



Eurosystem reply to the European Commission's public consultations on the Renewed Sustainable Finance Strategy and the revision of the Non-Financial Reporting Directive¹

General remarks

The Eurosystem recognises the major challenge posed by climate change and the need for a timely mitigation of its impacts. Compared with other sources of structural change affecting the economy and the financial system, the scale, interconnectedness and non-linearity of the impact of climate change, as well as its irreversibility and dependency on the policy actions taken today, suggest the need for policymakers to treat and manage climate change with the highest priority. Mitigating climate change is first and foremost a task of democratically elected governments and public authorities, and fiscal measures, notably carbon pricing, remain the first line of defence.² This notwithstanding, the magnitude of the challenge will necessitate broader efforts of a wider range of entities, also including central banks and supervisors. Climate change is likely to have wide-ranging impacts on both the demand and supply side of the economy,³ and may have implications for the long-run neutral level of the real interest rate, which is a key variable for the assessment of the monetary policy stance and could therefore potentially affect the conduct of monetary policy.⁴ Furthermore, as acknowledged by a growing number of central banks and supervisors around the world, climate-related risks are a source of financial risk and it therefore falls within their mandates to ensure that the financial system is resilient to those risks.⁵ Finally, both climate change-related shocks to the financial sector and the effects of climate policies on the real economy have the potential to affect the transmission of monetary policy.

The response to the coronavirus (COVID-19) pandemic is an opportunity to step up efforts to achieve the environmental objectives of the European Union (EU) by incorporating sustainability considerations when steering the financial response to the crisis. While the current policy priority of governments and EU institutions is clearly to protect public health, incomes and jobs in the EU, the

¹ The consultation documents to which this contribution refers to are: (1) public consultation on the [Renewed Sustainable Finance Strategy](#); (2) public consultation on the [Revision of the Non-Financial Reporting Directive](#).

² See International Monetary Fund, "[How to Mitigate Climate Change](#)", *Fiscal Monitor*, October 2019.

³ Andersson, M., Baccianti, C. and Morgan, J., *Climate change and the macro economy*, forthcoming.

⁴ Cœuré, B., "[Monetary policy and climate change](#)", speech at the conference "Scaling up Green Finance: The Role of Central Banks", Berlin, 8 November 2018.

⁵ Network for Greening the Financial System, "[First comprehensive report. A call for action: climate change as a source of financial risk](#)", April 2019.

COVID-19 crisis is a reminder of the need to strengthen the resilience of our societies and economies against disruptive exogenous shocks and catastrophic events. The COVID-19 pandemic could hinder progress towards a sustainable economy in diverse ways. But the measures that are being put in place at national and EU level to help the economy recover from the emergency also offer a unique opportunity to take into account climate change and sustainability more broadly. The European Council committed to integrating the needs of the green transition in the Roadmap for Recovery from the COVID-19 pandemic,⁶ indicating that the sustainability goals of the EU will have to underpin the recovery. This was reflected by the European Commission in its proposal for a recovery instrument.⁷ The Eurosystem encourages governments, public institutions and the private sector to give due consideration to a resilient, sustainable and fair economic recovery, and supports policy initiatives to this end.

In line with its mandate, the European Central Bank (ECB) supports the aims of the EU, including fostering a sustainable economy that ensures prosperity and secures citizens' long-term well-being against economic, social and ecological risks. The scope, modalities and limits for the Eurosystem's supporting role in pursuing the sustainability objectives of the Union are defined by its mandate, as outlined in Article 127 of the Treaty on the Functioning of the European Union (TFEU). Without prejudice to the primary objective of price stability, the Eurosystem supports the general economic policies in the Union with a view to contributing to the achievement of the objectives of the Union. These include inter alia "the sustainable development of Europe based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment."⁸ Furthermore, under its supervisory and financial stability functions as conferred upon it by the Single Supervisory Mechanism Regulation under Article 127(6) of the TFEU,⁹ the ECB supports the EU policy efforts aimed at improving the identification and management of financial risks related to sustainability, with a view to enhancing the safety and soundness of credit institutions and the stability of the financial system. In this context, better disclosure and transparency on environmental risks is needed as a fundamental building block for raising awareness and ensuring sufficiently encompassing and granular information to facilitate market pricing of the related risks in line with the principle of an open market economy.

⁶ See the [Joint statement of the Members of the European Council of 26 March 2020](#) and the [Roadmap for Recovery: Towards a more resilient, sustainable and fair Europe](#).

⁷ Communication from the European Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions: [Europe's moment: Repair and Prepare for the Next Generation](#), COM(2020) 456 final.

⁸ Article 3 of the consolidated version of the [Treaty on European Union \(TEU\)](#) of 7 June 2016.

⁹ Council Regulation (EU) No 1024/2013 of 15 October 2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions.

Reflecting the importance of timely mitigating action, the EU has committed to increasingly ambitious climate-related and environmental targets.¹⁰ The

European Council has most recently endorsed the target of net-zero greenhouse gas (GHG) emissions by 2050. This long-term goal underpins the European Green Deal¹¹, a comprehensive growth strategy launched by the European Commission in December 2019 with the objective of meeting the EU's carbon neutrality target while ensuring sustainable and inclusive growth, and a resource-efficient and competitive economy. On 4 March 2020 the European Commission published a proposal for a European Climate Law¹², which would enshrine the target of carbon neutrality by 2050 in EU law and provide the reference long-term framework for the EU's climate and environmental policies.

In this context, sustainable finance will be key to the transition to a carbon-neutral economy.¹³ According to the European Commission's estimates, the EU will

need up to €470 billion of additional investments per year to reach its to reach its current climate and environmental policy goals.¹⁴ While substantial public investment will be needed, the transition can only be successful if the private sector contributes by directing capital towards climate and environmental action. In this respect, the financial system can be a catalyst for this change, given its central role in the economy, with financial institutions operating as financial intermediaries.¹⁵ Market forces can and should be a key driver of the redirection of financial flows towards sustainable economic activities. But for markets to support the transition, policymakers should create the conditions for the financial sector to do what it does best: allocating capital where it is most needed, guided by investors' preferences and effective price signals that correctly reflect the externalities associated with climate change and environmental degradation.

Against this background, the Eurosystem welcomes the European Commission's public consultations on the Renewed Sustainable Finance Strategy and the revision of the Non-Financial Reporting Directive. The Eurosystem emphasises five key messages:

1. Transparency and disclosure are currently lacking. Efforts to address the gaps are therefore welcome and fundamental to the Renewed Sustainable

¹⁰ In 2010 the EU agreed on the Europe 2020 package of energy and climate targets for 2020, aiming to reduce greenhouse gas emissions by 20% compared to 1990 levels, to increase the share of renewable energy in the EU energy mix to 20%, and to increase energy efficiency by 20%. In 2014 the EU agreed to increase these targets to 40%, 32% and 32.5% respectively by 2030, and submitted these commitments as the EU contribution under the 2015 Paris Agreement. On 12 December 2019 the European Council endorsed the target of net-zero emissions by 2050.

¹¹ Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions: [European Green Deal](#), COM/2019/640 final.

¹² Proposal for a Regulation of the European Parliament and of the Council establishing the framework for achieving climate neutrality and amending Regulation (EU) 2018/1999 ([European Climate Law](#)), COM/2020/80 final.

¹³ Lagarde, C., "[Climate change and the financial sector](#)", speech given at the launch of the COP 26 Private Finance Agenda, London, 27 February 2020.

¹⁴ European Commission, "Identifying Europe's recovery needs", *Staff working document*, Brussels, 27 May 2020.

¹⁵ Thimann, C., "Finance and sustainability: the end of 'business as usual'" in the *BaFin Perspectives* issue on "Sustainability", No 2, 2019.

Finance Strategy. Sustainable finance requires a clear link to be established between the funds raised and the impact in terms of sustainability of the investment that those funds are meant to finance. This requires the information set available to financial players to be expanded beyond the traditional signals used by conventional investors. Only if investors have clear and reliable information regarding the impact of their investments can they take financial decisions consistent with their own preferences for sustainability and confidently rebalance their portfolios towards sustainable assets. Currently the sustainable finance market suffers from numerous informational market failures: information on the sustainability of financial products – when available – is inconsistent, largely incomparable and at times unreliable. Closing the remaining gaps is a necessary pre-condition for the entire sustainability agenda to succeed. This requires first and foremost a revision of corporate disclosure. Second, it requires standardised and commonly agreed definitions. In this respect, the EU Taxonomy is an essential milestone to provide clarity and certainty on the definition of sustainability. It should be swiftly implemented and its scope and sectoral coverage should be expanded. Finally, it requires the development of reliable, verifiable and transparent EU standards for sustainable financial products.

