

Live session
Sept 18, 2020

How can (re)insurers lead the way on climate change action, in terms of both assets and underwriting?

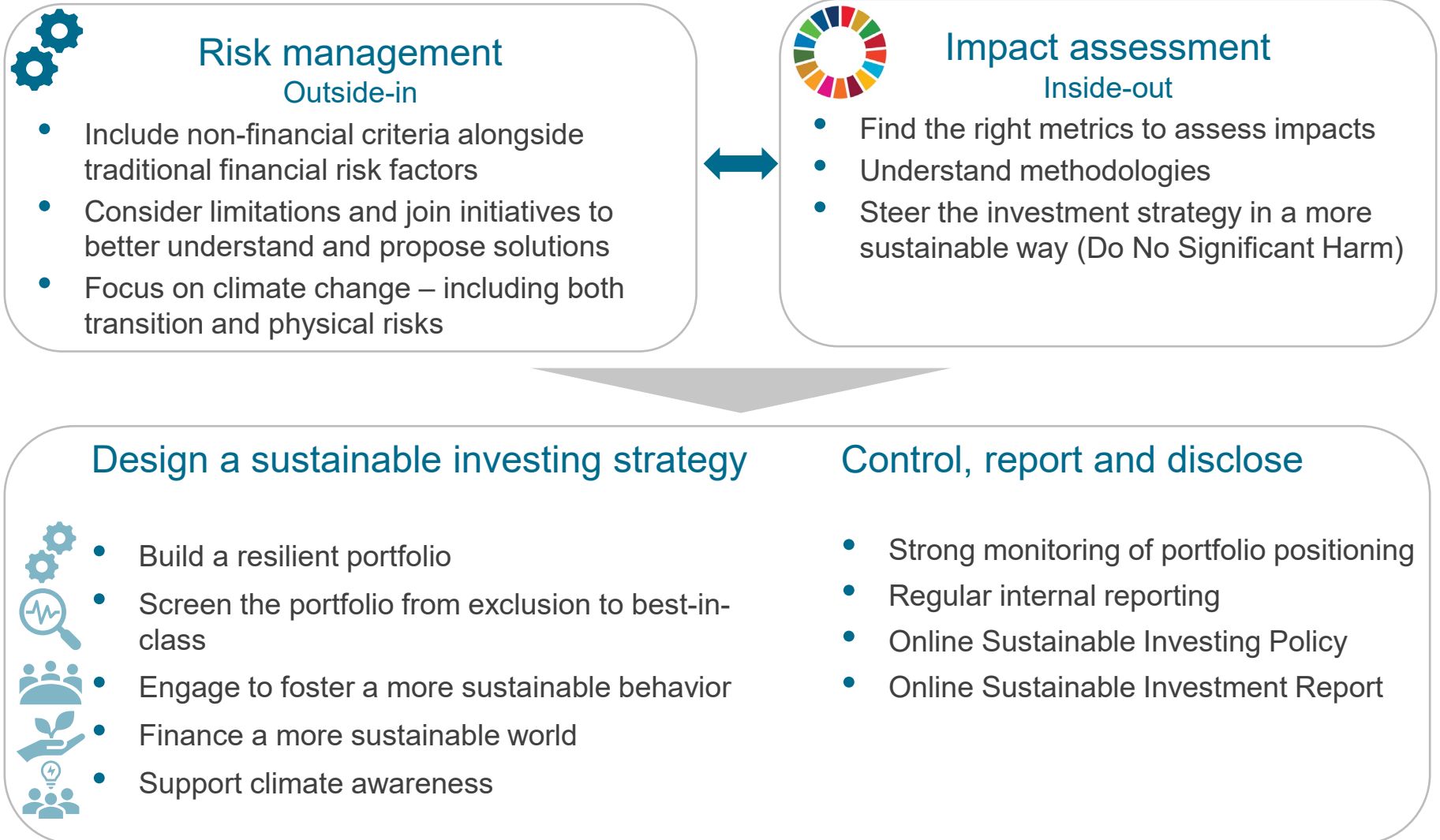


What's on the assets side?

Michèle LACROIX
Head of Group Investment Risk &
Sustainability,
SCOR Global Investments



Include sustainability in investment decisions



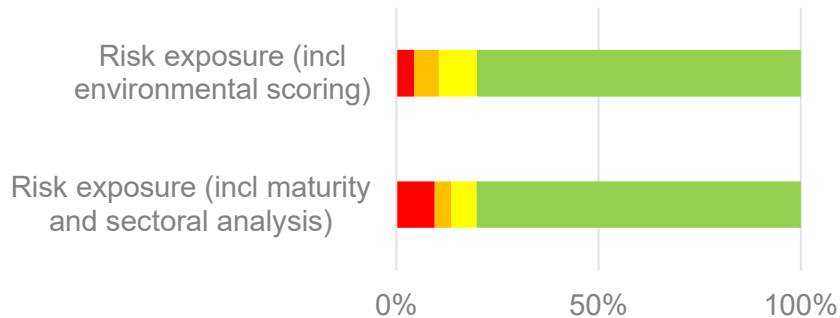
Focus on climate change: assessing materiality



Risk management outside-in

- Carbon intensive companies face a material financial risk linked to the transition to a low carbon economy
- Investors could suffer from “stranded assets” hampering the value of their portfolios

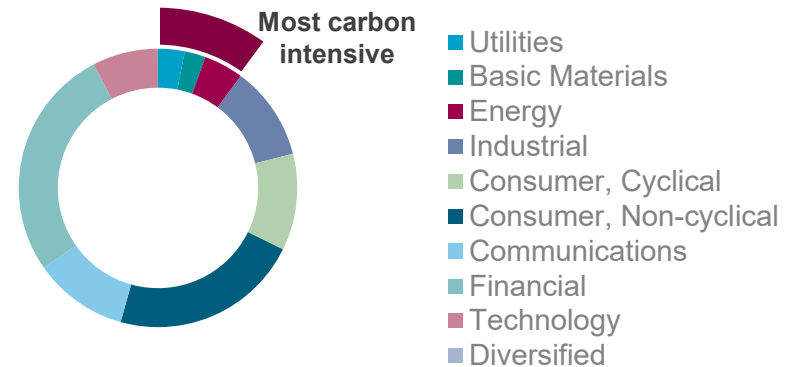
Transition risk – Heatmap



Impact assessment inside-out

- The carbon footprint of an investor’s portfolio has direct impact on environment
- Limiting the global warming well below 2°C by 2100 is now a standard for responsible investors

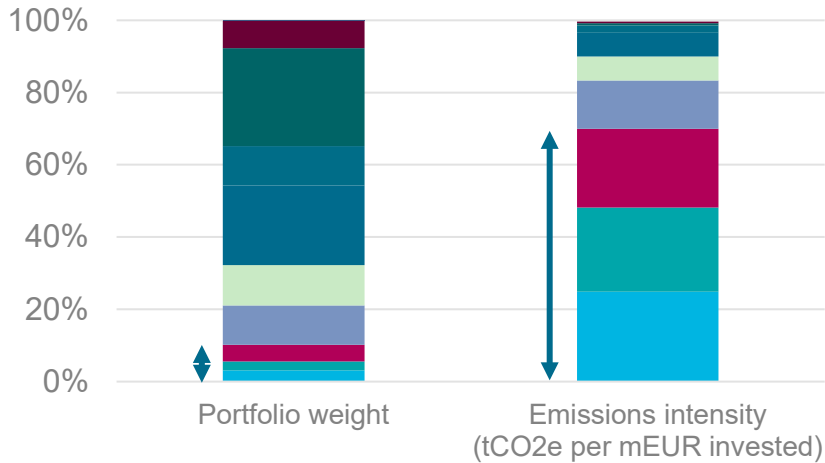
Invested assets portfolio – Sector allocation



- Identify and monitor riskiest positions
- Exit most harming sectors: coal, oil sands, arctic oil
- Deep dive into carbon footprint contributors for further steps

