

Trends

In the second year of the annual GRESB Real Estate Debt Assessment, three trends emerged:

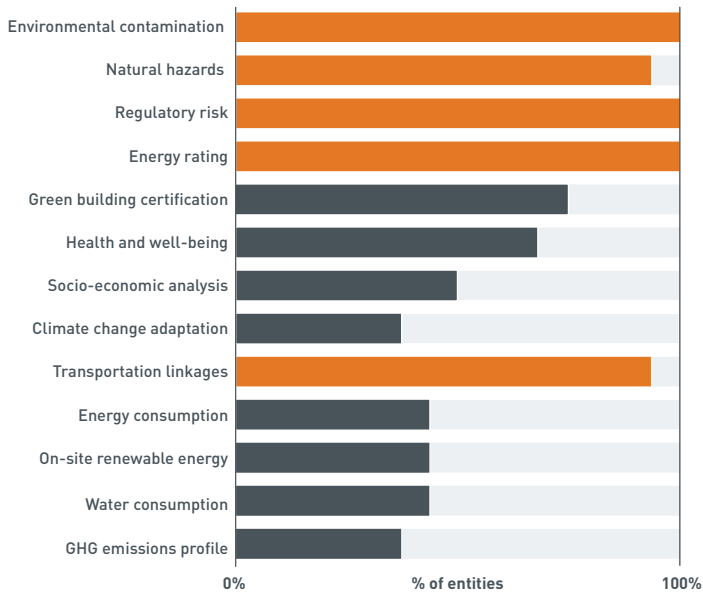
1. Lenders are enhancing loan underwriting protocols using ESG-based risk management best practices
2. New debt financing products are specifically designed to target certified green buildings or retrofit opportunities
3. REITs are issuing more green bonds in advance of anticipated increased capital market demand

The 2016 GRESB Real Estate Debt Assessment represents the current state of ESG in lending practices as informed by leading primary lenders and private equity investment management firms.

Results show a wide distribution – leaders report systematic underwriting, lending and monitoring programs in various stages of maturity, while quite some lenders still display ad hoc ESG-based risk management with minimal infrastructure required for effective portfolio monitoring.

A clear majority incorporate borrower ESG performance into both due diligence and ongoing loan monitoring. This year’s leaders maintain innovative programs including interest rate discounts for certified buildings and increased proceeds for energy efficient upgrades. Market-driven loan program advances drive increased lender competition and provide borrowers greater financing options to deliver ESG objectives.

Risk Management

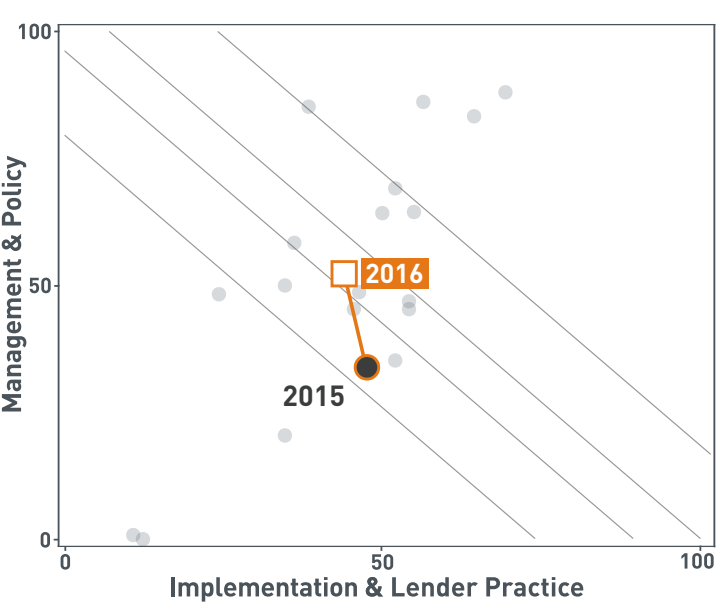


Best Practice

ColonyCapital

“Colony Capital utilizes a comprehensive borrower ESG risk assessment that informs and monitors adherence to our sustainability standards for property improvements for loans exceeding \$10 million. Colony uses these tools to ensure borrower adherence, evaluate impacts on our loan portfolio and identify management opportunities for future process adjustments.”

