Simulated transition planning and consistent information for amplified impact

Pre-synthesis, Reporting 3.0 Conference, 12. June 2018

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Swiss Re Move to ESG Benchmark

“What are the information needs of those new business model innovators”
Swiss Re

Move to ESG Benchmark in 2017

Swiss Re 2017

- Total assets: USD 223 bn
- Total investments: USD 162 bn (investment portfolio of USD 132 bn: 41% gvt bonds, 36% credit, 5% equities)
- Premiums earned and fee income: USD 33 bn (total revenue: USD 42 bn)

The transition 2017

- Systematic integration of ESG considerations into investment process and portfolio
  - Enhancements: higher ESG-rated instruments
  - Inclusion: themes such as green bonds, renewables, social infrastructure
  - Exclusion: avoid investments e.g. related to thermal coal

The reason

“We are convinced that including ESG criteria into the investment process makes economic sense, especially for long-term investors, because it improves risk/return profiles and hence reduces downside risks.”

http://reports.swissre.com/2017/
Swiss Re

Information requirements

<table>
<thead>
<tr>
<th>Impediment to broad-based ESG adoption</th>
<th>Required action</th>
<th>Description</th>
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<tbody>
<tr>
<td>Lack of market standards on ESG integration</td>
<td>Definition of market standard and best practice</td>
<td>There is a need for more widely accepted standards around ESG integration. This requires broad industry involvement with the support of a widely recognised private market association and the public sector.</td>
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<tr>
<td>Lack of consistent company-level ESG reporting</td>
<td>Standardised reporting: key metrics to be reported by companies on a regular basis</td>
<td>Global standard metrics need to be defined, agreed and regularly reported by market participants. This will enable a stronger focus on quantification of ESG aspects in company analysis (see below).</td>
</tr>
<tr>
<td>Low importance of ESG in financial analysis</td>
<td>ESG as an integral component of performance analysis</td>
<td>ESG is still considered as non-financial data, and hence is not part of standard performance and company analysis. ESG should become a standard item in comprehensive risk assessment and measurement.</td>
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<tr>
<td>Low market volume of ESG investment products</td>
<td>Clearer market standards around ESG investment products</td>
<td>Institutional investors face limited investment options into ESG investment products (e.g. ESG-based ETFs) given their relatively small size.</td>
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</table>

http://www.swissre.com/about_us/about_our_business/asset_management/responsible_investing_in_practice.html
Swiss Re
Reporting and impact measurement requirements

Basis for the transition
“We are convinced that including ESG criteria into the investment process makes economic sense, especially for long-term investors, because it improves risk/return profiles and hence reduces downside risks.”

Financial context
• “The cornerstone of our investment philosophy continues to be asset-liability management (ALM).”
• Long-tail business
  → Basis up for direct proof for years and decades into the future

Conclusion
→ Consistent impact measurement and performance analysis, for own use and for reporting

http://reports.swissre.com/2017/
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Connecting the dots –
Anticipating the impact of our actions

Business transition planning, fulfilling information requirements

• Simulated Action Analysis for Sustainable Impact
• http://scaling4good.com/project/decision-support-simulation/
Simulated Action Analysis for Sustainable Impact

Vision: We will provide an approach to reach decisions of societal relevance based on transparency, facts, stated goals, and declared values

- Decision support for businesses, governments, and organizations serving sustainability and business goals consistently
- Simulation model, consistently calculating future states of a system from the present state considering possible future interventions
- Comprehensive meta model, bridging between relevant scales and domains
- Support of multiple use cases. First use cases out of more than 20 envisaged at this time:
  1. Holistic investment performance
  2. Energy-efficient real estate at scale
  3. Climate finance disruption

Holistic investment performance

- Goal: Investment portfolio optimizing risk-adjusted economic and non-economic performance across time horizons
- Vision: Corporate investment paves the way for a sustainable economy while being economically viable
- Intended effect: Economically, environmentally, and socially sustainable business
- Reason for companies to act: Incentive and reporting frameworks focusing on economic short-term performance expose companies to an undue yet hard-to-measure economic and non-economic risk
  ➢ The model helps determine which investment will have the maximum impact on risk-adjusted business KPIs and on SDG-related KPIs
How does it work – Overview

**Meta model**
- existing structural models for various domains
- module for actions to be probed
- impact aggregated from model results

**Simulation model**
- state of a system / a country / the world into the future
- back test: would the model have predicted the past?

**Networks**
- “glue” between the models
- connecting numbers with narratives, answers with reasons
How does it work – Example: Holistic investment performance

**Issue Nodes**

a. Investment decision
b. Investment performance
c. GHG emissions
d. Valuation
e. Economic performance
f. Following investors
g. GHG emissions
h. Natural resources
i. Economic opportunities
j. Regulator response
k. Price levels
l. Consumption
m. Natural resources
n. Acceptance

**Network**

- **Contagion**
  - Financial
  - Societal
  - Technological
  - Political
  - Social Norm

- **Natural**
  - Biodiversity
  - Boundaries
  - Climate
  - Vulnerability

**Action**

- a. Investment decision
- b. Investment performance
- c. GHG emissions
- d. Valuation
- e. Economic performance
- f. Following investors
- g. GHG emissions
- h. Natural resources
- i. Economic opportunities
- j. Regulator response
- k. Price levels
- l. Consumption
- m. Natural resources
- n. Acceptance

**Impact**

- Illustrative chains only
Effect of Investment Decision

- Indicator (Baseline)
- Indicator (With action*)
- Net effect on indicator

Calculate future states of:
- Companies
- Economies
- Societies
- Environment
from current state (data)

Aggregate future states onto:
- Business KPIs
- SDG-related KPIs
consistently

*) In this example: Capital redeployment
A brief pre-synthesis
A brief pre-synthesis

Simulated action analysis allows to anticipate the risk-adjusted economic and non-economic impact of transition plans consistently, for optimization, reporting, impact measurement, and performance analysis.

- Consistent information at all levels for all actions
- Model as “glue” across scales, time, domains, and between data sets
- Aggregate information about present and future onto classic KPIs and ESG-related KPIs

Food for discussion:

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Example</th>
<th>Information from data and simulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contextualized</td>
<td>Reporting to impact measurement</td>
<td>Information, aggregation, assumptions</td>
</tr>
<tr>
<td>Purposeful</td>
<td>Scenario to transition strategy</td>
<td>Starting point – look ahead – back test</td>
</tr>
<tr>
<td>Four scale</td>
<td>Inherently nested</td>
<td>Data model – integration – aggregation</td>
</tr>
<tr>
<td>Synergistic</td>
<td>From unidirectional to interacting</td>
<td>Static data – dynamics – feed back</td>
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