Extending our risk intelligence

2020 highlights:

- Developed an exit strategy for thermal coal in our treaty business.
- Started to implement our sharpened oil and gas policy.
- Started to measure the carbon footprint of our direct insurance portfolio, applying a methodology developed with the CRO Forum.
- Further automated our Sustainable Business Risk assessments.
- Launched an updated version of our "Sustainable Business Risk Framework" publication.
- Published our yearly SONAR report.

In oil and gas production, the burning of excess natural gas through flaring is an important source of CO_2 emissions. With our revised oil and gas policy, we have committed to gradually shifting away from the most carbon-intensive production.

As part of our comprehensive risk management, we address sustainability and emerging risks. For this, we have developed specific tools and know-how.

Risk management is an integral part of Swiss Re's business model and key to the controlled risk-taking that underpins our financial strength. It is embedded throughout our business and ensures that the Group and the two Business Units have the necessary expertise, frameworks and infrastructure to support good risk-taking. This allows us to be a reliable partner for our clients and make the world more resilient. You can find out more about the core categories of Swiss Re's risk landscape in the Financial Report 2020, page 68.

As a company committed to sustainability, we also place emphasis on specific risks that may undermine long-term value creation. We consider sustainability and emerging risks to be of particular relevance in this respect and have developed instruments to identify, assess and address them. This allows us to determine those risks we think we should avoid – because of their environmental and social impacts as well as their potential to increase losses. Furthermore, we have policies and tools in place to address cyber-related and political risks. You can find information about these on our website.

The carbon risks embedded in our core re/insurance business (ie the "liability side") have recently become a priority. To achieve the net-zero emissions target we have set ourselves for 2050 we are developing a comprehensive carbon steering mechanism and are sharpening relevant policies of our Sustainable Business Risk Framework.

Decarbonising our business model

Swiss Re supports the worldwide reduction of greenhouse gas emissions and contributes to the goal of limiting global warming to 1.5°C above pre-industrial levels. We continuously review measures to assist the transition to a low-carbon economy and, formalising our commitment, in 2015 signed the Paris Pledge for Action to affirm our support for the Paris Agreement.

In addition to our risk management, our efforts to fulfil the Paris Pledge for Action include the development of suitable re/insurance solutions for our clients (pages 24–35), our Responsible Investing strategy (pages 44–51) and our operations (pages 60–69).

Data protection and privacy compliance at Swiss Re

See website

Political risks

See website

Our commitment to reach net-zero emissions

In 2019, we made a public commitment to reach net-zero emissions by 2050 across our whole business by signing the UN Global Compact Business Ambition for 1.5°C. This joins our active role as a founding member of the UN-convened Net-Zero Asset Owner Alliance, through which we have also made a net-zero commitment specifically for our investment portfolio by 2050 (see page 51).

Thermal coal policy

Through our Sustainable Business Risk Framework (see pages 38–41), we have continued to implement our thermal coal policy in our underwriting, including direct, facultative and treaty business. We first introduced this policy in mid-2018, pledging not to provide re/insurance to businesses with more than 30% exposure to thermal coal utilities or mining.

For transactions located in low- and middle-income countries that derive more than 70% of electricity from coal, existing power plants (ie operational before 2018) can be covered until 2025 if there is evidence that the insured is implementing an effective emission reduction strategy.

In 2020, we developed an exit strategy for thermal coal in our treaty business (through which we reinsure whole portfolios of direct insurers), holding over 400 client engagements in the process. This treaty approach complements the policies we have already developed focusing on our direct and facultative business. Together, they set us on course to reach our Group-wide target of completely phasing out our thermal coal business in OECD countries by 2030, and in the rest of the world by 2040.

Our approach introduces coal exposure thresholds for treaties across our property, engineering, casualty, credit and surety, and marine cargo lines of business. The initial exposure thresholds will become effective in 2023 and differ for specific lines of business and geographical areas. They will then be gradually lowered until the final phase-out targets are reached.

