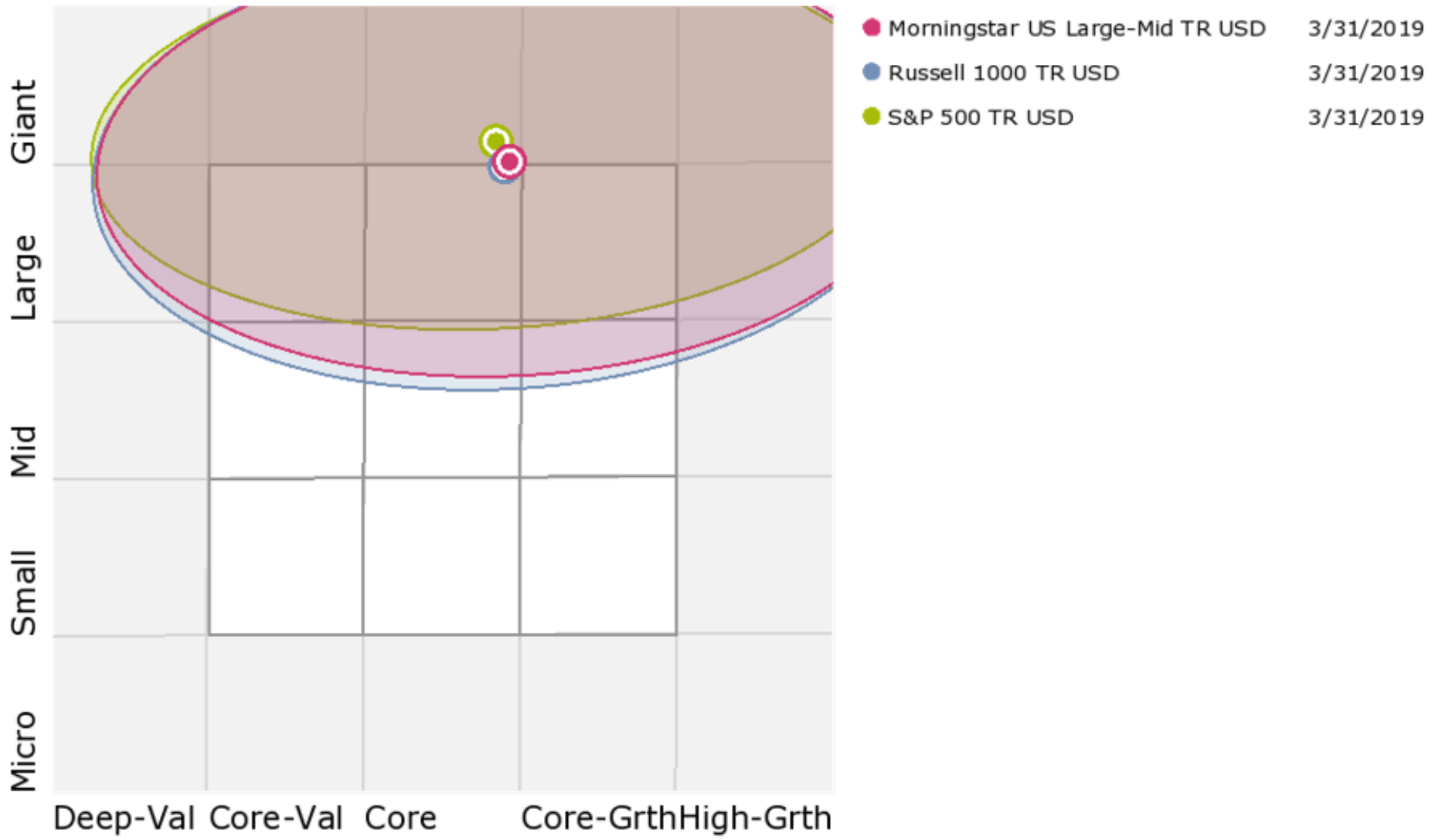
10 Year Returns – Above Long-Term Trend



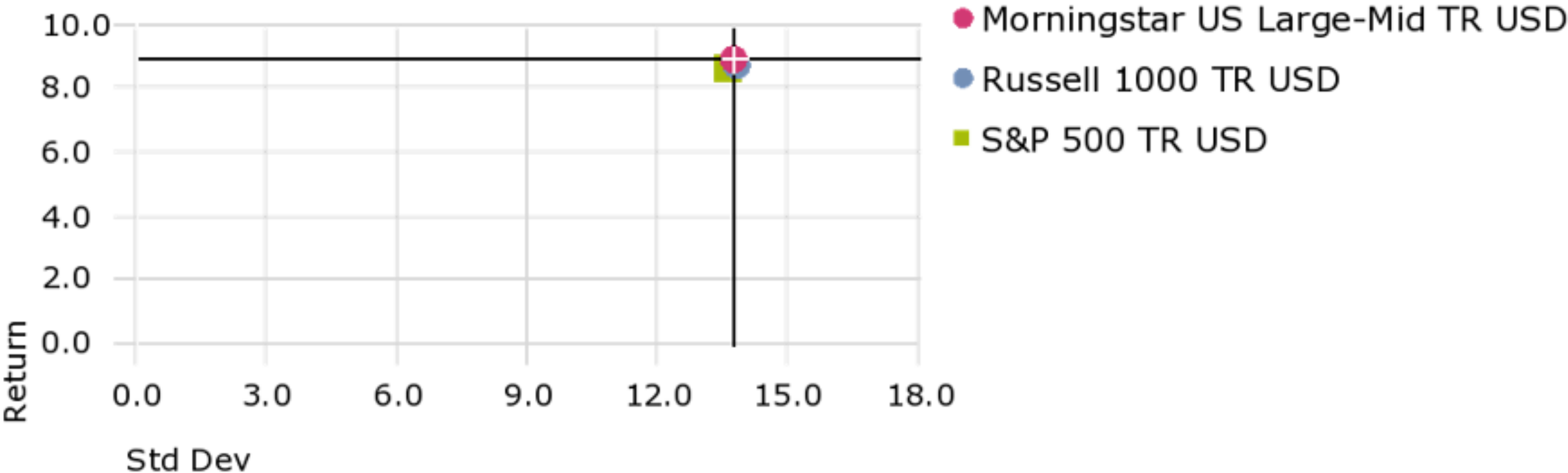
Source Morningstar. Data as of June 15, 2019.



