Opportunities to integrate disaster risk reduction and climate resilience into sustainable finance

May 2019

SENDAI FRAMEWORK
FOR DISASTER RISK REDUCTION 2015-2030

UNDRR
UN Office for Disaster Risk Reduction

UNDRR, United Nations Office for Disaster Risk Reduction, works towards the substantial reduction of disaster risk and losses to ensure a sustainable future. UNDRR supports the implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030 which sets out a people-centered approach towards achieving a substantial reduction in disaster losses from man-made and natural hazards and a shift in emphasis from disaster management to disaster risk management. The UNDRR Regional Office for Europe covers 55 countries and works with countries and stakeholders to reduce disaster risk in Europe. **www.undrr.org**

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About the authors

The lead authors of this report are Rosalind Cook (UNDRR), Nick Mabey and Kate Levick (E3G) with support from numerous colleagues including Abhilash Panda (UNDRR) and Tom Burke, Sandrine Dixson-Declève, Luca Bergamaschi, Camilla Born, George Triggs, Tom Jess, Matthew Raywood, Helena Wright and Sonia Dunlop (E3G). We have drawn on discussions held at a joint workshop in Brussels in March 2019 which included representatives of the European Commission, the financial sector, NGOs and others. We are also grateful to the following individuals and organisations for providing external review and/or additional support: Mirjam Wolfrum, Sebastien Godinot, Marianne Kettunen, James Davey, Ivan Faiella, Mia Ebeltoft, Municipality of Oslo, and DG ECHO.

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Front cover:
The Øresund Bridge spans the Øresund Strait between Sweden and Denmark.
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Executive Summary

The next European Commission will have a unique opportunity to put disaster risk reduction, climate change adaptation and resilience at the heart of the financial system with its next wave of reforms under the Sustainable Finance Action Plan.

The scale of financial flows and investments is massive. In Europe assets under management reached €25.2 trillion in 2017, 147% of GDP[1]. And sustainable investment is growing fast – Blackrock, the world's largest fund manager, has forecast that the total share of sustainable investments in Exchange Traded Funds globally will increase from today's 3% of total assets, to 21% of all assets by 2028[2].

However, most global investments still fail to take disaster and climate-related risk into account. There is a long way to go in ensuring that these risks are understood and integrated into investment decisions, and that financing for prevention and recovery takes place where it is needed and in an equitable way.

We do not have a total picture of Europe's financial exposure to climate-related disaster risks, but we know that they are already resulting in significant economic losses. The total reported economic losses caused by weather and climate related extremes in European Member States over the 1980–2017 period amounted to almost half a trillion euros[3]. In the future, losses and disasters from climate impacts risk to increase dramatically if mitigation goals are not met and if we fail to deliver adequate resilience to climate change. Cascading risks may create a further compounding effect.

Europe plans to significantly scale up levels of public and private investment through instruments including InvestEU (the replacement to the European Fund for Strategic Investments), the Capital Markets Union and new measures being delivered under the Sustainable Finance Action Plan. To achieve resilience to disaster and climate risk these public and private investments must be defined by quality as well as quantity and must be based on a data-driven assessment of risk.

Improved risk data will lead to more efficient and stable financial markets and to more effective investment. However, there are also potential costs and harms which could include capital flight from risk-exposed investments, and lack of access to finance for those who

1 EFAMA 10th Asset Management Report, European Fund and Asset Management Association, September 2018, http://www.efama.org/Publications/Statistics/Asset%20Management%20Report/EFAMA_Asset%20Management%20Report%202018%20voor%20web.pdf

2 'BlackRock predicts ESG ETF growth to $400bn', ESG Clarity, October 2018, https://esgclarity.com/blackrock-projects-esg-etf-growth-to-400bn/

3 Economic losses from climate-related extremes in Europe, European Environment Agency, April 2019, https://www.eea.europa.eu/data-and-maps/indicators/direct-losses-from-weather-disasters-3/assessment-2

need it most. How Europe protects the vulnerable is ultimately a political choice, with the potential to create a Europe that is inclusive and an approach to resilience which is just and equitable.

Areas for further exploration in Europe

This report sets out recommendations on how the main sustainable finance initiatives underway can support a major reduction in disaster risk. We have considered physical climate risk together with disaster risk caused by natural hazards. Our analysis builds on insights from 35 stakeholders from the private, public and non-profit sectors as well as the European Commission, gained at a workshop in Brussels which was organized by UNDRR and E3G in March 2019.

Areas to explore include:

LONG-TERM THINKING

1 **Public sector strategies:** Encouraging European Member States and regions to create national and local level strategies for disaster reduction risk and climate change adaptation which are linked to national investment strategies and priorities. Investments in adaptation and resilience could be tracked by a European Finance Observatory.

2 **Private sector strategies:** Supporting European companies to put in place comprehensive and wide-ranging long-term disaster risk and climate change adaptation strategies which address physical climate change risk across their businesses, including through their supply chains, and to work with local and national authorities to create a shared approach to risk.

3 **Assessing strategies against scenarios:** Promoting the consistent use of accurate and useful disaster risk and climate risk scenarios by governments, public institutions and financial regulators as well as private sector firms (both financial and non-financial) and exploring how existing data can be used to support investors and citizens.

Photo: Shutterstock

REORIENTING CAPITAL FLOWS

4 **A resilient taxonomy:** Developing a European taxonomy of "sustainable" and by extension "unsustainable" economic activities, which includes those that are not resilient to disaster/climate change risk or which would lead to maladaptation or building in risk.

5 **'Think Resilience' for Investment:** Ensuring that the categorization of climate change adaptation as an environmental objective in the context of green financial products and services does not distract from the wider need to make all financial investment resilient to disaster risk and physical climate risk. This could be achieved by using a 'Think Resilience' test to make disaster risk reduction, climate change adaptation and resilience a baseline requirement for all European finance instruments.

6 **Budgeting for resilient infrastructure:** Implementing measures to improve the impact and sustainability of all infrastructure investments in the next 2021-2027 EU multiannual financial framework and a screening process to ensure that those investments are resilient to future disaster and climate risk.

7 **Defining resilient infrastructure:** Create and broaden a definition of high-quality sustainable resilient infrastructure, to include digital, distributed and natural forms of infrastructure, which includes appropriate allocation of disaster and climate-related risk.

Photo: iStock

MAINSTREAMING SUSTAINABILITY INTO RISK MANAGEMENT

8 **Resilient credit ratings:** Mandating credit rating agencies to explicitly integrate sustainability factors into their assessments, including corporate resilience to physical climate change and natural disaster risk.

9 **Responsibility for risk:** Explicitly requiring institutional investors and asset managers, as well as company directors, to integrate disaster risk reduction, climate change adaptation and resilience into their decisions. Working within ECOFIN to apply the same principles to national budgeting and fiscal resilience.

10 **An inclusive and equitable approach to risk:** Undertaking increased efforts within Europe to understand and address the social and economic impacts of insurance coverage gaps and withdrawal of credit from activities, sectors or communities which are exposed to physical climate risk and natural disaster risk.

11 **Ensuring risk disclosure:** Ensuring that financial and non-financial companies report on material climate risk issues in line with the recommendations of the Task Force on Climate-Related Financial Disclosure (TCFD) by amending the Non-Financial Reporting Directive.

Europe in the global context

Disaster risk, climate change adaptation and resilience are challenges around the world and affect every country. However, the impacts of disasters and climatic changes are borne disproportionately by the poor and by vulnerable groups in society including women and children.

Europe is a leader of the sustainable finance agenda internationally, and this leadership is a key diplomatic tool. However, the global nature of the financial system means that Europe's ability to collaborate and forge international agreement is as important as its ability to innovate and demonstrate best practice within its own geography. Happily, there are many institutions and forums in which this international collaboration can take place.

One reason why sustainable finance has become a dynamic topic of discussion, aside from the clear need for urgent action at scale, is that advances in technology and data science are starting to provide new tools and solutions. Such developments have enormous potential to enable a better understanding of risk. As new technologies emerge and come to scale it will be important that their benefits are shared in an equitable way.

In the international context areas to explore could include:

SUPPORTING THE USE OF STRATEGIES AND SCENARIOS AT ALL LEVELS

- Working internationally to support the creation of national and local level strategies on disaster risk reduction and climate change adaptation (including National Adaptation Plans and Nationally Determined Commitments) which are linked to national investment strategies and priorities.
- Collaborating across jurisdictions to support multinational companies to put in place comprehensive and wide-ranging long-term disaster risk and climate change adaptation strategies which address physical climate change risk across their businesses (including through their international supply chains) and to work with stakeholders to create a shared approach to risk.
- Promoting the consistent use of accurate and useful disaster risk and climate risk scenarios by all actors in the financial system. Exploring how existing data and new technologies can be used to support investment decision-making.


Photo: iStock

WORKING IN INTERNATIONAL PARTNERSHIP ON SUSTAINABLE FINANCE

Working through international action coalitions to make all financial investment climate-resilient, by:

- Building internationally consistent taxonomies of “sustainable” and by extension “unsustainable” economic activities, which includes those that are not resilient to disaster/climate change risk or which would lead to maladaptation or building in risk;
- Ensuring that financial institutions – including public institutions such as the Multilateral Development Banks – and companies which issue public debt or equity, disclose their exposure to physical climate change and disaster risk in line with the recommendations of the TCFD;
- Establishing resilience to physical climate change and disaster risk as a baseline condition both for infrastructure investments and for bilateral or multilateral financial instruments;
- Collaborating across borders to ensure integration of resilience to physical climate change and disaster risk into both investor and directors’ duties and into credit ratings;
- Working in international partnership to avoid and mitigate capital flight and finance coverage gaps related to physical climate change and disaster risk.

Definitions and scope of this report

This report addresses finance for disaster reduction risk (in relation to disasters caused by natural hazards and physical climate risks), climate change adaptation and resilience. Our approach to finance encompasses all types of financial flows and investments, whether from public or private sources.

DEFINITIONS:
Disaster Risk Reduction, Adaptation and Resilience

Disaster risk reduction is the concept and practice of reducing disaster risks through systematic efforts to analyse and reduce the causal factors of disasters. Reducing exposure to hazards, lessening vulnerability of people and property, wise management of land and the environment, and improving preparedness and early warning for adverse events are all examples of disaster risk reduction.

Adaptation and Resilience are two pillars of Disaster Risk Reduction:

- Adaptation is a process of deliberate change in anticipation of or in reaction to external stimuli and stress. The dominant research tradition on adaptation to environmental change primarily takes an actor-centered view, focusing on the agency of social actors to respond to specific environmental stimuli and emphasizing the reduction of vulnerabilities.
- The resilience approach is systems orientated, takes a more dynamic view, and sees adaptive capacity as a core feature of resilient social-ecological systems.
- The two approaches converge in identifying necessary components of adaptation[4].

Adaptation and resilience are systemic issues. It may be possible to categorise some activities as being focused on climate change adaptation, for example flood defence measures. However, to be sustainable all activities should be resilient to disasters and climate change.

4 Adaptation to Environmental Change: Contributions of a Resilience Framework, Donald R. Nelson, W. Neil Adger, and Katrina Brown, Annual Review of Environment and Resources, July 31, 2007

Linking Disaster Risk Reduction, Climate Change and Sustainable Finance

One of the key achievements of the 'Sendai Framework for Disaster Risk Reduction 2015-2030' (Sendai Framework) was to broaden the scope of disaster risk. The Sendai definition is: *"the risk of small-scale and large-scale, frequent and infrequent, sudden and slow-onset disasters caused by natural or man-made hazards, as well as related environmental, technological and biological hazards and risks.*[5]*"* In this report we are concerned with the subset of these risks that includes physical climate risk and disasters caused by natural hazards.

In the context of finance and investment, disasters caused by natural hazards are a traditional area of expertise for the insurance sector. There is also a new and increasing focus on climate-related financial risk. The leading definition of climate-related financial risk can be found in the recommendations of the Task Force for Climate-Related Financial Disclosures (TCFD Recommendations)[6] which identify two major categories of Transition risk and Physical risk. Transition risks include Policy and Legal Risk, Technology Risk, Market Risk and Reputation Risk. Physical risks include Acute Risk and Chronic Risk.

There are strong commonalities in the approaches to financial investment in resilience between the Sendai Framework and the TCFD Recommendations (see Annex for more detail) however the discussion may be more mature in the development sphere whereas within the financial system this is still an emerging topic. The European Commission and its Technical Expert Group on Sustainable Finance are breaking new ground in working to integrate climate change adaptation into the unified classification system for sustainable activities ("sustainable taxonomy"). However, there is clearly scope for a great deal more work to link together the expertise to be found within different disciplines.