GRESB Model



- Participants demonstrate strong year-on-year improvement by incorporating ESG policies into ongoing operations
- More lenders are implementing ongoing monitoring of annual energy, water and waste metrics within the loan portfolio
- Leading participants demonstrate deeper ESG integration via senior leadership accountability coupled with targeted lending programs [energy efficiency, etc.]

GRESB Rating

The GRESB Rating is an overall measure of how well ESG issues are integrated into the management and holdings of real estate companies and funds. The rating is calculated relative to the global performance of reporting entities.



Case Study

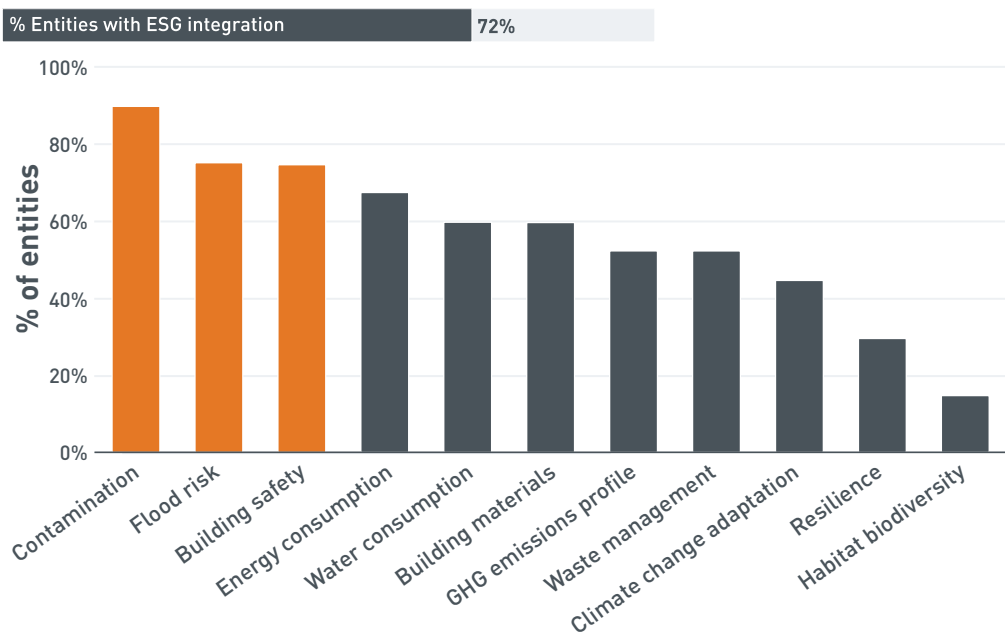
TH Real Estate

“TIAA-Henderson Real Estate (TH) utilizes a combination of borrower information, third party surveyors and internal processes including an ESG assessment of the borrower and asset to develop a comprehensive risk profile. Results inform our due diligence as evaluated by the Real Estate Debt Investment Committee – this includes Heads of Risk, Treasury, Compliance and Sustainability along with other senior management. The investment committee must approve all transactions.

Where material ESG risks are identified, REDIC will ask the Fund to further investigate ultimately resulting in either rejecting the transaction or appropriately pricing the risk(s) as identified. Two particularly material risks are (1) flood risk and (2) compliance with the England and Wales Minimum Energy Efficiency Standards.

TH’s Head of Sustainability participates in fund strategy reviews including asset performance against benchmarks, makes formal presentations at Board of Director meetings and produces a quarterly dashboard report to the TH Real Estate Operating Committee.”

