

# Using Portfolio Analytics to Inform the Names Rule

## Through Transparency into Fund Holdings

October 27, 2020

# Agenda – SEC Names Rule Meeting

- MSCI Overview
- Factor Analytics
  - Introduction to portfolio analytics and industry usage
  - How risk and return factors work
  - Mutual funds through the lens of factors
  - Are exposures consistent with mutual fund names?
  - Case study: applying factors to inform the Names rule
- Environmental, Social, and Governance (ESG) Exposures

# MSCI Overview



## INDEXES

- MSCI ACWI Index
- MSCI World Index
- MSCI Emerging Markets Index
- Factor Indexes
- Thematic Indexes
- ESG Indexes
- Real Estate Indexes
- Custom Indexes

1040+ ETFs are based on MSCI indexes, more than any other index provider<sup>1</sup>

200,000+ Indexes calculated daily;  
11,000+ in real time



## ANALYTICS

- Risk Management (RM)
- Portfolio Construction (Barra)
- Investment Differentiation
- Regulatory Compliance
- Managed Services

MSCI Global Risk and Performance Engine runs up to 1 Trillion calcs/day

2 Million time series

17+ Million client positions

52 Global FI markets

1,300+ issuer curves



## ESG RESEARCH

- MSCI ESG Ratings
- MSCI ESG Screening
- MSCI ESG Governance Metrics
- MSCI ESG Fund Metrics
- MSCI ESG Carbon Tools
- MSCI Sustainable Impact
- MSCI ESG Research

World's largest provider of Environmental, Social and Governance (ESG) data and research<sup>2</sup>

350+ dedicated full time staff globally to ESG business, including 185+ ESG research analysts<sup>3</sup>



## REAL ESTATE

- Real Estate Performance
- Real Estate Research
- Private (Direct and Indirect)
- Public Equity

Global leader in Real Estate performance analysis and risk services

In over 30 markets worldwide

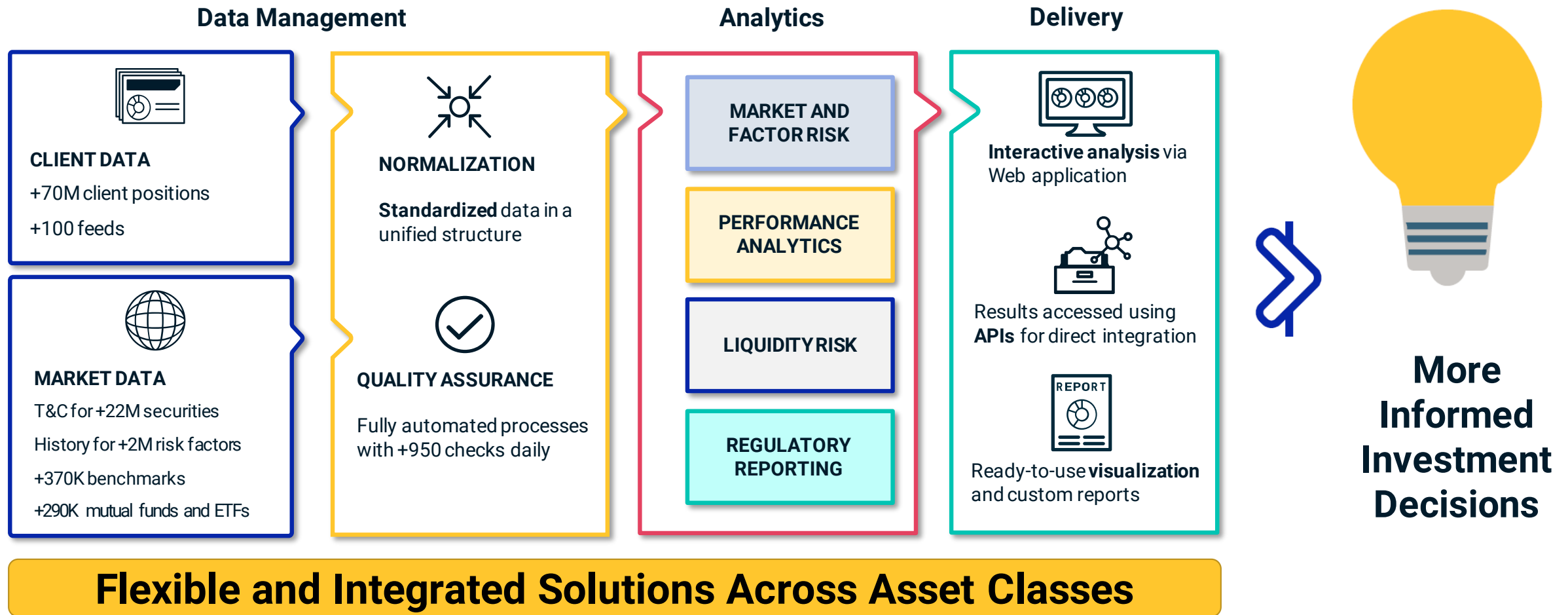
Analysis tools that can be applied to all types of Real Estate

# Factor Analytics

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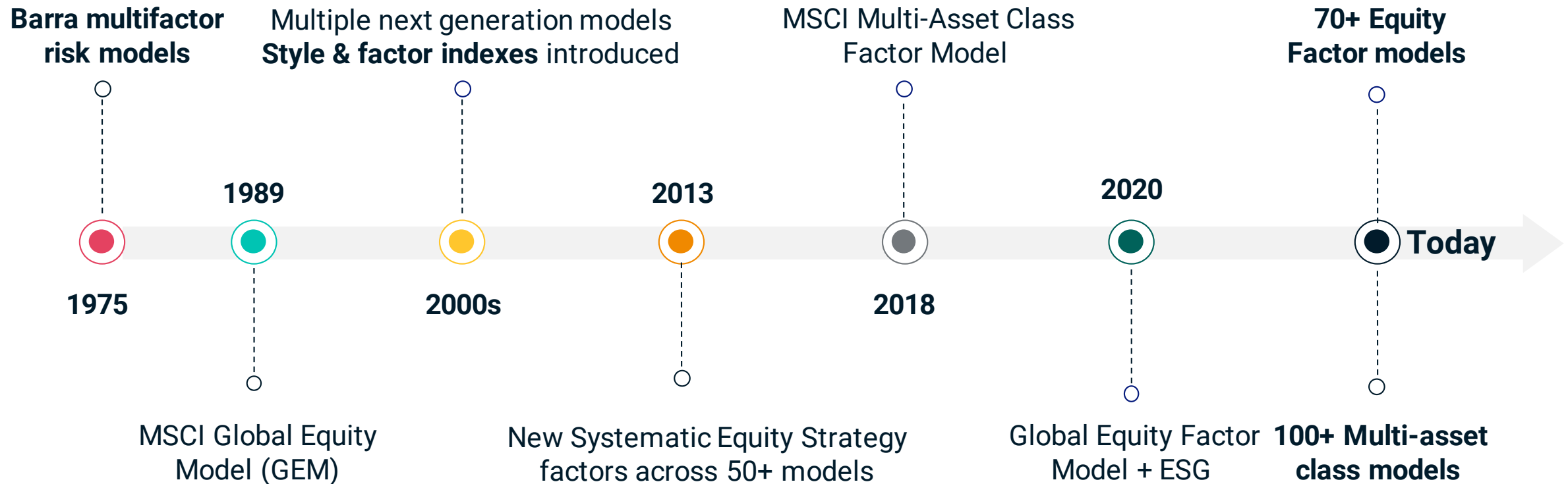
# MSCI Analytics Support the Investment Process