The TCFD Recommendations address not only climate risks but also climate opportunities and financial impact. They identify resilience as a potential financial opportunity, saying: *"The concept of climate resilience involves organizations developing adaptive capacity to respond to climate change to better manage the associated risks and seize opportunities, including the ability to respond to transition risks and physical risks. Opportunities include improving efficiency, designing new production processes, and developing new products. Opportunities related to resilience may be especially relevant for organizations with long-lived fixed assets or extensive supply or distribution networks; those that depend critically on utility and infrastructure networks or natural resources in their value chain; and those that may require longer-term financing and investment.*[7]*"*

The Sendai Framework also recognizes investment in resilience as an opportunity. Within its Guiding Principles it states that: *"Addressing underlying disaster risk factors through disaster risk-informed public and private investments is more cost-effective than primary resilience on post-disaster response and recovery, and contributes to sustainable development."*

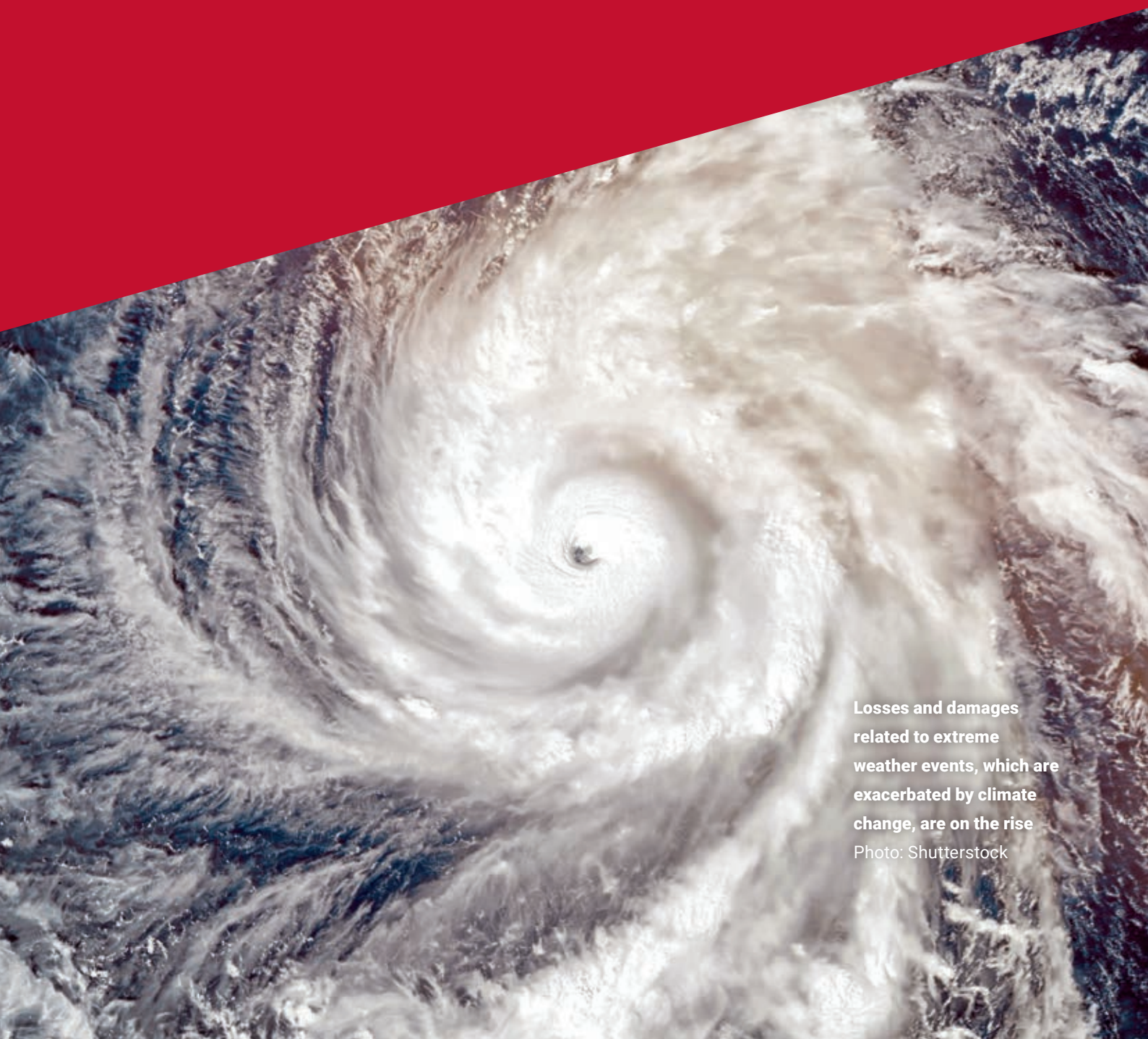
5 Sendai Framework for Disaster Risk Reduction, United Nations, 2015, Paragraph 15, https://www.unisdr.org/we/inform/publications/43291

6 Final Report, Taskforce for Climate-related Financial Disclosures, 2017, Page 5, https://www.fsb-tcfd.org/

7 Final Report: Recommendations of the Taskforce for Climate-related Financial Disclosures, TCFD, June 2017 page 7, Paragraph e. https://www.fsb-tcfd.org/publications/final-recommendations-report/

8 Sendai Framework for Disaster Risk Reduction, United Nations, 2015, Page 13, Paragraph 19(j), https://www.unisdr.org/we/inform/publications/43291

Chapter 1
Resilience and Sustainable Finance in Europe



Losses and damages related to extreme weather events, which are exacerbated by climate change, are on the rise
Photo: Shutterstock

The need for physical and financial resilience in Europe

Europe is already, and increasingly, exposed to risks from natural hazards. In the last 10 years, three European countries reached the global top ten for economic losses from storms, floods and earthquakes: France, US$43.3 billion; Germany, US$57.9 billion; and Italy, US$56.6 billion[9].

Direct and indirect losses and damages related to extreme weather events, which are exacerbated by climate change, are on the rise and so is the share of those losses that are insured. The total reported economic losses caused by weather and climate related extremes in the European member countries over the 1980–2017 period amounted to over €453 billion[10]. If the full picture of cascading and indirect losses were included in these figures, they would be even more staggering. Cascading risks are an area of growing concern for the disaster risk community but are not yet widely considered in financial decision-making. For example, increasingly dry and warm conditions increase the risk of wildfires, which damage soil and set the stage for later landslides and flooding[11], creating a compounding effect.

Risks related to economic losses and infrastructure damage are rising because of the growing number of assets exposed to hazards, the inadequacy of prevention measures and the growing interconnectedness of markets, societies and technologies in a digitalized economy. The direct and indirect costs of disasters with potential cascading and global effects are a real threat to economic stability and well-being of societies. Resilience is paramount to addressing these risks.

Not paying attention to disaster risk reduction and climate change adaptation can lead to a serious deterioration of the economy and ecosystems and a loss of trust amid both the population and investors. Frequent small and medium impact disasters and single intense events can severely disrupt community lifelines – the systems that provide food distribution, water supply, health care, transportation, waste disposal and communications. Business and private investors may shy away from cities that are perceived to be indifferent in acting towards reduce disaster risk. In urban developments, disaster risk is produced through many individual public and private investment decisions and non- decisions taken over a long time – making it difficult to attribute responsibility.

Financial background

The scale of financial flows and investments is massive. In Europe assets under management by regulated third-party managers reached €25.2 trillion in 2017, estimated as 147% of GDP[12]. Sustainable investment is growing – Blackrock, the world's largest fund manager,

9 Economic losses, poverty & disasters: 1998-2017, UNDRR, 2018, https://www.unisdr.org/we/inform/publications/61119

10 Economic losses from climate-related extremes in Europe, European Environment Agency, April 2019, https://www.eea.europa.eu/data-and-maps/indicators/direct-losses-from-weather-disasters-3/assessment-2

11 'How do natural hazards cascade to cause disasters?', Amir AghaKouchak et al, Nature, September 2018, https://www.nature.com/articles/d41586-018-06783-6

12 EFAMA 10th Asset Management Report, European Fund and Asset Management Association, September 2018, http://www.efama.org/Publications/Statistics/Asset%20Management%20Report/EFAMA_Asset%20Management%20Report%202018%20voor%20web.pdf

has forecast that the total share of sustainable investments in Exchange Traded Funds globally will increase from today's 3% of total assets, to 21% of all assets by 2028[13]. However most global investment will still fail to take disaster risk, climate change adaptation and resilience into account.

Furthermore, disaster risk, climate change adaptation and resilience remain under-explored by mainstream investors. There is a long way to go in ensuring that physical climate risk and disaster risk are understood and integrated into investment decisions, and that financing for recovery takes place where it is needed and in an equitable way. Yet time is short for greening investment, given the need to make the necessary shift in capital flows to guarantee climate neutrality in 2050 in order to avoid the worst impacts of climate change.

Sustainable financing marks the difference between weathering the storm and disaster. While we do not have a total picture of Europe's financial exposure to climate-related disaster risks, we do know that they are already resulting in significant economic losses. In the future, losses and disasters from climate impacts risk will increase dramatically if mitigation goals are not met and if we fail to deliver adequate resilience to climate change.

The disaster risk community recognizes the important role to be played by finance. The Sendai Framework for Disaster Risk Reduction 2015-2030 was a key milestone in the planning for disaster risk reduction, addressing governance at every level and considering a wide set of stakeholders. Within Europe the relevant regional platform is the European Forum for Disaster Risk Reduction (EFDRR) which serves as a forum for exchanges at regional level. Meetings of the EFDRR have identified the European Commission's Sustainable Finance Action Plan as an important agenda for the implementation of the Sendai Framework in Europe.

The Forum has twice called on European institutions to recognize and act on this link:

- In March 2017 the Istanbul Outcome of the EFDRR Open Forum decided to: *"Call upon Governments to leverage the work underway in Europe to integrate sustainable finance with disaster risk reduction and climate change in an inclusive manner*[14]*"*.
- In November 2018 the Rome Declaration of Stakeholders of the EFDRR decided both to: *"Consider that climate and disaster risks are two sides of the same coin, calling for an integrated approach to climate change adaptation and disaster risk reduction actions"*, and also to *"Promote risk- and climate-sensitive public and private investments for building disaster resilience, making full use of the opportunity of ongoing wider developments around sustainable finance; explore the potential of a dedicated financial enquiry on unlocking disaster resilience investments*[15]*."*

13 'BlackRock predicts ESG ETF growth to $400bn', ESG Clarity, October 2018, https://esgclarity.com/blackrock-projects-esg-etf-growth-to-400bn/

14 2017 European Forum for Disaster Risk Reduction Open Forum, Istanbul Outcomes, European Forum for Disaster Risk Reduction, March 2017, Paragraph 4, https://www.preventionweb.net/files/52532_2017efdrroutcomesfinal.pdf

15 Rome Declaration of Stakeholders: Securing Europe's Prosperity – Reducing Risk of Disasters, European Forum for Disaster Risk Reduction, November 2018, Paragraphs 6 & 16, https://www.preventionweb.net/english/professional/policies/v.php?id=62147

Three key points from the Sendai Framework can serve as important framing principles for sustainable finance both within Europe and internationally:

- **All investments need to be resilient to climate-related disaster risk:** *("reducing disaster risk is a cost-effective investment in preventing future losses", Paragraph 3).*
- **Climate-related disaster risk applies to all countries:** *("The reduction of disaster risk is a common concern for all states", Guiding Principles, (a))*
- **To maintain financial stability the financial sector must enable investment in climate change resilience:** *("Addressing underlying disaster risk factors through disaster risk-informed public and private investments is more cost-effective than primary reliance on post-disaster response and recovery, and contributes to sustainable development.", Guiding Principles (j))*

The European Commission's Sustainable Finance Action Plan was adopted in March 2018 after several years of development. The Action Plan is focused on achieving a transition to a low carbon and climate resilient future through financial sector reforms.

Europe's action on sustainable finance was in many ways triggered by the 2007-2008 financial crisis and ensuing eurozone crisis which highlighted the importance of long-term, resilient and sustainable investment in a robust financial market. The financial crises of 2007-2008 began with the subprime mortgage market crisis in the US, developing into a global scale banking crisis which lead to the collapse of several banks including Lehman Brothers in 2008. The repercussions in Europe were felt through the bailout of affected banks across multiple countries through government loans. Recession followed across Europe and, combined with rising government debts, led to the Eurozone crises after late 2009. Yields of government bonds increased due to the enhanced risk associated with investing in poorly performing countries, further adding to the strain on economies. Several Eurozone member states were unable to pay their sovereign debts or bailout affected banks and therefore required assistance from other Eurozone member states, the European Central Bank (ECB) or the International Monetary Fund (IMF).

The crisis highlighted the financial vulnerability of Europe to economic shocks and the need for increased regulatory and supervisory controls to improve financial stability. The events also demonstrated the reliance of the EU economy on bank lending. The EU had worked towards integration of capital markets across member states since the Single Market project in the 1980s. Further steps such as passporting of financial services attempted to increase cross border activity and improve diversification of financial risk. However, hurdles such as differing financial conditions, rules and market practices across EU member states hampered integration which left Europe vulnerable to financial risks in the banking sector.

Capital Markets Union

Spurred on by the crisis, the Juncker Commission announced the Capital Markets Union (CMU) as part of the Investment Plan in 2014[16]. The aim was to mobilise capital across Europe through deeper and more integrated capital markets which would:

- provide businesses with a greater choice of funding at lower costs;
- offer new opportunities for savers and investors;
- make the financial system more resilient.

Sustainable and green investment was a key part of the CMU Action Plan which was published on 30th September 2015[17] and aimed to increase the EU's competitiveness and achieve long term growth. Furthermore, the EU made commitments under the Sustainable Development Goals, Sendai Framework and Paris Agreement to align financial flows with a pathway towards sustainable development. The EU also committed to reduce greenhouse gas emissions by 40% by 2030, estimating the cost of the required investment at €180 billion per year[18]. To start filling this gap the EU has sourced funding through the EIB's European Fund for Strategic Investment (EFSI), however the private financial sector will be key to generating the remaining funding required. The Commission has therefore set out to engage with and reform the financial system with several initiatives.

High Level Expert Group on Sustainable Finance (HLEG)

The European Commission established the HLEG in December 2016, comprising 20 senior experts from civil society, the finance sector, academia and observers from European and international institutions. The group published a final report in January 2018 providing advice to the Commission on steering the flow of capital towards sustainable investments, identifying the steps to protect the stability of the financial system from risks related to the environment and deploying these polices on a pan-European scale.

Sustainable Finance Action Plan

The recommendations of the High-Level Expert Group formed the basis of the European Commission's Sustainable Finance Action Plan adopted in March 2018[19]. The overall aims of this Plan are to:

1. Reorient capital flows towards sustainable investment in order to achieve sustainable and inclusive growth.
2. Manage financial risks stemming from climate change, resource depletion, environmental degradation and social issues.
3. Foster transparency and long-termism in financial and economic activity.