ESG Integration

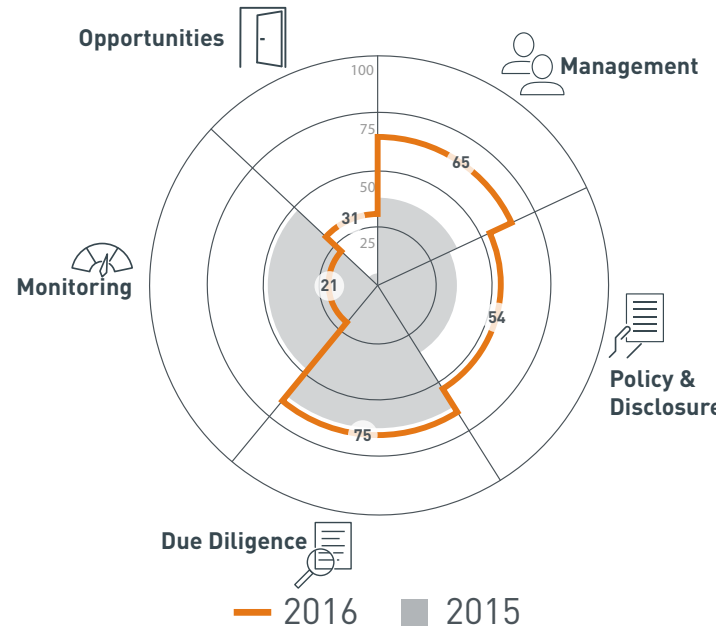


Best Practice

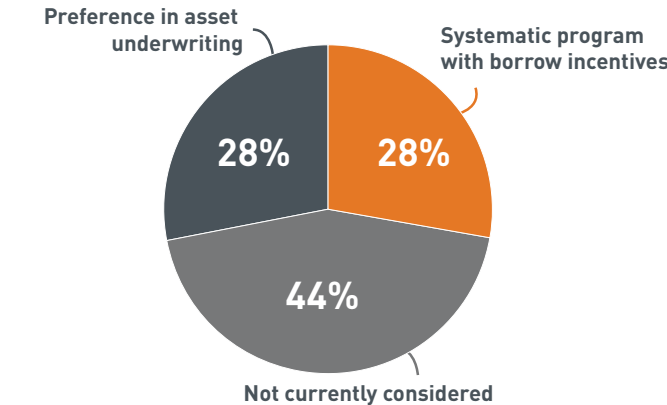
ABN·AMRO

“ABN AMRO implements sector-specific environmental and social risk assessments for all loans in all economic sectors – agriculture, commercial real estate, extractive industries, chemicals and pharma, etc. Risk assessments include future laws and regulations (e.g. chemical regulation through REACH, increasing energy efficiency for real estate). By close of 2018, ABN AMRO’s commercial real estate lending group has committed to financing 300,000 m2 of property energy upgrades, have ‘A’ energy labels as 30% (or more) of our portfolio loan book, and finance thirty Green & Social Landmarks.”

GRESB Aspects



ESG Lending Programs



Leading Lending Program

ING

“ING offers clients a sustainability loan application supplement detailing energy savings possibilities, measures available, and expected return on investment. This differentiated loan programme allows ING flexibility to finance a building at a 5% higher LTV coupled with an 0,5% interest rate discount, making it possible for borrowers to finance the full sustainability investment upgrade.”

2016 GRESB Debt Assessment Participant List

ABN AMRO Bank	DRC Capital	LaSalle Investment Management
Atrium Finance	Hermes Investment Management	Mesa West Capital
Aviva Investors	Intermediate Capital Group	PGIM Real Estate
Colony Capital, Inc	ING Wholesale Banking	Standard Life (3 funds)

Syntus Achmea
TIAA Henderson Real Estate
UBS Asset Management (2 funds)

Green Property Bonds

GRESB Members lead the REIT market with about \$7.2 billion in green bond issuance to date. Over 90% of REITs issuing a green bond participate in the annual GRESB assessment. The capital markets increasingly embrace real estate debt financing tied to ESG factors such as energy/ water efficiency, transit-oriented development, and sustainable land use.