## Clients Build More Transparent and Better Portfolios Using MSCI Analytics



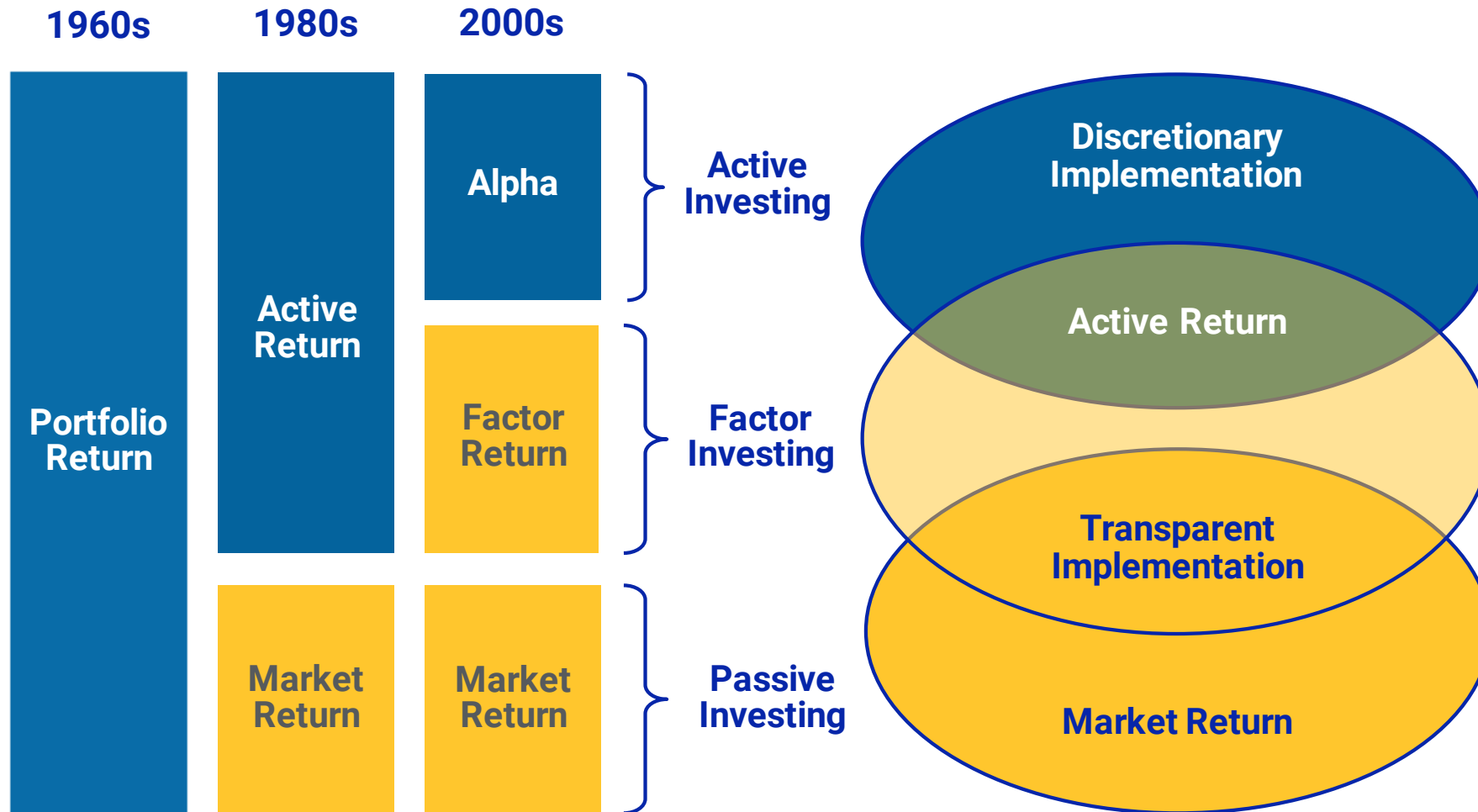
# MSCI Portfolio Analytics and Factor Risk Models

MSCI is a longstanding industry leader in indexes, portfolio and risk analytics, and ESG ratings and data. MSCI has developed Factor Risk Models in consultation with the world's largest investors that are backed by four decades of factor data research.



*Our Factor Risk Models have evolved in tandem with the industry and have their roots in the academic literature*









# ▶ Institutional Investors Allocate to Factors



For a discussion of the role of factor investing in institutional portfolios, see "Power to the People: The Profound Impact of Factor Investing on Long Term Portfolio Management", Journal of Portfolio Management, Winter 2016

# Global Equity Factor Structure

- 8 Factor Groups, 16 Factors and 41 descriptors
- Based on MSCI's Barra Global Equity Total Market Model (GEMLT)

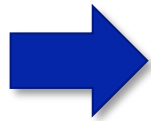
 VALUE	 SIZE	 MOMENTUM	 VOLATILITY	 QUALITY	 YIELD	 GROWTH	 LIQUIDITY
Book to Price	Size	Momentum	Beta	Leverage	Yield	Growth	Liquidity
Earnings Yield	Mid Cap		Residual Volatility	Profitability			
Long Term Reversal				Earnings Variability			
				Earnings Quality			
				Investment Quality			



