

SUSTAINABILITY DISCLOSURE IN REAL ESTATE

The Market for Information and Sector Data Trends

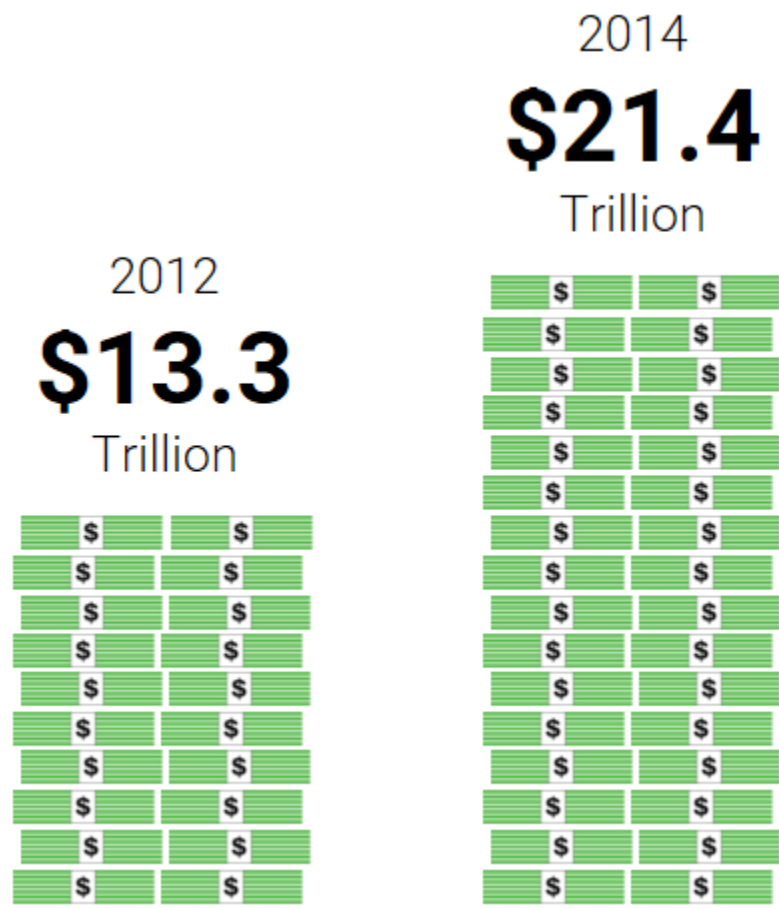
Leader in the Light Working Forum
January 26th, 2016

Lenora Suki, Sustainable Business and Finance

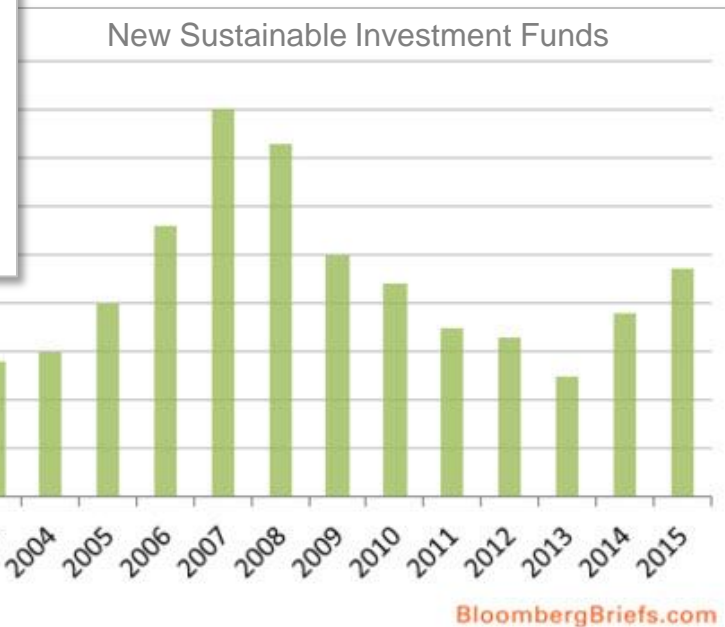
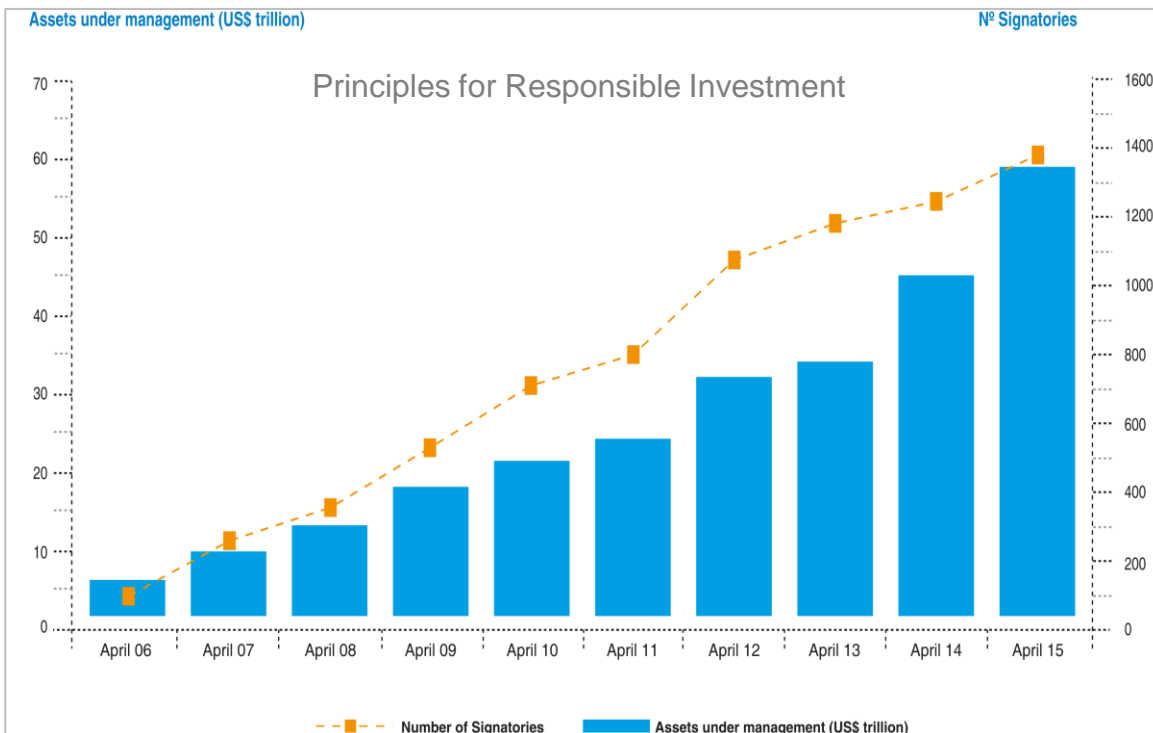
Morgan Tarrant, Global Data

Bloomberg LP

SUSTAINABLE INVESTMENT ON THE RISE



DEMAND FOR SUSTAINABILITY INFORMATION



Sources: Principles for Responsible Investment, Bloomberg

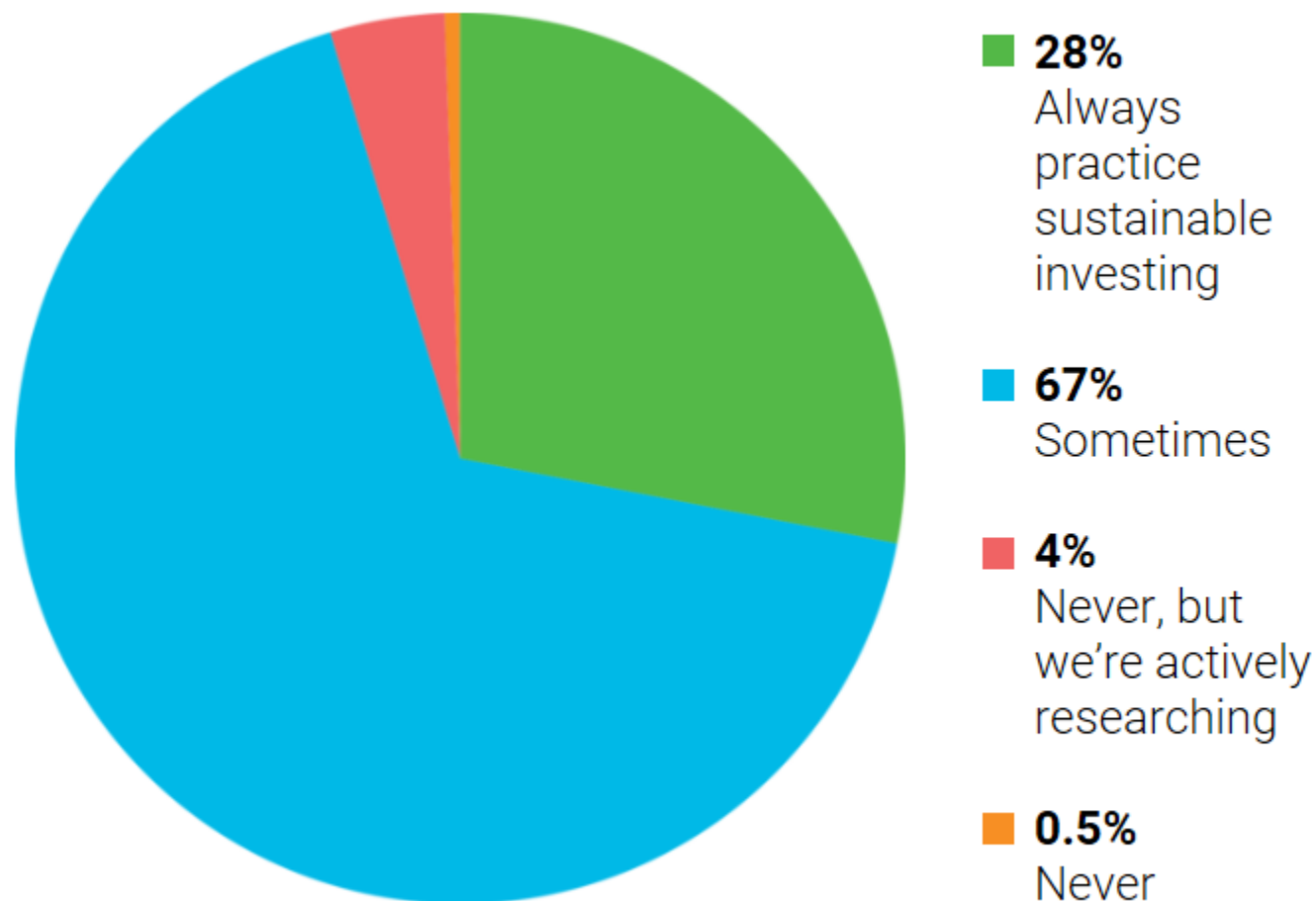
ASSET OWNERS WILL INCREASE SUSTAINABLE INVESTING