2. **The financial sector can only play a supporting role alongside an overall policy framework setting the right long-term incentives.** In order to realise its full potential, sustainable finance needs to be embedded in a policy context that is conducive to a long-term reorientation of the financial sector and the economy as a whole. This requires effective and credible incentives to guide economic decisions, and a stable and predictable long-term strategy. As long as environmental externalities of economic activities are not adequately priced in, sustainable investments can be expected to remain below their desired level, as many green projects are bound to be relatively unattractive compared to non-green investments owing to – inter alia – their long-term nature, risk profile and high cost of capital. While sustainability-oriented investors may be willing to forego part of their returns for holding sustainable assets, thus lowering the cost of funding for these investment projects, adjusting relative prices to reflect the costs of environmental externalities remains essential. This requires economic incentives to be changed through appropriate fiscal policy measures, including carbon pricing, and/or regulatory tools, while catering for their distributional consequences. More ambitious carbon pricing policies could, in turn, also lead to better pricing of climate-related risk in capital markets. Sustainable finance can act as a catalyst and facilitator of the transition, but it is no substitute for a credible climate policy encompassing all appropriate policy tools.
3. **Climate change and environment-related risks necessitate appropriate risk monitoring and risk management frameworks.** Two climate-related risks can have an impact on the financial system: the disruption or destruction of economic activities and assets through a changing climate (“physical risks”), and the process of adjustment towards a low-carbon and sustainable economy (“transition risks”). Physical risks may materialise both through gradual changes in climate, for example rise in temperature, changes in precipitation patterns,

sea level rise, and through changes in the frequency and intensity of extreme weather events, such as heat waves, droughts, floods and hurricanes. Transition risks will depend on the timing, and thus the required strength, of policy action. It is expected that more severe measures are necessary to contain climate change the longer policy action is delayed (“the tragedy of the horizon”).¹⁶ Both physical and transition risks can then propagate to the financial and corporate sector through four main channels: credit, market (including the liquidation of assets¹⁷), operational and legal/reputational risks. If not appropriately monitored and managed, these risks could ultimately impact the Eurosystem’s tasks and its ability to fulfil its mandates of financial and price stability. The financial risks to which the Eurosystem operations are exposed could also be negatively affected since potentially weaker issuers and counterparties would be less resilient, hence less able to absorb losses or to cope with unexpected shocks. Importantly, the transmission of monetary policy to the economy could be affected by malfunctioning of the financial system and by the impact on the supply of credit which may result from the materialisation of climate change-related risks.

4. **Sustainable finance has close links to other policy priorities, in particular capital markets union (CMU), and synergies should be exploited.**

Sustainable finance and CMU are two mutually reinforcing initiatives, and progress on both policy fronts is needed. To the extent that the EU policy initiatives are successful in removing the obstacles currently holding back the development of a cross-border market for sustainable financial products, these actions will be instrumental in fostering further growth of this segment.¹⁸ In turn, this could reinforce the efforts to deepen and further integrate EU capital markets, providing new sources of funding for businesses, new opportunities for investors and enhancing the resilience of the financial system. In this context, common standards for sustainable financial products can be a powerful driver of financial integration. Furthermore, as equity finance tends to be more effective in accelerating the carbon transition than debt-based approaches,¹⁹ it is key that further progress also includes sufficient incentives for equity and debt markets to play their roles. In turn, CMU can contribute to sustainable finance objectives: first, by making it easier for investors to seek out sustainable investment opportunities across Europe, deep and liquid capital markets can help mobilise the funds needed to finance the transition to a low-carbon economy.²⁰ Second, CMU can enhance the risk-sharing capacity of the EU

¹⁶ See Giuzio, M., Krusec, D., Levels, A., Melo, A.S., Mikkonen, K. and Radulova, P., “Climate change and financial stability”, *Financial Stability Review*, Special Feature, European Central Bank, May 2019. and Carney, M., “Breaking the Tragedy of the Horizon – climate change and financial stability”, speech given at Lloyd’s of London, London, 29 September 2015.

¹⁷ One source of such risk relates to the disposal of stranded assets as transition policies are implemented and economic agents adjust their preferences accordingly.

¹⁸ De Nederlandsche Bank, “Bottlenecks in funding of green investments”, *DNBulletin*, January 2017.

¹⁹ De Haas, R., and Popov, A., “Finance and carbon emissions” *Working Paper Series*, No 2318, European Central Bank, Frankfurt am Main, September 2019, [Financial Integration and Structure in the Euro Area](#), European Central Bank, Frankfurt am Main, March 2020.

²⁰ See [Interim Report of the High Level Forum on the Capital Markets Union – a new Vision for Europe’s capital markets](#).

financial system in the face of the climate challenge, notably through insurance against climate-related risks and by spreading the risks associated with risky investments in new carbon-efficient technologies among market participants and across the EU.

5. **Sustainable finance is a global issue, requiring close international coordination to promote internationally consistent frameworks and prevent regulatory fragmentation.** Given the global nature of the climate challenge, sustainable finance has by definition an international dimension. Collective leadership and globally coordinated action are therefore essential. A key strategic objective should be to avoid regulatory competition among countries undermining the EU's efforts to set high quality standards and undercutting the global efforts to bring finance flows into line with the Paris Agreement. Furthermore, internationally consistent standards on climate-related and environmental information disclosure would foster comparable high-quality information and provide greater clarity to the industry on how to align their reporting internationally. The EU's regulatory framework for sustainable finance constitutes one of the most advanced in the world: the EU's experiences should be leveraged to extend the Union's influence and help shape regulatory frameworks in other jurisdictions and at the international level.

The Eurosystem stands ready to play its role in the announced initiatives in line with its competences and mandate. The Eurosystem stands prepared to provide technical expertise to the European Commission in the areas of its competence and to contribute, within the limits of its mandate, to the further development of sustainable finance and the monitoring and management of the risks related to climate change.²¹ The ECB expresses the expectation that it will be involved accordingly when draft Union acts that may directly or indirectly involve or impact the fields of the ECB's competence are due to be adopted and consulted in a timely manner in accordance with Article 127(4) of the TFEU.

The rest of this document presents the Eurosystem's feedback to both the public consultations on the Renewed Sustainable Finance Strategy (Section 1) and on the revision of the Non-Financial Reporting Directive (Section 2). The two consultations are related but distinct. Given the close link between the two consultations, this contribution serves as the Eurosystem reply to both consultations.

1 Renewed Sustainable Finance Strategy

While considerable progress has already been achieved since the 2018 Action Plan on financing sustainable growth, additional policy action is needed to complete the framework and address the remaining gaps in the light of the renewed impetus towards carbon neutrality. The ECB welcomed the 2018 Action Plan as an important

²¹ In the context of its monetary policy strategy review, the ECB will assess whether and how, acting within its mandate, it can take sustainability considerations – and notably risks related to environmental sustainability – into account; see [press release of 23 January 2020](#).

step towards integrating sustainability into financial decision-making.²² As a member of the Technical Expert Group on Sustainable Finance, which was set up to assist the European Commission in following up its Action Plan, the ECB contributed actively to the development of an EU Taxonomy of sustainable economic activities, including the preparation of the Technical Report on the Taxonomy.²³ Overall, together with the Disclosure Regulation²⁴ and the Benchmarks Regulation²⁵, the policy measures adopted since the 2018 Action Plan have laid the foundations for the growth of sustainable finance in the EU. Determined action is now needed to fill the remaining gaps and make the framework fit to deliver on the renewed EU ambitions.

1.1 Improve the quality of sustainability and climate-related information

1.1.1 Data and ratings

The current landscape of market data providers includes a variety of environmental, social and governance (ESG) datasets,²⁶ but available sustainability and climate-related data and scores suffer from a lack of standardisation and comparability. In the absence of a consistent set of publicly available corporate-level information, the metrics developed by market data providers seek to consolidate the (limited) quantitative and qualitative environmental information provided by companies. But the correlation between scores from different providers is low, reflecting significant discretion in the construction of such indicators.²⁷ This is an impediment to the consistent use of ESG data by financial institutions and market participants. In addition, there is a limitation on the relevance

²² [Action Plan: Financing Sustainable Growth](#), 3 March 2018, COM/2018/097 final.

²³ EU Technical Expert Group on sustainable finance, "[Taxonomy: Final report](#)", March 2020.

²⁴ Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector ([Disclosure Regulation](#)).

²⁵ Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds and amending Directives 2008/48/EC and 2014/17/EU and Regulation (EU) No 596/2014 ([Benchmarks Regulation](#)).

²⁶ These include: (i) ESG Score Ratings: ESG scores in this dataset are based on qualitative and voluntary reporting by the rated company itself. Credit Rating Agencies (CRAs) only provide ESG scores for rated companies, so only existing customers are scored. ESG-related sector and industry research is based on own scores and again only covers rated companies; (ii) ESG Index data: these growing and well-used indices are included as benchmarks by some investment funds. This incentivises companies to fulfil required measures so their securities are included in the index; (iii) Specialist ESG data: these data collect non-mainstream and thus niche provider information and are especially valuable due to their expertise in specific fields. Labels provided to companies that fulfil the specialist's requirements and sustainability measures incentivise the assessed companies to increase their efforts. In recent times, many acquisitions by established market leaders have been observed, which has led to market concentration; (iv) ESG data on terminals: alongside with various datasets and tools, the terminal providers also include free-of-charge, high-level ESG data, in the form of rating scores for securities where available. Terminal providers collect information from public available sources and cooperating ESG dataset providers, incorporate it into their system and resell the derived information.

