

Finance: Insurance and Reinsurance

Sustainable Development Sector Analysis Framework

June 2020



This is a methodological document aimed at clarifying how Mirova takes into account sustainable development issues in the framework of the environmental, social and governance analysis of each sub-sector of activity.

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While environmental, social and governance issues have been taken into consideration by insurance and reinsurance companies for a few decades, the urgency of the environmental and sanitary crisis is pushing them – especially non-life branches – into the spotlight. Reinsurers especially have been pioneers in the understanding of emerging ESG risks and their modelling. Indeed, such knowledge is at the cornerstone of the relevance of their insurance covers. However, in recent history, climate change and sanitary issues have gathered increasing scrutiny. Bearing the risks, the aim and responsibility of the insurance industry helps ensure the long-term resilience of our societies.

Insurers – and by extension reinsurers – have an essential role to play in a sustainable economy. Indeed, within an insurance company, numerous activities coexist and often encompass the financial value chain at large: reinsurance, insurance and investment. In other words, their activities consist both in offering insurance covers to various actors (individuals or businesses) and in investing in the economy through the allocation and management of the financial assets that they own, usually following long-term strategies. In addition, large insurance companies also carry out asset management activities for third parties. Regarding the insurance cover, several type of products might be offered. Indeed, while Property and Casualty (P&C) insurance refers to the cover of material assets/goods, life and health insurance are specialized in the support of individuals or groups of individuals.

Thus, insurers can directly contribute to sustainable development issues through two canals: insurance products and investment policies. Insurers can also address country development issues by offering products tailored for traditionally under-served groups also known as “emerging customers” or the “Bottom of the Pyramid”.

To some extent, the sustainability risks for this sector are similar to the banking sector's¹. Nevertheless, some specificities directly derive from premium-related activities. Although insurers and reinsurers were traditionally less subject to scrutiny than banks regarding their sustainability performance, the risks undertaken – inherent to their business models – can have a systemic impact on the economy.

In addition to promoting exemplary business ethics, companies are expected to adopt responsible customers management policies and to protect personal data. Privacy and integrity issues are all the more critical since insurance products are becoming more complex and relying on connected devices. Moreover, in an industry disrupted by new technologies, (re)insurance companies should make sure their employees' capabilities and skills are aligned with the sector's needs and evolutions and should monitor their ability to attract talents.

¹ A dedicated analysis of the Banking sector is also available on our Website



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(Re)insurance Sector Specificities

Companies within the sector carry specificities in their business model depending on their exposure to different activities (P&C, life, health, etc.) and geographies. It shapes their responsibility and ability to deliver on sustainability. For example, while property and casualty insurance or reinsurance products might be highly exposed to climate change risks, the type of customers and their location will also influence the strategies implemented. For this reason, the products offered are often locally tailored.

The insurance business model offers concrete opportunities to protect customers and to meet society's evolving needs. Insurance products per se cannot directly mitigate climate change; yet, by protecting individuals and businesses against rising threats, they build the foundations for a resilient system. In addition, insurance companies can deeply encourage and incentivize the transition of economic actors with advantageous premium policies. Reinsurers are often at the center of risk modelling: they invest resources in research to understand, calculate and integrate various ESG risks into the pricing of their premium. Nevertheless, such ambitions come against a great deal of uncertainty inherent to scenario planning and forecasts. This uncertainty could be a drag on the development of sustainability integration into premium-pricing methodologies, both for life and non-life insurance and reinsurance.

Table 1: Mapping Insurance Business activities with regards to sustainability (investment activities not considered)

	Life & Health	Property and Casualty	
		Individual	Business insurance
Main activities	Covers exposures to the perils of death, medical expenses, disability, and old age. Life insurance protection can also be designed for businesses (employee benefits, retirement etc.).	Covers property exposures such as direct and indirect losses of property caused by perils like fire, windstorm, and theft.	Covers businesses from losses due to events that may occur during the normal course of business. There are many types of insurance for businesses including coverage for property damage, legal liability and employee-related risks.
Role played in sustainability development	Limited role in terms of direct environmental impact. However, could add significant social value as products respond to the needs of specific categories of customers or particularly unfortunate events in life.	Incentivize individuals on environmentally friendly behaviors with specific premium policies.	Support emerging sectors such as mainly renewable energies, mobility, green buildings by adapting premium to incentivize on changing practices.



<p>Specific products (non-exhaustive list)</p>	<p>Insurance products dedicated to underprivileged customers.</p>	<p>Adapted premiums for policy holders with for example renewable energy equipment or low-emission cars.</p>	<p>Insurance of new types of businesses/solution providers. Insurance on specific agricultural activities.</p>
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Reinsuring is the practice whereby insurers transfer portions of their risk portfolios to other parties by some form of agreement to reduce the likelihood of paying a large obligation resulting from an insurance claim. A reinsurance company generally covers each of the above-mentioned insurance products. Their responsibility lies less in the product offering. Yet, as they generally are the last risk-taker, they are at the center of risk-modelling and pricing. Their knowledge and expertise on sustainability risks (whether environmental or social) and effects on material property, mortality, health (etc.) are more than crucial for insurance companies. Such risks – climate change being one of them – often carry the threat of a systemic effect which might not be insurable, as the simultaneous number of claims would prevent insurance companies from paying back.



