The Power of Moats: Competitive Advantages Drive Superior Performance
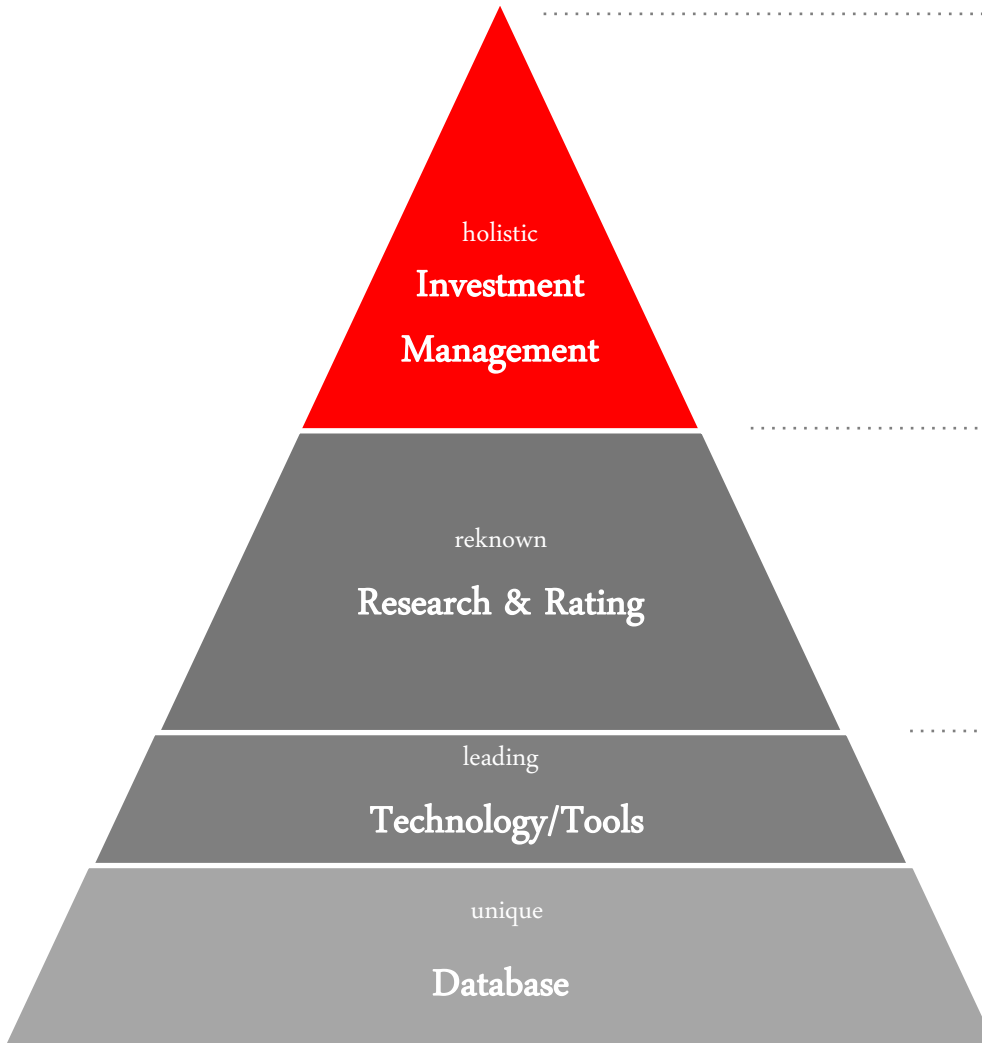
Ben Granjé

Sales Director, Morningstar Benelux

Ben.granje@morningstar.com

October 6, 2014. VFB Heusden

Morningstar – the thirty second intro

holistic
Investment Management

reknown
Research & Rating

leading
Technology/Tools

unique
Database

Leading provider of investment expertise

× Thought leadership

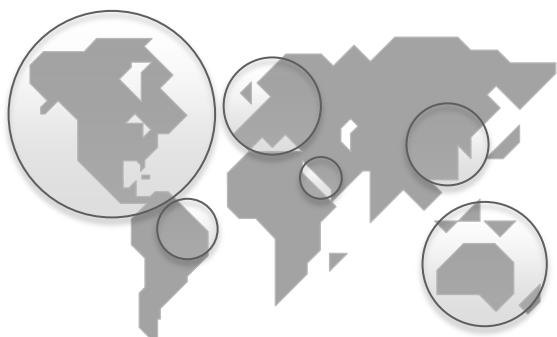× Independent advice to industry & regulator

× Morningstar Investment Management

× Manager & Fund Research

× Equity & Credit Research

× Lifecycle & Retirement Research

× Asset Allocation & Portfolio construction

× Investor experience Research

× Data processing and analysis tools

× Managed investment Database
   all types of portfolio's, including their holdings
   Individual stocks, bonds, indices, ...

Morningstar Equity Research
Comprehensive Equity Coverage

By Region, Market Cap, and Sector

Sector Coverage

h	Cyclical	
r	Basic Materials	136
t	Consumer Cyclical	211
y	Financial Services	194
u	Real Estate	45
j	Sensitive	
i	Communication Services	62
o	Energy	130
p	Industrials	204
a	Technology	137
k	Defensive	
s	Consumer Defensive	106
d	Health Care	137
f	Utilities	83

Regional Coverage

Asia	81
Australia/New Zealand	219
Europe	255
Latin America	34
Middle East/Africa	39
North America	817
Total Global Coverage	1,445

Market Cap Coverage
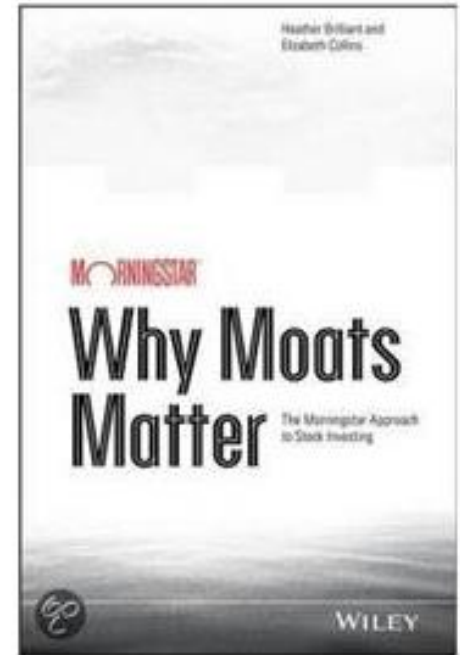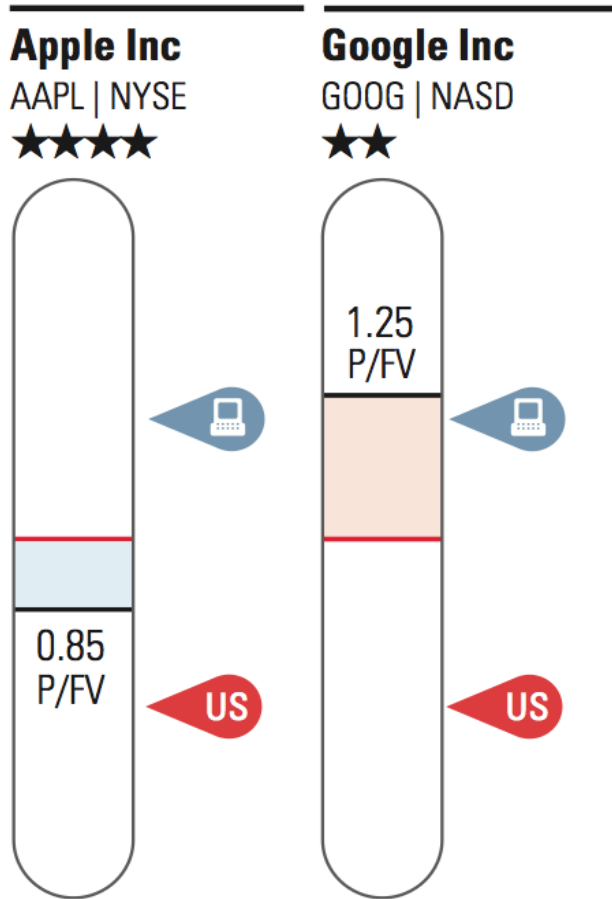
!	Large-cap Stocks (10+ Bil USD)	684
@	Mid-cap Stocks (2-10 Bil USD)	545
#	Small-cap Stocks (0-2 Bil USD)	216

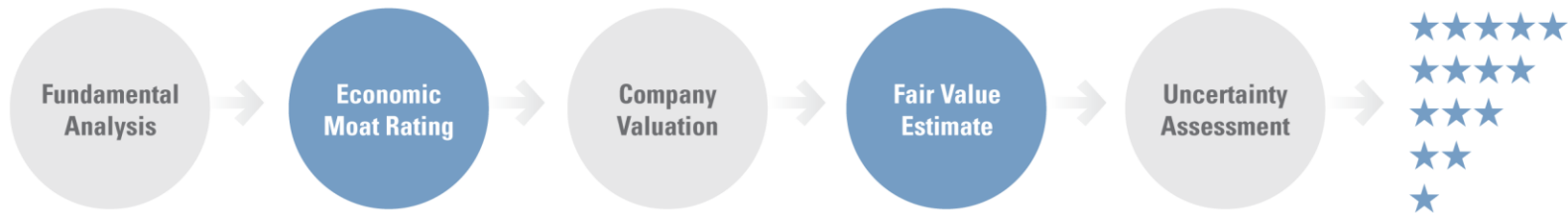Market cap data as of 02/2014
Regional and Sector data as of 02/2014

Morningstar Research – What Is It?

