ethos

ETHOS ENGAGEMENT PAPER

Climate change:

What investors expect from listed companies

October 2016

The Ethos Foundation is composed of more than 200 Swiss pension funds and other tax-exempt institutions. Ethos was founded in 1997 and aims at promoting socially responsible investment as well as a stable and prosperous socio-economic environment.

The company Ethos Services SA conducts asset management and advisory mandates in the field of socially responsible investment (SRI). Ethos Services offers institutional investors a wide range of SRI-funds. The company also provides proxy voting reports including voting recommendations, a shareholder engagement programme, as well as sustainability and corporate governance ratings and analyses of listed companies. Ethos Services is owned by the Ethos Foundation and several of its members.

The association Ethos Académie allows private individuals to take part in the activities of Ethos. This non-profit and tax-exempt organisation was launched in 2012 by the Ethos Foundation and has currently about 200 members. It conducts outreach activities in the field of socially responsible investment, including an electronic news service, organising conferences and debates, supporting the exercise of shareholders' voting rights and the funding of studies.

www.ethosfund.ch
www.ethosacademie.ch

Contacts:

Dr Yola Biedermann, Head of corporate governance and responsible investment

Nathalie Cerutti, Senior analyst, environmental and social sustainability

Christophe Diederich, Analyst, environmental and social sustainability

Pierre-Antoine Legrand, Analyst, environmental and social sustainability

Printed on « RecyStar », 100% based on recycled paper without bleaching.

Photos: Keystone, Gettyimages, Heiner H. Schmitt.

Table of content

1. Paris Agreement on climate change: outcomes and challenges

1.1 Limit global temperature rise to 2°C

The signs of climate change are multiple and result in global warming of the earth and a higher frequency of extreme climate events. Glacier melting, rising sea levels, floods, droughts, forest fires and desertification are only some of the signs. One of the major reasons of climate change are greenhouse gas (GHG) emissions caused by humans, which stem from combustion of fossil fuels, deforestation, agriculture and industrial farming among other things.

In order to limit the impact of climate change, scientists agree that the average rise of global temperatures must not exceed 2°C compared to the preindustrial era. According to the UN Framework Convention on Climate Change (UNFCCC) the average rise of global temperatures must be limited to 1.5°C until 2030 in order to not exceed 2°C in 2050.

The Intergovernmental Panel on Climate Change (IPCC) estimates at 2'900 Gigatonnes (Gt) the carbon budget left to the planet before global warming exceeds 2°C.[1] 1'900 Gigatonnes have already been emitted since the end of the 19th century. Therefore, immediate action is required in order to keep with the warming limit.

At the 21st Conference of the parties (COP 21) in December 2015, the 195 parties drafted the Paris Agreement, which engages its signatories to[2]

- Limit to 2°C the average rise of global temperatures in comparison to the preindustrial era and ideally to 1.5 degrees;
- Raise climate change adaptation capacities without endangering food security;
- Make financial flows compatible with a low-emissions economy;
- Reach peak emissions at the earliest;
- Reach the equilibrium between carbon emissions and sinks in the second half of the century to achieve zero net emissions.

1.2 Sovereign commitments

To try to reverse GHG emissions growth the parties commit to publishing ambitious long-term reduction targets (horizon 2025-2030 up until 2050) and communicating on progress. These targets are called Nationally Determined Contributions (NDC) and they need to be renewed every 5 years according to the progression principle[3]. The contributions are filed with the UNFCCC secretariat, which publishes a "global stocktake" to assess the progress made against the long-term targets. The first one is expected for 2023.

The publication of NDC and progress towards them is politically binding, but the commitments are not. This right of inspection should however enable the international community to act against countries that have not fulfilled their commitments.

The entry into force of the treaty was conditional upon its ratification by 55 countries contributing to at least 55% of emissions, which is now the case. After ratification by China, the US[4] and the EU[5] 74 parties representing 58.82% of global GHG emissions have ratified the Paris Agreement. Therefore, it will enter into force on 4 November 2016. The speed with which the countries ratified the Paris Agreement sends a strong signal to the private sector that must now act against climate change.

The COP 22, which will take place in Marrakesh 7-18 November 2016, will define the rules governing the implementation of the agreement. In particular, the parties will discuss the NDC, their implementation and their funding.