These coal-related actions in our treaty business are important steps on our path to reaching a net-zero emissions re/insurance portfolio by 2050. They are also in line with the commitment we made in 2019 by becoming a member of the Powering Past Coal Alliance.

Oil and gas policy

We have also committed to shifting away from the most carbon-intensive oil and gas production, and made this public in our 2019 Sustainability Report. You can read more about this commitment and what we have been doing to meet it on page 39.

Carbon steering mechanism

Our new thermal coal policy and revised oil and gas policy have been introduced as initial steps towards the development of a comprehensive carbon risk steering mechanism. This is needed to measure our carbon intensity and associated risks embedded in our re/insurance business. In 2019, we helped launch a project with peers via the CRO Forum to develop a robust carbon footprinting methodology for the quantification of these exposures.

120 t CO_{2e}/USDm revenue

estimated weighted average carbon intensity of our direct insurance portfolio

The project, in which Swiss Re took a leading role, was completed in 2020 with the presentation of a public report (see page 55). We have made progress in applying the methodology to our direct and facultative insurance portfolios. Thus, in 2020 the weighted average carbon intensity of our direct insurance portfolio was estimated to be 120 tonnes of CO_2 equivalents per million USD of revenue. Continuously measuring our carbon footprint in line with the methodology proposed by the CRO Forum will provide the basis for our carbon steering towards reaching net-zero emissions on the liability side of our business by 2050.

Our Sustainable Business Risk Framework

In a properly regulated market environment, profitable business activities create economic value. Occasionally, however, they may also have adverse effects on the environment and certain vulnerable groups. If such impacts are ignored, they may pose a threat to societies' long-term sustainable development.

Many businesses – including our own – grapple with the issue that some business transactions may be economically beneficial and perfectly legal, yet may still have adverse environmental or social impacts. We believe it is important to recognise the existence of such dilemmas and address them responsibly throughout our business.

Our Sustainable Business Risk Framework is an advanced risk management instrument that allows us to identify, assess and address potential social and environmental risks associated with our transactions. This framework applies to our entire business, including all our re/insurance transactions and investments, to the extent that we can influence their various aspects.

Phasing out the most severe oil and gas transition risks

The CO_2 intensities from the production, refining and end use of various hydrocarbons (naturally occurring compounds which form the basis of crude oil, natural gas, coal and other important energy sources) can vary substantially. Both their type (liquids vs gas) and their quality (eg heavy vs light oil) are key drivers of their value-chain CO_2 intensity. Hence the decision to extract a certain hydrocarbon will set the direction for emissions occurring not only during extraction, but also during refining and end use combustion.

Another relevant factor is flaring, where excess natural gas during production is burned instead of being captured and utilised. As a result, the average value-chain CO_2 emissions (kg) associated with getting one unit of energy (MJ or barrel of oil equivalent, boe) from hydrocarbons can be much higher for some oil and gas companies than for others, depending on the quality of their oil and gas fields and on the efficiency of their production processes.

In a project with Rystad Energy, a leading energy research and business intelligence company, we have studied the value-chain CO_2 intensities associated with global oil and gas production. The graph below ranks the oil and gas production (million boe) of the world's producers with respect to their CO_2 intensity (kg CO_2/boe). The results show that a small proportion of companies produces hydrocarbons with a disproportionally high CO_2 intensity.

