Reflections on integrating TCFD-style information into risk/return decision-making from the Dutch financial sector

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Executive Summary

This report is a reflection of the deliberations of the Climate Risk Working group set up under the flag of the Sustainable Finance Platform\(^1\) chaired by the De Nederlandsche Bank (DNB). The aim of the Platform is to encourage dialogue on sustainable finance in the financial sector. The establishment of the Climate Risk Working group was initiated by MN and sponsored by MN’s CEO, René van de Kieft. The working group includes representatives from banks, insurance companies and institutional asset managers – thereby representing a cross section of the Dutch financial landscape.

The shared ambition of all members of this working group is to effectively manage the financial consequences of climate change-related risks to current and future exposures to investee companies and clients. The recommendations of the Taskforce on Climate Related Financial Disclosures (TCFD), established by The Financial Stability Board (FSB), acted as point of departure.

The objective of the working group and this paper is to provide illustrations of current practice in managing climate-related financial risks and to contribute to the discussion on priority ‘next steps’ for financial institutions. Financial institutions cannot take these next steps in isolation. Therefore the working group has also reflected on actions that other relevant actors (clients, government, service providers) could take in order to support the financial institutions in their development in the climate change-related risk management space. This paper aims to both share ideas with peers and experts as well as to provide insights into how Dutch financials are thinking about climate-related financial risks to a broader group of interested stakeholders such as NGOs, governments and perhaps even private individuals.

This report offers a glance into the discussions the working group has had in the course of 2017. As our thinking regarding financial risks posed by climate change is under constant development the aim of this paper is not so much to share ‘best practice’, but rather to contribute to the international financial conversation. Furthermore, we aim to communicate what actions, in our view, are required from the financial sector as well as others in the financial supply chain in order to support financial institutions in taking next steps.

The working group members recognize that financials both have a ‘user’ and a ‘preparer’ role under the TCFD recommendations. They are users of the information supplied by climate-related disclosure frameworks as well as providers of similar insights to their own stakeholders. At this stage, the group has chosen to prioritize the ‘user’ role. In our view, managing climate-related risks and their financial impact is currently the most material and pressing task.

\(^1\) The Sustainable Finance Platform is a cooperative venture of the representative bodies of the Dutch banks, insurers, pension funds and asset managers, the ministries and regulators involved, as well as the Sustainable Finance Lab. Platform members meet twice a year to forge cross-sectoral links, to find ways to prevent or overcome obstacles to sustainable funding and to encourage sustainability by working together on specific topics.
Going forward, integrating TCFD-style information from clients and investees in financial decision making will enable financial institutions to produce better climate related financial reporting and will improve their role as a preparer. This does not imply financial institutions will only start implementing adequate measures once ‘the perfect system’ is in place. By working on integrating climate-related risks, financial institutions may catalyse action across the whole financial chain.

It is crucial to highlight that the financial sector is quite diverse. Not only are banks, insurers and pension asset managers different types of institutions with diverging functions and mandates, their approaches and type of investments also vary significantly. Differences in client wishes and capabilities, regulatory requirements, availability of non-financial data, as well as organizational and strategic principles, result in many distinct perspectives and methodologies. The members of the working group want to emphasize that a ‘plurality of approaches’ was the starting point of the conversation.

That being said, there is a strong consensus view by all participants on the following:

1. Climate change risks and opportunities are to be taken very seriously.
2. As part of their fiduciary duty, each member is, in one way or the other, integrating climate-related risks and opportunities into its financial decision-making.
3. Each member supports the internationally accepted TCFD-framework, which is evidenced by the commitment by financial institutions themselves to disclose climate-related financial information according to its guidelines.
4. Each member believes TCFD reporting by investee companies and clients will greatly facilitate further dialogue between investors and investees or lenders and clients on the topic of climate-related risks and opportunities in a systematic way.
5. Each member stands ready to take next steps in integrating climate-related risks into investment decision making, however, the members of the working group cannot successfully take them on in a vacuum. This issue demands a system (or ‘ecosystem’) change and therefore the members of the working group call on clients and investees, regulators and policy makers, data providers and peers to play their part in making climate-related data more widely available, comparable, reliable and complete.
6. The level of collaboration on this issue amongst Dutch financials (banks, investors, insurers) has been very powerful in furthering the dialogue.

Structure of the report
First of all, the ‘business-case’ for TCFD-style reporting by investee companies and lenders is set out. Subsequently, the current state of play of managing climate-related risks is illustrated. This discussion is structured along the TCFD headings of (1) governance, (2) strategy, (3) risk management and (4) metrics and targets. Each paragraph will illustrate current practice by presenting two case examples from one bank and one investor (pension fund or insurance company). Subsequently a set of next steps or questions that financials can start working on has been distilled.
The report concludes with the following list of what the working group deems necessary actions by other actors in the financial supply chain that will enable financial institutions to bring their climate-related financial risk management to the next level.