²⁷ See for example Carbone, S., Giuzio, M. and Mikkonen, K., "[Climate risk-related disclosures of banks and insurers and their market impact](#)", *Financial Stability Review*, European Central Bank, Frankfurt am Main, November 2019.

of assessing companies' concrete business practices and a limited, occasional and unsystematic connection to financial risks. Specifically in relation to financial firms, according to available research, sustainability and environmental ratings for financial firms are today driven primarily by traditional corporate social responsibility considerations, such as the own carbon footprint of their operations,²⁸ rather than taking into account their broader role in allocating capital and the carbon emissions associated with their financing, or – from a risk management perspective – their exposure to environmental or climate risks. As a result, banks' ESG ratings do not seem to reflect their lending activity to carbon-intensive companies. Importantly, current ESG ratings are not an appropriate measure of risk and should therefore not be used as alternatives to or proxies for risk metrics.²⁹ That ESG ratings have no direct bearing on credit risk should be clearly communicated, for instance through an explicit disclaimer, to distinguish them from established market credit ratings and to avoid any confusion as to their purpose.

The lack of standardisation and comparability results primarily from the unavailability of granular information at the corporate level. Several meta-studies show the heterogeneous quality of sustainability and climate-related reporting,³⁰ with corporate disclosures varying substantially in scope and detail. The lack of an agreed methodology and of reporting standards, the lack of data along the value chain, as well as the largely qualitative nature of most disclosure requirements and the parallel voluntary industry's initiatives impede comprehensive and comparable climate-related reporting. In particular, this is the case for financial institutions – which by their very nature as intermediaries – can only rely on the information disclosed by their clients. This limits the availability of meaningful sustainability data, which in turn makes it challenging to benchmark the environmental performance of certain companies over others or to define “brown” or “green” assets in a portfolio.³¹ In a similar vein, unreliable ESG data and ratings limit users in their capacity to conduct granular financial risk analyses.

1.1.2 Taxonomy

This basic lack of data and transparency is compounded by the absence of common definitions of what qualifies as sustainable and what does not. In the investment world, the absence of common definitions of sustainability leads to

²⁸ A report by Oliver Wyman, “Climate Change: Three Imperatives for Financial Services”, 2020, finds that ESG ratings of banks currently show no correlation with the level of lending to the high greenhouse gas-emitting sectors, 2020.

²⁹ See, for example, DNB, “Values at risk? Sustainability risks and goals in the Dutch Financial Sector”, Chapter 5, 2019; Busch, T., Bauer, R. and Orlitzky, M. “Sustainable development and financial markets: Old paths and new avenues”, *Business and Society*, Vol. 55(3), 2016.

³⁰ See Task Force on Climate-related Financial Disclosures, *Global Progress Report for the Banking Sector*, 2019; Climate Disclosure Standards Board, *First Steps: Corporate climate and environmental disclosure and the EU Non-Financial Reporting Directive*, 2018; Alliance for Corporate Transparency, *Research Report*, 2019.

³¹ A common short-cut is to attribute a given “carbon footprint” to a company's assets using the GHG emission of the corresponding economic sector. However sectoral data do not capture large differences within sectors and, most importantly, ignore any dynamics within firms over time. Backward-looking analysis based on sectoral data therefore provides an incomplete picture of the sustainability performance of a firm and related assets.

fragmentation and a lack of comparability among investment products, and gives rise to the well-known problem of “greenwashing”, i.e. the practice of making unsubstantiated or misleading claims about the environmental sustainability of a financial product.

The implementation of a sound and widely adopted EU Taxonomy would address this lack of common definitions and could be a major driver of further growth in sustainable finance.

The adoption of the Taxonomy Regulation represents an important milestone that will help underpin further market developments in green and sustainable finance. Previous experiences in the financial industry suggest that sound classification systems addressing pervasive information asymmetries can be a powerful driver of growth in the affected market segment.³² The Taxonomy is expected to bring benefits to financial market participants, by facilitating the identification of sustainable assets and the integration of sustainability considerations in their investment decisions. It will also encourage the incorporation of sustainability concerns by corporations and investees into their strategy, providing a sound anchor to diversify their investor base and more certainty on the transition path. Available estimates show that, if widely adopted, the Taxonomy could substantially help fill the investment gap to meet the climate targets in the relevant sectors.³³

However the Taxonomy framework remains incomplete and its finalisation should be a priority.

First, the framework still requires the adoption of delegated acts and will only enter fully into force in 2022. The ECB encourages prompt implementation of the delegated acts, also with a view to possibly frontloading use of the Taxonomy in the context of the recovery from the COVID-19 pandemic. By providing a framework to assess whether the environmental performance and minimum social standards of new investments are aligned with the social, climate and environmental goals of the Union, the Taxonomy could prove a precious tool for directing the unprecedented spending programmes that are being put in place at EU and national levels towards sustainable uses. Second, as the Taxonomy is defined in terms of making a substantial contribution to the EU climate and environmental objectives, the Taxonomy only provides clear definitions of what is “sustainable” from a “normative” perspective— aimed at assessing the alignment of a given economic activity with defined sustainability goals – and not from a risk management perspective, which is aimed at minimising exposures to climate and environmental risks. Although these two perspectives sometimes overlap, they reflect distinct considerations (see the paragraph on a “Brown taxonomy” below). Third, the sectoral scope of the EU Taxonomy is still incomplete and should ideally be broadened to cover the activities of all relevant sectors. Finally and more fundamentally, the

³² See Fender, I., McMorrow, M., Sahakyan, V. and Zulaica, O., “Green bonds: features and trends”, *Quarterly Review*, BIS, September 2019; Ehlers, T. and Packer, F., “Green bond finance and certification”, *Quarterly Review*, BIS, September 2017.

³³ See “Economic impacts of the Taxonomy”, *Taxonomy Technical Report*, June 2019, p. 79.

Taxonomy still requires granular data in order to be usable.³⁴ Data on carbon emissions is essential in this respect, as they constitute a key variable to assess the taxonomy-alignment of several sectors. Accordingly, the availability of such information should be substantially improved.

1.1.3 Auditing and verification

The limitations of the existing data sources and definitions are further amplified by the lack of an auditing or verification process to assess the validity/reliability of the reported data. The information may be collected through surveys, annual report data, public statistical information or self-reported data. The ESG score of an investee company is generally based upon data provided by third-party providers, which are not audited by a common body. In addition, the variation among the different data providers is somewhat large, as the data collection process is based upon different methodologies and definitions. As such, it is difficult to determine whether a company's ESG data, rating or research is indeed a reflection of its performance and/or based in its risk profile. In this respect, even the future entry into force of the EU Taxonomy does not in itself ensure that investments will actually be sustainable and the related metrics reliable within an acceptable margin of error, unless a credible verification system is in place.

1.1.4 Policy action

Against this background, policy action seems warranted. This requires first and foremost review of the corporate disclosure regime. Once more and better granular information at company level is available, ESG data and ratings, which necessarily build on corporate-level data, can be reasonably expected to improve and could potentially converge in terms of comparability and reliability. This would also enhance competition in the market for ESG data and research, allowing users to better compare and discriminate between providers. The views of the Eurosystem on the revision of the Non-Financial Disclosure Directive (NFRD) are presented in Section 2.

Finally, EU legislation should foster convergence towards common definitions and concepts of sustainability. The European Commission should closely examine the different definitions and concepts of sustainability that are currently in use in different legislative texts. A better alignment of these requirements would reduce the burden for companies and increase the quality and comparability of the ESG information and related indicators and metrics.

³⁴ While the companies that are required to disclose the degree of alignment of their activities with the Taxonomy will be in a position to draw on the detailed information available within their own organisation, the current insufficient level of public disclosure might prevent them from having sufficient data on their clients' activities. This is particularly problematic for financial institutions, which – being intermediaries – might, face significant data collection challenges to simply make use of the Taxonomy.

1.2 Improve the availability of corporate-level information

A single access point for public corporate information, including non-financial data, would greatly contribute to increased transparency and data comparability and usability. From the perspective of reporting entities, application of a common technological data submission standard, machine-readable format and harmonised reporting templates could facilitate fulfilment of various reporting obligations. Currently, non-financial information is often published on a company's website in pdf and html format without a common structure, making it cumbersome to process the data and, consequently, to conduct a meaningful analysis. Given the already incurred cost of reporting, a single repository would increase the value of reported information for a wide range of data users – investors, policymakers and the public at large.

The establishment of a public-good data infrastructure could build on already gained experience. For more than a decade the trend at EU level is to collect granular data to inform policymakers and contribute to the implementation of EU strategies. However, the use and interlinkage of granular data by various authorities is hampered by existing governance, technical and legal obstacles. There is a need to reconsider how to organise financial and non-financial data, so that it can be collected, compiled, analysed and made public (where possible) or at least shared among relevant and trusted authorities in a timely and consistent manner while safeguarding industry data against unintended use. The legal regime applicable to such a repository should be carefully designed, for example as regards the authorities' activities, duties and liability.

