

# The involvement of European insurance groups in the fossil fuels sector



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## About this report

This report has been commissioned by The Sunrise Project, with the objective to map the involvement of European insurance groups in the fossil fuels sector. This is done by analysing the investments, underwriting activities and policies of each of the selected insurance groups.

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## Authorship

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# Acronyms

<b>AGM</b>	Annual General Meeting
<b>AUM</b>	Assets under management
<b>ESG</b>	Environmental, Social, Governance
<b>IIGCC</b>	Institutional Investors Group on Climate Change
<b>LTIM</b>	Lloyd’s Treasury & Investment Management Description
<b>PRI</b>	Principles for Responsible Investment
<b>PSI</b>	Principles for Sustainable Insurance
<b>SME</b>	Small and Medium Enterprises

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## Summary

As corporate citizens, insurance groups need to play a vital role in meeting the aims of The Paris Agreement: keeping the global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 degrees Celsius. In their investment decisions and insurance underwriting activities, insurance groups should contribute to rather than undermine the energy transition from an economy based on fossil fuels towards an economy using renewable energy sources. Besides their role as corporate citizens, insurers also have self-interests in addressing climate change. First, there is the risk of an increase in insurance claims due to damage costs of extreme weather. Second, as investors (of insurance premiums and asset management for third parties) insurance groups face reputation risks and the risk of investments in 'stranded assets', if they continue investments in fossil fuels instead of allocating investments in an energy transition towards the use of renewable energy. And third, insurance groups face claims on third-party liability insurance in case their clients have failed to mitigate risks to the climate, failed to account for the damage they cause to the environment or failed to comply with regulations. Climate change thus is a direct risk to the insurance business because of the unprecedented and unpredictable risks involved. These risks will affect insurance groups' liabilities - the claims they need to pay out – and the total value of their investments.

The objective of this research was to map the involvement of the top-12 European insurance groups and top-6 European reinsurance groups in the fossil fuels sector. This has been done by analysing the investments, underwriting activities and policies of each of the selected insurance groups. The following European insurance groups were selected for the research:

- |                              |                 |
|------------------------------|-----------------|
| • Allianz                    | Germany;        |
| • Aviva                      | United Kingdom; |
| • AXA                        | France;         |
| • Chubb                      | Switzerland;    |
| • Covéa                      | France;         |
| • DZ Bank (R+V Versicherung) | Germany;        |
| • Generali                   | Italy;          |
| • Lloyd's of London          | United Kingdom; |
| • Mapfre                     | Spain;          |
| • Munich Re (Ergo)           | Germany;        |
| • SCOR                       | France;         |
| • Swiss Re                   | Switzerland.    |
| • Talanx (Hannover Re)       | Germany;        |
| • Unipol                     | Italy;          |
| • Zurich                     | Switzerland.    |

Lloyd's of London, Munich Re and Talanx were both in the top-12 insurance groups and top-6 reinsurance groups.

## Fossil fuel investments

The analysis of fossil fuel investments was broken down into analysing the bondholdings and shareholdings of each of the selected insurance groups as of the most recent filing dates. The fossil fuel investments consist of investments in corporate bonds and equities of companies involved in the (coal) mining, oil & gas and utilities sectors. These investments were sometimes made through investment funds. It is likely that for each insurance group not all of their bond- and shareholdings were analysed. This is mainly caused by the difficulty of analysing investments through funds, but also because of a lack of transparency on bondholdings and equity holdings in general. Therefore, the findings of this research on fossil fuel investments are likely to underestimate the actual total fossil fuel investments.

Table 1 shows a ranking of the selected insurance groups regarding total fossil fuel investments. As can be seen, the total fossil fuel investments of the combined selected insurance groups amount to US\$ 130.7 billion. This is 7.8% of the total analysed investments, and 2.2% of the most recent total assets under management as reported by the insurance groups themselves.

In absolute terms, Allianz (Germany) is by far the most important investor in fossil fuels, investing US\$ 59.0 billion. AXA (France) and Aviva (United Kingdom) follow with US\$ 34.3 billion and US\$ 14.0 billion respectively. When comparing the fossil fuel investments with the total analysed investments, it can be seen that Aviva leads the selected insurance groups with 11.9% of the analysed investments invested in the fossil fuels sector. Chubb (Switzerland, 11.5%) and Swiss Re (Switzerland, 11.2%) also have a relatively high percentage of total analysed investments invested in the fossil fuels sector. When focusing on the reported total assets under management (AUM), it can be seen that Aviva, with 3.2%, invests the highest proportion of its reported total assets under management in the fossil fuels sector. Allianz (3.1%) and AXA (2.3%) both also invest more than 2% of their reported total assets under management in the fossil fuels sector.

**Table 1 Ranking insurance groups on total fossil fuel investments (in US\$ billion)**

Insurance group	Total investments	% of analysed investments	% of reported total AUM
Allianz	59.03	6.56%	3.08%
AXA	34.34	8.79%	2.32%
Aviva	13.99	11.85%	3.25%
Chubb	5.25	11.53%	N.A.
DZ Bank	4.30	5.62%	1.01%
Swiss Re	3.97	11.21%	N.A.
Zurich	3.69	9.09%	1.45%
Generali	2.53	9.98%	0.46%
Munich Re	2.17	7.99%	0.87%
Talanx	0.65	9.71%	0.41%
Mapfre	0.35	9.95%	0.44%
Cov��a	0.29	5.51%	0.30%
SCOR	0.17	4.74%	0.85%

Insurance group	Total investments	% of analysed investments	% of reported total AUM
Lloyd's of London	0.01	2.19%	N.A.
Unipol	-	-	N.A.
<b>Total</b>	<b>130.74</b>	<b>7.79%</b>	<b>2.15%</b>

## Fossil fuel underwriting

In order to analyse the importance of insurance groups in the global fossil fuel underwriting sector, the respective information provided on publicly accessible online sources by the insurance groups themselves was analysed, together with some energy market reviews by respected advisory companies. After a review of all the relevant information found using these sources, the insurance groups were classified into three different categories, indicating their level of involvement in the global fossil fuel underwriting sector:

- Low: the insurance group is barely involved in the global fossil fuel underwriting sector;
- Medium: the insurance group is moderately involved in the global fossil fuel underwriting sector, being involved in at least two countries;
- High: the insurance group is highly involved in the global fossil fuel underwriting sector, being one of the market leaders or active participants in at least one world region.

Table 2 shows the result of this classification method for each of the insurance groups, ranking the insurance groups from high to low. As can be seen, 11 of the 15 analysed insurance groups are classified as highly involved. In an important breakthrough, one of them, AXA (France), has recently announced steps to stop underwriting companies from which it has divested because more than 50% of their revenue is from coal. Covéa (France), DZ Bank (Germany) and Unipol (Italy) stand out as the insurance groups that have a low involvement in the global fossil fuel underwriting sector. For these insurance groups, no information specifically related to the fossil fuel underwriting business could be found.

**Table 2 Ranking insurance groups on global fossil fuel underwriting involvement**

Insurance Group	Importance in fossil fuel underwriting sector
Allianz	High
AXA	High
Chubb	High
Generali	High
Lloyd's of London	High
Mapfre	High
Munich Re	High
SCOR	High
Swiss Re	High

Talanx (Hannover Re)	High
Zurich	High
Aviva	Medium
Covéa	Low
DZ Bank (R+V Versicherung)	Low
Unipol	Low

## Fossil fuel policies

The policy analysis focused on each insurance group's publicly available fossil fuel policies for investments and for insurance underwriting activities. Table 3 gives an overview of the research findings of this analysis. From the table, it can be derived that:

For investments:

- Insurance groups that require disclosure of fossil fuel investments: none of the insurance groups require disclosure of fossil fuel investments;
- Insurance groups that disclose the carbon footprint of their investments: AXA (France);
- Insurance groups that have engagement programmes or exert their voting rights towards companies involved in fossil fuels: Aviva (United Kingdom) and AXA (France).
- Insurance groups excluding/divesting fossil fuel (coal, oil or gas) investments: Allianz (Germany), AXA (France), SCOR (France) and Swiss Re (Switzerland).

For insurance underwriting:

- Insurance groups integrating ESG criteria related to fossil fuel investments in client/project assessment and approval: Allianz (Germany), Aviva (United Kingdom), Ergo (Germany), Munich Re (Germany) and Swiss Re (Switzerland);
- Insurance groups avoiding underwriting certain fossil fuel (coal, oil or gas) projects: Aviva (United Kingdom), AXA (France) and Swiss Re (Switzerland);
- Insurance groups requiring disclosure of GHG emissions of corporate clients: Swiss Re (Switzerland).

**Table 3 Overview of fossil fuel policies of insurance groups**

Scope	Investments				Underwriting	
Insurance group	Require disclosure of investments in fossil fuels	Disclosure of carbon footprint	Engagement/Voting	Divestment/Exclusion	Disclosure of GHG emissions	Avoidance underwriting
Allianz	No	No	No	Thermal coal > 30% of revenues	No	ESG risk screening (not ex ante avoidance: (Coal) mining; (brown) coal power generation; oil and gas sector (mountain-top removal, oil-drilling)
Aviva	No	No	Engagement on thermal coal > 30% of revenues	Divestment from highly carbon intensive fossil fuel companies, in case of no sufficient progress towards engagement goals	No	No insurance cover for oil and gas extraction and refining
AXA	No	Yes	Engagement with companies in the extractives sector on contribution to energy transition	Thermal coal > 50% of revenues	No	No insurance cover for coal companies which AXA has divested
Chubb	No	No	No	No	No	No
Coveá	No	No	No	No	No	No
DZ Bank (R+V)	No	No	No	No	No	No
Ergo (Munich Re)	No				No	Oil-drilling in the Arctic
Generali	No	No	No	No	No	No
Hannover Re	No	No	No	No	No	No
Lloyd's of London	No	No	No	No	No	No
Mapfre	No	No	No	No	No	No

Munich Re	No	No	No	No	No	ESG risk screening (not ex ante avoidance): oil sands; fracking; mining; Arctic oil drilling
SCOR	No	No	No	Thermal coal > 50% of revenues	No	No
Swiss Re	No			Thermal coal, 'substantial' part of revenues	Yes	No insurance cover for mining in protected areas; off-shore drilling in the Arctic; shale oil and gas hydraulic fracturing operations; oil sands greenfield mining; unmitigated venting or flaring of gas
Talanx	No	No	No	No	No	No
Unipol	No	No	No	No	No	No
Zurich	No	No	No	No	No	No

## Introduction

The objective of this research is to map the involvement of the top-12 European insurance groups and top-6 European reinsurance groups in the fossil fuels sector. This is done by analysing the investments, underwriting activities and policies of each of the selected insurance groups.

Based on their total gross written premiums in 2015, the following 12 Multiline and Property & Casualty insurance groups have been selected:

- **Insurance groups:**

- |                     |                 |
|---------------------|-----------------|
| • Allianz           | Germany;        |
| • Aviva             | United Kingdom; |
| • AXA               | France;         |
| • Chubb             | Switzerland;    |
| • Covéa             | France;         |
| • Munich Re (Ergo)  | Germany;        |
| • Generali          | Italy;          |
| • Lloyd's of London | United Kingdom; |
| • Mapfre            | Spain;          |
| • Talanx            | Germany;        |
| • Unipol            | Italy;          |
| • Zurich            | Switzerland.    |

Based on their total gross non-life reinsurance premiums written in 2015, the following six Multiline and Property & Casualty reinsurance groups have been selected:

- **Reinsurance groups:**

- |                              |                 |
|------------------------------|-----------------|
| • DZ Bank (R+V Versicherung) | Germany;        |
| • Lloyd's of London          | United Kingdom; |
| • Munich Re                  | Germany;        |
| • SCOR                       | France;         |
| • Swiss Re                   | Switzerland;    |
| • Talanx (Hannover Re)       | Germany.        |

This report is organized as follows: First, Chapter 1 presents the methodology of the research. After that, Chapter 2 provides some more general background information on how the insurance sector copes with climate change. Next, Chapters 3 to 17 discuss the investments, underwriting activities and policies of each of the selected insurance groups with respect to the fossil fuels sector. Finally, Chapter 18 provides some summary tables summarizing the main findings.



## Chapter 1 Methodology

### 1.1 Objective

The objective of this research is to map the involvement of European insurance groups in the fossil fuels sector. This is done by analysing the investments, underwriting activities and policies of each of the selected insurance groups.

### 1.2 Research questions

The report gives an answer to the following questions:

1. Which are the top-12 European insurance and top-6 European reinsurance groups ranked by total gross written premiums (insurance groups) or total gross non-life reinsurance written premiums (reinsurance groups)?
2. How much does each of the top-12 European insurance and top-6 European reinsurance groups invest in the fossil fuels sector (broken down in bondholdings and shareholdings)?
3. What kind of fossil fuel underwriting services does each of the top-12 European insurance and top-6 European reinsurance groups offer, and what does this likely say about the insurance group's importance in the global fossil fuel underwriting sector?
4. What are the policies of the top-12 European insurance and top-6 European reinsurance groups related to fossil fuel investments and underwriting activities?

### 1.3 Selection of insurance and reinsurance groups

#### 1.3.1 Selection of insurance groups

Table 4 shows the top-30 insurance groups operating in Europe. The insurance groups are ranked by total gross written premiums for the year 2015, the most recent year for which information was available. The insurance groups are classified into three different types: Life & Health, Multiline or Property & Casualty. This classification does not mean that an insurance group is only involved in this type of insurance activity, it just serves as an indication of what kind of activities are most important to the relevant insurance group.

**Table 4 Top-30 insurance groups in Europe**

Ranking	Insurance group	Country	Type	Gross written premiums (in US\$ billion)
1	AXA	France	Multiline	100.4
2	Allianz	Germany	Multiline	83.8
3	Generali	Italy	Multiline	76.8
4	Prudential	United Kingdom	Life & Health	54.3
5	Zurich	Switzerland	Property & Casualty	51.0
6	Lloyd's of London	United Kingdom	Property & Casualty	40.2
7	CNP Assurances	France	Life & Health	34.7

Ranking	Insurance group	Country	Type	Gross written premiums (in US\$ billion)
8	Talanx	Germany	Multiline	33.4
9	Credit Agricole Assurances	France	Life & Health	33.2
10	Aviva	United Kingdom	Multiline	32.4
11	Intesa Sanpaolo Vita	Italy	Life & Health	29.7
12	BNP Paribas Cardif	France	Life & Health	25.8
13	Aegon	Netherlands	Life & Health	25.0
14	Chubb	Switzerland	Property & Casualty	23.8
15	Achmea	Netherlands	Life & Health	21.7
16	Mapfre	Spain	Property & Casualty	20.9
17	PosteVita	Italy	Life & Health	19.8
18	Cov��a	France	Multiline	18.8
19	Ergo (Munich Re)	Germany	Multiline	18.0
20	Unipol	Italy	Multiline	17.2
21	Swiss Life	Switzerland	Life & Health	14.3
22	Soci��t�� Generale Insurance	France	Life & Health	12.1
23	Groupama	France	Multiline	11.3
24	Bupa Finance	United Kingdom	Life & Health	10.6
25	Ageas	Belgium	Multiline	10.3
26	RSA Insurance	United Kingdom	Property & Casualty	10.2
27	NN Group	Netherlands	Life & Health	10.1
28	AG2R La Mondiale	France	Life & Health	9.9
29	Vienna Insurance Group	Austria	Multiline	9.8
30	CZ	Netherlands	Life & Health	9.7

Source: Roland Berger (2016, June 23), *Financial Performance of the Top 40 European-born Insurers*, p. 5, 16; SNL Financial (2014, September), *Top 50 European Insurance Groups*; Lloyd's (2016, March), *Annual Report 2015*, p. 88; S&P Global Market Intelligence (2016, July), *Top 50 EMEA Insurance Groups by Gross Premiums Written*.

This research focusses on the 12 most important insurance groups active in the fossil fuel underwriting sector. Since such a ranking based upon fossil fuel underwritings does not exist, this research focuses on the 12 largest Multiline and Property & Casualty insurance groups based upon gross written premiums. This leads to the selection of the following 12 insurance groups (in alphabetical order):

- Allianz;
- Aviva;
- AXA;
- Chubb;
- Cov  a;
- Ergo;

- Generali;
- Lloyd's of London;
- Mapfre;
- Talanx;
- Unipol;
- Zurich.

### 1.3.2 Selection of reinsurance groups

Table 5 shows the top-6 reinsurance groups operating in Europe. The reinsurance groups are ranked on total gross non-life reinsurance premiums written for the year 2015, the most recent year for which information was available. The reinsurance groups are classified into two different types: Multiline or Property & Casualty. This classification does not mean that a reinsurance group is only involved in this type of reinsurance activities, it just serves as an indication of what kind of activities are most important to the relevant reinsurance group.

**Table 5 Top-6 non-life reinsurance groups in Europe**

Ranking	Reinsurance group	Country	Type	Gross non-life reinsurance premiums written (in US\$ billion)
1	Swiss Re	Switzerland	Multiline	19.6
2	Munich Re	Germany	Multiline	19.3
3	Lloyd's of London	United Kingdom	Property & Casualty	12.7
4	Hannover Re	Germany	Multiline	10.2
5	SCOR	France	Multiline	6.3
6	DZ Bank (R+V Versicherung)	Germany	Multiline	2.1

Source: AM Best (2016, September), *Top 25 Non-Life Global Reinsurance Groups*; S&P Global Market Intelligence (2016, July), *Top 50 EMEA Insurance Groups by Gross Premiums Written*; SNL Financial (2015, June), *Top 15 global reinsurers*.

This research also focusses on the six most important reinsurance groups active in the fossil fuel underwriting sector. Since such a ranking based upon fossil fuel underwritings does not exist, this research focuses on the six largest Multiline and Property & Casualty insurance groups based upon total gross non-life reinsurance premiums, as shown in Table 5.

### 1.3.3 Overlap between insurance and reinsurance groups

Some of the selected insurance groups are in fact subsidiaries of other insurance groups that are selected, or are both classified as an insurance group and a reinsurance group:

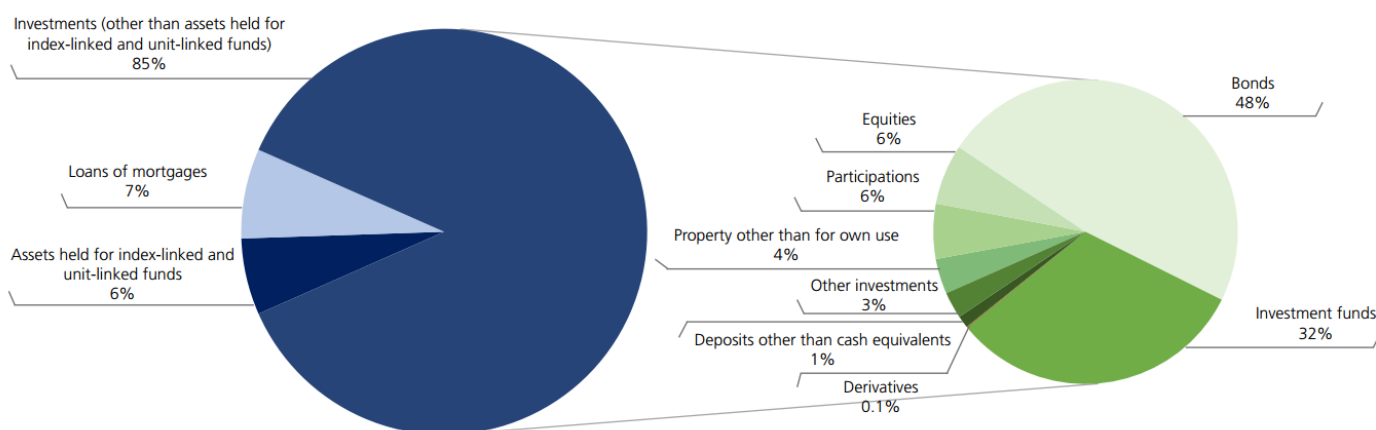
- Ergo is a subsidiary of Munich Re;
- Hannover Re is a subsidiary of Talanx;
- Lloyd's of London is classified as both an insurance and reinsurance group.

This research focuses on the entire insurance groups, and not only specific subsidiaries. If relevant, information on a specific subsidiary is also provided.

## 1.4 Analysing fossil fuel investments

Figure 1 shows a breakdown of the investment portfolio of the European insurance groups for the year 2014 (the most recent available year). As can be seen, of the on average 85% of investments (so excluding loans or mortgages and assets held for index-linked and unit-linked funds), almost half is invested in government and corporate bonds (48%). One third is invested in investment funds and 6% is invested in equities.

**Figure 1 Breakdown of investment portfolio of European insurance groups (2014)**



Source: Insurance Europe (2016, December), *European Insurance in Figures*, p. 39.

When focusing on fossil fuel investments of insurance groups, insurers are most likely to invest in this sector by investing in fossil fuel related equities, bonds and investment funds. Therefore, this research focuses on these types of investments.

In order to analyse the investments in equities, bonds and investments funds, the database Thomson Reuters Eikon is used. This financial database contains information on the holdings of individual asset managers belonging to an insurance group, and also contains information on portfolios of funds belonging to an insurance group. However, fund portfolios are often less transparent than direct holdings, and since insurance group asset managers can also hold investments in large amounts of different funds, analysing the fund investments is difficult. Therefore, this research mainly captures investments in bonds and equities. If possible, equity and bond investments through investments funds are also included in the data analysis, but because of the difficulties mentioned above and because of the database constraints, a part of the fund investments is not captured.

