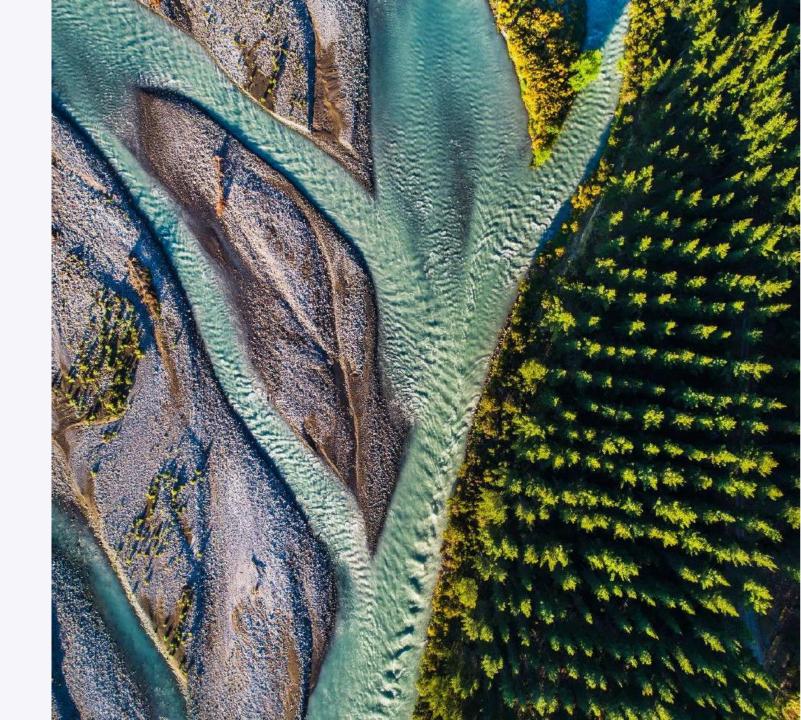
# The Challenges and Opportunities of ESG to Insurance

October 2024



# Agenda

Introduction

**Overall Impact to Insurance** 

**Underwriting and Product Innovation** 

**Risk Management and Modelling** 

# 1 Introduction

# Insurance companies could be part of the society achieving sustainable development and achieve significant growth in the journey





































- The insurance sector has a key role to play in addressing the impact of climate change risks and mobilize capital towards supporting sustainable development outcomes.
  - Protect their customers from climate change risks
  - Invest with a mission to avoid those risks throughout the business
  - Reinsurance sector also plays an important role to provide stability to the financial services industry through a forward-looking assessment of these risks

2 Overall Impact to Insurance

### Environment, society and governance will have significant impacts on insurance business

Environment, society and governance change risk impacts the magnitude and frequency of existing risks types. To assess the risk, change factors may be mapped to the holistic set of risk factors and in turn to products, providing a view on magnitude to risk.

### Mapping to risk factors





### **Risk Factors**

#### Non-Life (P&C)

#### Natural Catastrophes

- Hail
- Earthquakes
- Storm
- Extreme temperature
- Flood
- Landslide
- Drought

### Geopolitical risks

Terrorism

#### Man-made risks

- Liability
- Motor
- **Property**

#### Life (L&H)

- Mortality
- Morbidity
- Longevity
- Lapse

### **Key Sources of Underwriting Exposures (Business)**

#### Property contracts

#### Casualty contracts

D&O

#### Special lines

- Agriculture
- Credit & Surety
- Marine/ Aviation/ Transport
- Engineering

#### Life Contracts

- Whole Life
- Unit-linked

#### Non-life

Mapping risk factors to products

- Travel Insurance
- Motor Insurance

**Health Contracts** 

### ESG covers a wide range of functions that have profounding impact on insurer



# ESG is an increasingly important focus area within a firm's agenda with following actionable areas

### Risk Modeling

Modelling of impact of ESG to business models assets, locations, and portfolios.

### **Asset** Resilience

Evaluation of resilience of a single asset or portfolio of assets under climate change and other ESG scenarios.

### Due Diligence

In-depth assessment of physical & transition risk associated with target acquisitions or investments.