Sustainability Opportunities

Promoting Sustainable Activities and Behaviours

Limiting the temperature increase to 1.5 °C and adapting our economies to the consequences of global warming is a major challenge. In this regard, insurance and reinsurance companies can have a positive leverage both through their investment activities and through the design of insurance solutions oriented towards specific economic sectors or actors.

Insurance/Premium Activities

According to the United Nations, climate change – alongside violent conflicts – is considered as the biggest threat to achieving the Sustainable Development Goals. According to the World Bank Group, without urgent action, climate impacts could push an additional 100 million people into poverty by 2030. Insurance companies' ability to support the population and to ensure the economy's resilience are therefore more than key.

Among other things, insurers can provide insurance covers to climate change mitigation and adaptation solution providers, some of them requiring assistance to reach maturity. As an example, adapted insurance products to manage risk, to ensure defense against lawsuits and to protect assets are crucial to scale-up activities in the renewable energy sector. To do so, insurance and reinsurance companies should deepen their knowledge on emerging markets and technologies as well as emerging risks. This knowledge and expertise should also be marketed or freely available to increase stakeholders' literacy on these topics. Taking steps to educate their customers about climate risks, to raise awareness regarding options to help mitigate risks, to build resilience, and to increase transparency on the significance of climate risks are also expected from insurance companies.

Insurance products provide financial resilience by bringing the capital to support response and recovery. However, if insurance companies limit their activities to the simple compensation of what has been destroyed without supporting adaptation processes to climate change, then the underlying vulnerability of society remains unchanged. "Building Back Better", promoted by the World Bank, promotes the integration of risk reduction into the reconstruction process after a disaster: the disaster becomes an opportunity to improve resilience and revitalize livelihoods, economies, and the environment. For instance, buildings can be reconstructed to better withstand future climate risks, but they might also integrate climate-smart technology such as remote sensing.

Moreover, insurance companies can use the price signal to motivate individuals or businesses to adopt behaviours positively affecting sustainable development issues and to influence risk reduction. For example, the company can offer renewable energy home insurances for individuals that cover low-carbon equipment or can offer lower insurance premiums to policyholders with low-emission cars.

Investment Activities

Regarding investment activities, please see the Banks and Financial Services document, specifically "Financing the transition to a low-carbon economy", "Financing products and services with a high social and/or environmental impact", "Access to financial products and services".

While insurers and reinsurers undertake similar investment activities as banks, they bear an additional responsibility. Indeed, as asset owners, these companies are responsible in the shape of Responsible Investment and thus, in the allocation of capital towards sustainable assets. Indeed, the UN PRI identified that the implementation of responsible investment by asset owners sends signals to the entire investment market. If asset owners do not define sustainability as a priority, it is unlikely that other actors in the financial market will do so.



Non-life insurers and reinsurers can use their products to directly insure emerging sectors such as climate mitigation or adaptation solution providers. Life and non-life insurers can also offer products with premiums indexed on the policyholder's behaviour, benefiting sustainable or transition actors.

Regarding their investment activities, we expect insurers (regardless of the type of products offered) to allocate their assets primarily towards financing the environmental transition through sustainable stocks, real estate, and infrastructure. Insurers involved in asset management for third parties are expected to allocate clients' savings to sustainable funds committed to align with a 1.5 °C scenario and to promote the development of sustainable finance (biodiversity preservation, reducing inequalities, etc.).

KEY INDICATORS

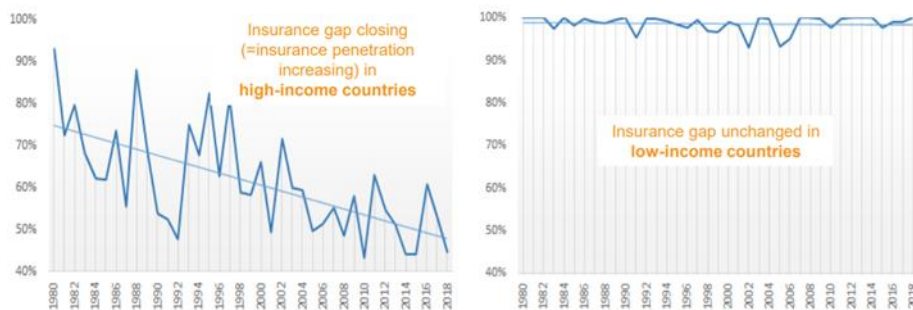
- Share of insurance premiums tied to products with an incentivizing effect (product innovation, for example reductions for a certain type of behaviour, physical activity, etc.).
- Share of investments/premiums allocated to low-carbon activities;
- Share of AUM dedicated to high-impact SRI funds;
- Commitment to align the finance energy mix with a 1.5 scenario through concrete steps and implementation measures on a comprehensive scope.

Improving Access Strategy for Products and Services

Traditionally, microinsurance products have been designed to protect the health and livelihoods of under-served low-income populations. Interest in inclusive insurance services has significantly been strengthened in emerging countries over the past few years, but not only: the difficult macroeconomic situation in developed countries such as a rampant unemployment rate, massive debt, and spreading impoverishment have excluded groups of people from insurance services.

The insurance gap (uninsured losses as a share of overall losses) remains higher in emerging powers. Indeed, Swiss Re identified that, in 2016 (latest data available) in high-income markets, 42% of losses resulting from natural catastrophes are covered by insurance against 11% in emerging markets². Moreover, the IPCC revealed that if the global temperature rises above 1.5 °C, the threat would be significantly higher for the poorest countries. Thus, insurers must address this society-wide threat and offer adapted products to these populations.