In order to download all the available information from Thomson Reuters Eikon, first an overview of all the asset managers belonging to each insurance group is made. For the purpose of analysing bondholdings, some large well-known fund names belonging to an insurance group are also added to the list. Next, all holdings of these asset managers and funds are downloaded from the database. When downloading the equity holdings, it is possible to include with each holding a Thomson Reuters Business Classification (TRBC) of the industry in which the company is active. Similarly, when downloading bondholdings, a Credit Issuer Sector description can be added. Using these classifications, the fossil fuel investments of each insurance group are mapped. The fossil fuel investments in this research include investments in the following sectors:

- Coal;

- Mining:
  - Diversified;
  - Services & equipment;
- Oil & gas:
  - Exploration & production;
  - Integrated;
  - Refining & marketing;
  - Services & equipment;
- Utilities;
  - Diversified;
  - Electric;
  - Natural gas;
  - Unclassified.

The mining sector is included, because after analysing the data it became clear that almost all large companies included in the mining sector were involved in either coal or oil & gas. Since these large companies also have considerably higher market capitalizations than the smaller specialized mining companies, the small part of specialized mining companies that is captured by including the mining sector can be considered insignificant. With similar reasoning, the diversified and unclassified utilities sectors are considered as fossil fuel investments in this research. The Credit Issuer Sector description is slightly less detailed than the TRBC industry classification. The coal sector is for instance included in the mining sector when using the Credit Issuer Sector description (bondholdings), while it is shown separately using the TRBC industry classification (equity holdings). Therefore, it is possible to provide a more detailed breakdown of the fossil fuel investments for equity holdings.

To show the relative importance of fossil fuel investments for each insurance group, the fossil fuel investments will be shown as a percentage of the reported total AUM. Because the holdings of some insurance groups are less transparent than others, and because some insurance groups do not provide their total AUM, the fossil fuel investments are also compared with the total analysed investments, i.e. the total downloaded investments from Thomson Reuters Eikon. This shows how much of the total analysed data consists of fossil fuel investments. The total analysed investments is of course always smaller than the reported total AUM, since this research only analyses bonds, equities and (to some extent) investment funds, while the total AUM also consist of other investments (see Figure 1).

By using company classifications when mapping fossil fuel investments, it is of course possible that some investments are not captured, and other investments are wrongly included. However, an analysis of a sample of the data shows that almost all of the classifications are correct. Also, because it is likely that for each insurance group not all holdings are captured (certainly with an eye on investment funds, but also because of a lack of transparency on bondholdings and equity holdings in general), the findings of this research on fossil fuel investments are more likely to underestimate the actual total fossil fuel investments than to overestimate them.

When analysing bonds, it is possible that the data also includes some green bonds that were issued by companies that fall into our analysed sectors. However, the value of these potentially included green bonds is so small in comparison with the rest of the analysed bonds that this possible inclusion is considered to be neglectable.

## 1.5 Analysing fossil fuel underwriting activities

In order to find out how important each insurance group is in the global fossil fuel underwriting sector, first the most important insurance data providers were contacted. These data providers did not have insurance group specific data on the total amount of underwriting in the fossil fuel sector, as this is usually classified information and also difficult to estimate. Such information was also not found after a thorough internet search. Therefore, in order to find out how important each insurance group is in the global fossil fuel underwriting sector, this research focuses on the publicly available online information provided by the selected insurance groups themselves. In addition, this research also uses information provided in recent market reviews on the power market by Willis Towers Watson and Marsh, two respected advisory companies with in-depth knowledge of the market. After an analysis of all the relevant information found using these sources, the insurance groups are classified into three different categories, indicating their level of involvement in the global fossil fuel underwriting sector:

- Low: the insurance group is barely involved in the global fossil fuel underwriting sector;
- Medium: the insurance group is moderately involved in the global fossil fuel underwriting sector, being involved in at least two countries;
- High: the insurance group is highly involved in the global fossil fuel underwriting sector, being one of the market leaders or active participants in at least one world region.

## 1.6 Analysing fossil fuel policies

The policy analysis focuses on each insurance group's publicly available fossil fuel policies for investments and for insurance underwriting activities. The analysis of fossil fuel policies of the selected insurance groups differentiates between:

- Carbon reduction targets for own operations (energy reduction targets and use of renewable energy in office buildings; employee travel, etc.);
- Responsible investment policies:
  - Integration of ESG (Environmental, Social, Governance) in screening and selection of (fossil fuel) investments;
  - Engagement with companies in the fossil fuels sector;
  - Exerting (proxy) voting rights at Annual General Meetings of companies in the fossil fuel sector;
  - Divestment and exclusion of fossil fuel investments;
  - Facilitating the energy transition towards a fossil-free economy by investments in renewables and impact investing;
  - Target-setting, monitoring and disclosure of the carbon footprint of investments.
- Underwriting policies:
  - Integration of ESG factors in client/project assessment and approval as part of insurance underwriting processes and decisions;
  - Product development: a distinction can be made between developing insurance products that encourage renewable energy infrastructure and 'green' consumption behaviour and, in contrast, product development that supports fossil fuel companies with insurance cover for unconventional extraction methods and costs for the recovery of environmental damage.

Before all of the findings per insurance group are presented, Chapter 2 provides some more general background information on how the insurance sector copes with climate change.

## Chapter 2 Climate change and insurance groups

As corporate citizens, insurance groups need to play a vital role in meeting the aims of The Paris Agreement: keeping the global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 degrees Celsius. In their investments decisions and insurance underwriting activities, insurance groups should contribute to rather than undermine the energy transition from an economy based on fossil fuels towards an economy using renewable energy sources. Insurers also have self-interests in addressing climate change, as elaborated below.

Insurance groups face various risks due to the impact of climate change. In September 2015, Mark Carney, governor of the Bank of England pointed out the threats insurance groups are facing. First, there is the risk of an increase in insurance claims, due to damage costs of extreme weather. Second, as investors (of insurance premiums and asset management for third parties) insurance groups face reputation risks and the risk of investments in 'stranded assets', if they continue investments in fossil fuels, instead of allocating investments in an energy transition towards the use of renewable energy. And third, insurance groups face claims on third-party liability insurance in cases where their clients have failed to mitigate risks to the climate, failed to account for the damage they cause to the environment or failed to comply with regulations.<sup>1</sup> Climate change thus is a direct risk to the insurance business because of the unprecedented and unpredictable risks involved. These risks will affect insurance groups' liabilities - the claims they need to pay out – and the total value of their investments.

For insurance groups, it is their core business to assess and quantify risks, and put a price on it. Because of the financial impact involved, insurance groups need to be well aware of the risks related to climate change and consider those in their risk assessment models and insurance policies.

This chapter gives an introduction into how insurance groups cope with the risks involved with climate change.

### 2.1 Climate change and insurance risks

In 2015, the total worldwide economic losses from natural and man-made catastrophes were estimated at US\$ 92 billion, of which US\$ 37 billion was insured. The other losses were not insured.<sup>2</sup>

An example of insured losses were the damages caused by extreme weather in the summer of 2016 in the Netherlands, with hailstorms with huge balls of ice. This caused a lot of damage on farmland, greenhouses and the rooftops of barns in the Netherlands, leading to a great loss for insurance group Achmea, because of the high claims involved. There were disputes between the insurance group and individual farmers whether or not a hailstorm of this magnitude was covered in a regular storm damage insurance. In a reaction to this, Achmea stated that the increasing risk of damage caused by extreme weather due to climate change has not yet been taken into account effectively and will inevitably lead to an increase of insurance premiums.<sup>3</sup> On a similar note, insurance group Zurich claimed that their business operating profit suffered a great loss in 2015 due to the financial impact of catastrophe claims, among others flooding in the UK and Ireland in December 2015.<sup>4</sup>



An example of uninsured losses is homes being engulfed by the sea due to coastal erosion. In the United Kingdom, The Statement of Principles on flooding and insurance drafted by the government and the Association of British Insurers does not cover coastal erosion, as it is regarded as an uninsurable risk. In fact, coastal erosion in the UK is a natural geological phenomenon caused by the Atlantic Ocean current. However, climate change forecasts are predicting global sea levels to rise yet further with an increase in the frequency and magnitude of stormy events. This will have the effect of focusing wave energy closer to the shore and cliff faces, leading to increased rates of coastal erosion in areas where cliffs are composed of soft rocks.<sup>5</sup>

Insurance groups worldwide warn that climate change will lead to an increase of damage. Over the last three years, insurance losses from natural catastrophes such as storms, earthquakes and flooding have remained relatively low. But according to reinsurer Munich Re, in 2015, 94% of worldwide insurance payouts for natural disasters stem from extreme weather events such as flooding and flash flooding, with payouts increasing even further in 2016. In its annual natural catastrophe review, Munich Re said flooding, including river flooding and flash flooding, caused more than a third of all losses - far above the 10-year average of 21%. In 2016, global losses from natural disasters amounted to US\$ 175 billion - a two-thirds increase compared with 2015 - caused by increasingly powerful storms and "exceptionally" high number of severe floods. Peter Höppe, head of Munich Re's geo risks research unit, warned: "climate change will increase the likelihood the world will suffer devastating events like those seen in 2016 on an increasingly frequent basis."<sup>6</sup>

CRO Forum, a knowledge platform for chief risk officers of global insurance groups, uses three risk levels - small, medium and high - and three time horizons - significant impacts already seen in insurance claims, first significant impacts within 1-5 years, first significant impacts within 5-10 years - to analyze five subjects that could be impacted. Extreme weather is considered a high risk factor with significant impacts already seen in insurance claims.<sup>7</sup>

## 2.2 Insurance risks of fossil fuels

CRO Forum expects that not only extreme weather but also environmental liability regulation and the environmental risks of unconventional exploration of oil and gas will increase insurance risks. In its latest 'Risk Radar Update' (October 2016), CRO Forum expects that within a period of 5-10 years, "new regulatory developments, increased litigation activity and subsequent liability issues associated with climate change/greenhouse gas emission may lead to large losses under environmental liability, product liability and D&O/professional liability."<sup>8</sup> Furthermore, with regard to fossil fuels, insurance groups expect that "increased demand for natural resources is leading to exploration in previously unexplored areas, resulting in potential ecological disasters and the destruction of natural habitats (e.g. drilling in the Arctic). (...) Complex technologies applied in extreme situations lead to increased risks. For instance, development and production of unconventional oil and natural gas resources, including fracking and oil sands, requires processes and technologies that differ considerably from those used for conventional resources in terms of energy input, cost and environmental impact."<sup>9</sup> The CRO Forum report also acknowledges the reputation risks involved with unconventional oil and gas exploitation: "As these techniques expand, concerns about the sustainability challenges and impacts associated increase too, displayed through e.g. increased activist criticism and media coverage."<sup>10</sup>



## 2.3 Energy transition

"Climate risk is becoming synonymous with reputation risk," according to Luisa Florez, Head of ESG Fundamental Research at AXA Investment Managers, which manages over € 600 billion of assets. "Undoubtedly, there are a number of factors behind the recent decline in oil prices, such as shale gas development. Nevertheless, moral issues are also playing a growing role, with the divestment movement steadily gaining traction amongst investors across the globe."<sup>11</sup> According to Fossil Free, a campaigning platform urging investors to divest from fossil fuels, by 2016, more than 688 institutions had (partly) divested, representing US\$ 5 trillion in assets, of which four were insurance groups: Aegon (The Netherlands), Allianz (Germany), Aviva (UK) and AXA (France).<sup>12</sup>

With divestment from fossil fuels, insurance groups can contribute to the energy transition towards the use of renewable energy. The energy transition also opens new markets for insurance products and services, to cover the risks linked with new industries and operations, such as offshore wind parks or solar parks in remote areas like deserts. Typical risks include natural hazards, mechanical breakdowns and mismanagement in the supply of material, foundation failure and cabling issues. Maximum losses can easily reach up to a billion dollars if the damage results in business interruption. Large-scale renewable energy infrastructure projects also involve third party liabilities, such as compensation for damage to third party property or injuries. Bloomberg Finance estimates that by 2020, a 50% increase in renewable energy investment is expected, likely to produce more than a doubling of insurance spending in six of the world's leading renewable energy markets alone.<sup>13</sup>

In the following chapters, the exposure and policies of a selection of 12 insurance and six reinsurance groups is analyzed with respect to investments in fossil fuels and fossil fuel insurance underwriting activities.

## Chapter 3 Allianz

### 3.1 Investments in the fossil fuels sector

This section shows all investments in the fossil fuels sector that could be found. The investments are broken down into shareholdings and bondholdings. The fossil fuel investments that were found are compared with the total investments found and also with the total assets under management as reported by the insurance group itself. In this way we try to show the relative importance of fossil fuel investments for the insurance group. Table 6 summarizes the findings for Allianz.

**Table 6 Total fossil fuel investments (in US\$ million)**

Indicator	Total bondholdings	Total shareholdings	Total investments
<b>Fossil fuel investments</b>	<b>48,235.55</b>	<b>10,796.13</b>	<b>59,031.68</b>
Total investments found	766,170.08	133,413.47	899,583.55
<b>% of total investments found</b>	<b>6.30%</b>	<b>8.09%</b>	<b>6.56%</b>
Reported total AUM	N.A.	N.A.	1,915,676.00
<b>% of reported total AUM</b>	<b>2.52%</b>	<b>0.56%</b>	<b>3.08%</b>

The next sections provide more detail on the investments in shares and bonds.

#### 3.1.1 Bondholdings

Table 7 shows the total bondholdings in fossil fuel related sectors as of the most recent filing dates. As can be seen, the total bondholdings in these sectors amount to US\$ 48.2 billion. This is 6.3% of the total bondholdings found and 2.5% of the total assets under management as reported by the insurance group itself.

**Table 7 Bondholdings in fossil fuel related sectors (in US\$ million)**

Investor	Country	Mining	Oil & gas	Utilities				Total
				Diversified	Electric	Natural gas	Unclassified	
Allianz Global Investors Asia Pacific	Hong Kong	2.20	20.40	-	-	-	-	22.60
Allianz Global Investors France	France	8.21	68.35	9.75	149.14	2.72	-	238.17
Allianz Global Investors	Germany	21.22	179.97	9.78	50.37	6.42	-	267.75
Allianz Global Investors Italia SGR	Italy	1.56	48.48	7.74	30.49	9.67	0.83	98.77
Allianz Global Investors Korea	United States	238.36	1,423.02	70.25	84.64	14.44	-	1,830.71
Allianz Global Investors Singapore	Singapore	2.30	1.80	-	-	-	-	4.10
Allianz Global Investors Taiwan	Taiwan	-	2.11	0.66	-	-	-	2.77

Investor	Country	Mining	Oil & gas	Utilities				Total
				Diversified	Electric	Natural gas	Unclassified	
Allianz Global Investors U.S.	United States	8.30	62.61	19.89	31.20	4.50	1.50	128.00
Allianz Invest Kapitalanlagegesellschaft	Austria	2.22	20.12	6.34	2.45	2.22	-	33.34
Allianz Nederland Asset Management	Netherlands	-	-	8.34	-	-	2.78	11.11
Allianz of America	United States	610.43	3,016.96	829.08	2,864.01	480.06	189.81	7,990.35
Euler Hermes North America Insurance Company	United States	-	6.00	-	5.43	1.00	-	12.43
GTJA Allianz Funds Management Ltd	China	-	14.96	-	-	-	-	14.96
NFJ Investment Group	United States	1.18	9.67	4.02	15.15	0.58	-	30.60
PIMCO (US)	United States	2,221.37	17,904.63	2,916.32	10,543.36	2,567.00	482.44	36,635.12
PIMCO Europe	United Kingdom	23.80	177.09	22.31	154.99	15.63	7.42	401.23
PIMCO Europe Munich Branch	Germany	5.16	471.44	0.92	9.01	2.45	-	488.98
Rogge Global Partners (New York)	United States	0.18	2.41	-	1.17	0.15	0.20	4.11
Rogge Global Partners	United Kingdom	1.66	-	-	15.82	1.40	-	18.88
Towarzystwo Funduszy Inwestycyjnych Allianz Polska	Poland	-	-	-	1.59	-	-	1.59
<b>Total fossil fuel investments</b>		<b>3,148.15</b>	<b>23,430.02</b>	<b>3,905.39</b>	<b>13,958.78</b>	<b>3,108.23</b>	<b>684.98</b>	<b>48,235.55</b>
Total bondholdings found								766,170.08
<b>% of total bondholdings found</b>								<b>6.30%</b>
Reported total AUM	(of which US\$ 1,386,502.00 are managed for third parties)							1,915,676.00
<b>% of reported total AUM</b>								<b>2.52%</b>

Source: Thomson Reuters Eikon, "EMAXX - Firm Query", viewed in February 2016; Thomson Reuters Eikon, "EMAXX - Fund/Portfolio", viewed in February 2016; Allianz (2016, March), *Geschäftsbericht 2015*, p. 1.

### 3.1.2 Shareholdings

Table 8 shows the total shareholdings in fossil fuel related sectors as of the most recent filing dates. As can be seen, the total shareholdings in these sectors amount to US\$ 10.8 billion. This is 8.1% of the total shareholdings found and 0.6% of the total assets under management as reported by the insurance group itself.

**Table 8 Shareholdings in fossil fuel related sectors (in US\$ million)**

Investor	Country	Coal	Mining		Oil & Gas				Utilities			Total
			Diversified	Services & equipment	Exploration & production	Integrated	Refining & marketing	Services & equipment	Diversified	Electric	Natural gas	
Allianz Global Investors Asia Pacific	China	-	2.68	0.04	48.93	67.06	26.96	25.70	47.19	51.30	63.63	333.48
Allianz Global Investors France	France	-	13.58	-	0.88	77.53	71.30	4.02	36.93	2.48	-	206.71
Allianz Global Investors	Germany	17.67	277.89	29.67	290.33	608.66	1,513.72	456.26	354.55	757.95	49.73	4,356.44
Allianz Global Investors Japan	Japan	-	-	-	0.09	-	1.29	-	0.16	1.73	-	3.27
Allianz Global Investors Korea	Korea	0.19	-	-	0.26	2.04	74.30	-	-	1.39	-	78.17
Allianz Global Investors Singapore	Singapore	-	-	-	0.13	-	-	-	-	2.85	-	2.98
Allianz Global Investors Taiwan	Taiwan	-	2.99	-	21.87	4.78	26.42	5.41	-	30.34	-	91.81
Allianz Global Investors U.S.	United States	54.36	82.69	42.23	824.33	56.65	497.81	386.09	59.92	566.59	12.58	2,583.23
Allianz Nederland Asset Management	Netherlands	-	11.34	-	-	46.73	27.01	14.41	14.67	25.23	1.23	140.61
Allianz Popular Asset Management, SGIIC	Spain	-	2.43	-	-	9.82	18.11	6.89	7.95	56.16	2.45	103.81
Investitori SGR	Italy	0.06	0.96	-	1.84	0.72	3.52	2.32	1.57	7.52	0.16	18.66
NFJ Investment Group	United States	-	-	-	185.11	291.49	681.84	188.52	50.43	422.87	55.95	1,876.21
PIMCO (US)	United States	9.61	45.68	9.01	168.91	83.19	172.93	105.07	35.33	106.64	11.19	747.57
PTE Allianz Polska	Poland	3.46	-	-	-	33.31	132.75	-	2.90	53.54	-	225.95
Towarzystwo Funduszy Inwestycyjnych Allianz Polska	Poland	0.41	-	0.11	0.82	3.12	13.46	0.64	0.17	8.49	0.01	27.23
<b>Total fossil fuel investments</b>		<b>85.76</b>	<b>440.23</b>	<b>81.06</b>	<b>1,543.49</b>	<b>1,285.10</b>	<b>3,261.39</b>	<b>1,195.32</b>	<b>611.76</b>	<b>2,095.09</b>	<b>196.94</b>	<b>10,796.13</b>
Total shareholdings found												133,413.47
<b>% of total shareholdings found</b>												<b>8.09%</b>
Reported total AUM	(of which US\$ 1,386,502.00 are managed for third parties)											1,915,676.00
<b>% of reported total AUM</b>												<b>0.56%</b>

Source: Thomson Reuters Eikon, "Ownership - Investor Portfolio Report", viewed in February 2016; Allianz (2016, March), Geschäftsbericht 2015, p. 1.

### 3.2 Fossil fuel insurance underwriting activities

Allianz is one of the insurance groups with a global capacity in the fossil fuel underwriting sector.<sup>14</sup> It is one of the world's leading insurance partners for power and utility companies and the oil and gas industry. Through Allianz Global Corporate & Specialty, it provides specialist insurance solutions to both of these sectors.<sup>15</sup>

For the power and utilities sector, Allianz offers services that range from risk consulting at the project stage to flexible underwriting throughout the operation of any power or other utility plant. The products and services for this sector include:<sup>16</sup>

- Erection all risk and construction all risk cover;
- Loss of profit cover during construction phase;
- Cargo cover including project cargo;
- Machinery breakdown and business interruption cover;
- Risk consulting and service through the entire life cycle of a facility;
- Regular plant visits and reports;
- Experts with decades of experience in the power and utilities field, both as insurers and in the business itself;
- Property all risk coverage for real estate assets;
- Liability coverage including environmental liability;
- Directors & officers liability;
- International insurance programs;
- Business continuity support;
- Crisis management support.

Also in the oil and gas sector, Allianz has a portfolio that covers every stage of complex energy projects and operations - from construction through to operations and decommissioning. Expertise and services include:<sup>17</sup>

- Underwriting specialists with the expertise to address the complex needs of the industry;
- Claims specialists with experience settling tough claims;
- Risk consulting expertise that reduces exposure before loss occurs;
- Engineering expertise in the construction of petrochemical plants, refineries and other large onshore projects;
- Extensive international underwriting and claims experience – with local services;
- Clients ranging from multinationals, national oil and gas companies and regional producers, to joint ventures and private equity firms;
- Experience providing options to clients, such as long-term partnering arrangements and the capability to cover every oil and gas exposure;
- Representation in more than 160 countries worldwide;
- Market-leading capacity to handle the largest of risks.