16 What is the capital markets union? European Commission, https://ec.europa.eu/info/business-economy-euro/growth-and-investment/capital-markets-union/what-capital-markets-union_en

17 Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions: Action Plan on Building a Capital Markets Union, European Commission, September 2015, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52015DC0468

The Sustainable Finance Action Plan was a considerable step forward by the European Commission in recognising the importance of managing sustainability risks in financial decision-making and risk management processes. Previously there had been little consideration for the destabilising effect that disaster risk could have on Europe's economy and financial system. The Action Plan took a different approach. It included sustainability risks (climate change mitigation and adaptation, as well as broader environmental risks such as disasters caused by natural hazards) in its definition of 'sustainable finance' and referenced the UN Sendai Framework for Disaster Risk Reduction. Its second aim was *"to… manage financial risks stemming from climate change, resource depletion, environmental degradation and social issues", "including environmental and social goals in financial decision-making to limit the financial impact of environmental and social risks".*

The Action Plan acknowledges the EU's large exposure to climate-related financial risk, with increasing economic losses from extreme weather worldwide, and the large exposures of both European insurance companies and banks to risks (directly or indirectly) stemming from climate change: *"Environmental and climate risks are currently not always adequately taken into account by the financial sector. The increase in weather-related natural disasters means that insurance companies need to prepare for higher costs. Banks will also be exposed to greater losses due to the lower profitability of companies most exposed to climate change or highly dependent on dwindling natural resources. Between 2000 and 2016, annual weather-related disasters worldwide rose by 46% and between 2007 and 2016, economic losses from extreme weather worldwide rose by 86% (EUR 117 billion in 2016). This is a worrying trend, since close to 50% of the exposure of Euro area banks to risk is directly or indirectly linked to risks stemming from climate change."*

In this paper we assess the specific actions in the Sustainable Finance Action Plan and consider how disaster risk, climate change adaptation and resilience could be better integrated into these actions going forwards. A full list of the actions in the Plan can be found in the Annex.

Technical Expert Group

The European Commission's Technical Expert Group (TEG) was set up in July 2018 to assist in the development of work towards several key actions. There are 35 members from civil society, academia, business and the finance sector, as well as additional members and observers from EU and international public bodies. Four sub-groups were set up for: Taxonomy (which includes a group on climate change adaptation), Green Bond Standard, Benchmarks and Disclosures. Progress reports were issued in December 2018 for each of these actions and further measures, highlighted in the Annex, have been taken to support the implementation of the Action Plan. The TEG will operate until December 2019.

18 Sustainable Finance, European Commission, https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance_en

19 Sustainable Finance Action Plan: COM(2018) 97, Communication from the Commission to the European Parliament, the European Council, the Council, The European Central Bank, The European Economic and Social Committee and the Committee of the Regions, Action Plan: Financing Sustainable Growth, European Commission, March 2018, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52018DC0097

Chapter 2
Integrating long-term thinking into financial markets

Tourists in Piazza San Marco, Venice, stay dry but UNESCO warns that the city is at a severe risk due to climate change.
Photo: iStock

Short-termism is widely understood to be a major obstacle both to embedding sustainability into financial markets, and to including sustainability factors in strategic planning. In 2015 Bank of England Governor Mark Carney noted, *"the catastrophic impacts of climate change will be felt beyond the traditional horizons of most actors – imposing a cost on future generations that the current generation has no direct incentive to fix."*

Climate change requires a long-term perspective, with long-term goals for mid-century included within the Paris Agreement. This timescale, or even the 2030 target for the third Sendai target to reduce direct disaster economic loss in relation to global gross domestic product by 2030, is well outside the timeframe of most financial decisions. The European Commission's Sustainable Finance Action Plan identifies short-termism in capital markets as a problem to be overcome (Action 10).

Two important ways to assist long-term thinking are:

i. to create a long-term strategy;

ii. to test strategies against different possible future scenarios.

Long-term strategies

Long-term strategies at national or local level for disaster risk reduction, climate change adaptation and resilience can be a powerful tool for influencing financial investments. Under the fifth target of the Sendai Framework countries agreed to *"Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020"*, and the creation of such strategies represents a core governance component of disaster risk recovery. Strategies for disaster risk reduction may have a relatively short timeframe and concrete actions, in contrast with strategies for climate change adaptation which are likely to operate on a longer timescale and may cover a different geographical boundary[20], so it is desirable for these strategies to be integrated where possible, or at least coherent with one another.

The World Bank Group's Action Plan on Climate Change Adaptation and Resilience[21] states that: *"Full integration of development planning and climate change adaptation requires integrating climate risks and opportunities at every level of policy planning, investment design, implementation, and evaluation"*, although also notes that such integration is rarely done, for reasons including lack of a well-targeted national plan. There is a clear opportunity to leverage efforts towards disaster risk reduction planning in order to inform national planning for climate change adaptation and resilience.

20 'Integrating disaster risk reduction and climate change adaptation: key challenges—scales, knowledge, and norms', Birkmann et al, Sustainability Science, April 2010, https://bit.ly/2P1eopl

21 Action Plan on Climate Change Adaptation and Resilience, World Bank Group, 2019, http://documents.worldbank.org/curated/en/519821547481031999/The-World-Bank-Groups-Action-Plan-on-Climate-Change-Adaptation-and-Resilience-Managing-Risks-for-a-More-Resilient-Future.pdf

The European Commission's Technical Expert Group on Sustainable Finance (TEG) has been working to create a taxonomy of sustainable economic activities for use in financial markets. As part of this work the TEG has considered whether, to be considered to contribute to climate change adaptation, an activity should be consistent with a local, regional or national climate change adaptation strategy.

Such a requirement would send a powerful signal to financial markets. If an investment into an activity had to be consistent with a strategy to be recognised as contributing to climate change adaptation, then there would be a strong incentive for investors to use their voice in helping to ensure that appropriate strategies were put in place by Member States and other relevant authorities. This would have benefits not only for investors but for citizens protected by sound long-term strategies. Strategies could be dynamic to incorporate developments in data collection and assessment, and to allow for innovative solutions.

For European Member States, ensuring that they have comprehensive national strategies for disaster risk reduction and climate change adaptation could help attract finance and investment, by demonstrating risk management and specifying investment needs. An EU Observatory on Sustainable Finance, as proposed by the HLEG, could quantify and track these financial flows as well as other climate data.

Action 10 of the Sustainable Finance Action Plan commits the European Commission to assess the possible need to require corporate boards to develop and disclose a sustainability strategy, including appropriate due diligence throughout the supply chain, and measurable sustainability targets. The development of comprehensive long-term sustainability strategies by companies can have many benefits including channeling resources towards relevant investments at the firm level and protecting employees and customers.

The creation of sustainability strategies by companies has benefits for other actors and can lead to synergies. By sharing their understanding of facility-level impact and exposure companies could inform integrated adaptation and disaster risk strategies created by cities and regions, and this in turn could help to generate more finance for infrastructure that benefits the company. Data-sharing between companies and governments can also assist civil protection planning; this concept is being trialed in Norway through a new partnership[22] (see case study in following section).

22 'Civil protection and finance sector join forces in Norway', UNDRR, February 2019, https://www.unisdr.org/archive/57210

23 'Sendai Framework monitoring starts early 2018', UNDRR, May 2017, https://www.unisdr.org/archive/53462

AREA TO EXPLORE IN EUROPEAN CONTEXT

1 **Public sector strategies:** Encouraging European Member States and regions to create national and local level strategies for disaster reduction risk and climate change adaptation which are linked to national investment strategies and priorities. Investments in adaptation and resilience could be tracked by a European Finance Observatory.

2 **Private sector strategies:** Supporting European companies to put in place comprehensive and wide-ranging long-term disaster risk and climate change adaptation strategies which address physical climate change risk across their businesses, including through their supply chains, and to work with local and national authorities to create a shared approach to risk.

Testing strategies against future scenarios

The TCFD Recommendations suggest that firms test their business strategies against a range of climate change scenarios. This aligns with the Sendai Framework suggestion that national and local governments should *"prepare or review and periodically update disaster preparedness and contingency policies, plans and programmes… considering climate change scenarios and their impact on disaster risk, and facilitating, as appropriate, the participation of all sectors and relevant stakeholders."*

However, it is not always easy for firms to identify the best scenarios to use. The default options are typically the global reference scenarios produced by the Intergovernmental Panel on Climate Change (IPCC) and International Energy Agency (IEA). Like all scenarios these include assumptions and are subject to uncertainty. Use of scenarios encounters additional challenges when moving to the national or local level, when there can be data and communication gaps.

In 2018 countries began working together to monitor progress in achieving the Sendai Framework targets. A 2017 review of the readiness of countries to report against these targets indicated that data was available for 83% of reporting countries in relation to reducing mortality (Sendai target A) and 66% in relation to reducing the numbers of people directly affected (Target B). These percentages declined to 50% for Target C on reducing disaster economic loss in relation to global GDP, and 60% for Target D on reducing damage to critical infrastructure and disruption of basic services. The Summary Report also reveals wide data variances for Target E on the number of countries with national and local DRR strategies in place; Target F, on enhancing international cooperation; and Target G, on substantially increasing the availability of multi-hazard early warning systems and disaster risk information. Generally, data was typically more available on physical damage and human impact, and less available on economic losses, losses of specific assets and infrastructure, cultural heritage and disruptions to basic services[23].

The insurance sector has deep expertise in forecasting future climate and disaster risk impacts. However, the workshop held by E3G and UNDRR in Brussels on 14th March 2019 highlighted the fact that while significant amounts of information exist within the insurance sector through accumulation of claims, experience from catastrophic events it is often not widely available. The data is seldom shared due to personal and business privacy concerns, time consuming and technical data manipulation requirements and potential competitive advantages from claim patterns.

Claims data is used to help build catastrophe model components and inform actuarial models, so industry level databases have been aggregated by catastrophe model developers. Information tends to include claim type, location and monetary loss, which when combined with hazard information such has flood height or wind speed provides valuable insight to understanding risk. Over the past decade industry-wide claims data has also been aggregated by independent reporting agency PERILS, which shares industry exposure and loss totals for reference and trading. In addition, large reinsurers such as MunichRe and SwissRe have their own loss and damage databases.

Financial and non-financial firms are likely to refer to the scenarios published by the IEA which in turn draw on emissions scenarios published by the IPCC. However, IEA scenarios were not developed for this purpose, and are based on many assumptions which those firms may not be aware of. Existing scenarios assume that large amounts of greenhouse gas emissions will be removed from the atmosphere through carbon dioxide removal (which to date does not look likely), and the IEA's Sustainable Development Scenario has a low probability of reaching the ambitious emissions reduction target of 1.5 degrees Celsius required under the Paris Agreement. On 2nd April 2019 a group of investors and scientists wrote a letter to Fatih Birol, Executive Director at the IEA, calling for clarity and enhancement of its existing scenarios[26].

Climate change adaptation and resilience issues are absent from mainstream climate change scenarios developed to consider mitigation options. Following the IPCC's Special Report on Global Warming of 1.5 Degrees Celsius, published in October 2018 it is now widely understood that even the most ambitious emissions reduction scenarios will result in climatic changes and increased incidence of extreme weather events. The IEA scenarios do not account for these impacts, which could for example affect agricultural productivity and macroeconomic variables and may lead to cascading risks.

While it is important that standard emissions scenarios for 2 or 1.5 degrees Celsius are realistic, to achieve resilient investment it is also important that companies and financial sector firms can rely on robust reference scenarios for business as usual (or higher) levels of warming. Currently there are very few such scenarios that are deemed robust and granular enough by most stakeholders.

24 Civil protection and finance sector join forces in Norway, UNDRR, February 2018, https://www.unisdr.org/archive/57210

25 Insurance Loss Data Sharing Projects for Climate Resilient Municipalities, Index Insurance Forum, July 2018, https://indexinsuranceforum.org/resilience-document/insurance-loss-data-sharing-projects-climate-resilient-municipalities-0

26 IEA's climate models criticised as too fossil-fuel friendly, Financial Times, 2019, https://www.ft.com/content/5c80f102-5535-11e9-91f9-b6515a54c5b1

CASE STUDY:

Norwegian Insurance Loss Data Sharing Project for Climate-Resilient Municipalities

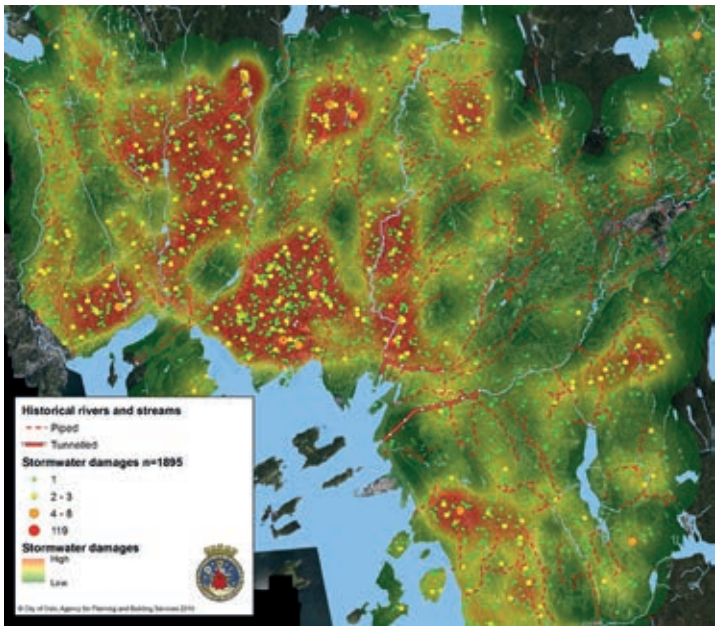


Figure 1: Map of Oslo, Norway – the location of stormwater damages and rivers (Source: Oslo Kommune)

A public-private partnership between Finance Norway and ten Norwegian municipalities demonstrated a successful initiative to share claims data on an asset level from the insurance industry with local government[24]. The collaboration involved Finance Norway, insurers, Western Norway Research Institute, the Department of Geography at the Norwegian University of Science and Technology (NTNU) and ten municipalities[25]. Through opening conversation between insurers and municipalities the project encouraged the building of trust. 10 years of claims data at near 100% of market share was shared with municipalities who then mapped the information. This helped to better inform municipality and county councils of their risk to both river and urban flooding, highlighting areas at risk that previous local government information did not capture.

Figure 1 shows the number of storm water insurance claims in Oslo, Norway, which were gathered as part of the project. Patterns of claims, showing areas at risk, helped inform flood risk mitigation investment decisions at a local level in terms of management, maintenance and land use planning.