# Investors Use Factor Analysis to Manage Portfolios



Portfolio



Modern Portfolio Analysis



Value



Yield



Size



Volatility



Momentum



Growth



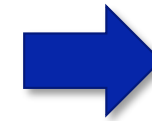
Quality



Liquidity



Dollar-Weighted Exposures to Risk & Return Drivers



Widely Available Analytics Tools

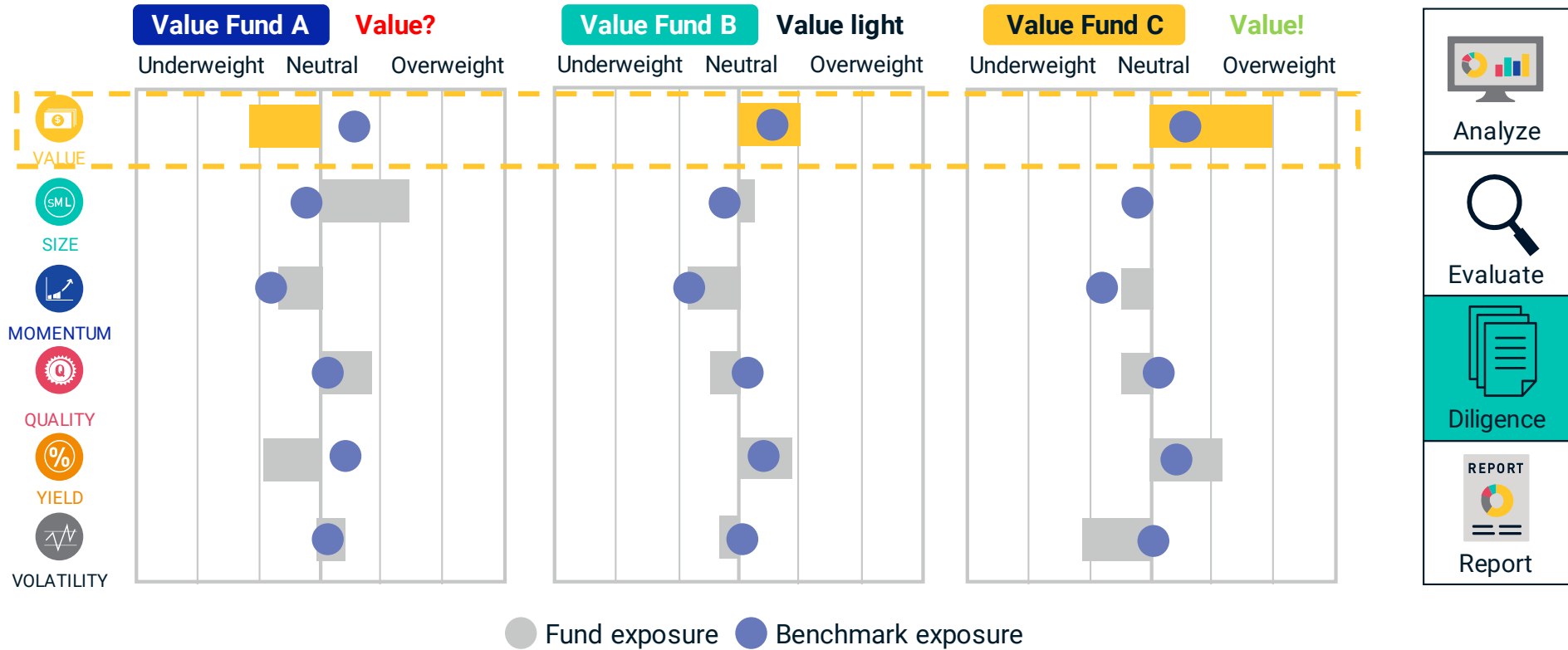
# Calculating Portfolio Exposure to Factors: Quality





Fund Portfolio					
Asset Name	Quality Family Exposure		Asset Weight		Exposure x Weight
Exxon Mobil Corp	0.56	*	7.7%	=	0.04
General Electric Co	-0.61	*	6.5%	=	-0.04
Johnson & Johnson	0.71	*	6.2%	=	0.04
Wells Fargo & Co New	-0.60	*	5.9%	=	-0.04
Amazon Com Inc	-0.02	*	5.5%	=	0.00
Nestle	0.38	*	5.5%	=	0.02
Jpmorgan Chase & Co	-0.62	*	5.3%	=	-0.03
Google	0.47	*	4.9%	=	0.02
Facebook Inc	-0.99	*	4.9%	=	-0.05
Google Inc [A]	0.36	*	4.7%	=	0.02
Pfizer Inc	0.86	*	4.6%	=	0.04
Novartis Ag Rs	0.53	*	4.6%	=	0.02
Procter & Gamble Co	0.66	*	4.6%	=	0.03
At&T Inc	0.49	*	4.6%	=	0.02
Roche Holdings Drc	0.52	*	4.3%	=	0.02
Verizon Communications Inc	-0.43	*	4.3%	=	-0.02
Walt Disney Co	0.13	*	4.1%	=	0.01
Bank Of America Corporation	-1.11	*	3.9%	=	-0.04
Coca Cola Co	0.28	*	3.9%	=	0.01
Chevron Corp New	0.56	*	3.8%	=	0.02
Portfolio Exposure :					$\Sigma = 0.11$

- Factor exposure is expressed as a cross sectional standard deviation (z-score)
- Factor exposures range from -3 to +3 for individual stocks
- Portfolio exposure to factors is calculated as the weighted average of stock exposures
- Typical active portfolios have about **0.5** standard deviation exposure to the target factor
- Portfolio exposures greater than **0.2** standard deviation are deemed to be significant
- Company exposures are relative to the whole market

# Does Your Fund do What it Says on the Tin?

**Fund due diligence:** MSCI FaCS provide an easy way to compare the exposure to funds with the same name or similar investment strategies