**Investee companies and clients:**

1. The working group recommends **rapid adoption of the TCFD disclosure framework** in order to support effective disclosures that are comparable across sectors (supported by sector-specific reporting protocols / guidelines). Ensure that all climate-related financial disclosure is assured by an external auditor;

2. **Develop and report on the resilience of an organization’s strategy to various climate-related scenarios including a 2°C or lower scenario.** Companies should develop and report on a forward-looking strategy, which is (stress) tested on diverse scenarios, the results of such stress tests should be mentioned in external reporting. This must include the appetite for the company’s products in low-carbon scenarios. This is relevant for both producers as well as consumers of carbon intensive energy. This recommendation is also extremely pertinent to those companies which contribute to emissions or destruction of natural carbon sinks (ex. forests and wetlands) through their land-use activities.

3. Set appropriate and ambitious, preferably two degrees-aligned, **science-based targets on emissions reductions including scope 3 and life cycle emissions.** Emission reduction targets need to be integrated in the key performance indicators of management.

**Regulators and policy makers:**

1. **Develop credible policies** and strategies for the short, medium and long term for a well-managed and orderly transition to a ‘well-below’ two degrees society. Regulators will need to ensure a level playing field on an international level, and be clear and consistent in how they enforce and monitor climate policies.

2. Introduce a **meaningful carbon price** on an international level and eliminate fossil fuel subsidies or other support: More clarity on GHG reduction commitments, so that businesses and the financial sector can manage their response.

3. **Facilitate and fund open-source access** to high quality climate-relevant raw data.

**Service providers**

1. Support in ‘processing’ TCFD-style information **and allowing for comparability** between investees and clients, and across sectors. Assessment of alignment of company with TCFD requirements, for example by perhaps developing a scorecard. Provide investors with comparable data, at sector and company level;

2. Provide investors and lenders with **decision-useful metrics**, also on physical risks, which are beyond scope 1 and 2 foot printing (scope 3 or ‘life cycle’ emissions) and on physical risks (including post 2050 physical risks in an ‘above 2-degrees world’). Broader and more granular quantification of metrics on (a) scale of regulatory risk;
(b) scale of market and business risks; (c) physical risk and preparedness; (d) quality of corporate climate responses; (e) company targets and metrics. Include orientation on geopolitical risk exposure (migration, conflict).

3. **Improve transparency** on models and underlying assumptions. Currently, models are often too much of a ‘black box’. Support open-source data platforms for ‘raw data’ on climate change.
1 Why are TCFD-style disclosures important?

Climate risk is a pervasive, systemic risk that affects all asset classes, industries and economies. It demands priority attention as the physical consequences of global warming and the transition to a low carbon economy will manifest, at varying levels, in all climate scenarios. Changes in climate and weather patterns and ensuing impacts on global ecosystems are non-reversible and may endanger vital ‘life-support’ systems necessary for human well-being.

The risk-return ratio of a well-diversified portfolio is not likely to be negatively affected by an orderly, socially inclusive pathway to a two degree-world. However, all other climate scenarios, ranging from an abrupt, disorderly transition to no transition at all, pose serious financial risks to financial institutions. These risks will impact all asset classes across all sectors and are therefore non-diversifiable. The Economist Intelligence Unit estimates the value at risk, as a result of climate change, to the total global stock of manageable assets as ranging from $4.2 trillion to $43 trillion between now and the end of the century. Despite the fact that empirical evidence for climate change is overwhelming, markets do not seem to price in the risk. A survey among 28 financial institutions, conducted by DNB, revealed a near universal consensus that climate-related transition risks are currently not adequately priced into the market. According to the working group this is due to:

- Complexities of climate-modelling;
- Lack of relevant historical data due to the novelty of this transition, in a highly complex and interlinked world;
- Regulatory uncertainty including a lack of a meaningful carbon price;
- Presumptions that risks are unlikely to manifest within a typical investment horizon of a maximum of five years.

To take full account of the potential financial impact of climate-related risks, monitoring the financial information provided by investee companies and clients is of vital importance. The TCFD-framework facilitates this process by presenting guidelines for effective disclosures. Also, the framework helps to identify the financial information needed by investors, lenders, and insurance underwriters to appropriately assess and price climate-related risks and opportunities. It provides guidelines to present this information in a forward-looking, financially relevant, decision-useful manner.

By using TCFD-style reporting, essential information from investees and clients becomes available to investors and lenders. This will enable financials to better incorporate transition risks and physical climate risks and opportunities in their investment, lending and insurance processes. The improved quality of the risk-return assessment can lead to better financial

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2 Climate Change and Capital Markets, Graduate School of Stanford Business
3 Investing in Times of Climate Change, Mercer
5 De Nederlandse Financiële Sector Veilig Achter de Dijken?, DNB, 2017
results for their clients and beneficiaries. In the end, TCFD-style reporting will facilitate markets to better price in climate-related risks.

The next chapters focus on how financial institutions can effectively integrate TCFD-information of investees and clients in their risk return analysis, categorized according to the TCFD-themes governance, strategy, risk management and metrics and targets.
Integration of climate-related financial information in practice

2.1 Governance

To be truly effective, the management of climate-related risks and opportunities should be embedded in the governance of financial organizations to ensure awareness and oversight at all levels. Only then can full integration of climate-related risks take place in all other activities (strategy, risk management, metrics and targets).