1.3 Align reporting obligations through the use of Legal Entity Identifiers

A key element of such infrastructure should be a unique identifier of the reporting entity, such as globally established Legal Entity Identifier (LEI), which would align already existing reporting obligations and allow financial and non-financial information and other data sources to be linked. Progress in that endeavour would benefit all sectors of the economy and serve various types of data usage, both public and private. EU institutions and authorities could then require use of the LEI (while respecting the principle of proportionality) to fulfil obligations in their respective field of legal competence (such as financial or statistical reporting and tax declarations). This would support many of the official duties of the European System of Central Banks (ESCB), the European Commission and other EU institutions and would facilitate their interoperability, including with jurisdictions beyond the EU, by linking their respective databases. The use of the LEI is already central in the ECB to link different data sources and, as its coverage increases, it has become and will further act as a key identifier for the entities. For reporting entities, beyond reducing their costs and operational risks, it would enable digital-age innovation and thus foster potential growth in new markets. It would also generate momentum for other jurisdictions to join the initiative, creating a much needed, truly global data infrastructure, matching the scale of digital-age markets. On a more general note, in

the digital age, it is important to explore the role of digital financing in financial integration: in that respect input from the pending consultation on the digital finance strategy will form a key contribution.

1.4 Develop and EU green bond standard

A reliable, objectively verifiable and transparent EU green bond standard based on the EU Taxonomy would help significantly to enhance the credibility of this asset class. In order to serve its purpose and prevent greenwashing, the EU green bond standard must be trustworthy and truly selective as regards the investment projects it finances. The EU Taxonomy, as developed by the Technical Expert Group on sustainable finance, provides a credible basis for assessing the sustainability of the underlying investments.³⁵ The green bond standard should be based on transparent criteria publicly available to investors and assessed by independent third parties. The Eurosystem agrees that verifiers of EU green bonds using the EU green bond standard should be subject to an accreditation/authorisation and supervision regime at the EU level, with the European Securities and Markets Authority (ESMA) being the natural candidate for the role. The key attributes of the EU green bond standard should be integrated in the Prospectus. This would improve the consistency and comparability of information on green bonds and would mean that financial data providers would only need to refer to the Prospectus documents to gather all the necessary information for the instruments.

Disproportionately stricter rules for issuers of green bonds than for conventional bonds or vis-à-vis other jurisdictions should be avoided. The ultimate goal of a green bond standard is to promote issuance that meets the EU sustainability objectives: if the regulatory framework is disproportionately more stringent than for conventional bonds, the EU green bonds could be financially unattractive. Furthermore, it would also reduce the potential for international adoption, diverting non-resident issuers towards jurisdictions with looser requirements and putting EU issuers at a disadvantage relative to foreign issuers. Hence, an appropriate balance should be found between the disclosure and assurance requirements necessary to dispel doubts of “greenwashing” and the need to preserve the economic attractiveness of the framework.

1.5 Develop standards for other financial products

The development of standards and labels for other sustainable financial products can help drive private capital towards sustainable investments, but sufficient flexibility should be envisaged. A two-phase approach may be considered, with a flexible, principle-based approach in the first phase, followed by additional policy action as the market develops and the regulatory framework (notably the Taxonomy) is finalised and perfected. A principles-based approach

³⁵ Technical Expert Group on sustainable finance, “[Report on EU Green Bond Standard](#)”, June 2019.

ensures the level of flexibility that is required in view of the rapid developments in the area of sustainable finance, thereby providing scope for further developments and improvements, rather than acting as an impediment. In the context of the proposed EU ecolabel for financial products, this would translate into a first phase based on an optional points-based label and a more mature stage based on mandatory criteria. Flexibility in the early stages of development of financial innovation should of course remain cognisant of the climate challenge and the need to meet the agreed targets.

The definition of the sustainability of the economic activities underlying the labels for different financial product should in principle be the same. Unjustified heterogeneity between labels for different financial products should be avoided. Unless there are well justified reasons for differentiating the definition of the sustainable or green investment across different financial products, there should not be differences in principle in the definition applicable across financing instruments. This definition should be clearly based on the EU Taxonomy. Efficient, cost-effective and proportional verification and reporting processes should be in place to ensure credibility and investors' confidence without stifling market adoption. This would also enhance comparability across different kinds of financial products, avoiding unnecessary fragmentation and distortions in the allocation of capital across different asset classes.

The development of green loan standards and definitions should also be made a matter of priority. A consistent and reliable high-level framework for green loan standards could promote the development and integrity of green loan products, facilitating and supporting environmentally sustainable economic activity. This would also be important for monetary policy, as green lending can be expected to play an increasingly important role in the transmission of monetary policy. Consistent green lending standards will also be important for supervision and financial stability, as these will support a coherent assessment of bank exposures to climate risks through their loan portfolios. Finally, green lending standards would facilitate the development of green securitisation (see the section on securitisation below).

1.6 Improve financial literacy

Enhancing financial literacy in general – and sustainable finance literacy in particular – among the EU population should be a high long-term priority. To begin with, European citizens' grasp of basic financial concepts is rather low at present. Only 52% of the adult population in the euro area has a working knowledge of selected fundamental financial concepts, such as diversification, inflation and (compounded) interest rate.³⁶ This contrasts with the clear documented benefit of

³⁶ This compares unfavourably with non-European peers, such as Australia (64%), Canada (68%), Israel (68%) and the United States (57%). Arguably, financial literacy is adequate in some EU non-euro area countries like Denmark (71%), Sweden (71%) and the United Kingdom (67%). These statistics are broadly similar when a more nuanced definition of financial literacy – such as a “combination of awareness, knowledge, skill, attitude, and behaviour necessary to make sound financial decisions and ultimately achieve individual financial well-being” – is used; see Atkinson, A. and Messy, F.A., “Measuring financial literacy”, *Working Papers on Finance, Insurance and Private Pensions*, No 15, OECD, 2012.

higher financial literacy in terms of promoting financial asset ownership.³⁷ The following methodology set out by the Organisation for Economic Co-operation and Development (OECD) in which the scope could also be extended from knowledge to behaviour and attitudes could be followed.³⁸ First, a stock-taking exercise could be undertaken, in which the current status of EU countries' financial literacy strategies is ascertained, potentially using the OECD INFE (International Network for Financial Education) data.³⁹ In a next step, national governments could recommend the introduction of financial literacy curricula in secondary education, including modules promoting literacy in sustainable finance. Such an approach could also be complemented with targeted campaigns, or with compulsory financial literacy classes, for instance as part of the Erasmus exchange programme. Sustainable finance could also become part of standard training curricula for financial professionals.

1.7 Support green securitisation

Green securitisation has the potential to unlock additional funding for green projects and activities, foster the development of a new market and contribute to establishing green loan standards. So far, market efforts to promote green securitisation are lagging behind those in other market segments, such as covered bonds.⁴⁰ However, green securitisation could unlock additional funding for sustainable projects and activities. First, by allowing banks to transfer risks off their balance sheets, green securitisation would allow the financial sector to lend more to green projects and activities, as risks are better shared across a wider range of investors. Second, a deep, liquid market for green securitisation would contribute to the revitalisation of securitisation in the euro area in line with CMU, the EU Securitisation Regulation⁴¹ and its framework for simple, transparent and standardised securitisations (STS). Third, green securitisation would also benefit from greater harmonisation with respect to climate change-related disclosure and the development of reliable and comparable data and indicators, in line with that promoted for all green issuances under the EU Taxonomy. This would also enable investors to gain a better understanding of the underlying loans and would contribute to the development of common benchmarks for green loans. The requirements set out in the Securitisation Regulation and the accompanying Regulatory Technical Standards provide a comprehensive set of information which could serve as a solid basis. The EU should ensure maximum consistency across the various pieces of regulation applicable to green securitisation and take advantage of the strong

³⁷ Van Rooij, M., Lusardi, A. and Alessie, R., "Financial literacy and stock market participation" *Journal of Financial Economics*, No 101, pp. 449-472.

³⁸ See G20/OECD, [INFE Report on adult financial literacy in G20 countries](#), 2017.

³⁹ See OECD, [Financial Education in Europe: Trends and Recent Developments](#), April 2016.

⁴⁰ Only a handful of originators are currently using the Green Bond Principles of the International Capital Market Association, with an outstanding market issuance of green Asset Backed Securities of about €3 billion. By contrast, green covered bonds have been issued by around twenty issuers in Europe, with an outstanding euro-denominated issuance of more than €15 billion.

⁴¹ Regulation (EU) 2017/2402 of the European Parliament and of the Council of 12 December 2017 laying down a general framework for securitisation and creating a specific framework for simple, transparent and standardised securitisation ([Securitisation Regulation](#)).

framework already developed for securitisation. Green securitisation is part of the broader initiative on green bond labels, and should abide by these standards as much as possible. In a similar vein, the EU Taxonomy forms the basis for eligibility criteria applicable to underlying green loans.