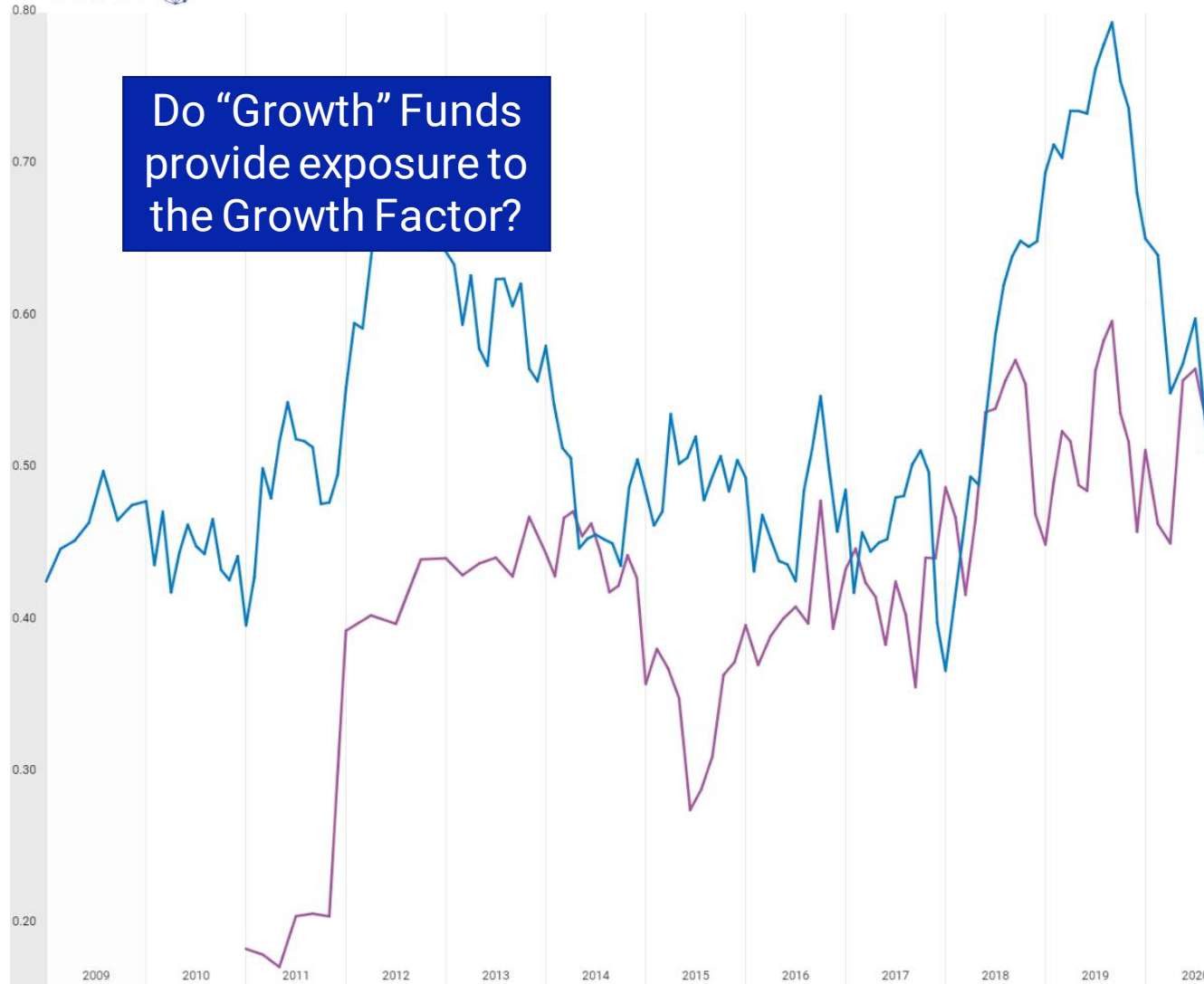
-   
 Analyze
-   
 Evaluate
-   
 Diligence
-   
 Report

# Historical Analysis – MSCI FaCS on Mutual Funds



Historical FaCS on Mutual Funds and ETFs\*

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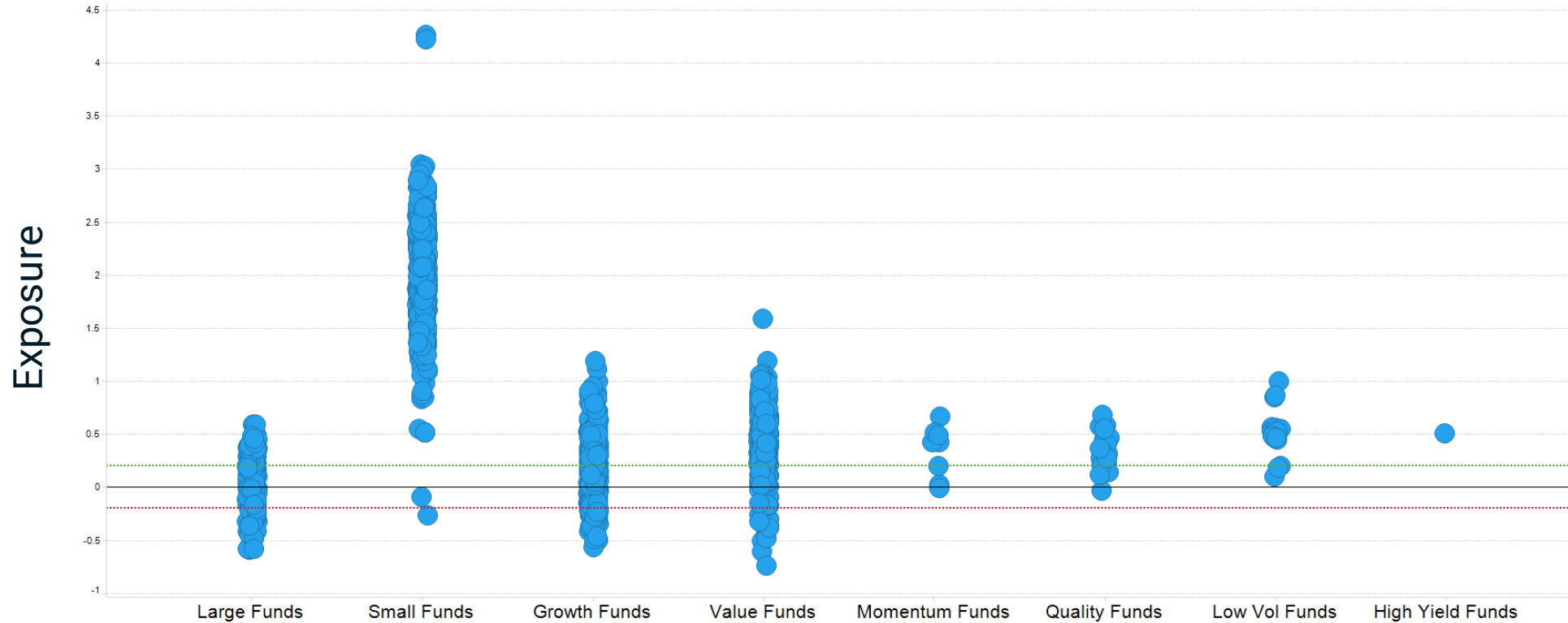
Do “Growth” Funds provide exposure to the Growth Factor?