Morningstar Analyst-Driven Equity Research

Fundamental Analysis → **Economic Moat Rating** → **Company Valuation** → **Fair Value Estimate** → **Uncertainty Assessment** → ★★★★★ ★★★★ ★★★ ★★ ★

Fundamental Analysis

Analyst conducts company and industry research:

▶ Financial statement analysis

▶ Channel checks

▶ Trade show visits

▶ Industry and company reports and journals

▶ Conference calls

▶ Management and site visits

Economic Moat Rating

Analyst rates the strength of competitive advantage, or moat: None, Narrow, or Wide

Advantages that confer a moat:

▶ High switching costs (Microsoft)

▶ Cost advantage (Wal-Mart)

▶ Intangible assets (Johnson & Johnson)

▶ Network effect (MasterCard)

▶ Efficient Scale (Lockheed Martin)

Company Valuation

Analyst considers past financial results and focuses on competitive position and future prospects to forecast cash flows.

Analyst enters assumptions into Morningstar's proprietary discounted cash flow model.

Fair Value Estimate

Analyst uses a discounted cash flow model to develop a Fair Value Estimate, which serves as the foundation for the Morningstar Rating™ for stocks.

Uncertainty Assessment

The analyst then evaluates the range of potential intrinsic values for the company and assigns an uncertainty rating: Low, Medium, High, Very High, or Extreme.

This uncertainty rating determines the margin of safety required before the analyst recommends the stock. The higher the uncertainty, the wider the margin of safety.

The current stock price relative to Morningstar's Fair Value Estimate, adjusted for uncertainty, determines the Morningstar Rating for stocks.

The Morningstar Rating for stocks is updated each evening after the market closes.

Morningstar Research – What Is It?

MORNINGSTAR®

Morningstar® Economic Moat™ Rating
Morningstar Strategy

Basic Premise: Long-Term Oriented, Fundamental Analysis Works!

➢ **Evaluate stocks as small pieces of business**

➢ **Perform primary, fundamental research**

➢ **Take a long-term perspective**

➢ **Access competitive advantages**

➢ **Calculate appropriate margin of safety**

Invest in companies with strong and growing competitive advantages (Moats), trading at reasonable prices

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So, What is a Moat?

MORNINGSTAR®

Morningstar® Economic Moat™ Rating
Economic Moat Concept

OK, What is an Economic Moat?

➢ **Capital flows to the areas of highest potential return, so all firms face competition that seeks to force down high returns on capital.**

    ➢ **But some firms generate high returns for a very long time.**

    ➢ **How? By creating <u>economic moats</u> around their businesses.**

➢ **An economic moat is a <u>structural</u> business characteristic that allows a firm to generate excess economic returns for an extended period.**

    ➢ **Firms with moats have ability to invest incremental capital at high rates of return = faster earnings growth and/or higher free cash flow.**

    ➢ **Firms with moats have more predictable cash flows, limiting the risk.**

MORNINGSTAR®

Morningstar® Economic Moat™ Rating
Economic Moat Concept

What is NOT an Economic Moat?

➢ **Size / Dominant Market Share: High market share does not give a firm a moat. (Ask Compaq – or GM.)**

➢ **Technology: What one smart engineer can invent, another engineer can make even better.**

➢ **Hot Products: Can generate high returns on capital for a short period of time, but sustainable returns are what make a moat.**

➢ **Process: Can be imitated with time. Witness Dell.**

MORNINGSTAR®

Morningstar® Economic Moat™ Rating
Economic Moat Concept

What about Management?

➢In our view, management is not a moat <u>by itself</u>, but smart (or dumb) managers can create (or destroy) a moat over time.

  ➢"Go for a business that any idiot can run – because sooner or later, any idiot probably is going to run it." – Peter Lynch

  ➢"When management with a reputation for brilliance tackles a business with a reputation for poor economics, it is the reputation of the business that remains intact." – Warren Buffett

Morningstar® Economic Moat™ Rating
Measuring a Moat

Moat (Quantitatively): Return On Invested Capital (ROIC) Is Key

➤**Use Cash Flows not Earnings**

    ➤**Cash is King!**

    ➤**Lack of IFRS/GAAP earnings <u>now</u> not hindrance to moat creation**

➤**IC: Compare apples to apples**

    ➤**Adjust IC when needed**

➤**Estimate appropriate cost of capital**

<u>Duration of excess returns is far more important than absolute magnitude</u>

Return on Invested Capital (ROIC)

No Moat | Narrow Moat | Wide Moat | Weighted Average Cost of Capital (WACC)

Time Horizon: 10 Years | 20 Years
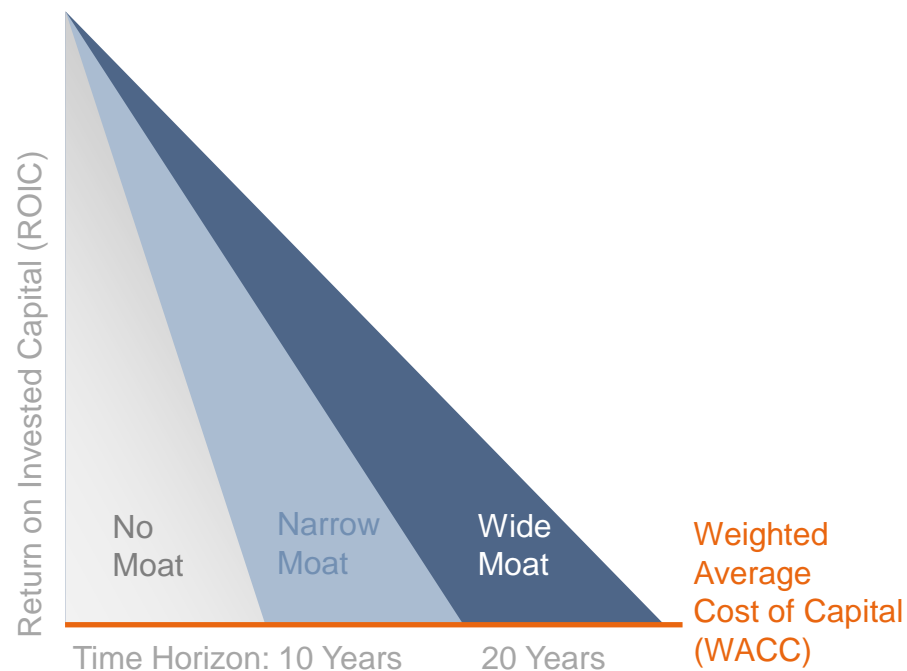
Morningstar® Economic Moat™ Rating
Economic Moat Concept

History of Morningstar Moat's Rating

➢**Warren Buffett in a 1999 Fortune magazine article wrote:**

> ➢*The key to investing is not assessing how much an industry is going to affect society, or how much it will grow, but rather determining the competitive advantage of any given company and, above all, the durability of that advantage. The products or services that have wide, sustainable moats around them are the ones that deliver rewards to investors.*

➢**Morningstar initiated economic moat rating in late 2002, subdividing entire coverage universe into three moat buckets: none, narrow, wide. This system remains in place today.**

> ➢ *Our approach to equity analysis builds on the Ben Graham and Warren Buffett school of investing. It would be hard to find two better mentors – and we're grateful and indebted to them for all that they have done for investors… concepts such as 'Margin of Safety' and 'Economic Moats'.*

Joe Mansueto, Morningstar's Founder

MORNINGSTAR®

Morningstar® Economic Moat™ Rating
Moat Rating Distribution

Our coverage universe skews toward companies with economic moats, though in the overall economy, most firms do not have an economic moat.