EU standards for STS securitisations have already gained significant traction with issuers and investors. As such, green securitisation should comply as much as possible with the existing STS framework, with only limited deviations where appropriate, for example on concentration limits (as, in the early days, a potentially limited supply of green loans should not be a barrier to the development of green securitisation). In this respect, it should also be noted that loan-level templates proposed by ESMA under the Securitisation Regulation currently envisage reporting of energy performance certificates for residential, auto and consumer loans as optional information. Requesting mandatory reporting of energy performance certificates and other relevant indicators could facilitate future issuance of green securitisations and existing obstacles to the classification of existing and new loans by energy performance certificates will have to be overcome in Europe. Moreover, green securitisation could also take advantage of third-party verifiers licensed by ESMA.

1.8 Strengthen the pipeline of sustainable investment projects

Compared to traditional investments, sustainable investments face specific additional constraints that reduce the availability of bankable projects.⁴²

Sustainable investment projects entail innovative technologies and business models, often involving large R&D costs, high capital-intensity, high risks and long-term horizons. Even with well-developed green bonds and green lending markets, this can lead to a mismatch between the demand for funding from companies and the quantity and quality of the supply of capital.

It is paramount to address this mismatch by further developing European equity markets and increasing their relative importance in funding carbon-efficient companies. Some financial instruments (such as equity investment) are superior to others (such as bank loans) in supporting the development and adoption of green technologies.⁴³ Equity investors, with a typically longer investment horizon and a greater appetite for projects that are both high risk and have high returns, might be better placed to finance environmentally sustainable innovation than credit institutions. Furthermore, entrepreneurs in this sector are often new players that lack sufficient own funds and the credentials to access bank lending. Specialised risk-capital, for instance venture capital and private equity firms specialised in financing

⁴² Hadj, S.B., De Mulder, J. and Zachary, M.D., “Sustainable and green finance: exploring new markets”, *National Bank of Belgium Economic Review*, Issue ii, 2017, pp. 7-24; DNB Sustainable Finance Platform, “Sustainable finance: Are there any constraints from the angle of supervision, financial rules and regulations, and government policy?”, *Discussion Paper*, Constraints and Incentives Working Group.

⁴³ De Haas, R. and Popov, A., “Finance and carbon emissions”, *Working Paper Series*, No 2318, European Central Bank, Frankfurt am Main, 2019.

companies with environmentally sustainable business models, could provide financing for start-ups that currently remain underfunded or for companies in need of fresh capital and new business strategies to convert to a low-carbon business model. These objectives should reinforce the parallel efforts under CMU. The next CMU action plan should include a broad-based programme for the further development and integration of European public and private equity markets.

In order to boost the supply of “bankable” investment projects, a business environment conducive to high levels of sustainable investment is needed, including incentives for R&D investment in green technologies and measures to address the skill gaps. A key element affecting the quantity and quality of the pipeline is the availability of the required skill sets. Compared with traditional businesses, the planning, financing and management of sustainable investments require additional skills and organisational capabilities to measure and report the impact and performance, often involving multi-disciplinary backgrounds and technical expertise. Given the relatively recent emergence of sustainable finance, these skill sets are in short supply and organisations might find it difficult to build in-house expertise or recruit outside talent. Targeted measures could be envisaged to provide technical assistance to public administrations (for example, through the Commission's Structural Reform Support Programme)⁴⁴ and advisory support to the private sector (for example, through the envisaged InvestEU Advisory Hub).

1.9 Extend the Taxonomy to public investment

While initially designed for private investors, the EU Taxonomy – once sufficiently developed – could also be used by public sector entities.

Convergence of standards between the private and the public sector is desirable, as this would result in the availability of comparable expenditures data across private and public activities. The Commission has already announced that the EU Taxonomy will feed into the InvestEU climate tracking methodology that will be used by the InvestEU Implementing Partners. In view of the increased relevance of “green” public investment under the European Green Deal, there is merit in also exploring how the EU Taxonomy could be used to assess public expenditures within the EU budget and how it could be applied or adapted at national level for green budgeting purposes or for guiding the investment priorities under the European Semester.

1.10 Prioritise international coordination

International coordination should be a priority. A key strategic objective going forward is promoting internationally consistent frameworks and preventing regulatory fragmentation. A number of countries have developed green or

⁴⁴ European Commission, [Structural Reform Support Programme](#).

sustainable finance strategies with global ambitions.⁴⁵ A key strategic objective should be to avoid regulatory competition undermining the EU efforts to set high-quality standards. In particular, “races to the bottom” that could lead to “greenwashing” should be avoided. International cooperation and coordination will be essential to promote common best practices and regulatory approaches in all jurisdictions and prevent undue market fragmentation that could limit the capacity to mobilise the full scale of global capital markets for the transition and undermine the credibility of green finance for investors. The EU should leverage all available tools and fora (G7, G20, International Organization of Securities Commissions (IOSCO), International Accounting Standards Board (IASB), Basel Committee on Banking Supervision, Network for Greening the Financial System (NGFS), International Organization for Standardisation (ISO), the Coalition of Finance Ministers for Climate Action, etc.). The International Platform on Sustainable Finance should be prioritised and mobilised to its full potential. The current leadership role of the EU in sustainable finance should not lead to complacency in competitive global financial markets: the competitiveness of the EU regulatory framework vis-à-vis the rest of the world should be closely monitored in order to take prompt action when needed. Finally, from a banking supervisory perspective, coherent regulatory frameworks are required to ensure that environmental and climate risks – which are of a global nature – are addressed in a robust and consistent manner, and that financial institutions operate in a level playing field.

1.11 Climate-related risks for financials stability

The Eurosystem sees climate change as an emerging source of financial risk that has the potential to destabilise the normal functioning of markets and the financial sector. The Single Supervisory Mechanism Risk Map for 2020 has identified climate-related risks as being among the key risk drivers affecting the euro area banking system in the medium to long term. Two major sources of risk can adversely affect the resilience of financial intermediaries and have the potential to trigger systemic consequences: (a) transition risk, notably deriving from delayed and potentially abrupt policy and/or technological changes to achieve a low-carbon economy, and (b) physical risk, associated with an increased frequency and/or intensity of (potentially catastrophic) extreme weather events. Acknowledging that some combination of physical and transition risks will, in all probability, materialise on the balance sheets of euro area institutions, the ECB is actively working on the assessment and management of climate-related risks for individual banks and the

⁴⁵ See, for example, *UK Green Finance Strategy*, July 2019; People’s Bank of China and China Ministry of Finance, *Guidance on the construction of a green financial system*, August 2016; Monetary Authority of Singapore, *Green Finance Action Plan*.

euro area banking sector at large, from both a microprudential⁴⁶ and a macroprudential perspective.

1.12 Prudential framework

Accordingly, the ECB supports the development of tools and processes to enable the identification of economic activities that are most exposed to climate-related risks. This would improve the identification and monitoring of risks related to the exposure to carbon-intensive economies (transition risks). Building on the development of methodologies for measuring exposures to these risks, the ECB's supervisory and financial stability/macroprudential approach to managing and disclosing climate-related and environmental risks will continue to evolve over time, taking into account regulatory developments. Notably, the European Banking Authority (EBA) has been given several mandates to assess how ESG risks can be incorporated into the three pillars of microprudential supervision. Furthermore, in the light of the urgent need for institutions to advance their management and disclosure practices, and the reported difficulties in developing comprehensive frameworks to handle these risks given the regulatory uncertainty pertaining to this topic, more explicit and precise legal provisions on the management and disclosure of climate-related and environmental risks in the banking prudential framework may be considered by the EU legislators (see below). Any such change should ensure the maximum degree of consistency with both the disclosure requirements under a revised NFRD and those already established under the Taxonomy Regulation and the Disclosure Regulation in order to reduce to a minimum the complexity of the framework and minimise compliance costs.

At the same time, the ECB deems it necessary that the prudential framework remains risk-based and that it is not used to serve other purposes besides risk considerations. From a prudential perspective, changes in the capital treatment applied to certain assets presuppose that these assets demonstrate specific risk profiles. At this stage, further analysis is needed as a matter of priority, notably in the context of the EBA's mandate to report on whether and how regulatory capital requirements should reflect sustainability considerations.⁴⁷

The prudential framework provides a framework for institutions to identify, monitor, mitigate and report the risks they might be exposed to. As such, it falls under its remit to ensure that banks properly identify, manage and disclose climate-related and environmental risks. There is increasing evidence that these risks can have a material impact on institutions and drive the existing

⁴⁶ The ECB, in close cooperation with the national competent authorities (NCAs), is developing its supervisory approach in this regard. In particular, the ECB has recently published for consultation its [Guide on climate-related and environmental risks](#), which outlines its understanding of the safe and prudent management of climate-related and environmental risks under the current prudential framework. It describes how the ECB expects institutions to embed climate-related and environmental risks in their business strategy, governance, risk management and disclosures. This Guide will serve as a basis for the supervisory dialogue with institutions, on the basis of current regulatory requirements.