82% Will increase

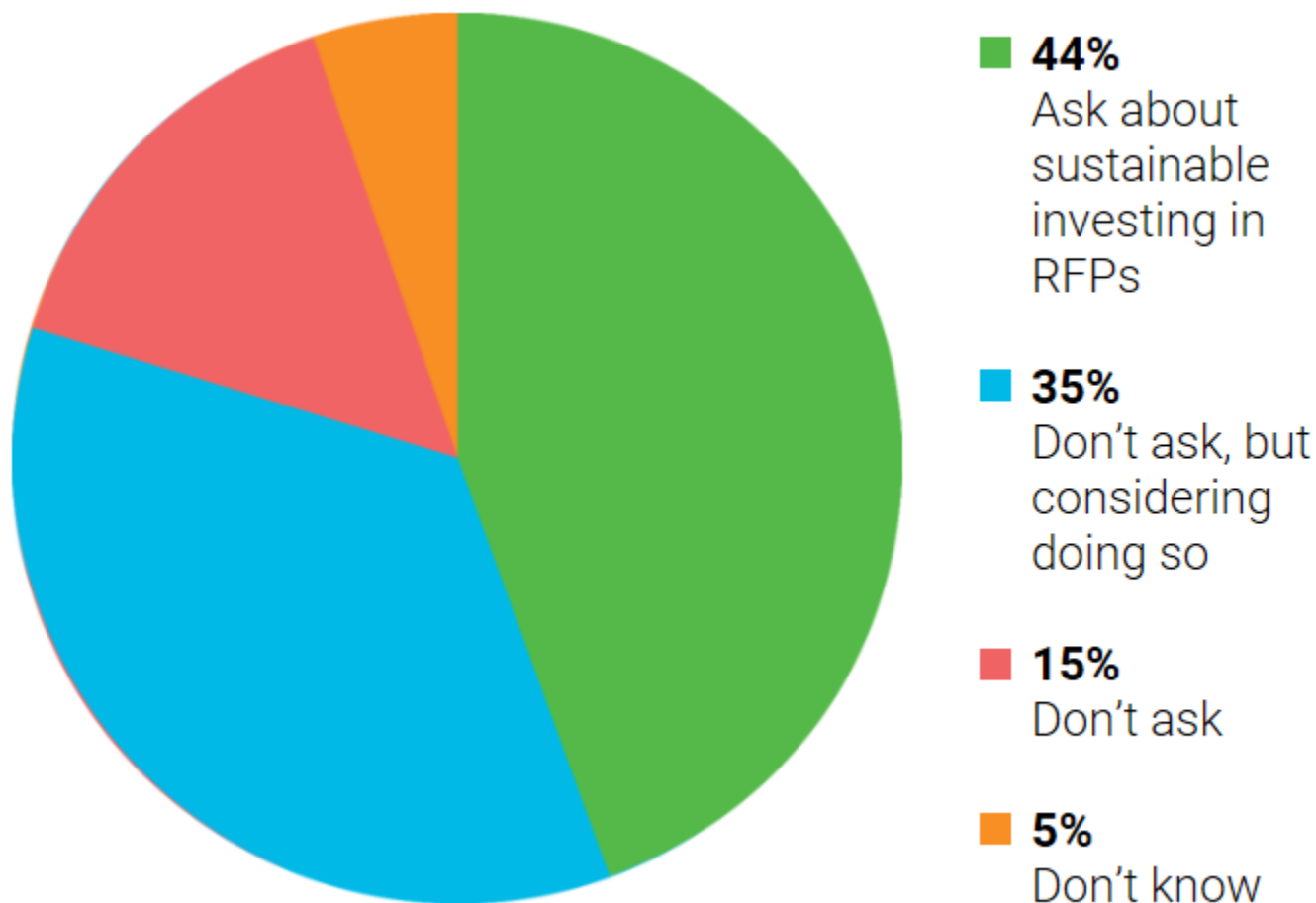


18% Will remain the same

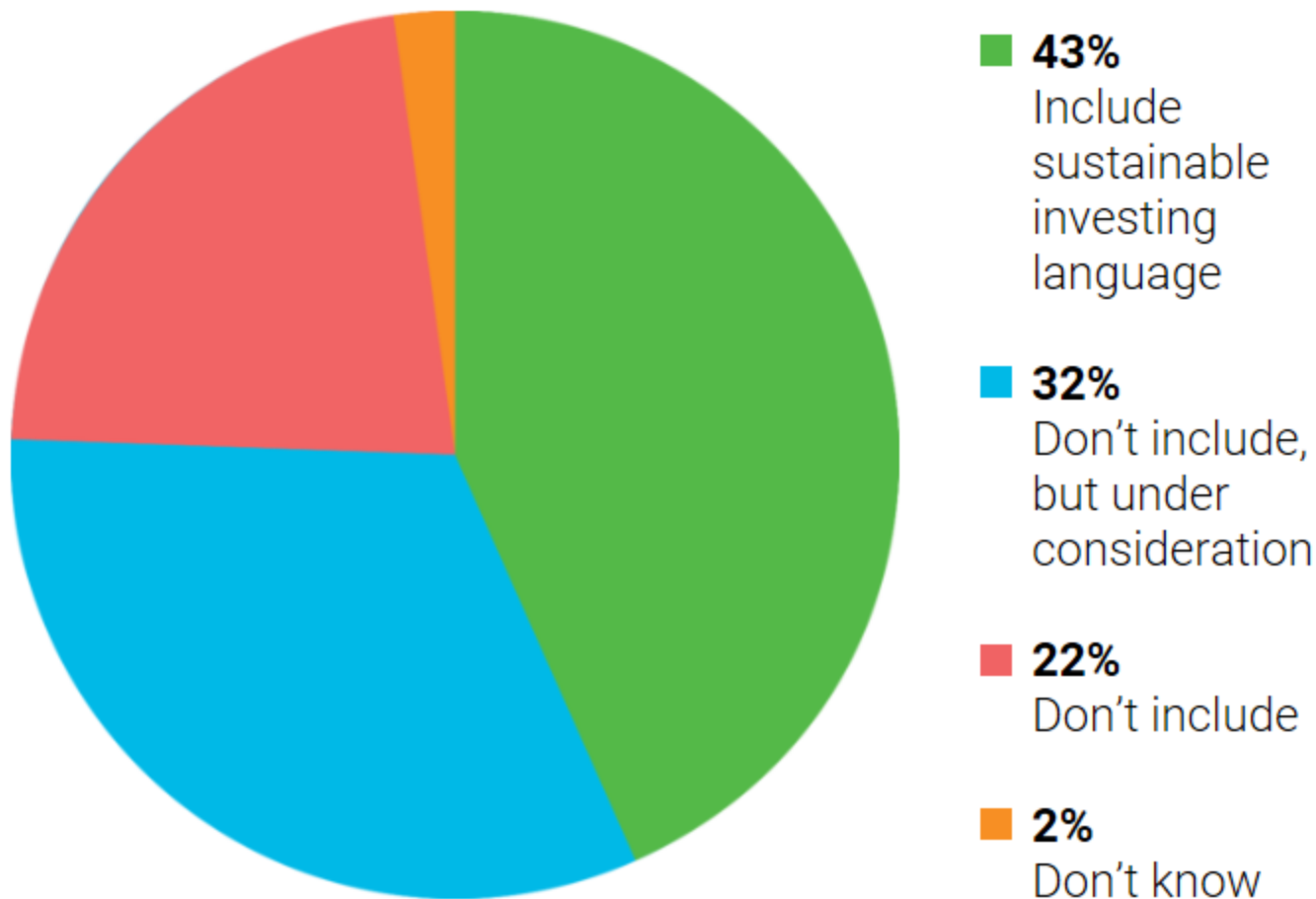
MOST ASSET OWNERS INCORPORATE SUSTAINABLE INVESTING IN SOME WAY



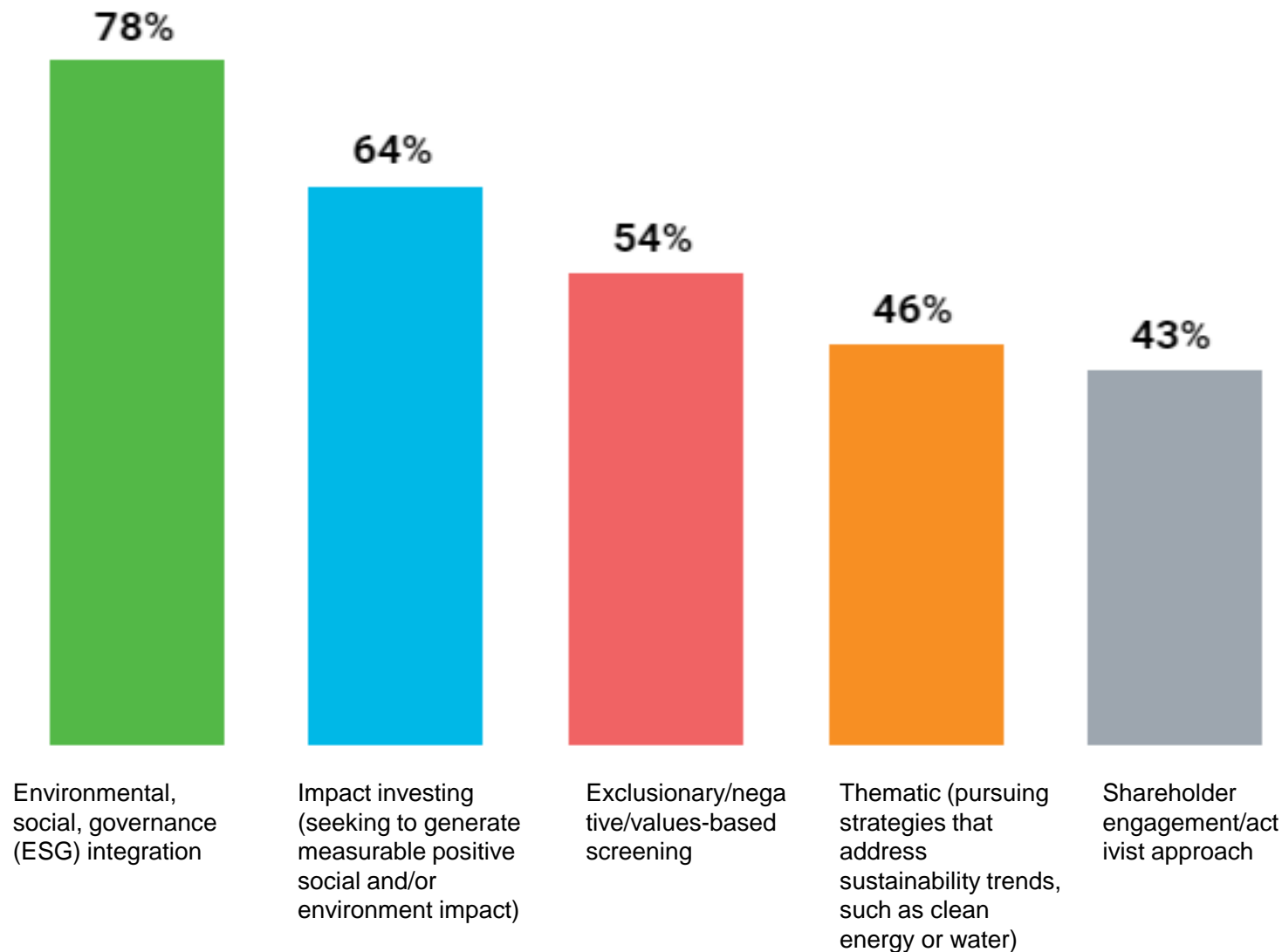
MANY ASSET OWNERS ASK ABOUT SUSTAINABLE INVESTING IN RFPs



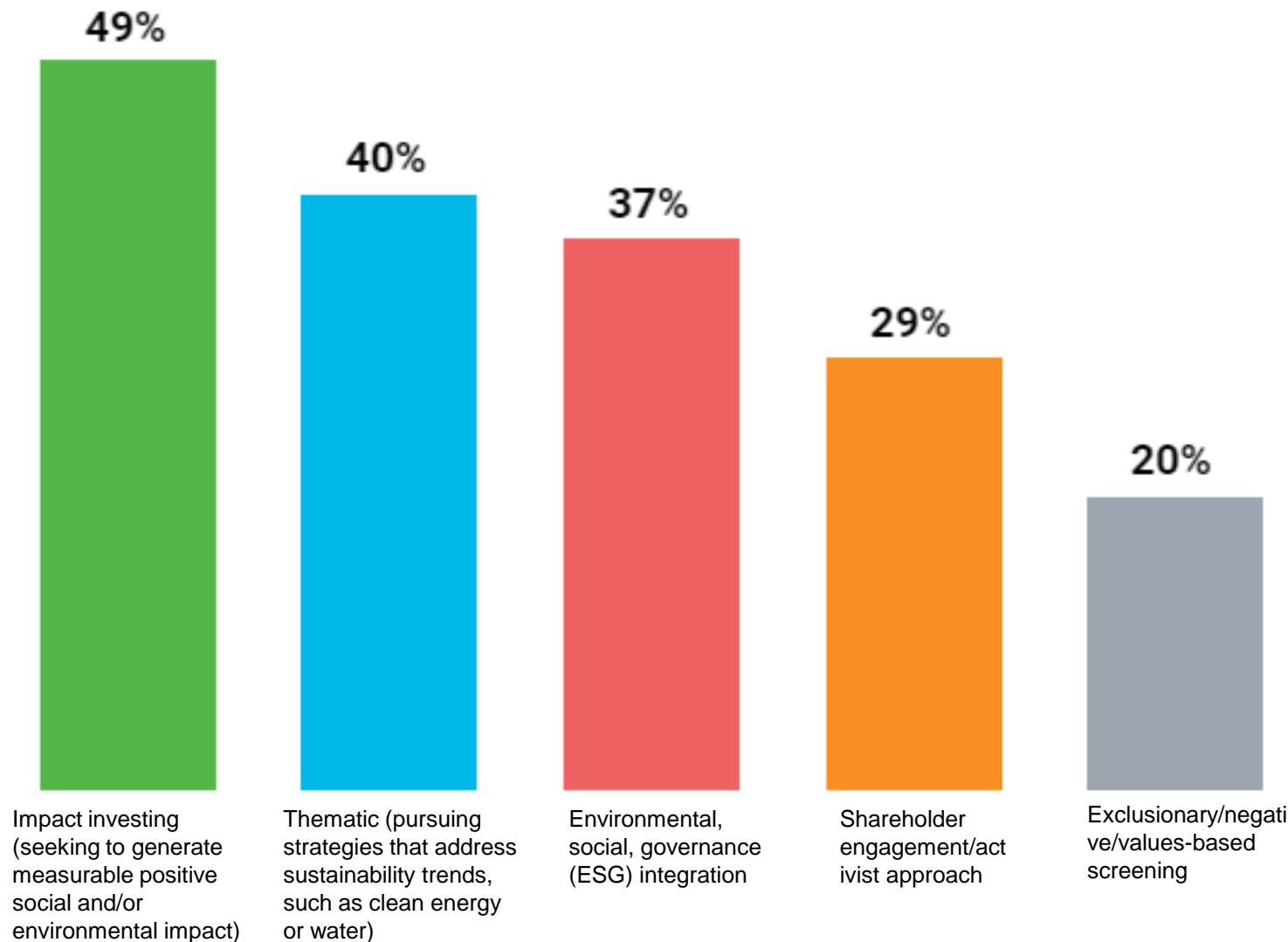
MORE THAN HALF HAVE NO SUSTAINABLE INVESTMENT LANGUAGE IN IPS



ESG INTEGRATION IS THE MOST USED FORM OF SUSTAINABLE INVESTING



IMPACT INVESTING IS ON THE RISE AS A FORM OF SUSTAINABLE INVESTING



PORTFOLIO DECARBONIZATION IS DRIVING MORE INVESTOR ACTION



\$100 bn target by COP21
PDC oversees \$230 bn in AUM



CARBON ACTION