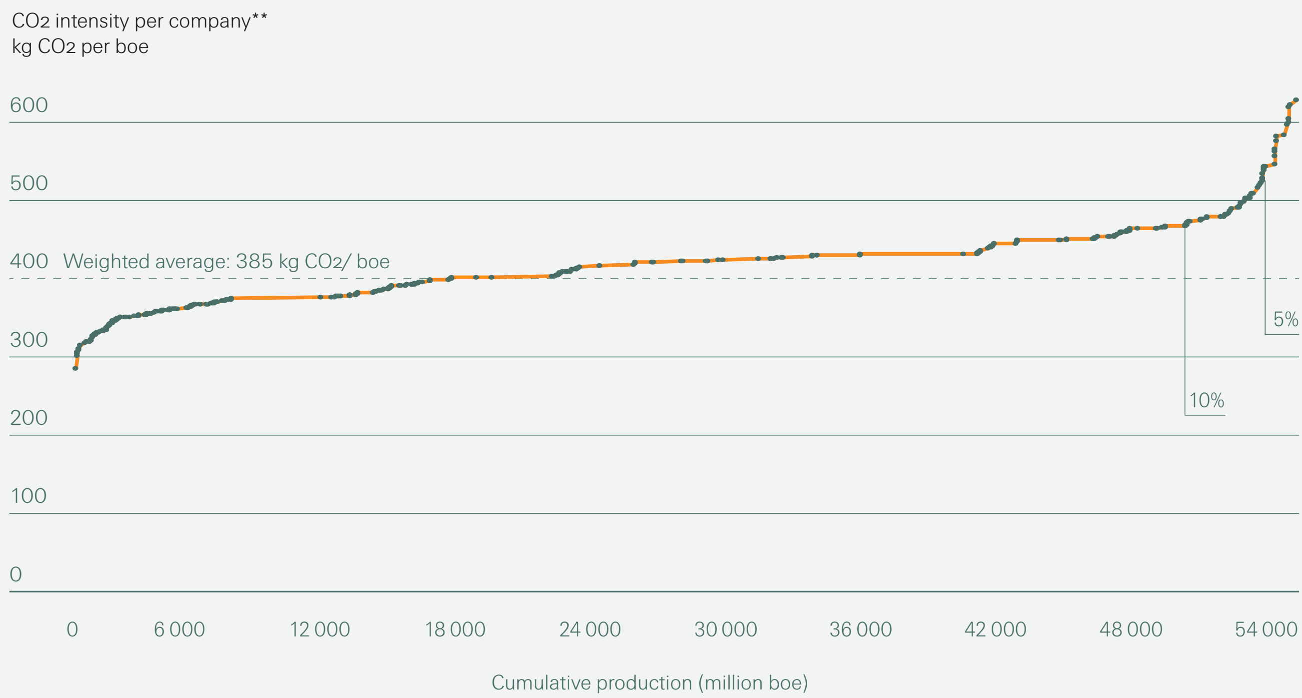
Oil and gas will play a role for decades to come, though they will be gradually replaced by renewable energy sources.

Climate change mitigation will therefore be most effective if the withdrawal from oil and gas starts with the most carbon-intensive production. This is reflected by the policy we have recently developed to gradually shift away from the most carbon-intensive oil and gas production.

From July 2021, we will no longer provide individual insurance covers for those oil and gas companies that are responsible for the world's most carbon-intensive oil and gas production (top 5%).

From July 2023, we will no longer provide individual insurance covers for those oil and gas companies that are responsible for the world's most carbon-intensive oil and gas production (top 10%).

Value-chain CO2 intensity* for global oil and gas production in 2019



Source: Rystad Energy EmissionsCube;

* CO_2 emissions generated from direct upstream production including flaring, refining/processing and end use combustion (adjusted for feedstock). Emissions from refining/processing and end use combustion are allocated to upstream assets, by considering the quality and mix of products.

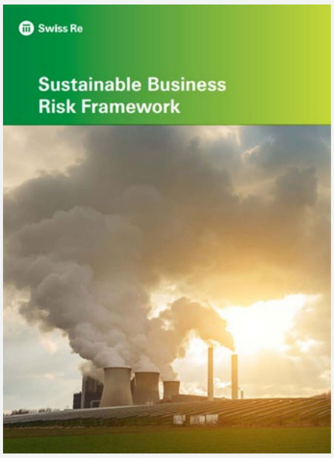
** Only companies with more than 10m boe in production.

