AN INTRODUCTION TO MSCI ESG RESEARCH

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Executive Director, MSCI ESG Research
INTRODUCING MSCI ESG RESEARCH

155+ ESG analysts\(^1\) (250+ staff)

1,000+ clients

47 TOP of 50 Global asset managers\(^2\)

700+ ESG equity & fixed income indexes

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MSCI ESG RESEARCH AWARDED FIRST PLACE IN 13 OUT OF 17 CATEGORIES, INCLUDING:

- Best firm for Socially Responsible Investing Research
- Corporate Governance Research
- Indexes
- Data
- Fixed Income Research
- Emerging Markets Research

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\(^1\) Source: MSCI ESG Research as of January 2017

\(^2\) Based on P&I AUM data as of Dec 2015 and MSCI clients as of June 2016
OUR ROLE IN THE MARKET

MSCI ESG Research is not a proxy advisory firm

- While we examine some of the same issues, our main focus is to help investors integrate corporate governance and ESG factors into the investment process
- Our research is not tied to the annual meeting agenda – we examine and report on corporate governance and ESG issues throughout the year, not just those up for a vote
- Typical clients are security analysts and portfolio managers v proxy managers

For example, asset owners and asset managers use our research to:

- Identify governance and ESG risks before a company is approved for purchase
- Monitor governance and ESG developments throughout the year
- Add context to contested director elections and high-profile votes
- Engage with companies on governance and ESG concerns
- Adjust the discount rate in DCF models to adjust for governance and ESG risk
- Add as a factor to multi-factor quantitative models

Issuers use our services to:

- Benchmark governance and ESG practices against peers
- Assess reputational risk at other companies where their officers have been asked to join the board
- Please note that MSCI ESG Research does not offer consulting services to rated companies
## MSCI ESG Rating Model

### Key Issues

#### Environment Pillar
- Climate Change
- Natural Capital
- Pollution & Waste
- Env. Opportunities
- Carbon Emissions
- Water Stress
- Toxic Emissions & Waste
- Clean Tech
- Product Carbon Footprint
- Biodiversity & Land Use
- Packaging Material & Waste
- Green Building
- Raw Material Sourcing
- Electronic Waste
- Renewable Energy

#### Social Pillar
- Human Capital
- Product Liability
- Stakeholder Opposition
- Social Opportunities
- Labor Management
- Product Safety & Quality
- Controversial Sourcing
- Access to Communication
- Health & Safety
- Chemical Safety
- Access to Finance
- Green Building
- Human Capital Development
- Financial Product Safety
- Access to Health Care
- Responsible Investment
- Supply Chain Labor Standards
- Privacy & Data Security
- Opportunities in Nutrition & Health
- Insuring Health & Demographic Risk

#### Governance Pillar
- Corporate Governance
- Corporate Behavior
- Board
- Business Ethics
- Pay
- Anti-Competitive Practices
- Ownership
- Corruption & Instability
- Accounting
- Financial System Instability

### Three-Step Process
1. Identify Key Issues By Industry
2. Measure Risk Exposure
3. Measure Risk Management

**NEW:**
- Tax Transparency
OUR STARTING POINT FOR ASSESSING CORPORATE GOVERNANCE IS A COMPANY’S OWNERSHIP STRUCTURE AND LOCAL MARKET NORMS

- Founder Firms
- Widely Held
- State Owned Enterprises
- Dual Boards
- Family Firms
- Widely Held
- State Owned Enterprises
- Chaebols
- Kereitsu
- Stock Pyramids
- Widely Held
<table>
<thead>
<tr>
<th>Family Conglomerates</th>
<th>Widely Held</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Succession Planning</strong></td>
<td><strong>Ability to Hold Entrenched &amp; Underperforming Boards to Account</strong></td>
</tr>
<tr>
<td>Intergenerational succession, family or external managers</td>
<td>Limitations on shareholder rights, e.g. absence of proxy access, majority voting for elections</td>
</tr>
<tr>
<td><strong>Focus on Family Control</strong></td>
<td><strong>Engage or Exit investment (latter is difficult for index funds)</strong></td>
</tr>
<tr>
<td>Pyramids / Cross Ownership, Leverage, Accounting risks</td>
<td></td>
</tr>
<tr>
<td><strong>Related Party Transactions</strong></td>
<td><strong>CEO Pay</strong></td>
</tr>
<tr>
<td>Sister companies or with individual family members</td>
<td>Misaligned incentives, excessive pay levels</td>
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**GOVERNANCE RISKS VARY BASED ON OWNERSHIP STRUCTURE**
OUR SOLUTION ... GOVERNANCE METRICS

0-10 Score
Absolute Score – global scoring model
Enables investors to evaluate between markets, and within markets

Percentiles
Global – helps identify positive and negative outliers
Home Market – valuable local context

Key Metrics
Objective Binary flagging system for Key Metrics
Intended to capture downside risks

GOVERNANCE METRICS REPORT
JAPAN POST BANK Co., Ltd. (7182)

Governance Score 6.1 / 10

GOVERNANCE THEMES AND RANKINGS

KEY AREAS OF CONCERN*
- Pay Figures
  - Executive Pay  Disclosure (-1.18)
- Pay Performance Alignment
  - Advance Disclosure of Performance Targets
  - CEO Equity Policy
  - Clawbacks & Malus
  - (-0.5)
- Board Effectiveness
  - Overboarded Exec Directors (-0.49)

Source: MSCI ESG Research, Governance Metrics Report for Japan Post Bank Co Ltd, accessed 02 Feb 2017
OUR MODEL INCORPORATES KEY ASPECTS OF THE G-20/OECD PRINCIPLES OF CORPORATE GOVERNANCE