\$22 tn investor group engaging with over 1,300 companies



\$3 tn target by COP21
\$8 tn in assets to disclose footprints

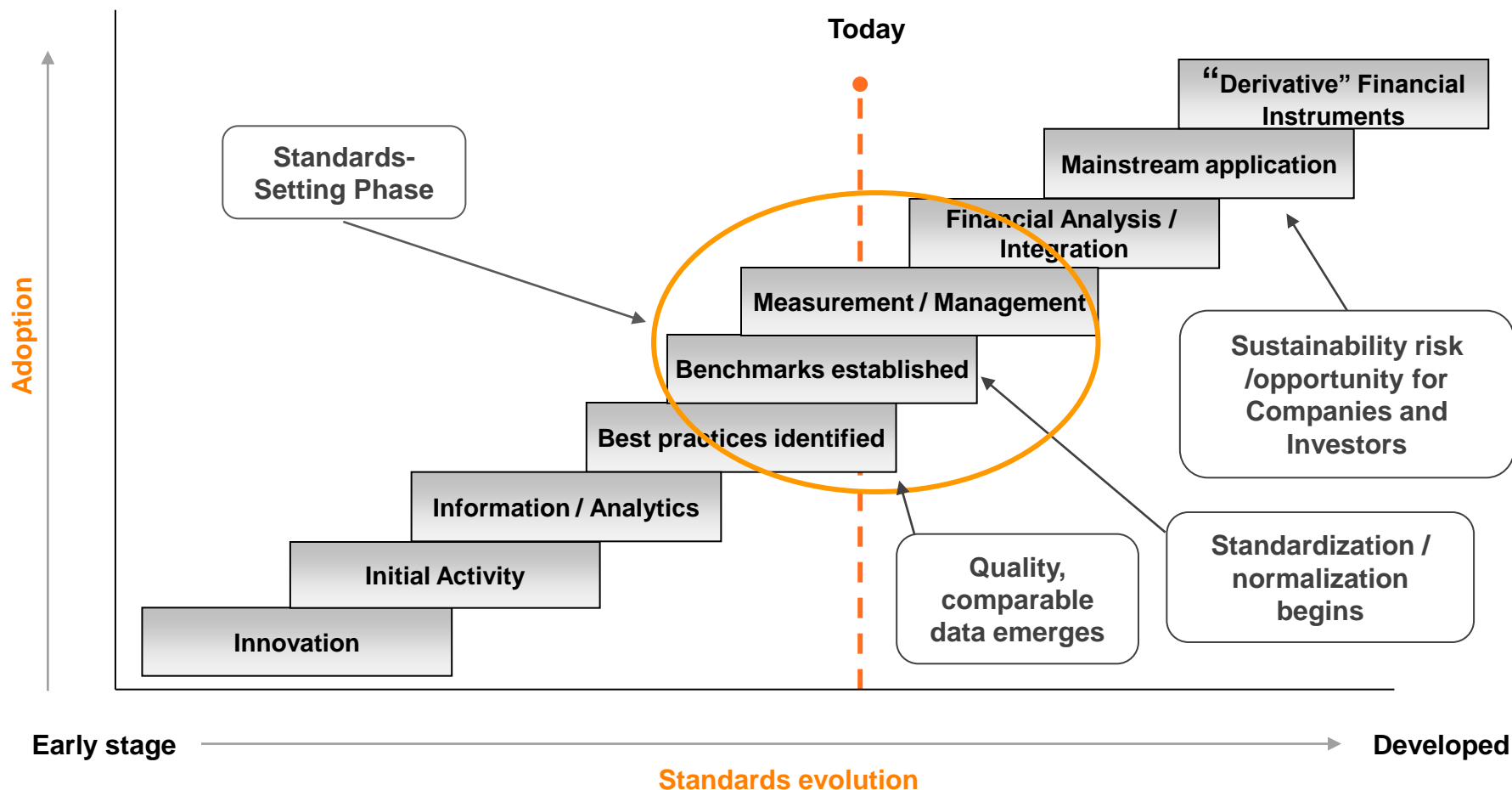
GLOBAL INVESTOR STATEMENT ON CLIMATE CHANGE

\$24 tn in AUM calling for an agreement on climate change

American Business Act on Climate Pledge

154 companies with \$4 tn in revenues pledge environmental goals

TRANSPARENCY AND STANDARDS ARE EMERGING, AS ARE BEST PRACTICES



DEMAND FOR SUSTAINABILITY INFORMATION

Equity

Index/ETF

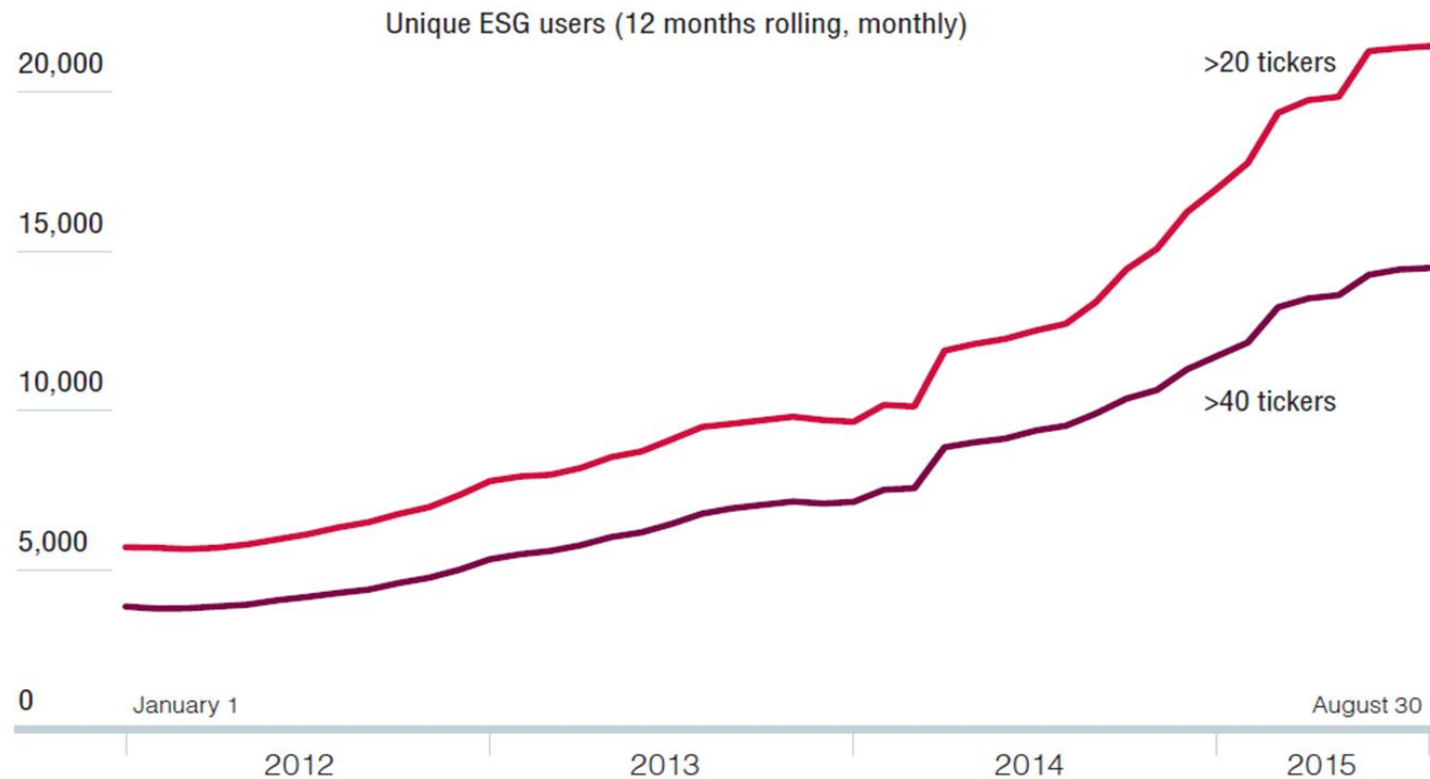
Fixed Income

Private Equity

Real Estate

Financial Innovation

Rapid growth in Bloomberg's ESG users and data consumption corroborates growing corporate interest