Morningstar Coverage Universe Moat Rating Distribution | **Wide Moat** **Narrow Moat** **No Moat**

Analyst Coverage

15%

36%

49%
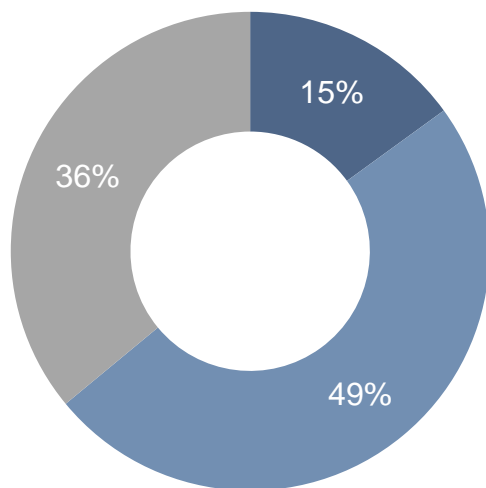
Quantitative Research Coverage

4%

30%

66%
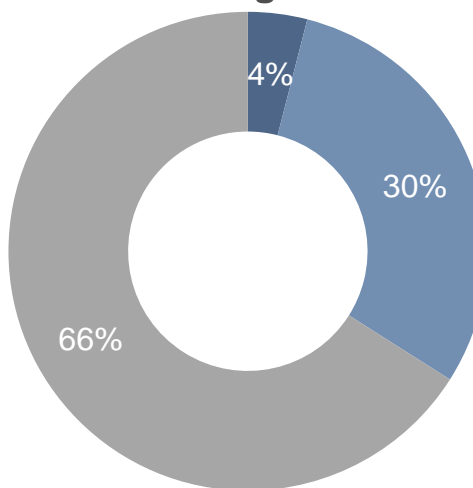
MORNINGSTAR®

Morningstar® Economic Moat™ Rating
Moat Rating Distribution

Moats are not equally distributed across sectors. Highly commoditized or competitive industries will have fewer companies with moats

■ Wide Moat ■ Narrow Moat
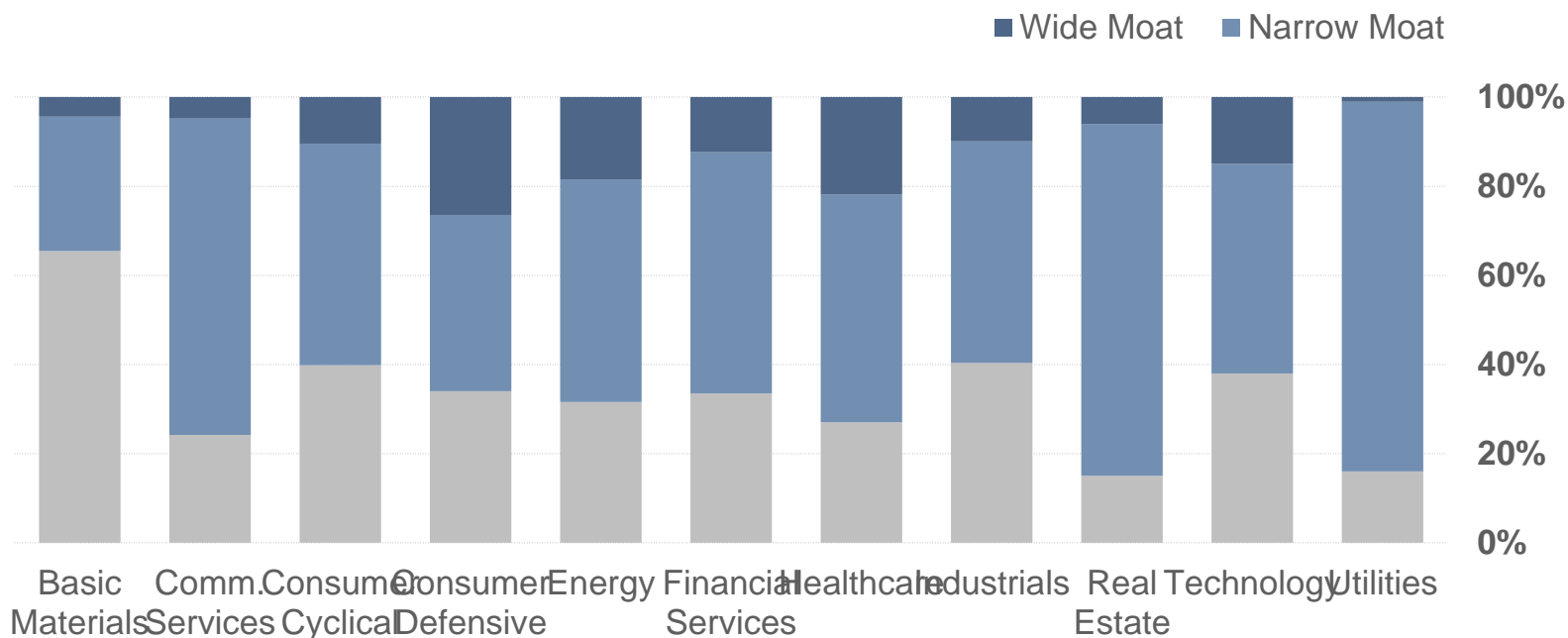
Data as of March, 2014

MORNINGSTAR®

Morningstar® Economic Moat™ Rating
Economic Moats

The Five Sources of Sustainable Competitive Advantage
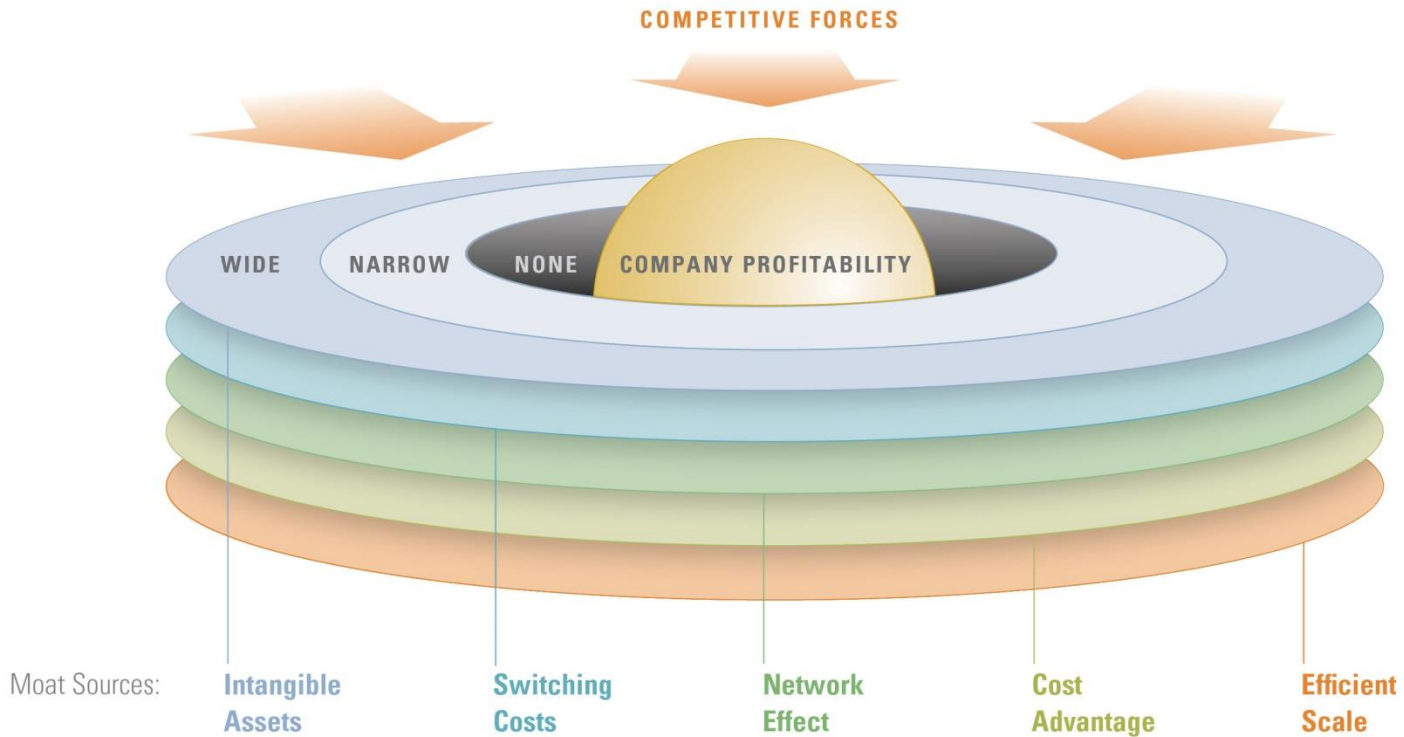
Morningstar® Economic Moat™ Rating
Sources of Moats