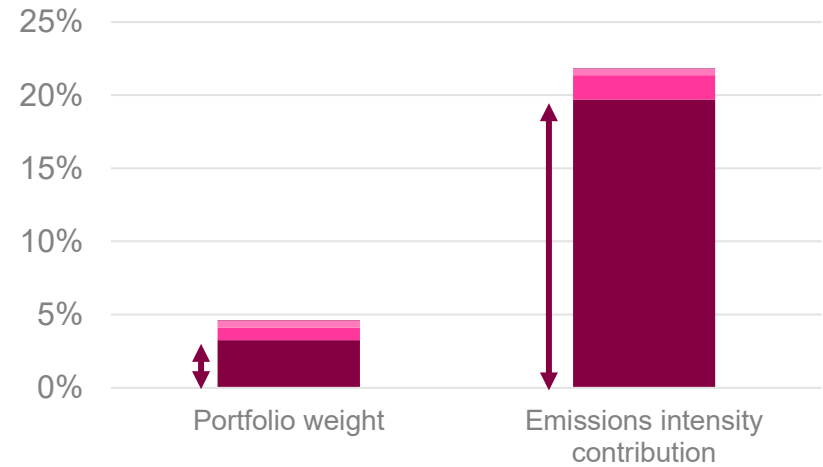
Focus on climate change: carbon footprint contribution

10% of the portfolio contributes to 70% of emissions intensity



- Utilities
- Energy
- Consumer, Cyclical
- Communications
- Technology
- Basic Materials
- Industrial
- Consumer, Non-cyclical
- Financial
- Diversified

Within energy, oil & gas is by far the heaviest contributor



- Oil&Gas
- Pipelines
- Oil&Gas Services
- Energy-Alternate Sources

- Select first subsectors for which alternatives exist
- Exit biggest contributors through a best-in-class strategy

Sustainable investing – SCOR’s journey



SCOR’s sustainable investment strategy covers the three dimensions of ESG

Strategy and commitments¹⁾

SCOR’s sustainable Investing Policy



SCOR monitors all asset classes of the investment portfolio...

The sustainable investment strategy applies to all asset classes²⁾:

Carbon footprint



Global warming



ESG ratings



... with a proactive approach going beyond risk management

Enabling to build a resilient and sustainable portfolio²⁾:

Stress tests on physical and transition risks



7% in green investments in 2019





What's on the P&C underwriting side?

Laurent ROUSSEAU
Deputy CEO,
SCOR GLOBAL P&C



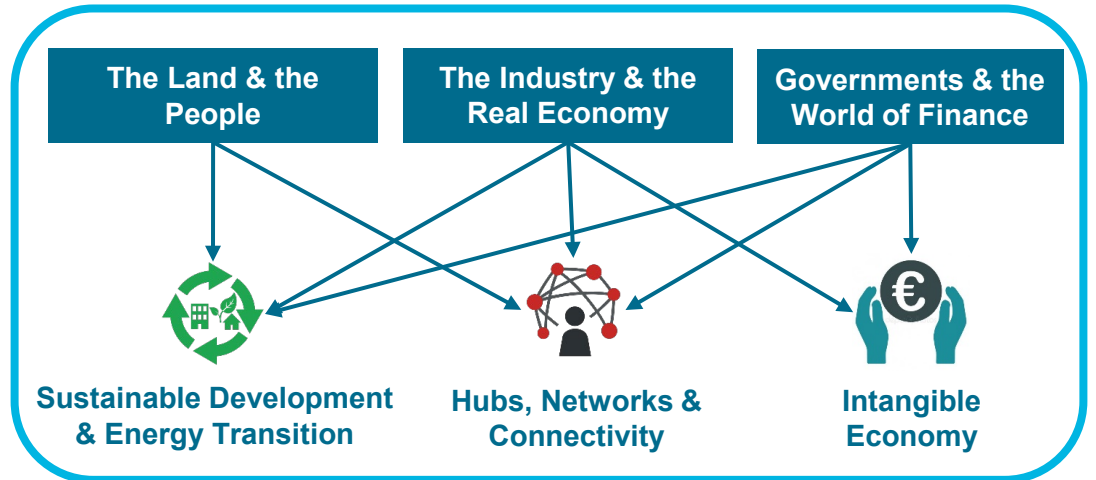
Climate change is a key underlying component to the drivers shaping the future of the Property & Casualty market

United Nations
SDGs



The 3 global drivers shaping-up the future

Key themes for global (re)insurers



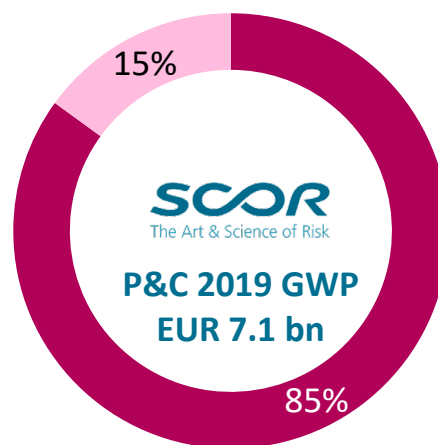
How SCOR Global P&C is exposed to Corporate Social Responsibility (CSR) and climate change

Single Risk Underwriting

(Specialty insurance, Fac reinsurance)

Direct exposure to large industrial insurance

- ✓ Granular information on and control of our own exposures
- ~ Reliance on intermediaries (e.g. brokers) to access good data



Portfolio Underwriting

(Treaty Reinsurance, MGAs)

Mix of Personal & Commercial Lines behind insurers, or MGAs

- ~ Varying degree of access to underlying information
- ~ Varying degree of influence on cedents' specific choices and data
- ✓ Vast amount of information on natural perils

Common CSR and climate framework for both Reinsurance and Specialty Insurance

- ✓ Guidelines to frame underwriting
- ✓ Exposure management
- ✓ SCOR underwriting DNA as a long-term partner

SCOR Global P&C CSR and climate change approach

What gets measured gets managed



1 Analysis & Measurement

- Develop relevant business mapping and modelling tools
- Identify risks and opportunities through data
- Focus on climate change – including both energy transition and physical risks



2 Design underwriting solutions



- Comprehensive underwriting approach targeting adaptation and mitigation – *from exclusion to promotion*
- Adjust appetite to most pressing risks – e.g. coal, tobacco, weapons
- Promote risks compliant with energy transition – e.g. renewables, sustainable infrastructures