Figure 1: While the insurance penetration is increasing in high-income countries, the insurance gap remains unchanged in low-income countries.



Source: Munich Re, ESG Presentation 2019

Historically, protection gap has been tackled by specialized institutions or public/government funds. However, the “Bottom of the Pyramid” strategy (i.e. corporations' strategy to enter

2 Swiss Re. Insurance: adding value to development in emerging markets. Report 2017.



emerging markets and access untapped consumers which results in positive environmental, social, and economic outcomes) is growing exponentially. Indeed, according to the Institute of International Finance, the number of major insurance companies involved in inclusive insurance increased from 33 in 2011 to 60 in 2016³. Nevertheless, the sector needs to pursue its efforts as such strategies represent a negligible portion of companies' revenues, often excluded from core activities and integrated as a philanthropic activity.

In addition to tackling emerging customers, insurers are also expected to serve other traditionally underserved groups such as women, rural farmers, and SME owners.

We favor industry players with comprehensive microinsurance strategies, addressing demographic changes (life insurance) and climate change (non-life insurance) issues. Insurance companies are also expected to bridge the protection gap for other actors such as women and SMEs.

To be considered relevant, the strategy must represent a significant proportion of the company's revenues and be fully integrated into the company's strategy (i.e. not considered as a philanthropic activity).

KEY INDICATORS

- Share of premiums dedicated to microinsurance & number of beneficiaries;
- Share of the microinsurance global market;
- Integration into the core strategy;
- Number of partnerships with local NGOs.

Exposure to Opportunities

Indicator Considered:		
	% of investments in renewable energy (life and non-life) + % of AUM dedicated to impact funds (life and non-life if activities include asset management) + % of insurance premiums tied to the renewable energy sector (non-life only) + % of insurance premiums tied to incentivising products (life and non-life) + % of insurance premiums tied to microinsurance products (life and non-life)	
High Exposure	An advanced investment strategy for low-carbon technologies (with low exposure to fossil fuels) And/or >50% of AUM dedicated to high-impact SRI funds And/or >50% of premiums dedicated to renewable energy, incentivising products, or microinsurance products	Except for companies specialising in microinsurance, the issue of universal access to insurance services does not constitute an exclusion. As for products with an environmental and social impact, lack of communication and standardised information does not really allow us to distinguish companies from one another. Reinsurers, however, communicate rather precisely in terms of the sectors that they insure. For investment policies, it is rather straightforward to have a global vision of the asset allocation strategy.
Significant Exposure	An advanced investment strategy for low-carbon technologies (with low exposure to fossil fuels) And/or >10% of AUM dedicated to high-impact SRI funds And/or >10% of premiums dedicated to renewable energy, incentivising products, or microinsurance products	
Low or No Exposure	A conservative investment strategy for low-carbon technologies (with significant exposure to fossil fuels) And/or <10% of AUM dedicated to high-impact SRI funds And/or <10% of premiums dedicated to renewable energy, incentivising products, or microinsurance products	
Negative Exposure	N/A	

3 Institute of International Finance. Insights on Inclusive Insurance. October 2017.



Environmental and Social Risk

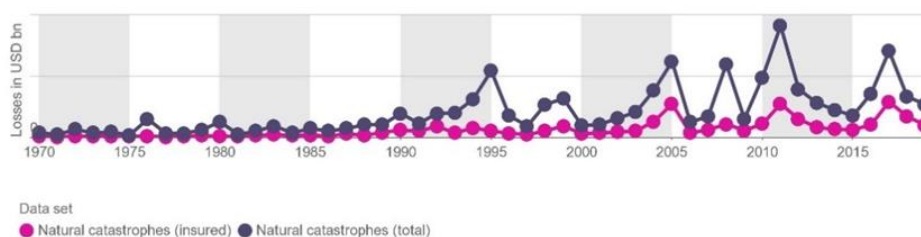
Considering Environmental and Social Aspects in Insurance Cover Design and Pricing

While risk-taking is inherent to the (re)insurance business model, (re)insurance companies are expected to alert the market and the economy when threats become unmanageable. A world reaching +3 °C/+4 °C is likely to become uninsurable due to the systemic consequences.

Climate change is the source of greater uncertainty for insurers and poses physical and transition risks to the global financial stability. Physical risks (i.e. extreme climate events or rising temperatures) are likely to have a material impact on revenues from insurance premiums – especially regarding P&C activities – by damaging properties and infrastructure. Climate change will also impact life-insurance companies, in a magnitude that remains difficult to define. The disruptions could indeed lead to public health concerns (such as the intensifying risk and frequency of pandemics), generate forced migration flows and possible conflicts. Moreover, life-insurance companies would also be affected by the disrupting impact of climate change on global supply chains and by the potential increase of resource scarcity, including food.

Climate change and the resurgence of natural disasters over the past decades have already increased operational risks for insurers and reinsurers, primarily non-life ones. As illustrated below, the overall trend of losses due to natural disasters is on the rise. Thus, the risk for an insurance company is to face a skyrocketing burden of claims both in frequency and magnitude. Alongside the positive trend, greater volatility is also to be highlighted and causes uncertainty for insurance companies.