<table>
<thead>
<tr>
<th>Board Leadership</th>
<th>Strategic Oversight</th>
<th>Director Nominations &amp; Elections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board Independence</td>
<td>Audit Oversight</td>
<td>Shareholder Rights</td>
</tr>
<tr>
<td>Board Skills &amp; Diversity</td>
<td>Pay Oversight</td>
<td>Control Mechanisms &amp; Takeover Provisions</td>
</tr>
</tbody>
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## ADDITIONAL FACTORS INCLUDED, BASED ON 20+ YEARS OF PROPRIETARY RESEARCH & TESTING & CLIENT CONSULTATION

<table>
<thead>
<tr>
<th>Board Effectiveness</th>
<th>Pay Performance Alignment</th>
<th>Accounting Integrity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board &amp; Management Integrity</td>
<td>Executive Pay Figures</td>
<td>Equity Plan Dilution</td>
</tr>
<tr>
<td>Board Skills &amp; Diversity</td>
<td>Severance &amp; Change of Control</td>
<td>Non-Executive Director Pay</td>
</tr>
</tbody>
</table>
SCORE CALCULATED USING KEY METRICS ACROSS 4 THEMES

**Board**
Size, independence from management and other interests, tenure and gender diversity.
Assessment of financial, industry and risk management expertise. Audit, pay & strategic oversight.

**Pay**
Comprehensive data on CEO pay and CEO share ownership. Severance provisions.
Analysis of pay for performance link and pay relative to peer group.

**Ownership and Control**
Ownership structure – size of largest owner, owner types, cross shareholdings, & control enhancing structures. Shareholder rights, director election standards and key takeover defenses

**Accounting**
Transparency metrics tied to revenue, expense recognition, asset-liability valuation.
Auditor report. Other accounting events including restatements, accounting investigations.
MSCI ESG GOVERNANCE PROCESS OVERVIEW

**SOURCES:**
- Company disclosures
- Regulatory sources
- 1,600 global and local media sources

**QUALITY REVIEW & MONITORING**
- Corporate verification
- Event monitoring
- Ratings committee processes

**Raw Data**
collected by specialized teams

**96 Key Metrics**
same Key Metrics used for all companies, individually weighted based on relative materiality

**Governance Score (0-10)**
absolute score, with scoring deductions applied for flagged Key Metrics

**Percentile Rankings**
calculated against global coverage and Home Market peers
THE GOVERNANCE METRICS SCORING DISTRIBUTION

Source: MSCI ESG Research, score distribution for MSCI ACWI constituents as at 1 Feb 2017
MSCI WORLD
GOVERNANCE-QUALITY INDEX

RAISING THE BAR WITH A LONG-TERM EQUITY BENCHMARK
MSCI WORLD GOVERNANCE-QUALITY INDEX WORLD

The MSCI World Governance-Quality Index is based on MSCI World index, its parent index, which includes large and mid cap stocks across 23 Developed Markets (DM) countries*. The index aims to reflect the performance of a strategy that is seeking to capture both the financial and corporate governance aspects of Quality investing. The financial aspects of the Quality factor are captured using the same fundamental data as used in the MSCI Quality Index - return on equity, financial leverage and earnings variability. The standard of corporate governance is measured through measures such as independence and diversity of board of directors, ownership and control structure of the company, accounting practices and auditor opinions.

CUMULATIVE INDEX PERFORMANCE - GROSS RETURNS  (USD)  (NOV 2009 – DEC 2016)

Source: MSCI World Governance-Quality Fact Sheet, available at www.msci.com
Helpful Information for Issuers

How to Interact with MSCI ESG Research
MSCI ESG CORPORATE COMMUNICATIONS TEAM

MSCI ESG Research is committed to offering robust and transparent communication with all corporate issuers in our coverage universe. This commitment includes:

- Establishment of a dedicated ESG Corporate Communications team
- Providing issuers access to published versions of any of their MSCI ESG Research company reports upon request
- A comprehensive and consistent company data verification process
- Timely responses to company inquiries and feedback
ESG RATINGS DATA REVIEW PROCESS

- **Quarterly Alert for Pending Update**: all companies whose industry is scheduled for an update in the upcoming quarter are alerted and invited to provide MSCI ESG Research with data updates.

- **Industry Update Engagement Period**: all companies are invited to engage with MSCI ESG Research while analysts are actively updating management assessments for the industry.

- **Data Review Report Available**: a completed data review report (containing all relevant data collected by analysts) is sent to all companies after the industry update period ends, and companies are invited to review and engage with MSCI ESG Research at their convenience.

- **Post-Industry Update Engagement**: all companies are invited to engage with MSCI ESG Research at any time during the year to update data.
CORPORATE INQUIRIES/FEEDBACK FOR ESG RATINGS BY REGION, AS PERCENTAGE OF CONSTITUENTS: 2015 VS 2016

Source: MSCI ESG Research
Universe: MSCI ACWI Index (~2400 companies)
Corporate Inquiries: Companies that have inquired about and/or provided feedback on MSCI ESG Ratings.
Substantive Feedback: Only includes comments, corrections and updates sent by companies for MSCI ESG Ratings.
• Please note that this introduction has focused on our corporate governance research.

• MSCI ESG Research provides a number of additional services to investors, banks and insurers which corporate issuers should be aware of, including ESG Ratings, ESG Fund Metrics, ESG Controversies, AGR (forensic accounting), portfolio screening, and more.

• For additional information, please visit:

  www.msci.com/for-corporate-issuers
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Our line of products and services includes indexes, analytical models, data, real estate benchmarks and ESG research.

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