Increasingly governance structures at Dutch financial institutions are being adapted to changing expectations of their fiduciary duties. As such, the long-term management of sustainability risks, including climate change, has been placed prominently on the agenda. Having a governance system in place that is conducive to integrating climate risks and opportunities into risk-return decision-making will greatly increase the ability of financials to effectively ‘digest’ TCFD-style information and act upon it.

2.1.1 Climate risk integration in the governance of Dutch financials

Example of current practice: ING

The responsibility for climate-related risks and opportunities lies within the Management Board of ING. ING’s Sustainability Direction addresses Climate Action and Resilience with responsibility for execution being shared among board members. ING’s CFO and Vice Chairman of the board is responsible for overseeing the direction’s execution, carried out by the Global Head of Sustainability. The CRO is responsible for the Environmental and Social Risk (ESR) framework execution where climate-related risks are embedded. The board member responsible for the Wholesale Bank oversees climate-related opportunities including ING’s Climate Finance portfolio and related targets. Climate impact and opportunities as well as clients’ ability to manage these through proper governance mechanisms, are taken into account in corporate financing decisions via two channels:

- Risk management approach: climate change is embedded in the ESR management framework to ensure compliance and to limit negative impact of climate change on lending activities across sector specific environmental requirements, namely ING’s forests & agriculture, manufacturing and energy policies and application of the Equator Principles. Within this approach, ING utilizes third-party assessments to determine whether companies have the appropriate governance and commitment to manage such risks, including those related to climate risk.

- Opportunity management approach: ING’s ambition is to do more business with companies that are leading on Environmental, Social and Governance performance. By utilizing ESG data from Sustainalytics, qualifying clients are identified as ESG Industry Leaders. ING’s ESG Industry Leaders, Climate Finance and Social Impact Finance portfolios are all part of key performance indicators (KPIs) and growth targets. To support these ambitions, ING’s dedicated Sustainable Finance Team, established in 2012, has the global mandate to work with ING business units on
pursuing sustainable business. The team has also developed an internal dashboard to show ING’s current involvement in sustainable business as well as various tools to help business units recognise sustainable transactions and customers.

**Example of current practice: MN**

In 2017 MN has signed the statement of Fiduciary Duty in the 21st century which highlights that a financial institutions should, as part of their fiduciary duty to their clients: ‘take into account environmental, social and governance (ESG) issues, in investment processes and decision-making, encourage high standards of ESG performance in the companies or other entities in which they are invested, and support the stability and resilience of the financial system’. This view holds that there are positive duties to integrate environmental, social and governance factors in investment processes. This view on fiduciary duty has furthered anchored long-term, sustainable views on investment within the governance of the whole organisation.

End of 2016, the oversight and anticipation of climate-related risks and opportunities was fully incorporated into the management structure of MN. A steering committee chaired by MN’s CIO and executive committee member has been set up to monitor the mapping and integration of climate information into all relevant asset classes and strategic investment policy design processes.

This committee also takes an active role on the opportunity side by overseeing MN’s activities on impact investing. The committee decides on technical solutions as well as focussing on increasing awareness inside and outside the organization. As of early 2017 MN mapped all relevant climate-related risks in the portfolio and commenced piloting the TCFD-framework.

It is key to note that these developments enjoyed strong support from our major clients, the funds PMT and PME. As asset owners they bear the final responsibility for the investment strategy, including integration of climate-related risks and opportunities.

The fact that climate-related risk (and opportunity) management is securely anchored in MN’s governance structure allows MN to increasingly systematically integrate TCFD-style information, including on governance, into our investment processes. When making investment decision MN closely analyses the values, visions and ambitions of companies regarding inclusiveness and sustainability generally, and climate change in particular. We expect boards to clearly embrace and communicate the strategic importance of these issues to their business-models and to take action to translate this view to their business including to its governance structures. Examples of actions that MN values is this regard are the formulation of longer – term ambitions and targets and integration in remuneration policies.

This topic is also a key pillar of our climate engagement programme that we execute on behalf of our clients. If a company does not illustrate that it remains to be a good

investment under a two degrees, Paris Accord compliant, scenario we advise our clients to divest their positions. How the management of climate-related risks is anchored into governance structures is a key component of this analysis and dialogue.

2.1.2 Next steps

Climate change poses a challenge that requires leadership at all levels in the organization. To that end, the working group identified the following next steps:

- Further anchoring of climate-related risk and opportunity competency at board level, both Executive Boards and Boards of Directors, is needed at both the asset manager and asset owner level in order to effectively integrate TCFD-related information into investment processes. Bigger players in the financial industry should take care to ensure that those that perhaps have less resources and capacity to build up in-depth knowledge on this complex issue don’t get left behind. Knowledge sharing platforms, such as the DNB Sustainable Finance Platform and SPIL Platform⁷, have an important role to play in this regard.