Source: Bloomberg LP

SUSTAINABLE FINANCE FOCUSES ON RISK AND OPPORTUNITY ANALYSIS

VLKAY US \$ ↓ 25.85 -1.31 K25.85 / 25.90K 10x1						
At 11:41 d Vol 2,564,211 O 25.855V H 26.08V L 25.227V Val 65.68M						
VLKAY US Equity 96 Actions 97 Output 98 Settings Financial Analysis						
Volkswagen AG Periods 10 Annuals Currency EUR						
1) Key Stats 2) I/S 3) B/S 4) C/F 5) Ratios 6) Segments 7) Addl 8) ESG 9) Custom 10) Shared						
11) Overview 12) Environmental 13) Social 14) Governance 15) Exec & Dir Comp 16) ESG Ratios 17) CDP						
In Millions of EUR except Per Share						
	FY 2014	FY 2013	FY 2012	FY 2011	FY 2010	FY 2009
12 Months Ending	12/31/2014	12/31/2013	12/31/2012	12/31/2011	12/31/2010	12/31/2009
ESG Disclosure Score	61.98	60.74	58.68	57.44	58.26	50.00
Environmental						
Environmental Disclosure Score	62.79	60.47	60.47	56.59	60.47	50.39
Direct CO2 Emissions	--	--	4,260.0	4,040.0	4,320.0	1,420.0
Indirect CO2 Emissions	--	--	4,410.0	4,310.0	3,720.0	5,030.0
Total CO2 Emissions	--	--	8,670.0	8,350.0	8,040.0	6,450.0
CO2 Intensity per Energy	--	--	0.39	0.44	0.41	0.37
Total GHG Emissions	8,980.0	8,950.0	--	--	--	--
NOx Emissions	4.0	4.3	4.4	2.7	4.3	2.3
SO2 Emissions	1.2	2.0	2.1	0.4	2.1	0.4
Total Energy Consumption	22,700.0	23,140.0	22,250.0	18,970.0	19,380.0	17,210.0
Water Consumption	56,410.0	54,420.0	48,610.0	38,240.0	37,230.0	32,690.0
Hazardous Waste	255.1	229.1	216.8	177.2	168.7	146.9
Total Waste	2,838.4	2,717.4	2,651.2	2,326.0	2,155.0	1,804.8
Social						
Social Disclosure Score	66.67	66.67	57.89	61.40	56.14	47.37
Number of Employees	592,586	572,800	549,763	501,956	399,381	370,000

Bloomberg

ESG DATA ON BLOOMBERG

» Fully integrated into financial analysis

THE EMPHASIS IS ON INTEGRATED TOOLS AND ACTIONABLE INSIGHTS

95) Output ▾			96) Actions ▾			15 securities			Equity Screening: Results			
						97) Backtest		As Of		09/25/2015 		
Add Column											92) Fields	
			Ticker		Short Name	ESG↑ Disc Score:Y	YOY% Total GHG	TotMarket Cap GHG / CO2		Price:D-1	P/E	Total Return
1)			■ Automobiles & Components (15 securities)									
2)			BMW	GR	BAYER MOTOREN WK	64.46	3.20	1.46	51.02B	79.00	8.87	-9.56
3)			VOW	GR	VOLKSWAGEN AG	61.98	0.34	8.98	56.12B	121.05	5.22	-31.29
4)			UG	FP	PEUGEOT SA	61.57	-11.69	1.39	11.03B	13.01	--	27.25
5)			RNO	FP	RENAULT SA	54.13	-0.95	1.17	19.88B	63.83	7.05	7.66
6)			7261	JP	MAZDA MOTOR	52.89	2.45	0.75	1.14T	1895.50	7.73	-34.99
7)			005380	KS	HYUNDAI MOTOR	52.48	3.05	2.52	35.68T	162000.00	6.45	-3.43
8)			FCAU	US	FIAT CHRYSLER AU	51.65	2.49	4.28	16.88B	13.10	13.56	13.13
9)			MSIL	IN	MARUTI SUZUKI IN	50.00	0.80	0.32	1.38T	4566.65	36.23	37.96
10)			GM	US	GENERAL MOTORS C	47.11	-3.97	8.08	46.63B	29.44	6.73	-13.09
11)			2206	TT	SANYANG MOTOR CO	46.28	-18.75	0.03	21.20B	23.55	--	-17.37
12)			2201	TT	YULON MOTOR CO	45.45	1.89	0.02	47.27B	30.05	18.42	-33.97
13)			000270	KS	KIA MOTORS CORP	41.32	4.00	1.23	20.88T	51500.00	7.57	-1.53
14)			7267	JP	HONDA MOTOR CO	40.91	0.58	5.24	6.71T	3705.00	11.88	6.23
15)			HOG	US	HARLEY-DAVIDSON	38.02	3.48	0.17	11.01B	53.44	14.40	-17.60
16)			PAH3	GR	PORSCHE AUTO-PRF	5.37	11.08	--	12.85B	42.93	4.25	-34.47

Bloomberg

ESG DATA INTEGRATED IN ANALYTICAL TOOLS
 » ESG indicators can be analyzed with financial

GREEN BONDS NEWS, RESEARCH AND ANALYTICS SUPPORT DECISION-MAKING

Bloomberg New Energy Finance

Bloomberg
NEW ENERGY FINANCE

28) Features

UPDATED: Green bonds on the Terminal: This guide sheds light on Bloomberg's approach to improving transparency in the green bonds market and shows how to identify different types of loan and bond opportunities on the

Bloomberg
NEW ENERGY FINANCE

BNEF BLOOMBERG TERMINAL GUIDE
10 September 2015

Guide to green bonds on the Bloomberg Terminal

About Us

11) Introduction

12) Coverage & Services

13) BNEF Cheatsheet

14) Contact Us

Green Bonds

15) Terminal Guide

16) Research

BNEF on your Terminal

17) Insight Reports

18) Price Indexes

19) PV Supply Model

20) Carbon Price Forecast

Data & Analytics

21) Industry Data

22) Carbon Project Search

23) Projects & Assets

24) Equity Indexes

25) Bloomberg Intelligence

News & Publications

26) News Menu

27) Weekly BRIEF

Green Bonds Research

Title	Date
11) Clean Energy Investment: Q3 2015 factpack	2015-10-08
12) Q3 2015 Green Bonds Market Roundup	2015-10-02



Bloomberg

Compare Green vs Non-Green Bond Yields. Run Function

BNEF ON GREEN BONDS, RENEWABLES, ENERGY EFFICIENCY AND TRANSPORT

BNEF BLOOMBERG TERMINAL GUIDE

10 September 2015

Q3 2015 GREEN BONDS ROUNDUP

GREEN BONDS

ISSUANCE BY TYPE (\$B)

GREEN BONDS

UNDERWRITERS, Q3 2015

Guide to green bond Terminal

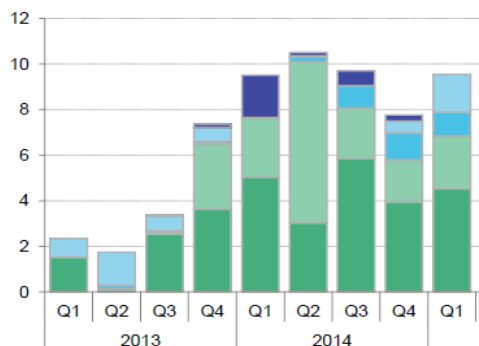
This guide sheds light on Bloomberg's approach to the green bonds market. It outlines the methodology used in the Bloomberg Terminal and shows how to identify green bond opportunities (as well as other 'unlabelled' opportunities).

1. INTRODUCTION

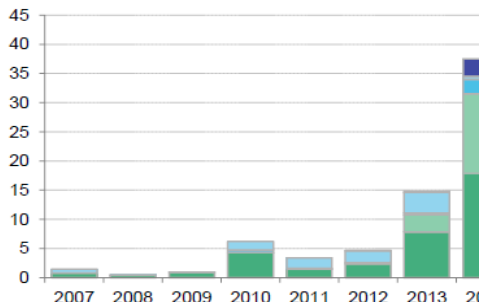
The biggest challenge in identifying the 'labelled' green bond is that it constitutes a *labelled* green bond. At Bloomberg, the *Bonds Principles* (GBP) (described below) and analysis, is as follows:

- **Labelled green bonds are fixed income applied towards projects or activities adaptation or other environmental sustain**

By quarter

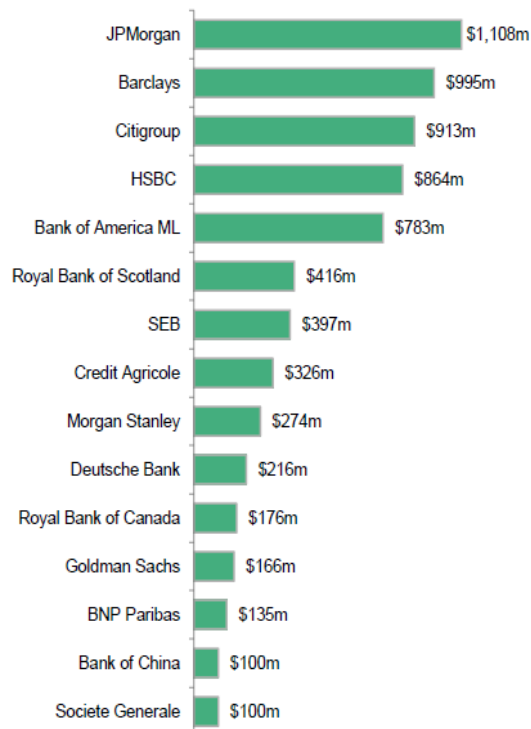


By year

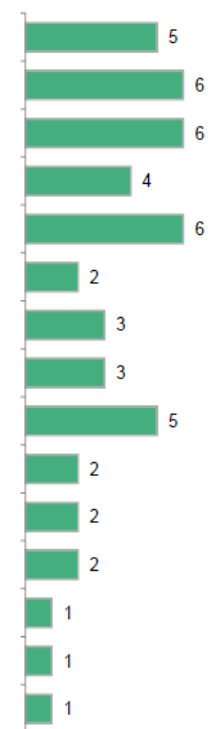


Notes: See Section 2.1 of our [H2 2015 Green Bonds Mar](#)

Amount underwritten



Deal count



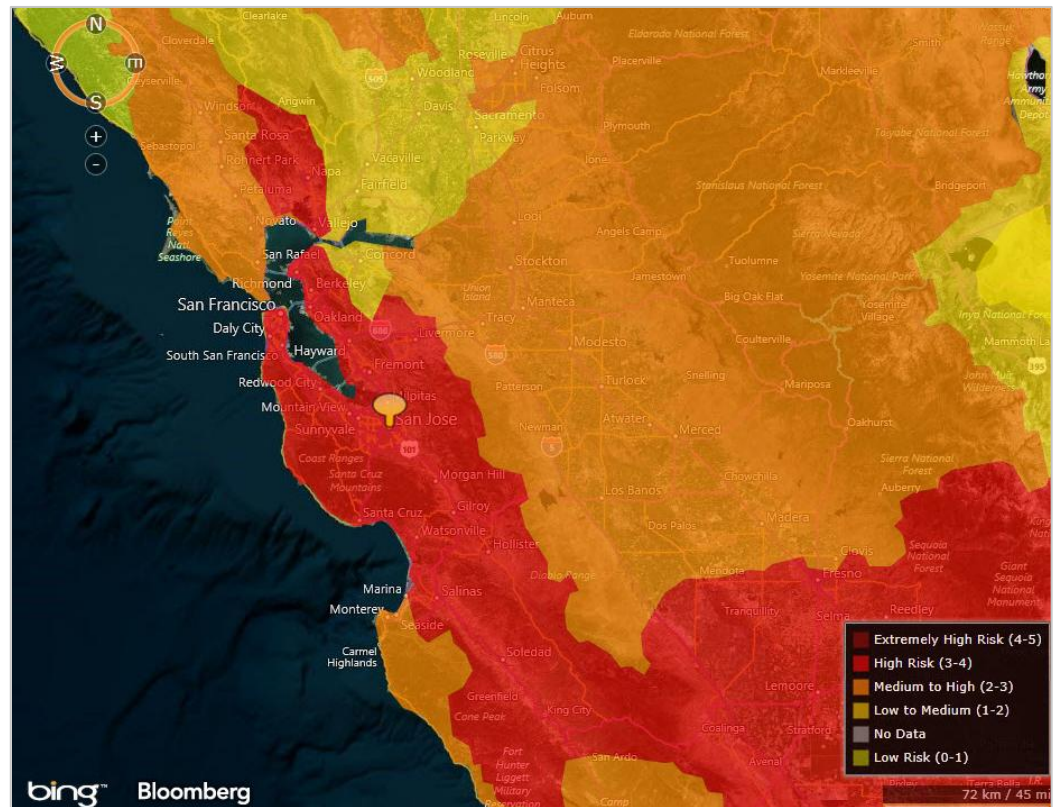
Bloomberg

INVESTORS MAP ASSET LEVEL DATA TO EVALUATE WATER STRESS AND MORE



WRI Aqueduct and Bloomberg collaborated to bring WRI's Overall Water Risk layer on BMAP, Bloomberg's mapping function to overlay assets on regional water risk levels.