The Sustainable Business Risk Framework consists of:

- Two umbrella policies on human rights and environmental protection plus eight specific guidelines on sensitive sectors or issues
- The Sustainable Business Risk (SBR) process comprising a sustainable business risk rating in a semi-automated assessment and referral tool – due-diligence mechanisms to assess our business transactions
- Company exclusions
- Sector exclusions in specified countries beyond mere compliance with international trade controls (ITCs)

Brochure "Swiss Re Sustainable Business Risk Framework"

In 2020, we updated our publication on the Sustainable Business Risk Framework. Over 21 pages it describes the Framework and its core elements in detail.



See website

Policies and guidelines

Our Sustainable Business Risk Framework is based on the overarching principles of respecting human rights and protecting the environment, encapsulated in two umbrella policies that are valid for all our transactions. In addition, specific guidelines apply these overarching principles to eight sectors or issues in which we perceive major sustainability risks: the defence industry; oil and gas; mining; dams; animal testing; forestry, pulp and paper, and oil palm; nuclear weapons proliferation; and thermal coal.

We regularly review all the policies and guidelines of our Sustainable Business Risk Framework to ensure they stay abreast of new risk developments and changing stakeholder expectations. In 2020, we developed a thermal coal phase-out strategy for our treaty business and continued with the implementation of our revised oil and gas policy. These improvements to the Sustainable Business Risk Framework form an important part of the efforts we have taken towards gradually decarbonising our business model (see pages 37–38).

The Sustainable Business Risk process

We implement the framework's policies through a due-diligence process with three elements: the Sustainable Business Risk (SBR) Assessment, the SBR Referral Tool and an appeals process. This process is firmly embedded in the Group's underwriting guidelines and processes.

In 2020, we further automated the SBR assessment and fully embedded it in the underwriting processes for direct and facultative transactions. The SBR Assessment in the underwriting workflow now provides our underwriters with a sensitivity rating for the human rights and environmental impacts of their transactions, and provides them with clear guidance on what to assess in further detail.

The transactions identified as the most critical are transferred through the SBR Referral Tool to Swiss Re's team of sustainability experts, who conduct in-depth research to decide whether the transaction at hand is acceptable according to the policies of the Sustainable Business Risk Framework.

This decision takes the form of a binding recommendation either to go ahead with the transaction, to go ahead with certain conditions attached or to abstain. If there is disagreement about the recommendation, the case can be escalated to the next management level and, ultimately, to the Group Chief Risk Officer and the Group Executive Committee.

The number of SBR referrals rose from 238 to 258 in 2020. In total, we issued negative recommendations in 28 cases and positive recommendations with conditions in 57 cases (see graphs on page 41). No recommendations were escalated.

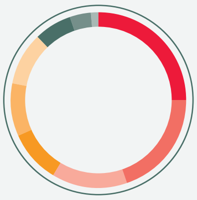
Company exclusions

Each policy of our Sustainable Business Risk Framework specifies certain criteria that may lead to the exclusion of a company from both our re/insurance transactions and our investments, to the extent that such an exclusion is permissible (eg by virtue of mandatory law or internal policies) and possible (eg if existing documentation relating to such re/insurance transactions and investments provide for it). No business may be conducted with any of these companies by any part of Swiss Re while they remain on the exclusion list.

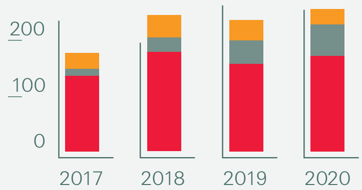
Main concerns addressed by the policies of our Sustainable Business Risk Framework

See website

Sustainable Business Risks referred to our expert team in 2020, by sector/issue



Number of Sustainable Business Risk referrals and decisions taken



258

Sustainable Business Risk transactions referred to our team of sustainability experts
(238 in 2019)

Excluded sector and country combinations

Swiss Re excludes high-risk industries in combination with countries where human rights are violated in a severe and systematic way, and where no reasonable prospect of imminent improvement can be foreseen. This measure goes further than compliance with ITCs.