This is of importance given increasing flood risk from climate change combined with continued growth of cities, which increases vulnerability. The partnership in Norway is the first successful example of collaboration between the insurance industry and government. The project has led to a national collaboration between the public (The Norwegian Directorate of Civil Protection, the National flood agency and the State Road directorate) and Finance Norway to establish a national loss data platform with all loss data available, giving all the municipalities in Norway and the County Governor access to the loss data.

European action on data and scenarios

There is a wealth of data on climate risk which can be used by the financial sector, however it is not used in a transparent, consistent and comparable way. A collaborative effort is required between researchers and public and private actors with robust risk data to generate useful data information for investment decision making.

The European Commission's Disaster Risk Management Knowledge Centre launched a Risk Data Hub in late 2018 which is planning to map out loss and damage from disaster caused by natural hazards using insurers' data.[27,28] The hub is supported by multiple policies of the European Parliament and by the Council on a Union Civil Protection Mechanism[29] as well as the Sendai Framework. Still in the early stages of development, the project will rely on data from European insurers, hazard research agencies and academia, with the Commission hosting open access services to enable management of risk from national down to municipal levels. This work will contribute towards the ongoing operations of the European Commission's Emergency Response Coordination Centre (ERCC) who are responsible, as part of the EU's Union Civil Protection Mechanism, for coordinating assistance to disasters across Member States. The Hub builds on existing climate change adaptation data initiatives in Europe such as the Copernicus Service's Climate Data Store[30].

AREA TO EXPLORE IN EUROPEAN CONTEXT

3 **Assessing strategies against scenarios:** Promoting the consistent use of accurate and useful disaster risk and climate risk scenarios by governments, public institutions and financial regulators as well as private sector firms (both financial and non-financial) and exploring how existing data can be used to support investors and citizens.

27 'Risk data hub' to enhance EU resilience to climate hazards, Euractiv, November 2018, https://www.euractiv.com/section/energy-environment/news/risk-data-hub-to-enhance-eu-resilience-to-climate-hazards/

28 DRMKC Risk Data Hub, European Commission: Disaster Risk Management Knowledge Centre, 2018, https://drmkc.jrc.ec.europa.eu/risk-data-hub/about/

29 Risk Data Hub – web platform to facilitate management of disaster risks, European Commission – Joint Research Centre, 2019, http://publications.jrc.ec.europa.eu/repository/handle/JRC114120

30 Climate Data Store, https://cds.climate.copernicus.eu/#!/home

31 A Call for Action: Climate Change as a source of financial risk, NGFS, April 2019, https://www.banque-france.fr/en/financial-stability/international-role/network-greening-financial-system/first-ngfs-progress-report

32 HLEG Report: Financing a Sustainable European Economy, Final Report 2018, High-Level Expert Group on Sustainable Finance, 2018, https://ec.europa.eu/info/sites/info/files/180131-sustainable-finance-final-report_en.pdf

33 'Fact sheet: Capital Markets Union: Creating a stronger and more integrated European financial supervisory architecture, including on anti-money laundering', European Commission, April 2019, http://europa.eu/rapid/press-release_MEMO-19-1928_en.htm?locale=en

34 In an amendment to the Capital Requirement Regulation and Capital Requirement Directive which was adopted by the European Parliament in April 2018, http://www.europarl.europa.eu/doceo/document/TA-8-2019-0370_EN.html

35 Action Plan on Climate Change Adaptation and Resilience, World Bank Group, 2019,

Use of scenarios by financial supervisory authorities and public sector institutions

European central banks are leading players within the Central Banks and Supervisors' Network for Greening the Financial System (NGFS). The Network has a European core, being hosted by Banque de France and Chaired by Frank Elderson of De Nederlandsche Bank, while key workstreams are led by the Bank of England and the Deutsche Bundesbank. In its first comprehensive report[31] of April 2019 the NGFS recommended the use of data-driven scenarios by central banks to assess risks across the financial system. Use of scenarios to test strategy and risk exposure is important for ensuring that physical climate risk and disaster risk are mapped and integrated into financial decision-making across the financial system, by both private and public institutions.

The EU High Level Expert Group on Sustainable Finance had already recommended that the European Supervisory Agencies (ESAs) build expertise over time on tools for scenario analysis, starting with climate-related risks[32]. The European Commission adopted this recommendation in the European Commission's Sustainable Finance Action Plan, saying that *"In the short term the ESAs should play an important role in identifying and reporting on the risks that sustainability factors pose to financial stability. This could be done through the development of a common EU methodology for relevant scenario analyses, which could later evolve into climate/environment stress testing"*.

In late March 2019, a review of the ESAs by the EU's co-legislators was finalised[33]. This defines for the first time how the ESAs should integrate environmental, social and governance (ESG) criteria into their work, including developing common methodologies for assessing the effect of adverse environmental developments on the financial stability of institutions, and putting in place a monitoring system to assess material ESG risks. These could include systemic issues such as physical climate risk, disaster risk and cascading risks.

Adding to the calls on financial supervisors to take account of these issues, it has been proposed that the European Banking Authority (EBA) is asked[34] to assess the potential inclusion of ESG risks in the review and evaluation performed by competent authorities (i.e. national financial regulators). In this proposal the EBA is requested to consider *"stress testing processes and scenario analyses to assess the impact of ESG risks under scenarios with different severities"*.

Overall, at European level there is strong momentum towards use of data-driven climate risk scenarios not only by the private sector (as recommended by TCFD and NGFS) but also by public sector institutions and supervisory authorities. This is in line with the World Bank Group's strategic aim to *'Drive a mainstreamed, whole-of-government programmatic approach'*[35], including macroeconomic modelling of climate risks.

Chapter 3
Reorienting capital flows towards a more sustainable economy

The Oosterscheldekering is the largest of the 13 Delta Works series of dams and storm surge barriers, designed to protect the Netherlands from flooding from the North Sea.
Photo: GLF Media / Shutterstock

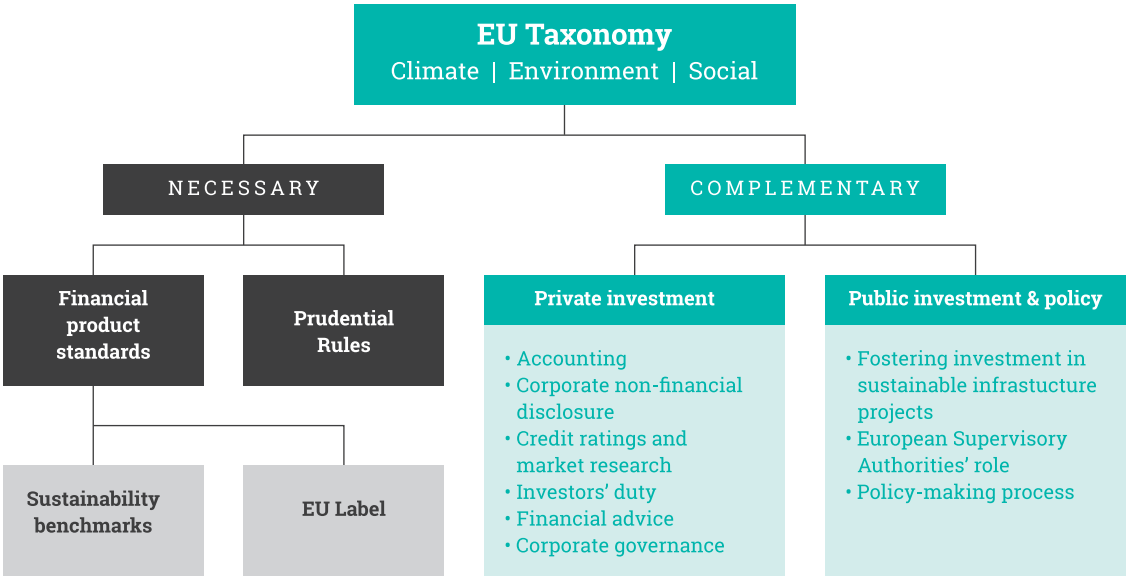
The European Commission's Sustainable Finance Action Plan has a priority of 'reorienting capital flows towards a more sustainable economy' which includes the following actions:

Action 1 A unified classification system for sustainable activities ("sustainable taxonomy");
Action 2 Creating standards and labels for green financial products;
Action 3 Fostering investment in sustainable products;
Action 4 Incorporating sustainability when providing financial advice;
Action 5 Developing sustainability benchmarks

Sustainable Finance Plan Action 1
A unified classification system for sustainable activities

The taxonomy is identified by the European Commission as being a foundational element of the Plan: *"A shift of capital flows towards more sustainable economic activities has to be underpinned by a shared understanding of what 'sustainable' means. A unified EU classification system – or taxonomy – will provide clarity on which activities can be considered 'sustainable'.* ***It is at this stage the most important and urgent action of this Action Plan.***[36]

Figure 2: Role of the EU taxonomy in the Action Plan [37]



36 Sustainable Finance Action Plan: COM(2018) 97, Communication from the Commission to the European Parliament, the European Council, the Council, The European Central Bank, The European Economic and Social Committee and the Committee of the Regions, Action Plan: Financing Sustainable Growth, European Commission, March 2018, Page 4, 2.1, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52018DC0097

37 Ibid, Annexe 1

The Commission tasked the Technical Expert Group on Sustainable Finance (TEG) to provide a first taxonomy with a focus on climate change mitigation and adaptation activities by Q2 2019. The Commission also committed, subject to the outcome of its impact assessment, to table a legislative proposal "that will ensure the progressive development of an EU taxonomy for climate change, environmentally and socially sustainable activities.[38]"

The TEG appointed experts – including experts on climate change adaptation – to advise on the taxonomy and has led a process of consultation with those who were selected. A workshop on climate change adaptation within the taxonomy was held in late March 2019.

Climate change adaptation and resilience pose challenges to the development of a taxonomy of activities:

- Resilience is a systemic issue. It may be possible to categorise some activities as being focused on climate change adaptation and resilience, for example flood defence measures. However, to be sustainable all activities should be resilient to climate change.
- Climate change adaptation is highly context specific, different activities may be more or less appropriate in different locations and at different times. Therefore, it is difficult to define any activity as definitively contributing to climate change adaptation without including an element of detailed assessment that takes context into account. This is because climate change adaptation can be considered a process rather than an outcome.

Given these challenges, the Technical Expert Group's expert consultation process has attempted to take a systemic view of the role of climate change adaptation and resilience across economic activities. It has also sought to identify and map linkages and dependencies between different activities in relation to climate change adaptation.

38 Sustainable Finance Action Plan: COM(2018) 97, Communication from the Commission to the European Parliament, the European Council, the Council, The European Central Bank, The European Economic and Social Committee and the Committee of the Regions, Action Plan: Financing Sustainable Growth, European Commission, March 2018, page 4, Action 1

Defining sustainable activities

In 2018-19 there has been a robust debate within and between the European institutions as to the proper form and role of the unified classification system for sustainable activities. The European Commission asked the Technical Expert Group on Sustainable Finance to develop a taxonomy for climate change, environmentally and socially sustainable activities, including activities that contribute to climate change adaptation – or a "sustainability taxonomy". The European Commission's Sustainable Finance Action Plan says: *"This is an essential step in supporting the flow of capital into sustainable sectors in need of financing*[39]*"*.

However, some stakeholders including the European Parliament have argued for a classification of economic activities that are not sustainable under this action – an "unsustainable taxonomy". The argument for this is that the shift to a sustainable economy can only happen if there is a significant re-direction of capital and not just an increase in sustainable investment. It would also help investors to understand where they should cease to invest, or even divest, due to risk as well as supporting the transition of assets from 'unsustainable' to 'sustainable' through improvements. The Technical Expert Group is not working on this at present, however the European Parliament has proposed (in its position adopted on the 28th March 2019) to investigate expanding the taxonomy to include economic activities that have a significant negative impact on sustainability before the end of 2021. The Parliament also proposed widening the scope of the taxonomy to require all financial market participants, offering any financial products, to disclose against the taxonomy, rather than only those offering 'green' products. Meanwhile, in the European Council a non-paper tabled by France and supported by other Member States has proposed a full taxonomy including "unsustainable" economic activities and is currently under negotiation.

Discussion of an 'unsustainable' taxonomy has also taken place among central banks and financial regulators in the context of financial stability and systemic risk. The first comprehensive report of the Central Banks and Supervisors Network for Greening the Financial System (NGFS) in April 2019 recommended that policymakers "bring together the relevant stakeholders and experts to develop a taxonomy that enhances the transparency around which economic activities (i) contribute to the transition to a green and low-carbon economy and (ii) are more exposed to climate and environment-related risks (both physical and transition.)"

Furthermore, the issue of "brown" assets was also raised by the European Insurance and Occupational Pensions Authority in its recent Call for Evidence for an Opinion on sustainability within Solvency II[40], which was made at the request of the European Commission under Action 8 of the Sustainable Finance Action Plan. The Call for Evidence asked for information

39 Sustainable Finance Action Plan: COM(2018) 97, Communication from the Commission to the European Parliament, the European Council, the Council, The European Central Bank, The European Economic and Social Committee and the Committee of the Regions, Action Plan: Financing Sustainable Growth, European Commission, March 2018, page 4, 2.1

40 EIOPA seeks evidence on integration of sustainability risks in Solvency II, European Insurance and Occupational Pensions Authority, January 2019, https://eiopa.europa.eu/Pages/News/eiopa-seeks-evidence-on-integration-of-sustainability-risks-in-solvency-ii.aspx

and evidence about whether brown – as well as green – assets have a significantly different risk profile to other assets.

We would agree that disaster risk reduction, climate change adaptation and resilience should also be considered in the future development of any European "unsustainable" list of economic activities. In relation to these risks there are two types of activity that could most obviously be "unsustainable":

i) economic activities which are not physically resilient to the potential impacts of natural hazards,

ii) economic activities which would lead to maladaptation (defined as the failure to adapt properly to a new situation or environment) or building in risk for the future.