Intangible Assets

➢ **Includes brands, patents, and regulatory licenses**

➢ **Brand increases the customer's willingness to pay**

➢ **Patents protect pricing power legally barring competition**

➢ **Government regulations hinder competitors from market.**
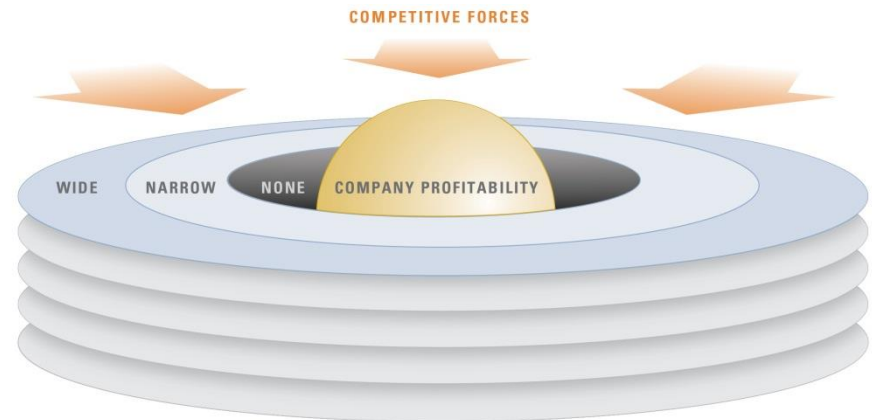
Switching Costs

➢ **Time = Money and vice versa**

➢ **The value of switching exceeds the expected value of the benefit**

➢ **Razor and blade model entrench repeat consumables customers**

➢ **Price not the only determinant**
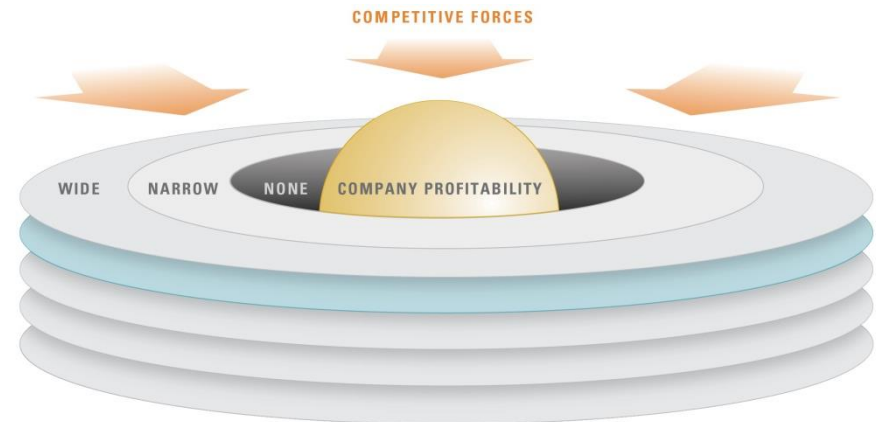
MORNINGSTAR®

Morningstar® Economic Moat™ Rating
Sources of Moats

Network Effect

➢ **The value of a particular good or service increases for both new and existing users as more customers use that good or service**

➢ **With each additional node, the number of potential conne[...] grows exponentially**
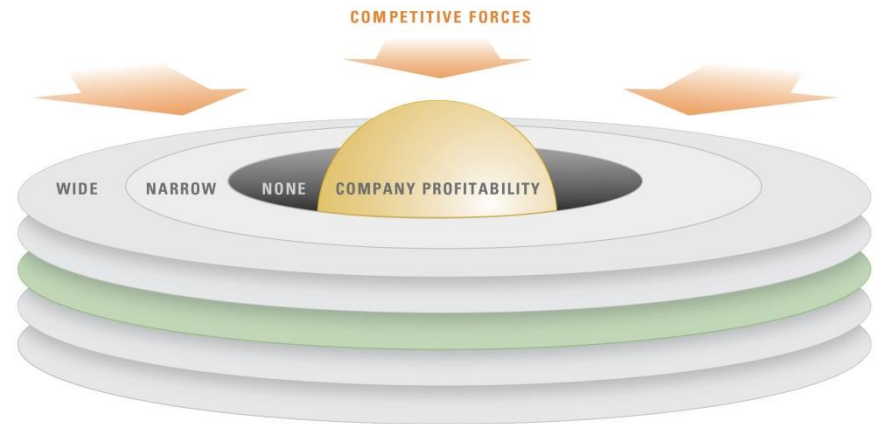
MO**RNINGSTAR**®

Cost Advantage

➢ **Sustainably lower costs than competitors**

➢ **Irreplaceable process advantages**

➢ **Superior location**

➢ **Hard-to-amass scale**

➢ **Access to a unique asset**
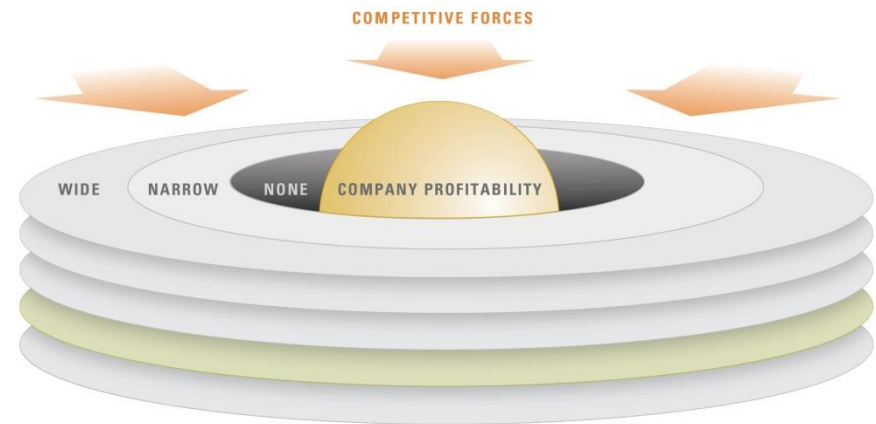
MORNINGSTAR®

Morningstar® Economic Moat™ Rating
Sources of Moats

Efficient Scale

➤ **Dynamic in which a market of limited size is effectively served by few companies**

➤ **Incumbents generate economic profits**

➤ **Newcomers discouraged from entering because returns in the market fall below the cost of capital**
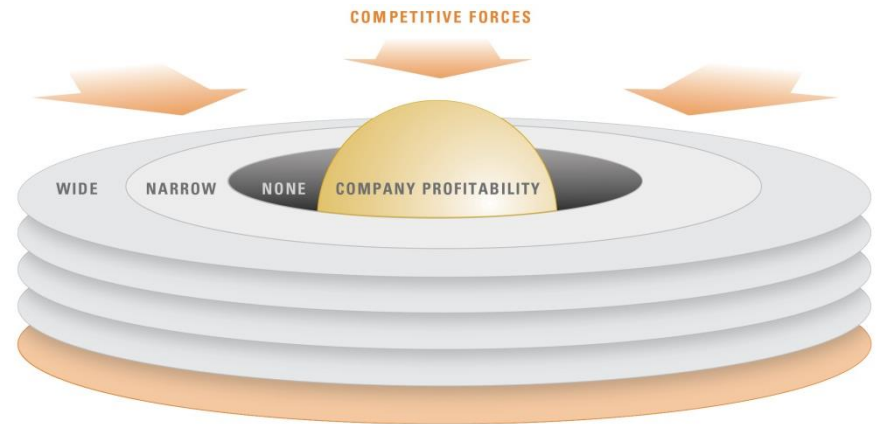
Moat Trend is a detectable direction of change in the competitive position of a company's businesses

Moat isn't always priced in!

➢**Two companies with similar growth rates, returns on capital, and reinvestment needs:**

  ➢**The "moaty" company <u>has a higher value</u>**

  ➢ **Moats provide a margin of safety**

  ➢**Companies with moats likely to continue to compound in value**

g **Overestimating a moat = paying for unlikely value creation**

➢**Why isn't the moat already priced in?**

  ➢**Time-horizon arbitrage: market is myopic, and moats matter more in the long run**

  ➢ **Recency bias: investors project the way the world is today much too far into the future**

  Waiting for moats, particularly wide, to get cheap pays off!