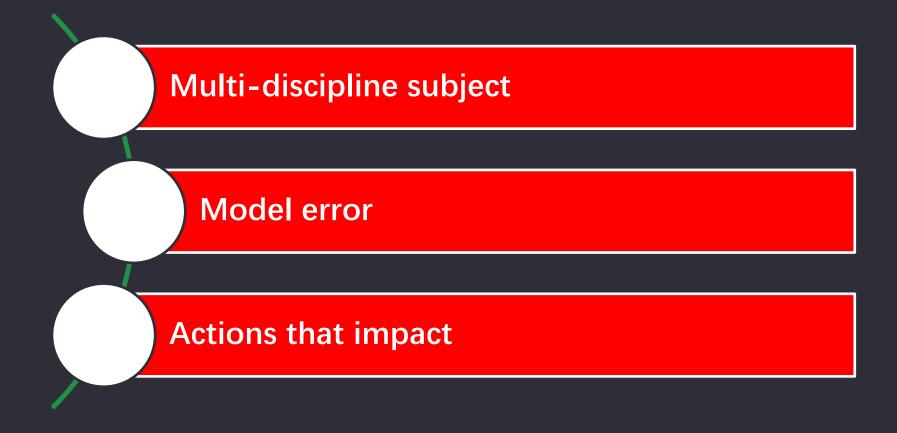
#### Risk Transfer

Access to insurance markets, capacity creation, and insight on availability and market health.

#### **Disclosure**

Support in meeting reporting requirements (e.g., ISSB, CSRD, TCFD)

### But the assessment of ESG bring challenges in practice



<sup>3</sup> Underwriting and Product Innovation

### Integrating ESG considerations into the underwriting process

▶ 话写简单点

Make discretionary decision making through escalation processes and setting thresholds for escalation to avoid overburdening underwriters

Considerations in underwriting policy

- Have internal guidance
- Underwriting policies can include
  - areas/sectors/business lines with higher climate-related risks
  - processes to identify and assess climate-related risks
  - use of climate research reports \( \text{models} \).

Considerations in underwriting assessment

- Assessment of climate change risks, consideration of relevant transition and reputational risks
- Consider factors
  - track record
  - duration of the policy
  - **...**
- Develop climate risk assessment ratings

Monitor underwriting exposure

- ▶ Develop tools to monitor the underwriting exposures to climate-related risks
- ► Take mitigating measures to manage potential build-up in concentration of exposures to geographical areas or sectors with higher climate-related risks

### **Example: Life and health insurance**

- Consider impact of climate change risk on mortality
- Pollution related health conditions impact acute health conditions

### **Example: General Insurance**

- Higher premiums driven by climate related natural catastrophes
- Differentiated premiums depended on vehicle CO2 consumption

# Insurers are starting to adapt existing products to become more sustainable and support customers "green" buying preferences and behaviors

### **Green property insurance**

Premium discounts or specialized coverage offered by insurers, either for energy efficient properties or properties which are re-built using environmentally sustainable products

- Company offers a 'Green Homemaker Policy' which facilitates the replacement of damaged devices with sustainable products
- Company's reputation cover provides up to US\$- in coverage per occurrence of adverse publicity of a building, which can arise due to the building not meeting their green standards. This coverage is aimed at helping manage costs associated with reputational damages

### Green life and pension products

Life and pension fund products, which offer customers a medium to invest their premiums into green funds or companies who are making responsible investments

- Company launched investors Climate Transition Equity Fund which aimed at delivering long-term growth by investing in companies that responds to climate change
- Company provided an option to invest life premiums in eco-sector funds in Austria, France, Germany & Hungary

### **Green transportation insurance**

Insurance coverage or premium discounts to customers using electric or hybrid modes of transportation, including auto, boats and bicycles

- Company provides with insurance cover for bicycles and e-bikes, against events such as theft, robbery, damage or breakdown. It's insurance package starts from US\$- per annum
- Travelers Insurance offer premium discounts to customers who drives a hybrid/electric vehicle (EV). It also provides up to 10% premium discount on hybrid and electric boats

### **Usage-based insurance**

Auto insurance where premiums are determined based on actual usage. It also offers incentivized premiums based on driving behaviour

- Company offers mileage-based premium and provide customers with a lower premium based on actual vehicle usage. It further encourages customers to leverage used car parts in case of a breakdown
- Company, in partnership with "By Miles", launched usage-based product after observing changes in customer behavior since the onset of COVID-19 to encourage environmentally-responsive practices