This classification would clarify to investors where investment needs to re-orient from and could be a necessary step to ensure activities that are not physically resilient to climate change and disasters caused by natural hazards are avoided. Integration of adaptation is a separate issue from the question of whether 'brown' activities which are incompatible with a Paris-aligned emissions trajectory should be classified as "unsustainable" even if they are currently financially viable (which may be due to market or policy failure). However, in common with these activities there would be a need to develop a vision for a just transition to support people in industries requiring transformation.

AREA TO EXPLORE IN EUROPEAN CONTEXT

4 **A Resilient Taxonomy:** Developing a European taxonomy of "sustainable" and by extension "unsustainable" economic activities, which includes those that are not resilient to disaster/climate change risk or which would lead to maladaptation or building in risk.

Standards and labels for green financial products

Sustainable Finance Action Plan Actions 2, 4 and 5: Creating standards and labels for green financial products, incorporating sustainability when providing financial advice, low-carbon benchmarks

The European Commission's Sustainable Finance Action Plan includes two actions designed to protect and serve consumers, by enabling consumer education and choice and ensuring that green products available in the market are trustworthy.

Action 2 makes provision for European standardization of green bonds and their issuance, and for aligning the EU Ecolabel framework with the taxonomy.

Action 4 aims to ensure that clients' sustainability preferences are considered in the suitability assessment that investment firms must make under the MiFID II regulation.

Action 5 sets in motion a process to create low-carbon benchmarks for appropriately measuring the performance of green investment products.

The classification approach used for the taxonomy (Action 1) will be crucial to the implementation of Actions 2 and 4:

- The Technical Expert Group has been working on a proposal for green bond standards to be submitted to the European Commission. The Technical Expert Group presented its interim report on the 6th March 2019, acknowledging that an EU green bond standard should be closely aligned with criteria developed in the taxonomy. Therefore, climate change adaptation will be included as one of the six environmental objectives that could be supported if a project shall be defined as environmentally sustainable.
- In December 2018, the European Securities and Markets Authority issued a consultation on integrating sustainability risks and factors in MiFID II. The consultation paper proposed that the categorization of ESG preferences should rely on the taxonomy (or until this is finalized, the Technical Expert Group's proposal for the taxonomy) and noted that the taxonomy identifies six environmental objectives including climate change adaptation.

It is very welcome that climate change adaptation should be included as an environmental objective for green investments as this could substantially increase the flow of finance to activities linked to disaster risk reduction, climate change adaptation and resilience. However, it is important to maintain the perspective that disaster risk and physical climate risk are systemic and potentially affect all financial investments, as recognized by the European Parliament. These issues should be considered when assessing the suitability of any investment for any client.

- In the case of benchmarks the Commission has aimed for alignment with the Paris Agreement: *"For instance, a sound methodology for low-carbon indices should reflect compatibility with the objectives of the Paris Agreement, in order to improve the performance assessment of low-carbon funds.*[41]*"* On 25th February 2019 the European Commission announced that a political agreement had been reached between the European Parliament and Member States for a climate-transition benchmark and a specialised benchmark which brings investment portfolios in line with the Paris Agreement goal to limit the global temperature increase to 1.5˚C above pre-industrial levels. These are both likely to contribute to goals a) and c) of the Paris Agreement. However, there is not yet a benchmarking proposal which addresses goal b) on climate change adaptation (e.g. a climate-resilience benchmark).
- The systemic yet varied nature of adaptation is a challenge for benchmarks, as is the lack of current best practice. Going forwards climate change adaptation could potentially be linked to the new low-carbon benchmarks by making a link to the taxonomy, as is the case for the bond standard and investor advice. The Technical Expert Group is expected to continue to monitor and discuss potential interlinkages between the benchmarks and the taxonomy, including the results of work on climate change adaptation within the taxonomy. This work could be picked up and continued by the new Platform on Sustainable Finance which will be created to manage and develop the taxonomy.

Generally, across all these actions there is an opportunity for a more systemic approach to ensuring that sustainability considerations, including physical climate and natural disaster risk, are a baseline requirement for European finance instruments going forward.

One way of achieving this would be to establish a high-level mandate to ensure that Sendai and Paris-compliant disaster risk reduction, climate change adaptation and resilience are addressed as a baseline requirement for all European finance instruments. The European Commission could revisit the approach set out in the recommendation of the High-Level Expert Group to create a sustainability test or principle ('Think Sustainability First'). The disaster/climate risk test would be applied to all key investor and financial legislation in both ex ante impact assessments, ex post evaluations and the necessary adjustments and reviews.

AREA TO EXPLORE IN EUROPEAN CONTEXT

5 **'Think Resilience' for investment:** Ensuring that the categorization of climate change adaptation as an environmental objective in the context of green financial products and services does not distract from the wider need to make all financial investment resilient to disaster risk and physical climate risk. This could be achieved by using a 'Think Resilience' test to make disaster risk reduction, climate change adaptation and resilience a baseline requirement for all European finance instruments.

Sustainable Finance Plan Action 3
Fostering investment in sustainable products

Under Action 3 of the Sustainable Finance Action Plan the European Commission referred to the proposal for the post-2020 multiannual financial framework (the EU's public budget spending plans for 2021-2027), replacing the European Fund for Strategic Investments (EFSI) and improving the efficiency and impact of instruments aiming at sustainable investment support in the EU and target countries.

Europe has an investment gap of €180 billion per year[42] if it is to meet its current energy and climate targets. These are not yet aligned with the Paris Agreement which means that the full cost will be higher. A key benefit of reorienting financial flows towards a sustainable economy would be to drive finance towards infrastructure investments and fill this gap. It is particularly important for infrastructure to be resilient to physical climate change risk and natural disaster risk given long asset lifetimes. Electricity transmission grid infrastructure has a lifetime of 50 years, reservoirs and dams have a lifetime of up to 80 years and sewage and waste water infrastructure has a lifetime of up to 100 years[43]. Infrastructure investments should also avoid contributing to maladaptation or building in future risk (as discussed under Action 1 in relation to the idea of an "unsustainable" taxonomy.)

The Sendai Framework includes several important elements which could be adapted in a European approach to high-quality sustainable infrastructure investment. For example:

- In relation to extreme weather events: *"Disasters have demonstrated that **the recovery, rehabilitation and reconstruction phase, which needs to be prepared ahead of a disaster, is a critical opportunity to "Build Back Better"**, including through integrating disaster risk reduction into development measures, making nations and communities resilient to disasters."*[44]
- In relation to long-term planning and use of climate risk scenarios: *"It is important… to prepare or review and periodically update **disaster preparedness and contingency policies, plans and programmes… considering climate change scenarios and their impact on disaster risk...**[45]"*

41 Sustainable Finance Action Plan: COM(2018) 97, Communication from the Commission to the European Parliament, the European Council, the Council, The European Central Bank, The European Economic and Social Committee and the Committee of the Regions, Action Plan: Financing Sustainable Growth, European Commission, March 2018, page 7, 2.5, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52018DC0097

42 Sustainable Finance, European Commission, https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance_en

43 Average lifetime expectancy infrastructure types and climate-related vulnerabilities, Union of Concerned Scientists USA, 2017, https://www.ucsusa.org/sites/default/files/attach/gw-smart-infrastructure-table-life-expectancy.pdf

44 Sendai Framework for Disaster Risk Reduction, United Nations, 2015, Priority 4, paragraph 32, https://www.unisdr.org/we/inform/publications/43291

45 Ibid, Priority 4, paragraph 33 (a)

- In relation to investment: *"States should encourage… business, professional associations and private sector financial institutions, including financial regulators and accounting bodies… to integrate disaster risk management, including business continuity, into business models and practices through disaster-risk informed investments…* ***and actively participate… in the development of normative frameworks and technical standards that incorporate disaster risk management.***"

Some of the ways to embed disaster risk reduction, climate change adaptation and resilience into European infrastructure investment could include:

- Defining high-quality sustainable resilient infrastructure[46], ensuring this is a broad definition that includes digital, distributed and natural forms of infrastructure , and making resilience to future physical climate change impacts and natural disaster risk a key criterion of being classed as 'sustainable infrastructure'; and in a second phase including this definition within the EU taxonomy of sustainable investments. This definition should include digital, distributed and natural infrastructure.
- Proofing EU spending and infrastructure plans against the potential impacts of a 3-4°C rise in global average temperatures (and the related impacts on weather systems, sea level rise etc), using locally appropriate scenarios to stress test projects;
- Ensuring that all EU infrastructure funds, InvestEU and the European Investment Bank have a resilience strategy and screening process in place before investments are made (along the lines of the 'Think Sustainability First' principle put forward by the EU High-level Expert Group on sustainable finance, mentioned above), as well as excluding fossil fuel investments and integrating the "energy efficiency first principle";
- Designing public-private infrastructure partnerships so that disaster and climate-related risk associated with new infrastructure is avoided or mitigated, rather than being borne by communities or taxpayers.

46 This has also been referred to as 'Infrastructure 3.0'. See for example report - Better Finance, Better Infrastructure, Blended Finance Task Force, 2019, https://www.blendedfinance.earth/infra-3-0

AREA TO EXPLORE IN EUROPEAN CONTEXT

6 **Budgeting for Resilient Infrastructure:** Implementing measures to improve the impact and sustainability of all infrastructure investments in the next 2021-2027 EU multiannual financial framework and a screening process to ensure that those investments are resilient to future disaster and climate risk.

7 **Defining Resilient Infrastructure:** Create and broaden a definition of high-quality sustainable resilient infrastructure, to include digital, distributed and natural forms of infrastructure, which includes appropriate allocation of disaster and climate-related risk.

Chapter 4
Mainstreaming sustainability into risk management and fostering transparency and long-termism

Avalanche protection barriers in the Arlberg Region, Vorarlberg, Austria
Photo: Shutterstock

The actions set out under the second and third objectives of the European Commission's Sustainable Finance Action Plan are closely linked, particularly in relation to investor duties. Therefore, in this chapter we look at these two objectives together. The actions under these objectives are:

Action 6 Better integrating sustainability in ratings and market research;
Action 7 Institutional investors' and asset managers' sustainability duties (incorporating part of Action 9);
Action 8 Incorporating sustainability in prudential requirements;
Action 9 Strengthening sustainability disclosure and accounting rule-making;
Action 10 Fostering sustainable corporate governance and attenuating short-termism in capital markets.

Sustainable Finance Action Plan Action 6 Better integrating sustainability in ratings and market research

The European Commission's Action Plan for Sustainable Finance set out several actions to promote the integration of sustainability into credit ratings, sustainability ratings and research. This included an invitation to the European Securities and Markets Authority (ESMA) to include environmental, social and governance considerations in its guidelines on disclosure for credit rating agencies by Q2 2019 and consider additional guidelines or measures, where necessary. ESMA issued a consultation on this issue on December 19th, 2018.

The ESMA consultation document proposed guidelines on how disclosures should be made and presented but did not discuss the nature of environmental, social and governance considerations. Disaster risk, climate change adaptation and resilience were not mentioned in the document. Instead, ESMA explained that its guidelines sit under the Credit Rating Agency Regulation, which does not discuss sustainability or define sustainability risks:

> *"The CRA Regulation does not refer to or recognise ESG factors or sustainability considerations on a standalone basis. As a result, there is no provision in the CRA Regulation which explicitly sets out whether or how a CRA should disclose whether they were considered as part of the issuance of a credit rating…*

> *…However, it is also recognised that information as to whether ESG factors were considered as part of a credit rating is becoming increasingly important for investors in the EU, and that this situation may develop further if other elements of the Action Plan are enacted.*[47]*"*

47 Consultation Paper: Guidelines on Disclosure Requirements Applicable to Credit Ratings, ESMA 33-9-290, December 2018, https://www.esma.europa.eu/sites/default/files/library/esma33-9-290_consultation_paper_on_disclosure_requirements_applicable_to_credit_ratings.pdf

The European Commission stated in the Action Plan (under Action 6) that it would explore the merits of amending the Credit Rating Agency Regulation to mandate credit rating agencies to explicitly integrate sustainability factors into their assessments. Commission services will report on the progress made on this by Q3 2019.

It is disappointing that progress on this issue is so slow and that ratings agencies are not yet even asked to act on climate change, let alone integrate considerations of disaster risk, climate change adaptation and resilience. The Commission notes that *"in recent years, market research providers and sustainability rating agencies have stepped up their efforts to assess companies' environmental, social and governance performance and their ability to manage sustainability risks*[48]*"*. When it comes to credit ratings disaster risk, climate change adaptation and resilience issues should play an important part in assessing a company's prospects and risk profile.

AREA TO EXPLORE IN EUROPEAN CONTEXT

8 **Resilient credit ratings:** Mandating credit rating agencies to explicitly integrate sustainability factors in their assessments, including corporate resilience to physical climate change and natural disaster risk.

Sustainable Finance Action Plan Action 7 Institutional investors' and asset managers' sustainability duties

Action 7, "Clarifying institutional investors' and asset managers' duties", is closely linked to Action 10, "the possible need to clarify the rules according to which directors are expected to act in the company's long-term interest".

The European Commission noted in the Sustainable Finance Action Plan that *"current EU rules on the duty of institutional investors and asset managers to consider sustainability factors and risks in the investment decision process are neither sufficiently clear nor consistent across sectors...Evidence suggests that institutional investors and asset managers still do not systematically consider sustainability factors and risks in the investment process.*[49]*"* The Commission committed to table a legislative proposal to clarify institutional investors' and asset managers' duties in relation to sustainability considerations by Q2 2018.

However, the original intent of the European Commission to address systemic factors and risks in the investment decisions process has not been taken forward. Instead the

48 Sustainable Finance Action Plan: COM(2018) 97, Communication from the Commission to the European Parliament, the European Council, the Council, The European Central Bank, The European Economic and Social Committee and the Committee of the Regions, Action Plan: Financing Sustainable Growth, European Commission, March 2018, 3.1, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52018DC0097

49 Ibid, 3.2

European Commission focused on increasing transparency and disclosure of investors' duties towards end-investors. An agreement was made by the EU's co-legislators on the 'Regulation on disclosures relating to sustainable investments and sustainability risks' on the 7th March 2019. While this Regulation does recognise the financial materiality of sustainability risks, it does not ensure that investors integrate financial sustainability risks into their investment decision-making as part of their duty to act in the best interests of their clients and beneficiaries.

