Now in the third year, GRESB continues to attract more participants from multiple continents, and represents a broad spectrum of CRE debt investors and originators:

- Multinational Banks
- Real Estate Debt Funds
- Europe / United Kingdom
- North America
- Mortgage REITs / Direct Investors

Peer group analysis allows GRESB to compare ESG approaches by region and lender type, and to identify emerging trends and industry best practices.

**SYSTEMATIC APPROACH**

Lenders demonstrate three distinct decision points that prompt expanded ESG consideration:

1. **Loan Origination**: accomplished through specific risk-based objectives and/or loan policies
2. **Underwriting/Due Diligence**: realized using advanced checklists, third-party reports, and attention to sustainability KPIs / metrics
3. **Post-Close Loan Monitoring**: refined focus on identifying and tracking ESG-based risk factors including energy ratings, increasing natural hazard exposure, regulatory changes, and GHG emissions profile and reporting

Although each decision point is part of standard lending practice, GRESB participants exhibit wide degrees of sophistication to ESG integration.

Leading participants integrate ESG into all three areas, signaling advanced risk management practices.

These lenders describe advanced underwriting checklists and loan monitoring databases. Less advanced lenders offer wide-ranging policies, but lack risk assessment systems incorporating clear ESG metrics or KPI outcomes.

**ACCOUNTABILITY AND RESPONSIBILITY**

Insights from participants suggest it is not enough to have broad-based organizational objectives.

Two-thirds of GRESB Debt participants maintain personnel responsible for identifying sustainability KPIs and achieving ESG-based objectives.

Less advanced participants utilize non-dedicated generalists lacking the means or resources required to advance sustainability objectives.

Successful implementation requires dedicated experts who determine KPI metrics, analyze the loan portfolio, and integrate into ongoing business processes.

**ORGANIZATIONAL ALIGNMENT**

![Organizational Alignment Diagram]

Real estate lenders demonstrate different degrees of organizational ESG alignment along categories:

- **Breadth Communication**: Provide public statements in support of ESG. Lending units lack specific objectives, metrics or portfolio monitoring capabilities.
- **Specific Objectives**: Identify ESG as a tactical issue. Early implementation efforts focused on incorporating ESG into loan underwriting and due diligence.
- **KPI Tracking**: Maintain robust IT-based systems used for identifying, tracking and analyzing key performance indicators. ESG is strategically embedded, with senior executive accountability.

**POST-CLOSE BORROWER REQUIREMENTS**

Several GRESB Debt participants report borrower requirements to deliver energy label targets, specific efficiency improvements and/or green building certification levels.

Targeted financing programs are based on mutual lender-borrower interest of improved building collateral and the desire for enhanced LTV and DCR coverage ratios.

**DIRECT ACCOUNTABILITY - IMPLEMENTATION AND RESULTS**

**PRIMARY RESPONSIBILITY - KPI MONITORING / REPORTING**

**TARGETED ESG LENDING PROGRAMS**

More than half of 2017 participants provided targeted financing aimed at improving the asset collateral value, ESG metrics and market position.

Targeted financing programs are based on mutual lender-borrower interest of improved building collateral and the desire for enhanced LTV and DCR coverage ratios.

Market trends point to further business opportunities for deepening borrower engagement by providing capital improvement loans to upgrade portfolio collateral.

**TARGETED FINANCING**

Lenders that maintain direct borrower engagement throughout the loan term are best positioned to request energy/waste data. Several lenders detailed how this expanded borrower-lender relationship leads to future loan opportunities.

Private equity fund manager participants exhibit momentum in developing and implementing portfolio monitoring techniques. European fund managers seek to identify buildings with sub-par energy labels and associated obsolescence risk, driving efforts to develop databases to track EPC’s and other metrics.

**UNDERWRITING AND KPI MONITORING**

Most GRESB participants seek to include specific ESG indicators within loan underwriting and due diligence.

The 2017 responses reveal these lender profiles:

1. **Basic Compliance**
2. **ESG Market Responder**
3. **Sophisticated Risk Analysis**

Some lenders report a very limited scope of ESG engagement, reflecting basic underwriting of natural hazard risk and review of standard third party reports.

A growing group implement advanced underwriting checklists focused on building energy ratings, green building certifications, and proximity to multi-modal transportation linkages.