Figure 2: Overall and insured losses from natural catastrophes 1970-2019



Source: Mirova/Swiss Re Institute, Sigma Explorer

Risk diversification is a technique used by (re)insurers to spread loss exposures. Reinsurers also seem more resilient to climate risks than general insurers notably due to geographic diversification. Indeed, a reinsurer uses a wide range of risks spread across a wide geographical area, diverse enough to minimize correlation between those risks. However, as the severity and frequency of significant natural disasters increases, the availability and cost of reinsurance cover for weather-related risks may become prohibitive for smaller actors in certain markets. It could potentially lead to a reinsurance gap.

Transition risks are mainly materialized in the investment activities of insurance and reinsurance companies and lie in the loss in value of carbon-intensive assets, also known as stranded assets. The potential contraction of market demand in certain sectors will constitute a risk if companies are not able to adapt their portfolio to these evolutions. (More details are available in the Banks and Financial Services document).

While climate risks are currently the most tangible ones, other ESG trends should also be considered by insurance and reinsurance companies when it comes to risk modelling and calculating their premium. Demographic and social trends such as an ageing population,



migration flows (due to wars, climatic or economic crises) or the desertification of rural areas are also likely to shape future increasing risks, mainly for life insurers and reinsurers. These evolutions would have an impact on the quality of the risk underwritten by insurance companies and the consumption of insurance products. Changing features of the economy, such as “uberization”, the development of an exchange economy rather than a purchasing economy, new working organizations (such as teleworking) will force insurance companies to adapt their products in order to ensure the system’s resilience. These changes might be even more relevant for life insurance companies.

Thus, the failure of insurance or reinsurance companies to integrate E&S criteria in their premium design and transaction decision-making processes could have two different effects. On the one hand, companies would run the risk of an increasing number of claims, which they would eventually not have the liquidity to pay. The whole economy would therefore be at risk due to their systemic position. On the other hand, they would become irrelevant due to their inability to fit the evolution of society’s needs. Similarly, to the banking sector, “assurtech” start-ups are slowly but surely providing new solutions focusing on new technologies to offer insurance covers corresponding to the unique situation and behaviour of each customer.

Insurers can use internal tools such as research teams, experts, and proprietary modelling software to model environmental and social risks and integrate them into the definition of insurance premiums. The objective is now to integrate climate science within risk models, demanding better climate modelling to further improve risk practices. Currently, ESG criteria have been well monitored by insurance and reinsurance companies which often have implemented robust ESG governance in each of their business lines. As of today, more and more companies have taken position to restrict or exclude banned weapons, coal, arctic drilling, oil sand, fracking, tobacco etc. when it comes to their insurance and investment policies. In order to further promote and better integrate various sustainability issues into insurance companies’ activities, the UNEPFI created the Principles for Sustainable Insurance counting now 75 signatories. Signatories are required to publish how they implemented the 7 principles.

However, climate risks modelling and pricing methodologies are still under development. Indeed, uncertainty and volatility persist regarding the precise effects of climate change on property and health. Insurance premium is calculated as a function of different factors: a) hazard (probabilities of occurrence and severity of any particular potential disaster, such as a tropical storm or flood, at a given location, within a specified time period), b) exposure (inventory of elements to be insured, such as property values by location; taking note of specific characteristics such as building materials, typical uses, age, and replacement cost) c) vulnerability (assesses the level of damage which would be expected at different levels of intensity of a hazard).

Most insurers improved their ability to manage climate risks over the last few years with the regular implementation of stress tests. However, they still rely on modelling software supplied by external providers, which makes it difficult to assess how risks are integrated into insurance premiums. Moreover, the time horizon of these tests is generally shorter than the potential materialization horizon of transition risks (5 years on average compared to 15 to 20 years). The Financial Stability Board’s Task Force on Climate-related Financial Disclosures (TCFD) has also stimulated the activity on risk modelling by the insurance sector, in the new context of scenario planning. Companies have also started to disclose details on their portfolio exposure to climate risks which will be encouraged in the future.

Although climate risks have received the bulk of the focus in recent history, the increasing number of collaborative initiatives or policies shows that it should not cast a shadow over other emerging risks such as biodiversity loss, sanitary crisis or demographic changes, etc.

We expect companies to identify both environmental (not only climate-related) and social risks and to invest in the quantification of their potential effects. Once identified, companies should be able to prove their resilience to specific scenarios. We believe that insurers using internal modelling software have a certain advantage over their peers.



We expect insurance and reinsurance companies to have implemented a robust ESG governance. We expect transparency on the transactions and the binding power of policies (number of transactions screened/refused/all transactions).

We favor insurers with research teams specialized in and publishing on ESG subjects.

KEY INDICATORS

- Formal and quantified information on environmental and social risks identification and integration into the decision-making process;
- Internal resources deployed such as existence of proprietary modelling software or dedicated-ESG research teams;
- Climate risks addressed at relevant levels, including at board level, through appropriate governance, strategic, and operational frameworks and policies;
- Exposure to climate risks: losses linked to natural disasters/premiums in euros.

Integrating Environmental and Social Aspects into the Investment Policy

Regarding investment activities, please see the Banks and Financial Services document, also available on our website: “Adverse effects of financing the most emitting and polluting fossil fuels” and “Integrating ESG elements into policies and processes”.