Beta is Interchangeable – Holdings Based Style Map



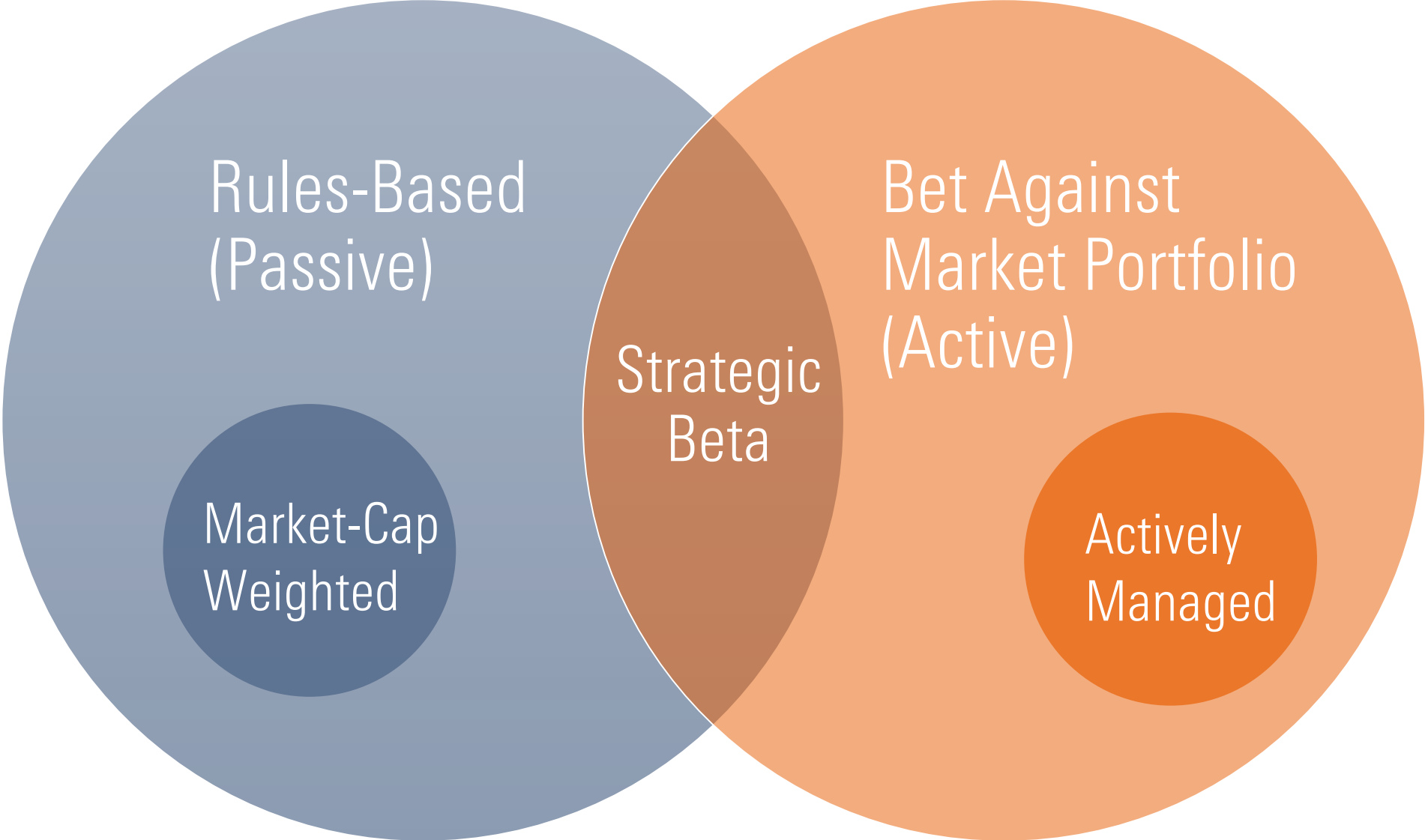
Beta is Interchangeable – Risk/Return



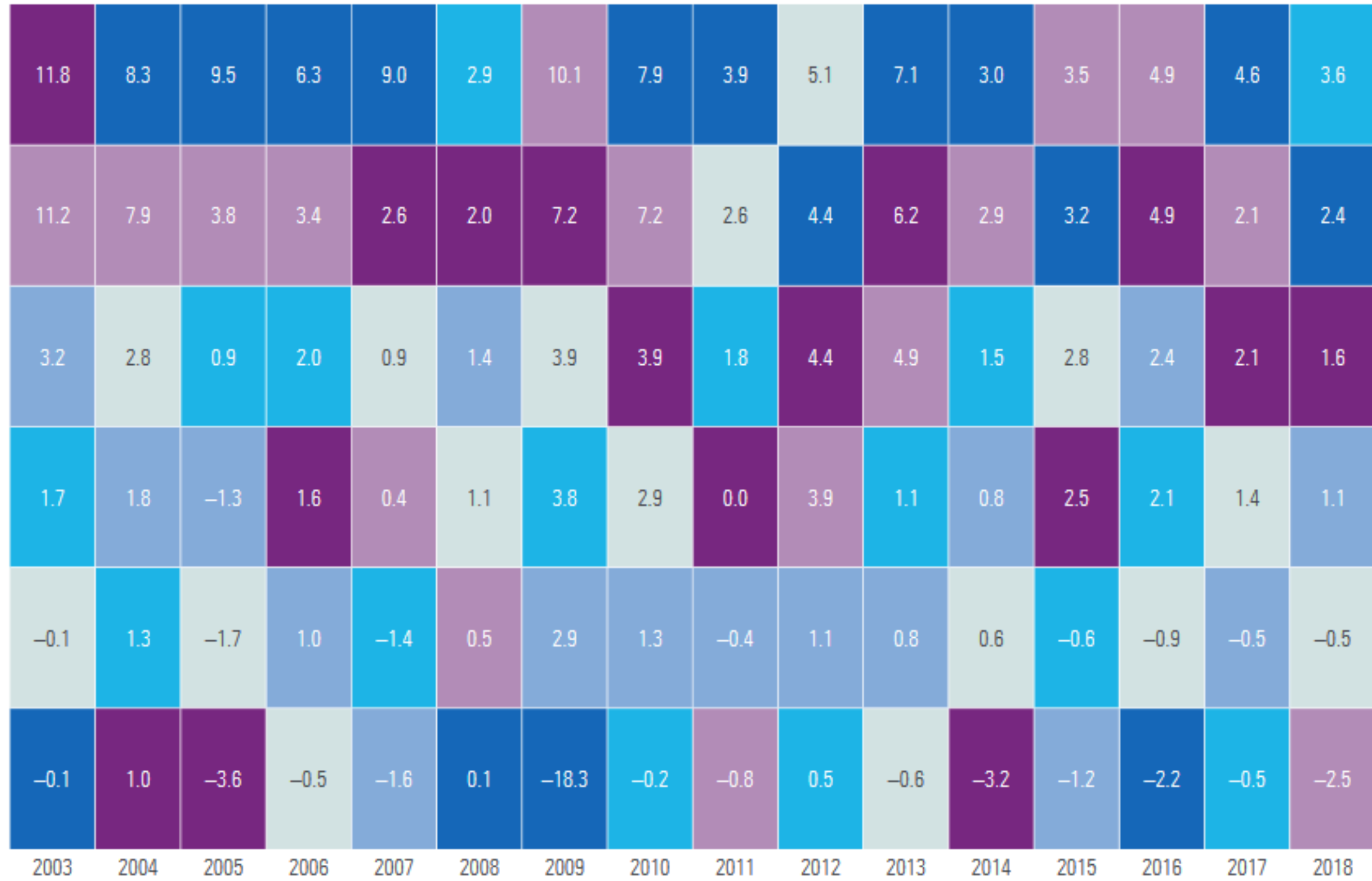
Time Period: 4/1/2004 – 3/31/2019

Strategic Beta

Strategic Beta: Active, Passive, or Both?

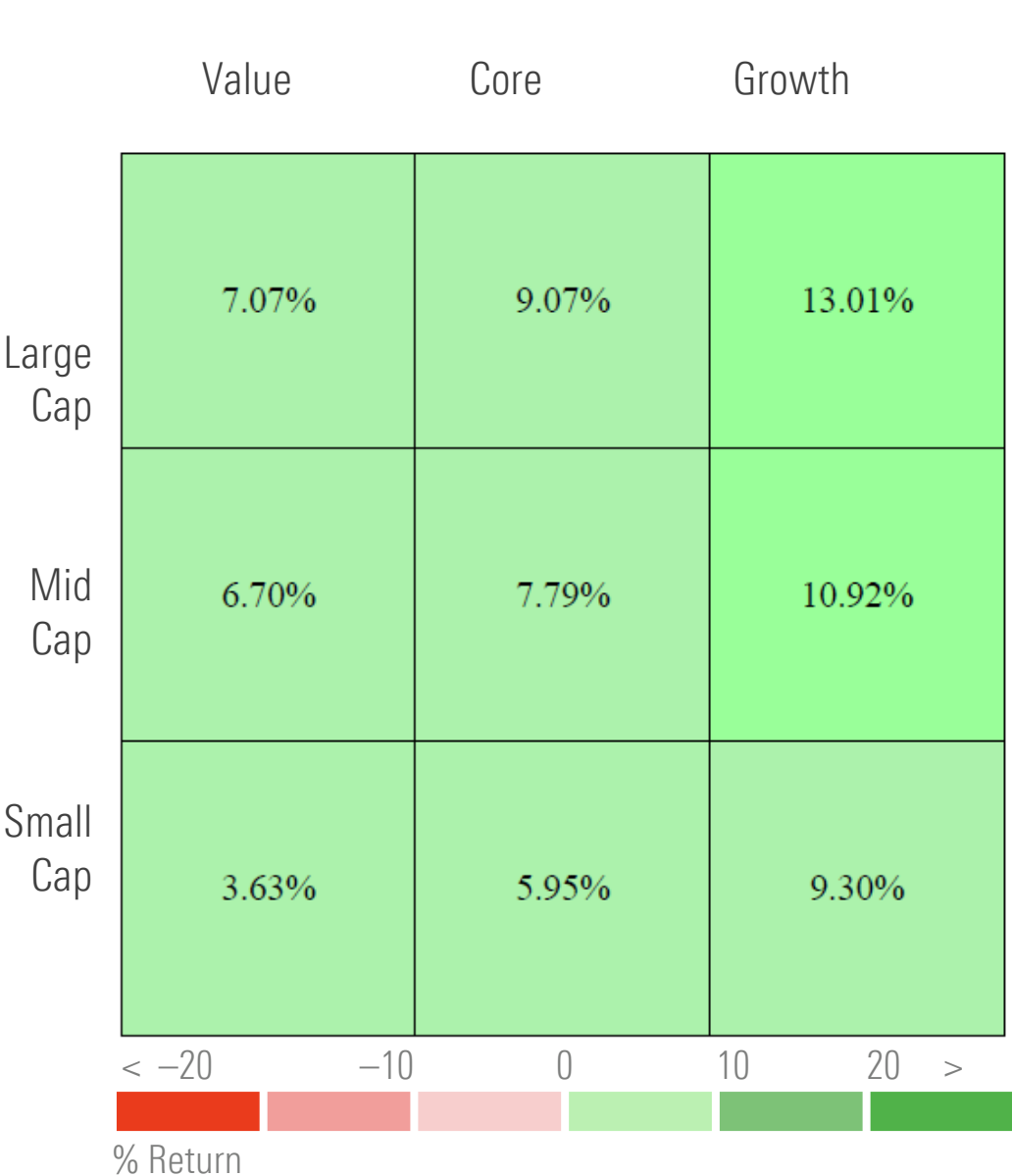


Annual Factor Premia



- Size
- Value
- Momentum
- Volatility
- Quality
- Yield

Smart Beta?



5-Year Morningstar Market Barometer (May 2019)

Source Morningstar Direct. May 31, 2019.

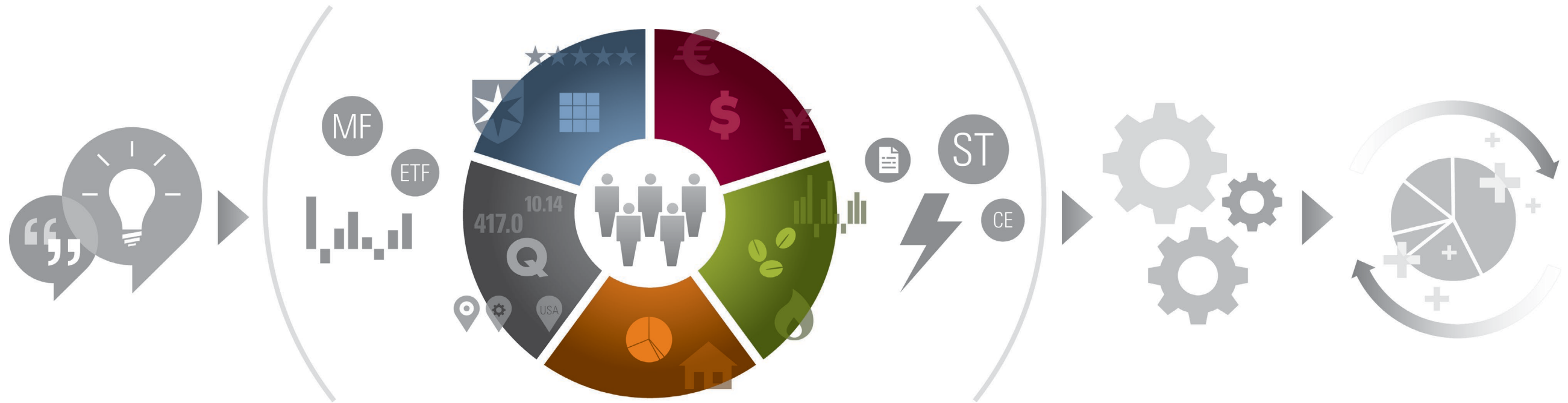
Smart Beta?



2019
Morningstar Market
Barometer
(May 2019)

Source Morningstar Direct. Data as of May 31, 2019.

Morningstar's Approach to Strategic Beta



Start With a Strong Investment Thesis

Draw from the Morningstar Investment Research Ecosystem

Design a Transparent, Rules-Based Methodology

Conduct Intellectually Honest Back-Tests

Morningstar Equity Research

116

Equity
Analysts

1,500

Companies Covered Globally

1

Methodology

Source Morningstar. Data as of May 31, 2019.