Action 10 of the Sustainable Finance Action Plan includes a related proposal for the Commission to consider whether there is a need to clarify the rules according to which directors are expected to act in the company's long-term interest. Both in the case of institutional investors and asset managers and in the case of company directors, the issue is of defining the duties of actors who hold and manage assets on behalf of others. The same arguments would therefore apply in both cases – this is an important opportunity to clarify and set expectations for sound governance of climate change and natural disaster risk.

Disaster risk, climate change adaptation and resilience are systemic issues which are relevant to all financial investment decisions and thus are a key part of investors' duties as well as the duties of directors. The United Nations Office for Disaster Risk Reduction has long engaged on this issue – the Global Assessment Report 2013[50] highlighted that the accumulation of disaster risk is happening much faster than we are able to reduce it. It found that many individual public and private investment decisions and non-decisions taken over a long time – in areas such as urban development and social infrastructure are accumulating disaster risk because their decisions were not risk informed. In many hazard-exposed countries, governments, institutional investors, businesses and households hold hidden debt – the contingent liabilities represented by unrealized disaster risk. This disaster-prone capital stock represents a category of toxic assets which do not appear on any balance sheets.

One way for Europe to demonstrate the seriousness of this issue would be to for its governments to 'walk the walk' in their financial decision-making about national finances, demonstrating that disaster risk and climate risk are important issues for the financial system as a whole. Member States could integrate consideration of these risks into their national budgeting and fiscal resilience processes, and Ministers could work together in the Economic and Financial Affairs Council (ECOFIN) to develop common approaches and best practices.

AREA TO EXPLORE IN EUROPEAN CONTEXT

9 **Responsibility for risk:** Explicitly requiring institutional investors and asset managers, as well as company directors, to integrate disaster risk reduction, climate change adaptation and resilience into their decisions. Working within ECOFIN to apply the same principles to national budgeting and fiscal resilience.

50 Global Assessment Report on Disaster Risk Reduction, UNDRR, 2013, https://www.preventionweb.net/english/hyogo/gar/2013/en/home/GAR_2013/GAR_2013_2.html

Sustainable Finance Action Plan Action 8
Incorporating sustainability in prudential requirements

Action 8 of the Sustainable Finance Action Plan deals with prudential regulation. This type of regulation is focused on the insurance and banking sectors, requiring financial firms to control risks and to hold adequate capital as defined by capital requirements.

Insurance

In July 2018 the European Commission asked the European Insurance and Occupational Pensions Authority (EIOPA) to provide an opinion on the impact of prudential rules for insurance companies on sustainable investments.

EIOPA already has a comprehensive Sustainable Finance Action Plan at organizational level. This has the aim of ensuring that insurers and pension funds operate in a sustainable manner by:

- Managing and mitigating Environmental, Social and Governance (ESG) risks appropriately: this reflects the role of insurers in underwriting risk for the whole economy;
- Reflecting preferences of policyholders and pension scheme members for sustainable investments;
- Adopting a sustainable approach to their investments and other activities: this reflects the importance of insurers and pension funds as owners of a substantial portion of investments in the European economy.

In relation to disaster reduction risk and climate change adaptation, ongoing work within EIOPA includes the creation of a Catastrophe Expert Network, the development of climate-change related scenarios for future use in stress testing and analysis on the protection gap for natural catastrophes. EIOPA issued a Call for Evidence on integration of sustainability risks in Solvency II, the European regulation overseeing the insurance sector, in January 2019. The questions within the call were evenly balanced between considerations of transition and physical climate risk.

The request from the European Commission focused on climate mitigation. However, as EIOPA's work to date on sustainable finance has been concerned with both transition risks and physical risks it seems likely that EIOPA's opinion will reference climate change adaptation as well as mitigation.

Banking

The European Commission committed under Action 8 of the Sustainable Finance Action Plan to *"explore the feasibility of the inclusion of risks associated with climate and other environmental factors in institutions' risk management policies and the potential calibration of capital requirements of banks as part of the Capital Requirement Regulation and Directive*[51]*"*. The aim would be to safeguard the coherence and effectiveness of the prudential framework and financial sustainability, and any recalibration of capital requirements would need to rely on and be coherent with the future EU taxonomy on sustainable activities.

Discussion of the use of capital requirement to address climate risk is at an early stage. The Central Banks and Financial Supervisors' Network for Greening the Financial System noted in April 2019 the potential for addressing climate risk in capital requirements if a risk differential and causation are established, but also notes that it is currently impossible to draw general conclusions on potential risk differentials[52].

Meanwhile, processes are in train to evaluate different options within Europe. The European Central Bank (ECB) has signaled openness to the possibility of taking on powers to adjust capital requirements in line with climate change risk:

> Excerpt from speech of 27th November 2018 by Yves Mersch,
> Member of the Executive Board, European Central Bank
>
> *"Beyond our primary mandate for price stability, it is worth remembering that we are not regulators, neither for financial markets nor for banks. The ECB carries out banking supervision within the Single Supervisory Mechanism (SSM) under the Capital Requirements Regulation and Directive, adopted by the Council of the EU and the European Parliament, with further regulations set by the European Banking Authority. We are not free to vary the capital requirements of supervised banks to take into account their climate risks, or to encourage climate finance. Indeed, when ECB Banking Supervision, acting within its supervisory mandate, issued guidance on non-performing loans earlier this year, this generated tensions with regulators, who felt the guidance strayed into the territory of legislation. But we are ready to bring in our experience if so requested, in particular if it were suggested to strengthen or broaden disclosure obligations, for example.*
>
> *Nonetheless, climate risks have been identified in ECB Banking Supervision's risk assessment for 2019 and will be among the topics covered in the qualitative discussions held with banks on an individual basis. The ECB will continue to carry out our democratically delegated functions as set out in the Treaty. Should a greater groundswell of support for environmental action cause bank regulators to modify the regulatory framework under which the SSM operates, supervisors must of course adjust their actions and implement the legal requirements accordingly."*

51 Sustainable Finance Action Plan: COM(2018) 97, Communication from the Commission to the European Parliament, the European Council, the Council, The European Central Bank, The European Economic and Social Committee and the Committee of the Regions, Action Plan: Financing Sustainable Growth, European Commission, March 2018, Action 8, page 9, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52018DC0097

52 A Call for Action: Climate Change as a source of financial risk, NGFS, April 2019, https://www.banque-france.fr/en/financial-stability/international-role/network-greening-financial-system/first-ngfs-progress-report

In December 2018 the European Council endorsed three amendments to the Capital Requirement Regulation and Directive, a legislative process which began before the creation of the European Commission's Sustainable Finance Action Plan. Under one of these amendments the European Banking Authority (EBA) is required to produce a report within two years on *"whether a dedicated prudential treatment of assets exposed to activities associated substantially with environmental or social objectives, in the form of different capital charges, would be justified from a prudential perspective"*. If appropriate the European Commission will then create a legislative proposal.

Areas for investigation within the report will include:

i. *"methodological options for assessing exposures of asset classes to activities associated substantially with environmental and/or social objectives;*

ii. *specific risk profiles of assets exposed to activities which are associated substantially with environmental and/or social objectives;*

iii. *risks related to the depreciation of assets due to regulatory changes such as climate change mitigation;*

iv. *the potential effects of a dedicated prudential treatment of assets exposed to activities which are associated substantially with environmental and/or social objectives on financial stability and bank lending in the Union."*

Social and political considerations for changes to prudential regulation

Adjustments to capital requirements in response to climate risk may emerge as a useful tool for preserving financial stability. However, raising the cost of finance for high-risk borrowers may reduce investment flows to affected assets, sectors or communities, which may in turn have a high social or political cost.

The European Central Bank's Risk Assessment for 2019 stated that: *"Climate-related risks do not pose a threat to the financial stability in the euro area in the short term. However, banks can be impacted indirectly, but nonetheless materially, by more frequent and severe extreme weather events or by the ongoing transition to a low-carbon economy. Weather phenomena could cause destruction in business sectors to which banks are exposed (e.g. agriculture) or destroy their collateral holdings. In addition, the transition to a low-carbon economy could impact certain economic sectors (e.g. fossil fuel companies, energy-intensive sectors, utilities, transport and building companies). Banks therefore need to take adequate action to manage their exposures to such sectors.*[53]*"*

Banks and insurers are risk averse, and one way to avoid risk is to avoid lending. While this approach may be financially beneficial in the short run or for an individual institution, at systemic level it creates the potential for sectors, communities or even entire geographies to be excluded from the financial system.

53 ECB Banking Supervision: Risk Assessment for 2019, European Central Bank, 2018, https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ra/ssm.ra2019.en.pdf

CASE STUDY

Bank of Italy study on flood risk and bank lending

Evidence of a pattern in bank lending emerged in October 2018 when the Bank of Italy published an Occasional Paper on flood risk which analysed lending data across different regions of the country. The research used new flood mapping data in combination with bank lending data to construct a ratio of non-financial businesses at risk. It was found that lending activity to small and medium sized enterprises was negatively correlated with flood risk, results which may suggest that banks are already discriminating against borrowers based on their catastrophe risk exposure[54].

The study also found that the five Italian regions most exposed to flood risk produce almost one third of national value added. The report suggests that low flood insurance penetration rates in Italy, even in large firms, exposes the banking sector further to the risk as there is little support for business interruption and damages in the event of a flood.

The risk is concentrated in the banking sector as Italian firms mainly rely on the banking system to raise external finance: Italian non-financial companies bank debt represents about 70% of total debt, compared with 38% in France, 49% in Germany, and 30% in UK. More than 20% of the total loaned amount to non-financial businesses (€162 billion as for 2014) is granted in high flood risk municipalities, with the bulk of business loans at risk located in Lombardia, Veneto, Emilia Romagna and Tuscany. This demonstrates the potential weaknesses in disaster risk resilience, even in developed economies, as the financial systems are already allowing significant protection gaps.

Lack of access to finance is a major problem for the people and firms directly affected – particularly if they have already suffered impacts from disaster or extreme weather events. Impacts are disproportionately felt by the most vulnerable groups (the poor, women, farmers, small firms) and extreme weather events push 26 million people into poverty every year[55].

Such major impacts can also potentially have a negative effect on the economy and can affect financial and political stability. In March 2019 Nicolas Jeanmart, the head of personal insurance, general insurance and macroeconomics at Insurance Europe said, *"The sector is concerned that continuing global increases in temperature could make it increasingly difficult to offer the affordable financial protection that people deserve, and that modern society requires to function properly"*[56].

54 Natural catastrophes and bank lending: the case of flood risk in Italy, Banca d'Italia, Ivan Faiella and Filippo Natoli, October 2018, http://www.bancaditalia.it/pubblicazioni/qef/2018-0457/QEF_457_18.pdf?language_id=1

55 Climate Insurance Result Brief, World Bank, December 2017, https://www.worldbank.org/en/results/2017/12/01/climate-insurance

56 'Climate change could make insurance too expensive for most people – report', The Guardian, March 2019, https://www.theguardian.com/environment/2019/mar/21/climate-change-could-make-insurance-too-expensive-for-ordinary-people-report

In April 2019 the NGFS's first comprehensive report recognized this problem, stating that: *"Feedback loops between the financial system and the macroeconomy could further exacerbate… impacts and risks. For example, damage to assets serving as collateral could create losses that prompt banks to restrict their lending in certain regions, reducing the financing available for reconstruction in affected areas. At the same time, these losses weaken household wealth and could in turn reduce consumption.*[57]*"*

The challenge for policymakers is to find a path forwards which enables both an efficient private sector which takes account of climate and disaster risk, and at the same time an equitable treatment of different geographies and social groups, in particular those at most risk of disadvantage from lack of access to finance.

AREA TO EXPLORE IN EUROPEAN CONTEXT

10 **An inclusive and equitable approach to risk:** Undertaking increased efforts within Europe to understand and address the social and economic impacts of insurance coverage gaps and withdrawal of credit from activities, sectors or communities which are understood to be most exposed to physical climate risk and natural disaster risk.

Sustainable Finance Action Plan Action 9 Strengthening sustainability disclosure and accounting rule-making

The Sustainable Finance Action Plan contains a range of measures for increasing transparency around material climate-related financial risks, and for improving the way that these risks are accounted for. These measures include a Fitness Check of EU legislation on public corporate reporting, an update to the non-binding guidelines of Directive 2014/95/EU (Non-Financial Reporting Directive), and disclosure requirements on climate risk for institutional investors and asset managers (which have already been discussed in this report under Action 7.)

Alongside the measures set out in the Action Plan, in December 2018 the European Parliament and Council of European Union reached a provisional agreement on a package of banking measures including three amendments to the Capital Requirement Regulation and Capital Requirement Directive[58]. One of these was a requirement for listed banks with

57 A Call for Action: Climate Change as a source of financial risk, NGFS, April 2019, https://www.banque-france.fr/en/financial-stability/international-role/network-greening-financial-system/first-ngfs-progress-report

58 The European Parliament endorsed this provisional agreement on the 16th April 2019. The legislative texts still need to be formally adopted by the Council of Ministers. See Adoption of the banking package: revised rules on capital requirements (CRR II/CRD V) and resolution (BRRD/SRM), European Commission - Fact Sheet, 2019, http://europa.eu/rapid/press-release_MEMO-19-2129_en.htm

market capitalization above €5 million (i.e. all listed banks) to *"disclose information on ESG-related risks, **physical risks** and transition risks"*. Disclosure should start within three years, be annual in year one and biannual thereafter. The definition of risk used for disclosure should be drawn from a report to be published by the European Banking Authority within two years, looking at:

a) *"the development of a uniform definition of ESG risks **including physical risks** and transition risks. The latter shall comprise the risks related to the depreciation of assets due to regulatory changes;*

b) *the development of appropriate qualitative and quantitative criteria for the assessment of the impact of such risks on the financial stability of institutions in the short, medium and long term. **This shall include stress testing processes and scenario analyses to assess the impact of ESG risks under scenarios with different severities**;*

c) *the arrangements, strategies, processes and mechanism to be implemented by the institutions to identify, assess and manage ESG risks;*

d) *the analysis methods and tools to assess the impact of ESG risks on lending and financial intermediation activities of institutions."*

In January 2019 the EU Technical Expert Group on Sustainable Finance published its report[59] with recommendations to the European Commission on how to update the non-binding guidelines. The existing reporting requirements are set at a rather high level, especially in comparison with the measures set out in the new banking measures: organisations are requested to report on 'environmental matters' but not specifically about climate change, although climate disclosures are recommended in the non-binding guidelines which refer to the TCFD Recommendations.