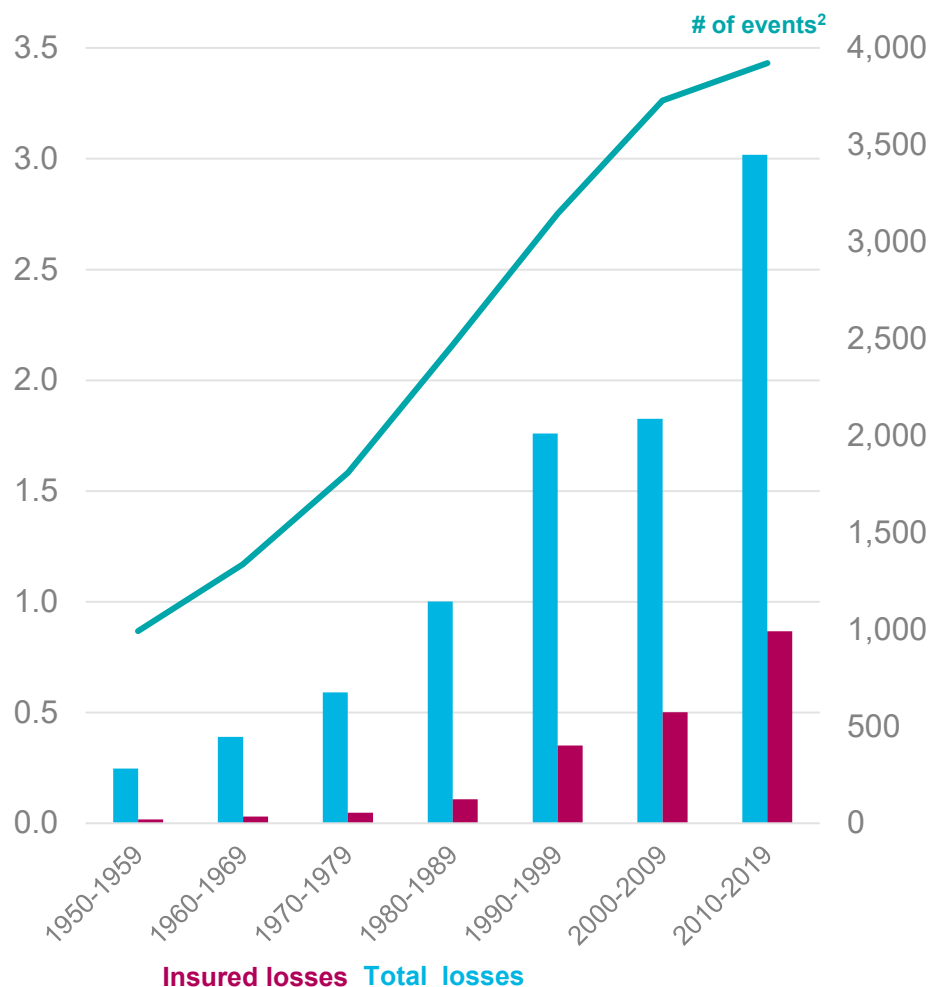
3 Execute, implement, control



- Underwriting referral processes
- Deepen expertise:
 - ✓ Energy transition impact on all industries
 - ✓ Climate-related regulatory and market trends
- Engage and partner with clients from all industries

1 As a leading P&C reinsurer, it is our core mission to understand and mitigate the impact of Climate change

Nat Cat events and insured losses (USD tn)¹



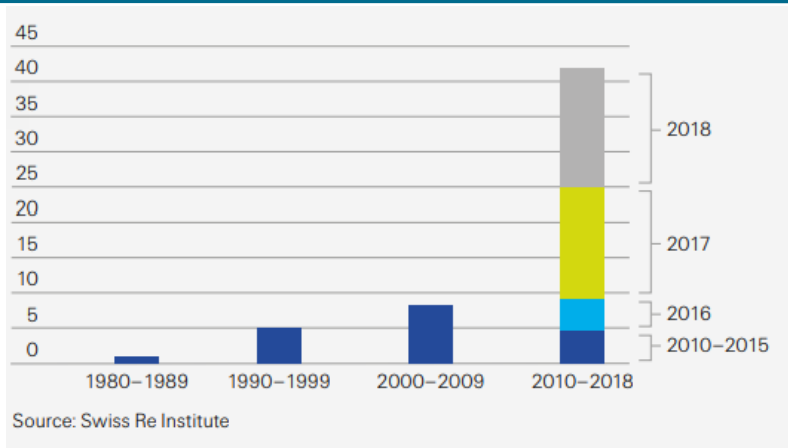
- Significant increase in average² insured losses:
 - 2010-2019: USD 221m
 - 2000-2009: USD 135m
- Combination of physical (climate change driving frequency of events) and human factors (demographic and economic growth)
- In 2019, (re)insurers have absorbed another set of “mid-sized” events
- Hence the need combine climate science with actuarial knowledge of risks

1 “Secondary” perils such as Wildfires are increasingly important

Overview and context

- Wildfires are increasingly frequent “earnings” events:
 - Tubbs (2017 / market insured loss USD 8.5bn¹)
 - Thomas (2017, USD ~2.2bn¹)
 - Camp (2018, USD 9.2bn¹)
 - Woolsey (2018, USD 4.0bn¹)
- Camp was the largest 2018 insured event, while “secondary perils” represented 62% of Nat Cat insured losses (Source: Sigma)
- Bushfires were top Australian insurance event in 2019 (USD 5 economic and 1.1bn insured losses)²

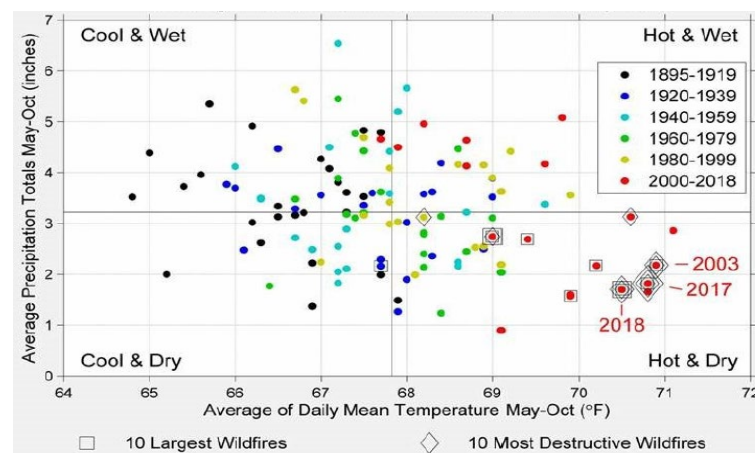
Insured losses from wildfires (USD bn, 2018 prices)



Modelling approach / Actions undertaken by SCOR

- Continuous update of technical pricing ahead of renewals supporting careful exposure management
- Built a fully probabilistic model, adopted in 2020, allowing consistent basis for costing California wildfire risk
- Apart from pricing and capital setting, the model is also supporting our climate change work and portfolio evolution studies. It is capable of measuring loss impact of changes in burnt area, event frequency and insurer re-underwriting.

Average temperature and precipitation (May-Oct)



In Specialty Insurance, SCOR has used two rating methodologies to assess the sustainability of its single risk underwriting book

ISS ESG Scoring

MOODY'S Transition risks heatmap

Who is rated?

- 6,200 **corporations** globally
- Assessment requires ISIN number (50% of SBS¹ book)
- Corporation are scored from “A” to “D”.
- 48% (in premiums) of SBS clients can be rated

- 84 **industry sectors**
- Industry sectors are ranked from « low » to « immediate risk »
- 100 % (in premiums) of SBS¹ portfolio can be rated

What is rated?

- ESG performance of a given corporation measured *via* 30 dimensions
- Key topics are climate change strategy, energy management policies, water risk, business ethics, compliance, health and safety

- Transition risks by industry sector
- Incorporates regulatory-led changes (“stranded assets”)
- Also includes physical risks and land availability

Why such a focus?

- Rating indicates if a given client of SBS¹ is acknowledging and acting upon ESG related topics
- Indirectly provides a proxy of the reputational risk SBS¹ is exposed to

- Rating indicates long term viability of business at client level for SBS¹
- Both a risk management and a commercial tool (e.g. KCM)
- First steps towards green financing framework and TCFD-like reporting (also to be related to CRO forum workstreams)

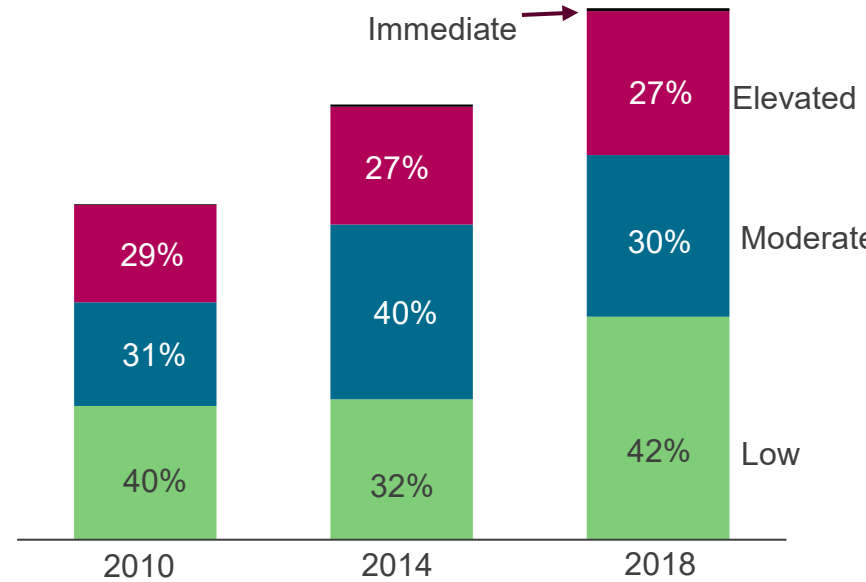
1) SCOR Business Solutions

Evaluating the sustainability of SGPC's specialty insurance portfolio

MOODY'S

- Applied Moody's energy transition risk framework for 84 sectors to SCOR Business Solutions book through a set of criteria:
 - Policy and legal (e.g. carbon pricing)
 - Technology (substitution effects)
 - Market
 - Reputation
- Currently developing a translation of Moody's heatmap **from an investment to an insurance view (i.e. risk-based approach)**:
 - Estimate expected future losses by industrial occupancy (risk intensity x scenario likelihood)
 - Apply to all insurance lines of business – e.g. property, casualty, marine, construction, credit, environmental)
 - Ongoing pilot project for energy occupancies (e.g. mining)