Morningstar Equity Research Coverage

Regional Coverage

Asia	235
Australia/New Zealand	190
Canada	74
Europe	286
Latin America	25
Africa and Middle East	6
United States	699
Total Global Coverage	1,515















Market Cap Coverage

 Large-cap Stocks	902
 Mid-cap Stocks	393
 Small-cap Stocks	220

The market caps were broken down by the following breakpoints:

Large cap: 10+ Billion USD
 Mid-cap: 2-10 Billion USD
 Small-cap: 0-2 Billion USD

Sector Coverage

 Cyclical	
 Basic Materials	126
 Consumer Cyclical	220
 Financial Services	203
 Real Estate	89
 Sensitive	
 Communication Services	55
 Energy	105
 Industrials	210
 Technology	156
 Defensive	
 Consumer Defensive	123
 Health Care	149
 Utilities	79

Source: Morningstar. Data as of April 26, 2019.

Morningstar® Economic Moat™ Rating

Five Sources of
Economic Moat

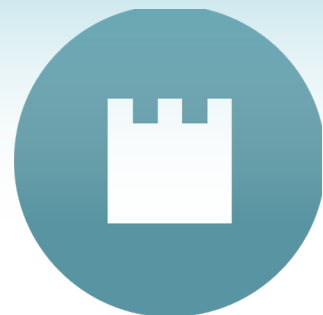
Intangible
Assets

Switching
Costs

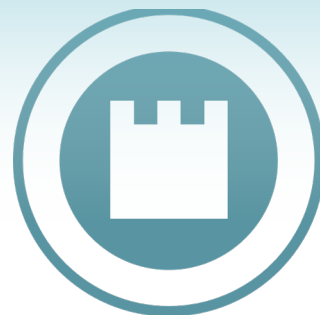
Network
Effect

Cost
Advantage

Efficient
Scale



Wide

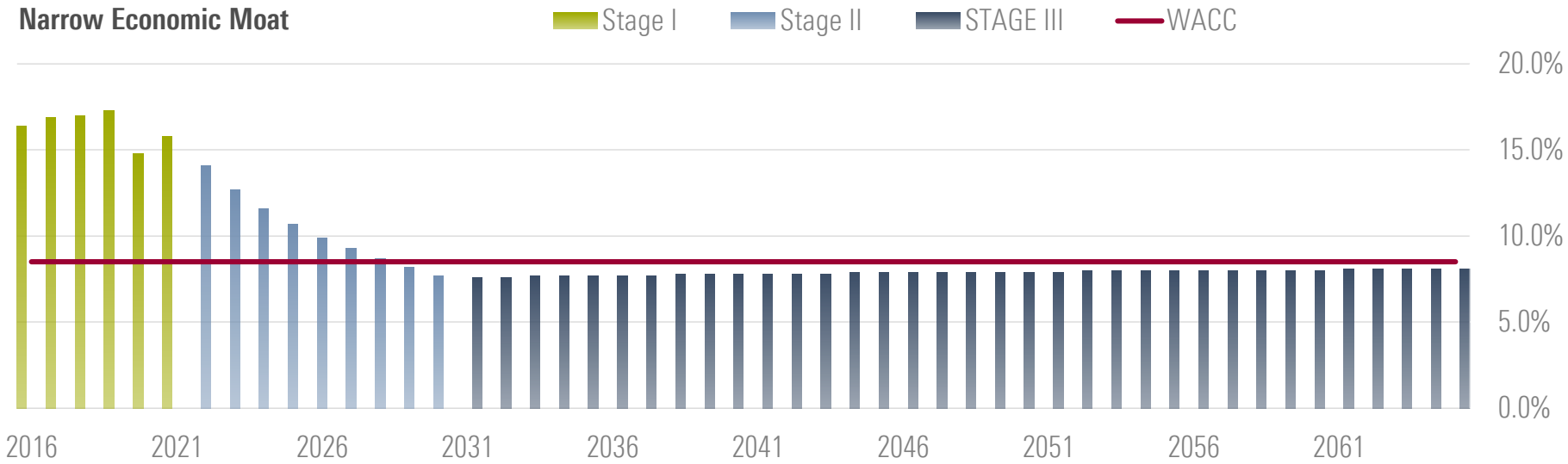
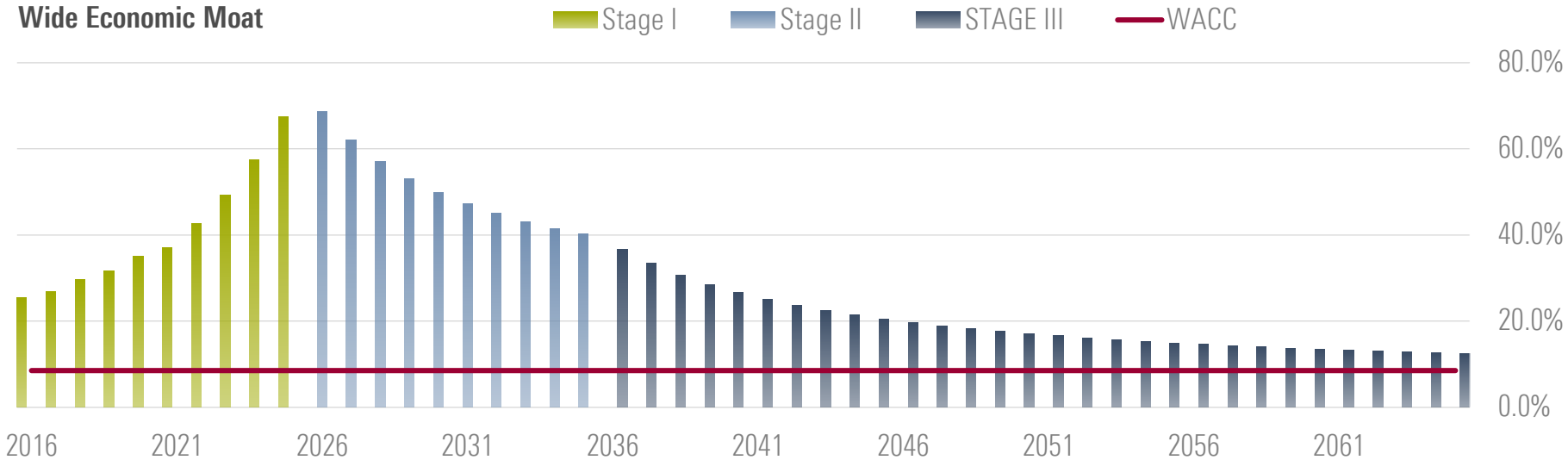