MORNINGSTAR®

Morningstar Performance
The Effectiveness of Our Ratings Over Time

Focus on Moats Works!
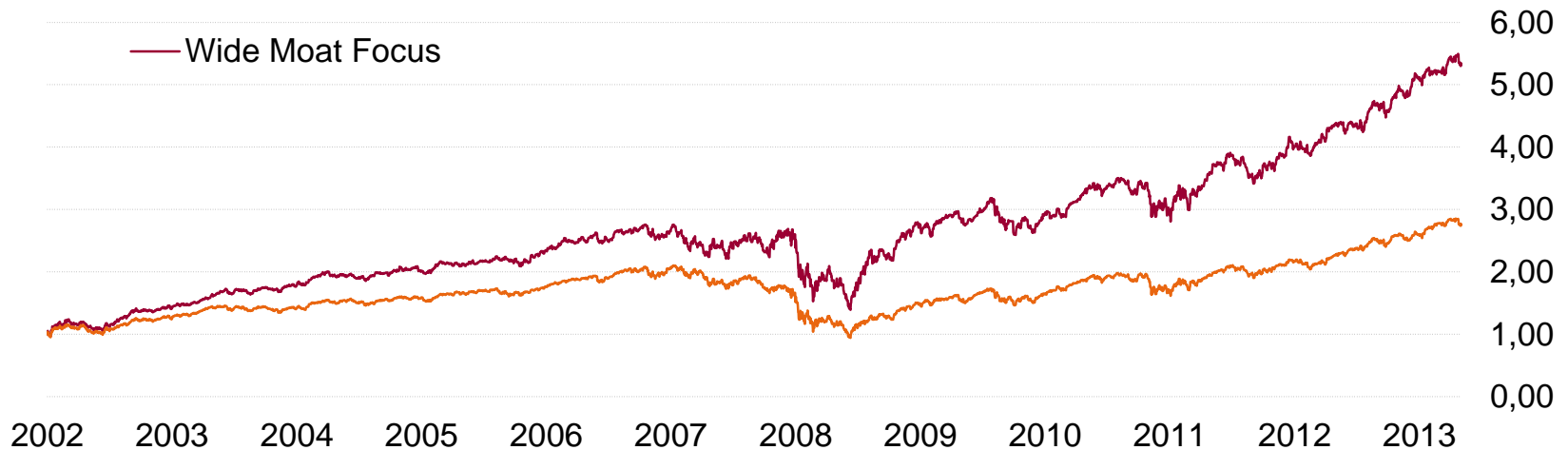
Trailing Annualized Returns (%)

Index	1-Year	3-Year	5-Year	10-Year	Since Inception (09/30/2002)
Morningstar® Wide Moat Focus Index℠	22.3	17.5	24.6	12.6	15.9
S&P 500 Index (cap-weighted)	21.5	13.9	19.2	6.8	9.3

Data from September 30, 2002 through January 31, 2014

MORNINGSTAR®

Morningstar Performance
Wide Moat Index

Current Composition

- **Baxter International (BAX)**

- **Berkshire Hathaway B (BRK.b)**

- **BlackRock Inc (BLK)**

- **CH Robinson Worldwide (CHRW)**

- **Coca-Cola (KO)**

- **Core Laboratories (CLB)**

- **eBay (EBAY)**

- **Exelon Corp (EXC)**

- **Expeditors International (EXPD)**

- **Express Scripts (ESRX)**

- **Franklin Resources (BEN)**

- **General Electric (GE)**

- **International Business Machines (IBM)**

- **National Oilwell Varco (NOV)**

- **Philip Morris International (PM)**

- **Procter & Gamble (PG)**

- **Schlumberger (SLB)**

- **Spectra Energy Corp (SE)**

- **Sysco Corp (SYY)**

- **Western Union (WU)**

MORNINGSTAR®

Morningstar Performance
Morningstar Equity Research

Morningstar Indexes and Portfolios vs. S&P 500

	Trailing Annualized Returns (%)			
	1-Year	3-Year	5-Year	10-Year
Morningstar® Wide Moat Focus Index℠	22.3	17.4	24.6	12.6
Morningstar Tortoise Portfolio	17.4	14.4	16.8	7.8
Morningstar Hare Portfolio	26.4	15.7	23.5	11.5
Morningstar Dividend Builder	14.2	15.0	16.8	—
Morningstar Dividend Harvest	15.9	17.6	23.5	—
Buy at 5-Star/Sell at 3-Star	17.4	12.1	27.0	13.1
Morningstar Large-Cap Blend Mutual Fund Cat.	20.3	12.0	17.8	6.1
S&P 500 Index (cap-weighted)	21.5	13.9	19.2	6.8

Source: Morningstar
Time-weighted returns through: February 28, 2013

MORNINGSTAR®

Morningstar® Coverage
Top Picks Across Sectors

A few investment ideas to leave you with…

Company	Moat	Ticker	Morningstar Rating	Investment Rationale
Berkshire Hathaway	Wide	BRK B	QQQQ	Berkshire's ability to take excess cash flows generated by its different businesses and invest them back into projects that earn more than its cost of capital is unparallelled.
BioMarin Pharma	Narrow	BMRN	QQQQ	With a growing portfolio in an attractive rare disease niche--and a likely turn to profitability in 2015--BioMarin could be an acquisition target for pharmaceutical firms with pipelines to fill.
Core Laboratories N.V.	Wide	CLB	QQQQ	Core Labs is a cash-flow machine, and the firm's returns on invested capital are some of the highest in the industry (and the overall market).
Gilead Sciences	Wide	GILD	QQQQ	With the approval of Sovaldi, Gilead holds claim to the only all-oral hepatitis C treatment regimen. None of Gilead's competitors have other proven nucleotide analogs approaching the market, making the $11 billion acquisition of Pharmasset look like a bargain.
Novo Nordisk A/S	Wide	NOVO B	QQQ	Entrenched in the fast growing diabetes industry, Novo should post solid growth over the next decade.
Sanofi	Wide	SNY	QQQQ	Well-positioned Lantus should lead steady and improving growth for the overall company.
Swatch Group AG	Wide	UHR	QQQQ	Swatch Group's competitive position is underappreciated; brands and technologies earn it a wide moat

MORNINGSTAR®

Morningstar® Coverage
Top Picks Across Sectors

And a few to avoid…

Company	Moat	Ticker	Morningstar Rating	Investment Rationale
Airlines ALL OF THEM	None			Just not good businesses. Stay away
Bayer AG	Narrow	BAYN	QQ	Bayer's narrow moat versus wide moats for its peers, stems from its exposure to no-moat non-healthcare sectors. The company is also trading at a premium to its better-positioned peers.
BiogenIdec	Wide	BIIB	QQ	BiogenIdec's success in MS, and positive data on key drugs have moved the stock to the positions that are hard to justify. Even a wide moat firm can be overpriced!
Netflix	None	NFLX	QQ	The market is too optimistic about Netflix's future sales growth and profitability potential. We remain extremely skeptical about Netflix's aggressive international push. Subscribers not equal to moat.
Shire PLC	Narrow	SHP	QQ	Strong growth in several drugs mask the risk of patent expirations and Sanofi's competition in rare disease therapeutics.
Vestas Wind Systems A/S	None	VWS	QQ	While focus on the only renewable energy source offers excitement for Vestas shares, competitors are investing heavily in the market and Vestas' hold on the European market is in jeopardy.

MORNINGSTAR®

Morningstar® Quantitative Equity Research

VFB Dag van de Tips.

Ben Granjé
CD Morningstar Benelux

October 4, 2014

MORNINGSTAR®

Why Develop Quantitative Ratings?

- **Need greater breadth of coverage**
  - **Research Client demand**
  - **Internal demand (ETFs, Funds)**

- **Increasing analyst staff to meet needs is not economically feasible**

- **More ability to probabilistically model stocks**

- **Differentiated (non-commodity) data points**

A Brief History

- **Morningstar covers ~1500 companies globally with our staff of 120 equity analysts**

- **In 2012, Morningstar launched quantitative stock research covering some 32,000 companies. The Quant universe has grown exponentially, reaching ~ 50,000 stocks (100,000 shares) globally (86 countries of domicile, 64 exchanges) by August 2014. These are product-ready as PDF reports or Data feed.**

- **Quant ratings are analogous to analyst-driven ratings**
  - **Moat**
  - **Fair Value**
  - **Uncertainty**
  - **Financial Health**

- **Quant ratings are predictive of future alpha distribution**

Comprehensive Global Equity Coverage

1,123 Analyst Coverage
9,350 Quant Coverage
North America

8x

241 Analyst Coverage
7,371 Quant Coverage
Europe

31x

171 Analyst Coverage
13,074 Quant Coverage
Asia

77 x

53 Analyst Coverage
611 Quant Coverage
Latin America

12 x

10 x

41 Analyst Coverage
402 Quant Coverage
Eurasia/India/Middle East/Africa

9x

208 Analyst Coverage
1,742 Quant Coverage
Australia

1,837 Analyst Coverage
32,557 Quant Coverage
Totals by Exchange (As of December 31, 2013)

What are the Quantitative Stock Ratings?