In this example the “purple” Growth fund has consistently positive exposure to the growth factor

While the “blue” fund also named Growth generally has higher exposure to the growth factor



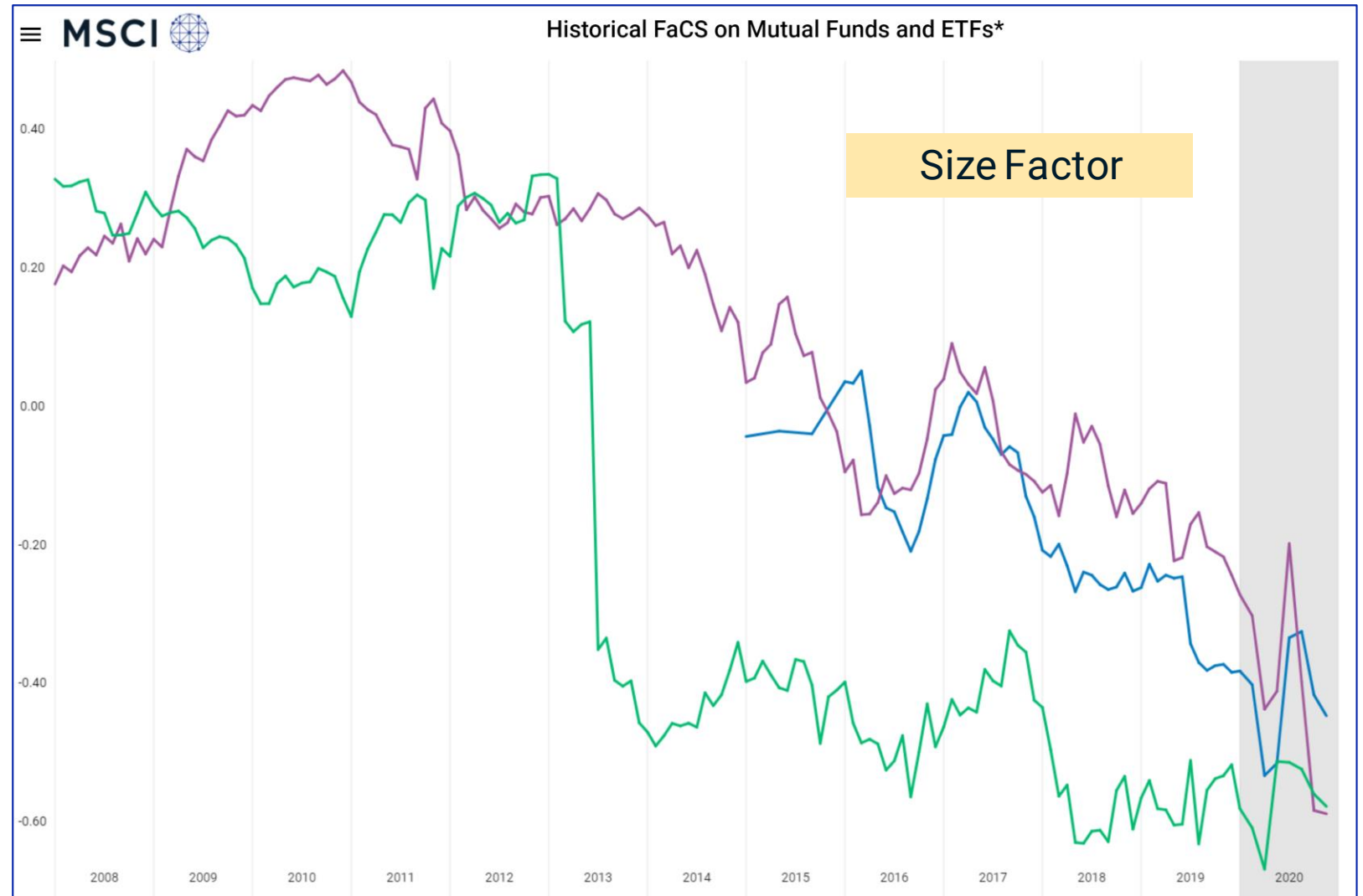
# Exposure of Mutual Funds with Type or Strategy in the Fund Name



Type or Strategy →	Large	Small	Growth	Value	Momentum	Quality	Low Vol	High Yield
Number of funds	178	482	560	413	8	21	16	1
Number with exposure below 0	52	2	119	21	1	1	0	0
% below 0	29%	0%	21%	5%	13%	5%	0%	0%
Number with exposure below -0.2	20	1	37	12	0	0	0	0
% below -0.2	11%	0%	7%	3%	0%	0%	0%	0%

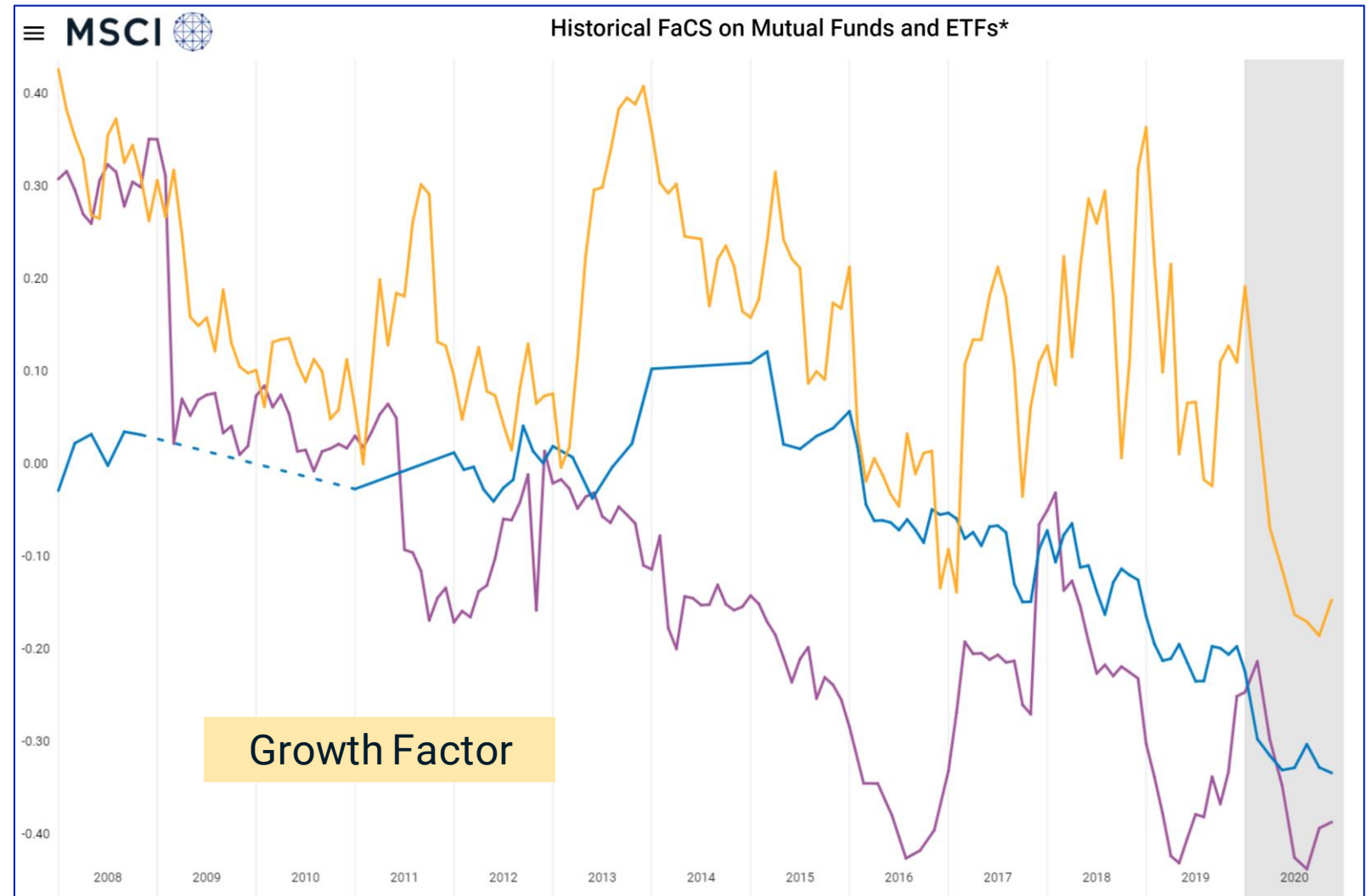
# Historical Size Exposures of Typical Outlier Funds