Single risk book view with Moody's investment heatmap



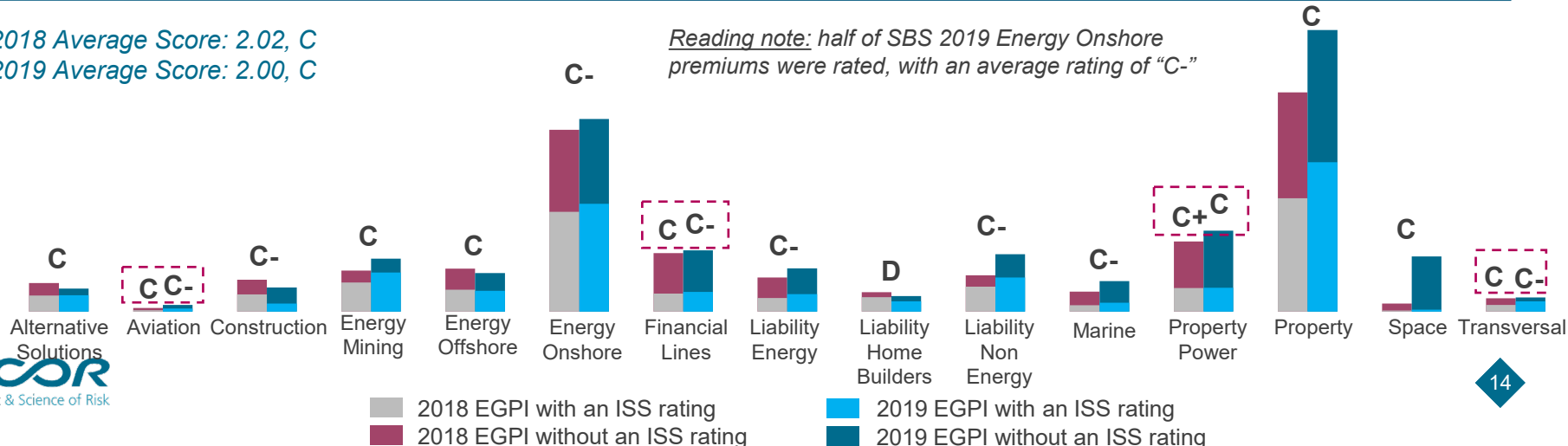
Single risk book ESG scoring

2018 Average Score: 2.02, C
2019 Average Score: 2.00, C

Reading note: half of SBS 2019 Energy Onshore premiums were rated, with an average rating of "C-"

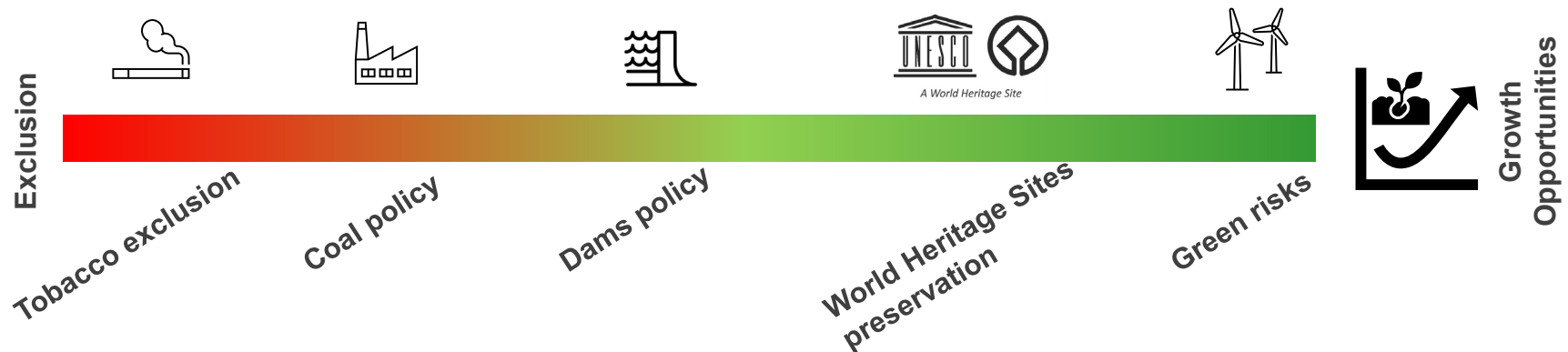
ISS ESG

SCOR
The Art & Science of Risk



Specialty Insurance CSR Underwriting approach ranges from exclusions to promotion of “virtuous” lines – with a focus on climate change

CSR Underwriting Approach



Since 2017, SCOR Business Solutions' underwriters have been following strict exclusion processes...

- We exclude specific risks from our underwriting activities:
 - All lignite risks (mines, power plants: both construction and in operation)
 - Greenfield coal mines' construction
 - Except when part of an energy mix in which these plants are not predominant (to consider legacy and transition)
 - We apply underwriting grids on all mine and power risks submissions related to coal, rating the insured assets themselves, and the companies owning the assets
 - We refer risks when crossing specific thresholds, driving a strong discipline, both from underwriters and insureds
- ... while we are pushing forward business development initiative having a positive impact on the environment
- Environmental Impairment Liability
 - Offshore renewable energies

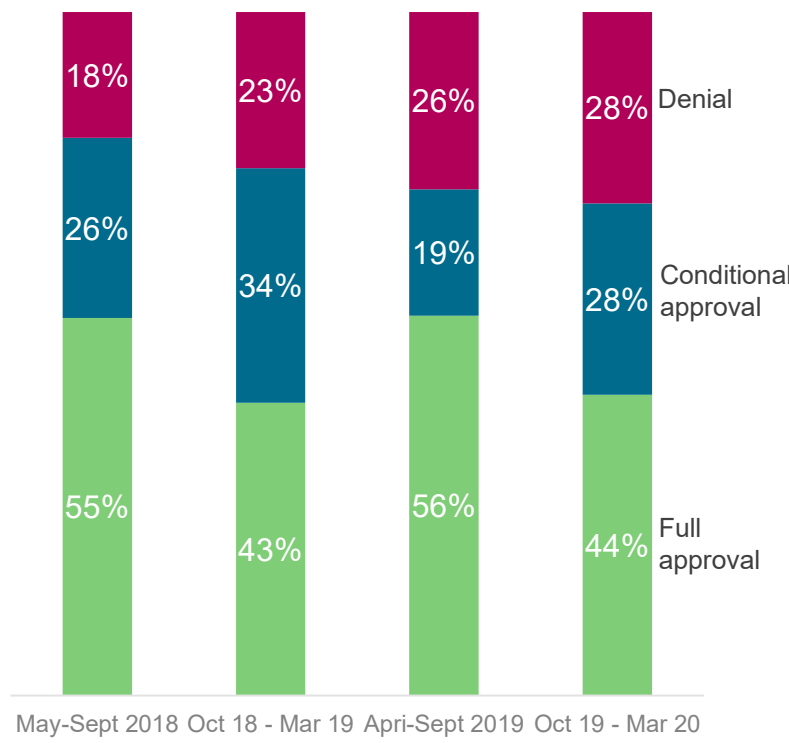
Single risk underwriting guidelines

Overview of principles and referrals data

● NO GO
 ● TO BE REFERRED FOR APPROVAL
 ● ACCEPTABLE

Risk	LOB/Segment	Underwriting Position
Tobacco	All	● All (except transportation, warehousing and distribution)
53 Endangered UN World Heritage sites	Property & Construction	● All impacting activities or construction projects
Dams	Property	● Mining/minerals processing tailings dams
	Construction	● All dam projects
	Casualty	● Mining industry related
Coal related activities	Property Mining, Property Power, Construction	● Risks whose CSR score ^(*) ≤ 6 with extra conditions for Property Mining ¹ and Construction ²
		● Risks whose CSR score ^(*) > 6 and ≤ 11
		● Risks whose CSR score ^(*) > 11
	Casualty	● Mining
		● Clients deriving more than 30% of revenue from coal related activities