- More consistently anchor the management of long-term climate-related risks and opportunities into the investment beliefs and core values of the financial organisation. Increase clarity on the question of what it means to support the realisation of the internationally agreed ‘well-below’ 2 degree Celsius climate goal. This will facilitate the further alignment of strategies, risk-management and metric or target use. This process may entail creating internal understanding and consensus that managing short-term transition risks at individual asset-management level may not be sufficient to mitigate longer-term physical risks. Pro-active cooperation, with peers, corporates and governments is becoming ever more crucial on this topic in order to realise change within the whole investment chain. Additionally, this process may shift boards’ focus from the current mostly risk-driven approach to a more value-driven approach. TCFD-style information could help switch focus to climate-related opportunities as cornerstone of (climate) investment beliefs.

- Where this is not currently the case, to achieve commitment on a broader level, the accountability for achieving climate-related targets should be translated to business units and divisions and form an integral part of periodic internal business reporting towards management. This means that climate-related performance metrics have to be part of the performance dashboards of senior managers at business unit and division-level.

2.2 Strategy

⁷ https://spilplatform.com/
The TCFD describes strategy as “the actual and potential impacts of climate-related risks and opportunities on the organization’s businesses, strategy, and financial planning.”

Climate-related disclosures regarding business strategy provide financial institutions with a sense of their clients’ resilience to various scenarios, including a two degree Celsius or lower scenario. Subsequently, forward-looking strategic information from investee entities and clients allow financial institutions to formulate their own climate-related strategy, and to select those entities for investment whose strategy is in line with the financial institution’s beliefs and strategies. Examples of such strategies include the integration of transition and physical risks and opportunities into investment and credit decisions in order to build a climate change resilient portfolio. Some financial institutions choose to align their portfolios with a two degree Celsius scenario or a specific carbon reduction target.

Financial institutions can employ several instruments to achieve their climate-related strategies, each having their own function and effect. Commonly used practices that have been deployed for quite some time are voting at shareholder meetings, engagements through dialogues with management boards or the exclusion of companies from the investable or lending universe. Many institutions integrate (quantitative) ESG factors systematically integrating into the investment or lending process. In order to achieve more direct impact, financials invest in or finance selected companies that positively contribute to societal challenges (impact investing or Sustainable Development Investing). Climate-related risk and opportunity metrics are integral to all these processes.

### 2.2.1 Climate incorporated in Dutch financials’ strategy

**Example of current practice: ABN AMRO**

ABN AMRO focuses on engagement with clients in carbon intensive sectors on climate change criteria relevant for their strategy and business activities. TCFD reporting on the actual and potential impacts of climate-related risks and opportunities on the organization’s businesses, strategy, and financial planning will contribute to more relevant client engagement on these topics. In engaging with clients in carbon intensive sectors, ABN AMRO has a particular focus on the energy utility and real estate sectors.

In doing business with energy utility companies, the bank aims to build a portfolio of clients which have a strategic focus on the transition to a low-carbon economy. As a first step of its engagement, ABN AMRO assesses whether a company is below the threshold level of 50% thermal coal fired power generation capacity. Followed by a screening of the energy transition strategy of the company, based on a cumulative assessment of the company’s:

- targets for the reduction of greenhouse gas emissions;
- commitment to not increase coal-fired electricity generation capacity;
- targets for moving the energy production mix towards low-carbon energy sources.

If consideration of these three aspects leads to the conclusion that the company has a weak energy transition strategy, or in case the company does not meet the threshold level of <50% thermal coal fired power generation capacity, the company will not be eligible for financing by the bank. To build a resilient portfolio, ABN AMRO aligns the ‘financed energy
mix’ of its lending portfolio with the required energy mix of the International Energy Agency’s (IEA) ‘450 scenario’ for both thermal coal and renewable energy electricity generation capacity from 2020 onwards. This scenario sets out an energy pathway limiting global warming to two degrees Celsius, maximizing concentrations of greenhouse gases to around 450 parts per million of CO2.

With regard to its financing of the real estate sector, ABN AMRO engages with clients to assess the current energy performance of their buildings (indicated by energy labels) and their strategy towards the energy-efficiency of their real estate assets. In addition, the bank encourages and supports clients to improve the energy-efficiency of their buildings. ABN AMRO has set a target of raising the average energy performance of all buildings financed by the bank to energy label ‘A’ by 2030. For offices, the initial target is more short term with at least energy label ‘C’ by 2023. As the energy performance of buildings is viewed as a key driver of organisational success in the real estate sector, the client assessment could lead to the conclusion to not provide financing when certain ABN AMRO policy or regulatory requirements are not likely to be met (e.g. Energy Label ‘C’ for financed offices in 2023). With this approach, ABN AMRO anticipates on existing- and future regulations and an increasing appetite for energy efficient buildings.

To further support energy-efficiency strategies of real estate clients, the bank offers online tools for both its mortgage and commercial real estate clients to identify energy efficiency improvements. The application of such tools mitigates climate change risks and addresses climate change opportunities as the identified energy efficiency improvements can be financed by the bank.

**Example of current practice: ACTIAM**

ACTIAM has committed itself to aligning its investment portfolio to the ambitions of the Paris Agreement. The organisation formulated a greenhouse gas (GHG) emissions reduction target of at least -25% in 2025 and -40% in 2040. This ambition is based on the two degree scenario of the United Nations Framework Convention on Climate Change (UNFCCC). To have at least a 66% chance to realize this goal, a 40% to 70% reduction in GHG emissions by 2050 is indispensable.