The reduction targets can be achieved via increased use of renewable energies instead of fossil fuels, improvement of energy efficiency and improved land use. A large number of industries

[1] UNFCCC, accessed 14.04.2016: http://unfccc.int/focus/indc_portal/items/8766.php, 4th summary report of the IPCC https://www.ipcc.ch/news_and_events/docs/COP20/LCAHLD.pdf

[2] The targets are in article 2 of the Paris Agreement at: https://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf .

[3] According to the progression principle, targets must be equal to or more ambitious than those of the previous year.

[4] China and the US are the largest GHG emitters, representing 38% of global emissions. They ratified the treaty on 3 September 2016.

[5] The EU and Canada having ratified the treaty on 5 October 2016, the emissions threshold was reached.

must play their part: Energy, public service, transport and construction.

1.3 Swiss commitments

Switzerland commits to reducing its emissions by 50% until 2030 in comparison to the 1990 base year.[6] Three projects are currently in consultation: The ratification of the Paris Agreement, the revision of the law on CO_2 and the coupling of the Swiss and EU Emission Trading Scheme (ETS). These three projects require approval by the two houses of Swiss parliament.

1.4 Challenges for companies

Following the ratification of the Paris Agreement, companies must contribute to national emission reduction efforts, voluntarily or in a mandatory manner, through the implementation of instruments such as a CO_2 tax, a CO_2 market or emissions certificates. In Switzerland, the private sector is responsible for over half of GHG emissions.

In any case, new regulation can be expected that will have an impact on the financial results of companies.

The companies that have not actively taken steps or put in place an ambitious strategy to reduce CO_2 emissions risk compliance costs and limited access to certain markets. Climate incidents and new weather phenomena constitute a physical risk for the assets and infrastructure of companies and should be duly anticipated.

[6] Filing site for the INDC (14.04.16) http://www4.unfccc.int/submissions/indc/Submission%20Pages/submissions.aspx

2. What investors expect from listed companies

2.1 New risks for investors

Investors are becoming more and more aware of climate change risks in their investment decisions. Due to extreme climate events such as droughts, floods and hurricanes, certain investments will suffer significant write-downs. These events also have an impact on economic activity, revenues of affected people and financial assets worldwide.

Moreover, the need to contain global warming will block the use of assets of companies producing fossil fuels, namely oil and mining companies (see box in opposite column). This also has a direct impact on the value of investments.

Taking into account climate phenomena in an active manner is thus very important to mitigate their financial impact. This is why more and more investors are integrating climate change risks into their investment decisions.

For an investor, this means:

- Measuring and publishing the carbon footprint of the portfolio;
- Reducing exposure to carbon risk;
- Monitoring investee companies;
- Engaging in dialog with companies.

Measuring and publishing the carbon footprint of a portfolio has become less costly due to the accessibility of the relevant data. Usually this footprint is measured in tonnes of CO_2-equivalent per CHF million revenues. To best allocate the capital of the beneficial owners, investors expect companies to commit to protecting the climate via the implementation of a long-term, ambitious, clear and transparent strategy. Companies with a high GHG intensity or significant emissions on a national scale are concerned as well as those with limited reduction efforts or which have a high reduction potential. Ethos however considers that every company has a role to play and must integrate this issue on the strategy level as well as into its risk management system.

Stranded assets risk: an argument for divestment

Scientists agree that in order to avoid emitting GHG beyond the critical limit of 1'000 Gt CO_2-equivalent, the majority of fossil reserves (oil, gas, coal) must not be burned and therefore remain under the ground.

The companies whose value depends on declared reserves are exposed to the risk of stranded assets. The value of these assets must be adjusted, taking into account climate and/or political restrictions. In order to minimise this risk, an investor may pose, in a preventive manner, the question of divesting from exposed sectors.

Certain major actors such as the Norwegian Government Pension Fund have already done so. The list of companies excluded by the fund includes coal producers and users can be found at:

https://www.nbim.no/en/responsibility/exclusion-of-companies/ .

2.2 The five expectations of the Ethos Foundation

As an investor, Ethos expects that listed companies take the following five steps regarding climate change:

(A) Integrate climate change into company strategy

(B) Measure their carbon footprint

(C) Adopt GHG emissions reduction targets

(D) Audit the data independently

(E) Communicate on the adopted strategy

(A) Integrate climate change into company strategy

Every company must integrate climate change into its strategy. The board can no longer ignore the risks and opportunities in fighting climate change when developing the company strategy. When analysing projects, comprehensive information on GHG emissions is therefore necessary for the board to take relevant strategic decisions on the long-term development of the company.