Custom assets can be uploaded and identified within the layer's higher risk areas.



BLOOMBERG HELPS BUILD STANDARDS AND AN ECOSYSTEM



WORLD
RESOURCES
INSTITUTE



Clean Trillion

Climate Bonds INITIATIVE



INTEGRATED REPORTING <IR>



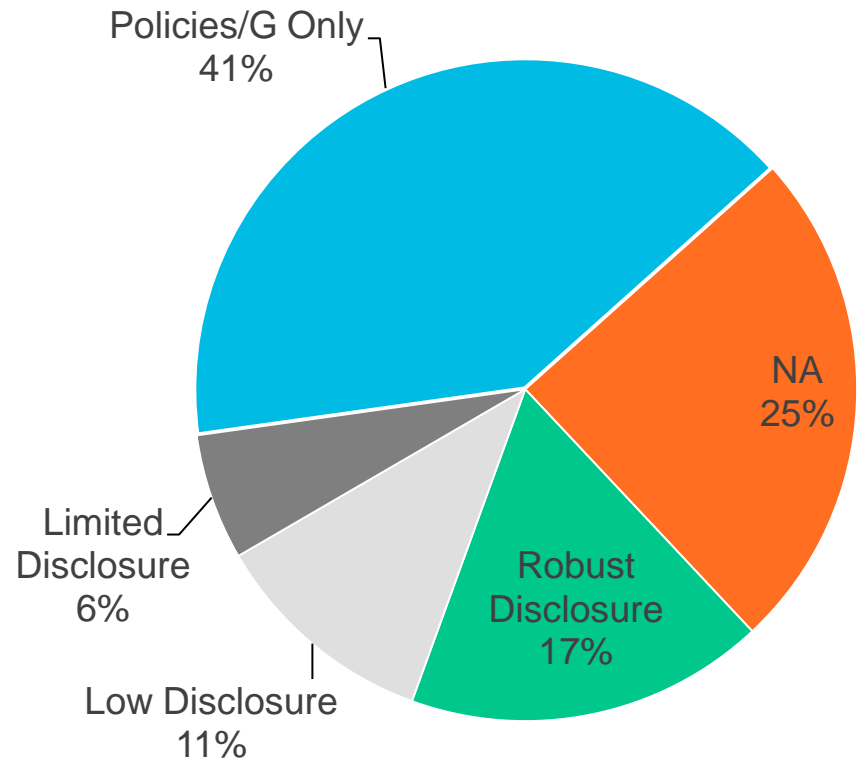
DISCLOSURE IN FTSE/EPRA NAREIT MEMBERS IS STILL EARLY

- Policies/G Only
<15 ESG Disclosure Score
- Low Disclosure
15-22 ESG Disclosure Score
- Limited Disclosure
22-30 ESG Disclosure Score
- Robust Disclosure
30+ ESG Disclosure Score

The Bloomberg ESG Disclosure Score is a continuous variable to help gauge a company's reporting robustness on environmental, social and corporate governance information relative to its industry peers