Insurers can allocate capital to different sectors of the economy through their investment policies. Some environmental and social criteria have an obvious financial materiality. For example, the transition to a low-carbon economy could cause some assets to depreciate (stranded assets) or lead to either bad environmental practices – such as soil pollution and loss of biodiversity – or bad social practices – such as lack of dialogue with communities and basic human rights violations, – and could result in the loss of the operating licence and thus potentially have financial repercussions.

Integrating ESG aspects also means taking precautions against negative externalities with far-reaching financial impacts, and thus ensuring that market risks are considered. Among the different ESG risks, some are linked to the financing of the most emitting fossil fuels, namely coal and tar sands. As indicated by the number of signatories of the PRI, integrating environmental and social criteria into investment activities is now becoming mainstream. However, being a signatory does not require substantial actions and is not legally binding; thus, it cannot be the only criteria to evaluate how financial companies factor ESG aspects. Dedicated ESG policies and processes can be implemented and sector-specific policies are essential to manage sensitive industries and areas of activities from an ESG point of view (such as agriculture, defense, gas, palm oil...).

Investment policies should be responsible regardless of the type of products. Indeed, regarding both life & non-life policies, we consider that companies are responsible for integrating relevant exclusion and a robust ESG screening process, as well as increasing their investment in sustainable funds.

We value companies which systematically integrate ESG criteria into their investment decision-making processes. Companies are also encouraged to develop binding ESG industry policies which apply to all investments.

Certain players can distinguish themselves through their commitment towards the energy transition, from carbon intensive asset divestment to the calculation of the portfolio's carbon footprint.

Insurance and reinsurance companies, as asset owners, are expected to be proactive in the field of developing sustainable products (impact investing, green or social bonds etc.).



KEY INDICATORS

- Disclosure on the integration of climate risks (liability, transition, physical);
- Commitment to phase out coal (and tar sands oil and gas where relevant) on a comprehensive and meaningful scope;
- Percentage of AUM that includes an ESG analysis & Quality ESG industry policies which apply to all investments;
- Strategy for the energy transition or alignment with the Paris Agreement objectives.

Ensuring Responsible Product Design & Customer Sales Practices

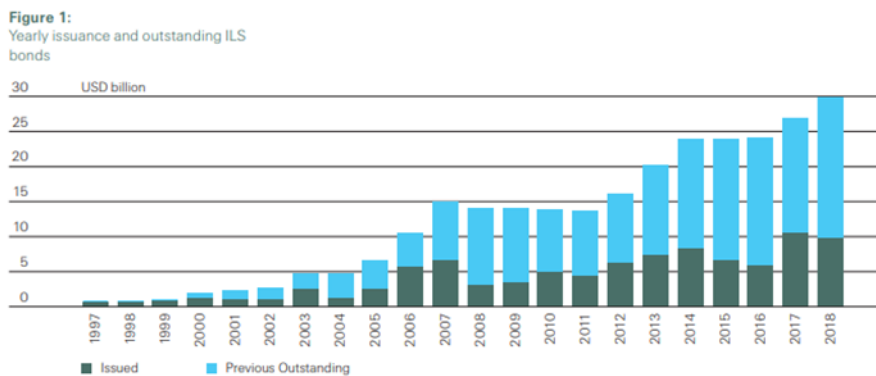
Trust is a key success factor for insurance and reinsurance companies. Policyholders will only sign up for an insurance policy if they believe in the company's ability to provide the required funds when needed. This trust depends on two main criteria. On the one hand, trust is tied to the quality of the products, as well as the transparency and advice provided to customers. On the other hand, it relies on the company's ability to adopt responsible & ethical practices and to support the resilience of the system.

Responsible products design

Insurers have a responsibility to cover risks in exchange for the payment of a premium by the policyholder. In recent history, insurers and reinsurers, like other financial actors, have been highly innovative when it comes to financial products engineering. Insurance companies have the potential to pose, amplify, or transmit a threat to the financial system; thus, there is a significant risk to lose stakeholders' trust.

Catastrophe bonds are a specific category of Insurance-Linked Securities whose performance is not correlated with traditional asset classes. They are usually issued with the support of the World Bank. A catastrophe bond is a high-yield debt instrument that is designed to raise money for companies in the insurance industry in the event of a natural disaster, it allows the issuer to receive funding from the bond only if specific conditions occur. On the one hand, they tend to improve the solvency capacity of reinsurers to cover claims resulting from climate events and improve their resilience to climate shocks by transferring the risks to capital markets. On the other hand, however, they tend to contribute to the transfer of uncertainty and highly complex risks from very knowledgeable entities to less aware actors. Thus, some speculation risks might appear, and increase the risk of a systemic crisis.

Figure 3: Insurance Linked Securities (ILS) Bonds Markets



Source: Mirova/Swiss Re 2018

As illustrated in the graph above, ILS market is estimated at around USD30 billion, of which around one third is comprised by cat bonds (as of 12/31/18).



Customer Sales Practices

Product transparency and customer responsibility is a significant matter for a sector highly exposed to mis-selling controversies. Indeed, the products offered, especially life-insurance products, tend to be of an increasing complexity. The industry's commercial practices, often based on sales targets, are partially responsible for litigation due to predatory sales practices. Insurers understood the necessity to bring their clients' interests back at the heart of their strategy, with the stated goal of understanding their clients' needs and providing them with products tailored to meet those needs. Insurers' commercial approach, following the example set by banks, now tends to be qualitative – i.e. focusing on quality service – rather than quantitative – i.e. based on sales targets. Moreover, insurance companies' digitalization strategy, especially tangible for life insurers, tends to increase the risk of customer disinformation.