- **Hypothesis:**
  $$Analyst\ Moat \approx f(some\ input\ variables)$$

If you can't explain it **simply**, you don't understand it well enough.
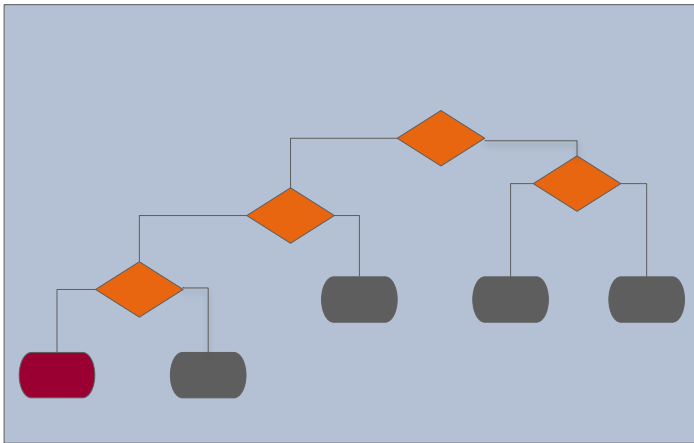– Albert Einstein
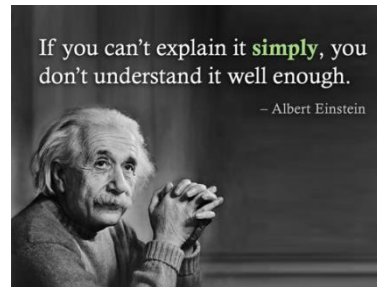
- **What inputs might be relevant to a moat rating?**
  - Size
  - × Valuation
  - × Liquidity
  - Risk
  - × Sector/Industry
  - × etc.
- **Use statistical algorithm to determine f**

Decision trees, multiplied into a Random Forest
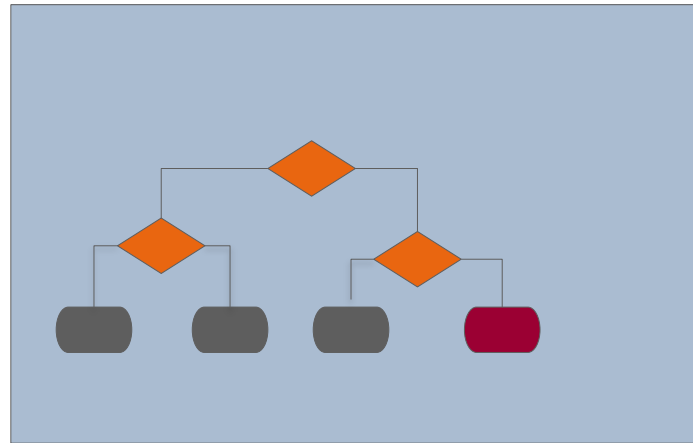
Tree 1

Tree 2

Tree 1 Prediction: 0.8

Tree 2 Prediction: 1.1

Random Forest Prediction = (0.8 + 1.1) / 2 = 0.95

34

Quant Comparison to Analyst-Driven

$y = 0.5801x + 0.462$
$R^2 = 0.8472$
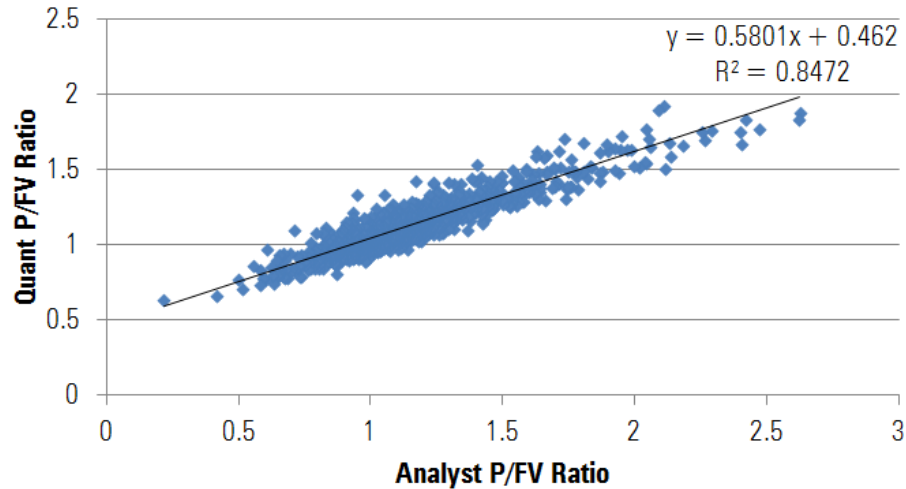
- **Less than 3% of analyst coverage universe meaningfully disagrees with direction of analyst recommendation**

35
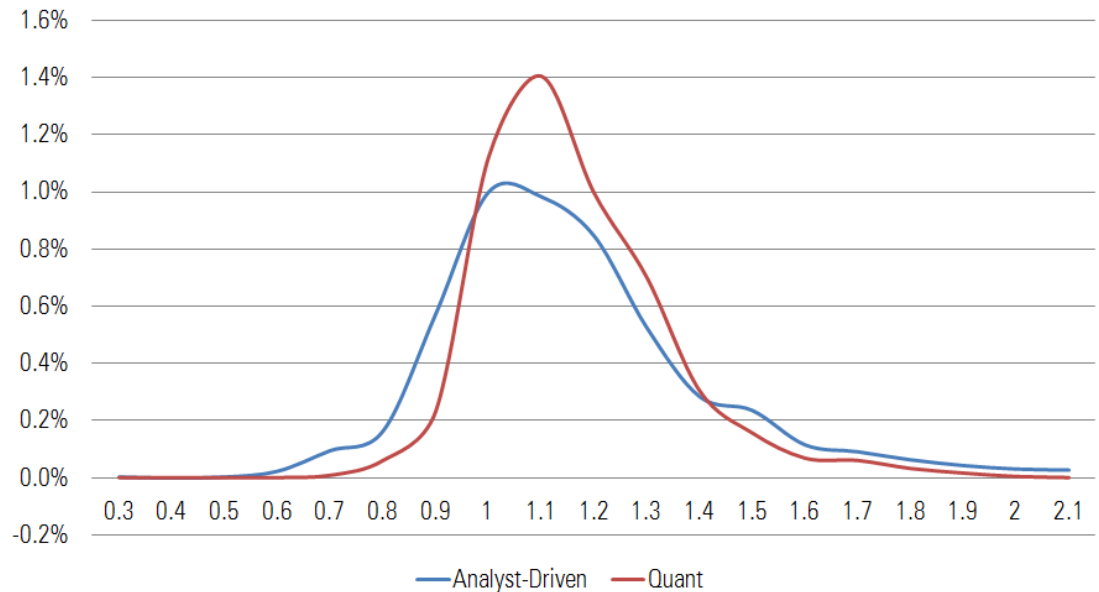
Analyst-Driven Ratings (Benchmark)
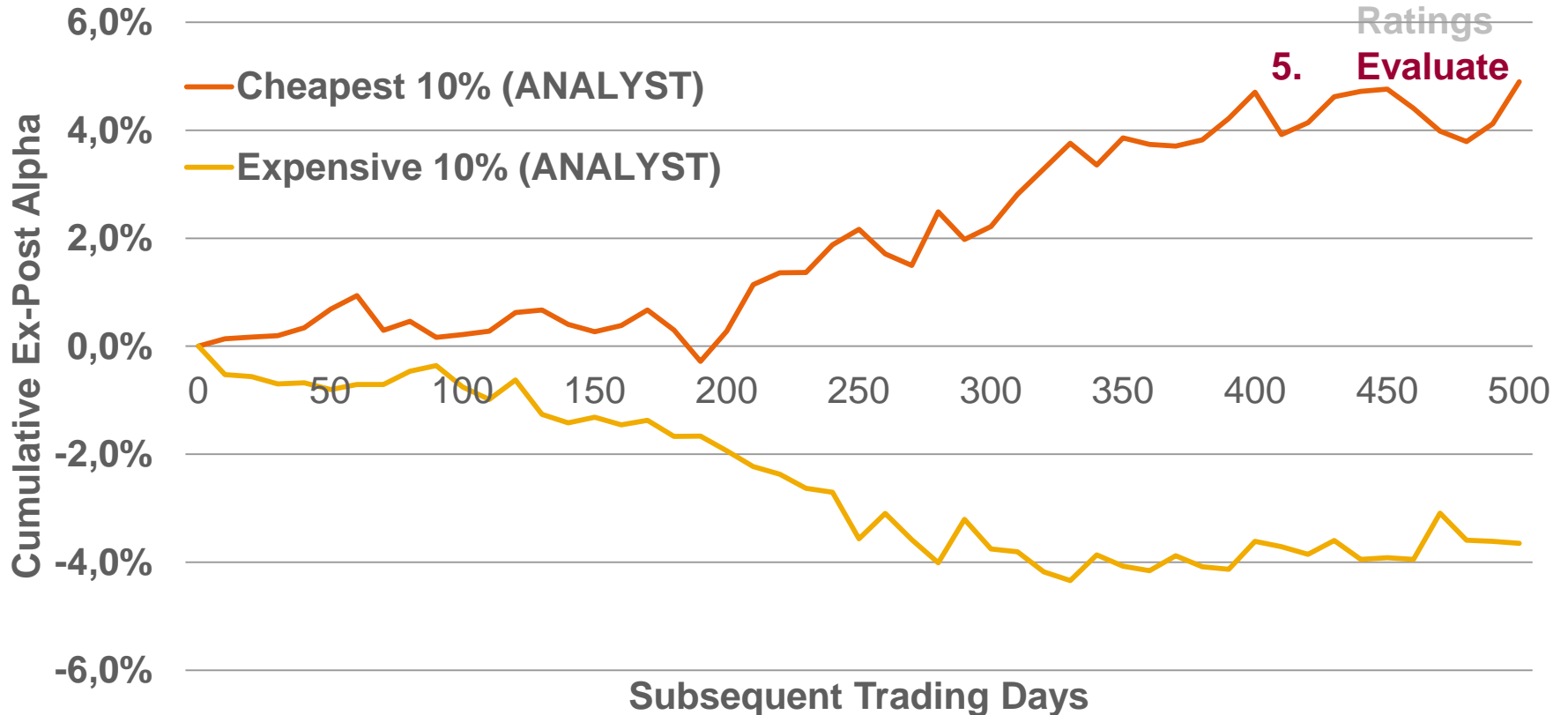
- Cheapest 10% (ANALYST)
- Expensive 10% (ANALYST)