**UNDERWRITING SUSTAINABILITY ATTRIBUTES**

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Respondents: 88%</th>
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<tbody>
<tr>
<td>Energy Rating Certificates</td>
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<tr>
<td>Green Building Certifications</td>
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<td>Environmental Hazards</td>
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<tr>
<td>Property Condition Assessments</td>
<td>100%</td>
</tr>
<tr>
<td>Sustainability</td>
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</table>

**LENDER KPI TRACKING**

**BORROWER REQUIREMENTS**

- **All Participants**
- **Private Equity Funds**
- **UK Private Equity Funds**

**ENERGY RATINGS**

- A. - Provide third party reports scoped to include additional ESG details
- B. - Facilitate lender onsite property visits / collateral inspection
- C. - Provide third party reports
- D. - Include energy efficiency ratings in design documents
- E. - Supply actual energy ratings within one year of occupancy

**GREEN BUILDING CERTIFICATIONS**

- A. - Provide third party reports
- B. - Facilitate lender onsite property visits / collateral inspection
- C. - Provide third party reports scoped to include additional ESG details
- D. - Include energy efficiency ratings in design documents
- E. - Supply actual energy ratings within one year of occupancy

**UK PRIVATE EQUITY FUND**

- A. - Provide third party reports
- B. - Facilitate lender onsite property visits / collateral inspection
- C. - Provide third party reports scoped to include additional ESG details
- D. - Include energy efficiency ratings in design documents
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**BANKS**

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**ESG MARKET RESPONDER**

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**ESG RESPONDERS**

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### Systematic Approach

- **Participants** demonstrate increased focus by introducing more ESG factors into asset underwriting and borrower due diligence

### Rigorous Collateral Review

- Lenders increasingly utilize sustainability-based Key Performance Indicators in asset underwriting processes; lenders identify and track specific KPIs

### Extended Valuation Scope

- Respondents specified new requirements for fee appraisers to include energy ratings, building certifications and other ESG metrics in valuation assignments

### Improved KPI Monitoring

- Lenders increased the number of KPIs tracked and incorporated into portfolio risk management and external stakeholder communications

### Targeted Financing

- The combination of market demand for green buildings and regulatory changes are driving lenders to develop financing products and programs for collateral upgrades

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### Related Themes

- **Regulatory Changes**: Adjust loan underwriting criteria to identify collateral with sub-par energy ratings. Lenders are implementing advanced portfolio tracking techniques to better identify current/future flood risk areas.

- **Flood Risk**: Minimize and/or eliminate exposure to current or future flood-prone areas by adjusting loan criteria. Lenders are implementing advanced portfolio tracking techniques to better identify current/future flood risk areas.

- **Obsolescence Risk**: Require borrowers pursuing new Class A construction projects to attain green building certifications as a market signal of asset quality. Lenders are implementing advanced portfolio tracking techniques to better identify current/future obsolescence risk changes.

- **Social Context**: Request borrowers to provide greater detail including community impact studies and relevant metrics. Asset values are impacted by multiple social issues including space uses, transportation access, and proximity to a range of services and community facilities.

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### GRESB Debt Results

**2017 GRESB Debt Results**

The 2017 GRESB Debt results reveal five distinct ESG themes engaged by real estate debt providers.

The GRESB Debt assessment attracts a diverse set of lenders from around the globe, ranging from primary lenders looking to integrate sustainability into standard risk management practice, to private equity debt funds seeking to include sustainability metrics in their portfolio management and investor communications.

Participants demonstrate strategic and tactical approaches to ESG during collateral review and borrower engagement. Many lenders maintain robust IT systems to track and monitor their loan portfolios. Some are beginning to offer targeted financing solutions. All report using their results as a business intelligence tool to continually improve loan portfolio management. Continued ESG momentum is driven by market competition to risk-optimize loan portfolios, a pro-active response to tightening building regulations, and the forward action necessary to evolving lender practices.

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### 2017 Assessment Participants

The 2017 GRESB Debt Assessment Participants represent a fast-growing global cohort of organizations committed to advancing ESG integration in lender risk management, due diligence, underwriting and valuation practices.

<table>
<thead>
<tr>
<th>AA REAL BANK AG</th>
<th>HERMES REAL ESTATE</th>
<th>NN INVESTMENT PARTNERS</th>
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<tr>
<td>ABN AMRO BANK</td>
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<td>PGIM REAL ESTATE</td>
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<td>KAYNE ANDERSON CAPITAL ADVISORS</td>
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<td>HANNON ARMSTRONG</td>
<td>MESA WEST CAPITAL</td>
<td>UBS ASSET MANAGEMENT</td>
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- The combination of market demand for green buildings and regulatory changes are driving lenders to develop financing products and programs for collateral upgrades

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**About GRESB Debt**

The GRESB Debt Assessment is a systematic, consistent framework used by real estate lenders to assess and compare sustainability actions in commercial real estate loan portfolios.

GRESB Debt is designed to benchmark regional and national banks, insurance companies, private equity debt funds and mortgage REITs.

For more information, visit [www.gresb.com](http://www.gresb.com)