TCFD, Physical Risks and Natural Capital

February 6, 2019

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Climate change is the Tragedy of the Horizon. The catastrophic impacts of climate change will be felt beyond the traditional horizons of most actors - imposing a cost on future generations that the current generation has no direct incentive to fix. That means beyond the business cycle, the political cycle, and the horizon of technocratic authorities.

Our role can be in developing the frameworks that help the market itself to adjust efficiently. Any efficient market reaction to climate change risks as well as the technologies and policies to address them must be founded on transparency of information.

Our efforts will help smooth the transition prompted by these actions. With better information and risk management as the foundations, a virtuous circle is being built with better understanding of tomorrow’s risks, better pricing for investors, better decisions by policymakers and a smooth transition to a low carbon economy.
Climate-Related Risks, Opportunities, and Financial Impact

Transition Risks
- Policy and Legal
- Technology
- Market
- Reputation

Physical Risks
- Acute
- Chronic

Opportunities
- Resource Efficiency
- Energy Source
- Products/Services
- Markets
- Resilience

Risks
- Strategic Planning
- Risk Management

Financial Impact

Income Statement
- Revenues
- Expenditures

Cash Flow Statement

Balance Sheet
- Assets & Liabilities
- Capital & Financing
The Corporate Governance Code of Japan encourages corporate disclosure of ESG-related information.

The Stewardship Code of Japan encourages asset owners/managers to look into risks and opportunities of investee companies in terms of ESG.

Climate-related financial disclosures should be effectively utilized in dialogues through this investment chain.

Deepening of the corporate governance reform from “form” to “substance”.
Broad understanding of the concentration of carbon-related assets in the financial system and the financial system’s exposure to climate-related risks.

- Greater adoption, further development of information provided (e.g., metrics and scenario analysis), and greater maturity in using information.
- More complete, consistent, and comparable information for market participants, increased transparency, and appropriate pricing of climate-related risks and opportunities.
- Organizations begin to disclose in financial filings.
- Climate-related issues viewed as mainstream business and investment considerations by both users and preparers.
- Companies already reporting under other frameworks implement the Task Force’s recommendations. Others consider climate-related issues within their businesses.
- Final TCFD Report Released.

Five Year Time Frame
Challenge 1: Fostering Long-termism
### Corporate Value in Time Horizons

<table>
<thead>
<tr>
<th>Time Horizon</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infinite</td>
<td>100%</td>
</tr>
<tr>
<td>3 years</td>
<td>24%</td>
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<td>5 years</td>
<td>37%</td>
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<td>10 years</td>
<td>60%</td>
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<td>84%</td>
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<tr>
<td>40 years</td>
<td>96%</td>
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<tr>
<td>50 years</td>
<td>98%</td>
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Challenge 2: Developing Risk Assessment Methodologies
Climate-related Financial Risks and Mapping of Actions

- Identification of channels through which changes in natural conditions stemming from climate change will affect businesses.
- Measurement of the effects of such changes (risk intelligence of the insurance sector will help quantify these effects.)
- The economic valuation of natural capital will become a key tool to assess corporate value.
  - Identification of how the carbon budget restricts a particular company’s production of goods and/or provision of services.
  - Evaluation of how the carbon budget impacts demands of a particular good and/or service, and how it will affect the line of business.
  - Understanding of such impact channels (e.g., policy and legal, technology, market, and reputation.)

The economic valuation of natural capital will become a key tool to assess corporate value.