Narrow

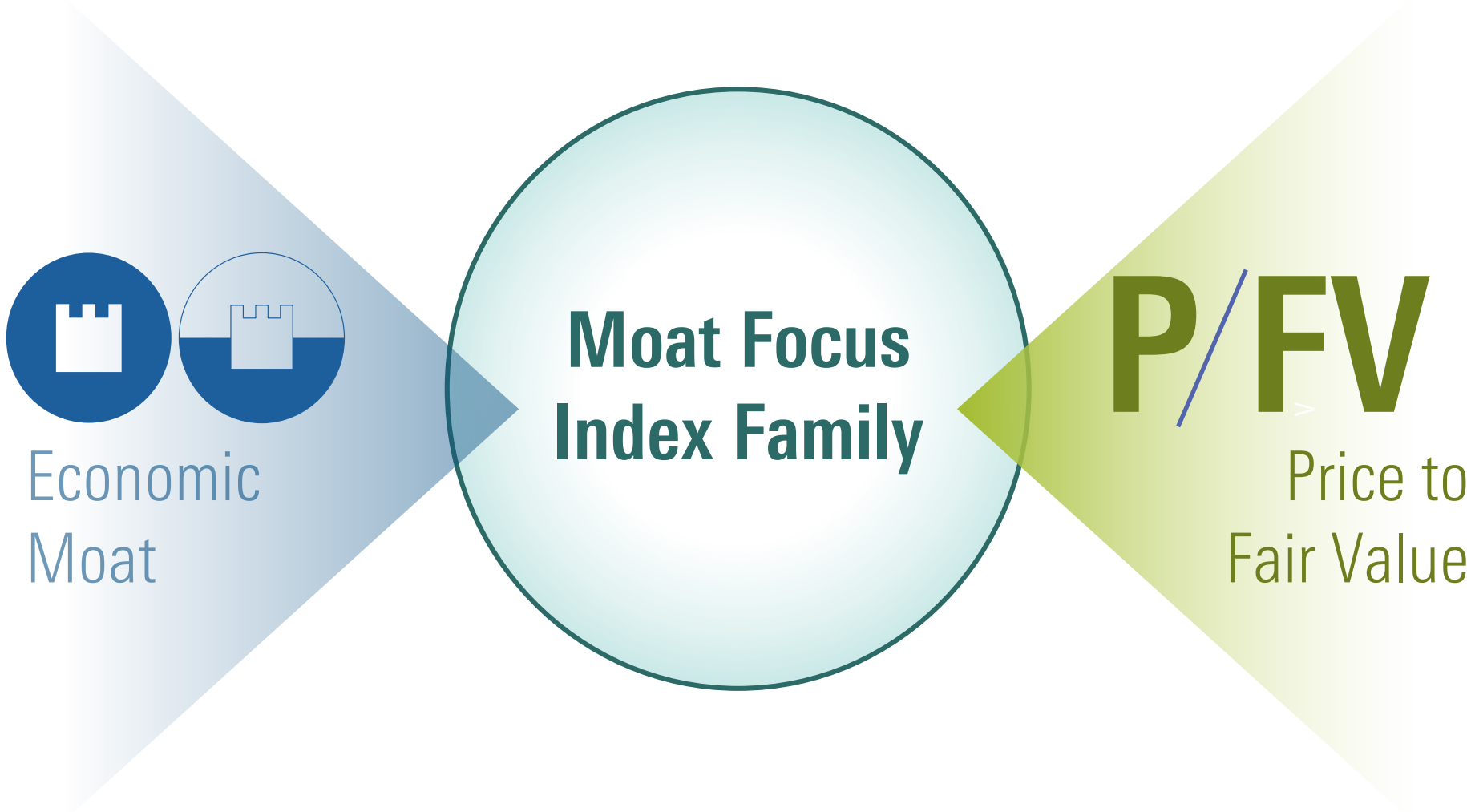


None

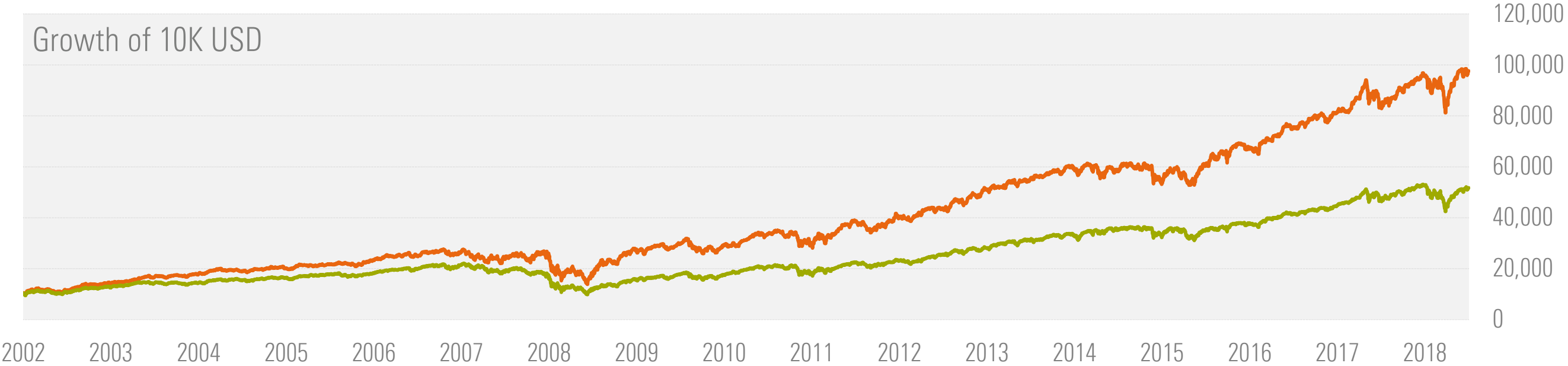
Morningstar Equity Research – Discounted Cash Flow Modelling



Morningstar Indexes' Approach to Strategic Beta



Morningstar Wide Moat Focus Index Track Record



Trailing Annualized Returns (%)	1-Year	3-Year	5-Year	10-Year	Since Inception (9/30/2002)
Morningstar® Wide Moat Focus IndexSM	15.1	17.0	12.0	18.8	14.8
Morningstar® US Market IndexSM	9.0	13.6	10.5	16.1	10.5

Source Morningstar. Data through March 31, 2019.

Moat Focus Index Valuation

Index Name	Price / Fair Value
Morningstar US Market	1.01
Morningstar (US) Wide Moat Focus	0.87
Morningstar Global Markets ex-US	0.95
Morningstar Global ex-US Moat Focus	0.76

Source Morningstar. Data as of June 15, 2019.

Moat Focus – Good Values

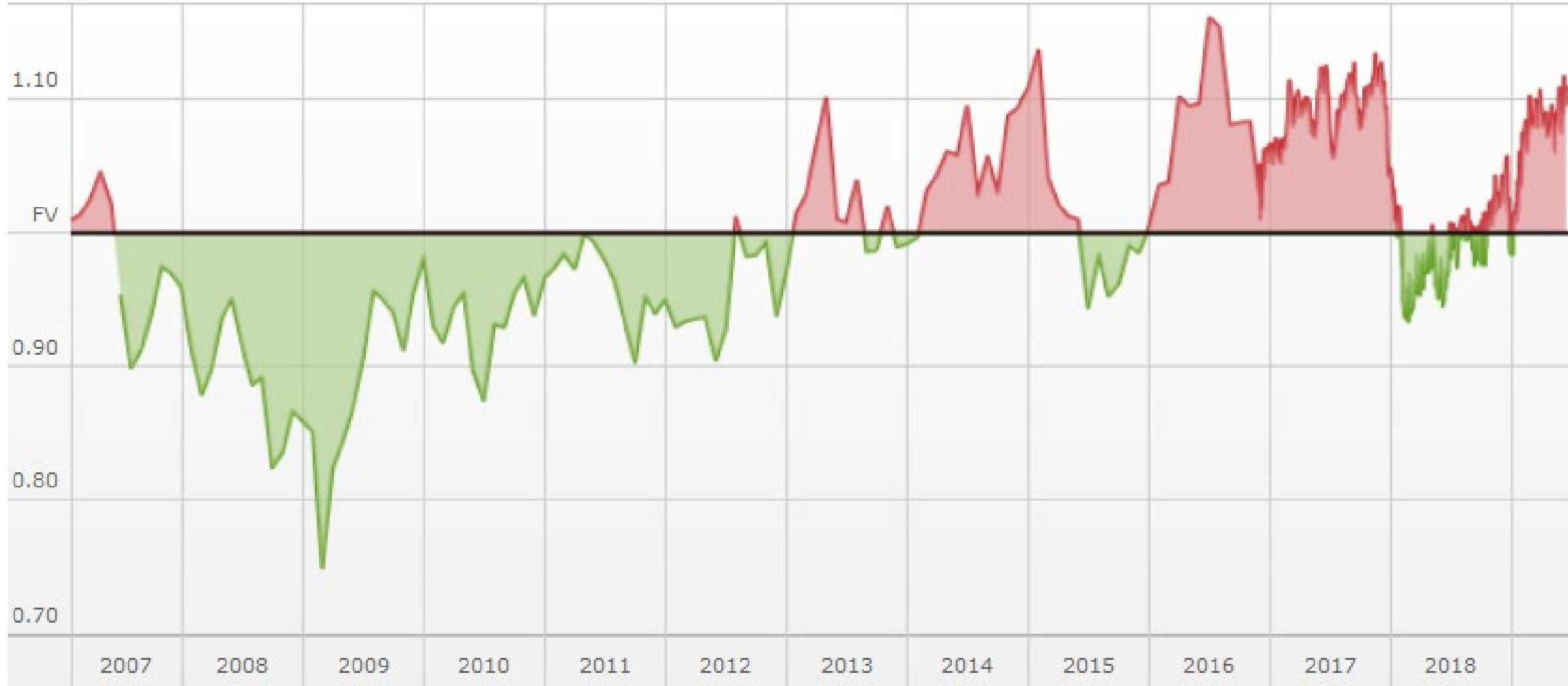
Index Constituent	Price / Fair Value (1.00=Fair Value)
Compass Minerals	0.67
Jones Lang LaSalle	0.73
Microchip Technology	0.75
Amazon.com	0.78
General Dynamics	0.84

Source Morningstar. Data as of June 15, 2019.

Utilities – Overvalued

Coverage Universe: **Utilities** | Today's Ratio: 1.11

1/31/2007 - 6/12/2019 — Fair Value ● Overvalued ● Undervalued



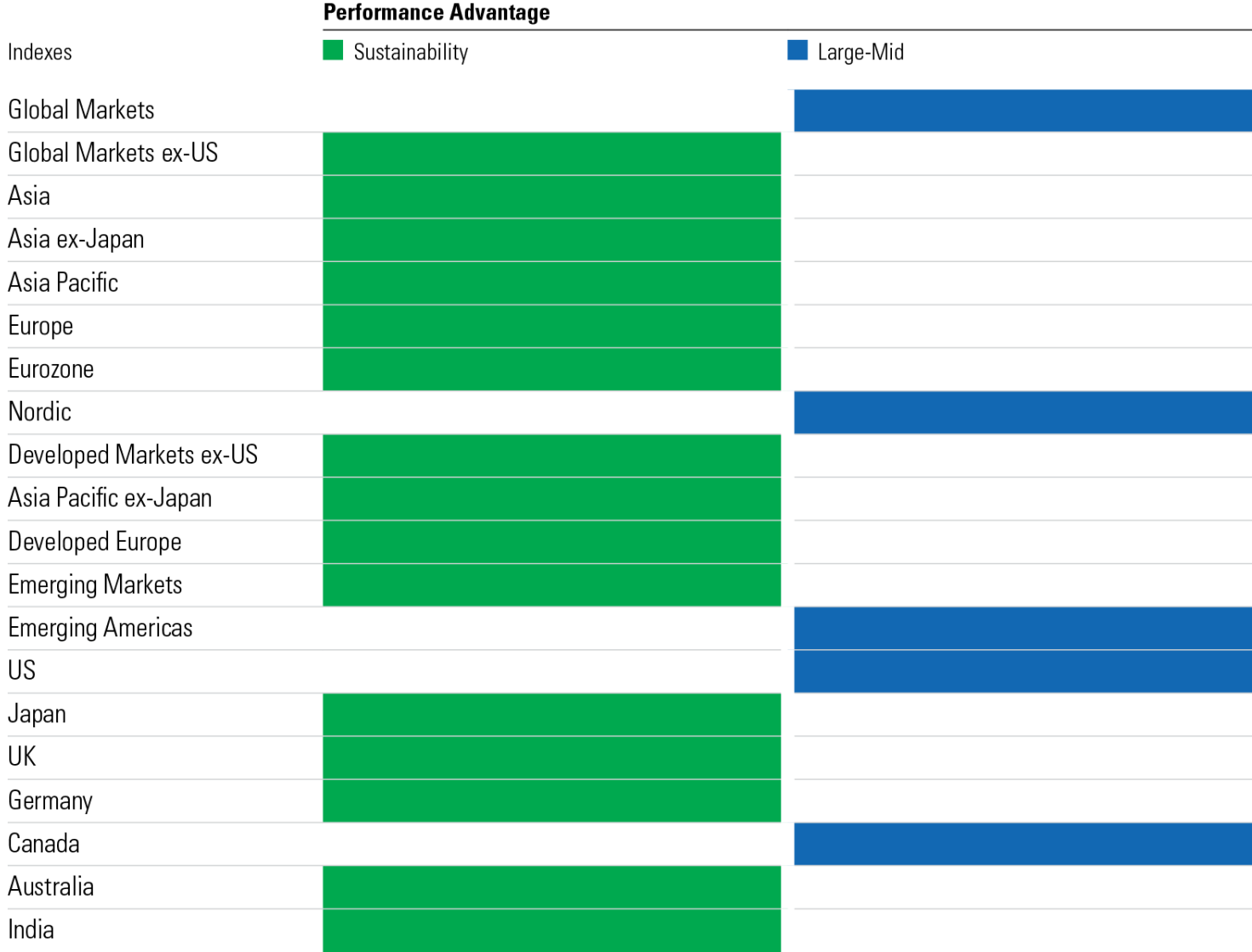
Source Morningstar Direct. Data as of June 15, 2019.