When all of the above is taken into account, the involvement of Allianz in the fossil fuel underwriting sector can be classified as High.

### 3.3 Policy analysis

Allianz has a measurable target to reduce the carbon footprint of its operations (30 percent by 2020, against a 2010 baseline) and strives to maintain its carbon neutral status by investing in carbon offset projects.<sup>18</sup>

### 3.3.1 Responsible investment

Allianz is signatory of PRI and PSI.

- **ESG integration**

Allianz has developed an ESG integration framework to manage sustainability risks for investments on its own account and insurance transactions, and has identified sensitive business areas. Allianz uses the ratings of service provider MSCI ESG Research.

Allianz has developed 'Sensitive Business Guidelines' to identify ESG risks in risk sectors (listed in section 3.3.2) for both insurance and direct investment transactions.

With regard to fossil fuels, companies active in (coal) mining and extraction of oil and gas are screened against environmental risks, such as mountain-top removal, and oil-drilling. In 2016, Allianz began divesting equity stakes in coal-based business.<sup>19</sup>

- **Engagement**

Allianz has an engagement programme towards a selected group of companies it invests in but does not communicate about the details and results of engagement processes.<sup>20</sup>

- **Voting**

Allianz does not report about voting policies in place.

- **Divestment and exclusion**

In November 2015, Allianz decided to stop financing coal-based business models, by divesting proprietary equity stakes amounting to € 225 million in coal-based business models by the end of March 2016; fixed income stakes (amounting to € 3.9 billion) can be held until maturity (run-off).

Coal-based business models are defined as:

- Mining companies deriving 30 percent or more of their revenues from mining thermal coal;
- Electric utilities deriving 30 percent or more of their generated electricity from thermal coal.

An exception to invest in these companies is only possible, following a case-by-case assessment, if the share of revenue or generated electricity from coal is between 30 percent and 50 percent and if the company has a clear strategy to reduce its coal share below the 30 percent threshold within a reasonable period.<sup>21</sup>

- **Investment in renewables and impact investing**

As an institutional investor, Allianz has stated that it wants to play a key role in building a low-carbon economy, by investing its proprietary assets in energy efficient real estate and renewable energy.

Allianz Capital Partners (ACP) is Allianz' in-house investment platform for alternative investments, with a growing portfolio of wind energy and solar power.

Its total investment in renewable energy by the end of 2015 was over € 2.5 billion (compared to € 2.0 billion in 2014), covering 60 wind farms and 7 solar parks in Austria, Finland, France, Germany, Italy, Sweden and the United States. According to Allianz, ACP's wind and solar portfolio generates sufficient renewable energy to supply over 800,000 households. Allianz is committed to at least double its investments in renewable energies from € 2.5 billion to € 5 billion, although Allianz has not communicated a timeframe to achieve this target.<sup>22</sup>

- **Target-setting and monitoring carbon footprint**

Allianz does not require disclosure of fossil fuel investments. The insurance company does not have targets on reducing the carbon footprint of its investment portfolio and also does not require disclosure of greenhouse gas emissions of companies it invests in.

### 3.3.2 Insurance underwriting activities

In 2014, Allianz Global Corporate & Specialty (AGCS) set up a central unit within its underwriting division to identify, manage and mitigate ESG risks in Allianz Group's Property & Casualty business. Potential ESG risks of insurance transactions are assessed and considered in the decision-making process. In case of concerns, there are escalation mechanisms in place that require a decision at group level whether local underwriting can proceed, and if so, under which conditions. The risk assessment also serves as a reference for dialogues with clients.

Allianz has identified and developed guidelines for insurance transaction in the following 'sensitive' businesses:

- Agriculture;
- Animal welfare;
- Gambling
- Clinical trials
- Animal testing
- Defense
- Human Rights
- Hydroelectric power
- Infrastructure
- Mining
- Nuclear Energy
- Oil and Gas
- Sex industry<sup>23</sup>

Based on the risks assessment a decision will be made whether to:

- Proceed with a transaction;
- Proceed with conditions;
- Escalate for Group ESG assessment; or
- Decline business transaction.

(Coal) mining related transactions and transactions in the oil and gas sector are screened on environmental risks, such as mountain-top removal, and oil-drilling. Furthermore, use of (brown) coal in power plants is regarded an ESG risk and is also part of the screening criteria. Allianz has no policy to avoid insurance transactions with companies or projects involved in mining, extraction or energy production from fossil fuels.<sup>24</sup>

## Chapter 4 Aviva

### 4.1 Investments in the fossil fuels sector

This section shows all investments in the fossil fuels sector that could be found. The investments are broken down into shareholdings and bondholdings. The fossil fuel investments that were found are compared with the total investments found and also with the total assets under management as reported by the insurance group itself. In this way we try to show the relative importance of fossil fuel investments for the insurance group. Table 9 summarizes the findings for Aviva.

**Table 9 Total fossil fuel investments (in US\$ million)**

Indicator	Total bondholdings	Total shareholdings	Total investments
<b>Fossil fuel investments</b>	<b>8,045.75</b>	<b>5,939.91</b>	<b>13,985.66</b>
Total investments found	57,409.30	60,606.28	118,015.58
<b>% of total investments found</b>	<b>14.01%</b>	<b>9.80%</b>	<b>11.85%</b>
Reported total AUM	N.A.	N.A.	429,751.00
<b>% of reported total AUM</b>	<b>1.87%</b>	<b>1.38%</b>	<b>3.25%</b>

The next sections provide more detail on the investments in shares and bonds.

#### 4.1.1 Bondholdings

Table 10 shows the total bondholdings in fossil fuel related sectors as of the most recent filing dates. As can be seen, the total bondholdings in these sectors amount to US\$ 5.9 billion. This is 9.8% of the total bondholdings found and 1.4% of the total assets under management as reported by the insurance group itself.

**Table 10 Bondholdings in fossil fuel related sectors (in US\$ million)**

Investor	Country	Mining	Oil & gas	Utilities				Total
				Diversified	Electric	Natural gas	Unclassified	
Aviva Investors Canada	Canada	2.50	11.79	3.75	3.07	1.13	-	22.24
Aviva Investors France	France	54.44	74.25	34.50	59.22	0.15	-	222.55
Aviva Investors North America	United States	335.93	1,662.17	502.25	1,472.84	530.87	82.70	4,586.77
Aviva Investors North America (Chicago)	United States	21.27	24.02	2.66	4.50	2.83	-	55.28
Aviva Investors Poland	Poland	-	11.98	-	1.51	-	-	13.49
Aviva Investors UK Fund Services	United Kingdom	224.91	531.84	89.71	193.06	0.06	-	1,039.58
<b>Total fossil fuel investments</b>		<b>639.05</b>	<b>2,316.06</b>	<b>632.88</b>	<b>1,734.21</b>	<b>535.02</b>	<b>82.70</b>	<b>5,939.91</b>



Investor	Country	Mining	Oil & gas	Utilities				Total
				Diversified	Electric	Natural gas	Unclassified	
Total bondholdings found								60,606.28
% of total bondholdings found								9.80%
Reported total AUM								429,751.00
% of reported total AUM								1.38%

Source: Thomson Reuters Eikon, "EMAXX - Firm Query", viewed in February 2016; Thomson Reuters Eikon, "EMAXX - Fund/Portfolio", viewed in February 2016; Aviva (2016, March), *Annual report and accounts 2015*, p. 293.

#### 4.1.2 Shareholdings

Table 11 shows the total shareholdings in fossil fuel related sectors as of the most recent filing dates. As can be seen, the total shareholdings in these sectors amount to US\$ 8.0 billion. This is 14.0% of the total shareholdings found and 1.9% of the total assets under management as reported by the insurance group itself.

**Table 11 Shareholdings in fossil fuel related sectors (in US\$ million)**

Investor	Country	Coal	Mining		Oil & Gas				Utilities			Total
			Diversified	Services & equipment	Exploration & production	Integrated	Refining & marketing	Services & equipment	Diversified	Electric	Natural gas	
Aviva Gestión S.G.I.I.C.	Spain	-	-	-	-	6.46	21.12	9.01	-	10.18	12.87	59.63
Aviva Investors France	France	1.43	6.06	-	37.46	100.07	90.47	18.58	22.42	29.28	1.68	307.45
Aviva Investors Global Services	United Kingdom	127.67	1,299.74	0.08	468.19	116.51	2,461.77	363.26	773.56	517.79	24.55	6,153.12
Aviva Investors London	United Kingdom	-	-	-	-	-	6.19	0.27	-	1.49	-	7.95
Aviva Investors North America	United States	-	-	-	1.15	-	3.41	2.14	-	-	1.61	8.32
Aviva Investors Poland	Poland	0.72	-	2.48	-	3.49	115.25	0.02	0.13	67.98	-	190.06
Aviva Powszechnie Towarzystwo Emerytalne	Poland	1.89	-	29.47	-	168.85	742.13	-	14.08	362.81	-	1,319.23
<b>Total fossil fuel investments</b>		<b>131.70</b>	<b>1,305.81</b>	<b>32.03</b>	<b>506.80</b>	<b>395.37</b>	<b>3,440.32</b>	<b>393.28</b>	<b>810.20</b>	<b>989.53</b>	<b>40.70</b>	<b>8,045.75</b>

Investor	Country	Coal	Mining		Oil & Gas				Utilities			Total
			Diversified	Services & equipment	Exploration & production	Integrated	Refining & marketing	Services & equipment	Diversified	Electric	Natural gas	
Total shareholdings found												57,409.30
% of total shareholdings found												14.01%
Reported total AUM												429,751.00
% of reported total AUM												1.87%

Source: Thomson Reuters Eikon, "Ownership - Investor Portfolio Report", viewed in February 2016; Aviva (2016, March), *Annual report and accounts 2015*, p. 293.

## 4.2 Fossil fuel insurance underwriting activities

Aviva has recently entered the power and utilities sector and, with ambitions to be a global carrier, is actively seeking licensing to underwrite a broad territory base, including North America. For the time being, Aviva should be considered as a follow rather than lead carrier with an underwriting capacity of US\$ 25 million in the United Kingdom, although they have significantly more available.<sup>25</sup>

Taking the above into account, the involvement of Aviva in the fossil fuel underwriting sector is classified as Medium.

## 4.3 Policy analysis

Aviva has public targets to reduce the direct (business units) and indirect (suppliers) environmental impact of its operations and reports about the results. The following of these targets are related to climate change:

- Reduce operational (buildings and travel related) CO2 emissions by 5 percent on an annual basis;
- Reduce operational CO2 emissions by 40 percent by 2020, and 50 percent by 2030 with regard to the 2010 baseline.<sup>26</sup>

### 4.3.1 Responsible investment

Aviva has developed a 'strategic response to climate change', which is applied in several responsible investments instruments.<sup>27</sup>

- **ESG integration**

Aviva integrates environmental, social and governance (ESG) dimensions in its investment decision process, including carbon risk. Real estate investments represent over 10 percent of Aviva's total assets under management, and is therefore a focus sector for responsible investment.<sup>28</sup>

- **Engagement**

Aviva exerts its influence through engagement by its fund managers and in collaboration with other investors, which can vary from a single letter to multiple meetings.<sup>29</sup>

Aviva has a time-bound engagement programme focused on 40 companies with more than 30 per cent of their revenue associated with thermal coal mining or coal power generation. The engagement sets objectives regarding governance, business strategy, operational efficiency and carbon-intensity reduction, responsible corporate engagement on climate and energy policy and disclosure. Aviva will divest highly carbon intensive fossil fuel companies, in case the companies do not make sufficient progress towards the engagement goals set. According to Aviva, it has meaningful engagement with 80% of the selected companies. However, eight of them, all based in Asia, have not responded to any attempt for engagement from the side of Aviva. In the first quarter of 2017, Aviva will take a decision whether to earmark these companies for divestment.<sup>30</sup>

Apart from engagement, Aviva showed its concerns about investments in the coal sector by a series of public statements, for instance on the Carmichael coal mine in Australia.<sup>31</sup>

- **Voting**

Aviva has a public voting policy and publishes its voting record, which is dominated by corporate governance issues.

Through the IIGCC Corporate Programme, in 2015 Aviva supported 90 percent of climate change-related shareholder resolutions and held 25 climate-specific engagements for the AGMs of, amongst others BP, Shell and Statoil and co-filed similar resolutions for the 2016 AGMs of Anglo American, Glencore and Rio Tinto.<sup>32</sup>

- **Divestment and exclusion**

Divestment is part of Aviva's engagement strategy towards companies active in thermal coal mining or coal power generation and will be effectuated in case not sufficient progress is made towards the engagement goals set. In November 2016, Aviva announced that it had identified two companies for potential divestment, as they had planned to increase fossil fuel capacity instead of decreasing it. As for now, there are no reports that divestment from these companies has been effectuated.<sup>33</sup>

- **Investment in renewables and impact investing**

Aviva has set a target for investment in lower carbon infrastructure, £ 500 million annually for the next five years, including wind, solar, biomass and energy efficiency (e.g. combined heat and power). In 2015, low carbon investments amounted to £ 347 million.<sup>34</sup>

- **Target-setting and monitoring carbon footprint**

Aviva does not require disclosure of fossil fuel investments. Aviva Investors signed the Montreal Carbon Pledge in 2015 and is committed to disclose the carbon footprint of its investment portfolios. The insurance company is working on the implementation of this commitment. Aviva has set a carbon savings target for infrastructure projects of 100,000 tonnes of CO<sub>2</sub> annually. The development of CO<sub>2</sub> monitoring tools is work in progress.<sup>35</sup>

#### **4.3.2 Insurance underwriting activities**

Facilitating the energy transition towards a low-carbon economy is reflected in Aviva's insurance policies. On the one hand, Aviva does not provide general insurance for fossil fuels. Its general insurance risk appetite excludes providing cover for oil and gas extraction and refining, and large-scale power generation. On the other hand, Aviva supports renewable energy by providing cover for residential solar PV systems, micro-hydro turbines and on-shore wind farms.<sup>36</sup>

## Chapter 5 AXA

### 5.1 Investments in the fossil fuels sector

This section shows all investments in the fossil fuels sector that could be found. The investments are broken down into shareholdings and bondholdings. The fossil fuel investments that were found are compared with the total investments found and also with the total assets under management as reported by the insurance group itself. In this way we try to show the relative importance of fossil fuel investments for the insurance group. Table 12 summarizes the findings for AXA.

**Table 12 Total fossil fuel investments (in US\$ million)**

Indicator	Total bondholdings	Total shareholdings	Total investments
<b>Fossil fuel investments</b>	<b>16,751.42</b>	<b>17,590.15</b>	<b>34,341.57</b>
Total investments found	193,800.30	196,915.18	390,715.48
<b>% of total investments found</b>	<b>8.64%</b>	<b>8.93%</b>	<b>8.79%</b>
Reported total AUM	N.A.	N.A.	1,480,857.00
<b>% of reported total AUM</b>	<b>1.13%</b>	<b>1.19%</b>	<b>2.32%</b>

The next sections provide more detail on the investments in shares and bonds.

#### 5.1.1 Bondholdings

Table 13 shows the total bondholdings in fossil fuel related sectors as of the most recent filing dates. As can be seen, the total bondholdings in these sectors amount to US\$ 16.8 billion. This is 8.6% of the total bondholdings found and 1.1% of the total assets under management as reported by the insurance group itself.

**Table 13 Bondholdings in fossil fuel related sectors (in US\$ million)**

Investor	Country	Mining	Oil & gas	Utilities				Total
				Diversified	Electric	Natural gas	Unclassified	
AllianceBernstein Investments Taiwan	Taiwan	-	1.62	-	0.83	0.21	-	2.67
AllianceBernstein Japan	Japan	6.47	25.53	1.47	3.51	2.84	-	39.82
AllianceBernstein	United States	1,238.50	5,786.13	1,386.68	5,645.99	1,001.39	299.28	15,357.97
AllianceBernstein (Growth)	United Kingdom	4.71	7.82	1.22	18.35	1.36	0.06	33.53
AXA Equitable Life Insurance Company	United States	0.61	18.91	4.81	6.25	1.51	-	32.09

Investor	Country	Mining	Oil & gas	Utilities				Total
				Diversified	Electric	Natural gas	Unclassified	
AXA Investment Managers Deutschland	Germany	-	250.27	-	4.25	44.86	12.46	311.84
AXA Investment Managers	United States	0.47	45.71	14.36	29.42	7.71	1.89	99.56
AXA Investment Managers Paris	France	67.01	256.40	47.06	144.87	12.35	1.56	529.25
AXA Investment Managers UK	United Kingdom	52.38	119.10	23.34	96.68	18.73	33.69	343.93
BOI AXA Investment Managers Private	India	-	-	-	0.78	-	-	0.78
<b>Total fossil fuel investments</b>		<b>1,370.15</b>	<b>6,511.48</b>	<b>1,478.94</b>	<b>5,950.95</b>	<b>1,090.97</b>	<b>348.94</b>	<b>16,751.42</b>
Total bondholdings found								193,800.30
<b>% of total bondholdings found</b>								<b>8.64%</b>
Reported total AUM	(of which US\$ 619,427.00 are managed for third parties)							1,480,857.00
<b>% of reported total AUM</b>								<b>1.13%</b>

Source: Thomson Reuters Eikon, "EMAXX - Firm Query", viewed in February 2016; Thomson Reuters Eikon, "EMAXX - Fund/Portfolio", viewed in February 2016; AXA (2016, March), *Annual financial report 2015*, p. 10.

### 5.1.2 Shareholdings

Table 14 shows the total shareholdings in fossil fuel related sectors as of the most recent filing dates. As can be seen, the total shareholdings in these sectors amount to US\$ 17.6 billion. This is 8.9% of the total shareholdings found and 1.2% of the total assets under management as reported by the insurance group itself.

**Table 14 Shareholdings in fossil fuel related sectors (in US\$ million)**

Investor	Country	Coal	Mining		Oil & Gas				Utilities			Total
			Diversified	Services & equipment	Exploration & production	Integrated	Refining & marketing	Services & equipment	Diversified	Electric	Natural gas	
AllianceBernstein Hong Kong	China	-	13.82	-	1.82	40.38	62.00	-	-	38.61	-	156.64
AllianceBernstein Japan	Japan	-	-	-	-	-	9.71	-	-	5.59	-	15.29

Investor	Country	Coal	Mining		Oil & Gas				Utilities			Total
			Diversified	Services & equipment	Exploration & production	Integrated	Refining & marketing	Services & equipment	Diversified	Electric	Natural gas	
AllianceBernstein	United States	30.80	151.14	6.37	3,180.73	610.94	3,204.25	1,648.27	393.64	2,420.09	149.69	11,795.92
AllianceBernstein (Value)	United Kingdom	-	-	-	8.71	19.41	23.62	11.27	8.02	15.65	-	86.68
Architas Multi-Manager	United Kingdom	-	-	-	-	-	3.91	1.19	0.23	0.90	-	6.23
AXA Investment Managers Asia (Singapore)	Singapore	1.05	15.04	0.09	1.36	1.96	11.86	9.73	4.39	25.71	7.25	78.45
AXA Investment Managers Paris	France	1.10	2.40	-	28.77	107.00	151.84	84.73	26.70	10.48	2.65	415.67
AXA Investment Managers UK	United Kingdom	-	178.17	-	323.01	187.63	1,485.12	127.72	281.91	35.27	45.52	2,664.36
AXA Powszechne Towarzystwo Emerytalne	Poland	3.12	-	1.77	-	51.19	217.28	-	4.41	117.29	-	395.06
AXA Rosenberg Investment Management	United States	11.23	57.55	2.56	297.47	62.78	496.22	130.34	112.38	486.73	59.77	1,717.04
AXA Rosenberg Investment Management	United Kingdom	0.13	6.50	-	33.98	19.03	62.94	8.75	24.52	48.40	17.20	221.45
AXA Towarzystwo Funduszy Inwestycyjnych	Poland	-	-	-	-	0.51	8.43	-	-	6.05	-	14.99
Kyobo AXA Investment Managers	South Korea	-	-	-	-	-	11.53	-	-	9.58	1.27	22.38
<b>Total fossil fuel investments</b>		<b>47.43</b>	<b>424.63</b>	<b>10.79</b>	<b>3,875.85</b>	<b>1,100.83</b>	<b>5,748.70</b>	<b>2,022.01</b>	<b>856.20</b>	<b>3,220.36</b>	<b>283.36</b>	<b>17,590.15</b>
Total shareholdings found												196,915.18
<b>% of total shareholdings found</b>												<b>8.93%</b>
Reported total AUM	(of which US\$ 619,427.00 are managed for third parties)											1,480,857.00
<b>% of reported total AUM</b>												<b>1.19%</b>

Source: Thomson Reuters Eikon, "Ownership - Investor Portfolio Report", viewed in February 2016; AXA (2016, March), Annual financial report 2015, p. 10.

## 5.2 Fossil fuel insurance underwriting activities

AXA, through AXA Corporate Solutions, is active in the fossil fuel underwriting sector through amongst others its business segments construction, energy & chemicals, infrastructure, marine and property. Each of these business segments is in some way involved in fossil fuel underwriting.