# Insurers are slowly developing new products in response to climate change and servicing the new customer groups

### Parametric insurance

Insurance coverage triggered by the occurrence of an event, such as cyclones & floods, where the pay out is based on a pre-defined scheme, & not on actual damage

- Company offers parametric insurance against cyclones and earthquakes, where coverage is triggered by the severity of the catastrophe crossing a pre-defined threshold
- Company provides parametric insurance to corporate clients, enabling business continuity in case of an adverse climate event

### Pollution clean-up insurance

Insurance coverage for protecting excess costs associated with measures taken by corporates for cleaning up pollution at project sites

- Company offers ground pollution insurance which protect organizations against excess costs incurred due to cleaning up of pollution at their project sites
- Company provides coverage under Clean Tech Sustainability Suite to help clean technology companies insure against the costs incurred due to pollution cleanup, which is part of their R&D property

### Renewable energy insurance

Risk coverage to protect insurance needs of renewable energy companies, including wind farms and solar power stations

- Company offers specialized insurance package for renewable energy such as onshore windfarms and solar power, to provide coverage across the lifecycle of the project, including coverage for incidents such as construction, third-party liability etc.
- Company provides insurance to renewable and alternative energy industry,
   across client groups including geothermal facilities and bio-diesel producers

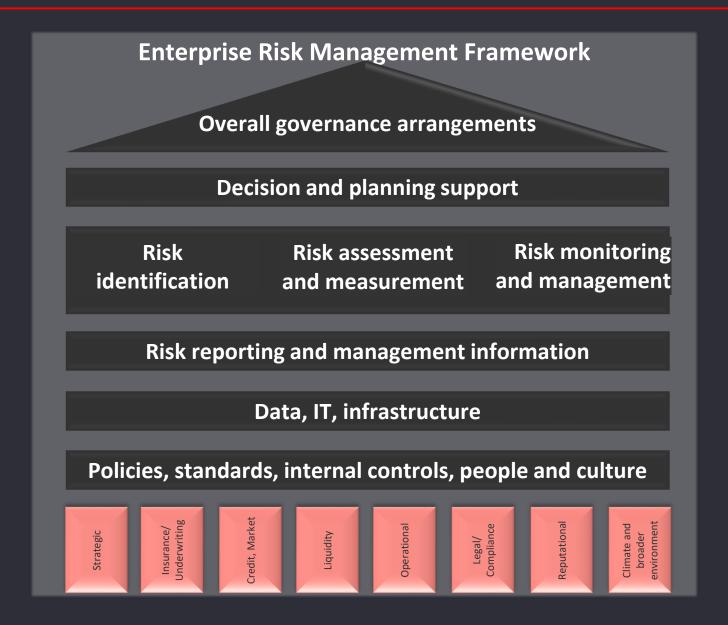
### **Crop and forest insurance**

Insurance coverage for forest/commercial plantations and crop production, to provide risk cover for losses against catastrophic events such as fire, storm, drought and excessive rainfall

- Company provides reinsurance solutions to commercial plantation owners to protect against losses caused due to fire and storm – where the claims value is based on a pre-determined timber value estimation
- Company offers crop reinsurance solutions such as multi-peril crop insurance, where the yield loss risk is provided protection from drought, excessive rainfall, frost and windstorm

Risk Management and Modelling

Embedding ESG in current risk management framework is not only for compliance purpose but also financial performance of company



### Transition risk and physical risk modelling

2. Economic 1. Scenario shocks pathway **Transition pathways** NGFS, BES or equivalent **Indirect impacts** scenarios. Transition risk Physical risk **Direct impacts** Transition risk Physical pathways Physical risk Inputs: Transition pathway Combine Insurer, 3rd party and scenario data to provide a complete picture of counterparty or property level.

3. Asset value streams

4. Financial impacts

Possible third party outputs

Climate scenario shock estimates

(key financial ratios)

- Change in occupier income
- Change in property value…

### **Bottom up**

E.g. top 80% counterparties

### Top down

Stress testing residual counterparties

Integration into balance sheet, scenarios and stress test

### **Exposure**

Physical Transition

#### **Action**

- Abatement (e.g. fuel charge)
- Adaptation (e.g. flood defenses)

### Competition

- Relative competitiveness
- Market share adjustments
- Cost pass through

Model revenue, cost and earnings impacts by scenario for residential and commercial counterparties through time accounting for various value stream channels:

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# Thank you

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