GRESB Member	Region	Year	\$ millions
Foncière des Régions	Europe	2016	561
ABN AMRO Bank NV	Europe	2016	557
Link REIT	Asia	2016	500
Vasakronan	Europe	2016	67
ING Bank NV	Europe	2015	1,427
Unibail Rodamco SE	Europe	2015	565
ABN AMRO Bank NV	Europe	2015	564
Vasakronan	Europe	2015	178
Unibail Rodamco SE	Europe	2014	1,075
Vornado	North America	2014	450
Vasakronan	Europe	2014	411
Stockland	Australia	2014	340
Regency Centers Corporation	North America	2014	250
Vasakronan	Europe	2013	198
Total			7,143

Social Bonds

Social bonds are a new capital market product, a direct result of the 2016 update to the Green Bond Principles. Several major issuers stepped forward this year including the EUR 1 billion offering from BNG Bank, a AAA-rated Dutch financial institution that will fund affordable housing projects.

Social bonds aim to address or mitigate one or more specific social issues, seeking to achieve positive social outcomes for target population(s) via:

- Basic infrastructure – clean drinking water, sewers, transport
- Access to essential services – education & vocational training, healthcare, financial services
- Affordable housing
- Employment generation including microfinance
- Food security

Often referred to as “social impact bonds”, these instruments combine components of performance-based financing and public-private partnerships. Typical issuers are government or quasi-government agencies who benefit from the targeted outcomes through lower program costs, increased health/safety/welfare, or a combination of both.

The GRESB Green Bond Guidelines for the Real Estate Sector contemplate outcome-based social measures within its framework. Real estate companies, lenders and fund managers can participate in social bonds by targeting health and well-being attributes within their investment portfolio, delivering affordable housing units, or adding essential services to their investment strategy.

GRESB Investor and Bank Members

Aberdeen

AP FÖRSTA AP-FONDEN

ARCADIS PENSIOENFONDS

BMO BMO Global Asset Management

CBRE CLARION SECURITIES

cube INFRASTRUCTURE FUND

ING

MAJID AL FUTTAIM

ONTARIO TEACHERS' PENSION PLAN

NN

THE CROWN ESTATE

LAW RETIREE Medical Benefits Trust

VFMC

ABN-AMRO

Andra AP-fonden

atp=

BNP PARIBAS

CBRE GLOBAL INVESTORS

DBJ

Ivanhoe Cambridge

mirova Responsible Investing

Pensioenfond

ROBE CO The Investment Engineers

TOWNSEND GROUP

UBS

WELLINGTON MANAGEMENT

actiam

AP3 Third Swedish National Pension Fund

AustralianSuper

Bouwinvest

cbus super fund

HOOPP

KAMES CAPITAL

MN

PensionDanmark

SEB TRYGG LIV

TKP Investments

USS

AEGON Asset Management

AP FJÄRDE AP-FONDEN

AVIVA INVESTORS

CalPERS

CenterSquare INVESTMENT MANAGEMENT

HERMES INVESTMENT MANAGEMENT

KEMPEN & CO Merchant Bank

NORGES BANK INVESTMENT MANAGEMENT

PGGM

spp

SWECO

AIMCo

apg

Blue Sky Group

catholic super

COHEN & STEERS

HESTA

LOCAL GOVERNMENT SUPER

AN OMERS WORLDWIDE COMPANY

OLX|FLO|RD

PRESIMA

2016 GRESB Debt Loan Portfolios — Value by Region



\$7.6 trillion
Institutional capital represented by 58 GRESB Investor Members

About GRESB
GRESB is an industry-driven organization committed to assessing the environmental, social and governance (ESG) performance of real assets globally, including real estate portfolios (public, private and direct), real estate debt portfolios and infrastructure. More than 200 members, including 58 pension funds and their fiduciaries, use GRESB data in their investment management and engagement process, with a clear goal to optimize the risk/ return profile of their investments. For more information, visit www.gresb.com.