Our goal is to refrain from directly underwriting risks or making investments in entities that are involved in high-risk industries in countries with a poor human rights record.

As the Sustainable Business Risk Framework is based on the principles of respecting human rights and protecting the environment, the SBR process with its two due-diligence tools, company exclusions and country exclusions is our principal means to ensure compliance with the UN Global Compact in our core business.

Training

We offer our employees regular in-house training on the Sustainable Business Risk Framework. Three years ago, we developed a completely new eLearning course for this purpose and updated it in 2020. It is compulsory for all our employees who work in underwriting and with our clients as well as for all our new entrants. In 2020, a total of approximately 4 000 employees completed the mandatory training course.

Client and industry interaction

Over the year, we had a number of important external engagements on sustainability risks with clients, brokers, investors, industry peers and civil society groups such as environmental and humanitarian NGOs. We held meetings with clients operating in sensitive sectors such as mining, forestry, and oil and gas, discussing potential measures they could take to address their sustainability risks.

As part of our ongoing efforts to implement our thermal coal policy (see page 38), we had over 400 engagements with clients across the globe in 2020. Many of them have introduced a thermal coal policy themselves and in turn are helping us reduce our carbon exposure in our own business.

In the context of implementing our revised oil and gas policy, we held several meetings with brokers to explain our approach to avoid exposure to the world's most carbon-intensive oil and gas production.

In partnership with other re/insurers, we are also developing risk assessment tools designed to help the industry better understand and manage sustainability risks. One of these ongoing partnerships is the UNEP FI Principles for Sustainable Insurance (PSI). In 2020, we jointly organised and held a four-part virtual event series on "Sustainability Leadership in Insurance". You can find more information about this series and other collaborations with partner organisations on pages 54–55.

Emerging risks

Re/insurers operate in a rapidly changing and increasingly complex risk landscape. Demographic, economic, technological, socio-political, regulatory or environmental trends may change existing risks or create new ones. In addition, growing interdependencies between these developments can lead to accumulations of risk and create significant knock-on effects. People's risk perceptions are shifting, liability and regulatory regimes continue to evolve and stakeholder expectations are growing.

This complex landscape provides fertile ground for "emerging risks" – newly developing or changing risks that are not yet entirely understood and managed. Such risks are difficult to quantify, and their potential impact on society and the re/insurance industry is not yet sufficiently accounted for.

Detecting and investigating such risks early on forms an important part of our comprehensive approach to risk management. In analysing how risks are evolving and related to each other, we seek to assess their potential impact on Swiss Re. This is vital to reduce uncertainty and prevent unforeseen losses, raising awareness within the Group and across our industry.

Mental health issues have recently been on the rise. For the re/insurance industry this poses an emerging risk because it has implications for disability claims and cases of early mortality. Swiss Re not only seeks to adequately diversify risk tansfer solutions, but advocates awareness building, destigmatisation and preventive measures.

Emerging risk case study: mental health

Mental health conditions cover a wide range, from psychological disorders such as depression to neurological ailments like dementia. Recently, the number of people diagnosed with mental health issues has been rising, and so have related healthcare costs and disability claims. For the re/insurance industry, the task of adequately diversifying risk transfer solutions is as much in focus as are preventive approaches.

Severe depression is of particular concern since it carries the risk of causing inability to work, higher suicide rates and increased likelihood for physical health impairment. Often it starts as mild mood or anxiety disorders, which in turn may be triggered or fostered by stress, social isolation, sleep deprivation, personal loss and similar issues. As the contribution of depression to the global "burden of disease" increases, the potential progression from risk triggers and mild phenomena to severe states is brought into sharper relief.