Several dilemmas have been identified that need to be addressed. The main in terms of strategic information from investee companies, is that GHG information of investee companies is backward looking, so current high emitters could be future low emitters and vice versa. Therefore, additional information is needed to identify the companies that fit a forward-looking lower carbon scenario.

To achieve the above-mentioned ambitions, ACTIAM integrates climate-related (strategic) information into all its investor tools:

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8 Compared to 2010, and applied to all assets under management.
- **Impact investing / positive selection**: companies with strong climate opportunities are added to the investment portfolio, such as wind turbine manufacturers, producers of highly energy efficient products, or companies with a strong circular-economy based production process.

- **ESG integration**: all investable entities receive an ESG score. This score includes a sector-based component, where sectors with high impact on climate (GHG emissions) and water are penalized and sectors with low impact are rewarded, to make sure a well-performing company in a very carbon intensive industry does not receive a higher score than a lower performing company in a non-intensive industry. Portfolio managers are given targets for the ESG score of their portfolio to incentivize investment in companies with high ESG scores. Individual companies with climate opportunities as well as green bonds are rewarded with an extra bonus on their ESG score.

- **Voting**: ACTIAM formulated detailed guidance for climate-related shareholder resolutions, as well as stricter criteria for companies in high-impact sectors, including the oil & gas industry.

- **Engagement**: is conducted with companies to receive more forward-looking information. Issues addressed include the phase-out of carbon intensive assets, conducting a scenario analysis that includes a two-degree scenario, carbon intensity trend, greenhouse gas emissions targets, and more. If engagement lacks progress, or disclosure reveals that the strategy is not two-degree aligned and there is little engagement potential, companies can be excluded from investment.

- **Exclusion**: companies that derive more than 15% of revenue from coal mining are directly excluded from the portfolio, with no prior engagement. Lack of progress in engagement, or a strategy that is not aligned to a two degree scenario, can lead to exclusion as well (see above).

- **Exclusion**: carbon footprint of investments is conducted and audited at least annually, to make sure that ACTIAM is on track with its targets.

### 2.2.2 Next steps

- It is essential for the financial community to work towards **market standardisation of relevant scenarios and data sources**, including a two-degree or lower scenario (at least for material sectors). This will facilitate consistent analysis of, and engagement with, clients and investee companies.

- Do more research on **how climate change affects assumptions used in asset-liability management (ALM)**. This would support the focus to shift from climate change as an operational issue to a more long-term strategic issue.

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9 Engagement companies are identified based on exposure to carbon intensive assets. Responsive engagement (exclusion can follow) is conducted with shale oil/gas laggards, utility companies with >50% coal in energy mix, oil sands companies, laggards in offshore Arctic oil production. Proactive engagement is currently conducted with companies that derive 0-15% revenue from thermal coal mining, on methane management, on energy-efficiency of consumer products, etc.
Further sophistication of the engagement-tool is needed. Engagement can be very effective, however if a company is not open to real, meaningful, dialogue or is simply ‘locked-in’ through its business model (i.e. cannot afford decarbonisation) then perhaps direct engagement with the company is not the right instrument and other ways to manage the risk should be more readily considered. This could include widening the scope of climate engagement, seeking to more explicitly engage with policy makers, regulators, civil society, clients and beneficiaries. The case for intensifying (global) regulatory engagement is strengthened because financials are likely to endure significant financial losses due to the physical impacts of climate change in a two plus degree world. At the same time costs of transitioning to a two degree pathway are manageable for well-diversified investment and lending portfolios. Therefore, their current engagement in the political and public debate is not in proportion to their financial interests and the financial interests of their clients and beneficiaries. The influence of the financial sector is relatively moderate in comparison to other sectors that may have a vested interest in slowing down the transition. The financial sector has increasingly found its ‘voice’ in recent years but there is plenty of room for amplification.

Asset managers and banks should explore opportunities for further development of climate-related investment products as appropriate for institutional, wholesale and retail channels.

2.3 Risk Management

The TCFD describes risk management as ‘The processes used to identify, assess and manage climate-related financial risks’. This chapter reaches down to the heart of the topic that the working group has endeavoured to come to terms with.

2.3.1 Climate integrated in Dutch financials’ risk management systems

Example of current practice: Robeco

For Robeco, managing climate change risks is part of the overall integration of ESG topics in its investment decisions. The starting point is always having a clear understanding of the nature of the business to identify the most material issues. Having identified these, the analyst assesses how the company performs on these matters and how the company derives (or will derive) a competitive advantage or disadvantage from it. Robeco looks at the possible consequences of climate change risks on company revenues through the demand for products and services, costs such as regulatory expenses, capital efficiency and thus investment needs, and risks like for example physical impacts.