Sustainability

Dimensions of Sustainability

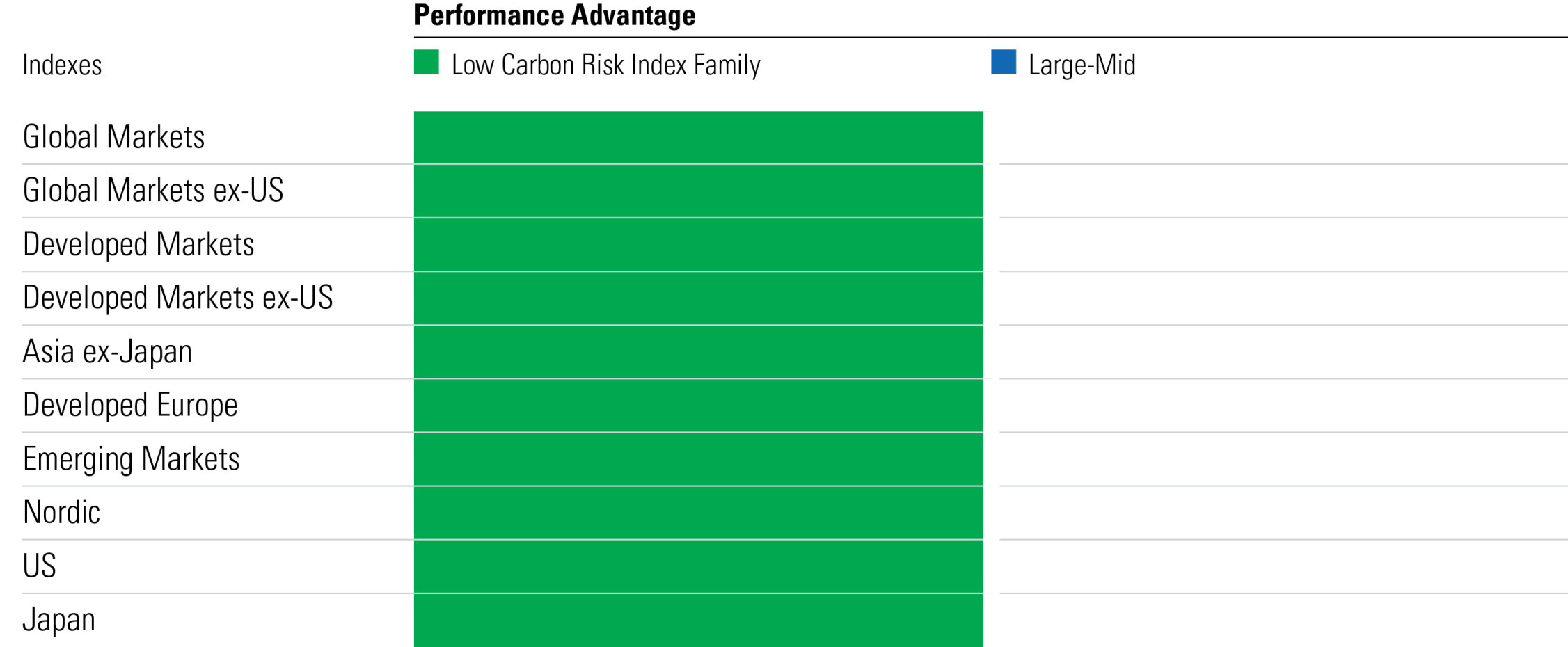


Morningstar ESG-Screened Index Performance



Source: Morningstar Direct. Data as of 31 December 2018. Inception date December 2009/December 2011.

Morningstar Low Carbon Risk Index Performance



Source: Morningstar Direct. Data as of 31 December 2018. Inception date December 2009/December 2011.

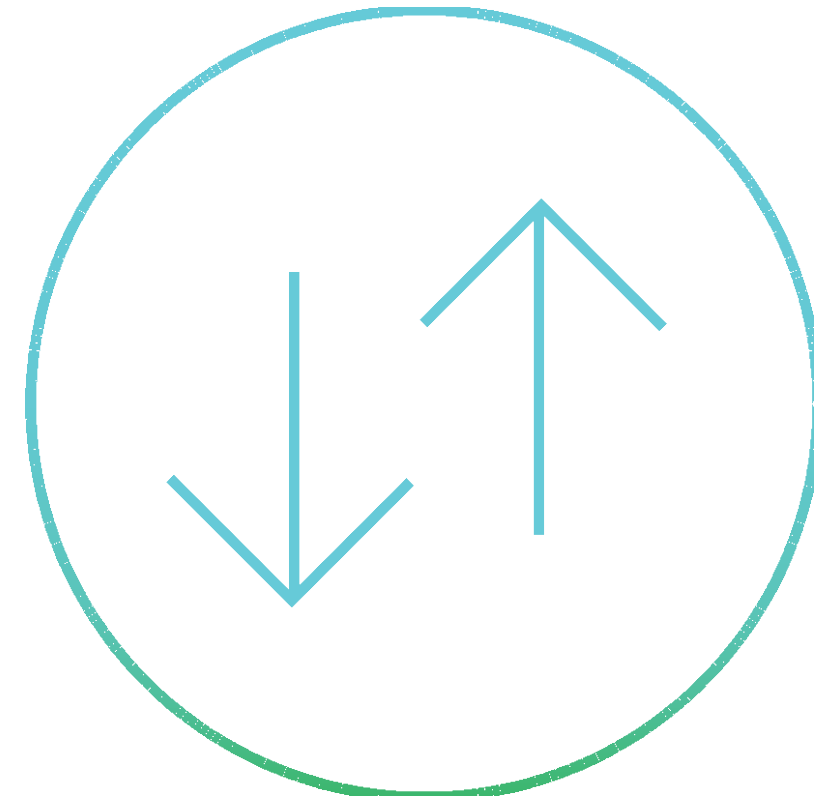
Morningstar Sustainability Indexes: Risk Factor Exposures



Quality



Financial Health



Low Volatility

Fixed-Income

“return-**free** risks”

“**end** of the 30-year bull market for bonds”

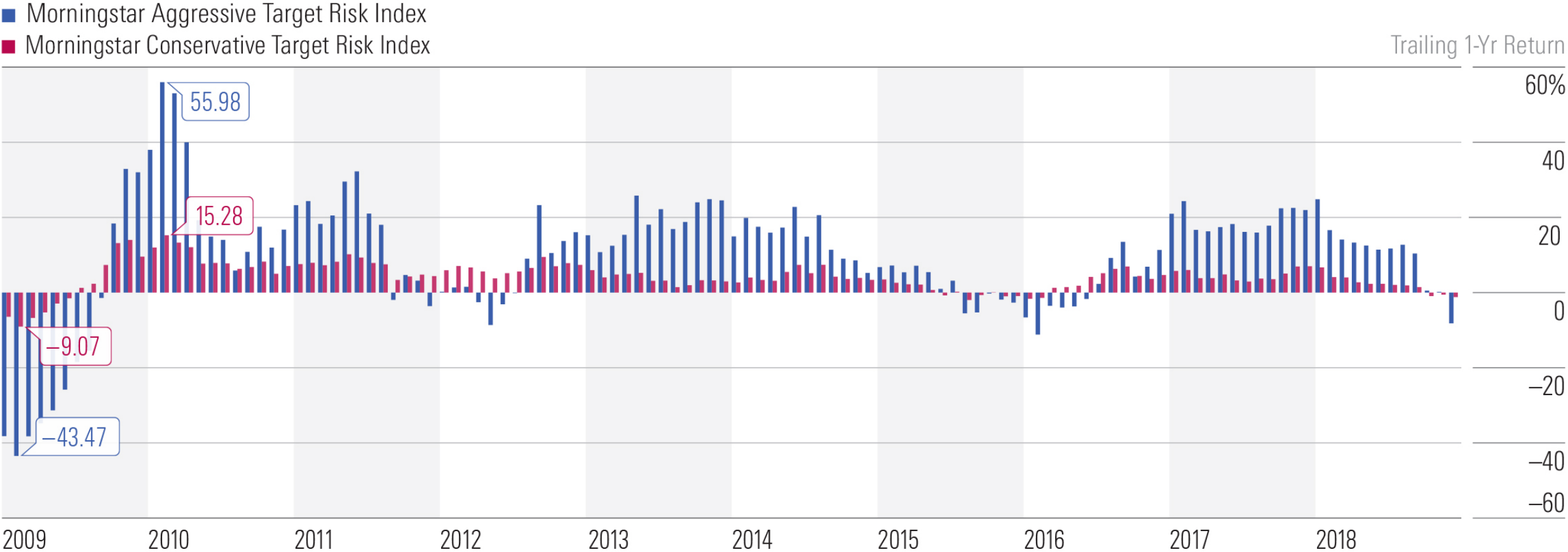
“no longer a **safe** investment bet”

Multi-Asset Investing – A Decade of Equity Dominance

Index	10-Yr Annlzd Ret %
Morningstar Aggressive Target Risk Index	10.61
Morningstar Moderately Aggressive Target Risk Index	9.48
Morningstar Moderate Target Risk Index	7.97
Morningstar Moderately Conservative Target Risk Index	6.26
Morningstar Conservative Target Risk Index	4.37

Source Morningstar Direct. Data as of Dec. 31, 2018.

Bonds – Dampening Portfolio-level Volatility



Source: Morningstar Direct. Data from Jan. 1, 2009, through Dec. 31, 2018.

Source Morningstar Direct. Data as of Dec. 31, 2018.

Multi-Asset Investing – Bonds Sometimes Beat Stocks

Index	“Lost Decade” Ret% Jan 1999-Dec 2008
Morningstar Aggressive Target Risk Index	2.06
Morningstar Moderately Aggressive Target Risk Index	3.01
Morningstar Moderate Target Risk Index	3.90
Morningstar Moderately Conservative Target Risk Index	4.52
Morningstar Conservative Target Risk Index	5.17

Source Morningstar Direct. Data as of Dec. 31, 2018.