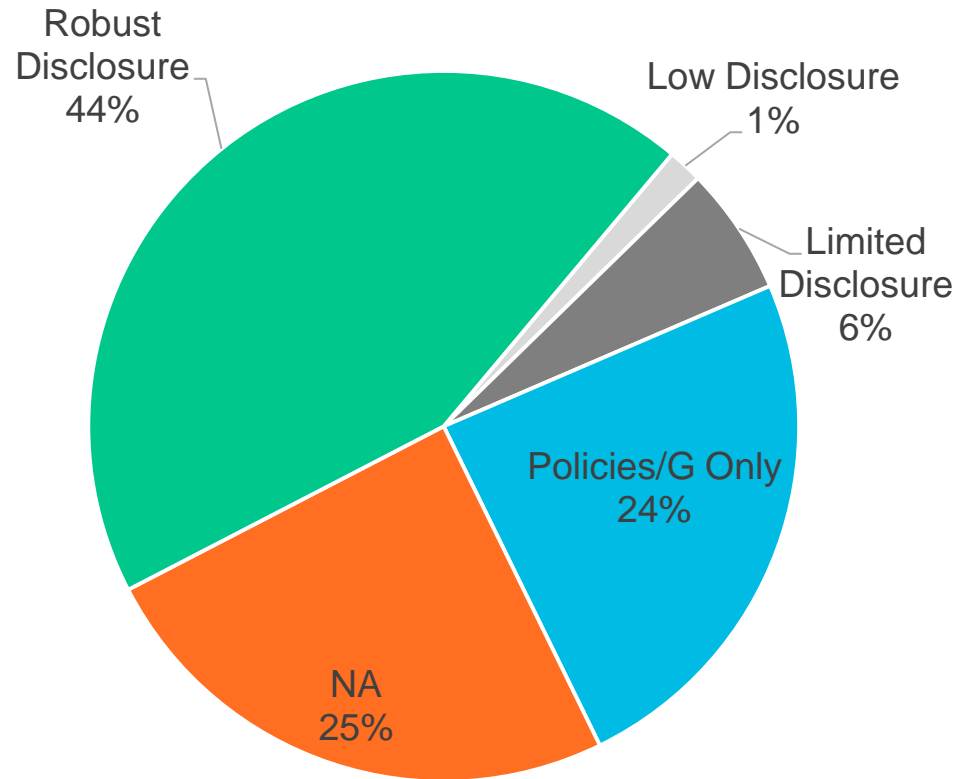
Universe: FTSE/EPRA NAREIT Index

**Disclosure Tiers
(as % of # of companies)**

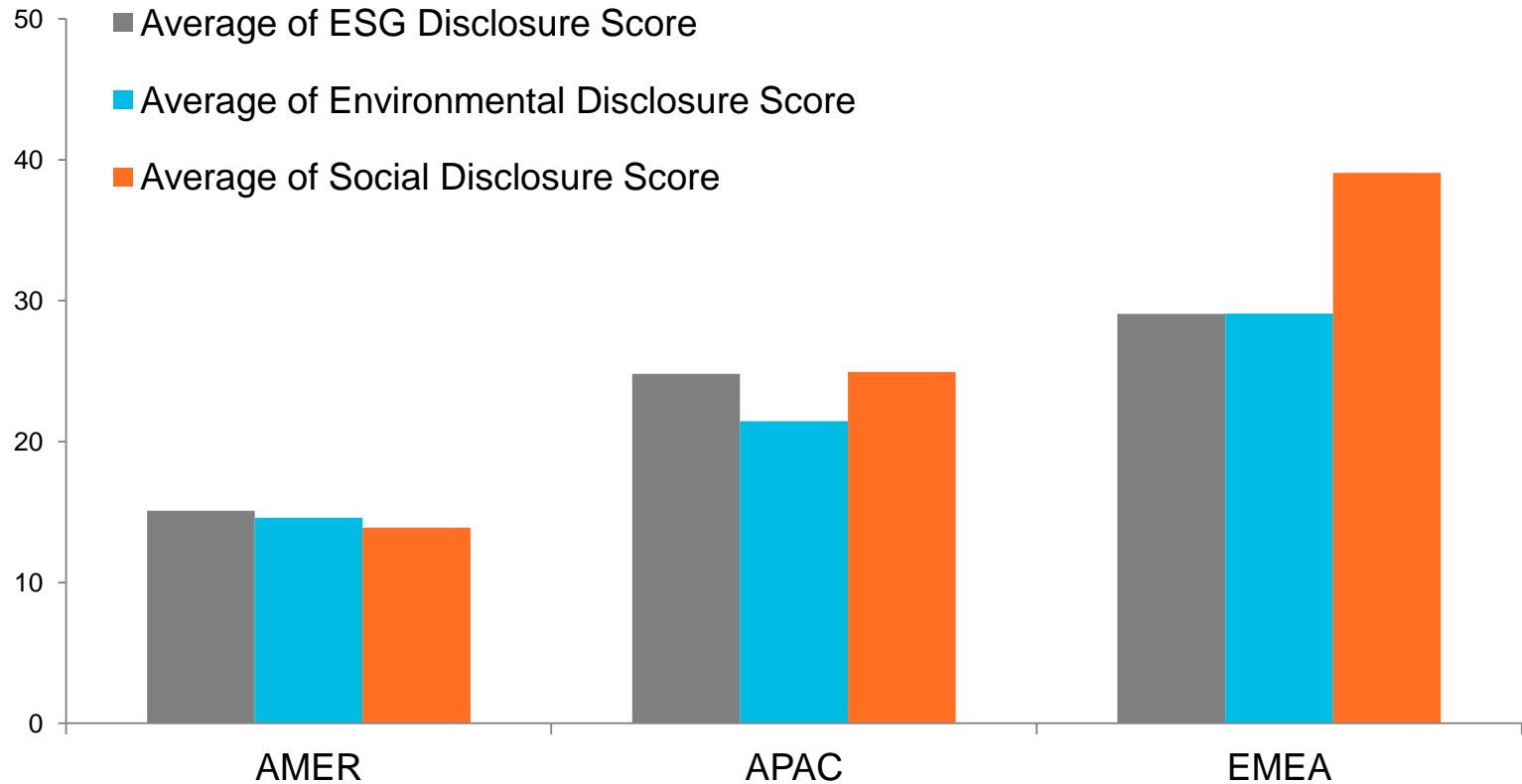


THE LARGEST REITS ARE REPORTING EXTENSIVELY ON ESG FACTORS

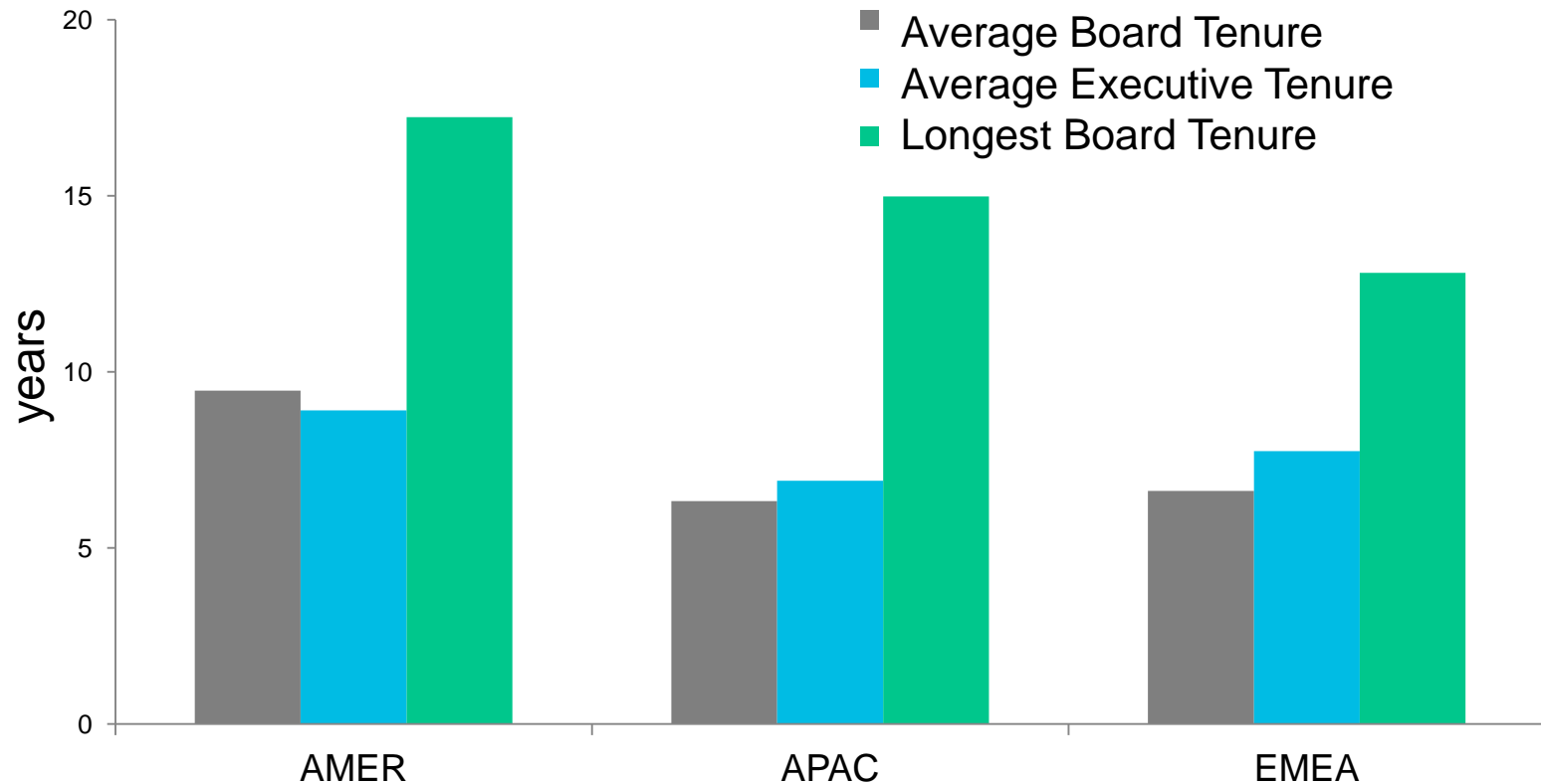
Disclosure Tiers
(as % of Market Cap)