RobecoSAM’s proprietary Corporate Sustainability Assessment includes corporate governance and risk management questions, as well as climate strategy questions. These questions already demonstrate a close alignment with the TCFD-framework and will form the basis of deeper understanding of how companies address their climate risks. RobecoSAM’s Country Sustainability Ranking incorporates an assessment of how individual
countries are progressing in the decarbonisation of their economies as well as the measures taken related to physical risk exposure.

Robeco has adopted some measures to manage climate risks at portfolio level. For instance, measuring and managing the greenhouse gas footprint helps to control risks to the portfolio of future rises in carbon mitigation costs. Excluding thermal coal companies from portfolios, consistent with Robeco’s Climate Policy or the needs of our clients, also helps with reducing strategic risks. However, further development of climate risk data to cover the breadth of investment universes is required to enable climate risks to be systematically quantified and controlled across an investment portfolio or product.

**Example of current practice: ING**

Managing climate-related risks at ING is an evolving process. Since 2014 environmental and social risk screening has been embedded within the ‘Know Your Customer’ process. The process utilizes publicly available information, data provided by 3rd parties and data provided by our customers. During this process ING screens clients on a number of risks, including their environmental track record, management systems, carbon intensity and policies on reducing their environmental impact.

Risk management of climate-related risks also means that certain sectors and countries are excluded from financing, like for example, controversial arms industries or deforestation of rain forests. As of November 2015, ING does not finance new coal-fired power plants and thermal coal mines worldwide, reducing the current exposure, which is reported annually. In December 2017, ING decided to accelerate the reduction of financing to coal power generation, reducing exposure to close to zero by 2025. ING participates in the Equator Principles framework for Project Finance. The due diligence for project finance transactions includes an environmental and social impact assessment (EIA/SIA) conducted by external consultants.

As part of a review of climate-related regulatory developments, ING Real Estate Finance has asked its real estate clients to come up with concrete plans to make their office buildings sustainable by 2018, thereby earning energy label B or higher. Top-class green buildings are equipped with, for instance solar panels, double window-glass and good insulation for roofs and floors.

ING’s plans are in line with new legislation requiring buildings to have at least a ‘C’-label in order to be rented as office space by 2023. ING introduced a ‘five-step plan’ a year ago to help customers make their buildings sustainable. One of those steps is ING’s Sustainability App, which shows which energy label would be awarded after taking various sustainability measures, the investment needed along with the payback period.

**2.3.2 Next steps**

The working group identified the following next steps:
○ To continue the movement of climate change risks out of the “ESG box” and into mainstream financial risk management, all financial institutions should encourage all their asset management, strategy and risk management teams to build up relevant knowledge, expertise and networks. A potential next step could include linking climate risk methodology to a two-degrees, so called ‘science-based’ targets and understand the implications for their investment or lending strategies.

○ Financial institutions are encouraged to work towards the development of a market standard for a quantitative climate risk methodology that can be applied to individual investment decisions, and across investment portfolios and products. This requires better understanding of the different climate risk categories, such as regulatory, strategic, physical and geopolitical impacts – also for the post 2050 period. Developing a systematic approach also requires data with the breadth to cover investment universes, as well as the depth to address the individual risk aspects.

○ To date, there has been considerable focus on fossil fuel producers (oil and gas, thermal coal), as well as electric utilities. There is further scope for deepening the understanding of climate-related financial risks in the wider supply-chain that these companies are part of and in other sectors. It is the working group’s impression that, when it comes to sector analysis, only the surface has been scratched. Sectors like agriculture (including livestock), paper and pulp and the services sector (including tourism) require further analysis going forward.

○ Banks may endeavour to develop a market standard for climate risk assessment of banking clients. Currently, the banks undertake case-by-case assessments based on banks’ own risk policies and risk models. It is necessary to develop methodologies for characterizing their climate-related risks in the context of traditional banking industry risk categories such as credit risk, market risk, liquidity risk, and operational risk. When there is no quantitative data of the company in review publicly available, banks rely heavily on 3rd party data and assumptions. To that end, banks are therefore left to apply a sector-based, top-down approximation.

2.4 Metrics and Targets

In the words of the TCFD, metrics and targets are used to assess and manage climate-related financial risks. The metrics are very much the building blocks for all the other stages of managing climate-related risks and opportunities. Getting the metrics right is key to ensuring that any climate-related risk management actions will actually be effective. When it comes to target setting it is crucial that targets are set using a metric that truly captures what an institution wants achieve. This TCFD chapter calls for a critical discussion on what metrics are best suited to really inform progress against a meaningful target.

2.4.1 Climate-related metrics and targets at Dutch financials
Example of current practice: ASN
ASN Bank/De Volksbank expects the organization itself, all of its balance sheet investments as well as the assets under management at the ASN Investment Funds, to be carbon neutral by 2030. Direct and indirect investments that emit greenhouse gases are offset by direct and indirect investments that reduce greenhouse gas emissions. The sum of the emissions and the reduction of emissions should be zero by 2030, resulting in a net zero effect on the climate.

To measure the progress towards becoming net climate neutral, ASN Bank created a methodology for greenhouse gas inventory for its equity funds and its renewable energy investments in 2007. To footprint ASN Bank’s total balance sheet a Carbon Profit and loss Methodology\textsuperscript{10} has been developed, putting emissions (losses) and avoided emissions (profits) in a ‘Carbon Profit and Loss Account’.