⁴⁷ Article 501c of the revised Capital Requirements Regulation (CRR 2); see also the [EBA Action Plan on Sustainable Finance](#), December 2019.

categories of banking prudential risks (credit risk, operational risk, market risk and liquidity risk). Accordingly, the provisions of the Capital Requirements Directive on internal risk management, business strategy and governance arrangements may more explicitly include climate-related and environmental risks. In particular, such clarifications may include the obligation for institutions' management bodies to understand the impact of climate-related and environmental risks over the short, medium and long-term horizons and to consider these risks when developing the institution's overall business strategy, business objectives and risk management framework. Further clarification on the requirements for institutions to assign responsibility for the management of climate-related and environmental risks, and to exercise effective oversight of these risks, could also be considered. In addition, remuneration policies should provide incentives that are aligned with the strategy and management of climate-related and environmental risks. From that perspective, a share of variable remuneration linked to reductions of financed carbon emissions and the achievement of portfolio alignment targets, for example towards trajectories consistent with the Paris Agreement may be considered. Accordingly, the supervisory review and evaluation conducted by the national competent authorities should include the banks' processes and procedures for the identification, assessment, monitoring, reporting and management of climate-related and environmental risks as drivers of existing categories of prudential risks.

With regard to the dual materiality perspective highlighted by the Commission in its supplement on climate-related information reporting, more clarification on the need for banks to monitor their portfolios from the angles of both the (direct) financial risk and (indirect) impact of their activities would also be justified in the light of potentially elevated transitional and reputational risks going forward. Furthermore, given the role of environmental and social safeguards in the process for identifying taxonomy-aligned activities, and with regard to the transparency requirements for financial institutions to report on their share of taxonomy-aligned activities, the ECB supports the efforts aimed at more explicitly anchoring environmental and social due diligence in the regulation. Due regard for a range of stakeholder interests may be relevant to the financial performance of companies in the long term. Proper due diligence by institutions also supports the identification of environmental and social aspects that can drive financial, liability and reputational risks.

Macroprudential policies should generally aim to target any material systemic risks to the financial system, including climate-related ones.⁴⁸ The ECB' staff is actively working on the assessment of climate-related risks and in developing a climate risk monitoring framework for the euro area banking sector. However, climate risk analysis faces major challenges and important work is still ongoing on identifying and measuring climate-related risks. The ability to properly identify and assess those risks is a key prerequisite for the application and potential extension of the current macroprudential policy toolbox to potential systemic financial stability risks related to climate change. Additional measures could be considered, while paying attention to

⁴⁸ ECB, [Financial Stability Review](#), May 2019.

the appropriate timing of implementation in order to avoid pro-cyclical effects.⁴⁹ More generally, an assessment of whether the current framework is sufficient to address climate-related risk could be envisaged.

1.13 Develop a “brown” taxonomy

The ECB supports the development of a “brown” taxonomy as a necessary complement to the green taxonomy from a prudential perspective. Both banks and supervisors are currently faced with the issue of the absence of a common definition of brown activities to help build a risk assessment framework. Such a brown taxonomy would complement the green taxonomy, which primarily serves an investment management purpose. A brown taxonomy would notably contribute to:

- facilitate financial institutions’ identification, assessment and management of assets associated with activities exposed to transition risks;
- assist the supervisors in their assessment of institutions’ brown exposures;
- harmonise the selection process of economic sectors and institution’s exposures captured under scenario analysis and stress testing exercises;
- ensure that disclosures and reporting by financial institutions are consistent. For example, a taxonomy of carbon-intensive activities would provide the basis for disclosing the share of carbon-related assets, in line with the Commission’s Guidelines on reporting climate-related information;⁵⁰
- ultimately provide an immediate anchor for applying potential risk differentials between different types of assets to assess if a specific prudential treatment would be justified.

It should be noted, however, that climate-related and environmental risks are not binary. Ultimately, banks and their supervisors have to ensure the proper management of risks of the entire spectrum of asset classes and their “green”, “brown” or “different shades of brown” exposures. From that perspective, the ECB supports the Commission in ensuring that, as a minimum, the necessary data are available to facilitate such measurement.

⁴⁹ As identified by the European Systemic Risk Board (ESRB), possibilities for prudential instruments to mitigate systemic risk related to climate change include: (a) building systemic capital buffers (for example, to protect against the macroeconomic and macrofinancial implications of a “hard landing”); (b) regulatory loss absorbency requirements to, for example encourage the issuance of “carbon risk bonds”, the payoff of which would be contingent on a contractually defined critical event (e.g. the imposition of a prohibitive carbon tax); (c) specific capital surcharges based on the carbon intensity of individual exposures; (d) large exposure limits applied to the overall investment in assets deemed highly vulnerable to an abrupt transition to the low-carbon economy. See ESRB, “[Too late, too sudden: Transition to a low-carbon economy and systemic risk](#)”, No 6, *Reports of the Advisory Scientific Committee*, February 2016.

⁵⁰ See European Commission, [Guidelines on reporting climate-related information](#), June 2019.

1.14 Credit rating agencies

The relevance of ESG considerations for credit ratings across rating agencies is not yet fully transparent. Although some initial steps have been taken by rating agencies in the past few years, there is substantial room for improvement in the measurement, disclosure and incorporation of ESG factors in credit ratings. First, it is paramount that credit rating agencies disclose more detailed information as regards the analysis and data they use, as well as the assumptions they make, when assessing the relevance of climate change risk for credit ratings. In this regard, ESMA's new Guidelines on Disclosure Requirements Applicable to Credit Ratings⁵¹ are expected to improve transparency, but only to the extent that the relevance of each sustainability factor that has an impact on rating actions is clearly disclosed. Furthermore, since the time horizons of ESG factors and those of credit ratings are not always aligned,⁵² the Eurosystem invites the Commission to pay particular attention to this issue when considering further action. Finally, the impact of climate change-related and environmental factors on credit ratings remains difficult to trace despite the improved disclosure on ESG in the publications accompanying the rating actions.

The lack of consistent and comparable data is also a challenge for rating agencies. The revision of the NFRD and the EU Taxonomy framework could be conducive to greater integration of approaches in the future, provided that, on the one hand, that the Taxonomy framework is made suitable for risk management purposes and, on the other, common methodologies for measuring ESG risks emerge. Hence, it is important to continue to monitor closely the approaches that credit rating agencies take in their credit assessment processes.

From the ECB's supervisory perspective, transparent and effective integration of ESG factors into credit ratings is needed, as they translate into the risk models of many institutions and the related risk weights. This is a necessary step for better pricing and monitoring of exposures to climate-related risks. For banks using the standardised approach in particular, this helps ensure that the calculation of risk-weighted assets and capital requirements encompass all relevant risks.

1.15 Improve the availability and usability of climate loss and physical risk data

The availability of climate-related data is important for accurately predicting the macroeconomic impact of climate change. The integration of climate-related risks into macroeconomic modelling requires the mapping of physical risk transmission channels onto standard macroeconomic models. Consistent and comparable climate data would therefore help improve quantitative climate-related

⁵¹ ESMA will consider new [Guidelines on Disclosure Requirements Applicable to Credit Ratings](#) for the purpose of its supervision as of 30 March 2020.

⁵² [ESMA Technical Advice to the European Commission on Sustainability Considerations in the credit rating market](#), 18 July 2019.

macroeconomic analyses, which are a prerequisite of sound decision-making in relation to climate policy.

For the assessment of physical risks, maps indicating the type and extent of physical risk and projected changes in it are needed, in combination with detailed geospatial information on banks' exposures. With regard to the type and extent of physical risk, these relate to whether, with which frequency and what intensity a geographical area is likely to be affected by an extreme weather event such as a flood, drought, forest fire or hurricane. Importantly, it also includes the projected changes in such events due to climate change, with different time horizons and under different climate change scenarios. Such information is in principle available from climate models. However, this type of information is complex and difficult to process. Instead, readily available and comparable regional maps at high geographical resolution⁵³ would facilitate the analysis. This data would need to be combined with detailed geospatial information on the business activities, assets and facilities to which banks are exposed. Together, this information would greatly facilitate the analysis of physical risks for the financial sector by different entities and prudential authorities.

In addition, more readily available information on climate-related losses (including through transition measures) would help with the calibration of forecasting models and risk models both for individual entities and the financial sector at large. Quantification of potential financial damages stemming from climate-related risk is the foundation of many models. While relatively coarsely aggregated data are partly available, in particular for insured losses through (re-)insurances, accessible granular information is largely missing, in particular for uninsured losses. The availability of such data would greatly help quantify the impact of the changes in the climate that have materialised up until now, help detect trends within different sectors and assist in the calibration of models to quantify expected losses under different climate change scenarios.