The risks tied to climate change must be fully integrated into the risk management system and must feature in the risk matrix. The risks can be strategic, legal, operational and financial. Their probability of occurrence and the resulting impact must be reviewed yearly by the board. This reflection should allow the company to better anticipate the impact of climate change on its strategy and going concern.

The impacts of climate change are different for each company. They can be determined with the help of a materiality matrix that allows the company to define its material risks as perceived by its various stakeholders (see box in opposite column) and to better assess the risks and opportunities of climate change in its strategy.

Materiality analysis

The materiality analysis identifies not only the climate risks and opportunities but also environmental and social ones in general. It is an integral part of the strategy and can be used as a basis for reporting, notably when reporting in accordance with the G4 norm of the *Global Reporting Initiative* (GRI).

The process consists in involving all stakeholders in the identification of the most important challenges for the company with the goal of prioritising these and defining a strategy to tackle them.

A matrix is used to present the results. One axis indicates the importance of an issue for stakeholders and the other its importance for the company. Priority is given to those issues which are important both for the company and its stakeholders.

(B) Measure their carbon footprint

Companies must measure their CO_2 (and other GHG) emissions according to a standard which allows investors to aggregate emissions at portfolio level. Ethos recommends following the GHG Protocol, which was developed jointly by companies, NGOs and governments. The Protocol[7] differentiates between direct and indirect emissions and groups them into three *Scopes*:

Direct emissions (Scope 1) are due to the energy (electricity and heat) produced by the company during its operations. The vehicle fleet and internal transport of merchandise and employees are also included, as well as gas leaks (typically cooling gas used for air conditioning and refrigeration) or aerosols.

Indirect emissions (Scope 2) stem from the consumption of electricity, heat or steam purchased by the company.

Other emissions (Scope 3) regroups all the indirect emissions along the value chain (see appendix). The accounting of these Scope 3 emissions is difficult for the following reasons:

- The sources are different for each sector and for each company. It is more relevant for a bank to measure the emissions linked to its investments, while for a

[7] See table in annex, page 10.

carmaker it is more relevant to measure the emissions from using its vehicles.

- The differences between the sectors and the number of sources taken into account make the comparison of Scope 3 emissions between companies mostly impossible.

Despite a difficult and voluntary accounting process in accordance with the GHG Protocol, the emissions from the various Scope 3 sources give a complete picture of the environmental impact of a company and they allow one to identify the precise points in the value chain where the reduction strategy must be applied. A comprehensive identification of Scope 3 sources allows the company to take measures in order to reduce its carbon footprint on multiple levels.

Following a complete measurement of their GHG emissions, several companies have begun to account for an internal price of carbon in their investment decisions.

Internal price of carbon

By setting an internal price of carbon, a company can calculate the value of an investment as though there were a tax on emissions. As companies set the price, it varies considerably from company to company. The internal price of carbon enables companies to anticipate a change in regulation, guarantee long-term profitability and avoid investing in projects with high emissions that will become less attractive over time. The internal price of carbon is also a way to identify stranded assets (see box, p. 6).

(C) Adopt GHG emission reduction targets

Once the GHG emissions measured according to a recognized standard, the company must put in place emission reduction targets that can be both absolute and relative (intensity).

Absolute targets

The absolute reduction targets aim to reduce the global quantity of emitted GHG and are therefore more difficult to achieve when companies register strong growth. On the other hand, if the company has a bad year, the quantity of GHG emitted will fall automatically without a specific effort.

Absolute targets must be set with reference to a base year, a target year and set as a reduction percentage. Since 2016, the CDP (formerly *Carbon Disclosure Project*) considers an annual absolute emissions reduction of 2.1% to be science-based as it is in line with keeping global warming under 2°C.

Relative targets (intensity)

The relative reduction targets (also called intensity targets) aim to reduce emissions per unit. The unit is in general defined with reference to a representative KPI of the company. This KPI is determined in advance and can be of different types (emissions per tonne of product, per units produced, revenues, number of employees etc.). The intensity targets have the advantage of demonstrating energy efficiency (for example the reduction of emissions per unit produced). However, they have the inconvenience of not taking into account a potential rise in absolute emissions when production increases.

According to Ethos, best practice is to set simultaneously absolute and intensity targets. In this way, it is possible to take into account the efforts to increase energy efficiency and to ensure at the same time an absolute reduction of GHG emissions.

If only intensity targets are set, these should as well be converted into absolute ones in order to have a global view of the overall impact of the targets.