Y-axis: Cumulative Ex-Post Alpha (6,0%, 4,0%, 2,0%, 0,0%, -2,0%, -4,0%, -6,0%)

X-axis: Subsequent Trading Days (0, 50, 100, 150, 200, 250, 300, 350, 400, 450, 500)

Quant Ratings

37
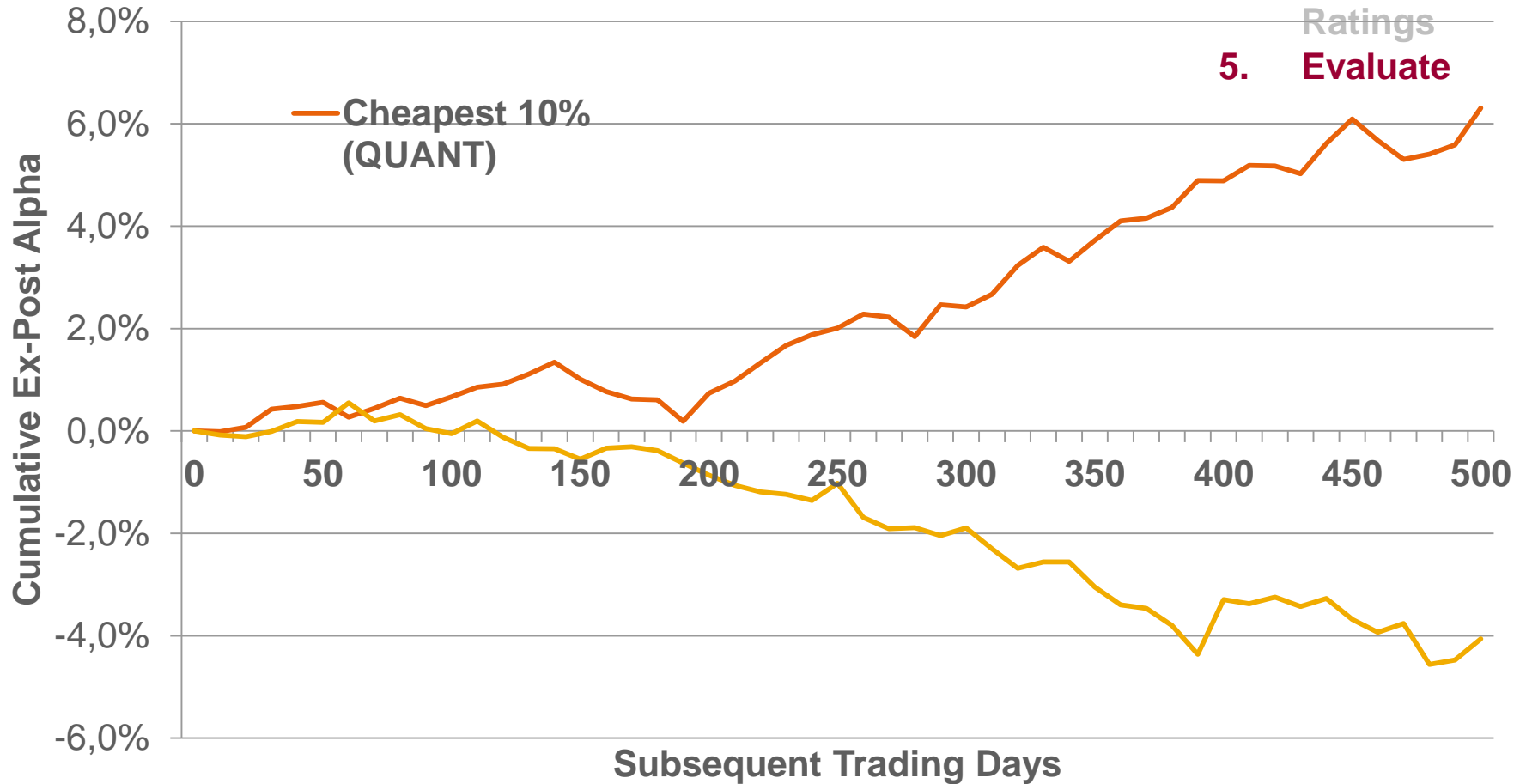
Morningstar Quantitative Price to Fair Value Distribution by U.S. Sector

Percentiles
- 90th
- 75th
- 25th
- 10th
- Median

- Overvalued
- Fairly valued
- Undervalued

Basic Materials | Comm Services | Consumer Cyclical | Consumer Defensive | Energy | Financial Services | Healthcare | Industrials | Real Estate | Technology | Utilities

QQE2

Morningstar Quantitative Price to Fair Value Distribution by Region

Percentiles
- 90th
- 75th
- 25th
- 10th
- Median

20% Overvalued

10

0

−10

−20*

North America | Latin America | Europe | UK & Ireland | Africa | IND, PAK & Middle East | Asia Pacific | Australia & New Zealand
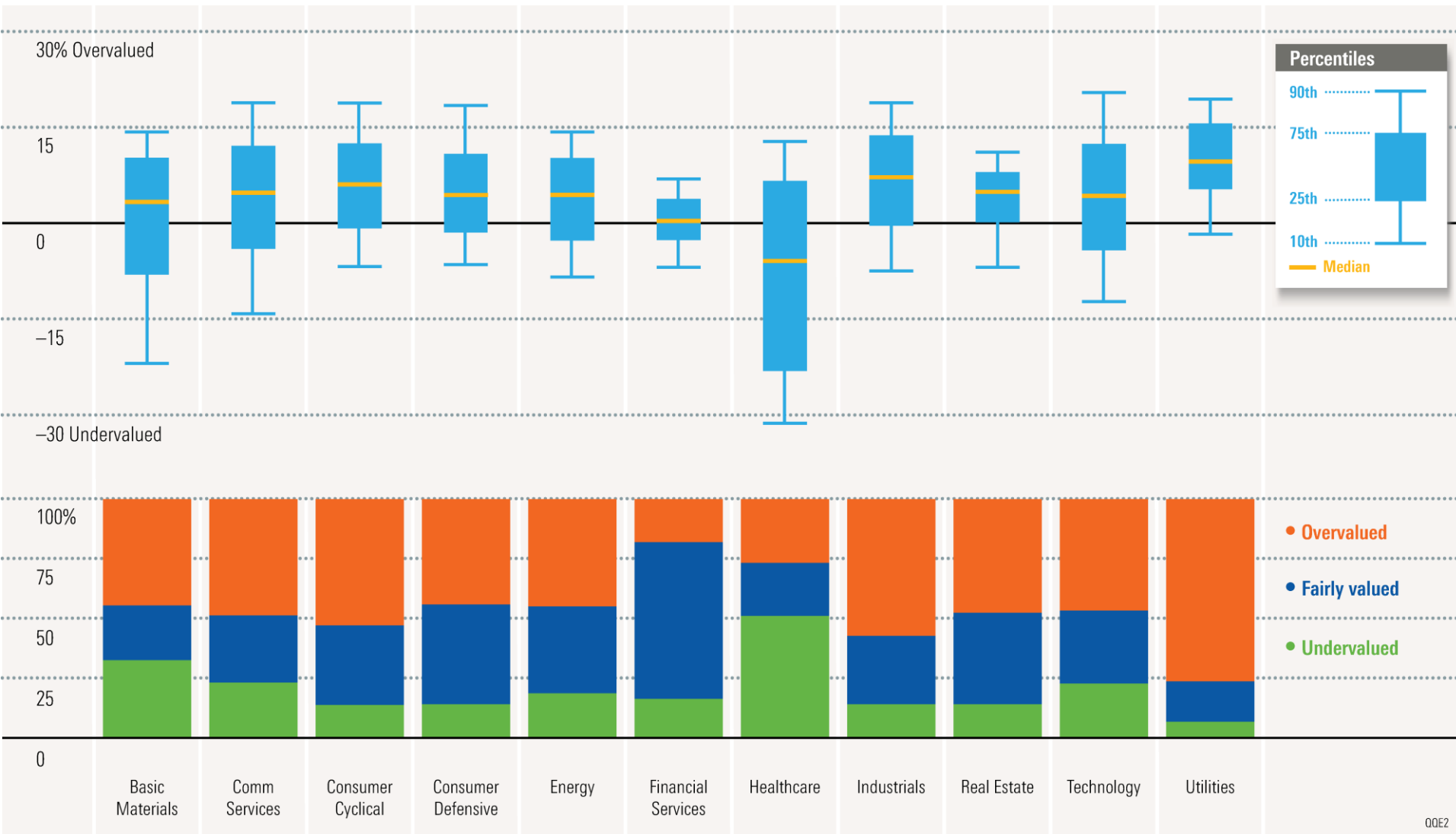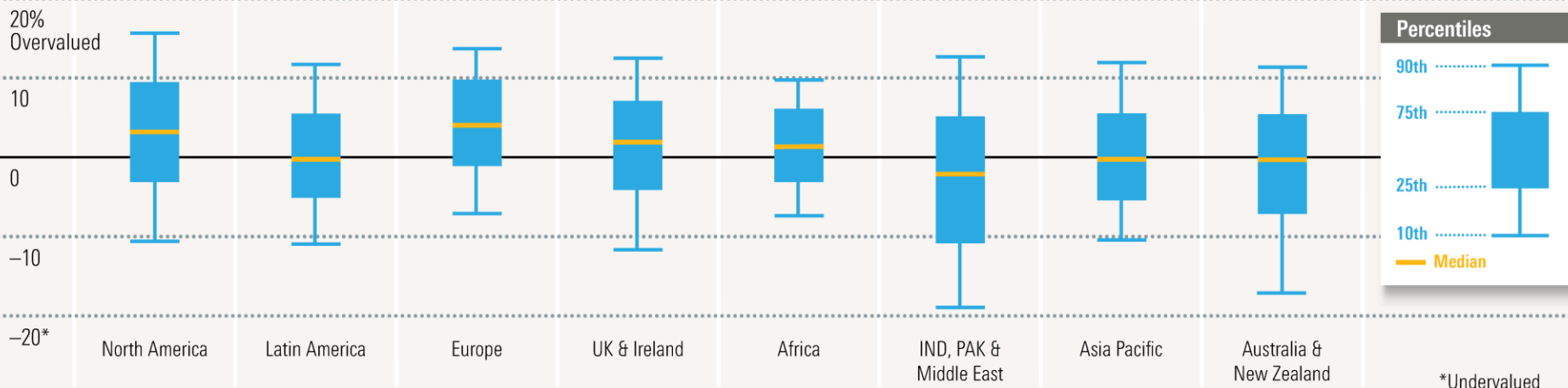
*Undervalued