1.16 Close the insurance gap

(Re-)insurers play an important role in mitigating the impact of climate-related physical risks on the economy. They allow for risk pooling and limit the losses of individual citizens and businesses from natural catastrophes. However, not all climate-related risks are insured. Moreover, the risks from natural disasters are on the rise, which may limit the capacity of (re-)insurers to properly account for more frequent catastrophe events in estimating underwriting and concentration risks. This, in turn, can restrict access to insurance, owing to higher or too unpredictable insurance costs, as already seen in some flood and drought-prone areas in Europe.

To cope with the increasing risks from natural disasters, the EU should develop a comprehensive and forward-looking approach to identifying and

⁵³ For example, managed by the European Commission's research agencies and institutes to reduce the need to rely on external consultants.

monitoring the insurance “protection gap” arising from climate-related risks.

Without adequate policy measures in place, the gap between insured and actual climate-related risks faced by businesses and citizens is likely to widen, resulting in a significant “protection gap” that may spill over to the financial system and wider macroeconomy, with negative repercussions on welfare, economic growth and equality in Europe. It would be necessary to conduct a stock-take and to monitor the climate-related risks that are already insured, but this should not rely exclusively on prices (premia) in the private insurance market. Although these prices reflect current risks,⁵⁴ their scope is limited to the risks currently insured and their validity is relatively short-lived, with contracts that cover climate-related risks tending to have maturities of one year at most.

At the same time, the EU should raise awareness about climate-related risks and their growing impact on EU citizens and businesses.

Most direct economic losses from climate disasters in the EU in the period 1980-2017 were not covered by insurance.⁵⁵ Interestingly, pandemics are also classified under natural catastrophes in Solvency II regulation,⁵⁶ but many losses from the current COVID-19 pandemic will not be covered by (private) insurance contracts owing either to the complete lack of insurance coverage in certain areas/businesses, pandemic exclusions from many contracts or a decline in insurance coverage of certain (elevated) risks during the pandemics. Similar issues could arise if climate-related risks crystallise significantly.

Beyond raising awareness, the EU should incentivise businesses and citizens to protect themselves against climate-related financial risks and promote the offer of adequate insurance products.

On the one hand, harmonised minimum requirements on insurance coverage could be put in place across EU countries, for instance as a part of building code regulations.⁵⁷ On the other, the EU should promote the offer of adequate insurance products that finance recovery costs while incentivising risk reduction.⁵⁸ For instance, policyholders implementing adequate risk-reducing measures could be offered insurance discounts.⁵⁹ Also, greater consistency and transparency around the principles of climate-related coverage in insurance contracts should be promoted to avoid widespread exclusions. Finally,

⁵⁴ Kunreuther, H. and Michel-Kerjan, E., “Managing catastrophic risks through redesigned insurance: Challenges and opportunities”, in Dionne, G. (ed.), *Handbook of insurance*, 2013, pp. 517-546).

⁵⁵ European Environment Agency, “[Economic losses from climate-related extremes in Europe](#)”, 2019.

⁵⁶ The life catastrophe risk covers extreme deaths that are not sufficiently captured by the mortality risk sub-module. The mortality stress is defined as an absolute increase of the mortality rate of 0.15%, which is considered as a 1 in 200 year pandemic event.

⁵⁷ Burby, R., “Flood insurance and floodplain management: the US experience”, *Global Environmental Change Part B: Environmental Hazards*, Vol. 3(3), 2001, pp. 111-122.

⁵⁸ Hudson, P., De Ruig, L.T., de Ruiter, M.C., Kuik, O.J., Botzen, W.J.W., Le Den, X., Persson, M., Benoist, A. and Nielsen, C.N., „An assessment of best practices of extreme weather insurance and directions for a more resilient society”, *Environmental Hazards*, 2019; Mysiak, J., Surminski, S., Thieken, A., Mechler, R. and Aerts, J., “Brief communication: Sendai framework for disaster risk reduction – success or warning sign for Paris?”, *Natural Hazards and Earth Systems Science*, Vol. 16, 2016, pp. 2189-2193.

⁵⁹ Hudson, P., Botzen, W.J.W., Feyen, L. and Aerts, J.C.J.H., “Incentivising flood risk adaptation through risk based insurance premiums: Trade-offs between affordability and risk reduction”, *Ecological Economics*, Vol. 125, 2016, pp. 1-13; Kunreuther, H. and Michel-Kerjan, E., *At war with the weather: Managing large scale risks in a new era of catastrophes*, Cambridge, MA, MIT Press.

insurance should be considered complementary to resilience measures aimed at limiting climate change.

Furthermore, the EU should promote equal access to efficient climate-related financial risk management mechanisms. A level playing field should be ensured across individual EU countries, while promoting a wide range of mechanisms to increase their capacity and ensure diversification of sources of protection. Regarding private insurance policies, EIOPA should continue to foster supervisory convergence under Solvency II across EU Member States to ensure equal access to these policies. Also, financial products such as insurance-linked securities (ILSs, more commonly known as “catastrophe bonds”) could be promoted within CMU as an alternative to private insurance: by passing the risks of natural catastrophes to the broader capital markets, these instruments allow insurers and re-insurers to offer protection against major loss events that would otherwise be uninsurable.⁶⁰ This tool could become increasingly more relevant, as climate change makes natural catastrophes more frequent and severe, challenging the traditional business model of insurers and re-insurers. These securities can be issued by governments and corporates, are relatively transparent instruments (the price of which signals the risk to investors) and have a longer maturity than typical insurance contracts and even provide immediate funding once the catastrophe meets certain conditions.

The interplay of private policies with public-private partnerships should also be considered. As the cost of private insurance can be very sensitive to the frequency and severity of climate-related events, public sector solutions may become increasingly necessary. In some European countries, public-private partnerships are in place to mitigate the impact of natural catastrophes and distribute losses more evenly across policyholders.⁶¹ Such partnerships could be promoted and possibly harmonised across the EU to expand affordable and comprehensive insurance coverage. Finally, a European catastrophe fund could be put in place, as the last resort, when private or private-public solutions have been exhausted or are impracticable. Such a fund should be designed so as not to lower the incentives of businesses and EU citizens to take protective measures against the risks.

2 Review of the Non-Financial Reporting Directive

The current corporate disclosure regime does not ensure sufficient, consistent and comparable information for both the private sector and public authorities (see also Section 1.1). On the one hand, the limited quality and quantity of corporate-level information limits the information available to investors and financial markets, which in turn reduces transparency, increases information asymmetries, harms comparability and in general hinders the development of sustainable finance. On the other hand, the poor state of corporate disclosure prevents supervisors,

⁶⁰ Cummins, J.D. and Trainar, P., “Securitization, insurance, and reinsurance”, *Journal of Risk and Insurance*, Vol. 76(3), 2009, pp. 463-492.

⁶¹ Examples include France’s *Caisse Centrale de Réassurance*, Spain’s *Consortio de Compensación de Seguros*, Germany’s *Extremus* scheme and nuclear industry pools in several countries.

financial stability authorities and central banks from appropriately assessing the exposure of corporates, and in turn of financial institutions, to sustainability, and most notably, climate-related risks. In this respect, the Eurosystem considers the review of the NFRD to be a necessary building block to address the data gap that currently hinders the development of appropriate risk assessment and risk monitoring frameworks for the financial sector. Furthermore legislation already adopted by the EU legislator, including the Taxonomy Regulation, can only become fully operational if more and better non-financial information is available from companies. The following sections provide the ECB's feedback on specific questions raised in the public consultation on the NFRD.

2.1 Improve corporate disclosure while avoiding disproportionate burdens

Disclosing climate-related information should become mandatory under the revised NFRD, with the option to apply a simplified disclosure regime to small and medium-sized enterprises and to expand the coverage of the NFRD to non-listed companies. Current NFRD requirements constitute an improvement and a step towards comprehensive disclosure of non-financial information, but more effort is needed. For applicability of the data for policymaking as well as the financial sector, it is necessary to achieve a high level of comparability of disclosed information across reporting entities. A prerequisite for this objective is the convergence of reporting and accounting standards on sustainability. The current ecosystem of sustainability standards is highly fragmented, which results partially from a broad scope of ESG aspects. While recognising the challenges stemming from the harmonisation of such diverse issues, the ECB supports work towards a single European – or eventually international – standard for ESG reporting. Given the wide spectrum of reporting dimensions, a set of non-overlapping standards might be required, each focusing on a subset of sustainability reporting. Enhancing corporates' disclosures is also necessary to put credit institutions and investment undertakings in a better position to fulfil their new ESG disclosure requirements. The current disclosure requirements of the NFRD only ensure to some extent that investee companies report the information that financial sector companies need and will increasingly need going forward. Accordingly, an extension of the scope of companies that have to report non-financial information should be considered to facilitate financial institutions' compliance with their own disclosure requirements.

Sustainability-related disclosures should be comprehensive in scope and detail and rest on the principles of transparency, comparability and proportionality as follows.

- Existing common standards should be referenced as much as possible, while sector-specific elements should be accounted for as well. On the one hand, corporates' sector-specific elements would facilitate banking institutions' sectoral risk analyses, monitoring of sectoral portfolios and target-setting. On the other, the banking sector itself has some particularities which deserve complementary information and metrics (for example, indirect emissions

stemming from the financing and lending activity, which for banks qualify as Scope 3 data).