Long-term targets

Reduction targets can be set year on year or for longer periods. Ethos recommends that companies set long-term targets (between 5 and 10 years) in order to take into account their growth strategy. Best practice is to establish long-term and simultaneously intermediate targets, which show the evolution of the strategy.

Science-based targets

To maintain global warming under 2°C the IPCC estimates a remaining carbon budget of 1'000 Gt CO_2-equivalent. To achieve this target, the emissions of GHG should be drastically cut. There are several methods to achieve this goal. For example, each country could be invited to reduce its emissions by the same amount, or the most polluting sectors could be called to make more efforts. The «*Science Based Targets Initiative*» has developed several methodologies and invites companies to assess the emissions reduction that is compatible with the targets set by the international scientific community. [8]

Ethos agrees that GHG reduction targets should be «*science-based targets*» to keep global warming below 2°C. Large listed companies are invited to at least set such targets but they are free to set more ambitious ones if they wish so.

[8] The participating companies publish their targets on www.sciencebasedtargets.com.

(D) Audit the data independently

The collection, analysis and publication of GHG emissions data can be undertaken by an external consultant or by the company itself. Since this operation is relatively complicated, it is not rare for published data to be incorrect or not comprehensive. For this reason and to ensure quality, Ethos recommends that companies have the entire process verified by an external auditor specialized in these issues. This assurance ensures the credibility and comparability of the figures disclosed.

An Environmental Management System (EMS) enables the company to collect and compute environmental data at group level. The EMS can be certified against ISO 14001. The certification does not refer to the data but to the quality of the system, which should produce standardised data each year.

(E) Communicate on the adopted strategy

Once established, the climate strategy must be published in the annual or sustainability report.

Investors have several instruments at their disposal to calculate the carbon footprint of their portfolios, such as the CDP. The CDP uses a method compatible with the standards of the GRI and respects the accounting norms of the GHG protocol. The CDP is a survey that can be public or remain confidential. The questions are on the current emissions level and their breakdown (geographic or by segment), on the reduction targets and the methods to achieve them, as well as on more strategic questions such as the existence of a sustainability committee or the existence of extra-financial performance criteria for the remuneration. The CDP also publishes information on other topics such as water, forests and the supply chain.

Among the generally accepted extra-financial reporting standards is the G4 of GRI. Some companies publish an integrated report according to the *Integrated Reporting Framework*[9] or follow the reporting framework of the United Nations Global Compact (UNGC). Others have developed a proprietary format for the sustainability report. Publishing information on the climate strategy is very important and companies that publish nothing lack credibility even if their efforts are above average.

[9] More détails on the concept at: http://integratedreporting.org

3. Appendix

Reporting examples for industrial and financial sectors

	Industrial sector	Financial sector
Accounting for scope 1 emissions	- Emissions tied to industrial processes, which involve combustion (ovens, smelters, etc.) including on-site electricity generation - Heating on site (often diesel or natural gas) - Consumption by the company's vehicle fleet (transport of commodities, products, waste)	- Heating of offices (often diesel or natural gas) - Consumption by the company's vehicle fleet
Accounting for scope 2 emissions	- Consumption by machines (electricity) - Internal cooling (electricity) - Lighting (electricity) - Purchase of heat or cooling (remote heating)	- Consumption by the computers, datacentres (electricity) - Cooling of servers or air (electricity) - Lighting of sites (electricity) - Purchase of heat or cooling (remote heating or cooling)
Comptabilisation des émissions de scope 3	Emissions from extraction / production / transport of raw materials - Consumption by the product during the phase of its direct use. - Emissions linked to the product's end-of-life (waste, recycling)	- Purchase of computer supplies and office equipment (emissions from production and transport) - Accounting for emissions tied to business trips - Scope 1+2 emissions of investments in stocks and bonds as well as scope 1+2 emissions of projects in which the company invests.
Target setting	- Long-term absolute emissions reduction targets (5 to 10 years) and/or - Long-term relative (intensity) emissions reduction targets translated into absolute terms.	
Independent audit	Audit of data by an independent and qualified auditor	
Reporting	Publication of yearly information and progress made against targets.	

info@ethosfund.ch
www.ethosfund.ch

Ethos
Place Cornavin 2
PO Box
CH-1211 Geneva 1
T +41 (0)22 716 15 55
F +41 (0)22 716 15 56

Zurich Office:
Ethos
Gessnerallee 32
CH-8001 Zurich
T +41 (0)44 421 41 11
F +41 (0)44 421 41 12