- Examples of three funds with “Large” in the name
- All three have negative exposure to the Size factor today
- Funds can change their exposures over time due to:
  - Changes in fund holdings
  - Changes in the fundamental characteristics of fund holdings



# Historical Growth Exposure of Typical Outlier Funds

- Examples of three funds with “Growth” in the name
- All three have negative exposure to Growth today
- Funds can change their exposures over time due to:
  - Changes in fund holdings
  - Changes in the fundamental characteristics of fund holdings



# Consistency of Fund Holdings with Fund Name – Size

## “ABC Large Cap Value Fund”

Grouping: Tier 3 Equity Size Exp	Weight (%)	Asset ID
by: PosNeg_sinnreid	100.00%	64
<input checked="" type="checkbox"/> Positive	31.05%	18
<input checked="" type="checkbox"/> Negative	68.95%	46

Grouping: Tier 3 Equity Size Exp	Asset Name	Weight (%)	Tier 3 Equity Size Exp
by: PosNeg_sinnreid		100.00%	-0.41
<input checked="" type="checkbox"/> Positive		31.05%	0.76
	PROCTER & GAMBLE CO	2.51%	1.15
	BERKSHIRE HATHAWAY INC	3.23%	1.14
	JPMORGAN CHASE & CO	2.21%	1.13
	ALPHABET INC	0.69%	1.12
	FACEBOOK INC	1.71%	1.12
	VISA INC	1.02%	1.11
	MICROSOFT CORP	1.88%	1.11
	INTEL CORP	1.51%	0.95
	BANK OF AMERICA CORPORATION	1.96%	0.87
	AT&T INC	1.88%	0.85
	PEPSICO INC	1.81%	0.84
	EXXON MOBIL CORPORATION	0.59%	0.64
	AMERICAN TOWER CORP	1.27%	0.41
	CITIGROUP INC	1.83%	0.30
	TARGET CORP	2.73%	0.21
<input checked="" type="checkbox"/> Negative		68.95%	-0.93
	SELECT MEDICAL HOLDINGS CORP	1.33%	-2.12
	MANPOWERGROUP INC	1.37%	-1.90
	HUNTSMAN CORP	1.83%	-1.74
	OSHKOSH CORP	1.54%	-1.73
	FLOWERS FOODS INC	0.79%	-1.71
	HILL-ROM HOLDINGS INC	1.47%	-1.66
	LPL FINANCIAL HOLDINGS INC	1.32%	-1.61
	LAMAR ADVERTISING CO	1.26%	-1.60
	ENCOMPASS HEALTH CORPORATION	1.38%	-1.57
	STEEL DYNAMICS INC	1.70%	-1.56
	AECOM	1.73%	-1.52
	AMEDISYS INC	1.91%	-1.42
	QUANTA SERVICES INC	2.48%	-1.42
	CARLYLE GROUP INC	1.46%	-1.31
	VISTRA CORP	1.42%	-1.31

- Actual mutual fund with “**Large Cap Value Fund**” in the name
- Fund’s exposure to Size is -.41
- Only 31% of this fund’s holdings by weight have a positive exposure to Size
- 69% by weight have a zero or negative exposure to Size

*Only top 15 positive and negative Size exposure holdings shown*



# Consistency of Fund Holdings with Fund Name – Growth

“ABC Large **Growth** Fund”

Grouping: Tier 3 Equity Growth Exp	Weight (%)	Asset ID
by: Pos-Neg Growth Exposure_sinnreid	100.00%	50
<input type="checkbox"/> Positive	14.78%	7
<input type="checkbox"/> Negative	85.22%	43