Single risk underwriting Coal referrals



(*) based on scoring grid from next slide
 1) No go if ESG Score ≤ 6 or stand-alone lignite mines, or Appalachian Mountain Top Removal operations
 2) No go if ESG Score ≤ 6 or Greenfield thermal coal mine projects or II new coal fired power plant projects

Our approach to coal-related activities

Detailed risk scoring criteria supporting underwriting decisions

Mining scoring grid

		Criteria	
Company level	CSR	Sustainability information	CSR agency rating
Insured assets level	Activity	% of revenue from thermal coal activities	Volume of thermal coal produced per annum (Million Tons)
	Quality	Metallurgical / thermal / Lignite	
Company level	Trend	Coal activity: Decreasing, Stable, Increasing	
	Industry Standard	International Council on Mining & Metals Member	

Power Scoring Grid

		Criteria	
Insured level	Generation	Share of coal in energy production	Share of renewables in energy production
	Technology and coal	Types of technology used	Type of coal used
Company level	CSR	Sustainability information	Trend on renewables production
	Moral Responsibility	Country where plant(s) located (Developing vs. mature economies)	Resources available (local coal vs. imported coal)

Incorporate sustainability into reinsurance guidelines to be more relevant to our clients and retrocessionaires

CSR incorporation into underwriting guidelines – *we act responsibly*

- ✓ Builds on SCOR Mission statement:

SCOR's aim, as an independent global reinsurance company, is to (...) to provide its clients with a broad range of innovative reinsurance solutions (...) in order to offer its clients an optimum level of security, to create value for its shareholders, and to contribute to the welfare and resilience of Society by helping to protect insureds against the risks they face.



- ✓ Recalls SCOR's commitment to Principles for Sustainable Insurance (PSI)¹
- ✓ Explicitly statement of need to inform underwriters about latest CSR and energy transition initiatives within the company



Way forward geared towards better client servicing by leveraging...

Company training resources



- Compulsory training course for Underwriters

Specialty Insurance expertise data



- Share on “on the ground” risk knowledge
- Deal with Country specificities with a view to allocate capacity accordingly
- in the future

Underwriting tools



- Incorporate all treaties underlying occupancies information within accumulation measurement tools
- Flag current referral triggers as “CSR” when relevant

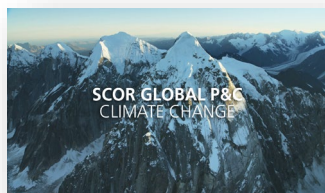
As a (Re)insurer, SCOR is in a unique position to protect societies and the economy against climate change-related risks and engages with Governments and insurers

- (Re)insurers have a pivotal role to play in facilitating comprehension, mitigation and protection with regard to the risks arising from climate change for 2 reasons:
 - their deep expertise in data analysis, risk modelling and risk transfer solutions
 - their shock-absorbing capability and fundamental function of pooling risks to optimize diversification benefits
- We need **to promote insurability and bridge the “protection gap”**. Addressing this global issue requires the combined efforts of governments and the private (re)insurance industry in the form of strong and innovative public-private partnerships. Pooling mechanisms will likely develop globally to share the peak risks across a wide pool of participants
- SCOR has joined the Insurance Development Forum, which gathers leading (re)insurers and public sector stakeholders
- Our alternative solutions practice has dedicated resources to parametrics and public sector

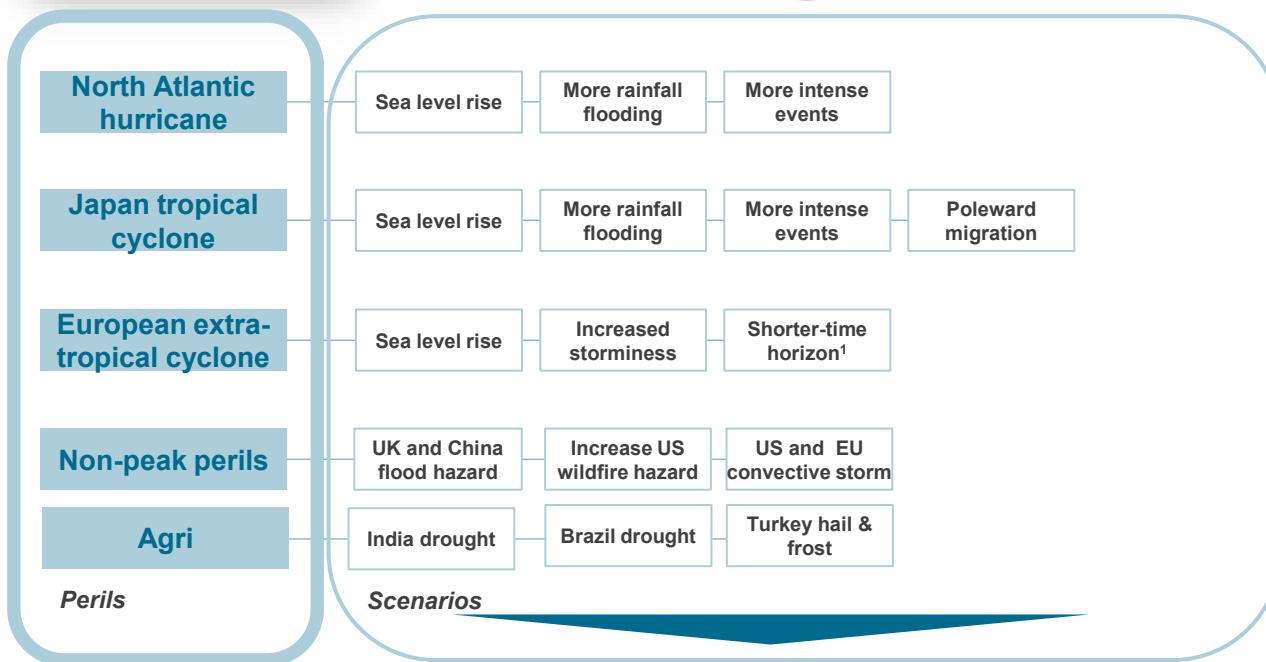


DF Insurance
Development
Forum

Quantifying near-term impacts of climate change for better re/insurance and societal decision-making



Climate change impact study



Climate change impact assessment on Property and Agri lines:

- Defined a range of realistic scenarios, implemented across all key client portfolios to assess loss impact on client re/insurance programmes.
- Results to be incorporated into decision-making: Pricing, Retro, Underwriting and Risk management analytics & reporting.
- Capabilities to support clients carrying out similar climate change impact studies

- Socialize and educate underwriting teams with study conclusions
- Design tailored solutions for clients
- Climate-dedicated SCOR Campuses for clients and other trainings

We have started an in-depth review of climate-related regulations to better serve our clients globally

Scope

Work performed

Market review

- Peer group of 20 large risk carriers across the (re)insurance sector
- Split across all continents within SGPC's main reinsurance markets – i.e. US, Europe, Japan, China and India

- Summary of climate strategy and reporting
- Focus on underwriting announcements and measures