The TEG's recommendations are expected to be substantially picked up by the European Commission in its forthcoming Communication on this topic. The TEG recommended disclosure of both climate change mitigation and adaptation information, with reference to relevant European policies such as the EU Adaptation Strategy. However, the impact of this is likely to be limited if implementation is confined to the non-binding guidelines. In November 2018 CDP and the Climate Disclosure Standards Board found no direct evidence from companies that the Guidelines are being used or having a positive effect on NFRD or TCFD-aligned disclosures.[60]

The report by CDP and CDSB included the following recommendation echoing a previous suggestion by the HLEG: *"If the TCFD and NFRD are to be effective mechanisms for achieving their desired outcomes, this will require a step change not only in the uptake but in the effectiveness of reporting. One way to achieve this at the scale needed and with rapid uptake is through mandatory reporting of the TCFD recommended disclosures. The Commission*

59 Report on Climate-Related Disclosures, Technical Expert Group on Sustainable Finance, 2019, https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/190110-sustainable-finance-teg-report-climate-related-disclosures_en.pdf

60 First Steps, Corporate climate and environmental disclosure under the EU Non-Financial Reporting Directive, CDP and CDSB, November 2018, https://www.cdsb.net/sites/default/files/cdsb_nfrd_first_steps_2018.pdf

should therefore look to assume a leadership role globally on TCFD and mandate disclosure of its recommended disclosures … in an amendment to the Non-Financial Reporting Directive."[61].

As discussed earlier in this report, the European Supervisory Agencies have been asked to work on the definition of ESG risks. For banks this work will be done by the European Banking Authority, and the Disclosure Regulation for investors will be followed by a Delegated Act by the European Commission drawing on inputs from EIOPA and ESMA. Therefore, more granular guidance on disclosure will be available within the next two years, at least for the financial sector. This is important because around 70% of financing for European SMEs comes from banks[62] which means that banks play a key role in the European economy and bear major risks. However, it is also important to ensure high-quality climate risk disclosure by non-financial companies and this can most obviously be done by amending the Non-Financial Reporting Directive.

European Member States taking strong steps on TCFD-aligned climate risk disclosure

Mark Carney, Governor of the Bank of England and François Villeroy de Galhau, Governor of Banque de France, published an article in April 2019 highlighting the vital role that the financial sector has in tackling climate change[63]. They set out four recommendations that both policy makers and the financial sector need to undertake, and called for robust and consistent climate related financial disclosure. Both the UK and France have shown strong leadership in this area:

Earlier in the same month the Bank of England's Prudential Regulation Authority (PRA) issued a supervisory statement setting out enhanced expectations for banks and insurance companies to take a more strategic approach to climate change and to disclose information on their associated risks[64].

France was a pioneer in requirements for disclosure of climate-related financial risk. Article 173 of the Energy Transition Law which came into force on the 1st of January 2016. It asked investors to report environmental and climate considerations in investment policies, greenhouse gas emissions in investments, how they are meeting French and international climate objectives and their assessment of financial risk from climate change[65].

61 HLEG Report: Financing a Sustainable European Economy, Final Report 2018, High-Level Expert Group on Sustainable Finance, 2018, Key Recommendation 3, Page 23, https://ec.europa.eu/info/sites/info/files/180131-sustainable-finance-final-report_en.pdf

62 'European SMEs: Filling the Bank Financing Gap', Euler Hermes, April 2019, https://www.eulerhermes.com/en_global/economic-research/insights/European-SMEs-Filling-the-bank-financing-gap.html

63 The financial sector must be at the heart of tackling climate change, The Guardian, April 2019, https://www.theguardian.com/commentisfree/2019/apr/17/the-financial-sector-must-be-at-the-heart-of-tackling-climate-change

64 Investors to assess climate risk in France, European Commission, May 2016, https://ec.europa.eu/environment/ecoap/about-eco-innovation/business-fundings/investors-assess-climate-risk-france_en

65 Investors to assess climate risk in France, European Commission, May 2016, https://ec.europa.eu/environment/ecoap/about-eco-innovation/business-fundings/investors-assess-climate-risk-france_en

AREA TO EXPLORE IN EUROPEAN CONTEXT

11 **Ensuring risk disclosure:** Ensuring that financial and non-financial companies report on material climate risk issues in line with the recommendations of the Task Force on Climate-Related Financial Disclosure (TCFD) by amending the Non-Financial Reporting Directive.

Sustainable Finance Action Plan Action 10 Fostering sustainable corporate governance and attenuating short-termism in capital markets

Action 10 in the European Commission's Sustainable Finance Action Plan responds to the first cross-cutting recommendation of the High-Level Expert Group on Sustainable Finance, which proposed that the Commission and the European Supervisory Agencies conduct assessments of short-termism and how it may be disincentivized through regulation.

On 1st February 2019 the European Commission made a formal request to the European Securities and Markets Authority, the European Banking Authority and the European Insurance and Occupational Pensions Authority to investigate and collect evidence of undue short-term pressure from the financial sector on corporations and advise on possible further policy actions consider, if necessary, further steps based on such evidence. A report is requested by December 2019.

The other action proposed under Action 10 was for the Commission to assess:

i. the possible need to require corporate boards to develop and disclose a sustainability strategy, including appropriate due diligence throughout the supply chain, and measurable sustainability targets, and,

ii. the possible need to clarify the rules according to which directors are expected to act in the company's long-term interest.

Within this report we have discussed these issues within 'Areas to explore' numbers 1, 2 and 8. Corporations are among the range of financial and societal actors who could usefully create long-term strategies which integrate considerations of disaster risk reduction, climate change adaptation and resilience. Those strategies can be tested against data-driven climate change scenarios. Corporate directors should be expected, as part of their standard duties, to ensure that this happens, and that shareholder value is preserved while making a positive social and environmental contribution.

Chapter 5
Europe in the global context

Istanbul's Sabiha Gokcen International Airport is the world's largest earthquake-proof building.
Photo: Photo Oz / Shutterstock.com

Disaster risk, climate change adaptation and resilience are challenges around the world and affect every country. However, the impacts of disasters and climatic changes are borne disproportionately by the poor and by vulnerable groups in society including women and children. Resilience is much less costly, in human and financial terms, than recovery, however the populations most likely to be affected by disasters and climatic changes are also the least likely to be able to pay for protection.

While Europe is a comparatively prosperous region it cannot escape the impacts of disasters caused by natural hazards and climate change. Munich Re has calculated that there was €13.5 billion of losses in Europe in 2018 from such impacts, with the largest impact coming from a severe drought that caused widespread losses in agriculture and forestry. Losses due to the drought were calculated at €3.3 billion, of which only €230 million was insured[66].

Europe is a leader of the sustainable finance agenda internationally, and this leadership is a key diplomatic tool for Europe. However, the global nature of the financial system means that Europe's ability to collaborate and forge international agreement is as important as its ability to innovate and demonstrate best practice within its own geography. Happily, there are many institutions and forums in which this international collaboration can take place.

International collaboration on sustainable finance: key forums for addressing resilience

The G7 and G20

The G20 is an international forum for the governments and central bank governors from 19 countries and the European Union and includes a Sustainable Finance Study Group co-chaired by the UK and China. Under Japan's G20 leadership, sustainable growth, quality infrastructure and climate change are priorities. Under French leadership the G7 group of the 7 largest advanced economies plus the European Union will focus in 2019 on fighting inequality, including poverty induced by climate change. The G7 and G20 together offer an opportunity to build on previous outcomes on disaster risk reduction and finance.[67]

Helsinki Coalition of Finance Ministers

In April 2019 finance ministers from more than 20 countries met in Helsinki and agreed to share best practices and experiences on macro, fiscal, and public financial management policies for low-carbon and climate-resilient growth[68].

66 'The Natural Disasters of 2018 in Figures', Munich Re, January 2019, https://www.munichre.com/topics-online/en/climate-change-and-natural-disasters/natural-disasters/the-natural-disasters-of-2018-in-figures.html

67 'G7 continues work on climate risk insurance and risk financing under the Canadian G7, Presidency', 2018, http://www.climate-insurance.org/news-and-events/news/g7-2018-outcome/

68 'Finance Ministers Join Forces to Raise Climate Ambition', World Bank, April 2019, https://www.worldbank.org/en/news/press-release/2019/04/13/coalition-of-finance-ministers-for-climate-action

Central Banks and Supervisors Network for Greening the Financial System (NGFS)

The Network's purpose is to help strengthening the global response required to meet the goals of the Paris agreement and to enhance the role of the financial system to manage risks and to mobilize capital for green and low-carbon investments in the broader context of environmentally sustainable development[69]. Hosted by Banque de France it now has 36 Members and 6 Observers.

InsuResilience Global Partnership for Climate and Disaster Risk Finance and Insurance Solutions

The Partnership aims to strengthen the resilience of developing countries and protect the lives and livelihoods of poor and vulnerable people against the impacts of disasters through the use of climate and disaster risk finance and insurance solutions. This complements ongoing efforts in countries to avert, minimize and address climate and disaster risks.

International Network of Financial Centres for Sustainability (FC4S)

FC4S is a partnership between 22 global financial centres and UN Environment to achieve rapid global growth of green and sustainable finance across the world's financial centres, supported by strengthened international connectivity, and a framework for common approaches[70].

Sustainable Finance Alliance

Europe is on track to create a new international forum which could potentially address finance for disaster risk, climate change adaptation and resilience. On 21st March Vice Commissioner Valdis Dombrovskis spoke of the creation of an international network on Sustainable Finance which could announce actions at the UN Climate Summit in September 2019 [71].

Technology and innovation for resilience finance

One reason why sustainable finance has become a dynamic topic of discussion, aside from the clear need for urgent action at scale, is that advances in technology and data science are starting to provide new tools and solutions. Such developments have enormous potential to enable a better understanding of risk. As new technologies emerge and come to scale it will be important that their benefits are shared in an equitable way.

69 Network for Greening the Financial System, https://www.banque-france.fr/en/financial-stability/international-role/network-greening-financial-system

70 FC4S, https://www.fc4s.org/about-us

71 Remarks by Vice-President Valdis Dombrovskis at the High-level conference: A global approach to sustainable finance, March 2019, http://europa.eu/rapid/press-release_SPEECH-19-1788_en.htm

Integration of general climate models into scenario analysis and asset level risk assessment

A collaboration between the world's largest asset management firm BlackRock and research organization Rhodium Group has been the first to integrate general climate models with scenario analysis and asset level risk assessment[72]. Recent advances in scalable cloud computing and data processing has enabled the project to run advanced probabilistic models and projections for tropical cyclones, precipitation, temperature and sea level rise. The economic impact of these changing physical climate risks can then be computed at asset level for today and for future scenarios.

Insurers, investors and government risk managers largely rely on limited and unreliable historical data to calibrate statistical models of risk. This methodology can misrepresent and underestimate the risk of extreme events in a changing climate. The significant benefit of using general circulation models[73] to underpin the risk analysis is that the impact of increasing temperatures is captured, and the extreme events are more truly represented. Accurate and useful disaster and climate risk data and methodologies such as this are needed by the financial sector in order to start to accurately capture the physical climate risk across global investment decision making and industry regulation. They could also benefit government and civil society.

Geotagging

A key data element for the assessment of disaster risk is accurate information on the location of assets. The method of converting an address to a point on the map, referred to as 'geotagging', has been recently deployed in a proof of concept project in partnership between UNDRR and KLP, Norway's largest pension company[74]. The partnership is focused on connecting the asset geo-location of the largest companies on the Oslo stock exchange with potential vulnerability to natural hazards. It will include a classification of facility type and overlay that information with an understanding of the asset sensitivity to develop a weighting relative to disaster risk. The initiative is the first-time geotagging will be used to support disaster risk informed investments at a global level. As well as investors, this information can also potentially benefit governments and citizens, improving local resilience measures and highlighting asset vulnerability to physical climate risk.

Equity and sustainable development

There have been many calls for improvement in the way that data is used to address disaster risk reduction, climate change adaptation and resilience. For example, the Sendai Framework monitoring process works to increase data availability in affected countries,

72 Clear, Present and Underpriced: The Physical Risks of Climate Change, Rhodium Group, 2019, https://rhg.com/wp-content/uploads/2019/03/RHG_PhysicalClimateRisk_Report_April_Final.pdf & Getting Physical: Scenario analysis for assessing climate-related risks, BlackRock, 2019, https://www.blackrock.com/us/individual/literature/whitepaper/bii-physical-climate-risks-april-2019.pdf

73 General Circulation Models (GCMs) are mathematical models that represent physical processes in the atmosphere, ocean, cryosphere and land. They are used in IPCC assessments for future emission scenarios and potential physical climate impacts.

74 UN and Norwegian pension company forge partnership to identify financial investments at risk, United Nations press release, May 2019

while the Central Banks and Supervisors Network for Greening the Financial System has called for new collaborations around climate risk data. Technological advances are now offering opportunities, for example through artificial intelligence and analysis of big data sets, that could transform this field.

The impacts of new technologies are under human control and depends on choices that we make on how to use them. Improved risk data will lead to more efficient and stable financial markets, and to more effective investment, all of which will be essential for sustainable development in Europe and globally. However, there are also potential costs and harms which were discussed in the previous section (see 'Area to explore' no.10) which could include capital flight from risk-exposed investments, and lack of access to finance for those who need it most. How we protect the vulnerable is ultimately a political choice – financial logic is not moral and must be guided by appropriate market rules which are created by humans rather than algorithms and backed up by wise use of public finance.