Fixed Income Landscape: Fundamental Shifts

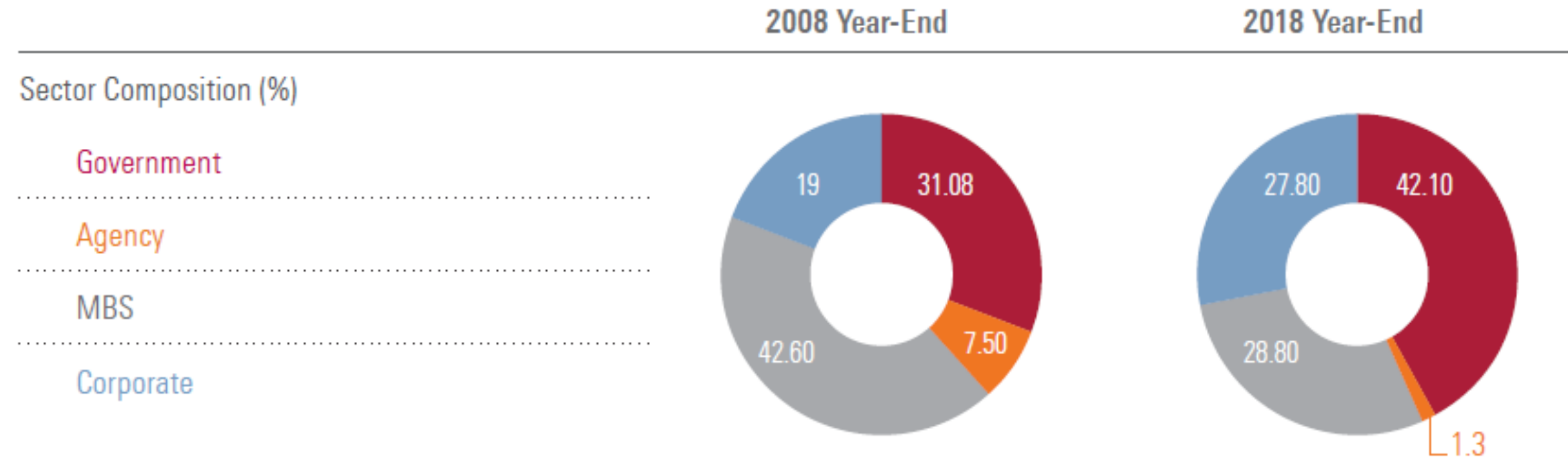
Market Composition

Secular Shift Towards Passive

Index Industry Transformation

Liquidity Challenges

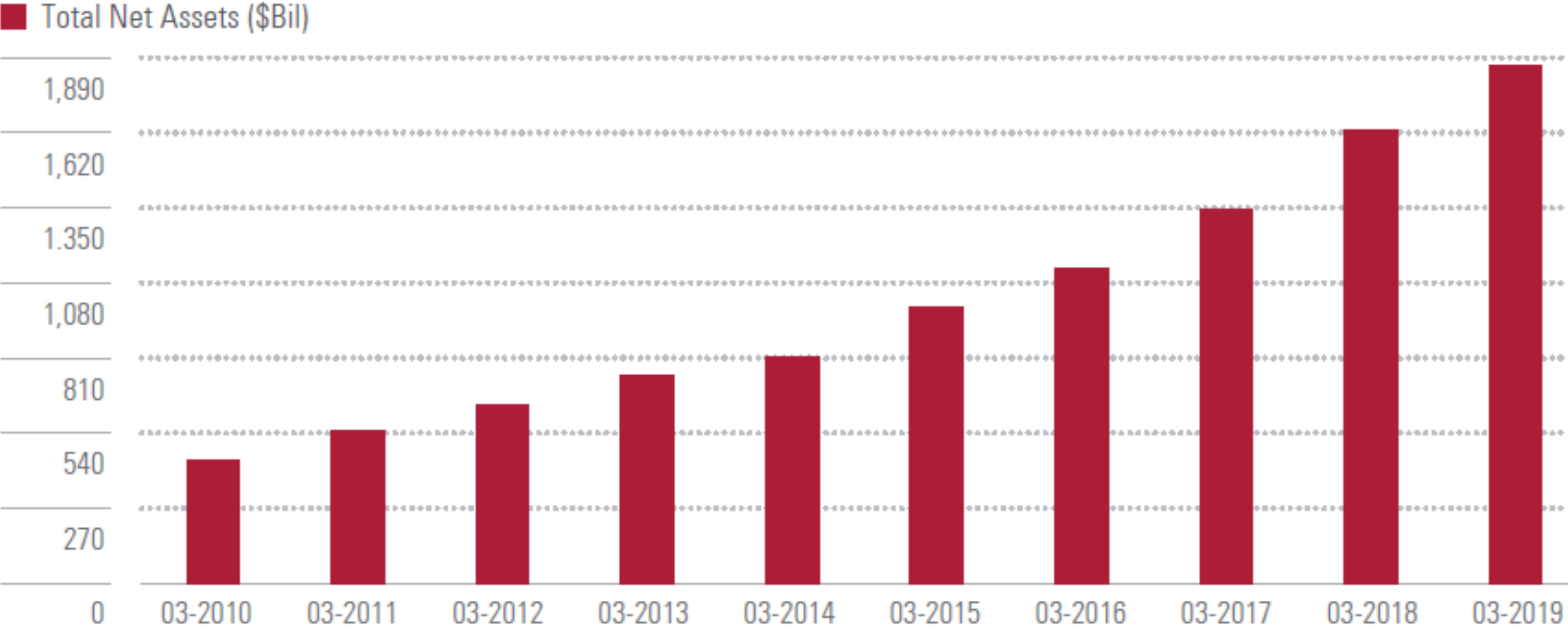
Morningstar Core Bond Index: Sector Composition



Effective Duration	4.14	5.78
BBB Credits as % of Corporate Market Value	27.80	48.90

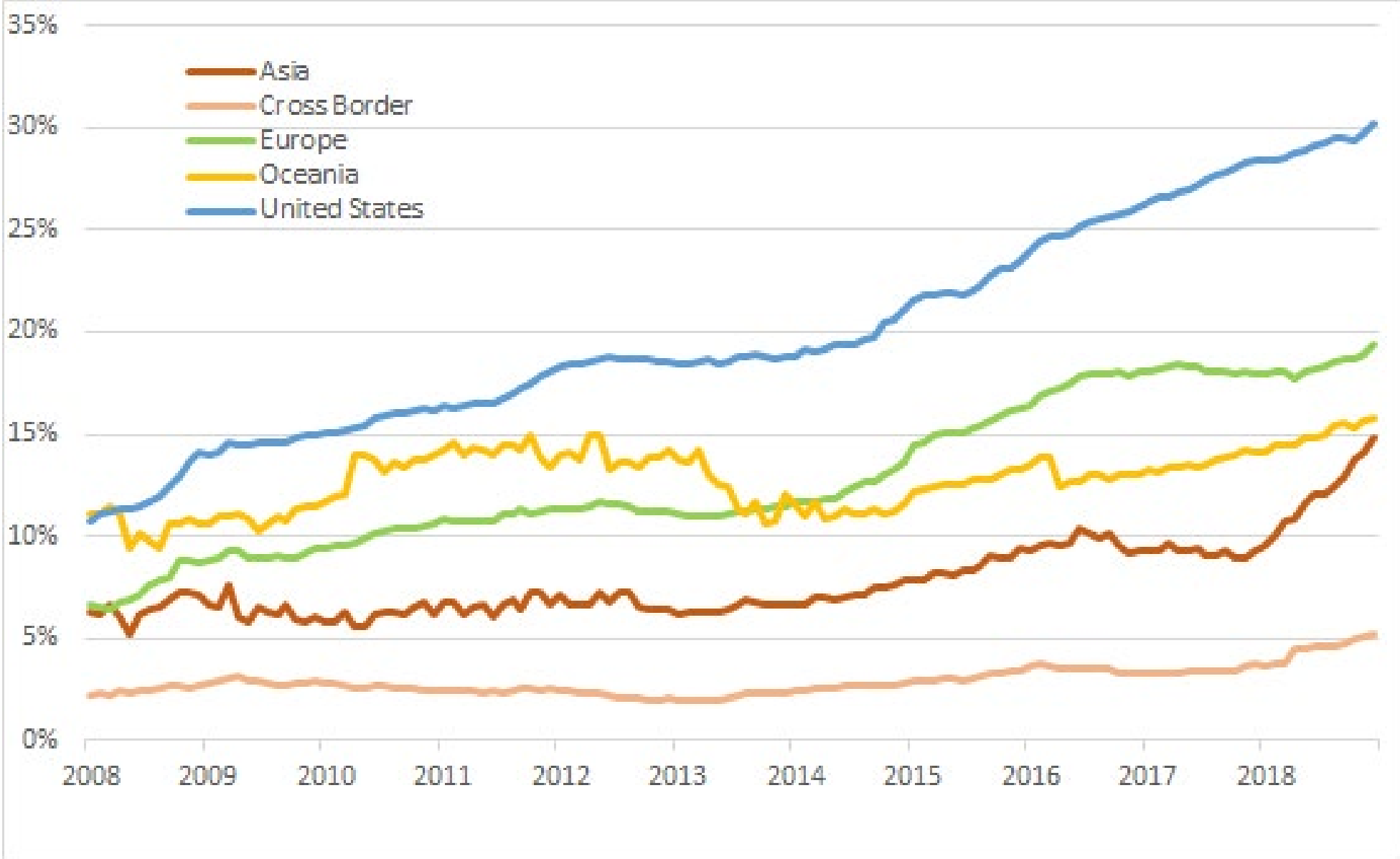
Source: Morningstar Indexes

Index-Tracking Fixed Income Mutual Funds and ETFs (Worldwide)



Source: Morningstar Direct

Passive Share Rising – Fixed Income



Source Morningstar Direct. Data as of Dec. 31, 2018.