Construction insures power plant projects and other energy industry construction projects.<sup>37</sup>

From the 1<sup>st</sup> of January 2017, with energy & chemicals, AXA Corporate Solutions combines three lines of business and provides clients with property, liability and construction insurance services across 15 territories globally. AXA Corporate Solutions is already a market leader in the power generation and renewables sectors and will expand its underwriting scope into mid and downstream chemical risks. This new direction is aimed at broadening the support provided to clients in these symbiotic sectors. AXA will amongst others target petrochemical companies, gas plants, LNG liquefaction & regasification facilities, thermal power plants and gas turbines.<sup>38</sup>

The infrastructure business of AXA consists of four subsectors, one of them being power and utilities.<sup>39</sup>

With its marine business, AXA has a cargo coverage of 25% of the world's top 100 companies. Without any evidence of exclusion, this can be taken as evidence that they insure fossil fuel cargos.<sup>40</sup>

Through property, AXA has a leadership position in mature markets and provides coverage for a very wide range of industrial & service activities, including mining.<sup>41</sup>

AXA is an important player in Europe, but also in Latin America AXA provides consistent capacity and continues to be an active participant for power generation risks.<sup>42</sup> In Australasia, local market conditions are competitive, with AXA as one of the main insurers driving competition particularly for high-quality risks.<sup>43</sup> In Africa, AXA also provides insurance protection for risks generated by oil and gas activities through AXA Mansard.<sup>44</sup>

When all of the above is taken into account, the involvement of AXA in the fossil fuel underwriting sector can be classified as High.

## 5.3 Policy analysis

According to AXA, insurers can be game changers in the energy transition from fossil fuels to renewable energy, which they identify as wind, solar (photovoltaic and thermal), hydro, biomass, geothermal, and wave & tidal. AXA does not regard nuclear power as a sustainable solution for mitigating climate change.

For its own operations, AXA has set a carbon emissions reduction target of 25 percent per full-time equivalent for the period 2012-2020.

AXA also invests Research & Development capacity in climate change adaptation and mitigation, such as the development of a storm-prediction tool. The AXA Research Fund, the Science Philanthropy initiative of the AXA Group, supports global fundamental research to understand and better prevent environmental, human and socio economic risks. Since 2007, the fund has committed € 149 million to 492 research projects in 33 countries. In the category environmental risks, AXA supports around 100 fundamental research projects on climate risks, and aims to award € 35 million euros to such projects by 2018.<sup>45</sup>



### 5.3.1 Responsible investment

AXA is a signatory of PRI. The insurance company uses the following responsible investment instruments to facilitate the energy transition from fossil fuels to renewable energy:

- **ESG integration**

ESG integration is part of AXA's risk management system to mitigate portfolio risks and to optimise the ESG profile of the investment portfolio. AXA investment management has developed an ESG scoring tool, screening and monitoring around 5000 companies.

AXA defines five responsible investment themes:

- Sustainable Living;
- Financial Inclusion;
- Health & Wellbeing;
- Education & Training; and
- Environment & Climate Change Mitigation

AXA integrates environmental screening and performance standards in the selection and monitoring of its proprietary assets and assets under management for third parties.

For real estate, AXA set the target that by 2030, 75 percent of direct property assets under management will hold internationally recognised sustainability certifications, such as BREEAM, HQE and LEED. In 2016, AXA achieved certification of one third of real estate assets, while also developing a tool to assess the ESG performance of its wider portfolio of real estate assets.<sup>46</sup>

- **Engagement**

As part of its engagement strategies, AXA has joined 'Aiming for A', an initiative of the Investor Platform for Climate Actions. Aiming for A urges companies in the extractives sector to improve their reporting and disclosure regarding their contribution to the transition towards a low-carbon economy. In particular, in 2015 AXA pushed for improved disclosure and reporting through its engagement with BP, Royal Dutch Shell and Statoil. Following disclosure on Volkswagen's breaches around emissions, AXA engaged with companies in the automotive sector on compliance with key tailpipe emissions standards in the US and Europe.<sup>47</sup>

- **Voting**

AXA has a public voting policy, focusing on corporate governance issues and non-financial reporting, such as evaluating the impact of a company on human rights, the environment and climate change, and accounting for political contributions or lobbying payments. The insurance company also publishes its voting record. It does not articulate voting policies regarding investments in fossil fuels.<sup>48</sup>

- **Divestment and exclusion**

AXA has an exclusion policy based on the identification of environmental, social, ethical or human rights issues. Currently, the exclusion policy covers risk sectors as controversial weapons, coal mining, palm oil and soft commodities derivatives. Though AXA does not have dedicated sector policy for the extractives industry, it has a policy on divestment from coal-related activities. In 2015, AXA divested from the companies most exposed to coal-related activities, representing a divestment of € 0.5 billion.

Coal-related activities are defined by AXA as follows: mining companies and electric utilities deriving over 50% of their turnover from coal.<sup>49</sup>

- **Investments in renewables and impact investing**

To facilitate the energy transition, AXA uses its investment capacity to finance green, sustainable energy projects and infrastructure. AXA has set a target to reach € 3 billion of green investments by 2020, including green bonds, green infrastructure debt and equity and impact investments. In 2015, AXA launched a green bond fund and two new impact investment funds.<sup>50</sup>

- AXA World Funds Planet Bond (€ 65 million, enabling clients to invest in environmental projects that facilitate the energy transition);
- AXA Impact Investment Fund (€ 200 million, focusing on various social themes); and
- AXA Renewable Energy Fund (€ 155 million).

- **Target-setting and monitoring carbon footprint**

AXA does not require disclosure of fossil fuel investments. As a signatory of the Montreal pledge, AXA is monitoring the carbon footprint of its portfolio. In 2015, CO2 emissions decreased by 8 percent compared with 2014. The carbon intensity of investments amounted to 284 metric tons of CO2 per million dollars of revenue.<sup>51</sup>

### 5.3.2 Insurance underwriting activities

AXA decided in April 2017 that "for reasons of consistency", it would no longer offer property and casualty insurance ("except on an exceptional basis") to companies from which it had divested because more than 50% of their revenue is from coal. AXA is the first company to do so.<sup>52</sup>

AXA has developed products and services that promote more sustainable consumption patterns by using pricing mechanisms that favour low-carbon emissions.

Some examples:<sup>53</sup>

- A motor insurance product that encourages low emissions vehicles, using pricing models based on mileage and car type (hybrid, electric or fossil fuels).
- A custom-based private car lease package, using flexible car types based on specific needs (family holidays, commuting, etc.);
- Home insurance with environmental home appliances upgrades, in case of damage or loss;
- SME insurance packages favouring "green" buildings or car fleets.

Furthermore, AXA promotes the development of renewable energies via innovative policies covering the equipment and the revenues derived from electric energy. Its services for major Original Equipment Manufacturers (OEMs), contractors, renewable plant owners, operators and utilities include:

- Risk engineering for on and offshore projects;
- Review of method statements for transportation of critical key components; and
- Weather risk coverage.

In 2014, AXA launched a department entirely dedicated to parametric insurance, offering insurance products that protect customers exposed to weather risk. As renewable energy production directly depends on weather conditions, the insurance product covers revenue losses due to unfavourable weather conditions. According to AXA, the increase in weather anomalies experienced because of climate change means that production is more and more unpredictable, and securing investments is key. The cover is designed using an independent and verifiable index that is correlated to the company's cost structure or revenues. In many cases, the parameter is a weather index, such as wind speed, wave height, solar radiation, or rainfall. Once the index is reached, pay-out is triggered and the client receives compensation within a few days.<sup>54</sup>

## Chapter 6 Chubb

### 6.1 Investments in the fossil fuels sector

This section shows all investments in the fossil fuels sector that could be found. The investments are broken down into shareholdings and bondholdings. The fossil fuel investments that were found are compared with the total investments found and also with the total assets under management as reported by the insurance group itself. In this way we try to show the relative importance of fossil fuel investments for the insurance group. Table 15 summarizes the findings for Chubb.

**Table 15 Total fossil fuel investments (in US\$ million)**

Indicator	Total bondholdings	Total shareholdings	Total investments
<b>Fossil fuel investments</b>	<b>5,202.43</b>	<b>52.02</b>	<b>5.254,45</b>
Total investments found	45,331.23	227.78	45.559,01
<b>% of total investments found</b>	<b>11.48%</b>	<b>22.84%</b>	<b>11.53%</b>
Reported total AUM	N.A.	N.A.	N.A.
<b>% of reported total AUM</b>	<b>N.A.</b>	<b>N.A.</b>	<b>N.A.</b>

The next sections provide more detail on the investments in shares and bonds.

#### 6.1.1 Bondholdings

Table 16 shows the total bondholdings in fossil fuel related sectors as of the most recent filing dates. As can be seen, the total bondholdings in these sectors amount to US\$ 5.2 billion. This is 11.5% of the total bondholdings found. Chubb does not report its total assets under management.

**Table 16 Bondholdings in fossil fuel related sectors (in US\$ million)**

Investor	Country	Mining	Oil & gas	Utilities				Total
				Diversified	Electric	Natural gas	Unclassified	
ACE American Insurance Company	United States	19.21	164.29	71.13	198.30	21.38	1.54	475.85
Ace Capital Title Reinsurance Co	United States	-	-	-	6.22	-	-	6.22
ACE Fire Underwriters Insurance Company	United States	-	0.76	0.39	5.82	-	-	6.96
ACE Insurance Company (Puerto Rico)	United States	-	1.53	1.05	3.74	-	-	6.32
ACE Insurance Company of the Midwest	United States	-	0.34	0.39	2.25	1.00	-	3.97

Investor	Country	Mining	Oil & gas	Utilities				Total
				Diversified	Electric	Natural gas	Unclassified	
ACE Property & Casualty Insurance Co	United States	7.77	116.70	19.18	308.28	7.68	18.87	478.47
Agri General Insurance Company	United States	-	0.28	0.62	15.36	-	-	16.25
Atlantic Employers Insurance Company	United States	-	0.21	0.73	2.30	1.00		4.23
Bankers Standard Fire & Marine Company	United States	-	0.99	-	7.20	-	-	8.19
Bankers Standard Insurance Company	United States	-	1.34	1.92	13.75	1.00	-	18.01
Century Indemnity Company	United States	0.38	17.02	3.94	11.54	-	-	32.87
Combined Insurance Co of America	United States	10.75	38.89	7.41	21.49	2.05	-	80.59
Combined Life Insurance Co of New York	United States	0.38	11.29	2.40	4.96	0.42	-	19.44
Federal Insurance Co	United States	19.07	213.11	75.62	1,708.32	12.58	50.59	2,079.28
Illinois Union Insurance Company	United States	-	2.06	0.90	9.03	-	-	11.99
Indemnity Insurance Company of North America	United States	-	2.45	2.19	6.41	1.00	-	12.05
Insurance Company of North America	United States	-	9.00	0.39	14.73	2.00	-	26.12
Pacific Employers Insurance Company	United States	-	23.51	2.20	148.77	3.00	19.00	196.49
The Chubb Corporation	United States	27.50	154.00	111.09	1,189.59	22.00	10.00	1,514.18
Westchester Fire Insurance Company	United States	18.78	62.83	9.66	94.83	10.86	-	196.95
Westchester Surplus Lines Insurance Co	United States	-	4.15	2.88	1.00	-	-	8.02
<b>Total fossil fuel investments</b>		<b>103.82</b>	<b>824.74</b>	<b>314.06</b>	<b>3,773.85</b>	<b>85.96</b>	<b>99.99</b>	<b>5,202.43</b>
Total bondholdings found								45,331.23
<b>% of total bondholdings found</b>								<b>11.48%</b>
Reported total AUM								N.A.
<b>% of reported total AUM</b>								<b>N.A.</b>

Source: Thomson Reuters Eikon, "EMAXX - Firm Query", viewed in February 2016; Thomson Reuters Eikon, "EMAXX - Fund/Portfolio", viewed in February 2016.

### 6.1.2 Shareholdings

Table 17 shows the total shareholdings in fossil fuel related sectors as of the most recent filing dates. As can be seen, the total shareholdings in these sectors amount to US\$ 52.0 million. This is 22.8% of the total shareholdings found. Chubb does not report its total assets under management.

**Table 17 Shareholdings in fossil fuel related sectors (in US\$ million)**

Investor	Country	Coal	Mining		Oil & Gas				Utilities			Total
			Diversified	Services & equipment	Exploration & production	Integrated	Refining & marketing	Services & equipment	Diversified	Electric	Natural gas	
The Chubb Corporation	United States	-	-	-	-	15.29	25.83	10.90	-	-	-	52.02
<b>Total fossil fuel investments</b>		-	-	-	-	<b>15.29</b>	<b>25.83</b>	<b>10.90</b>	-	-	-	<b>52.02</b>
Total shareholdings found												227.78
<b>% of total shareholdings found</b>												<b>22.84%</b>
Reported total AUM												N.A.
<b>% of reported total AUM</b>												<b>N.A.</b>

Source: Thomson Reuters Eikon, "Ownership - Investor Portfolio Report", viewed in February 2016.

## 6.2 Fossil fuel insurance underwriting activities

Chubb is one of the leading global property insurers in the power market.<sup>55</sup> It is one of the key actors in the North American power sector and continues to be a strong player in the Latin American market.<sup>56</sup> Armed with local knowledge and good loss ratios, Chubb also is very active in the Middle East and North Africa.<sup>57</sup>

Chubb is active in the fossil fuel underwriting sector through its construction and energy business insurance segments.<sup>58</sup> The construction segment focuses amongst others on the construction of new energy plants, and on energy plant upgrades. It also targets maintenance of energy projects and utilities.<sup>59</sup> The energy segment provides insurance services for the mining, power and petroleum sectors.<sup>60</sup> Within the mining sector, one of the target clients are coal mining companies.<sup>61</sup> The power sector amongst others targets gas and coal-fired power facilities and electric and gas utilities, and the petroleum sector insurance services include services to oil and gas lease operators, drilling contractors and natural gas pipelines.<sup>62</sup>

When all of the above is taken into account, the involvement of Chubb in the fossil fuel underwriting sector can be classified as High.

### **6.3 Policy analysis**

In its annual report 2015, Chubb shows awareness about the fact that legal, regulatory and/or social responses to concerns around global climate change may affect its business and that the occurrence of more catastrophic events could have an adverse effect on its results of operations and financial conditions.<sup>63</sup>

Chubb does not have (public) policies or strategies linked to climate change for its own operations, insurance products and services and investment decisions.

#### **6.3.1 Responsible investment**

Currently, Chubb does not have (public) responsible investment policies nor does it report on sustainability issues. At the AGM of 2015, a group of investors requested that Chubb will publish an annual sustainability report describing the company's short- and long-term responses to ESG-related issues.<sup>64</sup> No (divestment) policies on fossil fuels are found and Chubb does not require disclosure of fossil fuel investments.

#### **6.3.2 Insurance underwriting activities**

Chubb offers insurance products covering risks related to fossil fuels such as claims for damage caused by (offshore) exploration and production of oil and gas. Mitigating climate change and supporting the energy transition is not part of Chubb's insurance products and services.<sup>65</sup>

## Chapter 7 Covéa

### 7.1 Investments in the fossil fuels sector

This section shows all investments in the fossil fuels sector that could be found. The investments are broken down into shareholdings and bondholdings. The fossil fuel investments that were found are compared with the total investments found and also with the total assets under management as reported by the insurance group itself. In this way we try to show the relative importance of fossil fuel investments for the insurance group. Table 18 summarizes the findings for Covéa.

**Table 18 Total fossil fuel investments (in US\$ million)**

Indicator	Total bondholdings	Total shareholdings	Total investments
<b>Fossil fuel investments</b>	<b>23.77</b>	<b>269.91</b>	<b>293.68</b>
Total investments found	860.00	4,473.00	5333.00
<b>% of total investments found</b>	<b>2.76%</b>	<b>6.03%</b>	<b>5.51%</b>
Reported total AUM	N.A.	N.A.	98,438.00
<b>% of reported total AUM</b>	<b>0.02%</b>	<b>0.27%</b>	<b>0.30%</b>

The next sections provide more detail on the investments in shares and bonds.

#### 7.1.1 Bondholdings

Table 19 shows the total bondholdings in fossil fuel related sectors as of the most recent filing dates. As can be seen, the total bondholdings in these sectors amount to US\$ 860.0 million. This is 2.8% of the total bondholdings found and 0.02% of the total assets under management as reported by the insurance group itself.

**Table 19 Bondholdings in fossil fuel related sectors (in US\$ million)**

Investor	Country	Mining	Oil & gas	Utilities				Total
				Diversified	Electric	Natural gas	Unclassified	
Covéa Finance SAS	France	0.67	7.05	10.78	0.67	5.28	-	23.77
<b>Total fossil fuel investments</b>		<b>0.67</b>	<b>7.05</b>	<b>10.78</b>	<b>0.67</b>	<b>5.28</b>	<b>-</b>	<b>23.77</b>
Total bondholdings found								860.00
<b>% of total bondholdings found</b>								<b>2.76%</b>
Reported total AUM								98,438.00
<b>% of reported total AUM</b>								<b>0.02%</b>

Source: Thomson Reuters Eikon, "EMAXX - Firm Query", viewed in February 2016; Thomson Reuters Eikon, "EMAXX - Fund/Portfolio", viewed in February 2016; Covea Finance (n.d.), "About us - Key figures", online: <http://www.covea-finance.com/about-us/key-figures#>, viewed in February 2017.



### 7.1.2 Shareholdings

Table 20 shows the total shareholdings in fossil fuel related sectors as of the most recent filing dates. As can be seen, the total shareholdings in these sectors amount to US\$ 269.9 million. This is 6.0% of the total shareholdings found and 0.3% of the total assets under management as reported by the insurance group itself.

**Table 20 Shareholdings in fossil fuel related sectors (in US\$ million)**

Investor	Country	Coal	Mining		Oil & Gas				Utilities			Total
			Diversified	Services & equipment	Exploration & production	Integrated	Refining & marketing	Services & equipment	Diversified	Electric	Natural gas	
Cov�a Finance S.A.S.	France	-	-	-	30.66	93.00	38.51	47.36	10.28	47.88	2.22	269.91
<b>Total fossil fuel investments</b>		-	-	-	<b>30.66</b>	<b>93.00</b>	<b>38.51</b>	<b>47.36</b>	<b>10.28</b>	<b>47.88</b>	<b>2.22</b>	<b>269.91</b>
Total shareholdings found												4,473.00
<b>% of total shareholdings found</b>												<b>6.03%</b>
Reported total AUM												98,438.00
<b>% of reported total AUM</b>												<b>0.27%</b>

Source: Thomson Reuters Eikon, "Ownership - Investor Portfolio Report", viewed in February 2016; Cov a Finance (n.d.), "About us - Key figures", online: <http://www.covea-finance.com/about-us/key-figures#>, viewed in February 2017.

## 7.2 Fossil fuel insurance underwriting activities

For Cov a, no information was found on any fossil fuel insurance underwriting activities, neither on their website, nor in those reports that were consulted. This leads to the assumption that Cov a is not an active participant or market leader, and is also not moderately involved in at least two countries. Therefore, the involvement of Cov a in the fossil fuel underwriting sector is classified as Low.

## 7.3 Policy analysis

On its website, Cov a states that it aims to reduce the environmental footprint of its own operations, such as energy reduction of offices buildings and responsible procurement policies.

### **7.3.1 Responsible investment**

Covéa has no comprehensive (public) responsible investment policies. On its website, the insurance company explains that it aims to reduce the environmental footprint of its real estate portfolio. With regard to the management of property investments, Covéa states that it aims for appropriate certification or labelling, during the construction, renovation or maintenance of buildings. No (divestment) policies on fossil fuels were found nor does Covéa require disclosure of fossil fuel investments.

### **7.3.2 Insurance underwriting activities**

Mitigating climate change and supporting the energy transition is to some extent part of Covéa's insurance products and services. Clients that drive low-emission, hybrid or electric cars get reductions on their car insurance premiums. With its mobile app "Eco-drive", Covéa subsidiary MAAF claim it can help drivers to reduce their fuel consumption by up to 20 percent.<sup>66</sup>

## Chapter 8 DZ Bank (R+V Versicherung)

### 8.1 Investments in the fossil fuels sector

This section shows all investments in the fossil fuels sector that could be found. The investments are broken down into shareholdings and bondholdings. The fossil fuel investments that were found are compared with the total investments found and also with the total assets under management as reported by the insurance group itself. In this way we try to show the relative importance of fossil fuel investments for the insurance group. Table 21 summarizes the findings for DZ Bank.

**Table 21 Total fossil fuel investments (in US\$ million)**

Indicator	Total bondholdings	Total shareholdings	Total investments
<b>Fossil fuel investments</b>	<b>834.22</b>	<b>3,461.96</b>	<b>4,296.18</b>
Total investments found	30,381.71	46,119.39	76,501.10
<b>% of total investments found</b>	<b>2.75%</b>	<b>7.51%</b>	<b>5.62%</b>
Reported total AUM	N.A.	N.A.	312,466.00
<b>% of reported total AUM</b>	<b>0.27%</b>	<b>1.11%</b>	<b>1.37%</b>

The next sections provide more detail on the investments in shares and bonds.

#### 8.1.1 Bondholdings

Table 22 shows the total bondholdings in fossil fuel related sectors as of the most recent filing dates. As can be seen, the total bondholdings in these sectors amount to US\$ 834.2 million. This is 2.8% of the total bondholdings found and 0.2% of the total assets under management as reported by the insurance group itself.