The purpose is to track ASN Bank’s/De Volksbank’s\textsuperscript{11} progress and to be able to make strategic decisions towards that goal through influencing and reducing the impact of its portfolio. Metrics used are absolute and relative financed and avoided emissions in CO\textsubscript{2} equivalents (CO\textsubscript{2}eq) covering all material assets. Reporting relative emissions can still lead to an absolute increase in emissions if institutions continue to grow. Only by tracking and ultimately reducing the absolute emissions of financial institutions it is possible to achieve a maximum contribution to the ambition restricting global warming to 1.5 or two degrees.

Example of current practice: Robeco
At Robeco the management of climate change risks is laid down in the climate change policy. This policy is based on five pillars, of which one applies to Robeco’s own organisation and four apply to the investment portfolios. Robeco’s own operations are carbon neutral according to the Carbon Neutral protocol. For the investment portfolio’s Robeco uses the following metrics and targets:

ESG integrated investment process:
\begin{itemize}
  \item Metrics used: GHG/carbon emissions (scope 1,2,3), carbon intensity, carbon price, energy intensity/efficiency, trends in carbon emissions, coal use, renewables use.
  \item Targets used: relative scores within the sectors.
\end{itemize}

Active Ownership: Engagement and voting with high carbon emitting sectors in order to gain understanding of the risks and opportunities and to improve conduct of the company
\begin{itemize}
  \item Metrics used: pre-set engagement objectives: Do companies have a proactive environmental strategy, have a future-proof business strategy, strive for operational carbon-efficiency, assess asset portfolio resilience, innovate their business models?
  \item Targets used: Are there long-term targets set by the company on carbon emissions. How ambitious are they? Are these targets part of KPI’s of management?
\end{itemize}

\textsuperscript{10} For more details: ASN Bank Carbon Profit and Loss Methodology 3.0, January 2017
\textsuperscript{11} In 2015 de Volksbank started working with the ASN Bank Carbon P&L Methodology and in 2016 de Volksbank adopted the ambition to be carbon neutral by 2030 as well.
Portfolio Decarbonisation: Measuring, managing and mitigating the carbon footprint of a portfolio helps to control risks to the portfolio of future rises in carbon mitigation costs.

- **Metrics used**: Carbon emissions
- **Targets used**: For the SI portfolio range of Robeco targets have been set: 20% less carbon towards the benchmark

Divestment: Excluding thermal coal companies from selected SI portfolios

- **Metrics used**: Product exposure (in terms of revenues) of thermal coal
- **Targets used**: All SI funds have divested from mining companies with more than 10% of thermal coal revenues, and from power producers with more than 20% of thermal coal related revenues. The aim is to lower these thresholds in the coming years.

### 2.4.2 Next steps

The working group identified the following next steps:

- Currently, financials tend to use the metric of ‘financed emissions’ or ‘carbon footprint’ for transition risks and water stress for physical risks. These metrics should be **complemented with more forward-looking, comprehensive and financially relevant metrics**. Metrics around climate-relate value at risk are a noteworthy development in this regard. Financed emissions as a metric, while useful for making an estimated snapshot of the climate impact at the time of measurement, lacks the contextual information to be decision-useful. Furthermore, the degree of assumptions currently used in estimating financed emissions, especially for banks, make the calculations ineffective for target-setting. While it can be regarded as a good ‘housekeeping’ metric, it lacks context as it is backward-looking and doesn’t capture the opportunities related to supporting a company’s transition
- A topic that was heavily discussed within the working group was **whether or not to link forward-looking metrics to two-degree scenario-aligned target setting** (so called ‘science-based targets’). Some members are of the opinion that this would help to strongly guide portfolio-managers to two degrees portfolio alignment going forward. Other members wondered if it made sense for investors to have a target to be two degrees aligned. This approach would perhaps lead to less financing for those companies most in need of it to make the transition. Also, simply divesting high emission companies may not reduce ‘real – world’ emissions. These members point out that two degree alignment makes sense for individual companies, but perhaps not for diversified investors or clients. This topic requires further discussion and the sector may explore the development of a common methodology for science-based targets to be used by financials.
- Do more research on the following topics: 1) **how to best capture climate impact, whether through ‘life cycle emissions’ or through focusing on a climate-friendly economic-activity mix** and understanding climate-impact dynamics within supply
chains; and 2) the link between carbon and performance, ie. what is the ‘transfer’ mechanism that links the climate impact to financial returns?
3 Importance of collaboration amongst peers

Individual financial institutions have a limited scope of influence, which is why international collaboration amongst financial institutions is key. By teaming up they can fundamentally change the flow of international capital. Networks such as the Principles for Responsible Investment, the UNEP Finance Initiative and the Institutional Investor Group on Climate Change (IIGCC) are good examples in this regard. The ClimateAction 100+ engagement initiative is also a powerful example of collaboration.