Companies should illustrate their commitment regarding responsible sales practices with tangible policies and monitor customer satisfaction with qualitative tools – aside from quantitative sales targets.

We encourage the sector to use best practices in terms of managing claims, which will give them a strong customer base.

KEY INDICATORS

- Share of remuneration for advisers indexed on customer satisfaction;
- Formal responsible marketing policy;
- Client retention rate;
- Complaints to claim ratio;
- Number of days before damage compensation;
- Dealing with death: tools for finding beneficiaries in the event of the policyholder's death (life insurers).

Data Protection & Data Integrity

Consumer data lies at the very center of financial institutions' business models. The need to protect consumer sensitive data is unprecedented and likely to sharply expand in the next decade. While financial companies are held responsible for protecting their customers' data against cyberattacks, they are also expected to use the data they own in a responsible manner.

Insurance companies are required to protect customer data: this means not only complying with privacy regulations and data breach laws but also maintaining their customers' trust. They are expected to implement adequate measures and policies to avoid leaks and data breaches. While the exact amount invested in cyber security is not usually disclosed, companies should increase their level of transparency with indicators such as the number of FTEs within the team, the types of processes, as well as training and governance on cyber security. Moreover, we would expect information on the measures implemented to support their customers when a cyberattack occurs.

For insurance companies, data integrity is becoming a major issue. Indeed, the digital economy will increase the relevance of usage-based and individually personalized insurance products. Such products will be based on customer habits and connected devices, and customers are likely to switch towards more tailored insurance covers. For example, the use of driving behavior data or insurance risk calculation is likely to spread. However, the frontier with fundamental freedom might be blurred (i.e. the analysis of audio data to detect fraud or to monitor customer habits). There is a risk that insurers may use data to select the most profitable customers. Nevertheless, the industry is heavily regulated and must justify its reasons for any rate increases or policy changes. Thus, customers should have full control of their data and information should be made easily available for each subscriber.



Finally, with the increasing use of artificial intelligence, companies are expected to disclose some prevention processes such as paying close attention to preventing any form of discrimination when developing algorithms. Indeed, algorithms may amplify existing forms of discrimination that are frequently found in historical data.

Insurance companies must protect themselves against any attempt to steal customer data, which is often of a sensitive nature, by implementing a robust cyber security policy including preventive methods, breaches detection methods and customer support in case of data leaks.

In addition, we expect greater transparency on the storage and use of the data owned and collected by insurance companies. Finally, transparency will be valued regarding the definition of an individualized insurance policy.

KEY INDICATORS

- Existence of a robust cyber security policy and transparency (R&D investments, size of the teams, trainings etc.);
- Transparency on the nature of the data owned, the storage modalities and the way they are used;
- Track record data on breach controversies over the last 3y & company response.

Business Ethics

Although the insurance sector has been less prone to controversies than the banking sector in terms of frequency and gravity, insurers are still exposed to potential business ethics scandals.

On the operational side, the sector has witnessed a good number of predatory sales – for example pricing out of sync with insurance policies, inappropriate customer targeting or unfair compensation repayment.

On the investment side, the sector may come under criticism for selling guaranteed products or paying out various commissions as part of its asset management activity. Compliance risks such as accounting fraud are also a problem in this sector.

We encourage companies to demonstrate a high level of transparency. Compliance must be vertically integrated and monitored at a relevant governance level.

Resources dedicated to compliance and the quality of early-warning systems are also subject to analysis.

We value companies with an investment strategy that is consistent with their products (life and non-life insurers differ considerably on this point) and a satisfactory business ethics record.

KEY INDICATORS

- Company's level of responsibility in, response to and transparency on business ethics controversies;
- Significant financial materiality of the controversies: number of fines paid (& amount);
- Scopes (business lines and geographies) covered by compliance policies and processes (audits and results, trainings).



Human Resources

Several human resources issues are also exponentially crucial within the insurance industry. The industry requires highly skilled employees. However, the challenge is therefore to attract and retain talented employees in a very competitive environment. Implementing a relevant strategic workforce planning, a competitive continuing education and remuneration package, as well as good management of the age pyramid are some of the policies that should be monitored. Indeed, studies now converge in concluding that young and skilled generations are less interested in working for the insurance industry and the current flows in the job market are expected to result in the loss of institutional knowledge and numerous unfilled job openings.

Increasing digitalization tends to change information channels, prompting a shift from the single-channel approach using agencies to multi-channel approaches using digital technologies – such as the internet or mobile phones, alongside agencies. Thus, there is a crucial need for insurance and reinsurance companies to increase both their visibility and ability to attract talent, notably with digital and technological background in order to be able to maintain their activities and their capacity to support the economy.

Moreover, insurance companies, especially life insurers - which depend on proprietary distribution networks - face restructuring challenges which needed to be undertaken following responsible principles (non-life insurers rely on general agents for sales). Indeed, following their digitalization strategies, some agencies are closing. Often replaced by call centers, such companies should be analyzed regarding the reallocation of the human resources.

Companies are expected to implement a proactive HR strategy anticipating future changes in their human capital structure (strategic workforce planning and age pyramid).