**Table 22 Bondholdings in fossil fuel related sectors (in US\$ million)**

Investor	Country	Mining	Oil & gas	Utilities				Total
				Diversified	Electric	Natural gas	Unclassified	
DZ Privatbank (Schweiz)	Switzerland	-	3.33	-	-	-	-	3.33
DZ Privatbank (Luxembourg)	Luxembourg	-	1.82	-	-	-	-	1.82
IPConcept (Luxembourg)	Luxembourg	0.70	0.47	0.33	0.44	0.40	-	2.35
Quoniam Asset Management	Germany	3.49	9.37	3.65	8.45	3.97	-	28.92
Union Investment Austria	Austria	3.32	4.78	1.15	3.20	0.39	0.44	13.28
Union Investment Institutional	Germany	4.91	32.86	11.67	14.30	-	-	63.74
Union Investment Luxembourg	Luxembourg	19.42	59.28	7.50	16.03	0.89	-	103.12

Investor	Country	Mining	Oil & gas	Utilities				Total
				Diversified	Electric	Natural gas	Unclassified	
Union Investment Privatfonds	Germany	50.82	316.61	39.85	180.34	16.45	4.03	608.09
Union Investment TFI	Poland	-	9.56	-	0.00	-	-	9.56
<b>Total fossil fuel investments</b>		<b>82.66</b>	<b>438.09</b>	<b>64.15</b>	<b>222.76</b>	<b>22.09</b>	<b>4.47</b>	<b>834.22</b>
Total bondholdings found								30,381.71
<b>% of total bondholdings found</b>								<b>2.75%</b>
Reported total AUM	(of which US\$ 201,682.88 is managed for third parties)							425,762.84
<b>% of reported total AUM</b>								<b>0.20%</b>

Source: Thomson Reuters Eikon, "EMAXX - Firm Query", viewed in February 2016; Thomson Reuters Eikon, "EMAXX - Fund/Portfolio", viewed in February 2016; LinkedIn (n.d.), "Union Investment", online: <https://www.linkedin.com/company/union-investment>, viewed in February 2017; DZ Bank (n.d.), "Group Management Report – DZ Privatbank", online: <http://www.annualreport.dzbank.com/management-report/dz-bank-group-fundamentals/dz-privatbank>, viewed in February 2017.

### 8.1.2 Shareholdings

Table 23 shows the total shareholdings in fossil fuel related sectors as of the most recent filing dates. As can be seen, the total shareholdings in these sectors amount to US\$ 3.5 billion. This is 7.5% of the total shareholdings found and 0.8% of the total assets under management as reported by the insurance group itself.

**Table 23 Shareholdings in fossil fuel related sectors (in US\$ million)**

Investor	Country	Coal	Mining		Oil & Gas				Utilities			Total
			Diversified	Services & equipment	Exploration & production	Integrated	Refining & marketing	Services & equipment	Diversified	Electric	Natural gas	
DZ Privatbank	Luxembourg	-	-	-	9.39	4.62	222.82	5.93		60.18	-	302.94
IPConcept (Luxemburg)	Luxembourg	-	1.00	0.02	5.95	15.98	17.46	6.57	3.83	20.50	2.08	73.40
Quoniam Asset Management	Germany	0.40	8.66	0.79	0.15	18.31	36.38	45.48	15.05	43.68	1.08	169.99
Union Investment Austria	Austria		0.46	-	1.08	5.56	10.45	3.18	1.41	4.54	0.35	27.03
Union Investment Luxembourg	Luxembourg	1.71	0.63	-	5.00	86.37	239.02	2.96	7.71	242.30	11.29	597.00

Investor	Country	Coal	Mining		Oil & Gas				Utilities			Total
			Diversified	Services & equipment	Exploration & production	Integrated	Refining & marketing	Services & equipment	Diversified	Electric	Natural gas	
Union Investment Privatfonds	Germany	4.43	20.16	-	299.93	413.18	637.14	97.45	269.61	501.67	13.90	2,257.46
Union Investment TFI	Poland	0.61	-	0.08	-	2.52	20.87	-	0.27	9.79	-	34.14
<b>Total fossil fuel investments</b>		<b>7.15</b>	<b>30.91</b>	<b>0.88</b>	<b>321.51</b>	<b>546.54</b>	<b>1,184.15</b>	<b>161.57</b>	<b>297.88</b>	<b>882.66</b>	<b>28.70</b>	<b>3,461.96</b>
Total shareholdings found												46,119.39
<b>% of total shareholdings found</b>												<b>7.51%</b>
Reported total AUM	(of which US\$ 201,682.88 is managed for third parties)											425,762.84
<b>% of reported total AUM</b>												<b>0.81%</b>

Source: Thomson Reuters Eikon, "Ownership - Investor Portfolio Report", viewed in February 2016; LinkedIn (n.d.), "Union Investment", online: <https://www.linkedin.com/company/union-investment>, viewed in February 2017; DZ Bank (n.d.), "Group Management Report – DZ Privatbank", online: <http://www.annualreport.dzbank.com/management-report/dz-bank-group-fundamentals/dz-privatbank>, viewed in February 2017.

## 8.2 Fossil fuel insurance underwriting activities

The insurance services of R+V Versicherung include insurance for construction, machinery and multilene.<sup>67</sup> This could very well include fossil fuel related activities. However, R+V Versicherung does not specifically mention fossil fuel related sectors, indicating that this is probably not one of their focus areas. No further information could be found on R+V's website or in the reports that were consulted. Therefore, the involvement of R+V Versicherung in the fossil fuel underwriting sector is classified as Low.

## 8.3 Policy analysis

R+V Versicherung (R+V) has a policy to reduce the environmental footprint of its own operations. It reports about results in terms of renewable energy use of its office buildings, the use of paper, and requirements in the selection of suppliers.<sup>68</sup> Furthermore, R+V is committed to comply with the principles of the UN Global Compact as its parent organisation DZ Bank Gruppe is member of the Global Compact Initiative.<sup>69</sup>

### 8.3.1 Responsible investment

R+V gives its clients the option to invest in responsible investment funds, based on, as stated by R+V, 'tailor-made best-in-class' and/or exclusion criteria such as nuclear energy, GMO technology, and weapons.<sup>70</sup> It has not established a general responsible investment policy which applies to all its investments on own account or asset management.

- **ESG integration**

R+V integrates ESG factors in the decision-making of companies selected or excluded as part of its responsible investment funds.

- **Engagement**

R+V does not report about engagement policies in place.

- **Voting**

R+V does not report about voting policies in place.

- **Divestment and exclusion**

For investments on own account, R+V excludes companies, particularly those involved in the production of controversial weapons, such as anti-personnel mines, mines, nuclear, biological and chemical weapons and cluster munitions. In addition, risky financial products for the commodity market are excluded (trade in options, futures and other derivatives).<sup>71</sup> R+V does not exclude or divest from the fossil fuels sector.

- **Investment in renewables and impact investing**

No information found.

- **Target-setting and monitoring carbon footprint**

R+V does not require disclosure of fossil fuel investments and has no targets to reduce the carbon footprint of its portfolio.

### 8.3.2 Insurance underwriting activities

R+V does not integrate ESG factors in the risk management of insurance transactions. R+V states that it supports the energy transition by offering insurance products for renewable energy infrastructure. It has established an in-house research and development centre for renewable energy insurance products and reports that it provides insurance to 126,000 solar energy installations, 1,200 wind turbines and 1,300 biogas installations.<sup>72</sup>

## Chapter 9 Generali

### 9.1 Investments in the fossil fuels sector

This section shows all investments in the fossil fuels sector that could be found. The investments are broken down into shareholdings and bondholdings. The fossil fuel investments that were found are compared with the total investments found and also with the total assets under management as reported by the insurance group itself. In this way we try to show the relative importance of fossil fuel investments for the insurance group. Table 24 summarizes the findings for Generali.

**Table 24 Total fossil fuel investments (in US\$ million)**

Indicator	Total bondholdings	Total shareholdings	Total investments
Fossil fuel investments	<b>1,813.63</b>	<b>719.23</b>	<b>2,532.86</b>
Total investments found	18,863.92	6,522.52	25,386.44
<b>% of total investments found</b>	<b>9.61%</b>	<b>11.03%</b>	<b>9.98%</b>
Reported total AUM	N.A.	N.A.	546,270.00
<b>% of reported total AUM</b>	<b>0.33%</b>	<b>0.13%</b>	<b>0.46%</b>

The next sections provide more detail on the investments in shares and bonds.

#### 9.1.1 Bondholdings

Table 25 shows the total bondholdings in fossil fuel related sectors as of the most recent filing dates. As can be seen, the total bondholdings in these sectors amount to US\$ 1.8 billion. This is 9.6% of the total bondholdings found and 0.3% of the total assets under management as reported by the insurance group itself.

**Table 25 Bondholdings in fossil fuel related sectors (in US\$ million)**

Investor	Country	Mining	Oil & gas	Utilities				Total
				Diversified	Electric	Natural gas	Unclassified	
BG SGR	Italy	10.38	1.80	-	6.22	-	-	18.40
Fortuna Investment	Switzerland	-	4.27	3.05	4.47	-	-	11.80
Generali Diversified USD Corp Bond	United States	-	273.25	233.77	260.96	29.80	-	797.77
Generali Investments Deutschland Kapitalanlagegesellschaft	Germany	-	184.27	40.01	101.57	25.23	1.11	352.18
Generali Investments Europe SGR	Italy	8.72	95.14	10.68	92.92	12.56	-	220.02
Generali Investments France	France	3.16	9.52	0.61	9.20	2.00	-	24.49

Investor	Country	Mining	Oil & gas	Utilities				Total
				Diversified	Electric	Natural gas	Unclassified	
Generali IS USD Investment Grade Corporate Bond	United States	-	203.03	55.97	104.16	11.89	-	375.03
Generali Konservativ	Austria	-	0.28	-	-	0.45	-	0.72
Generali USA Life Reassurance	United States	-	7.52	-	5.70	-	-	13.22
<b>Total fossil fuel investments</b>		<b>22.26</b>	<b>779.06</b>	<b>344.08</b>	<b>585.20</b>	<b>81.92</b>	<b>1.11</b>	<b>1,813.63</b>
Total bondholdings found								18,863.92
<b>% of total bondholdings found</b>								<b>9.61%</b>
Reported total AUM	(of which US\$ 48,425.00 are managed for third parties)							546,270.00
<b>% of reported total AUM</b>								<b>0.33%</b>

Source: Thomson Reuters Eikon, "EMAXX - Firm Query", viewed in February 2016; Thomson Reuters Eikon, "EMAXX - Fund/Portfolio", viewed in February 2016; Generali (2016, April), *Annual Integrated Report and Consolidated Financial Statements 2015*, p. 12, 116.

### 9.1.2 Shareholdings

Table 26 shows the total shareholdings in fossil fuel related sectors as of the most recent filing dates. As can be seen, the total shareholdings in these sectors amount to US\$ 719.2 million. This is 11.0% of the total shareholdings found and 0.1% of the total assets under management as reported by the insurance group itself.

**Table 26 Shareholdings in fossil fuel related sectors (in US\$ million)**

Investor	Country	Coal	Mining		Oil & Gas				Utilities			Total
			Diversified	Services & equipment	Exploration & production	Integrated	Refining & marketing	Services & equipment	Diversified	Electric	Natural gas	
BG Fund Management Luxembourg	Luxembourg	0.20	0.70	-	1.76	2.05	5.76	2.06	0.87	2.00	-	15.40
Generali Investments Asia	China	-	-	-	-	-	5.99	-	-	4.54	-	10.53
Generali Investments CEE	Czech Republic	-	0.41	-	5.39	4.85	16.31	3.60	4.91	11.12	1.02	47.60
Generali Investments Europe SGR	Italy	2.94	21.14	-	1.41	114.67	72.52	6.41	36.09	132.64	0.03	387.86



Investor	Country	Coal	Mining		Oil & Gas				Utilities			Total
			Diversified	Services & equipment	Exploration & production	Integrated	Refining & marketing	Services & equipment	Diversified	Electric	Natural gas	
Generali PTE	Poland	2.27	-	-	9.19	28.15	142.83	-	1.95	73.45	-	257.84
<b>Total fossil fuel investments</b>		<b>5.42</b>	<b>22.25</b>	<b>-</b>	<b>17.75</b>	<b>149.72</b>	<b>243.40</b>	<b>12.07</b>	<b>43.82</b>	<b>223.75</b>	<b>1.05</b>	<b>719.23</b>
Total shareholdings found												6.522,52
<b>% of total shareholdings found</b>												<b>11.03%</b>
Reported total AUM	(of which US\$ 48,425.00 are managed for third parties)											546,270.00
<b>% of reported total AUM</b>												<b>0.13%</b>

Source: Thomson Reuters Eikon, "Ownership - Investor Portfolio Report", viewed in February 2016; Generali (2016, April), *Annual Integrated Report and Consolidated Financial Statements 2015*, p. 12, 116.

## 9.2 Fossil fuel insurance underwriting activities

Generali Global Corporate & Commercial is the Generali group unit that develops the property and casualty business and insurance services for mid to large size businesses. It offers complete insurance solutions to clients and brokers in over 140 countries through eight main offices in Europe, Asia and the Americas.<sup>73</sup> The unit was launched in the beginning of 2013 with an initial focus on European countries where Generali was already highly active in the segment, such as Italy, France, Spain and the UK. After that, Generali intended to leverage its footprint in the rest of Europe, in the Latin America and in Asia-Pacific to serve new corporate clients locally.<sup>74</sup>

The UK team of the Generali Global Corporate & Commercial unit provides most detail as to where the unit focuses on. The UK casualty team has a portfolio that contains a large number of blue chip brands and niche specialists, with a particular focus on businesses with turnover in excess of £150 million in amongst other the sectors construction and utilities and power generation.<sup>75</sup> The global construction team focuses on amongst others power stations and industrial plants.<sup>76</sup> The marine team offers a global services cover for goods in transit for domestic and international manufacturers, importers and exporters, commodity traders, logistics companies, project cargo, stock throughput and more.<sup>77</sup>

When all of the above is taken into account, the involvement of Generali in the fossil fuel underwriting sector can be classified as High.

## 9.3 Policy analysis

For its own operations, Generali has a measurable target to reduce its greenhouse gas emissions by 20% by 2020 and publishes reduction performance data.<sup>78</sup>

### 9.3.1 Responsible investment

Generali is a signatory to the UN Global Compact Principles and PRI.

- **ESG integration**

Generali integrates ESG factors in investment analysis and decision-making. The insurance company has not developed responsible investment standards on the extractives and energy sector, and therefore, no policies regarding investments in fossil fuels.

- **Engagement**

Generali does not report about any engagement with the companies it invests in.

- **Voting**

Generali integrates ESG elements into its voting policies and behaviour. Neither the extractives industry nor the energy sector are particular focus areas.

- **Divestment and exclusion**

No information found.

- **Investments in renewables and impact investing**

Generali states that it is committed to contributing to the energy transition. For example, Generali France invested € 10 million in a sustainable investment product, Tera Neva, an equity-linked bond issued by the European Investment Bank designed to finance renewable energy and energy efficiency projects. In Italy, Generali has € 40 million euros invested in renewable energy projects (49% solar energy, 24% wind energy and 27% biomass).<sup>79</sup>

- **Target-setting and monitoring carbon footprint**

Generali shows some awareness for the need of an energy transition from a fossil-fuel based economy towards a renewable energy economy, but has not put that into concrete commitments or practices yet. In 2015, Generali established a task force to develop the most appropriate way of evaluating the carbon footprint of its financial portfolios and the related carbon risk, with the aim of "reducing our exposure to carbon-intensive securities (mainly companies that extract and produce coal and fossil fuels) through disinvestment activities and changes in the allocations of the portfolios. We are also considering allocating part of our private equity capital to investments in renewable energies." Furthermore, Generali has signed the Carbon Disclosure Project, in order to encourage its investees to disclose their carbon emissions. However, Generali does not monitor the carbon footprint of its investment portfolio and has not set a measurable target to reduce the GHG emissions related to investments. Generali does not require disclosure of fossil fuel investments.<sup>80</sup>

### 9.3.2 Insurance underwriting activities

ESG integration is not part of Generali's risk management of client and insurance transactions, but Generali has integrated environmental criteria in product development. These include the following products, which will be targeted at both corporate and individual clients:

- Third-party liability policies for pollution, covering the reimbursement of costs for emergency or temporary measures to prevent or limit indemnifiable damage;
- Policies for financial losses resulting from damage caused by pollution;
- Policies covering equipment for the generation of renewable energy, which may be extended to cover profits lost due to interrupted or reduced electricity generation;
- Discount rates to companies that are EMAS and ISO14001 certified;
- Third-party vehicle liability policies that provide discounts to clients insuring "green" vehicles or provide for low annual mileage;
- Insurance policies covering catastrophic damage caused by natural disasters;
- Advice for clients to help them identify opportunities to optimise energy usage in their homes.<sup>81</sup>

## Chapter 10 Lloyd's of London

### 10.1 Investments in the fossil fuels sector

This section shows all investments in the fossil fuels sector that could be found. The investments are broken down into shareholdings and bondholdings. The fossil fuel investments that were found are compared with the total investments found and also with the total assets under management as reported by the insurance group itself. In this way we try to show the relative importance of fossil fuel investments for the insurance group. Table 27 summarizes the findings for Lloyd's of London.

**Table 27 Total fossil fuel investments (in US\$ million)**

Indicator	Total bondholdings	Total shareholdings	Total investments
<b>Fossil fuel investments</b>	<b>7.49</b>	-	<b>7.49</b>
Total investments found	342.46	-	342.46
<b>% of total investments found</b>	<b>2.19%</b>	-	<b>2.19%</b>
Reported total AUM	N.A.	N.A.	N.A.
<b>% of reported total AUM</b>	<b>N.A.</b>	<b>N.A.</b>	<b>N.A.</b>

The next sections provide more detail on the investments in shares and bonds.

#### 10.1.1 Bondholdings

Table 28 shows the total bondholdings in fossil fuel related sectors as of the most recent filing dates. As can be seen, the total bondholdings in these sectors amount to US\$ 7.5 million. This is 2.2% of the total bondholdings found. Lloyd's of London does not report its total assets under management.

**Table 28 Bondholdings in fossil fuel related sectors (in US\$ million)**

Investor	Country	Mining	Oil & gas	Utilities				Total
				Diversified	Electric	Natural gas	Unclassified	
Underwriters at Lloyd's London	United States	-	7.49	-	-	-	-	7.49
<b>Total fossil fuel investments</b>		-	<b>7.49</b>	-	-	-	-	<b>7.49</b>
Total bondholdings found								342.46
<b>% of total bondholdings found</b>								<b>2.19%</b>
Reported total AUM								N.A.
<b>% of reported total AUM</b>								<b>N.A.</b>

Source: Thomson Reuters Eikon, "EMAXX - Firm Query", viewed in February 2016; Thomson Reuters Eikon, "EMAXX - Fund/Portfolio", viewed in February 2016.

### 10.1.2 Shareholdings

We did not find any shareholdings in the fossil fuels sector for Lloyd's of London or any of its subsidiaries. This does not necessarily mean that Lloyd's does not invest in the fossil fuels sector. It is more likely that we did not find any shareholdings due to a lack of transparency.

## 10.2 Fossil fuel insurance underwriting activities

Lloyd's is an insurance and reinsurance market where every day, more than 50 leading insurance companies, over 200 registered Lloyd's brokers and a global network of over 4,000 local coverholders operate in and bring business to the Lloyd's market.<sup>82</sup>

The business written at Lloyd's is brought to specialist syndicates, who price and underwrite risk, via brokers and coverholders. Much of the capital available at Lloyd's is provided on a subscription basis – where Lloyd's underwriters join together as syndicates and where syndicates join together to underwrite risks and programmes. This kind of collaboration, combined with the choice, flexibility and financial certainty of the market, makes Lloyd's the world's leading insurance platform.<sup>83</sup>

Lloyd's draws its considerable appetite in the power generation business from its many syndicates. However, this can vary, depending on the type of utility and location. In excess of US\$ 500 million liability capacity is generally available, with the syndicates having the additional security afforded by the Lloyd's central fund.<sup>84</sup>

Recently, a key feature of the construction power market has been the expansion of the Lloyd's Construction Consortium from four members to six, which, with the addition of Travelers and Novae, is now producing an overall capacity of US\$ 340 million.

Lloyd's also remains one of the leading power industry reinsurers.<sup>85</sup>

On its website, Lloyd's discusses how to identify the risk location of different classes of business, amongst others for casualty, construction, energy, marine and property. Within the energy section, oil refineries, oil rigs, oil wells and pipelines are mentioned.<sup>86</sup>

When all of the above is taken into account, the involvement of Lloyd's in the fossil fuel underwriting sector can be classified as High.

## 10.3 Policy analysis

Lloyds has set targets to reduce the carbon footprint of its operations and reports about its performance against these targets.<sup>87</sup>

### 10.3.1 Responsible investment

Lloyd's Central Fund (proprietary assets) invests across a range of different asset classes. For some of these investments, the role of investment manager has been outsourced to external firms. Four of the eight external investment managers of Central Fund assets are PRI signatories. The first principle requires managers to incorporate ESG issues into their investment analysis and decision-making processes and holds them accountable for this. Lloyd's does not have public responsible investment guidelines. The company is quite aware of the risks involved with 'stranded assets' in case insurance companies do not keep pace with the transition to a low carbon economy in their investment decisions. In February 2017, Lloyds published a report on this issue.<sup>88</sup>

- **ESG integration**

No information found.

- **Engagement and voting**

Since 2008, Lloyd's has engaged service provider Foreign & Colonial to engage with companies it invests in on its own account and to exercise its voting rights in pursuit of environmental, social and governance issues. A focus area is encouraging positive action on climate change, asking for better management of emissions and for the development of enhanced climate change strategies. Lloyd's reports on the number of companies it engages with and publishes a voting record (in number of votes). In 41 instances, ESG practices were reformed/improved as result of engagement/voting.<sup>89</sup>

- **Investment in renewables and impact investing**

Lloyd's Treasury & Investment Management (LTIM) directly manages the Central Fund's investment-grade fixed income assets and invested in green bonds for the Central Fund at the end of 2015. Green bonds are a financial instrument for organisations to raise capital for projects or activities that claim to benefit the economy, environment or society.

Along with investing in green bonds, LTIM has also limited the purchases of investment grade bonds in the oil and gas sector.<sup>90</sup>

- **Divestment and exclusion**

LTIM has limited Lloyd's investments in corporate bonds in the oil and gas sector. Lloyd's does not provide further details on its investment policies regard fossil fuels. Lloyd's does not have a (public) divestment or exclusion policy for fossil fuels but in some cases, it divested from a company involved in fossil fuel power generation, for instance from Hong Kong China Gas, when it created a 'New Energy' division focusing on coal to liquid and other sources of energy in China.<sup>91</sup>

- **Target-setting and monitoring carbon footprint**

Lloyd's does not require disclosure of fossil fuel investments and has no targets to reduce the carbon footprint of its portfolio.