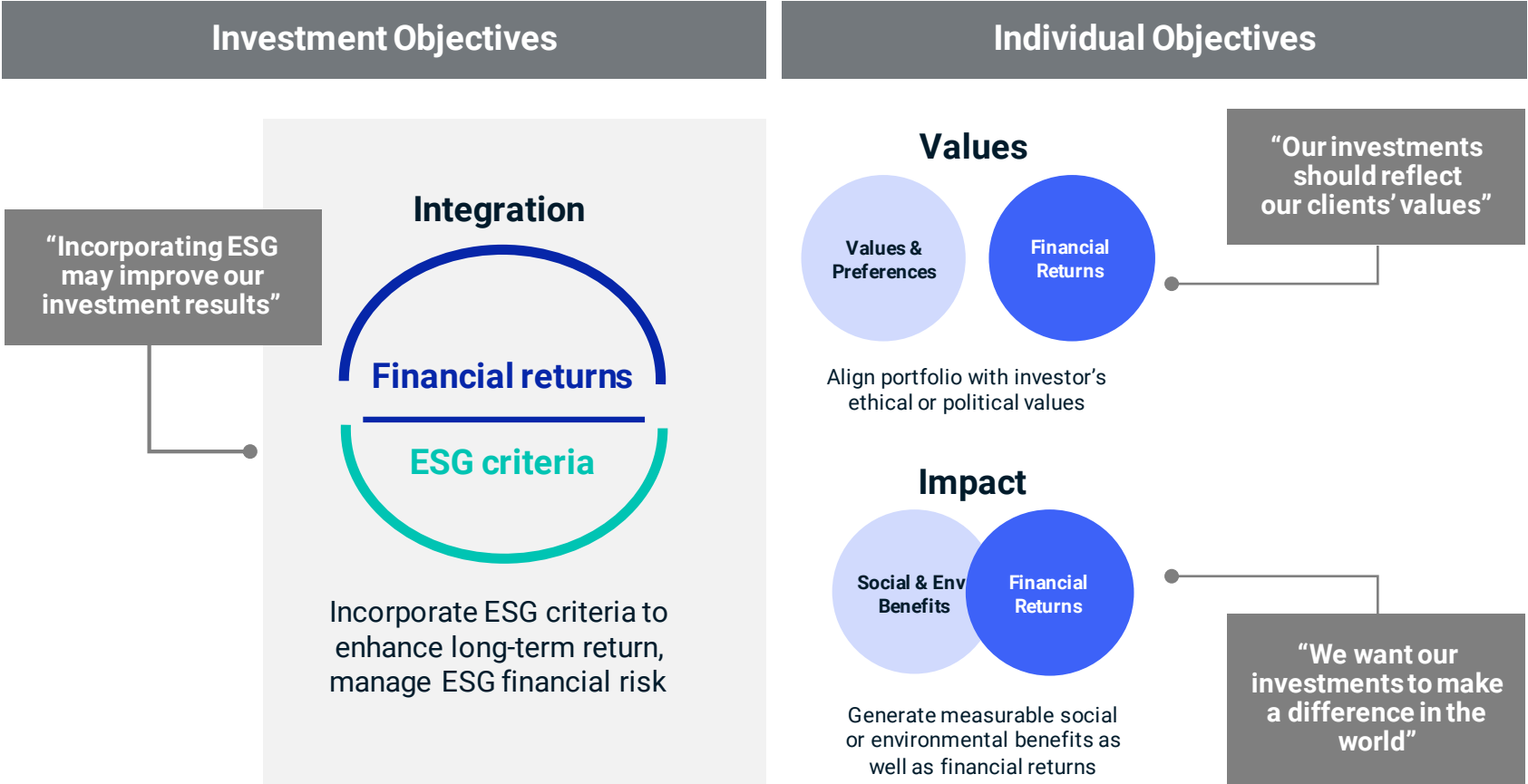
Grouping: Tier 3 Equity Growth Exp	Asset Name	Weight (%)	Tier 3 Equity Growth Exp
by: Pos-Neg Growth Exposure_sinn...		100.00%	-0.28
<input type="checkbox"/> Positive		14.78%	0.30
	PIONEER NATURAL RESOURCES CO	1.29%	1.05
	EOG RESOURCES INC	1.04%	0.78
	D.R. HORTON INC	2.46%	0.37
	PULTEGROUP INC	2.04%	0.36
	PROGRESSIVE CORP	2.24%	0.25
	UNITED RENTALS INC	2.67%	0.02
	TRACTOR SUPPLY CO	3.04%	0.02
<input type="checkbox"/> Negative		85.22%	-0.39
	AMERICAN AIRLINES GROUP	1.00%	-1.70
	UNITED AIRLINES HOLDINGS INC	0.90%	-1.29
	DELTA AIR LINES INC	1.15%	-0.97
	LAS VEGAS SANDS CORP	1.40%	-0.93
	INTERNATIONAL BUSINESS MACHINES CORP	1.65%	-0.91
	OMNICOM GROUP INC	1.32%	-0.82
	SOUTHWEST AIRLINES CO	1.48%	-0.79
	EMERSON ELECTRIC CO	1.96%	-0.66
	GENERAL MILLS INC	2.20%	-0.66
	HENRY SCHEIN INC	1.83%	-0.59
	3M CO	2.16%	-0.57
	CISCO SYSTEMS INC	1.74%	-0.56
	PACCAR INC	2.38%	-0.55
	WALMART INC	2.35%	-0.54
	WESTERN UNION CO	1.70%	-0.52
	AMGEN INC	2.07%	-0.46
	BIOGEN INC	1.61%	-0.44
	GENERAL DYNAMICS CORP	1.52%	-0.44
	ORACLE CORP	2.20%	-0.40
	NETAPP INC	1.79%	-0.37

- Actual mutual fund with “Large Cap **Growth** Fund” in the name
- Fund’s exposure to Growth is -.28
- Only 15% of this fund’s holdings have a positive exposure to Growth
- 85% have a negative exposure to Growth

*Only top 20 negative Growth exposure holdings shown*

# Environmental, Social, and Governance (ESG) Exposures

# ► No “One Size Fits All” – Different Objectives



# ► No “One Size Fits All” – Dimensions of ESG Exposure



## ESG Fund Rating / Quality Score

Weighted average ESG score of fund holdings



## ESG Momentum

Positive / negative ESG trend as % of holdings



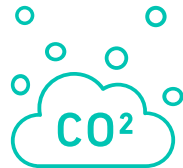
## ESG Laggards

ESG laggards (B, CCC) as % of holdings



## Headline ESG Risk

Very severe ESG controversies (%)



## Carbon Intensity

Carbon intensity of fund holdings (t CO2e / \$m sales)



## SRI Exposure

Exposure to controversial business activities (%)



## Sustainable Impact Exposure

Revenue exposure (%) to sustainable impact solutions

# Over 200 Metrics, Including:

## Sustainable impact

### Overall

- Sustainable Impact Themes (%)

### Environmental

- Clean Tech Companies (%)
- Alternative Energy (%)
- Energy Efficiency (%)
- Green Building (%)
- Pollution Prevention (%)
- Sustainable Water (%)

### Social

- Social Impact Companies (%)
- Affordable Housing (%)
- Education Services (%)
- Nutritious Food (%)
- Health Care (%)
- Sanitation Products (%)
- Social Finance (%)

## Values alignment

### Controversies

- Severe Env. Controversies (%)
- Severe Labor Controversies (%)
- Severe Customer Controversies (%)
- Severe Human Rights and Community Controversies (%)
- Severe Governance Controversies (%)