Bond Investing: Active v. Passive

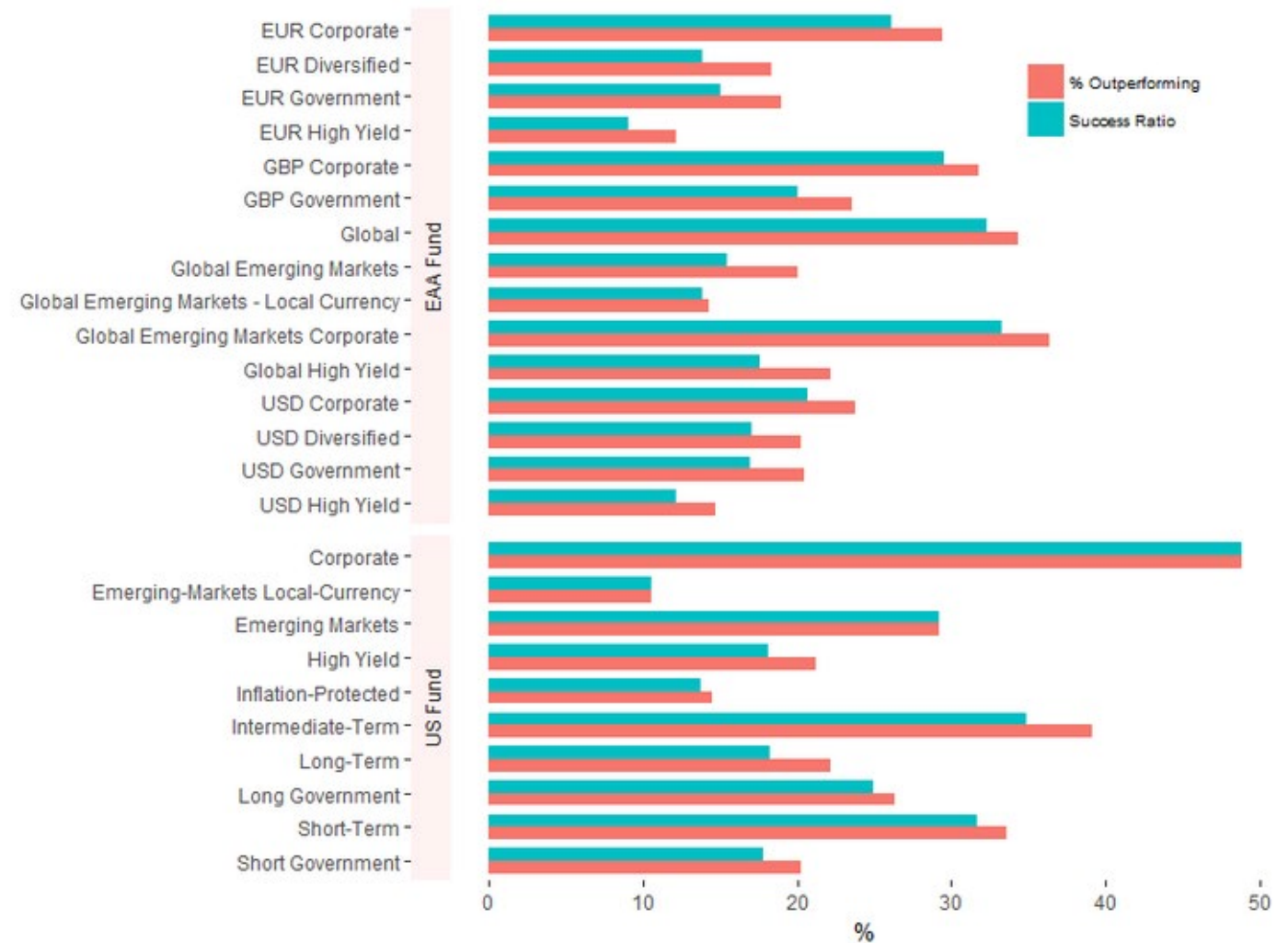
25 Fixed Income Categories Studied

- Median Fund Outperforms Gross of Fees

13/25

- Median Fund Outperforms Net of Fees

0/25



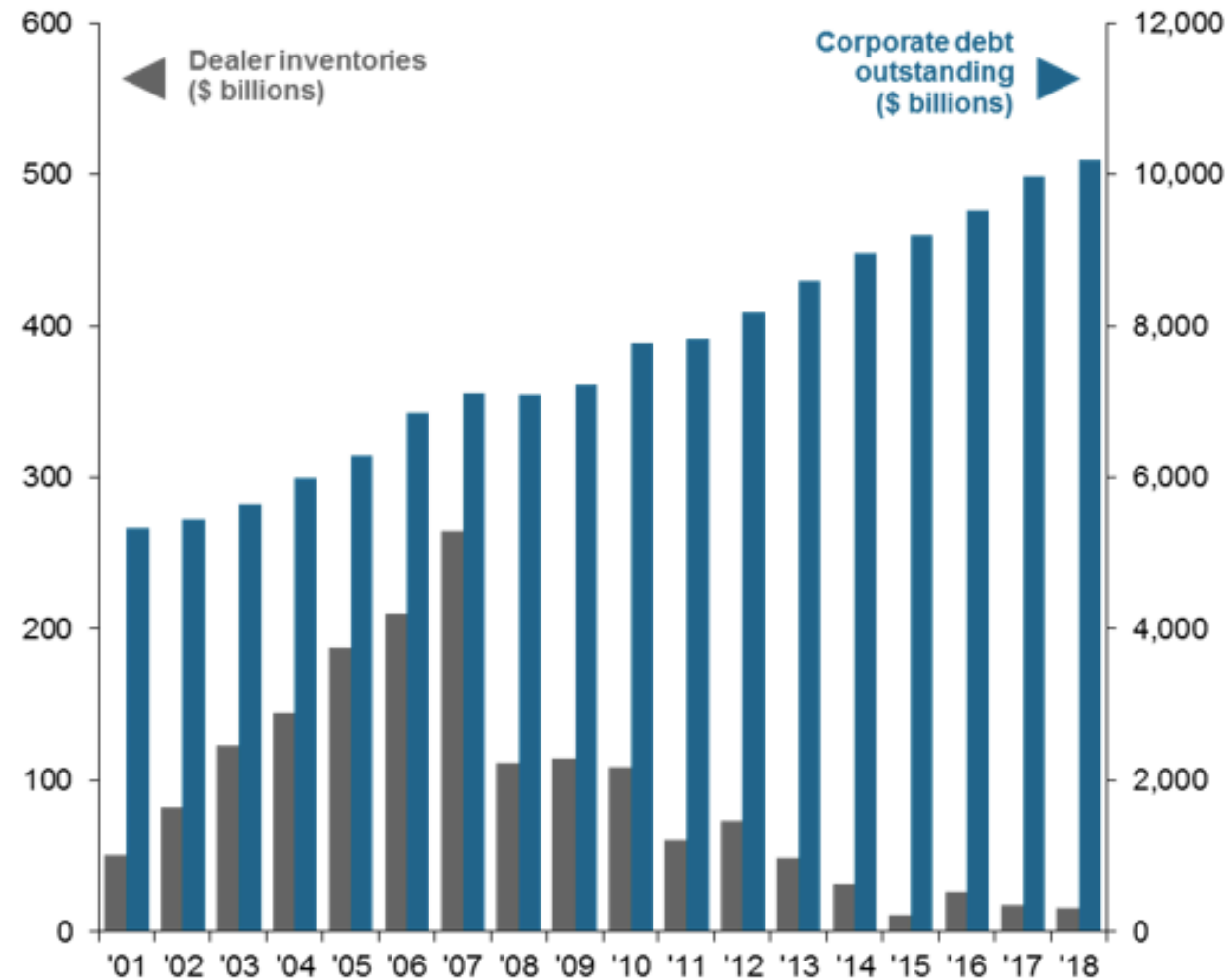
Dobrescu, Li, and Motola, "Finding Bond Funds That Can Beat Their Benchmarks After Fees." Morningstar. May 2018.