The working group has identified several topics as urgent areas for further collaboration. The financial sector should jointly develop views and methodologies on climate impact measurement and decision-useful metrics. Close cooperation is needed to develop scenarios (focused on relevant climate risks, parameters, and scope) and methodologies to assess the resilience of the client or investee company’s strategy, taking into consideration different climate-related scenarios, including a two-degree or lower scenario as well as (post 2050) physical risks.

It is key that financial institutions communicate with one voice to investee companies with respect to the information needed and engage on public disclosure of this information. The financial sector should clearly communicate its views on climate-related financial risks using one voice in formulating their material interests and expectations to policy makers and regulators. Currently the financial sector ‘punches below its weight’ in the (inter)national policy discussion when seen in the context of the risks to their portfolio’s, beneficiaries and clients. Specific sectors that may stand to lose out in the short term during the transition are much more vocal even though potential losses are concentrated in a much smaller group. A much larger chunk of society stands to lose if large financial losses manifest due to insufficiently managed climate change risks, especially in the case of physical risks. The sector needs to be much more vocal about these interests.

There should be a readiness amongst financial peers to collaboratively engage in a conversation on sharing costs of data and modelling. Data is currently often provided by specialized suppliers that require paid plans, but should move towards more open source information to facilitate effective collaboration between financial institutions.
4  Required action across the financial supply chain

Good progress has been made regarding the integration of climate-related risks in risk-return decision-making. The working group members continue their efforts and acknowledge that the work is by no means completed. However, financial institutions cannot make all the required progress in isolation. For a true system change to take place, all actors in the financial supply chain need to take next steps.

Following below is a list of recommendations to three different groups of actors across the chain. Of course, working group members stand ready to constructively contribute to realizing this change and facilitate, or join forces, in tackling the issues mentioned.

4.1  Investee companies and clients

1. The working group recommends rapid adoption of the TCFD disclosure framework in order to support effective disclosures that are comparable across sectors (supported by sector-specific reporting protocols / guidelines). Ensure that all climate-related financial disclosure is assured by an external auditor;

2. Develop and report on the resilience of an organization’s strategy to various climate-related scenarios including a 2°C or lower scenario. Companies should develop and report on a forward-looking strategy, which is (stress) tested on diverse scenarios, the results of such stress tests should be mentioned in external reporting. This must include the appetite for the company’s products in low-carbon scenarios. This is relevant for both producers as well as consumers of carbon intensive energy. This recommendation is also extremely pertinent to those companies which contribute to emissions or destruction of natural carbon sinks (ex. forests and wetlands) through their land-use activities.

3. Set appropriate and ambitious, preferably two degrees-aligned, science-based targets on emissions reductions including scope 3 and life cycle emissions. Emission reduction targets need to be integrated in the key performance indicators of management.

4.2  Regulators and policy makers

1. Develop credible policies and strategies for the short, medium and long term for a well-managed and orderly transition to a two degrees strategy. Regulators will need to ensure a level playing field on an international level, and be clear and consistent in how they enforce and monitor climate policies.

   Suggested ways of implementing this:
   ○ Make comparable climate-related financial disclosures mandatory for all carbon intensive sectors with clear guidance and support. The financial sector needs these companies to be TCFD compliant in order to receive required information
on climate-related risks and opportunities. Currently the framework is voluntary. There is a risk of clients/investee companies not disclosing fully or in a way that does not make the information readily interpretable.

- Non-listed assets (companies, governments) are out of the scope of the TCFD while they represent significant asset classes. Sovereign debt comprises up to 40% of assets in some working group members’ portfolios. It is necessary that all companies, state owned enterprises and governments provide the same type of information – uniformity in disclosure across customer segments and asset classes is key for effective risk management.

2. **Introduce a meaningful carbon price** and eliminate fossil fuel subsidies: More clarity on GHG reduction commitments, so that businesses and the financial sector can manage its response.

3. **Facilitate and fund open source access** to high quality climate-relevant raw data.

### 4.3 Service providers

The financial sector would greatly benefit from TCFD-style information being processed by external data providers into standardized metrics (e.g. scorecard, ESG rating), which would then be integrated in existing risk management processes. It is one thing for service providers to collect and organize the TCFD information, but their real value will be in finding a way to disseminate it so that it can be integrated into standard asset management tools and processes, and made comparable across companies, sectors and even asset classes.

1. Support in ‘processing’ TCFD-style information and allowing for **comparability between investees and clients, and across sectors**. Assessment of alignment of company with TCFD requirements, for example by perhaps developing a scorecard. Provide investors with comparable data, at sector and company level;

2. Provide investors and lenders with **decision-useful metrics**, also on physical risks, which are beyond scope 1 and 2 footprinting (scope 3 or ‘life cycle’ emissions) and on physical risks (including post 2050 risks). Broader and more granular quantification of metrics on (a) scale of regulatory risk; (b) scale of market and business risks; (c) physical risk and preparedness; (d) quality of corporate climate responses; (e) company targets and metrics. Include orientation on geopolitical risk exposure (migration, conflict).

3. **Improve transparency** on models and underlying assumptions. Currently, models are often too much of a ‘black box’. Support open source data platforms for ‘raw data’ on climate change.