'Climate debt trap' concerns for countries affected by Cyclones Idai and Kenneth

On March 14th, 2019 Cyclone Idai struck the Mozambique coast near the coastal city of Beira. More than 1,000 people were killed in Mozambique, Zimbabwe and Malawi, and over 3 million people were affected. Damage to infrastructure was devastating and widespread as the combination of high wind speeds and flooding left over 100,000 structures destroyed and over 200,000 badly damaged[75].

Adaptation measures were in place; the low-lying coastal city of Beira sits on the Chiveve tidal river and had flooded on numerous occasions in recent years. A network of canals and tidal defenses had been built to better protect the city and manage the drainage system[76], with €13 million of finance provided by German development bank KfW, and the flood gates were opened during Cyclone Idai in order to release rainwater back into the sea[77]. However, these measures were not sufficient and 90% of the city's infrastructure was destroyed.[78]

The World Bank has estimated that countries affected by Cyclone Idai will need $2 billion for recovery. The International Monetary Fund provided Mozambique with a $118.2 million credit facility which was met with criticism of a 'climate debt trap' for citizens of poor countries which take out loans to address loss and damage from extreme weather events, on top of the immediate effects of the disasters[79]. Mozambique was then hit by another major cyclone, Cyclone Kenneth, on 21st April 2019 which led to provision of $13 million of emergency funds from the UN[80].

75 Mozambique: Cyclone Idai & Floods Situation Report No. 6, UN OCHA, April 2019, https://reliefweb.int/sites/reliefweb.int/files/resources/ROSEA_20190408_Mozambique%20SitRep%20%236_7%20April_for%20upload.pdf

76 Threatened by Climate Change, Mozambique's Beira Bets on Urban Renewal, FloodList, July 2016, http://floodlist.com/africa/beira-mozambique-urban-renewal-floods-rising-sea-levels

77 After the storm: Rebuilding Beira, Deutsche Welle, April 2019, https://www.dw.com/en/after-the-storm-rebuilding-beira/g-48449861

Translating European opportunities into the global context

In this report we have identified a number of areas to explore for European institutions and Member States. All of these can be transferred into the global context and could form part of Europe's international leadership for sustainable finance.

In the international context areas to explore could include:

SUPPORTING THE USE OF STRATEGIES AND SCENARIOS AT ALL LEVELS

- Working internationally to support the creation of national and local level strategies on disaster risk reduction and climate change adaptation (including National Adaptation Plans and Nationally Determined Commitments) which are linked to national investment strategies and priorities.
- Collaborating across jurisdictions to support multinational companies to put in place comprehensive and wide-ranging long-term disaster risk and climate change adaptation strategies which address physical climate change risk across their businesses (including through their international supply chains) and to work with stakeholders to create a shared approach to risk.
- Promoting the consistent use of accurate and useful disaster risk and climate risk scenarios by all actors in the financial system. Exploring how existing data and new technologies can be used to support investment decision-making.

78 African Cyclone Survivors Risk 'Second Wave' of Loss With Disease Threat, FloodList, March 2019, http://floodlist.com/africa/african-cyclone-survivors-risk-second-wave-of-loss-with-disease-threat

79'Mozambique 'faces climate debt trap' as Cyclone Kenneth follows Idai', Climate Home News, 26th April 2019
https://www.climatechangenews.com/2019/04/26/mozambique-faces-climate-debt-trap-cyclone-kenneth-follows-idai/

80 'UN gives $13 million as second cyclone pounds Mozambique, France 24, 24th April 2019, https://www.france24.com/en/20190429-cyclone-kenneth-pounds-mozambique-humanitarian-aid

WORKING IN INTERNATIONAL PARTNERSHIP ON SUSTAINABLE FINANCE

Working through international action coalitions to make all financial investment climate-resilient, by:

- Building internationally consistent taxonomies of "sustainable" and by extension "unsustainable" economic activities, which includes those that are not resilient to disaster/climate change risk or which would lead to maladaptation or building in risk;
- Ensuring that financial institutions – including public institutions such as the Multilateral Development Banks – and companies which issue public debt or equity, disclose their exposure to physical climate change and disaster risk in line with the recommendations of the TCFD;
- Establishing resilience to physical climate change and disaster risk as a baseline condition both for infrastructure investments and for bilateral or multilateral financial instruments;
- Collaborating across borders to ensure integration of resilience to physical climate change and disaster risk into both investor and directors' duties and into credit ratings;
- Working in international partnership to avoid and mitigate capital flight and finance coverage gaps related to physical climate change and disaster risk.

Annex: Actions under the Sustainable Finance Action Plan, and progress on implementation

The 10 actions from the Action Plan on Sustainable Finance were defined as follows:

Action 1: Establishing an EU classification system for sustainable activities

This EU classification system – or taxonomy – will define which activities are classed as 'sustainable' in terms of climate change, environmental and social impacts. The taxonomy will gradually be embedded into law and will be regularly updated and reviewed. It will also underpin classification systems for other areas such as standards, green labels and sustainability benchmarks.

Action 2: Creating standards and labels for green financial products

With the formation of the taxonomy, standards and labels for green financial products would enable investors to make informed decisions when looking to finance green projects. This will stimulate growth in certified green investments whilst avoiding 'greenwashing' – the practice of making a product appear more environmentally friendly than it is.

Action 3: Fostering investment in sustainable projects

This action sets out to build on the ongoing efforts to crowd-in private investment and reinforce advisory capacity for strategic projects across the EU, including for developing sustainable infrastructure, completed to date through the European Fund for Strategic Investments (EFSI) and the European Investment Advisory Hub (EIAH). Utilising the post-2020 multiannual financial framework, further measures will be proposed to improve the efficiency and impact of instruments aiming at sustainable investment support in the EU. Additionally, it is the aim to encourage sustainable investment in partner countries through rolling out the EU External Investment Plan.

Action 4: Incorporating sustainability when providing financial advice

Investment and insurance advice to clients is currently viewed as not sufficiently considering investors' and beneficiaries' preferences for sustainability. Therefore, the Commission will amend The Markets in Financial Instruments Directive (MiFID II) and the Insurance Distribution Directive (IDD) delegated acts to include sustainability preferences in suitability assessments.

Action 5: Developing sustainability benchmarks

Current benchmarks rarely contain environmental and social governance factors (ESG), and the ones which have been developed recently largely lack transparency. The Commission therefore plans to enforce transparency of benchmarks and to harmonise their methodology for calculating climate impact.

Action 6: Better integrating sustainability in ratings and market research

ESG factors are increasingly being incorporated into ratings and market research methodologies. Like benchmarks however they are not always transparent and tend to focus on very large issuers which has a negative impact on attractiveness of smaller issuers. The Commission therefore plans to mandate credit rating agencies to explicitly integrate sustainability factors in a way that preserves market access for smaller issuers. European Securities and Markets Authority (ESMA) have been invited to assess the current practices of ESG ratings and to provide guidelines for credit ratings agencies.

Action 7: Clarifying institutional investors' and asset managers' duties

The fiduciary duty of institutional investors and asset managers is not clearly legislated to enforce the consideration of sustainability factors and risks in the investment process. This action will look to enforce sustainability considerations to be included in the decision-making process as well as ensuring transparency for end investors.

Action 8: Incorporating sustainability in prudential requirements

At least half of the assets of banks and insurers in Europe have been flagged as at risk to climate change related risks[81] and therefore pose a financial risk according to supervisors[82]. This action aims to consider climate related risks in capital requirements as part of the Capital Requirement Regulation and Directive.

Action 9: Strengthening sustainability disclosure and accounting rule-making

Public corporate reporting enables investors and stakeholders to view and assess a companies' sustainability risk exposure. Since 2018 the EU directive on the disclosure of Non-Financial Information requires large public interest entities to disclose material information on ESG aspects and risks. However, this information can be disclosed in a flexible manner. This action will therefore look to standardise and enforce disclosure of climate and ESG related information in line with the Financial Stability Board's Task Force on Climate-related Financial Disclosure (TCFD).

Action 10: Fostering sustainable corporate governance and attenuating short-termism in capital markets

The Commission is looking to promote sustainable approaches to corporate governance which covers strategy, due diligence of supply chains and measurable sustainability targets. This is alongside clarification of rules under which directors are expected to act in the company's long-term interest. Furthermore, the European Supervisor Authorities (ESAs) are invited to collect evidence of excessive short-term pressure from capital markets and the practices that may cause this.

81 Battiston, S., A. Mandel, I. Monasterolo, F. Schutze, and G. Visentin, "A climate stress test of the financial system," Nat. Clim. Chang., vol. 7, no. 4, pp. 283–288, April 2017. https://www.nature.com/articles/nclimate3255

82 Reports of the Advisory Scientific Committee, European Systemic Risk Board, February 2016, https://www.esrb.europa.eu/pub/pdf/asc/Reports_ASC_6_1602.pdf

Implementation

Since the publication of the Action Plan on Sustainable Finance, a number of measures have been taken forward to implement several key actions:

- **Action 1:** A proposal for a Regulation on the establishment of a framework to facilitate sustainable investment was published in May 2018[83]. This sets up the conditions and framework for introducing the classification system (taxonomy). The European Parliament adopted its position on this proposal on the 28th March 2019[84] and the position of the Member States (Council of the European Union) will follow in the coming months before inter-institutional negotiations starting in the second half of 2019. In parallel, the European Commission set up a Technical Expert Group (below) to support with the development of the technical screening criteria to be included in the Regulation, whose final report on activities related to climate change mitigation and adaptation is due in June 2019. The Technical Expert Group has invited experts to contribute to the development of this report through written feedback and sector-specific workshops[85], of which UNDRR is an additional expert in the taxonomy group on climate change adaptation.
- **Action 2:** The Technical Expert Group was tasked to support the development of advice on an EU green bond standard. It published its interim report in March 2019[86] and a final report will follow in June 2019.
- **Action 3:** A proposal to create the InvestEU Programme, the successor of the European Fund for Strategic Investments (EFSI), was published in June 2018[87] and a common understanding between European Parliament and the Member States was reached in March 2019[88].

83 Sustainable finance: Making the financial sector a powerful actor in fighting climate change, European Commission, May 2018, http://europa.eu/rapid/press-release_IP-18-3729_en.htm?locale=en

84 European Parliament legislative resolution of 28 March 2019 on the proposal for a regulation of the European Parliament and of the Council on the establishment of a framework to facilitate sustainable investment, European Parliament, March 2019, http://www.europarl.europa.eu/doceo/document/TA-8-2019-0325_EN.html?redirect

85 Invitation for feedback and expert workshops on taxonomy, European Commission – Technical Expert Group on Sustainable Finance, December 2018, https://ec.europa.eu/info/publications/sustainable-finance-taxonomy_en

86 Proposal for an EU Green Bond Standard, European Commission Technical Expert Group (TEG) subgroup on Green Bond Standard, March 2019, https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/190306-sustainable-finance-teg-interim-report-green-bond-standard_en_0.pdf

87 EU Budget: InvestEU Programme to support jobs, growth and innovation in Europe, European Commission, June 2018, http://europa.eu/rapid/press-release_IP-18-4008_en.htm

88 InvestEU: EU ambassadors confirm common understanding reached with Parliament, European Council, March 2019, https://www.consilium.europa.eu/en/press/press-releases/2019/03/27/investeu-eu-ambassadors-confirm-common-understanding-reached-with-parliament/

- **Action 5:** A proposal for a regulation amending the benchmark regulation was published in May 2018[89]. This will create a new category of benchmarks for 'Paris-aligned' and 'climate transition' benchmarks. Investors will then have better information on the degree of alignment of their investments with the Paris Agreement. A political agreement was made between the European Parliament and Member States to amend the Benchmark Regulation and create two new categories of low-carbon benchmarks in February 2019[90]. The technical expert group will now advise the European Commission on how to select the companies eligible for inclusion in the new benchmarks.

- **Action 7:** A proposal for a regulation on disclosures relating to sustainable investments and sustainability risks and amending Directive (EU)2016/2341 was published in May 2018[91]. This regulation will introduce disclosure obligations on how institutional investors and asset managers integrate environmental, social and governance (ESG) factors in their risk and decision-making processes, as part of their duty to act in the best interest of clients. A political agreement between the European Parliament and Member States was reached in March 2019[92].

- **Action 8:** The European Parliament and the Council of the European Union reached a provisional political agreement on a package of rules for banks, including capital requirements rules, in December 2018[93]. This includes requiring mandatory disclosure of ESG risks for banks in mid-2022 and assessments by the European Banking Authority, to be completed by the mid-2021, on the potential for brown and/or green factors for banks' capital requirements and the inclusion of ESG risks in the supervisory tasks of national financial regulators.

- **Action 9:** The Technical Expert Group was tasked to draft guidance with recommendations for the Commission regarding the update of the non-binding guidelines on non-financial reporting. The group published its report in January 2019[94] for consultation with stakeholders and the Commission will then adopt the updated guidelines in June 2019. It includes recommendations that will allow the Commission to update guidelines on non-financial reporting in line with Task Force for Climate-related Financial Disclosures (TCFD) and the Commission proposals on the taxonomy.

89 Sustainable finance: Making the financial sector a powerful actor in fighting climate change, European Commission, May 2018, http://europa.eu/rapid/press-release_IP-18-3729_en.htm?locale=en

90 Sustainable finance: Commission welcomes agreement on a new generation of low-carbon benchmarks , European Commission, February 2019, http://europa.eu/rapid/press-release_IP-19-1418_en.htm?locale=en

91 Sustainable finance: Making the financial sector a powerful actor in fighting climate change , European Commission, May 2018, http://europa.eu/rapid/press-release_IP-18-3729_en.htm

92 Capital Markets Union: Commission welcomes agreement on sustainable investment disclosure rules,

European Commission, March 2019, http://europa.eu/rapid/press-release_IP-19-1571_en.htm

93 Completing the Banking Union: Commission welcomes political agreement to further reduce risks in the EU banking sector, European Commission, December 2018, http://europa.eu/rapid/press-release_IP-18-6659_en.htm

94 Disclosures Progress Report, European Commission Technical Expert Group (TEG) subgroup on Disclosures, January 2019, https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/sustainable-finance-teg-subgroup-disclosures-progress-report_en.pdf

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