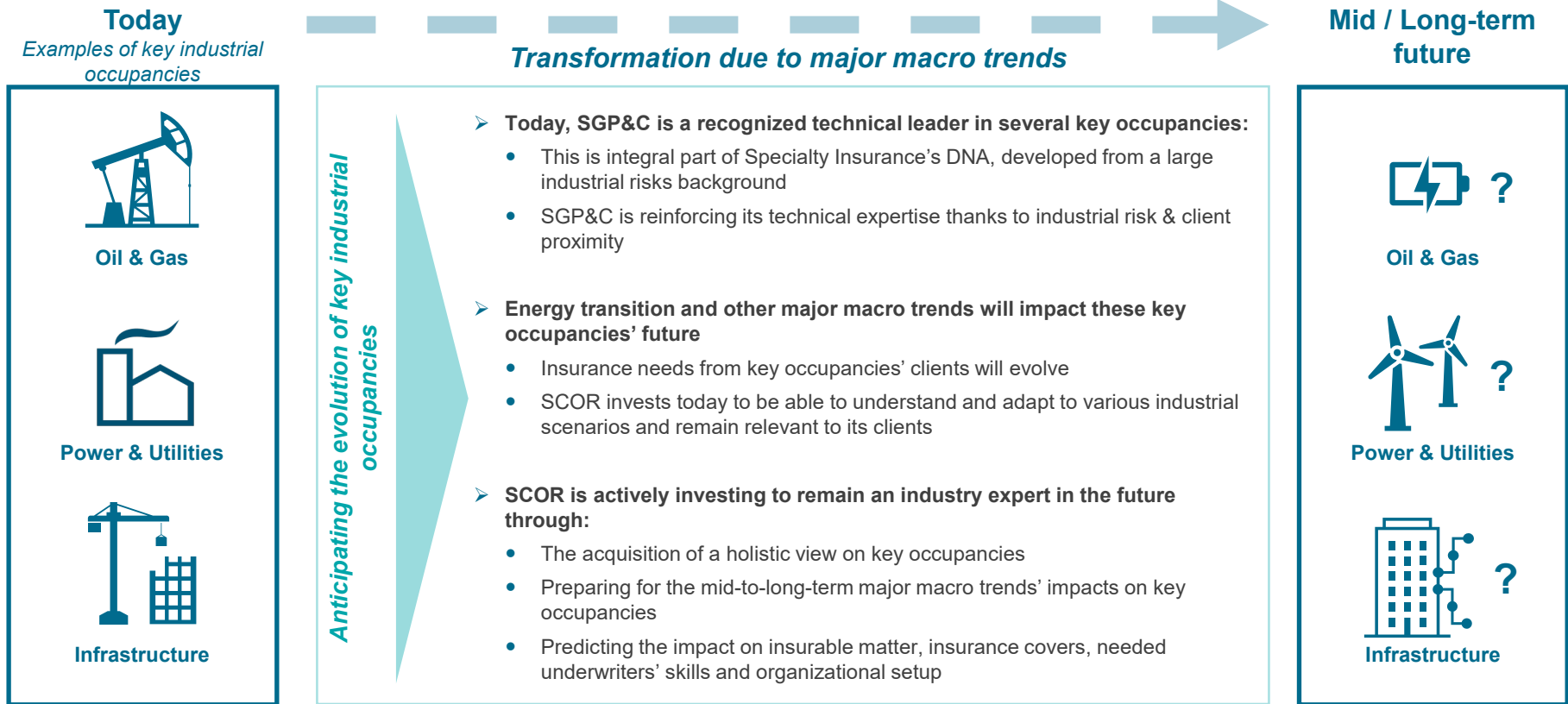
Regulatory review

- Five national jurisdictions: European Union, UK, Seven US state-level jurisdictions, International standard setters
- Overall 34 regulatory frameworks were assessed

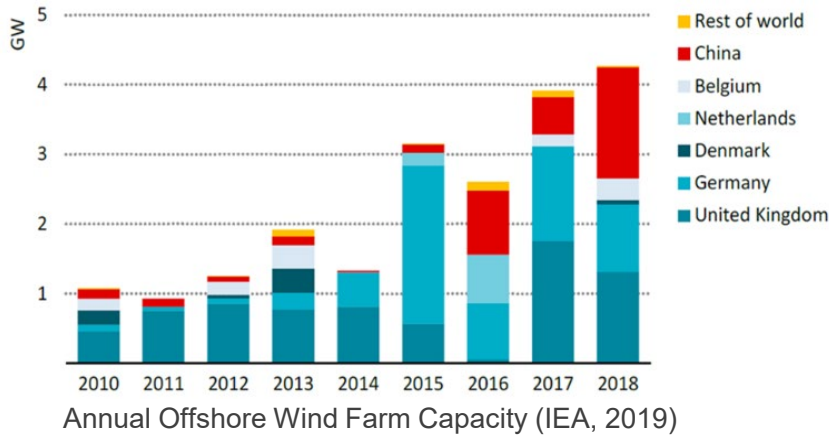
- Summary of recent climate-related regulatory and legislative activity in the financial sector
- Among those, map underwriting / insurance-related legislations and regulations
- Provide overall assessment on future regulatory / legislative requests risk carriers

- Better calibrate our commercial efforts towards our cedents: understanding of climate-related regulatory environment and business strategy
- Compulsory training will underlying more systematic client engagement on the topic of climate
 - Goal = exchange views and information with clients to influence them

Specialty Insurance is investing today to understand and adapt to the future of key industrial occupancies



Accompanying our corporate clients - Offshore Windfarms



- Increasingly **credible alternative to fossil energy** owing to technological improvement and lower costs
- More labour intensive and spark more research than their on-land counterparts - **social impact**

SCOR committed to helping clients in two ways



Developing underwriting expertise for our clients

- As a niche insurance player with reinsurance DNA, SCOR brings superior risk-assessment ability to the offshore market
- SCOR brings modelling capacity to a class of risks which is CAT-exposed
- Dedicated **Offshore Wind underwriter in London**
- Looking to expand commercial footprint to the US**
- Refining industry knowledge:** SCOR will hire a Power risk engineer specialized in Machinery Breakdown.



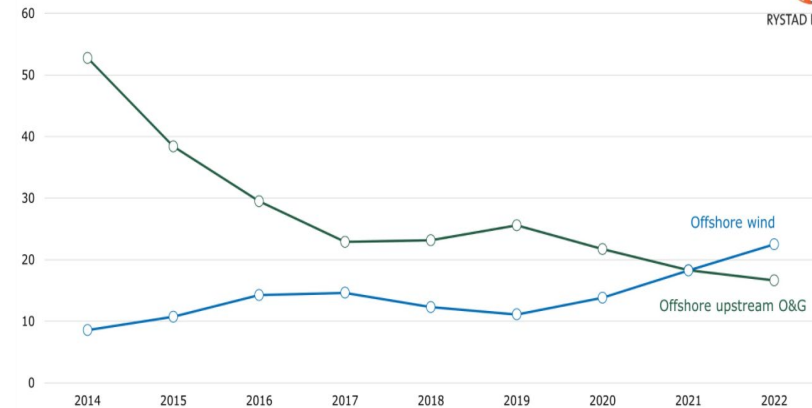
Contributing to energy transition & risks diversification

- Like our energy clients, we are looking to diversify exposures and **manage transition risks**
- Open discussion on these topics, and regular monitoring of our clients' improvements

Annual offshore oil & gas capex* vs. offshore wind capex**, Europe
Billion USD



RYSTAD ENERGY



*Expex excluded **Forecast takes into account capital expenditures for projects with start-up post 2022

Source: Rystad Energy research and analysis, Offshore Wind dashboard, ServiceCube

3 Case study #2

With Energetic, SCOR leverages its ventures practice to address climate change through innovative insurance solutions



Team

Energetic Insurance is a Boston based start-up founded in 2017 by solar industry experts with experience in solar project development, distributed energy, engineering and data science. They are a core team of 5, but supported by an impressive list of advisors prominent in the renewable energy space and consultants with capital market experience

Product

EneRate Credit Cover™ protects solar project developers operating in the commercial & industrial solar segment against electricity offtaker non-payment risk. The policy is designed to unlock solar project financing by providing cashflow certainty. Policies are multi-year and available in the US only at this stage