Criteria such as financial compensation package, preretirement, internal mobility, continuing education, search assistance, and arrangements with unions are analyzed. These details will be all the more material if the company is initiating or is currently undertaking major restructuring programs.

KEY INDICATORS

- Restructuring policy, inventory of measures used and their scope of application;
- Changes in the number of employees in the last 3 and 5 years;
- Strategic workforce planning, continuing education, work-personal-life balance, age pyramid management, etc.;
- Turnover, absenteeism rate, employee satisfaction rate.

Sustainable Development Governance

Integrating Corporate Social Responsibility (CSR) into not only the Board (or the Supervisory Board), but also executives' remuneration should allow for a long-term reorientation of the insurer's risk profile.

We give preference to companies that have integrated CSR into the long-term component of variable remuneration and that have a special CSR committee on the Board.

KEY INDICATORS

- Extra-financial criteria integrated into variable executive and employee remuneration
- CSR governance



Risk Assessment

Criteria	
Positive	<ul style="list-style-type: none">- Composite insurers: advanced strategy integrating environmental and social issues into both insurance premium modelling and investment policies, other issues must at least be neutral- Life insurers and reinsurers: advanced strategy integrating environmental and social issues into investment policies since the duration is much longer, other issues must at least be neutral- Non-life insurers and reinsurers: advanced strategy integrating environmental and social policies into insurance premium modelling, other issues must at least be neutral
Neutral	All other situations
Risk	<ul style="list-style-type: none">- If business ethics OR integration of environmental and social aspects into the investment policy OR integration of environmental and social aspects into insurance premium modelling OR customer relations/sales practices are graded risk, the "Risk Review" will always place the company in "Risk"



Conclusion

While ESG issues have been taken into consideration by insurance and reinsurance companies for a few decades, the urgency of the environmental and sanitary crisis pushed them, especially non-life branches, into the spotlight. For a long time, insurance and reinsurance companies remained in the shadow of banking companies and received less scrutiny on their sustainability performance. However, they are now expected to be held accountable regarding their ability to anticipate and ensure ESG risks. Such responsibility will be analysed in both insurance products design and investment policies. Climate change is more than ever a strategic matter, but it should not alter other material topics that need to be tackled: biodiversity loss and maintaining or improving social conditions being among the most stringent. We acknowledge that methodologies to forecast the consequences of future environmental and social evolutions might remain proxies. Nevertheless, companies within the industry are expected to take part in taskforces at various levels to better understand opportunities and risks and to comply with their mandate of ensuring the long-term resilience of our societies.

Responsible internal practices are necessary to make sure insurance and reinsurance companies carry the ability to address future pillars of a more sustainable economy. As technology is gaining ground, the industry is facing drastic changes in the skills and profiles required. The impact of such evolution on employees should be anticipated, and companies are expected to implement a relevant strategic workforce planning. They should also pay attention on their ability to attract talent in a competitive environment.

Since customer trust is seen as a cornerstone for success, companies need to implement responsible sales practices and ensure relevant customer relations. The topic has been increasingly monitored and sensitive. Customer trust is also deeply linked with the ability of the company to maintain its customer data security and integrity. Thus, it has become an essential pillar of our analysis and is likely to gain importance. Finally, business ethics practices have remained sensitive for insurance companies and require specific monitoring, which should be evaluated.

While leading actors of the industry are highly advanced in terms of sustainability reporting and transparency, most of their peers still lag on such performance. Thus, at Mirova, we focus our engagement policy on initiating or maintaining a constructive dialogue, as well as encouraging companies to deliver on sustainability and offer a consolidated picture of their offer to ensure that their portfolios are indeed in line with our investment philosophy.



Our Approach to sustainability assessment

Acting as a responsible investor requires interpreting the economic world within its social and environmental context. This approach calls for understanding the interactions between different private-public players, small-medium-large companies, developed and developing economies to ensure that each player's growth is consistent with the balance of the rest of the system. It is a long-term approach that guarantees that today's choices will not lead to negative consequences for future generations. Understanding these complex relationships demands:

- Clear understanding of sustainable development issues facing our societies,
- Assessing the possible interactions between the assets of our investment strategies and these sustainability issues.

The SDGs as a Guide

Following the Millennium Development Goals created in 2000, the United Nations set out a new framework for sustainable development in 2015. It contains 17 Sustainable Development Goals (SDGs), broken down into 169 specific targets designed to address the main social and environmental issues between 2015 and 2030. In addition to having been adopted by all members of the United Nations, the SDGs offer several advantages.

First, they establish a comprehensive framework concerning environmental and social issues, applicable to all economies regardless of their level of development. Thus, while some issues such as ending hunger or ensuring access to water for all are often more relevant for low- and middle-income countries, other objectives such as fighting climate change or making cities safe, resilient and sustainable, are applicable at all levels of development.

Moreover, the SDGs can be considered as a frame of reference for sustainable development issues for a variety of actors, from governments to companies and investors. The private sphere is increasingly considering environmental and social issues, illustrating new forms of governance where subjects of general interest are no longer solely the prerogative of the public sphere. Considering the SDGs can help companies to think on how they create environmental, economic, and social value.

Finally, the SDGs help investors to question the long-term resilience of their assets and portfolios to the ongoing transformations. Then, investors can go even further by looking at their exposure to new solutions and economic models that will respond to long-term economic transformations. For example, the targets associated with the SDGs to significantly increase the share of renewable energy and to double energy efficiency by 2030 imply a profound transformation within the energy sector.