Bond Indexing



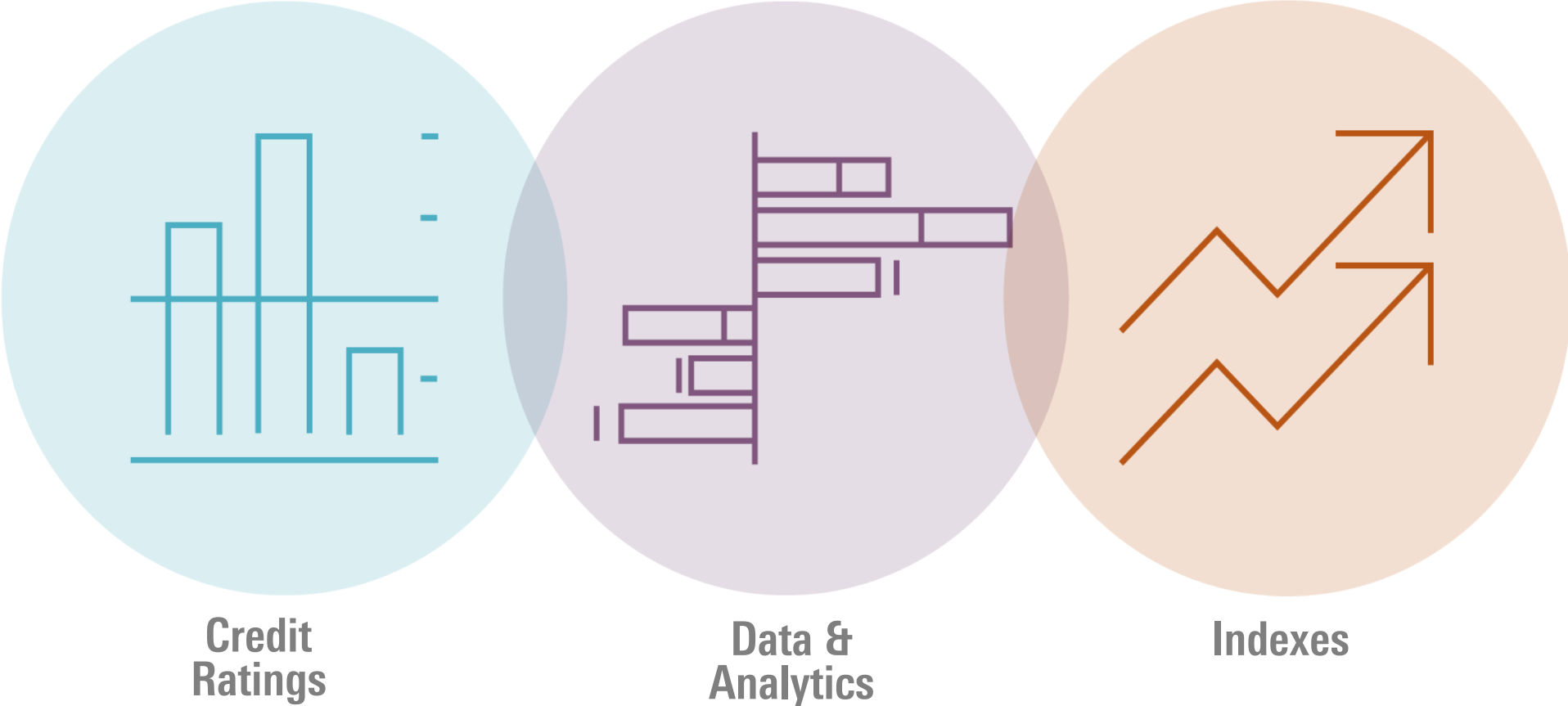
Fixed Income Liquidity Challenges

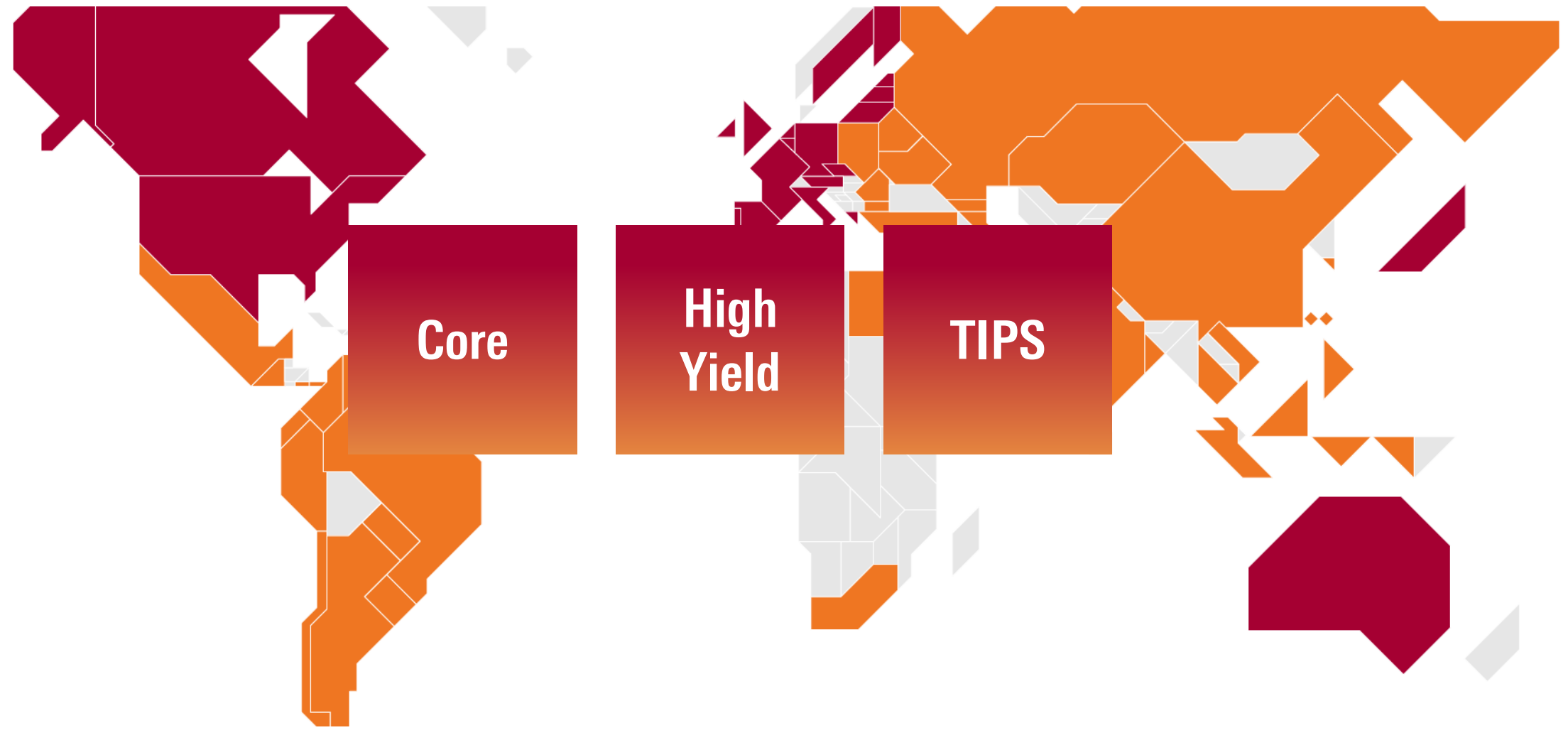
U.S. corporate debt outstanding and dealer inventories



Source: Federal Reserve Bank of New York, SIFMA, J.P. Morgan Asset Management. US corporate debt outstanding is the Barclays US Corporate Investment Grade. Data are as of April 16, 2019.

Morningstar Fixed-Income Solutions





Bond indexes spanning the globe

Enhanced Investability

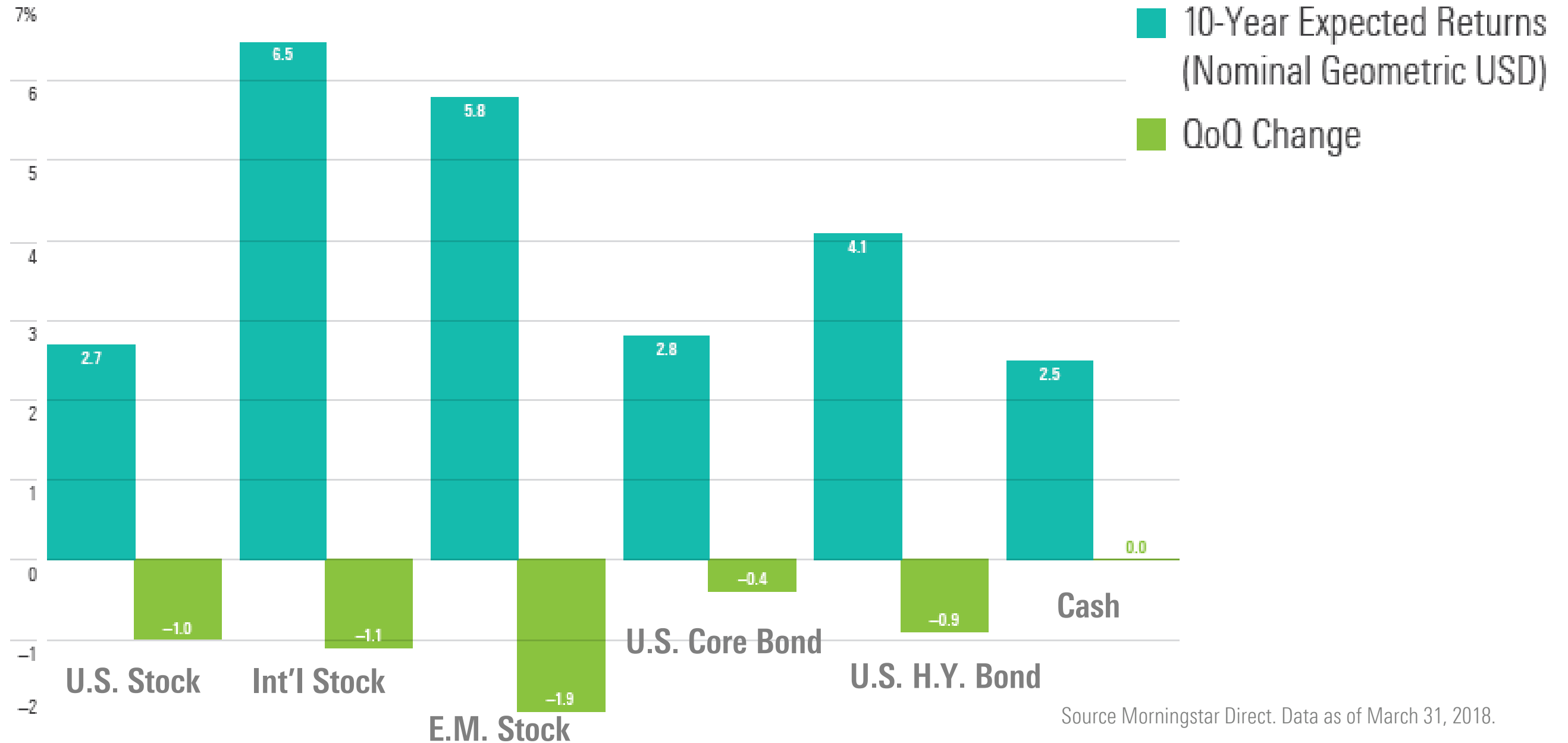
Data Transparency

Structure

Morningstar Bond Indexes: Value Proposition

Asset Class Outlook

Morningstar's 10-Year Asset Class Expected Returns



Source Morningstar Direct. Data as of March 31, 2018.

Asset Class Tilts - Equities

Value

Small

International

Emerging

Morningstar Research (Direct & Office Cloud)

Menu Research

Morningstar Indexes Follow

DESCRIPTION

Since 2002, Morningstar Indexes has created best-in-class benchmarks and innovative strategic beta indexes based on proprietary Morningstar intellectual property. Our indexes have transparent, rules-based methodologies backed by compelling empirical support. All Morningstar Indexes adhere to industry best practices and benchmark construction guidelines.

ALL RELATED RESEARCH

Title	Author	Date
Morningstar Revenue Atlas: Many National Stock Market Indexes Aren't All That National	Dan Lefkowitz	May 14 2019
Inside the Performance of Morningstar ESG Indexes: Strong Returns, Higher Quality and Lower Volatility	Dan Lefkowitz	Feb 21 2019
Preparing for a Low Carbon Economy: Investing in the Era of Climate Change	Jon Hale, Ph.D., CFA	Jan 30 2019
Diversification Was No Panacea in 2018, but it Certainly Cushioned the Blow	Dan Lefkowitz	Jan 02 2019
A Strong Third Quarter in 5 Morningstar Index Charts	Dan Lefkowitz	Oct 03 2018
Morningstar Indexes: Homing in on Wide Moat Stocks with Attractive Valuations	Dan Lefkowitz	Jul 27 2018
The Turbulent First Quarter of 2018 In 6 Morningstar Index Charts	Dan Lefkowitz	Apr 03 2018
Morningstar Indexes: Market Beta is a Commodity. Don't Overpay	Dan Lefkowitz	Mar 23 2018

Questions?