- Explicit information should be demanded about companies' value chains, for example in order to obtain credible information on indirect emissions. If detailed information is unavailable or its collection is deemed too burdensome, the legislator should foresee a clear and standardised approach for estimating the data.
- The Commission's Guidelines on reporting non-financial information should, to the extent possible, be incorporated in the revised NFRD. Requirements should facilitate disclosure of the financial impact of the materialisation of climate change-related risks.

At the same time, the Eurosystem underlines the importance of proportionality to avoid an excessive burden on companies. The Eurosystem supports the development of a simplified disclosures regime for small and medium-sized enterprises in line with the principle of proportionality. Such a simplified regime should ensure that relevant information is reported to ensure that financial institutions, notably banks, can appropriately build on them and in turn have sufficient information to comply with their own risk management and disclosure requirements. In addition, the NFRD could be extended to also cover large non-listed companies as a company's exposure to climate change-related risk such that its relevance for climate change does not depend on its organisational form (public versus private), but on its economic activity.

2.2 Strengthen reporting standards

The Eurosystem welcomes initiatives aimed at harmonising and further detailing the reporting standards, as well as establishing a verification process of companies' reporting. Common reporting standards of sufficient quality that will underpin comparable, transparent and reliable sustainability and climate change-related disclosure are essential for developing more comparable and reliable sustainability/ESG-metrics, the correct assessment of ESG-related (financial and non-financial) risks and, therefore, the pricing of assets and the calibration of risk control measures. This would be beneficial for credit institutions' risk management, (internal) reporting and public disclosures on ESG risks, as well as for central banks and supervisors in conducting analyses. To enable their use by public authorities, the information reported should include at the very least standardised and comparable data items that are relevant for the analysis of climate-related financial risks, both transitional and physical (for example, geographical location and business activities of assets/facilities, and the associated environmental pressures, sectoral classification of companies, carbon footprint and forward-looking carbon trajectory, as well as other environmental risks and opportunities). Crucially, the requirements should go beyond the largely qualitative nature of existing disclosure requirements. All these initiatives should be accompanied by an adequate and transparent

verification process, while ensuring proportional treatment for small and medium-sized enterprises.

The ECB would appreciate being involved in the development of an EU non-financial reporting standard, as suggested in the public consultations document. The bodies responsible for developing a European non-financial reporting standard should have expertise in the field of financial reporting in order to ensure “connectivity” or integration between financial and non-financial information. Given the existing and future requirements on ESG disclosures for the financial sector, it should be ensured that any non-financial reporting standard takes into account what is and will be required of financial institutions, including banks. In the light of its supervisory tasks, including the assessment of safe and prudent risk management by financial institutions and the assessment of banks’ regulatory disclosures, the ECB stands ready to share expertise in the development of an EU non-financial reporting standard and to contribute to any emerging aspect that falls within its fields of advisory competence.

2.3 Improve the quality and availability of climate-related information

Consistent disclosure of climate-related information is essential for the impact assessment of economic activities on the environment, and reliable data are needed across jurisdictions and sectors. Many of the indicators proposed in the Guidelines on reporting climate-related information are very relevant from the perspective of climate-related financial risk analysis (such as portfolio carbon footprint, exposures by sector of counterparty, geographical location of assets and their physical risk and forward-looking carbon trajectory). In this respect, GHG emissions are the main contributor to climate change, and consistent and comprehensive disclosure by economic agents on carbon footprint is a priority. Looking forward, it will be necessary to improve the availability of carbon emissions data, in particular of Scope 3 emissions data (i.e. emissions “along the value chain”). Moreover, as also pointed out by the Network for Greening the Financial System (NGFS), there is a clear need for data that is relevant for the measurement of other environmental (physical) risks. This includes, but is not limited to, water use, land use transformation and pollution.

2.4 Include forward-looking information

The Eurosystem supports the inclusion of forward-looking information under harmonised reporting standards, as well as information on governance, management procedures and targets. The adoption of a forward-looking perspective is a crucial ingredient for the early identification of risks and the proactive formulation of mitigation responses. In particular, forward-looking information is a necessary component of scenario analysis and target-setting and should be more clearly and precisely defined in the NFRD provisions. In addition to describing the climate change-related and sustainability risks faced for different time horizons, information on how different climate change scenarios would affect the actual risk

exposure and the resiliency of companies' strategies could be considered. Forward-looking information on the carbon trajectory of companies and on how the company's activity will evolve to contribute to the achievement of the EU objectives is critical. This will help provide more transparency on how a company will behave with regards to its ESG development, performance, position and impacts, but will also help inform internal decision-making and long-term strategies. This information should be harmonised to the maximum degree possible with the related requirements under the Disclosure Regulation and the Taxonomy Regulation.

Where the disclosure of forward-looking information is also contemplated, the underlying assumptions should be reliable, solid, based on highly probable scenarios, clear and verifiable. Assumptions should be realistic and they should not be made in a manner that would de facto deprive the maker of the statement of an assumption of responsibility for such statement and a full commitment to it. Generally speaking, the overall information should be provided in a manner that does not affect its reliability in practice.

2.5 Ensure a level playing field

The scope of application of the NFRD should ensure a level playing field across financial and non-financial corporations and jurisdictions. In principle, all corporates, not just financial institutions, should be required to report non-financial information: reliable data about sustainability-related factors, which have an impact on the performance and riskiness of companies, is relevant for all companies, whether or not they offer financial products or services that pursue sustainability-related objectives. Furthermore, even if only financial undertakings were targeted, they would still need to obtain data from their counterparts. In order to ensure equal access and wide coverage, all corporates should be subject to the disclosure requirements. Furthermore, currently different disclosure requirements apply in different EU Member States. This creates distortions in the Single Market and unnecessary fragmentation in the quantity and quality of non-financial information available. National deviations from the common rules should be limited. Only when comparable and used widely, will disclosures perform their market-disciplining role.

2.6 Develop loan-level reporting standards

The Eurosystem promotes the development of loan-level reporting standards that facilitate the compliance of financial institutions with their reporting requirements under the NFRD. In particular, loan-by-loan data measure economic phenomena at the level at which they occur. Therefore, the data offer advantages for defining financial indicators relative to the aggregated approach. Granular data provide an unprecedented level of detail for analysing credit intermediation and defining related indicators. This high level of detail in itself provides flexibility to define indicators, including the possibility for back-casting, as well as allowing calibration and estimation of models. The dimensions and measures can be combined in multiple ways to measure economic phenomena at different levels. The

attributes and values provide a starting point for improving existing indicators or defining new ones in a flexible manner. In this way, standardised and widely adopted loan-level reporting standards would facilitate credit institutions' reporting of non-financial information related to their balance sheet exposure, for example the GHG emissions of their clients.

2.7 Ensure consistency of disclosure obligations

The Eurosystem supports initiatives aimed at ensuring consistency and minimising the complexity of the reporting obligations stemming from different legislative texts. The various legislative texts adopted since the launch of the 2018 Action Plan (i.e. Disclosures Regulation, Benchmark Regulation and Taxonomy Regulation) all include some form of disclosure or reporting obligations (on top of those of the NFRD). Given the different scope of application, sectoral target and aim of the legal texts, the framework presents a challenging landscape to navigate and comply with. Duplication of obligations, inconsistency in the definitions, scope and objectives of the requirements represents a factor of unnecessary complication and ambiguity for the undertakings. This could undermine the effectiveness and broader acceptance of the new framework. Such a shortcoming should be avoided, and legislation should be navigated in a simple manner. As a first step, the European Commission should map the different reporting requirements currently established by the various pieces of legislation and provide the public with a clear and simple overview of the requirements that apply to each type of.⁶² Subsequently, the review of the NFRD represents an opportunity to streamline and consolidate the sustainability reporting framework, including – where necessary – through amendments of the above-mentioned regulations.

2.8 Support international cooperation

The Eurosystem supports globally coordinated efforts aimed at convergence towards common transparency and disclosure standards on a global level. As also acknowledged by the NGFS,⁶³ the absence of a global standardised framework for disclosures results in insufficient comparability and consistency across jurisdictions and means there is no level playing field across jurisdictions, which may affect EU companies unfavourably. The EU should promote global efforts towards the development of common international reporting and disclosure standards on climate-related and environmental information disclosure, notably through the EU International Platform on Sustainable Finance and international bodies and initiatives such as the Financial Stability Board, the Task-force on Climate-related Financial

⁶² Such a map of disclosure obligations could build on the useful overview provided by the Technical Expert Group on sustainable finance in Sections 3.2 and 3.3 of the [Final Technical Report on the Taxonomy](#).

⁶³ Network for Greening the Financial System, "[First comprehensive report. A call for action: climate change as a source of financial risk](#)", April 2019.

Disclosure and the NGFS. This would foster comparable high quality disclosures and provide greater clarity to the industry on how to align their reporting internationally.