We consider the SDGs squarely in line with our mission. As a result, in 2016, Mirova decided to use this framework to define its responsible investment approach.



Figure 4: The 17 Sustainable Development Goals

	End poverty in all its forms everywhere		Reduce inequalities within and among countries
	End hunger, achieve food security and improved nutrition and promote sustainable agriculture		Make cities and human settlements inclusive, safe, resilient and sustainable
	Ensure healthy lives and promote well-being for all at all ages		Ensure sustainable consumption and production patterns
	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all		Take urgent measures to combat climate change and its impacts
	Achieve gender equality and empower all women and girls		Conserve and sustainably use the oceans, seas and marine resources for sustainable development
	Ensure availability and sustainable management of water and sanitation for all		Protect, restore and promote sustainable use of territorial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
	Ensure access to affordable, reliable, sustainable and modern energy for all		Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all		Strengthen the means of implementation and revitalize the global partnership for sustainable development
	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation		

Source: United Nations



Assessing Environmental and Social Quality by the SDGs

We believe that the SDGs will transform the economy as we know it. Acting as a responsible investor starts with taking a broader view of the way investors think about the environmental and social profile of the assets they finance. These interactions can be grouped into two categories:

- **Materiality:** how the current transitions are likely to affect the economic models of the assets financed either positively or negatively.
- **Impact:** how investors can play a role in the emergence of a more sustainable economy



We believe that these two approaches are closely linked. Our evaluation methodology thus seeks to capture the extent to which each asset contributes to the SDGs. From our perspective, this approach provides a relevant vision on both the "Materiality" and "Impact" aspects.

A Five-level Qualitative Analysis

Mirova has based its environmental and social evaluation method on four principles:

A RISK/OPPORTUNITY APPROACH

Achieving the SDGs requires taking two different dimensions into account that often go together.

- **Capturing opportunities:** when companies center their strategies on innovative business models and technologies focused on technological and societal transformation, they can often capture opportunities related to the SDGs.
- **Managing risks:** by proactively managing risks related to these transitions, companies can reduce and re-internalize their social and environmental externalities, which often takes the form of general management of sustainability issues.

This analysis structure gives equal importance to opportunities and risks. It is the first prism through which we analyze sustainable development issues.

A LIFE-CYCLE VISION

To identify the issues that could impact an asset, the analysis of environmental and social issues must consider the entire life cycle of products and services, from raw material extraction to end-of-life phase.

TARGETED AND DIFFERENTIATED ISSUES

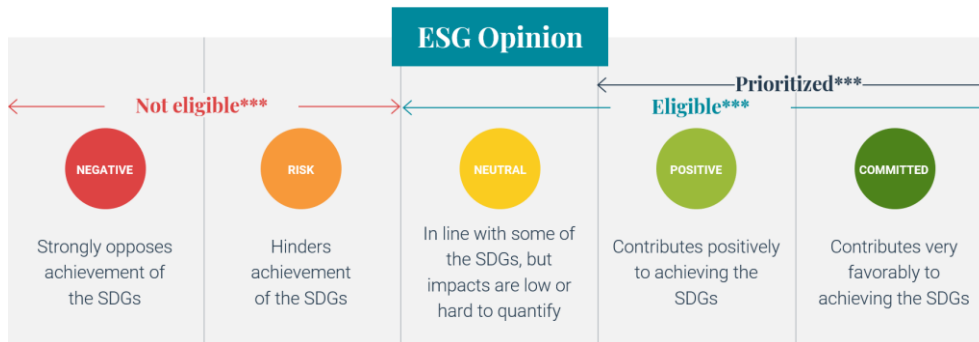
Our risk/opportunity analysis focuses on the elements most likely to have a real impact on the assets studied and on society in general. Additionally, the issues that economic players face

are very different depending on the sector, and can even vary within the same sector⁴. For example, it is important for us to focus on work conditions for suppliers in the textile industry, while for automobile manufacturers, the focus will be more on energy consumption during product use.

So, our analysis focuses on a limited number of issues adapted to the specificities of each asset.

A QUALITATIVE RATING SCALE

Our analyses are summarized through an overall qualitative opinion on five levels. This opinion assesses to what extent an asset contributes to the SDGs.



***5

This rating scale is based on the SDGs and their achievement. As a result, opinions are not assigned based on a distribution set in advance: we are not grading on a curve overall or by sector. Mirova does not exclude any industry on principle, and carries out a thorough analysis of the environmental and social impacts of any asset. For some sectors, this analysis may lead to the exclusion of all or some of its actors. For example, companies involved in fossil fuel extraction are considered "Risk" at best, while renewable energy companies are generally well rated.

An indicative grid provides some overall guidelines regarding the links between opportunities, risks and the overall sustainability opinion.

Sustainability Risks Review	Positive	Risk	Positive	Positive / Committed	Committed
	Neutral	Negative / Risk	Neutral	Neutral / Positive	Positive / Committed
	Risk	Negative	Negative / Risk	Risk	Risk
		Negative	Low or no	Significant	High
		Sustainability Opportunities Exposure			

⁴ For every sector, defining key issues is the subject of a specific study. This document is available on Mirova *website*. <https://www.mirova.com/fr/recherche/comprendre#vision>

⁵ *** For Mirova's investments



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