### **10.3.2 Insurance underwriting activities**

Climate change is integrated in catastrophe risk modelling for risk selection and underwriting, development of mitigation strategies, design of risk transfer mechanisms, portfolio optimisation, pricing, reinsurance decision-making and capital setting.<sup>92</sup>

## Chapter 11 Mapfre

### 11.1 Investments in the fossil fuels sector

This section shows all investments in the fossil fuels sector that could be found. The investments are broken down into shareholdings and bondholdings. The fossil fuel investments that were found are compared with the total investments found and also with the total assets under management as reported by the insurance group itself. In this way we try to show the relative importance of fossil fuel investments for the insurance group. Table 29 summarizes the findings for Mapfre.

### Table 29 Total fossil fuel investments (in US\$ million)

Indicator	Total bondholdings	Total shareholdings	Total investments
<b>Fossil fuel investments</b>	<b>244.09</b>	<b>109.40</b>	<b>353.49</b>
Total investments found	2,978.67	572.70	3,551.37
<b>% of total investments found</b>	<b>8.20%</b>	<b>19.10%</b>	<b>9.95%</b>
Reported total AUM	N.A.	N.A.	80,085.00
<b>% of reported total AUM</b>	<b>0.30%</b>	<b>0.14%</b>	<b>0.44%</b>

The next sections provide more detail on the investments in shares and bonds.

### 11.1.1 Bondholdings

Table 30 shows the total bondholdings in fossil fuel related sectors as of the most recent filing dates. As can be seen, the total bondholdings in these sectors amount to US\$ 244.1 million. This is 8.2% of the total bondholdings found and 0.3% of the total assets under management as reported by the insurance group itself.

**Table 30 Bondholdings in fossil fuel related sectors (in US\$ million)**[illegible]

Investor	Country	Mining	Oil & gas	Utilities				Total
				Diversified	Electric	Natural gas	Unclassified	
Reported total AUM	(of which US\$ 41,426 is managed for third parties)							80,085.00
% of reported total AUM								0.30%

Source: Thomson Reuters Eikon, "EMAXX - Firm Query", viewed in February 2016; Thomson Reuters Eikon, "EMAXX - Fund/Portfolio", viewed in February 2016; Mapfre (2016, March), *Annual Report 2015*, p. 42, 70.

### 11.1.2 Shareholdings

Table 31 shows the total shareholdings in fossil fuel related sectors as of the most recent filing dates. As can be seen, the total shareholdings in these sectors amount to US\$ 109.4 million. This is 19.1% of the total shareholdings found and 0.7% of the total assets under management as reported by the insurance group itself.

**Table 31 Shareholdings in fossil fuel related sectors (in US\$ million)**

Investor	Country	Coal	Mining		Oil & Gas				Utilities			Total
			Diversified	Services & equipment	Exploration & production	Integrated	Refining & marketing	Services & equipment	Diversified	Electric	Natural gas	
Mapfre Distribuidora de Títulos e Valores Mobiliários	Brazil	-	-	-	-	1.25	0.03	-	-	0.04	-	1.32
Mapfre Inversión Dos, S.G.I.I.C.	Spain	-	3.01	-	0.66	19.10	31.18	5.54	11.70	30.00	6.88	108.08
<b>Total fossil fuel investments</b>			<b>3.01</b>	<b>-</b>	<b>0.66</b>	<b>20.36</b>	<b>31.21</b>	<b>5.54</b>	<b>11.70</b>	<b>30.04</b>	<b>6.88</b>	<b>109.40</b>
Total shareholdings found												572.70
% of total shareholdings found												<b>19.10%</b>
Reported total AUM	(of which US\$ 41,426 is managed for third parties)											80,085.00
% of reported total AUM												<b>0.14%</b>

Source: Thomson Reuters Eikon, "Ownership - Investor Portfolio Report", viewed in February 2016; Mapfre (2016, March), *Annual Report 2015*, p. 42, 70.



## 11.2 Fossil fuel insurance underwriting activities

Mapfre Global Risks offers insurance solutions for large companies and has a wide experience derived from leading international programmes through its service network that operates in over 100 countries worldwide. It is operating in amongst others the construction, energy and mining business segments.<sup>93</sup>

In the energy business segment, Mapfre Global Risks specializes in covering the insurance needs of companies whose main activity is in the electricity sector. Mapfre is currently leader on a Spanish level and has a large international presence.<sup>94</sup> Within the power market, Mapfre Global Risks is one of the main global property insurers, based on its ability to deploy capacity and issue paper on a global basis.<sup>95</sup>

Mapfre Global Risks is also a leader in offering oil and gas global insurance solutions to the large companies in the sector. This accounted for more than 40 % of its business in 2015. Both the upstream and downstream activities of the oil and gas industry are covered for the most complex risks: material damage, business interruption, exploration and production, transport and liability, and professional and environmental liability.<sup>96</sup>

In the Latin American power market, Mapfre is demonstrating a strong appetite for power generation risks and is becoming very important in respect of thermal power plants. Approximately US\$ 1.3 billion in capacity resides in Madrid and is available for business emanating from Latin America.<sup>97</sup>

As for the power and utilities property segment, in April 2015 Mapfre moved its access points for non-Spain and non-Latin American domiciled business to London, and also announced its ability to underwrite North American business. Capacity deployed is up to US\$ 50 million for North America domiciled risks and more for international business.<sup>98</sup>

When all of the above is taken into account, the involvement of Mapfre in the fossil fuel underwriting sector can be classified as High.

## 11.3 Policy analysis

Mapfre has developed a CSR policy for its own operations, client relations and investments, which includes human rights, fiscal responsibility, transparency and the environment. The CSR policy also mentions international standards the group is committed to.

Mapfre adheres to the UN Global Compact and the United Nations Environment Program Financial Initiative (UNEPFI). Furthermore, in all countries the group operates in, it states the aim to comply with current national and international laws, and to adopt complementary international rules and guidelines such as the OECD Guidelines for MNEs and International Labour Organization (ILO) agreements, wherever there is not a sufficient or appropriate domestic legal framework.

For its own operations, Mapfre aims to minimize the consumption of water, paper and energy, reduce the generation of waste and encourage recycling in its business facilities, as well as to promote the use of renewable energies and the offsetting of greenhouse gases emissions. Mapfre has developed a public CSR policy and publishes an annual CSR report, which include information about its carbon footprint.<sup>99</sup>

### 11.3.1 Responsible investment

Mapfre has developed a CSR policy including investments, and adheres to international standards (see 11.3), but has not elaborated public responsible investment standards.<sup>100</sup>

- **ESG integration**

Mapfre integrates ESG factors in its investment decisions.<sup>101</sup> It does not have detailed energy transition policies.

- **Engagement**

Mapfre does not report about engagement policies in place.

- **Voting**

Mapfre does not report about voting policies in place.

- **Divestment and exclusion**

Mapfre does not have a divestment or exclusion policy regarding investments in fossil fuels.

- **Investment in renewables**

Mapfre does not provide information about investments in renewables.

- **Impact investment**

Mapfre does not have an impact-investing programme.

- **Target-setting and monitoring carbon footprint**

Mapfre does not require disclosure of fossil fuel investments and has no targets to reduce the carbon footprint of its portfolio.

On request of its clients, Mapfre is willing to calculate and report the carbon footprint of products and services for companies in the Mapfre portfolio. This does not include the carbon footprint of its investment portfolio.<sup>102</sup>

### 11.3.2 Insurance underwriting activities

Mapfre does not integrate ESG factors in underwriting. With regard to product development, Mapfre aims to develop products and services that contribute to improving environmental risk management and sustainable energy consumption.<sup>103</sup>

## Chapter 12 Munich Re (Ergo)

## 12.1 Investments in the fossil fuels sector

This section shows all investments in the fossil fuels sector that could be found. The investments are broken down into shareholdings and bondholdings. The fossil fuel investments that were found are compared with the total investments found and also with the total assets under management as reported by the insurance group itself. In this way we try to show the relative importance of fossil fuel investments for the insurance group. Table 32 summarizes the findings for Munich Re.

**Table 32 Total fossil fuel investments (in US\$ million)**

Indicator	Total bondholdings	Total shareholdings	Total investments
<b>Fossil fuel investments</b>	<b>1,774.46</b>	<b>393.22</b>	<b>2,167.68</b>
Total investments found	23,601.67	3,532.96	27,134.63
<b>% of total investments found</b>	<b>7.52%</b>	<b>11.13%</b>	<b>7.99%</b>
Reported total AUM	N.A.	N.A.	250,301.00
<b>% of reported total AUM</b>	<b>0.71%</b>	<b>0.16%</b>	<b>0.87%</b>

The next sections provide more detail on the investments in shares and bonds.

### 12.1.1 Bondholdings

Table 33 shows the total bondholdings in fossil fuel related sectors as of the most recent filing dates. As can be seen, the total bondholdings in these sectors amount to US\$ 1.8 billion. This is 7.5% of the total bondholdings found and 0.7% of the total assets under management as reported by the insurance group itself.

**Table 33 Bondholdings in fossil fuel related sectors (in US\$ million)**

Investor	Country	Mining	Oil & gas	Utilities				Total
				Diversified	Electric	Natural gas	Unclassified	
MEAG Munich ERGO Kapitalanlagegesellschaft	Germany	10.61	23.08	0.89	16.39	0.31	0.17	51.45
MEAG New York Corporation	United States	55.79	724.50	288.52	562.27	47.82	44.11	1,723.01
Total fossil fuel investments		66.40	747.58	289.41	578.66	48.13	44.28	1,774.46
Total bondholdings found								23,601.67
% of total bondholdings found								7.52%
Reported total AUM	(of which US\$ 15,405.00 is managed for third parties)							250,301.00
% of reported total AUM								0.71%

Source: Thomson Reuters Eikon, "EMAXX - Firm Query", viewed in February 2016; Thomson Reuters Eikon, "EMAXX - Fund/Portfolio", viewed in February 2016; Munich Re (n.d.), "The group – Portrait", online: <https://www.munichre.com/en/group/company/portrait/index.html>, viewed in February 2017; Munich Re (2016, April), *Group Annual Report 2015*, p. 72.

### 12.1.2 Shareholdings

Table 34 shows the total shareholdings in fossil fuel related sectors as of the most recent filing dates. As can be seen, the total shareholdings in these sectors amount to US\$ 393.22 million. This is 11.1% of the total shareholdings found and 0.2% of the total assets under management as reported by the insurance group itself.

**Table 34 Shareholdings in fossil fuel related sectors (in US\$ million)**

Investor	Country	Coal	Mining		Oil & Gas				Utilities			Total
			Diversified	Services & equipment	Exploration & production	Integrated	Refining & marketing	Services & equipment	Diversified	Electric	Natural gas	
MEAG Munich ERGO Kapitalanlagegesellschaft	Germany	0.15	6.35	-	59.91	23.60	100.18	47.35	31.00	124.69	-	393.22
<b>Total fossil fuel investments</b>		<b>0.15</b>	<b>6.35</b>	<b>-</b>	<b>59.91</b>	<b>23.60</b>	<b>100.18</b>	<b>47.35</b>	<b>31.00</b>	<b>124.69</b>	<b>-</b>	<b>393.22</b>
Total shareholdings found												3,532.96
<b>% of total shareholdings found</b>												<b>11.13%</b>
Reported total AUM	(of which US\$ 15,405.00 is managed for third parties)											250,301.00
<b>% of reported total AUM</b>												<b>0.16%</b>

Source: Thomson Reuters Eikon, "Ownership - Investor Portfolio Report", viewed in February 2016; Munich Re (n.d.), "The group – Portrait", online: <https://www.munichre.com/en/group/company/portrait/index.html>, viewed in February 2017; Munich Re (2016, April), *Group Annual Report 2015*, p. 72.

## 12.2 Fossil fuel insurance underwriting activities

Within the power market, Munich Re is one of the main global property insurers, based on their ability to deploy capacity and issue paper on a global basis. Munich Re is not a particularly active participant in the casualty insurance power market, although it does offer up to US\$ 50 million in capacity.<sup>104</sup>

With over 50 insurers underwriting construction, most, if not all, consider the power industry as one of their primary focus areas. One of the leading reinsurers in this segment remains Munich Re.<sup>105</sup> Likewise, one of the key actors in the power sector in North America remains Munich American.<sup>106</sup>

Munich Re has a special energy division, which is managed by Munich Re Syndicate. An experienced, expert team has been underwriting this energy account at Munich Re Syndicate for over 20 years and is now recognised as one of the market leaders in this class of business throughout the London and international energy insurance markets. The team delivers technical underwriting for the sector throughout the cycle. The product lines written include physical damage operators' extra expense, loss of production income and coverage for construction projects. Munich Re Syndicate also has an in-house resource for risk management which can be utilised for site surveys, asset reviews and as a client technical liaison. The Munich Re client base encompasses a broad range of operators and contractors.<sup>107</sup>

When all of the above is taken into account, the involvement of Munich Re in the fossil fuel underwriting sector can be classified as High.

### **12.3 Policy analysis Ergo**

The Ergo Group has developed time-bound targets to reduce the carbon footprint of its operations and reports about results. From 2016, group operations aim to be completely carbon-neutral, by reducing energy consumption and purchasing green electricity.<sup>108</sup>

#### **12.3.1 Responsible investment**

Ergo is part of Munich Re, and through its parent company has signed the UN Principles for Responsible Investment (PRI) Principles for Sustainable Insurance (PSI). Ergo applies the responsible investment guidelines of Munich Re, handled by its asset manager MEAG, see 12.4.1.<sup>109</sup>

#### **12.3.2 Insurance underwriting activities**

Ergo has integrated ESG aspects in its underwriting guidelines, by means of an ESG audit list for underwriters on systematic assessment of each new product based on ESG criteria. It has developed additional position papers on sensitive issues, such as fracking, mining and drilling in the Arctic. The ESG criteria define what Ergo insures and what it does not insure. For instance, Ergo does not support oil drilling in the Arctic.<sup>110</sup>

Ergo encourages sustainable consumer behaviour by offering discounts on car insurance for vehicles with low fuel consumption and electric cars.

Furthermore, Ergo facilitates the energy transition by offering insurance products for renewable energy infrastructure. Ergo's product range includes cover for photovoltaic systems, wind energy, hydroelectric power, biogas, geothermal systems as well as for fuel cells and their specific requirements. Its homeowners' insurance automatically covers claims under the insured perils – for example fire or storm – to photovoltaic, solar and heat-pump systems used for private purposes.<sup>111</sup>

### **12.4 Policy analysis Munich Re**

Munich Re seems to be quite aware of the risks involved with climate change. Through public statements and press releases, the insurance company expresses its concerns about an increase of catastrophe losses caused by extreme weather. Munich Re has set up a special research and development department to analyse the consequences of climate change and to come up with recommendations for action for the group.<sup>112</sup>

Munich Re aimed for carbon neutrality throughout its business operations by 2015. The work of the entire reinsurance group and subsidiary ERGO Germany has been carbon-neutral since 2012 and major locations of ERGO International (Munich Re subsidiary, also part of this research, see section 12.3) were incorporated into this strategy in 2013 and 2014. The insurance company aims to achieve carbon neutrality in three stages:<sup>113</sup>

- Reduction of emissions from Munich Re business operations (i.e. from energy consumption, travel, paper, water and refuse) by 10 percent in the period from 2009 to 2015;
- Replacement of fossil energy sources by renewable sources (e.g. green power); and
- The remaining emissions will be compensated by purchasing emission certificates.

#### 12.4.1 Responsible investment

Munich Re is a signature of PRI, PSI and the UN Global Compact Initiative.<sup>114</sup>

- **ESG integration**

ESG integration is part of Munich Re's responsible investment strategy. According to Munich Re, companies are selected by a best-in-class approach, by using the screening methodology of various sustainability-rating agencies, e.g. Sustainalytics, Oekom, MSCI, Vigeo and RobecoSAM. The insurance company has drafted position papers and assessment tools on sensitive topics:<sup>115</sup>

- Banned Weapons
- Cluster Munition and Land Mines
- Large infrastructure projects
- Oils sands
- Fracking
- Mining
- Arctic Oil Drilling.

- **Engagement**

Engagement is part of Munich Re's responsible investment strategy. The aim here is to motivate companies to improve their ESG rating or achieve a positive ESG rating for the first time.<sup>116</sup>

- **Voting**

Munich Re does not report about voting policies in place.<sup>117</sup>

- **Divestment and exclusion**

Exclusion is only used as a responsible investment strategy for the sustainable equity fund of MEAG. Producers of tobacco, alcoholic beverages, and arms and weapons are excluded, as well as companies in the gambling industry.<sup>118</sup> There is no divestment policy for fossil fuels.

- **Investment in renewables and impact investing**

Munich Re has been investing for a number of years in renewable energies, providing private-sector capital to finance infrastructure.<sup>119</sup>

- **Target-setting and monitoring carbon footprint**

Munich Re does not require disclosure of fossil fuel investments and has no targets to reduce the carbon footprint of its portfolio.

#### 12.4.2 Insurance underwriting activities

The impacts of climate change and facilitating the energy transition are also taken into account in Munich Re's insurance products and services. Examples include the development of insurance products in the field of technology (renewable energies, new technologies), as well as coverage concepts in the agriculture sector and protection against weather risks based on parametric triggers.<sup>120</sup> Insurance products for renewable energies not only cover damage or losses, but also risks such as fluctuations in wind resource or solar irradiation, or the inadequate productivity of hot water in the case of geothermal drilling. These risks have a direct influence on investment returns. According to Munich Re "the transfer of these risks to the insurance market improves the plannability of cash flows, thereby supporting business models and investment in technologies for a low-carbon future."<sup>121</sup>

Munich Re not only integrates ESG factors in investment decisions but also in underwriting decision making procedures, using them in particular for risk assessment of major infrastructure projects. In 2013, the insurance company developed an ESG questionnaire for engineering projects. To help underwriters in the assessment of corporate client risks, position papers and risk management tools on controversial technologies, activities and products have been developed, concerning issues such as:

- Engineering for large infrastructure projects;
- Oil sands;
- Fracking;
- Mining;
- Arctic oil drilling;
- Investments in farmland.

There are no reported cases of exclusion from insurance products because of involvement in controversial activities.<sup>122</sup>

## Chapter 13 SCOR

### 13.1 Investments in the fossil fuels sector

This section shows all investments in the fossil fuels sector that could be found. The investments are broken down into shareholdings and bondholdings. The fossil fuel investments that were found are compared with the total investments found and also with the total assets under management as reported by the insurance group itself. In this way we try to show the relative importance of fossil fuel investments for the insurance group. Table 35 summarizes the findings for SCOR.

### Table 35 Total fossil fuel investments (in US\$ million)

Indicator	Total bondholdings	Total shareholdings	Total investments
Fossil fuel investments	167.78	-	167.78
Total investments found	3,537.80	-	3,537.80
% of total investments found	4.74%	-	4.74%
Reported total AUM	N.A.	N.A.	19,666.00
% of reported total AUM	0.85%	N.A.	0.85%

The next sections provide more detail on the investments in shares and bonds.

### 13.1.1 Bondholdings

Table 36 shows the total bondholdings in fossil fuel related sectors as of the most recent filing dates. As can be seen, the total bondholdings in these sectors amount to US\$ 167.8 million. This is 4.7% of the total bondholdings found and 0.9% of the total assets under management as reported by the insurance group itself.

**Table 36 Bondholdings in fossil fuel related sectors (in US\$ million)**[illegible]



Investor	Country	Mining	Oil & gas	Utilities				Total
				Diversified	Electric	Natural gas	Unclassified	
Reported total AUM	(of which 1,639.00 is managed for third parties)							19,666.00
% of reported total AUM								0.85%

Source: Thomson Reuters Eikon, "EMAXX - Firm Query", viewed in February 2016; Thomson Reuters Eikon, "EMAXX - Fund/Portfolio", viewed in February 2016; SCOR (2016, April), *Activity Report 2015*, p. 32.

### 13.1.2 Shareholdings

We did not find any shareholdings in the fossil fuels sector for SCOR or any of its subsidiaries. This does not necessarily mean that SCOR does not invest in the fossil fuels sector. It is more likely that we did not find any shareholdings due to a lack of transparency.

## 13.2 Fossil fuel insurance underwriting activities

Within the power market, SCOR is one of the main global property insurers, based on its ability to deploy capacity and issue paper on a global basis.<sup>123</sup> It remains one of the key actors in the power sector in North America.<sup>124</sup> SCOR also remains one of the leading constructions reinsurers in the power market.<sup>125</sup>

In Latin America, SCOR is a key insurer in the property power market, although because of a new rule in Brazil it is focusing more on risks coming from countries such as Colombia, Argentina, and Chile.<sup>126</sup>

SCOR Business Solutions, a division of SCOR Global P&C, is exclusively dedicated to corporate clients, providing property, casualty, engineering, and captive risk transfer solutions. SCOR Business Solutions has established leadership as a globally recognized franchise and is committed to providing (re)insurance solutions for complex risks faced by energy, natural resources, industrial and commercial companies around the world.<sup>127</sup>

Within the casualty segment, SCOR Business Solutions provides energy and natural resources casualty products designed for organizations operating in the following sectors:<sup>128</sup>

- Oil and gas exploration and production;
- Oil and gas contractors;
- Oil and gas services;
- Midstream;
- Refining;
- Petrochemicals;
- Power;
- Utilities;
- Integrated energy organisations.

Also within the mining sector, SCOR is active in almost every commodity, including coal.<sup>129</sup>

When all of the above is taken into account, the involvement of SCOR in the fossil fuel underwriting sector can be classified as High.