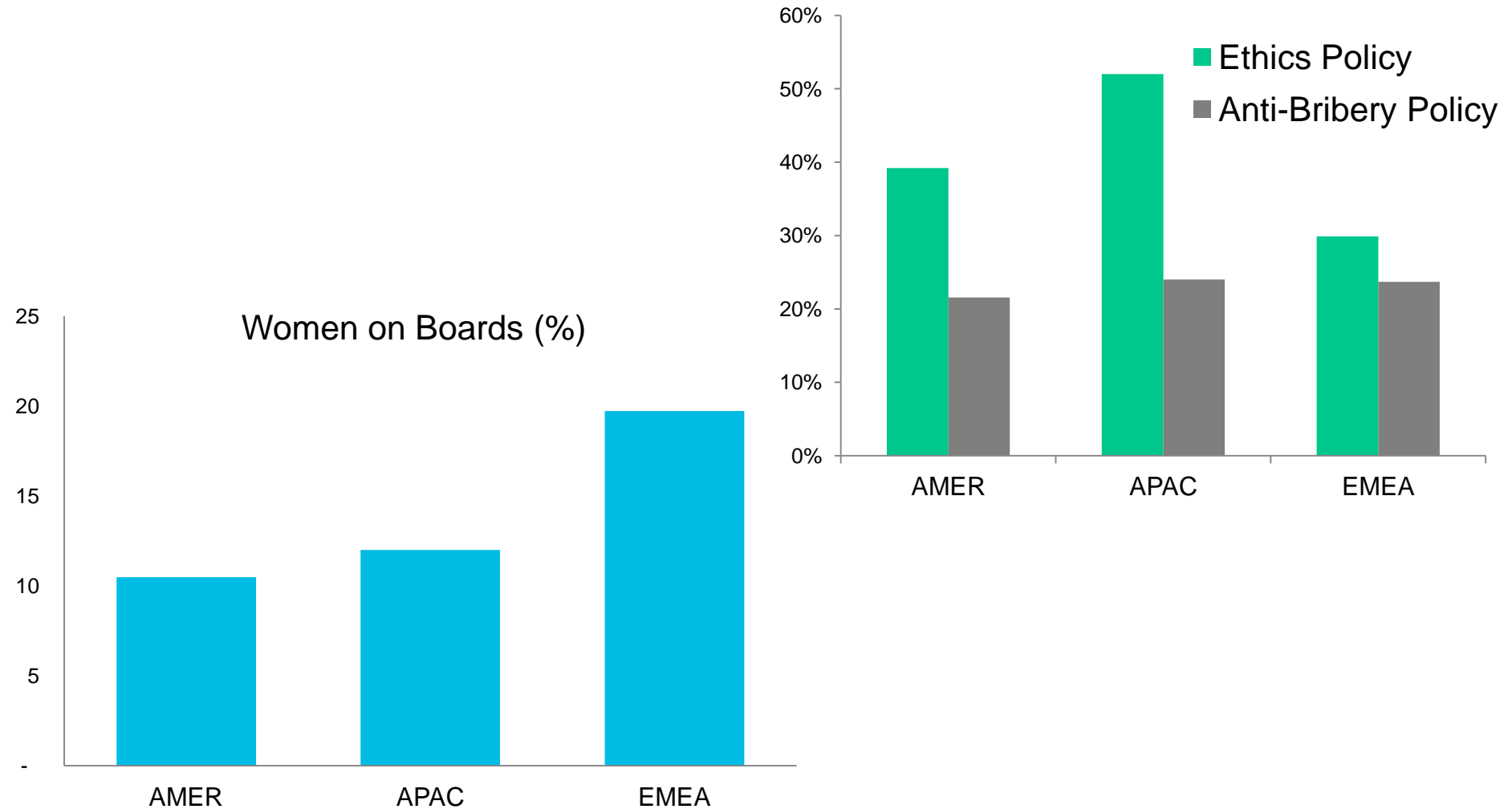
REGIONAL DIFFERENCES SHOW EUROPE REPORTING MORE SOCIAL INDICATORS



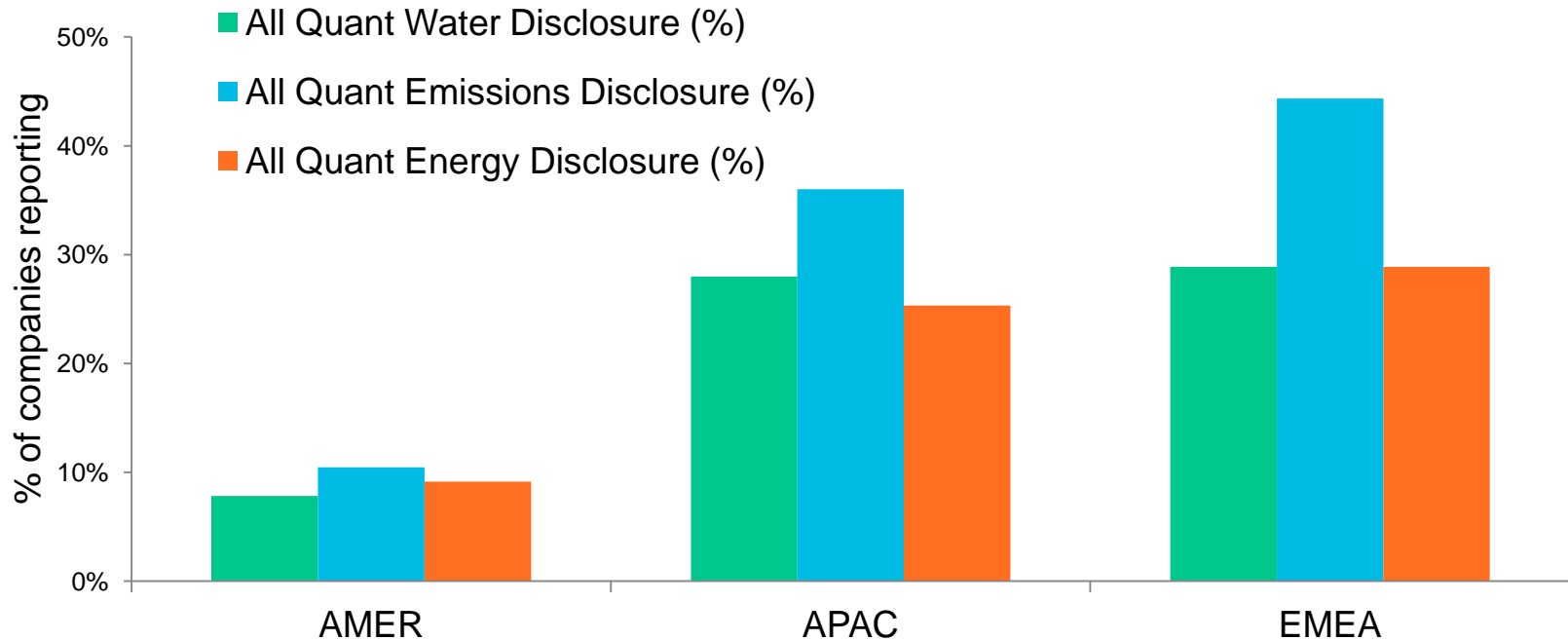
INVESTORS ARE INCREASINGLY INTERESTED IN BOARD ENTRENCHMENT



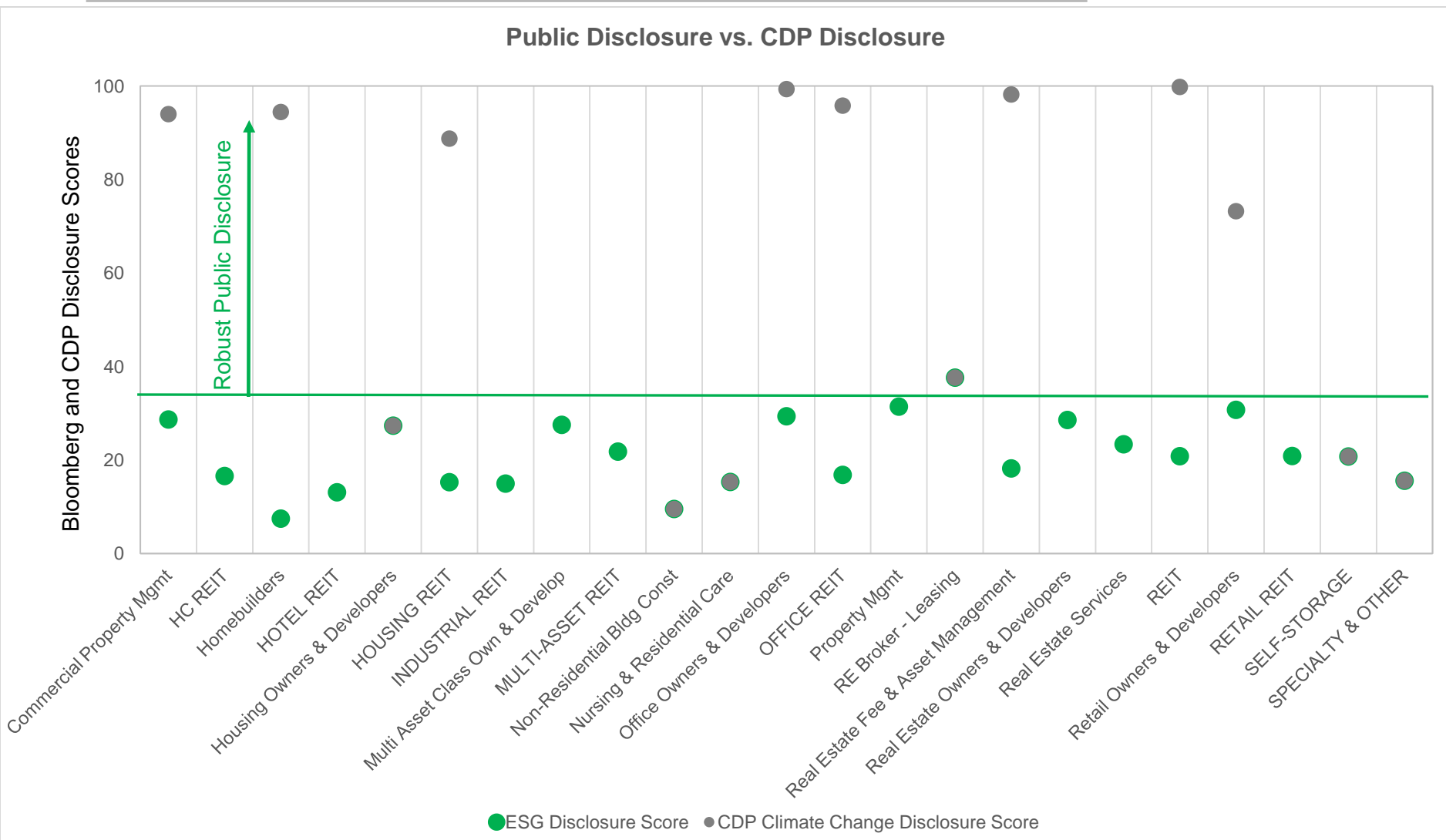
DIVERSITY AND ETHICS ARE ALSO GAINING SHAREHOLDER MOMENTUM



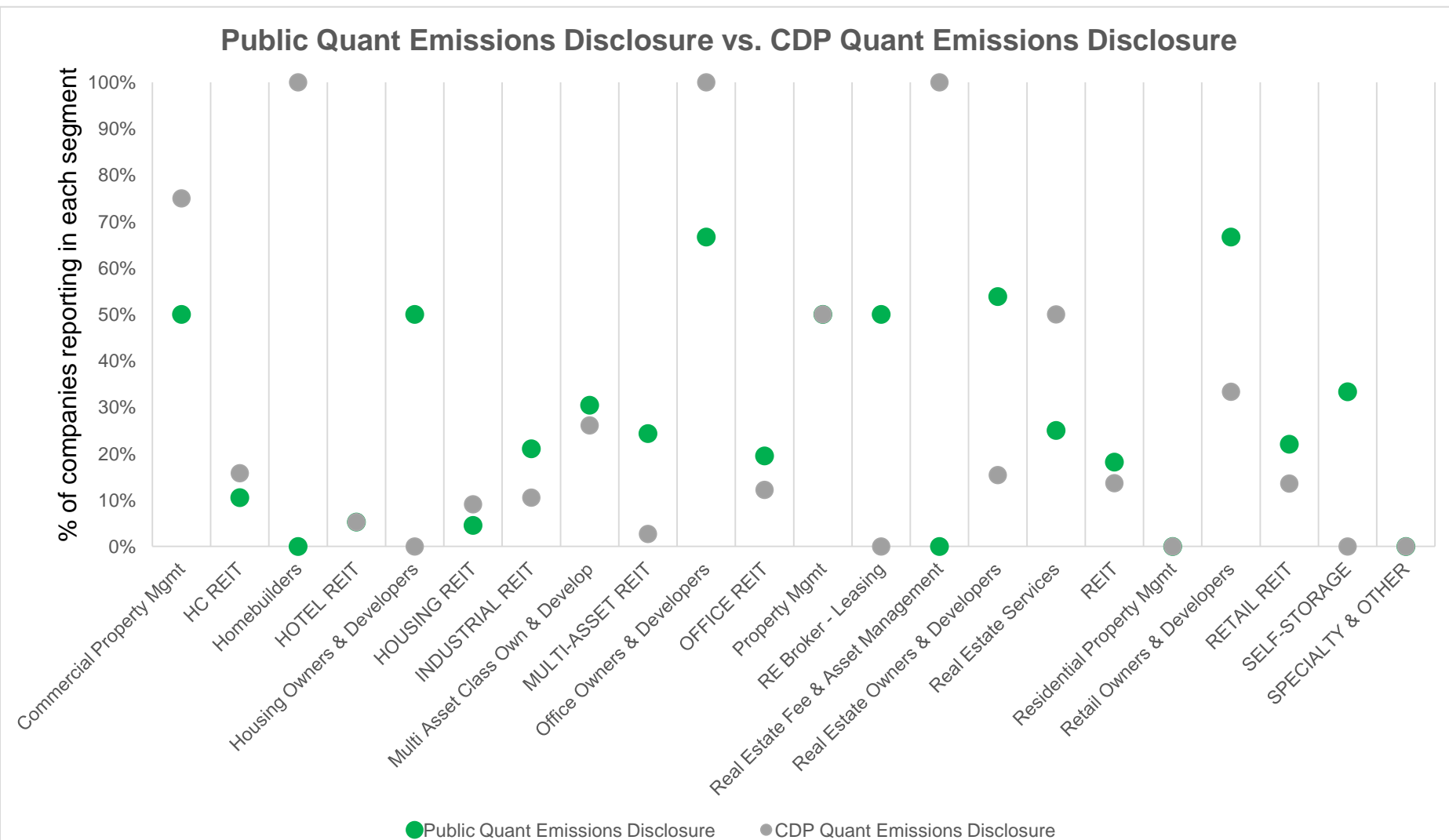
QUANTITATIVE ENVIRONMENTAL DISCLOSURES ARE EVOLVING IN THE US



WIDE DISPARITIES EXIST BETWEEN PUBLIC AND PRIVATE REPORTING

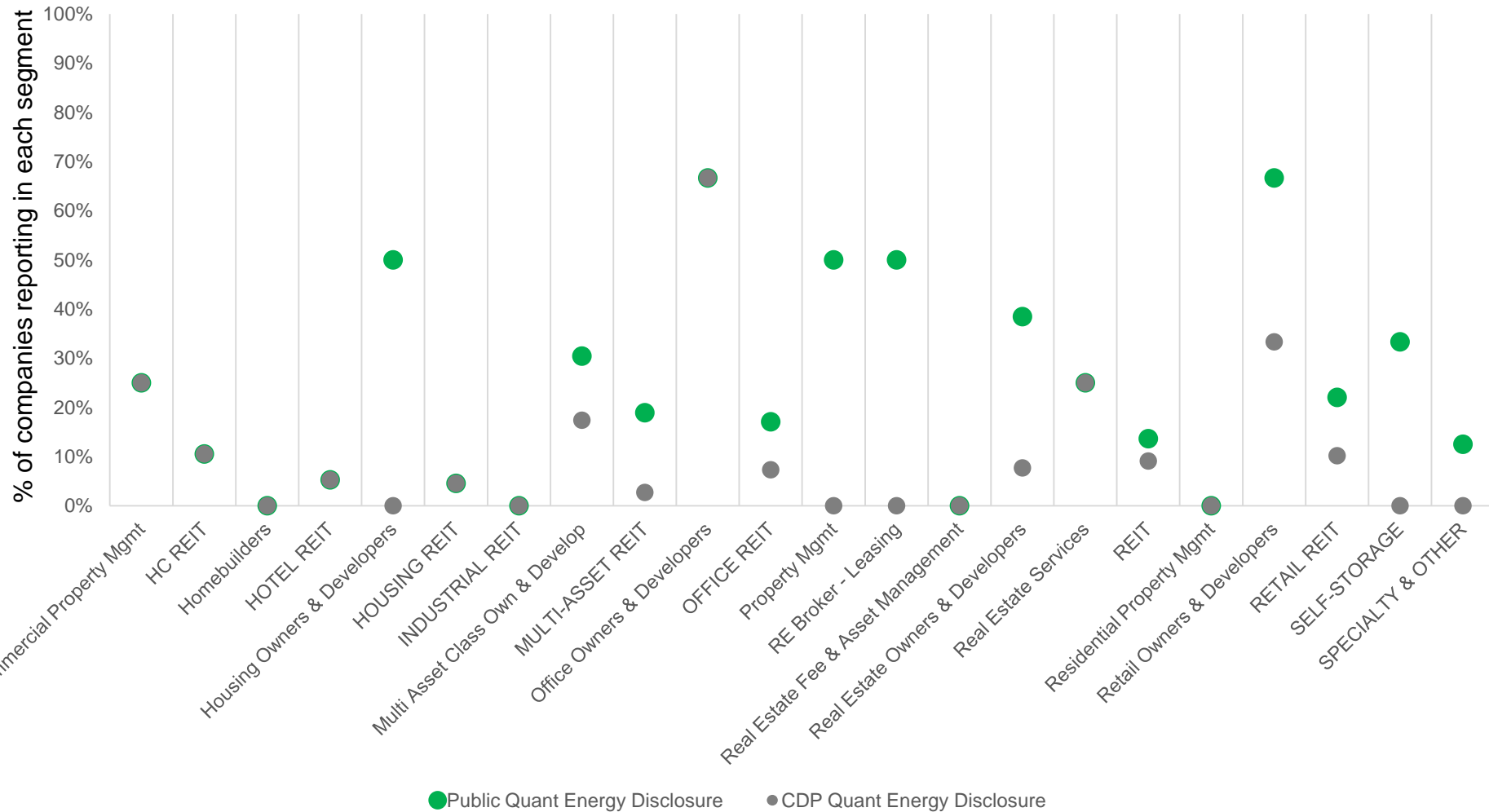


QUANTITATIVE EMISSIONS DATA IS MIXED IN PUBLIC REPORTING VS CDP

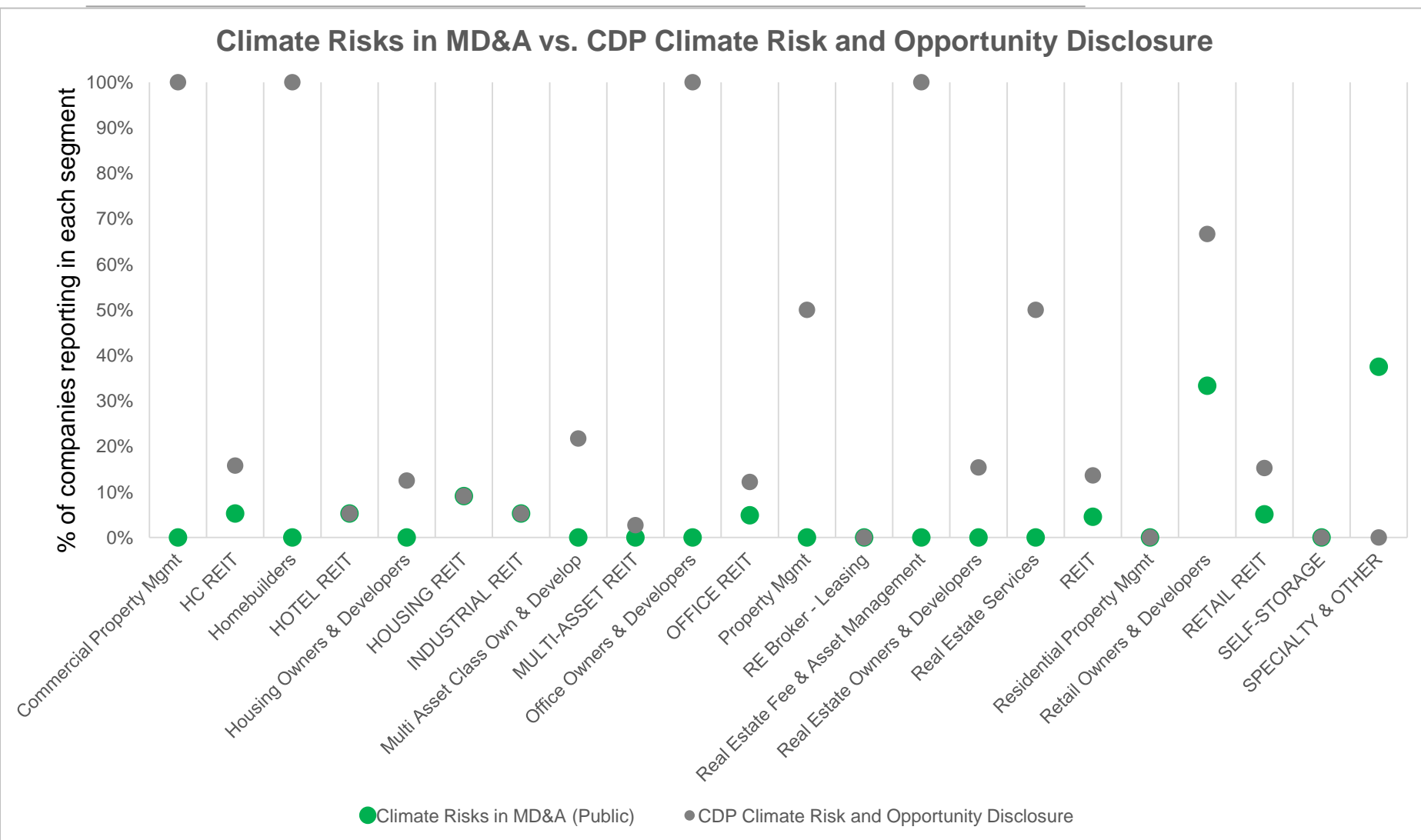


THERE IS LESS QUANT ENERGY USE DISCLOSURE TO CDP BUT SOME PUBLIC

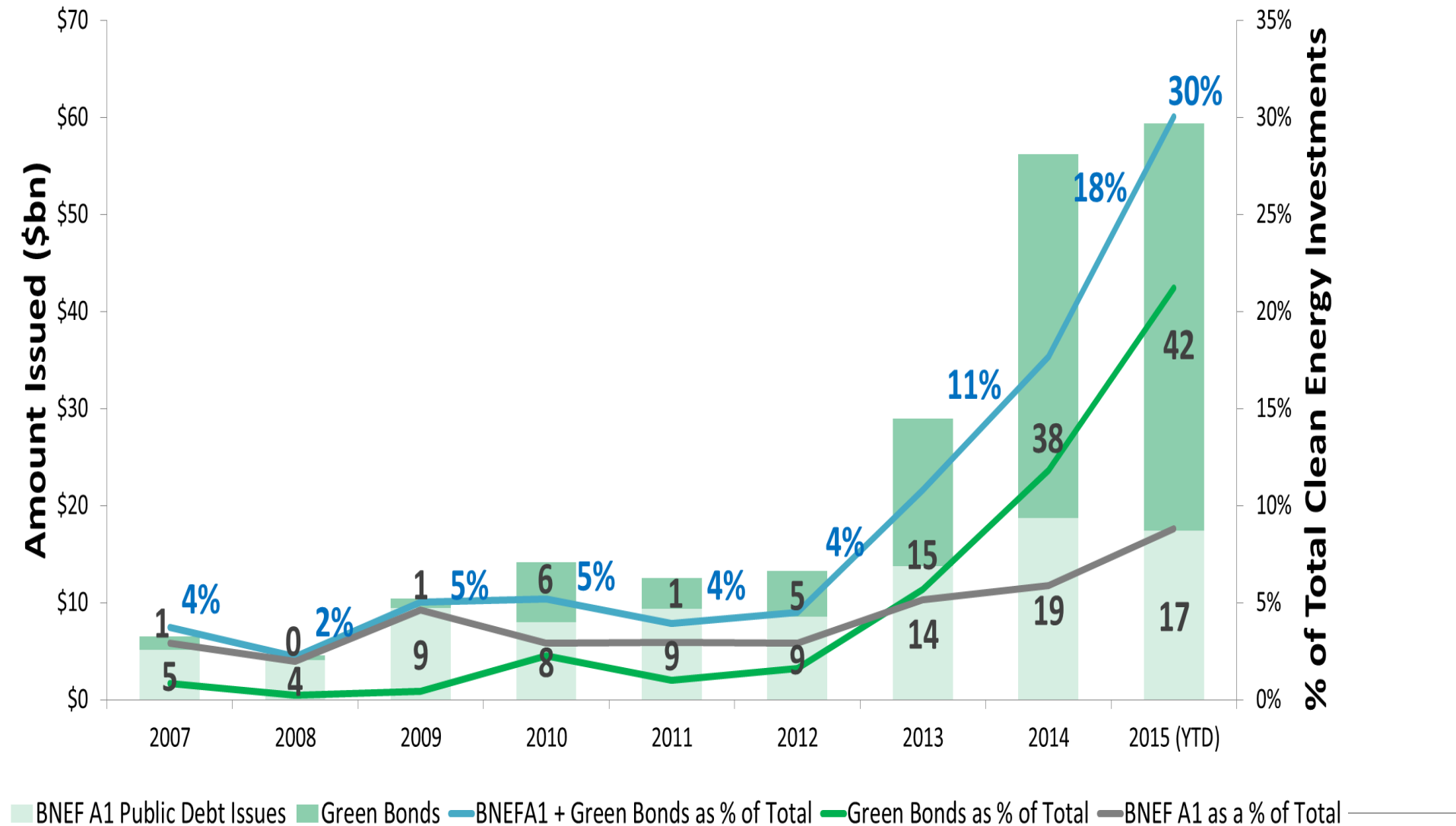
Public Quant Energy Disclosure vs. CDP Quant Energy Disclosure



MD&A FEATURES LITTLE TO NO CLIMATE RISK DISCUSSION VS CDP HIGHER PERFORMERS



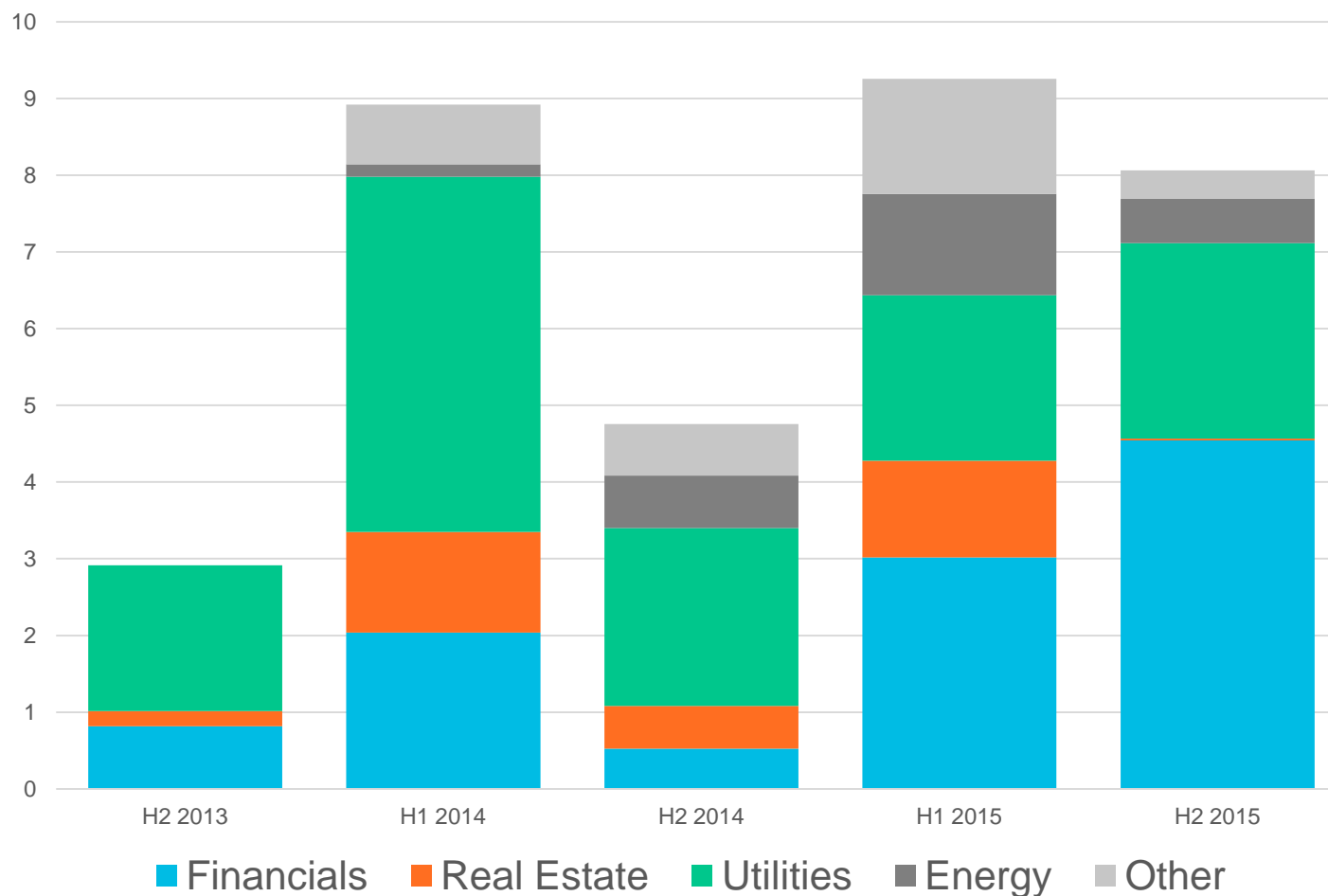
BONDS FINANCE MORE CLEAN ENERGY INVESTMENTS AND REFINANCING



Source: Bloomberg, Bloomberg New Energy Finance (BNEF)

GREEN BONDS ISSUANCE IN REAL ESTATE HAS BEEN PROMINENT

Corporate Green Bond Issuance by Sector of Issuer
(Semiannual issuance, H2 2013 - H2 2015)



BLOOMBERG IS LAUNCHING NEW TRANSPARENCY ON GREEN BONDS

Green Bonds Principles-aligned Boolean fields with transparencies:

- Use of proceeds – Bloomberg New Energy Finance categories
- Project selection – process for determining projects to be financed
- Management of proceeds – segregation and tracking of funds
- Reporting – no less than annual reporting on deployment of proceeds and, ideally, operating and environmental outcomes
- Assurance provider – second opinion providers, certifications, audits with service providers identified

TAKEAWAYS AND HOMEWORK

- Decision-making about how, where and what to report is still evolving across US real estate but still more responsive and private than strategic and public
- SASB is gathering steam as are other regulatory and voluntary disclosure efforts, such as the Task Force on Climate-Related Financial Disclosures
- Integrated reporting and more commentary on business value of sustainability is starting to be a feature of the most robust reporting
- Green bonds issuance is driving more transparency on projects and sustainability strategy that can drive improved company reporting
- For real estate, Bloomberg will do the following in 2016:
 - continue exploring third party data partnerships
 - commit to coverage of the entire FTSE/EPRA NAREIT Index
 - backfill and initiate new Green Bonds Principles-aligned transparency
 - introduce new scaled emissions, energy and water intensity fields
 - review policy fields for alignment with real estate sector activities