Relationship

SCOR P&C entered into an exclusive, multi-year partnership with Energetic Insurance in 2018. The partnership is currently solar focussed but is a gateway to a broader engagement with the Energy Transition



RENEWABLE ENERGY TECHNOLOGY

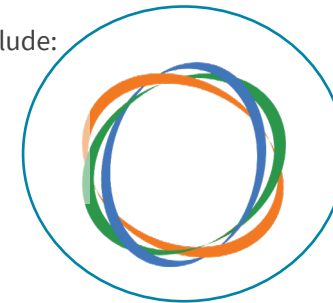
Expanding from solar to include:

- Battery storage
- Wind
- Microgrids
- Fuel cells



GEOGRAPHIC EXPANSION

Same products, needed for solar markets in other countries

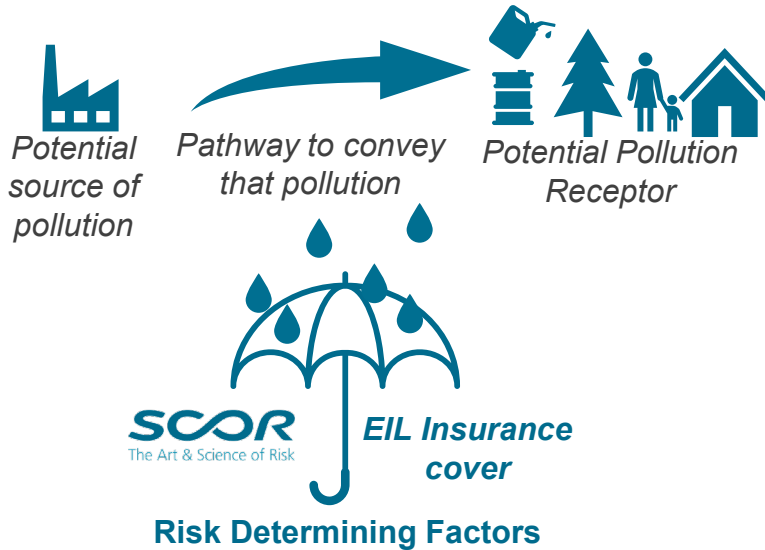


ADJACENT BUSINESS OPPORTUNITIES

Starting with single new projects, moving into portfolios of operating assets, utility-scale, virtual PPA, and other credit products

Accompanying our corporate clients – Environmental Impairment Liability insurance

Environmental risk results from the combination of three elements



- Environmental Impairment Liability (EIL) insurance deals with consequences of pollution
 - Requires standalone Insureds' risks analysis
 - Focus on most reliably estimated – i.e. at our clients sites
- EIL insurance acts as a powerful risk alignment tool across stakeholders
 - Protection against dangerous assets:** effective project analysis for better control of SCOR's risk portfolio
 - Combat Climate change through accountability:** riskiest covers incorporate pricing signal related to climate impact
- Robust risk assessment scoring tool developed by SCOR to draw up clients' risk profile (**Risk Determining Factors**)
- Climate change is definitely a growing source of environmental risks and is pro-actively studied by SCOR

Accompanying our corporate clients – Oil energy Case Study



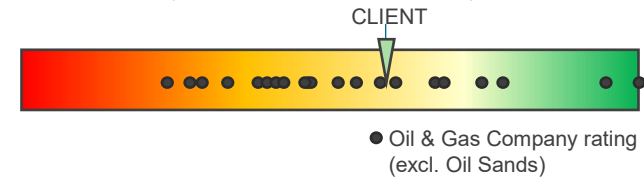
“In addition to profitability and respect of laws and regulation, we aim at being responsible underwriters and favor clients in each sector of activity, who go beyond the legal requirements in terms of human rights, environmental protection and energy transition.”

Extract from our underwriting guidelines



Energy sector: 20% of SBS 2019 EGPI. This expertise allows us to set high ESG standards for our clients and offer adequate terms and pricing for a variety of risks.

ESG Rating of SCOR Client Vs Oil and Gas Peers
(Source: ISS OEKOM, excludes Oil Sands)



Common challenges



Environment

A key role in the preservation of local ecosystems, communities and the global climate
Protection against consequences of adverse environmental effects (storms, extreme temperatures...)



Portfolio Sustainability

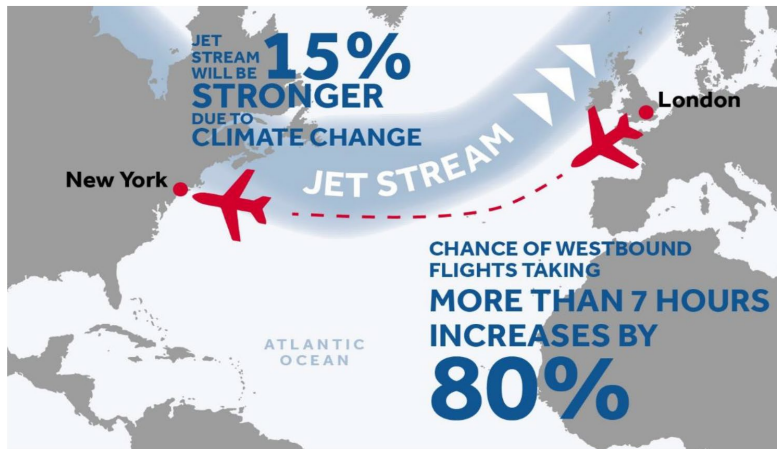
Being very mindful of long-term industry trends and transition risks
Building an optimally diversified portfolio of risks/activities



Public and Investor Relations

Taking concrete steps towards accountability and reducing the company's economic and social footprint
Proudly display these objectives and ensure that they are achieved

Accompanying our corporate clients – Aviation case study



Williams (2016)

- Like (re)insurers, aerospace clients are facing significant downside from climate change
- We are enhancing our risk management by supporting client’s climate-friendly business development projects
 - Test flights related to “greener” aircrafts have already included in insurance policies
- We have started to map our clients within their peer group according to our ESG ratings
 - Rating indicates if a given client acknowledges and acting upon ESG related topics
 - Indirectly provides a proxy of our own reputational risks

Aerospace & Defence @SCOR portfolio	ISS Rating
Client A	C+
Client B	C+
Client C	C
Considered client	C
Client D	C-
Client E	C-
Client F	C-
Client G	C-
Client H	C-
Client I	C-
Client J	C-
Client K	D+
Client L	D
Client M	D
Client N	D



- The aviation industry has gathered around similar objectives
- IATA’s climate strategy is built around four pillars
 1. More efficient aircrafts
 2. Reduce current fleet weight & fuel consumption
 3. Climate-friendly navigational improvements
 4. Global carbon offsetting mechanism (“CORSIA”)

APPENDIX

Climate change and protections gaps

Defining protection gaps

Defining protection gaps

- *“Difference between the amount of insurance that is economically beneficial and the amount of coverage actually purchased” (Geneva Association)*
- Given issues to measure it, in practice, we replace it by an indicator comparing covered loss to total economic loss.
- As of today, it is mostly available for Natural and man-made catastrophes
- Such method overestimates the protection gap as it ignores self insurance – i.e. a certain level of risk retention makes economic sense
- According to Munich Re, the natural catastrophe protection gap has narrowed, from 78 to 70%, and from 0.3 per cent to 0.2% of the world’s GDP over the past 30 years

Natural catastrophe protection gap (1980-2016)

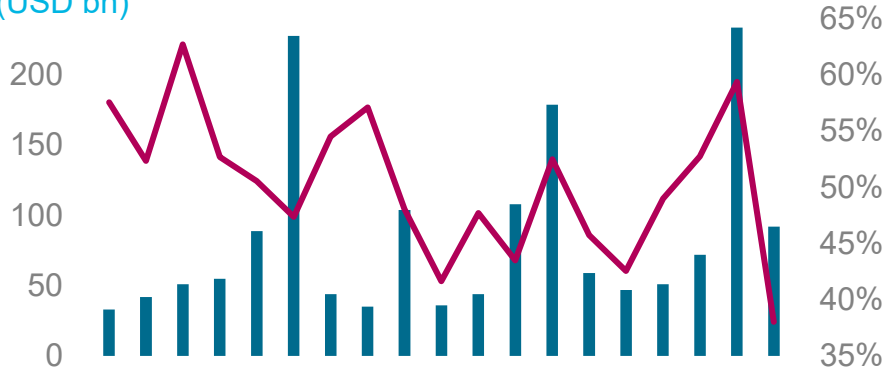


Protection gaps are uneven across the world, and tend to increase with severity of events