Top 10 Most Undervalued Countries			
Country	**Undervalued By (%)**	**Uncertainty Rating**	**Number of Companies**
Russia	−6.4	High	115
Iraq	−6.0	Extreme	27
Brazil	−5.5	High	181
Bangladesh	−3.7	Very High	245
Hong Kong	−2.4	High	170
Turkey	−2.2	High	339
Cyprus	−1.4	High	20
Australia	−1.2	Medium	430
China	−1.1	High	2,340
Nigeria	−0.7	Very High	93

Top 10 Most Overvalued Countries			
Country	**Overvalued By (%)**	**Uncertainty Rating**	**Number of Companies**
Denmark	10.4	High	121
India	9.6	High	2,816
Finland	8.6	High	100
Indonesia	7.9	Very High	334
Saudi Arabia	6.8	High	154
Norway	6.5	Medium	125
Greece	6.5	Very High	75
Spain	6.4	Medium	99
United Arab Emirates	6.1	High	59
Ireland	5.9	Medium	55

QQE3

Morningstar Quantitative Price to Fair Value Distribution by Region

Overvalued/Undervalued (%)

- Finland 8.6
- Russia −6.4
- Norway 6.5
- Canada 5.2
- U.K. −0.5
- Sweden 5.5
- Portugal 5.7
- Germany 5.1
- China −1.1
- United States 5.3
- Spain 6.4
- France 1.7
- Japan 0.5
- Mexico 4.1
- South Korea 1.2
- India 9.6
- Brazil −5.5
- Chile 0.4
- Australia −1.2
- South Africa 4.3
- New Zealand 4.6

● Countries not highlighted

Greater Asia 0.7 ●   Greater Europe 3.6 ●   ● U.S. 5.3

< −5.0	−5.0 to −1.1	−1.0 to 1.0	1.1 to 5.0	>5.0
Undervalued		Fairly Valued		Overvalued

QQE5
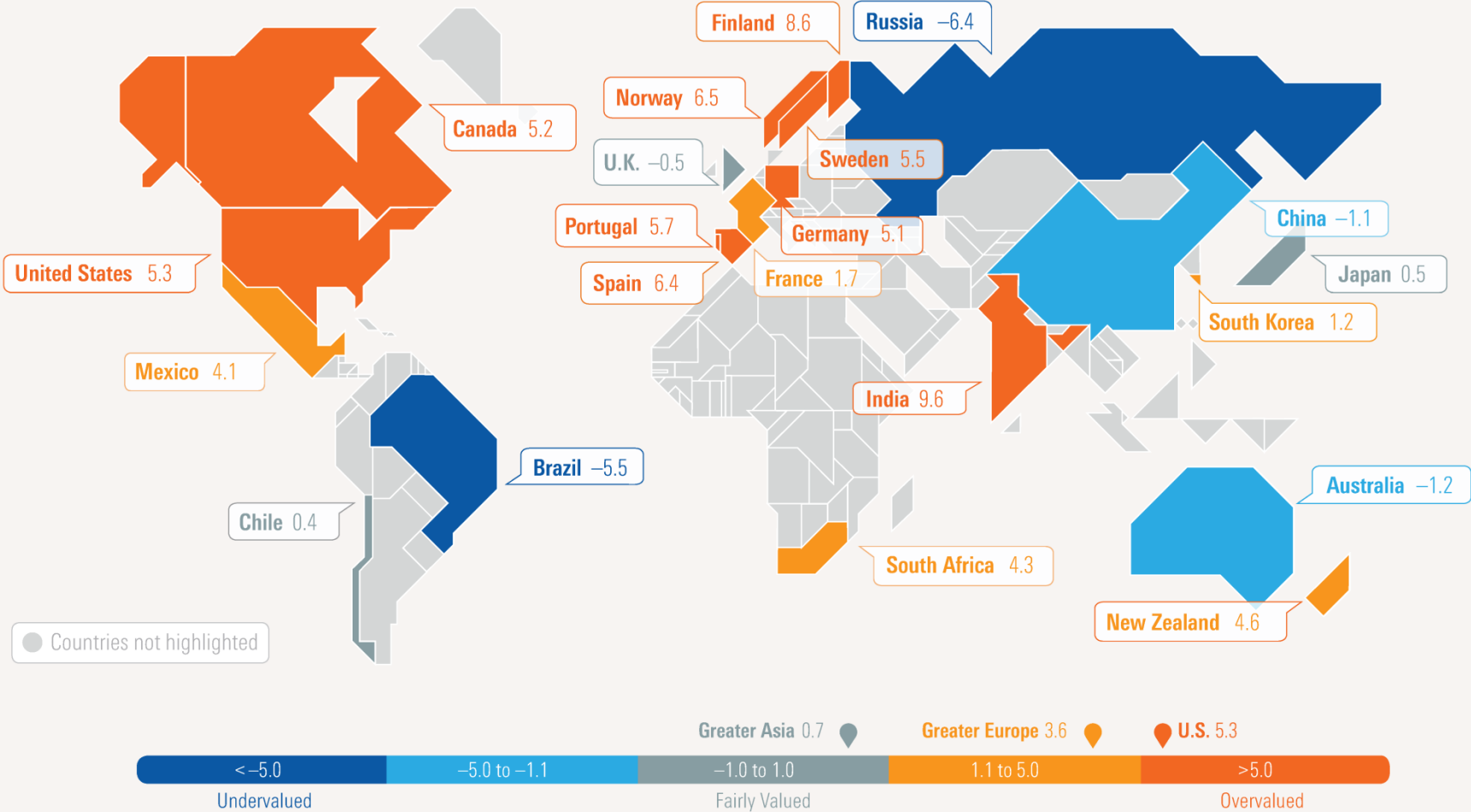
Q & A

- **Why is the quant (moat/valuation/uncertainty) different from the analyst (moat/valuation/uncertainty) for company XYZ?**

- **Which rating should I trust? The quant or the analyst?**

- **Will the quantitative equity ratings replace the qualitative analyst ratings?**

- **What does the new Quantitative Equity Research Report contain?**