### 13.3 Policy analysis

SCOR has a public target aimed at limiting the environmental footprint of its own operations and reports about the results.<sup>130</sup>

#### 13.3.1 Responsible investment

SCOR is a signatory of the UN Global Compact Initiative and Principles for Sustainable Insurance (PSI). Its responsible investment (RI) policy is based on four pillars:<sup>131</sup>

- A robust governance and compliance framework;
- A human capital policy based on global, harmonized and non-discriminatory policies;
- Preservation of the environment; and
- Corporate citizenship.

Real estate is a focus area for responsible investment. Over the past five years, SCOR has pursued a real estate investment policy that includes the acquisition of environmentally certified offices and the implementation of far-reaching renovation aimed at improving the energy performance and reducing GHG emissions of its real estate investment portfolio.<sup>132</sup>

- **ESG integration**

SCOR has no comprehensive (public) RI policies. The focus point of SCOR is reducing the carbon footprint of its real estate investments.

- **Engagement**

SCOR does not report about engagement policies.

- **Voting**

SCOR does not report about voting policies.

- **Divestment and exclusion**

In November 2015, the SCOR group announced its divestment from companies deriving more than 50% of their turnover from coal and undertakes, across its entire asset portfolio, and that it would make no new financial investments in such companies in the future.<sup>133</sup>

- **Investment in renewables and impact investing**

SCOR invests in low carbon projects through its debt funds. SCOR has invested € 930 million in low-carbon projects and has set the goal of investing more than € 500 million in corporate real estate and infrastructure by 2020, focussing on the purchase of environmentally certified office buildings and the implementation of far-reaching renovation programs for existing property. SCOR also integrates carbon considerations into the other asset classes under its management.<sup>134</sup>

- **Target-setting and monitoring carbon footprint**

SCOR does not require disclosure of fossil fuel investments and has no targets to reduce the carbon footprint of its portfolio.

### **13.3.2 Insurance underwriting activities**

SCOR is aware of the insurance risks involved with climate change and carries out climate research and risk modelling. Furthermore, SCOR is involved in the consultation surrounding the G7's InsuResilience initiative. This project aims to increase access to insurance coverage against the impacts of climate change for up to 400 million of the most vulnerable people in developing countries by 2020, and to support the development of early warning systems.<sup>135</sup>

## Chapter 14 Swiss Re

### 14.1 Investments in the fossil fuels sector

This section shows all investments in the fossil fuels sector that could be found. The investments are broken down into shareholdings and bondholdings. The fossil fuel investments that were found are compared with the total investments found and also with the total assets under management as reported by the insurance group itself. In this way we try to show the relative importance of fossil fuel investments for the insurance group. Table 37 summarizes the findings for Swiss Re.

**Table 37 Total fossil fuel investments (in US\$ million)**

Indicator	Total bondholdings	Total shareholdings	Total investments
<b>Fossil fuel investments</b>	<b>3,971.77</b>	-	<b>3,971.77</b>
Total investments found	35,415.84	-	35,415.84
<b>% of total investments found</b>	<b>11.21%</b>	-	<b>11.21%</b>
Reported total AUM	N.A.	N.A.	N.A.
<b>% of reported total AUM</b>	<b>N.A.</b>	<b>N.A.</b>	<b>N.A.</b>

The next sections provide more detail on the investments in shares and bonds.

#### 14.1.1 Bondholdings

Table 38 shows the total bondholdings in fossil fuel related sectors as of the most recent filing dates. As can be seen, the total bondholdings in these sectors amount to US\$ 4.0 billion. This is 11.2% of the total bondholdings found. Swiss Re does not report its total assets under management.

**Table 38 Bondholdings in fossil fuel related sectors (in US\$ million)**

Investor	Country	Mining	Oil & gas	Utilities				Total
				Diversified	Electric	Natural gas	Unclassified	
Employers Reassurance Corporation (ERAC)	United States	20.00	428.73	497.77	878.15	157.10		1,981.75
ReAssure	United Kingdom	1.99	8.06	5.47	14.43		3.58	33.53
Swiss Re Financial Services Corporation	United States	33.48	432.46	61.04	189.99	72.60	5.32	794.88
Swiss Re Life & Health America Inc	United States	38.45	475.93	81.10	179.14	75.09	12.40	862.10
Swiss Reinsurance America Corp	United States	6.83	108.18	12.91	44.12	25.61	0.34	197.97

Investor	Country	Mining	Oil & gas	Utilities				Total
				Diversified	Electric	Natural gas	Unclassified	
Westport Insurance Corp	United States	2.35	43.94	4.36	36.35	7.85		94.85
Windsor Life NM Corporate Bond	United Kingdom	0.40	1.61	1.09	2.87		0.71	6.68
<b>Total fossil fuel investments</b>		<b>103.51</b>	<b>1,498.89</b>	<b>663.73</b>	<b>1,345.05</b>	<b>338.25</b>	<b>22.34</b>	<b>3,971.77</b>
Total bondholdings found								35,415.84
<b>% of total bondholdings found</b>								<b>11.21%</b>
Reported total AUM								N.A.
<b>% of reported total AUM</b>								<b>N.A.</b>

Source: Thomson Reuters Eikon, "EMAXX - Firm Query", viewed in February 2016; Thomson Reuters Eikon, "EMAXX - Fund/Portfolio", viewed in February 2016.

### 14.1.2 Shareholdings

We did not find any shareholdings in the fossil fuels sector for Swiss Re or any of its subsidiaries. This does not necessarily mean that Swiss Re does not invest in the fossil fuels sector. It is more likely that we did not find any shareholdings due to a lack of transparency.

## 14.2 Fossil fuel insurance underwriting activities

Swiss Re remains one of the key actors in the North American power sector.<sup>136</sup> This is not surprising, since within the global power market, Swiss Re is one of the main global property insurers, based on its ability to deploy capacity and issue paper on a global basis.<sup>137</sup> Swiss Re also remains one of the leading constructions reinsurers in the power market.<sup>138</sup>

As for casualty insurance, Swiss Re Corporate Solutions has a maximum capacity of approximately US\$ 100 million. As an important participant in this market, it is able to provide insurance policies with less potential total costs than some other insurers.<sup>139</sup>

Swiss Re Corporate Solutions, the commercial insurance arm of Swiss Re, among others offers corporations in the energy, power and mining sector a comprehensive array of risk transfer solutions.<sup>140</sup> These include risks associated with the construction and operation of oil and gas, petrochemical, power and mining projects.<sup>141</sup>

When all of the above is taken into account, the involvement of Swiss Re in the fossil fuel underwriting sector can be classified as High.

## 14.3 Policy analysis

Swiss Re has set time-bound and measurable targets to reduce the carbon footprint of its operations and reports about results.<sup>142</sup>

### 14.3.1 Responsible investment

Swiss Re is a signature of PRI, PSI and the UN Global Compact Initiative.<sup>143</sup>

- **ESG integration**

Swiss Re integrates ESG factors in the risk management of its investments for its own account (insurance premiums). The insurance company has developed a Sustainability Risk Framework consisting of overarching human rights and environmental protection policies and seven policies on sensitive sectors or issues:

- The defence industry;
- Oil and gas (including oil sands);
- Mining;
- Dams;
- Animal testing;
- Forestry, pulp & paper and oil palm; and
- Nuclear weapons proliferation.

Each policy contains a number of predefined criteria and qualitative standards that may also lead to the exclusion of a company or a country from Swiss Re's investment universe.<sup>144</sup>

- **Engagement**

Swiss Re does not report about engagement policies in place.

- **Voting**

Swiss Re has developed a voting policy, as part of its responsible investment policy, and reports about results (in terms of number of votes and voting behaviour: whether in favour of management or not in favour, withheld or abstained). Swiss Re does not give a breakdown of its voting record by topic or industry.<sup>145</sup>

- **Divestment and exclusion**

Swiss Re avoids and divests from companies which derive a substantial part of their revenues from thermal coal, with the objectives of actively mitigating the risk of stranded assets over the long term. In its policy, the insurance company does not give an objective definition of 'substantial part of revenues from thermal coal'.<sup>146</sup>

Furthermore, Swiss Re applies the following exclusion criteria:<sup>147</sup>

- Involvement in banned arms and weapons;
- Verifiable complicity in systemic, repeated and severe human rights violations;
- Causing repeated, severe and unmitigated damage to the environment;
- Unregulated proliferation of nuclear weapons; and
- Unethical/cruel animal testing practices.

- **Investment in renewables and impact investing**

Swiss Re has committed to facilitating a lower carbon economy by investing in the green bond market. It aims to invest a total of US\$ 1 billion in green bonds. Furthermore, renewables and social infrastructure investments are the largest sub-sector in its infrastructure mandate.<sup>148</sup>

- **Target-setting and monitoring carbon footprint**

Swiss Re does not require disclosure of fossil fuel investments and has no targets to reduce the carbon footprint of its portfolio.

### 14.3.2 Insurance underwriting activities

Regarding its insurance underwriting activities, the following sustainability strategies can be differentiated:

- **ESG integration**

Swiss Re integrates ESG factors in its underwriting activities and states that it does not engage in:<sup>149</sup>

- Mining projects involved in:
  - Violations of human rights, labour rights and health and safety considerations;
  - Child labour;
  - Involuntary or uncompensated relocations of the local population;
  - Location of mines in UNESCO World Heritage Sites or protected areas.
- Oil and gas projects with high risks of unresolved environmental damage and human rights violations:
  - Off-shore drilling in the Arctic;
  - Shale oil and gas hydraulic fracturing operations with undisclosed information on emissions and fracking fluids;
  - Oil sands greenfield mining;
  - Projects in regions exposed to high physical water scarcity in countries designated as weak regulatory environments;
  - Unmitigated venting or flaring of gas where economically viable alternatives exist.
- Companies which do not disclose their greenhouse gas emission performance and strategy via an independent platform such as the Carbon Disclosure Project.

The ESG factors are part of due diligence procedures conducted by Swiss Re as part of decision-making on insurance contracts. Additional due diligence is also carried out on projects that may have experienced operational accidents with an impact on the environment in the past.<sup>150</sup> In 2015, based on due diligence, Swiss Re advised negatively on insurance cover in 32 cases and gave positive recommendations with conditions in 24 cases.<sup>151</sup>

- **Exclusion**

Based on the criteria of Swiss Re's Sustainability Risk Framework, companies active in the following sectors are excluded from re/insurance transactions:<sup>152</sup>

- Involvement in banned arms and weapons;
- Verifiable complicity in systemic, repeated and severe human rights violations;
- Causing repeated, severe and unmitigated damage to the environment;
- Unregulated proliferation of nuclear weapons; and
- Unethical/cruel animal testing practices.

- **Product development**

The insurance company provides risk covers for complex offshore wind farm projects and in its own words is considered a "lead market" for offshore wind risks.<sup>153</sup> In the last five years, Swiss Re Corporate Solutions has participated in more than 30 offshore wind projects, including wind farms, standalone offshore substations and standalone export cables. In 2015, Swiss Re was involved in 18 offshore wind farm projects worldwide and was the lead re/insurer in eight of them.<sup>154</sup>

## Chapter 15 Talanx (Hannover Re)

### 15.1 Investments in the fossil fuels sector

This section shows all investments in the fossil fuels sector that could be found. The investments are broken down into shareholdings and bondholdings. The fossil fuel investments that were found are compared with the total investments found and also with the total assets under management as reported by the insurance group itself. In this way we try to show the relative importance of fossil fuel investments for the insurance group. Table 39 summarizes the findings for Talanx.

### Table 39 Total fossil fuel investments (in US\$ million)

Indicator	Total bondholdings	Total shareholdings	Total investments
<b>Fossil fuel investments</b>	<b>583.39</b>	<b>64.06</b>	<b>647.45</b>
Total investments found	5,651.78	1,015.11	6,666.89
<b>% of total investments found</b>	<b>10.32%</b>	<b>6.31%</b>	<b>9.71%</b>
Reported total AUM	N.A.	N.A.	159,292.00
<b>% of reported total AUM</b>	<b>0.37%</b>	<b>0.04%</b>	<b>0.41%</b>

The next sections provide more detail on the investments in shares and bonds.

### 15.1.1 Bondholdings

Table 40 shows the total bondholdings in fossil fuel related sectors as of the most recent filing dates. As can be seen, the total bondholdings in these sectors amount to US\$ 583.4 million. This is 10.3% of the total bondholdings found and 0.4% of the total assets under management as reported by the insurance group itself.

**Table 40 Bondholdings in fossil fuel related sectors (in US\$ million)**

Investor	Country	Mining	Oil & gas	Utilities				Total
				Diversified	Electric	Natural gas	Unclassified	
Ampega Investment	Germany	5.20	87.28	22.42	50.62	5.89	2.00	173.40
Clarendon National Insurance Co	United States	2.42	19.61	4.65	11.23	-	-	37.90
Hannover Life Reassurance Company of America	United States	11.98	157.51	57.61	86.86	17.68	6.00	337.63
HDI - Gerling America Insurance Co	United States	-	10.25	1.56	22.15	0.50	-	34.46
Total fossil fuel investments		19.60	274.64	86.23	170.85	24.07	8.00	583.39
Total bondholdings found								5,651.78



Investor	Country	Mining	Oil & gas	Utilities				Total
				Diversified	Electric	Natural gas	Unclassified	
% of total bondholdings found								10.32%
Reported total AUM								159,292.00
% of reported total AUM								0.37%

Source: Thomson Reuters Eikon, "EMAXX - Firm Query", viewed in February 2016; Thomson Reuters Eikon, "EMAXX - Fund/Portfolio", viewed in February 2016; Talanx Asset Management (n.d.), "Company profile – Facts", online: <https://www.talanx-asset.com/en/company-profile/facts/index.html>, viewed in February 2017.

### 15.1.2 Shareholdings

Table 41 shows the total shareholdings in fossil fuel related sectors as of the most recent filing dates. As can be seen, the total shareholdings in these sectors amount to US\$ 64.1 million. This is 6.3% of the total shareholdings found and just above 0.0% of the total assets under management as reported by the insurance group itself.

**Table 41 Shareholdings in fossil fuel related sectors (in US\$ million)**

Investor	Country	Coal	Mining		Oil & Gas				Utilities			Total
			Diversified	Services & equipment	Exploration & production	Integrated	Refining & marketing	Services & equipment	Diversified	Electric	Natural gas	
Ampega Investment	Germany	0.65	1.34	-	0.11	7.25	14.91	11.25	3.03	14.64	0.19	53.37
Talanx Asset Management	Germany	-	-	-	-	5.17	0.86	0.83	1.46	2.38	-	10.70
<b>Total fossil fuel investments</b>		<b>0.65</b>	<b>1.34</b>	<b>-</b>	<b>0.11</b>	<b>12.42</b>	<b>15.77</b>	<b>12.08</b>	<b>4.49</b>	<b>17.01</b>	<b>0.19</b>	<b>64.06</b>
Total shareholdings found												1,015.11
<b>% of total shareholdings found</b>												<b>6.31%</b>
Reported total AUM												159,292.00
<b>% of reported total AUM</b>												<b>0.04%</b>

Source: Thomson Reuters Eikon, "Ownership - Investor Portfolio Report", viewed in February 2016; Talanx Asset Management (n.d.), "Company profile – Facts", online: <https://www.talanx-asset.com/en/company-profile/facts/index.html>, viewed in February 2017.

## 15.2 Fossil fuel insurance underwriting activities

In Europe, HDI, a Talanx brand, is in a period of growth, expanding its power team.<sup>155</sup> HDI continues to provide its US\$ 100 million capacity out of its headquarters in Hannover to the property power market in Europe. It is expanding its power and energy portfolio in the form of new business offers as well as increased participations.<sup>156</sup>

With respect to the property power market, HDI has appointed a head of underwriting for Latin American business (except Brazil and Mexico), which is based in Spain, as well as a new underwriter in Chile reporting to Spain.<sup>157</sup> In Australasia, local market conditions in the power market are competitive, with HDI as one of the main insurers driving competition, particularly for high-quality risks.<sup>158</sup>

Inter-Hannover, a subsidiary of Hannover Re, provides insurance support both for power construction projects and operational assets. It targets small independent power producers, as well as large utility corporations. Inter-Hannover's portfolio includes fossil fuel power stations.<sup>159</sup>

HDI Global offers companies from the trading, production and service industries insurance solutions. It provides solutions for amongst others property and business disruption and engineering and construction.<sup>160</sup> This could very well include fossil fuel related underwriting activities, but this is not discussed separately on the company's website.

In the property insurance segment, Hannover Re is involved in insurance against fire, machine breakdown, business interruption and natural disasters. It does not specify if this includes fossil fuel related companies. As for casualty insurance, Hannover Re possesses expert knowledge in the lines energy on- and offshore including the corresponding construction and liability covers, financial lines and inherent defects insurance. Energy onshore consists of the classes of business oil & gas, mining and power generation while energy offshore (incl. construction offshore) deals with risks related to oil production.<sup>161</sup>

When all of the above is taken into account, the involvement of Talanx (Hannover Re) in the fossil fuel underwriting sector can be classified as High.

## 15.3 Policy analysis Hannover Re

Hannover Re set the goal of operating internally on a climate-neutral basis by the year 2015 and monitors progress upon which it publicly reports. The insurance company claimed that it came close to achieving this goal to a level of 97 percent in 2015, by, among others things, switching to the use of renewable energy, sustainable procurement and offsetting carbon emissions of (air) travel.<sup>162</sup>

### 15.3.1 Responsible investment

Hannover Re has developed a Responsible Investment Policy in 2011, which was updated in 2016. The policy is not publicly available.<sup>163</sup>

- **ESG integration**

Hannover Re integrates ESG factors in its investment decisions, primarily guided by the ten principles of the United Nations Global Compact. In the choice of investments, Hannover Re applies a best-in-class approach, as well as excluding companies that are violation of the UN Global Compact principles.<sup>164</sup>

- **Engagement**

Hannover Re does not report about engagement policies in place.

- **Voting**

Hannover Re is committed to using its influence on a company's sustainability orientation through the exercise of voting rights. However, the effect is rather limited as the proportion of listed equities in its asset portfolio is only 1 percent of Hannover Re's total investments. The insurance company gives this as the reason why it has not adopted any voting guidelines on environmental and social issues. It has, however, stated that it will revisit the topic of "active ownership" if the proportion of listed equities in its total portfolio increases significantly.<sup>165</sup>

- **Divestment and exclusion**

Aside from violations of the criteria of the UN Global Compact, Hannover Re also avoids exposures to issuers who are involved in the development and proliferation of controversial weapons.<sup>166</sup> Hannover does not have exclusion or divestment policies regarding fossil fuels.

- **Investment in renewables and impact investing**

No information found.

- **Target-setting and monitoring carbon footprint**

Hannover Re does not require disclosure of fossil fuel investments and has no targets to reduce the carbon footprint of its portfolio.

### 15.3.2 Insurance underwriting activities

To understand the impact of climate change and how it effects insurance risks, Hannover Re is involved in risk modelling. It does this with other businesses, universities and others. With regard to the insurance market, Hannover Re has developed insurance products for renewable technology and products that protect against risks resulting from climate change, in particular for the agricultural sector. These products take into account climate models and extreme weather conditions.<sup>167</sup>

Hannover Re does not integrate ESG factors in the risk assessment of corporate clients.

## 15.4 Policy analysis Talanx

The sustainability strategy of Talanx applies to all subsidiaries and divisions, except the reinsurance subsidiary Hannover Re, which has developed its own strategy and publishes its own sustainability report (see section 15.3).

Part of its sustainability strategy is the development of goals and measures to reduce the environmental and carbon footprint of its operations, and to implement them. Talanx monitors current consumption and emission levels and publicly reports the outcomes.<sup>168</sup>

### 15.4.1 Responsible investment

Talanx's responsible investment policy can be described as follows.

- **ESG integration**

Over the long-term, Talanx states that it aims to integrate sustainability criteria in its investment decisions, such as respect for human rights and labour standards, environmental protection and anti-corruption. For 2016, Talanx has set the goal of developing a procedure for group-wide ESG screening of investments. As the Socially Responsible Investment Report 2016 has not been published yet, it is not possible to verify to what extent this goal has been implemented.<sup>169</sup> On the one hand, Talanx aims to minimise potential negative impacts, for example by not investing in certain countries or business areas. On the other hand, the Group wants its actions to promote overall positive impacts.<sup>170</sup>

- **Engagement**

Talanx is in the process of developing a responsible investment policy.

- **Voting**

Talanx is in the process of developing a responsible investment policy.

- **Divestment and exclusion**

As part of the development of an ESG screening methodology, Talanx has defined negative screening (exclusion) criteria for alternative asset classes (e.g. infrastructure investments and real estate). Once the methodology is implemented, no investments may be made in nuclear power projects, projects relating to animals (e.g. zoos and safari parks), assets involving significant levels of pollution or assets associated with controversial business models (e.g. gambling).<sup>171</sup> Talanx has no exclusion or divestment policy regarding fossil fuels.

- **Investment in renewables and impact investing**

Investments in renewable energy infrastructure is part of Talanx investment in the asset classes 'infrastructure' and 'alternative investments'. In September 2015, Talanx invested in its first offshore wind power project. Acting as the lead manager of a consortium of institutional investors, the insurer structured a bond of € 556 million to finance the Gode Wind 1 wind farm in the North Sea. Talanx subscribed for approximately € 300 million of the aggregate principal amount (roughly 60 percent). According to Talanx, this is the first time that a consortium of institutional investors lead-managed by an insurer, instead of an investment bank, has financed an offshore wind power project. Talanx also has direct infrastructure investments in a number of wind farms in Germany and France.