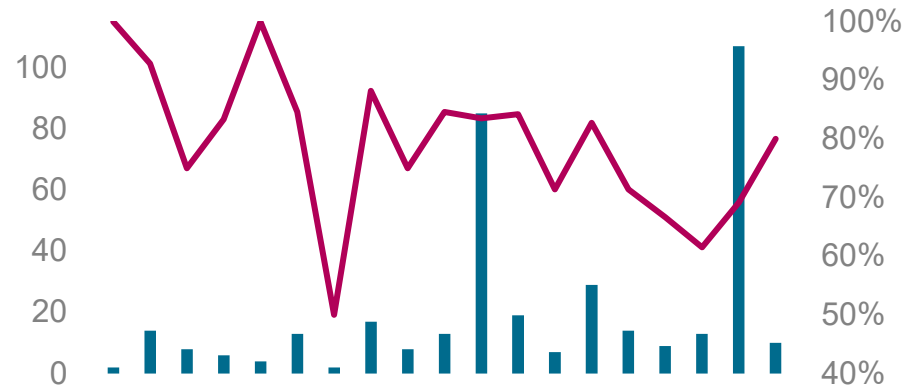
US Nat Cat losses (2000-2018)

Economic losses
(USD bn)

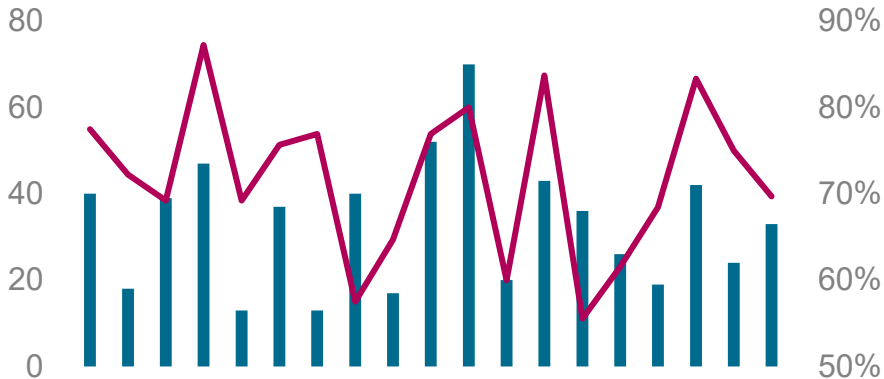
Protection Gap¹



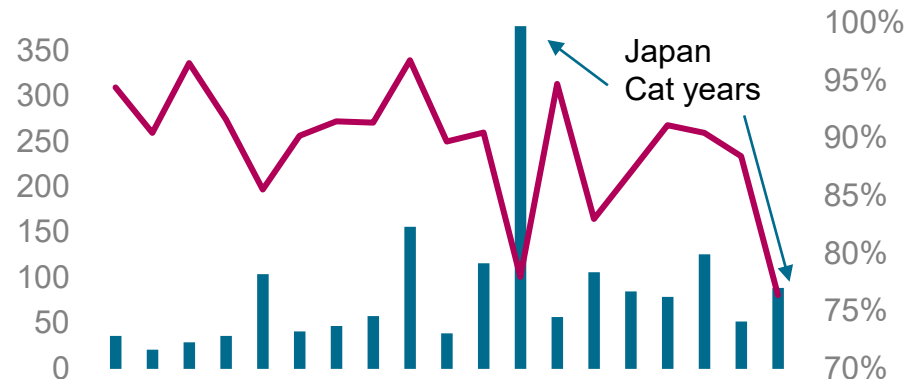
Americas (excl. US) Nat Cat losses (2000-2018)

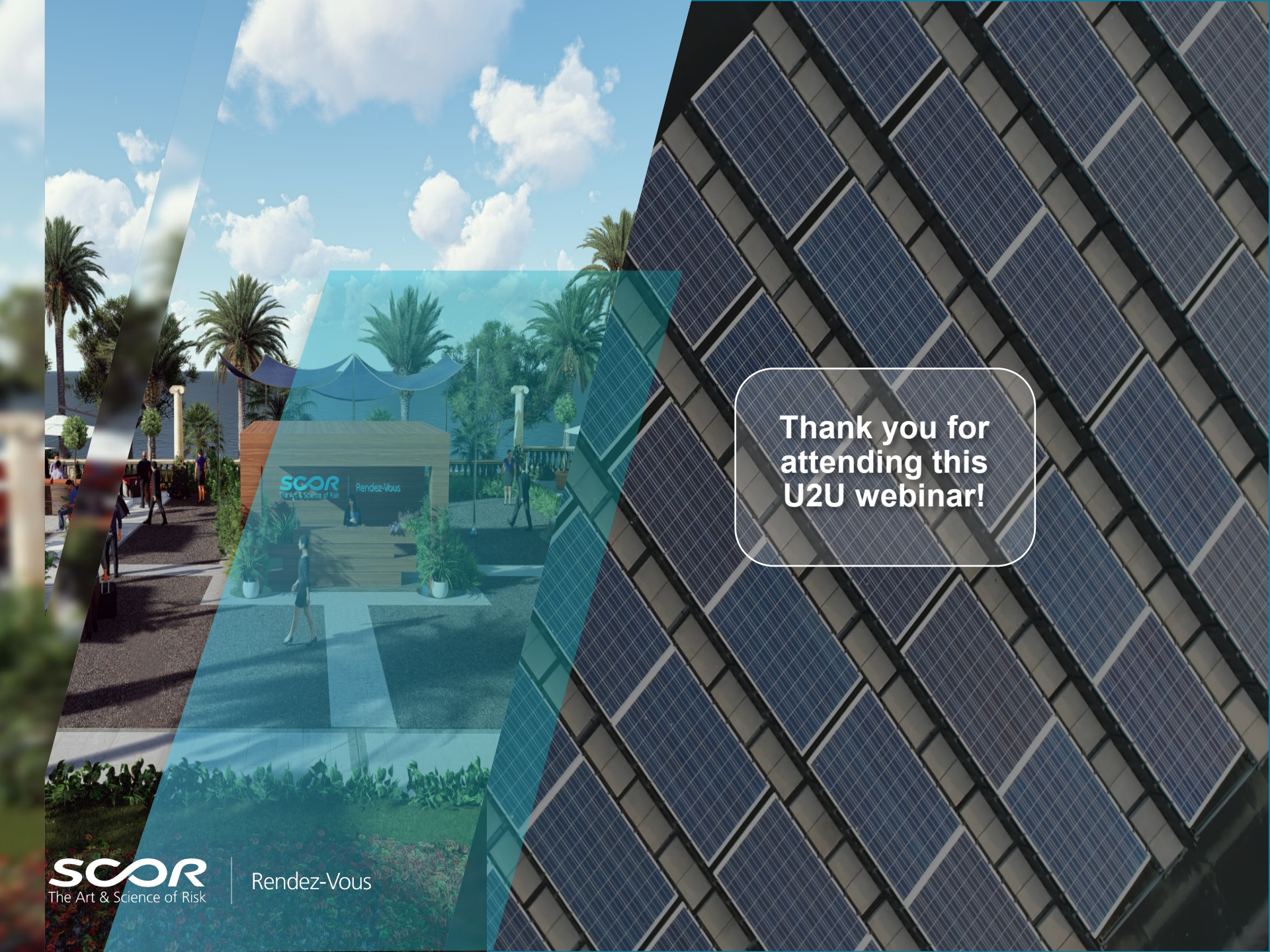


EMEA Nat Cat losses (2000-2018)



APAC Nat Cat losses (2000-2018)





Thank you for attending this U2U webinar!