### International Norms Standards

- UN Global Compact Compliance Violation (%)
- UN Global Compact Compliance Watch List (%)
- Human Rights Norms Violation (%)
- Human Rights Norms Watch List (%)
- Labor Norms Violation (%)
- Labor Norms Watch List (%)

### Business Involvement

- Catholic Values Flag (%)
- Islamic Values Flag (%)
- SRI Exclusion Criteria (%)
- Adult Entertainment (%)
- Alcohol (%)
- Gambling (%)
- Genetic Engineering - GMO (%)
- Nuclear Power (%)
- Predatory Lending (%)
- Tobacco (%)
- Controversial Weapons (%)
- Weapons (%)

## Risk exposure

### Scores & Ranking

- ESG Quality Score (0-10)
- Peer Group Percentile Rank (1-100)
- Global Percentile Rank (1-100)
- Environmental Quality Score (0-10)
- Social Quality Score (0-10)
- Governance Quality Score (0-10)
- Rating Distribution & Trend

### Environmental Risks

- Carbon Footprint
- Fossil Fuel Reserves (%)
- Water Exposure (%)

### Governance Risks

- Board Flag (%)
- Board Independence (%)
- No Female Directors (%)
- Pay Flag (%)
- Ownership & Control Flag (%)
- Accounting Flag (%)

# Fund Coverage Universe

## Multi-asset class funds covered globally

**31,347**  
Fund Portfolios

**123,788**  
Fund Share Classes

### By Asset Class

	Fund Portfolios	Share Classes
Equity	18,813	71,123
Bond	7,387	33,567
Mixed Assets	3,856	13,487
Money Market	579	2,264
Alternatives	495	2,628
Commodity	75	414
Real Estate	40	175
Other	102	130

### By Asset Universe

	Fund Portfolios	Share Classes
Mutual Funds	24,779	111,656
Insurance Funds	1,639	4,833
Exchange Traded Funds	3,852	5,034
Pension Funds	691	1,823
Closed End Funds	262	276
Investment Trust	106	111
Hedge Funds	18	54

### By Region (Domicile)

	Fund Portfolios	Share Classes
Luxembourg	5,108	40,521
USA	7,395	20,081
Canada	2,399	16,154
Ireland	1,694	9,609
UK	1,815	8,788
India	806	3,795
Korea (Republic of)	666	3,285
France	1,152	3,032
Switzerland	697	2,058
Japan	2,041	2,041
Other	7,574	14,424

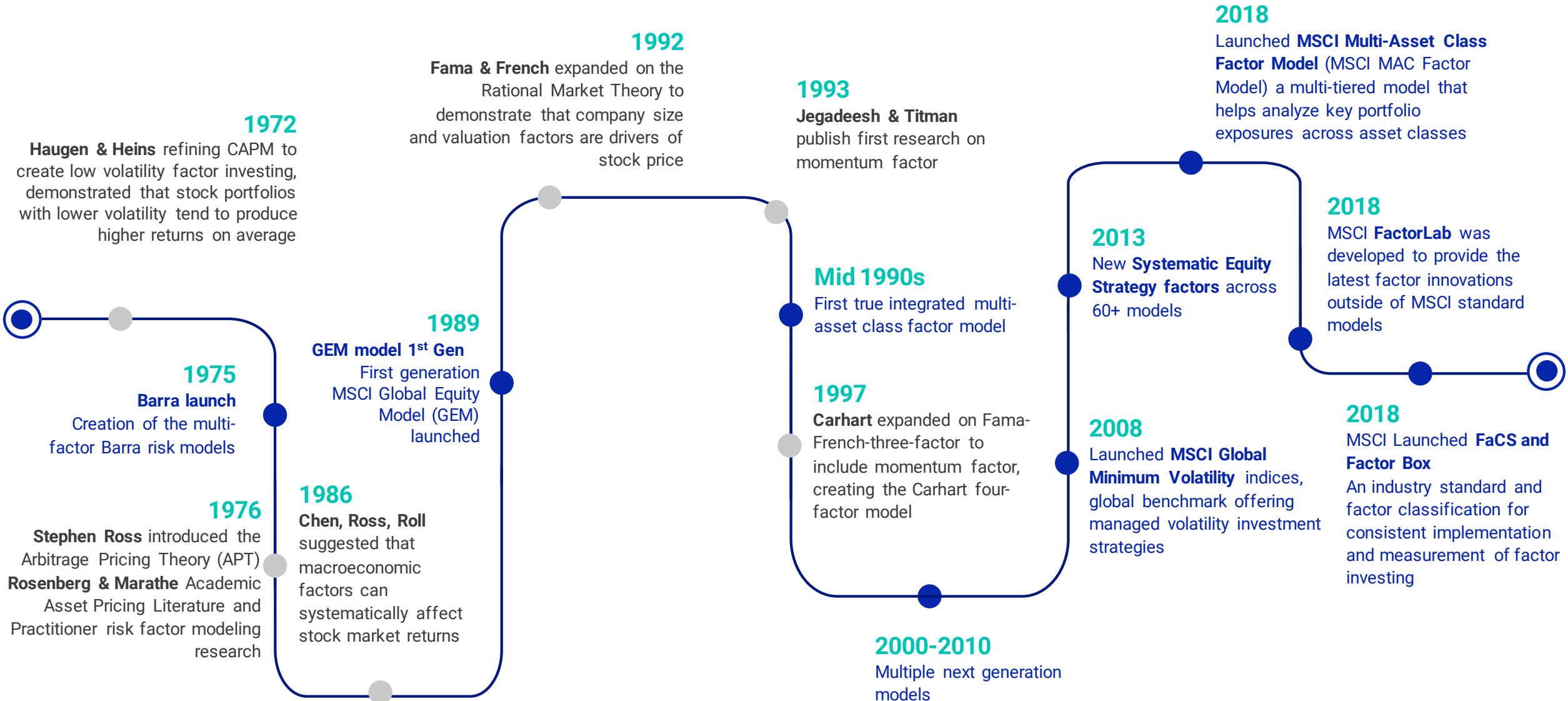
### Coverage Criteria

MSCI ESG Fund Ratings holdings data is sourced from Lipper. To be included in MSCI ESG Fund Ratings coverage universe, a fund must pass the following three criteria:

1. 65% of the fund's gross weight must come from covered securities.
2. Fund holdings date must be less than one year old.
3. Fund must have at least ten securities.

# Appendix

# Evolution of Factor Models in Industry & Academia





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