In the case of real estate investments by the group, the goal for direct purchases is to invest in certified buildings (e.g. buildings that have been awarded DGNB, LEED or BREEAM certificates).<sup>172</sup>

- **Target-setting and monitoring carbon footprint**

Talanx is in the process of developing a responsible investment policy. To date, the insurance company does not require disclosure of fossil fuel investments and does not monitor the carbon footprint of its investments.

#### 15.4.2 Insurance underwriting activities

Talanx is aware of the potential indirect ecological and social impacts of the insurance business. Therefore, over the long-term, the insurance company aims to integrate sustainability criteria in insurance products and services. To date, the implementation of ecological and social guidelines is not an explicit part of client and project assessment and auditings.<sup>173</sup>

In spite of not having a group-wide ESG framework in place, a number of products from Talanx' insurance companies support environmentally friendly products and technologies or encourage sustainable consumption behaviour, including: <sup>174</sup>

- Environmental liability insurance

Under the German Environmental Damage Act, entities, traders and self-employed professionals are liable for emissions and events that result in damage to protected species and natural habitats (biodiversity), water and the soil. For example, their services help ensure that environmental risks are insured and that, in case of loss, the impact can be remedied or mitigated. Commercial environmental insurance covers such damage and the costs of recovery measures.

- Car and motor insurance

The tariff structures used in Talanx's motor insurance policies favours low average annual mileage. Insurance against environmental damage is offered in the areas of motor and third-party liability insurance.

- Life insurance

Talanx subsidiary HDI Lebensversicherung AG offers sustainable investment funds as part of its unit-linked annuity insurance, among others for investments in environmental technology companies.

- Insurance for renewable energy structure

Talanx's engineering insurance offers insurance to renewable energy infrastructure (onshore and offshore wind power projects, photovoltaics and geothermal energy). Furthermore, they offer insurance products that cover prototype development, such as for tidal power plants. Customers in the renewable energies, photovoltaics and solar cells areas are offered marine insurance.

## Chapter 16 Unipol

### 16.1 Investments in the fossil fuels sector

We did not find any bond- or shareholdings in the fossil fuels sector for Unipol or any of its subsidiaries. This does not necessarily mean that Unipol does not invest in the fossil fuels sector. It is more likely that we did not find any investments due to a lack of transparency.

### 16.2 Fossil fuel insurance underwriting activities

We did not find any information on fossil fuel related insurance underwriting activities for Unipol. This leads to the assumption that Unipol is no active participant or market leader and is also not moderately involved in at least two countries. Therefore, the involvement of Unipol in the fossil fuel underwriting sector is classified as Low.

### 16.3 Policy analysis

Unipol has set measurable targets to reduce the CO<sub>2</sub> emissions of its own operations, in terms of limiting it to 3.4 ton annually per employee by 2018. In 2015, CO<sub>2</sub> emissions amounted to 4.1 ton per employee.<sup>175</sup>

#### 16.3.1 Responsible investment

Unipol has developed a responsible investment strategy, which can be described as follows.

- **ESG integration**

Unipol takes into account ESG criteria in its investment decisions, which are based on the principles of the UN Global Compact. These criteria are applied to investments worth over € 56 billion, corresponding to 85 percent of assets under management (direct and indirect).

Screening takes place at a quarterly basis with the support of the external consultant ECPI S.r.l. At the end of 2015, 99.2 percent of the investments met the screening criteria. The remaining 0.8 percent of the portfolio was monitored on a quarterly basis and was made up partly of securities that did not meet the requirements and partly of securities that had not been assessed by the sustainability consultant.<sup>176</sup>

Within the Responsible Investment strategic framework, the Group focuses particularly on its real estate investment portfolio.<sup>177</sup>

- **Engagement**

Unipol does not report about engagement policies in place.

- **Voting**

Unipol does not report about engagement policies in place.

- **Divestment and exclusion**

Companies are excluded from Unipol's investments on its own account and for third parties (asset management) if, directly or through subsidiaries, they are involved in the following activities:<sup>178</sup>

- Manufacturing of unconventional weapons of mass destruction such as cluster bombs, anti-personnel mines, nuclear weapons, biological weapons, chemical weapons and other controversial weapons;
- Serious or systematic infringements of human rights, such as homicide, torture and deprivation of freedom, and employment rights, such as forced labour and forms of child labour exploitation;
- Serious environmental damage, where the company has not demonstrated that they have developed a strategy for the effective management of the company's environmental impact, do not place attention to the strategy and environmental management, or to the impact of products and the production process;
- Serious episodes of bribery, and where they do not demonstrate that they have developed a social strategy and a system of governance for the proper management of relations with the various stakeholders;
- Gambling to a prevalent extent.

Unipol does not have an exclusion or divestment policy regarding fossil fuels, such as coal, gas and oil.

- **Investment in renewables and impact investing**

In various ways, Unipol is involved in impact investing:

- Alternative Investments and Other Investments

Unipol has set a maximum percentage of five percent of total investments in so-called 'Alternative Investments' and 'Other Investments' (real assets may not exceed 1 percent).

This asset class covers investments in physical and tangible assets (other than real estate) whose value depends on profitability and that, over a medium to long-term timeframe, pursue social responsibility goals (forestry, alternative energy, infrastructure, etc.).<sup>179</sup>

- Themed Investments

Furthermore, Unipol has thematic funds to invest in the Green Economy (called Themed Investments) such as the Ambienta and Energheia funds, directed at companies in the renewable-energy sector.<sup>180</sup>

Unipol does not have an exclusion or divestment policy regarding fossil fuels, such as coals, gas and oil.

- **Target-setting and monitoring carbon footprint**

Unipol does not require disclosure of fossil fuel investments and does not monitor the carbon footprint of its investments.

### 16.3.2 Insurance underwriting activities

Analysing and mitigating the impact of climate change on the insurance sector is part of the research and development activities of Unipol Gruppo. On the one hand, climate change will increase the company's risks, and on the other hand, Unipol is aware of the market opportunities available to them through product innovation to address emerging climate impacts. To better monitor these dynamics, in 2014 Unipol set up an interdisciplinary workgroup to study the impact of climate change on Unipol's home country and major market, Italy.

As a result, Unipol drafted a strategic group position paper on climate change, accompanied by intensive advocacy activity aimed at defining a clear and unambiguous regulation (and practice) to manage natural disasters. Unlike most European countries, in Italy the traditional model for managing damage caused by catastrophic events is solely public in nature. Currently, Unipol is busy developing a market valid insurance coverage for flooding risk and catastrophic events. UnipolSai, the insurance branch of Unipol Gruppo, has launched a project to mitigate climate change risks and to improve protection and insurance coverage in case of natural disasters. Furthermore, Unipol has developed insurance products for renewable energy systems such as products for the protection of photovoltaic systems.<sup>181</sup>

Unipol does not exclude sectors or companies from insurance policies.



## Chapter 17 Zurich

### 17.1 Investments in the fossil fuels sector

This section shows all investments in the fossil fuels sector that could be found. The investments are broken down into shareholdings and bondholdings. The fossil fuel investments that were found are compared with the total investments found and also with the total assets under management as reported by the insurance group itself. In this way we try to show the relative importance of fossil fuel investments for the insurance group. Table 42 summarizes the findings for Zurich.

**Table 42 Total fossil fuel investments (in US\$ million)**

Indicator	Total bondholdings	Total shareholdings	Total investments
<b>Fossil fuel investments</b>	<b>3,279.26</b>	<b>405.92</b>	<b>3,685.18</b>
Total investments found	36,726.44	3,822.05	40,548.49
<b>% of total investments found</b>	<b>8.93%</b>	<b>10.62%</b>	<b>9.09%</b>
Reported total AUM	N.A.	N.A.	254,210.00
<b>% of reported total AUM</b>	<b>1.29%</b>	<b>0.16%</b>	<b>1.45%</b>

The next sections provide more detail on the investments in shares and bonds.

#### 17.1.1 Bondholdings

Table 43 shows the total bondholdings in fossil fuel related sectors as of the most recent filing dates. As can be seen, the total bondholdings in these sectors amount to US\$ 3.3 billion. This is 8.9% of the total bondholdings found and 1.3% of the total assets under management as reported by the insurance group itself.

**Table 43 Bondholdings in fossil fuel related sectors (in US\$ million)**

Investor	Country	Mining	Oil & gas	Utilities				Total
				Diversified	Electric	Natural gas	Unclassified	
21st Century Insurance Co	United States	4.57	22.73	-	47.18	1.90	-	76.38
21st Century North America Insurance Co	United States	1.15	3.00	-	18.27	-	-	22.42
21st Century Security Insurance Co	United States	-	-	-	3.82	-	-	3.82
American Guarantee & Liability Insurance Co	United States	-	1.70	4.91	0.60	-	-	7.21
American Zurich Insurance Co	United States	-	1.45	2.50	2.80	-	-	6.75



Investor	Country	Mining	Oil & gas	Utilities				Total
				Diversified	Electric	Natural gas	Unclassified	
% of total bondholdings found								8.93%
Reported total AUM								254,210.00
% of reported total AUM								1.29%

Source: Thomson Reuters Eikon, "EMAXX - Firm Query", viewed in February 2016; Thomson Reuters Eikon, "EMAXX - Fund/Portfolio", viewed in February 2016; Zurich Insurance (2016, February), *Annual Report 2015*, p. 115.

### 17.1.2 Shareholdings

Table 44 shows the total shareholdings in fossil fuel related sectors as of the most recent filing dates. As can be seen, the total shareholdings in these sectors amount to US\$ 405.9 million. This is 10.6% of the total shareholdings found and 0.2% of the total assets under management as reported by the insurance group itself.

**Table 44 Shareholdings in fossil fuel related sectors (in US\$ million)**

Investor	Country	Coal	Mining		Oil & Gas				Utilities			Total
			Diversified	Services & equipment	Exploration & production	Integrated	Refining & marketing	Services & equipment	Diversified	Electric	Natural gas	
Zurich Administradora General de Fondos	Chile	-	-	-	-	-	0.47	-	-	2.09	-	2.56
Zurich Insurance Group	Switzerland	-	-	-	63.18	-	108.10	56.91	-	113.60	-	341.79
Zurich Life Assurance	Ireland	-	-	-	-	-	46.20	0.63	-	14.74	-	61.58
<b>Total fossil fuel investments</b>		-	-	-	<b>63.18</b>	-	<b>154.77</b>	<b>57.54</b>	-	<b>130.43</b>	-	<b>405.92</b>
Total shareholdings found												3,822.05
<b>% of total shareholdings found</b>												<b>10.62%</b>
Reported total AUM												254,210.00
<b>% of reported total AUM</b>												<b>0.16%</b>

Source: Thomson Reuters Eikon, "Ownership - Investor Portfolio Report", viewed in February 2016; Zurich Insurance (2016, February), *Annual Report 2015*, p. 115.

## 17.2 Fossil fuel insurance underwriting activities

Within the power market, Zurich is one of the main global property insurers, based on its ability to deploy capacity and issue paper on a global basis.<sup>182</sup> It remains one of the key actors in the power sector in North America.<sup>183</sup>

As for casualty insurance within the power market, Zurich has proven to be a significant insurer in the utilities space and is in it for the long term. It frequently underwrites global activities (with the ability to issue numerous local policies) and is the lead underwriter in these cases, offering limits up to US\$ 100 million, dependent upon type of risk and location.<sup>184</sup>

Armed with local knowledge and good loss ratios, Zurich also is actively seeking business in the Middle East and North Africa.<sup>185</sup>

Zurich provides onshore and offshore energy solutions worldwide. These solutions include onshore property, casualty, and exploration and production coverage.<sup>186</sup> It has experience in dealing with:

- Oil;
- Gas;
- Chemicals;
- Petrochemicals;
- Power generation;
- Refining;
- Mining;
- Gas plants;
- Construction;
- Terminals;
- Storage facilities;
- Power facilities;
- Onshore and offshore drilling and production operations;
- Equipment manufacturing for oil, gas, mining and utility industries;
- Oil field services;
- Pipelines.

When all of the above is taken into account, the involvement of Zurich in the fossil fuel underwriting sector can be classified as High.

## 17.3 Policy analysis

Zurich has set reduction targets for the environmental footprint of its own operations and reports about results. According to Zurich, its operations have been carbon neutral since 2014. In 2015, over 40 percent of the power used for its operations worldwide came from renewable sources (solar, wind and hydropower). The insurance company aims to increase that percentage to 100 percent by 2020.<sup>187</sup>

### 17.3.1 Responsible Investment

Zurich is signatory of the PRI and UN Global Compact.

- **ESG integration**

ESG integration is part of Zurich's responsible investment strategy, with guidance from the analysis and views of data provider MSCI ESG Research. Zurich has chosen the asset class real estate as a focus area for the inclusion of ESG factors in investment decisions, as real estate consumes a significant amount of energy and resources, and is a major source of carbon emissions. Real estate assets represent over six percent of Zurich's investment portfolio.<sup>188</sup>

- **Engagement**

Zurich does not report about engagement policies in place.

- **Voting**

ESG factors are also incorporated in Zurich's proxy voting strategy.

- **Divestment and exclusion**

Zurich has not adopted divestment policies regarding fossil fuels.

- **Investment in renewables and impact investing**

By 2015, Zurich had allocated US\$ 1 billion for impact investing. This includes US\$ 870 million invested in green bonds that finance renewable energy or similar projects. Zurich has a target of investing US\$ 2 billion in green debt instruments. Moreover, Zurich has committed US\$ 105 million to impact private equity funds and has planned to allocate up to 10 percent of its private equity investments to such funds.<sup>189</sup>

- **Target-setting and monitoring carbon footprint**

Zurich has set a measurable target to reduce greenhouse gas emissions in Swiss real estate, which comprises over half of its real estate portfolio, by 20 percent by 2020 versus the 2010 baseline and reports about results (they reported a 5 percent decrease to 2014). Zurich aims to cut greenhouse gas emissions of this portfolio by 80 percent in 2050 (also versus the 2010 baseline).<sup>190</sup> Zurich does not require disclosure of fossil fuel investments and has not set targets yet to reduce the carbon footprint of its entire portfolio.

### 17.3.2 Insurance underwriting activities

Zurich does not integrate ESG factors in the risk assessment of corporate clients.

To better understand the impact of climate change and how it effects insurance risks, Zurich invests R&D capacity in modelling natural catastrophes. While specific catastrophes are unpredictable, modelling helps to determine potential losses and the likelihood of such losses. The group uses adjusted third-party models to manage its underwriting and accumulations to stay within intended exposure limits and to guide how much reinsurance Zurich buys.<sup>191</sup>

Zurich encourages the transition to a low carbon economy by providing insurance products and services that support sustainable consumer behaviour and that mitigate the material and entrepreneurial risk of renewable energy technology. Among others, Zurich provides discounts on insurance premiums for electric cars and it also covers small, medium and large renewable energy projects.<sup>192</sup>

## Chapter 18 Summarizing investment, underwriting and policy analysis

### 18.1 Summarizing investment analysis

Table 45 summarizes the findings for each of the researched insurance groups. As can be seen, the total fossil fuel investments of the combined selected insurance groups amount to US\$ 130.7 billion. This is 7.8% of the total analysed investments, and 2.2% of the most recent total assets under management as reported by the insurance groups themselves.

In absolute terms, Allianz (Germany) is by far the most important investor in fossil fuels, investing US\$ 59.0 billion. AXA (France) and Aviva (United Kingdom) follow with 34.3 billion and 14.0 billion respectively. Looking at the % of analysed investments, it can be seen that Aviva leads the selected insurance groups with 11.9% of the analysed investments invested in the fossil fuels sector. Chubb (Switzerland, 11.5%) and Swiss Re (Switzerland, 11.2%) also have a relatively high percentage of total analysed investments invested in the fossil fuels sector. When focusing on the reported total AUM, it can be seen that Aviva, with 3.2%, invests the highest proportion of its reported total assets under management in the fossil fuels sector. Allianz (3.1%) and AXA (2.3%) both also invest more than 2% of their reported total assets under management in the fossil fuels sector.

**Table 45 Fossil fuel investments of selected insurance groups (in US\$ billion)**

Insurance group	Total bondholdings	Total shareholdings	Total investments	Analysed investments	%	Reported total AUM	%
Allianz	48.24	10.80	59.03	899.58	6.56%	1,915.68	3.08%
Aviva	8.05	5.94	13.99	118.02	11.85%	429.75	3.25%
AXA	16.75	17.59	34.34	390.72	8.79%	1,480.86	2.32%
Chubb	5.20	0.05	5.25	45.56	11.53%	N.A.	N.A.
Covéa	0.02	0.27	0.29	5.33	5.51%	98.44	0.30%
DZ Bank	0.83	3.46	4.30	76.50	5.62%	425.76	1.01%
Generali	1.81	0.72	2.53	25.39	9.98%	546.27	0.46%
Lloyd's	0.01	-	0.01	0.34	2.19%	N.A.	N.A.
Mapfre	0.24	0.11	0.35	3.55	9.95%	80.09	0.44%
Munich Re	1.77	0.39	2.17	27.13	7.99%	250.30	0.87%
SCOR	0.17		0.17	3.54	4.74%	19.67	0.85%
Swiss Re	3.97		3.97	35.42	11.21%	N.A.	N.A.
Talanx	0.58	0.06	0.65	6.67	9.71%	159.29	0.41%
Unipol	-	-	-	-	-	N.A.	N.A.
Zurich	3.28	0.41	3.69	40.55	9.09%	254.21	1.45%
<b>Total</b>	<b>90.94</b>	<b>39.80</b>	<b>130.74</b>	<b>1,678.29</b>	<b>7.79%</b>	<b>5,660.31</b>	<b>2.15%</b>

## 18.2 Summarizing underwriting analysis

Table 46 shows the results of the underwriting analysis, ranking the insurance groups from high to low. As can be seen, 11 of the 15 analysed insurance groups are classified as high. In an important breakthrough, one of them, AXA (France), has recently announced steps to stop underwriting companies from which it has divested because more than 50% of their revenue is from coal. Covéa (France), DZ Bank (Germany) and Unipol (Italy) stand out as the insurance groups that have a low involvement in the global fossil fuel underwriting sector. For these insurance groups, no information specifically related to the fossil fuel underwriting business could be found.

**Table 46 Ranking insurance groups on global fossil fuel underwriting involvement**

Insurance Group	Importance in fossil fuel underwriting sector
Allianz	High
AXA	High
Chubb	High
Generali	High
Lloyd's of London	High
Mapfre	High
Munich Re	High
SCOR	High
Swiss Re	High
Talanx (Hannover Re)	High
Zurich	High
Aviva	Medium
Covéa	Low
DZ Bank (R+V Versicherung)	Low
Unipol	Low

## 18.3 Summarizing policy analysis

From the policy analysis, we can conclude that insurance groups apply the following strategies on investments and underwriting activities in fossil fuels in order to reduce the carbon footprint of their business activities and contribute to the energy transition from fossil fuels to renewables:

- Reducing the carbon footprint of their own operations;
- Investments:
  - Requiring disclosure of fossil fuel investments;
  - Monitoring and disclosing of the carbon footprint of their investment portfolio;
  - Using their influence by engagement and voting;
  - Exclusion or divestment of fossil fuel investments;
  - Supporting the energy transition by investments in renewables.

- Underwriting:
  - Avoiding underwriting fossil fuel (coal, oil or gas) projects;
  - Requiring disclosure of GHG emissions;
  - Offering insurance products that encouraging sustainable consumption patterns;
  - Offering insurance coverage for renewable energy infrastructure.

Table 47 gives an overview of the research findings in terms of insurance groups that:

For investments:

- Require disclosure of fossil fuel investments;
- Disclose the carbon footprint of their investments;
- Have engagement programmes or exert their voting rights towards companies involved in fossil fuels;
- Exclude/divest fossil fuel (coal, oil or gas) investments.

For insurance underwriting:

- Avoid underwriting fossil fuel (coal, oil or gas) projects;
- Require disclosure of GHG emissions of corporate clients.

**Table 47 Fossil fuel policies of insurance groups**

Scope	Investments				Underwriting	
Name of (re)insurance company	Require disclosure of investments in fossil fuels	Disclosure of carbon footprint	Engagement/Voting	Divestment/Exclusion	Disclosure of GHG emissions	Avoidance underwriting
<i>Insurance group</i>						
Allianz	No	No	No	Thermal coal > 30% of revenues	No	ESG risk screening (not ex ante avoidance: (Coal) mining; (brown) coal power generation; oil and gas sector (mountain-top removal, oil-drilling)
Aviva	No	No	Engagement on thermal coal > 30% of revenues	Divestment from highly carbon intensive fossil fuel companies, in case of no sufficient progress towards engagement goals	No	No insurance cover for oil and gas extraction and refining
AXA	No	Yes	Engagement with companies in the extractives sector	Thermal coal > 50% of revenues	No	No insurance cover for coal companies which AXA has divested



			on contribution to energy transition			
Chubb	No	No	No	No	No	No
Coveá	No	No	No	No	No	No
Ergo (Munich Re)	No				No	Oil-drilling in the Arctic
Generali	No	No	No	No	No	No
Lloyd's of London	No	No	No	No	No	No
Mapfre	No	No	No	No	No	No
Talanx	No	No	No	No	No	No
Unipol	No	No	No	No	No	No
Zurich	No	No	No	No	No	No

#### Reinsurance company

Hannover Re (Talanx)	No	No	No	No	No	No
Lloyd's of London	No	No	No	No	No	No
Munich Re	No	No	No	No	No	ESG risk screening (not ex ante avoidance): oil sands; fracking mining; Arctic oil drilling
R+V Versicherung	No	No	No	No	No	No
SCOR	No	No	No	Thermal coal > 50% of revenues	No	No
Swiss Re	No			Thermal coal, 'substantial' part of revenues	Yes	No insurance cover for mining in protected areas; off-shore drilling in the Arctic; shale oil and gas hydraulic fracturing operations; oil sands greenfield mining; unmitigated venting or flaring of gas

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