A notable development in this context is the increase of mental health issues among teenagers and young adults. If conditions remain untreated and persist, affected individuals may develop more severe mental health issues later in life, as well as physical health problems such as obesity, cardiovascular diseases, back pain or diabetes. Preventing mental illness from developing or escalating can thus not only improve personal wellbeing, but reduce health costs, too. For re/insurers this has direct implications, especially regarding disability claims and cases of early mortality.

Swiss Re advocates destigmatisation as key to tackling mental health issues, favouring prevention, early intervention and continuous mental wellness management. Awareness should be raised especially on recognising mild and moderate disorders, regarding mental as well as physical health protection. Promising support services are likely to be provided by emerging technological tools: eg lifestyle and mood monitoring devices, alarm and intervention apps or support bots to provide advice in acute situations.

To help build re/insurance awareness and knowledge, Swiss Re pursues comparative research and continuously explores the potential of different approaches. With a focus on Asia, Swiss Re Institute has issued several publications on mental health risks.

Internally, we maintain a mental health network and have been running several campaigns to raise awareness, strengthen our employees' resilience and help reduce the stigma surrounding mental health issues (see page 77).

See website

Swiss Re SONAR: New emerging risk insights

Swiss Re's SONAR report features emerging risk themes that have the potential to impact the re/insurance industry. These topics derive from our SONAR process and have been assessed by our emerging risk management experts in recent years.

See website

Our SONAR framework

SONAR ("systematic observation of notions associated with risk") is our Group-wide framework specifically designed to manage and communicate emerging risks. Firmly embedded in the Group's risk management organisation, SONAR allows us to identify, assess and report these risks in a timely manner and to factor them into our strategic business decisions.

The SONAR process involves several integrated layers. The first is an interactive intranet platform which enables our employees to share and discuss risk notions based on trends and developments in the re/insurance landscape. This enables bottom-up identification and peer reviews.

Our emerging risk specialists periodically cluster and further assess these risk notions for their potential impact on our business. Further "early signals" are harvested from external research institutions and experts, and digitally enabled horizon scanning tools are also deployed. Finally, our specialists carry out in-depth investigations and internal reviews on selected topics.

You can learn more about one of these topics – mental health – in the case study on page 42. To share some of our key insights on these emerging risks with external audiences, we published the eighth edition of our comprehensive SONAR report in 2020 (see box on the left). On page 57 you can also find information on two special features included in the SONAR 2020 report, which focus on emerging risks associated with the journey towards net-zero emissions.

Strategic foresight

Identifying and addressing emerging risks can be challenging. Their novelty and interconnectedness make it difficult to determine when a particular risk notion must be considered an emerging risk. Timing is of crucial importance. If measures to price and, eventually, exclude a particular risk are taken too early, we may not be able to offer our clients adequate re/insurance protection; if measures are taken too late, we may end up with increased loss potential.

Our strategic initiatives on emerging risks

See website

Given these challenges, we believe it is essential to foster risk dialogue with various partners. By sharing perceptions and assessments, all parties can gain a better understanding of potential emerging risks.

Further information on emerging risks

In addition to the SONAR 2020 report and this publication, you can find further information on selected emerging risks in our Financial Report 2020 and on our website:

Financial Report 2020:
Significant long-term emerging risks we consider to be particularly important for Swiss Re's business:

- Cyber risks – Edge computing
- Climate change – Moving to a low-carbon future
- Prolonged large-scale power blackout

Emerging risks particularly important for our business

See Financial Report

swissre.com: Top emerging risks and trends
Links to four articles on top emerging risks and trends identified in the SONAR 2020 report:

- Special feature: Moving to a low-carbon future
- Special feature: Locking it up – carbon removal and insurance
- Computing at the edge – cybersecurity overstretched?
- Tipping the scale? – Intergenerational imbalances on the rise

Top emerging risks and trends

See website