

TOWARDS A GREEN FINANCE FRAMEWORK



Foreword

Banks committed to the interests of future generations

It is my pleasure to present to you our first report on green finance: a detailed guide on the opportunities and challenges for financial institutions in the current regulatory environment. We have seen there is a clear and worldwide commitment for a transformation towards a sustainable economy. In a bank-financed economy such as we have in Europe, banks play an essential and pivotal role in financing the change to a sustainable economy. Both with short-term financing and specialised long-term solutions.

Banks are ready to use their extensive knowledge in lending, investment and smart advisory services, to achieve sustainability goals for the benefit of society. We are committed to considering the interests of future generations and society at large. We need commitment from all actors across the financing chain. It is simply not enough to allocate money to green causes. We need a fundamental approach to our financial knowledge with an ambitious EU agenda on sustainable growth. Clear terminology must be defined and financial regulation needs to be assessed at every level to achieve optimal disclosure and transparency and to ensure success.

At the same time, much needed private-public partnerships, adapted to the needs of the market and a changing industry, must be formed. In cooperation with public sectors, banks can continue to offer diverse financing products with maximum impact and appropriate risk management. The digital revolution allows us to come up with innovations to align financial systems with the objective of sustainable development. Digital platforms, crowdfunding and other FinTech solutions have great potential to contribute.

It is clear that we need a transformed and sustainable industry and financial practice. To ensure optimal financing, we also need to overcome regulatory obstacles. To achieve this, we need to join forces with regulators, supervisors and stakeholders to develop common standards as soon as possible.

Policy makers are doing impressive work, both at European level and globally. I am very much looking forward to the final report of the EU High-Level Expert Group on Sustainable Finance.

Wim Mijs

CEO of the European Banking Federation

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Introduction

Financing the economy of tomorrow begins today

European banks have a major role in the financing of the economy. Even as market-based financing gains a bigger share of the financing needs of companies in Europe, banks will continue to play an important role not only in terms of traditional lending but also in a range of intermediary functions and in their role as investors. With this major role comes responsibility.

Financing the economy of tomorrow begins today. European banks are fully committed to taking on their responsibilities and fulfilling their role in contributing to a sustainable economy and the transition towards a more sustainable financial system.

As a facilitator of the economy, the financial system overall has a significant impact on the sustainability of the European economy along with the three dimensions of sustainability: environmental, economic and social. Finance itself, taking into account these dimensions, can only be considered sustainable when **servicing the needs of sustainable development activities over their whole lifecycle**.

This report focuses on one of the three dimensions: environmental sustainability in general and, more specifically, within the context of transformation to a two-degree economy.¹ The EBF will deal with the other aspects of sustainability separately.

The objective of this report is to provide **a general overview of how banks see their role** and how they could further increase their support for sustainable economic growth, focusing on transformation to a two-degree economy while correctly assessing the embedded risks in all sectors, not only those at the frontline of the climate change revolution. The report addresses a broad audience, including policymakers, experts in the area of sustainability and general public. The report should be seen as a basis around which the future work of the European Banking Federation on sustainable finance evolves.

The report will take stock of current banks' activities in the **Environmental and Climate Change (ECC)** dimension of sustainability, the current environment in which banks operate, and the main obstacles to increasing banks' involvement in financing environmentally sound investments. It further suggests what needs to be done for these obstacles to be removed, and how the current regulatory and supervisory frameworks should be modified to reflect the ECC-related risks.

¹ In line with the goal of the Paris Agreement to keep a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius".

Definitions of Green Finance for the purpose of this report:

Green Finance includes, but is not limited to:

- a. **Environmental** aspects (pollution, greenhouse gas emissions, biodiversity, water or air quality issues); and
- b. **Climate change-related** aspects (energy efficiency, renewable energies, prevention and mitigation of climate change connected severe events).

For environmental and climate change (ECC) considerations, risks can be classified as follows:

- i. **Physical risk**, deriving from direct damage to property or trade disruption;
- ii. **Liability risk** addressing who will be held responsible for the impact that will occur in the future and what this impact will be;
- iii. in the case of climate change, also **transition risk**, financial risk arising from the transition/missing transition to a low-carbon economy.

For this report, we will be using the term **Green Finance**, distinguishing between two types of activities.

Direct Green Finance: financing of activities that directly provide environmental benefits in the broader context of environmentally sustainable development.

ECC Screening: financing of other activities while taking into account the potential exposure to environmental and climate change risk factors such as;

- i) potential losses arising from more intense climate events (physical risks);
- ii) potential financial difficulties stemming from non-compliance with environmental and climate change (ECC) rules (fines, withdrawal of production authorisation etc., liability risks);
- iii) potential risk of market share reduction (e.g. as a result of increased demand for green products and development of new technologies in response to ECC mitigation which may make some existing technologies redundant (transition risks; damage to brand or image, reputational risk);
- iv) others (e.g. increased energy costs).

The reason for the above categorisation is to target the policy recommendations more effectively distinguishing between "Direct Finance", for which more sophisticated methodologies² to assess the risks are already in place, and "ECC Screening" where risk assessment methodologies are to be developed further.

² Some banks consider a cluster of projects (such as implementation of solar panel roofs) or economic sectors that identify a certain kind of projects (such as the waste management sector) or have developed sophisticated internal risk assessment systems for certain areas and markets.

Executive Summary

Bank credit dominates financing in the EU economy, representing around two thirds of investment. The banking share in the total debt of non-financial corporations is currently 82%. While most investment is currently financed through the banking sector, only a small portion is explicitly classified as 'green'. Lack of clarity as to what constitutes Green Finance activities and products, such as green loans and green assets, represents an obstacle for classification of green assets as well as for identification of further opportunities for green investing.

A **common taxonomy**, set of **minimum standards** and **disclosure** framework on Green Finance are essential for efficient allocation of financial resources to green projects and assets, market and risk analysis, benchmarks, and development of new products that could be offered on a comparable basis.

Comparable disclosures on environmental and climate change (ECC) performance and related risks are a prerequisite to addressing climate change risks and reaching the objectives set out in the Paris Agreement. While the compliance with the proposed disclosure framework will require significant internal capacity building, the European banking sector calls for the European Commission to take steps, in cooperation with the private sector, towards the adoption of a common disclosure framework consistent with the recommendations of the Financial Stability Board's (FSB) Task Force on Climate-Related Financial Disclosures (TCFD).

While banks have already undertaken steps to reduce direct impact on the environment stemming from their own activities and investments, their main contribution lies in providing support and financial solutions for environmentally sound projects and companies. Given the huge financing needs, financing sustainable development activities needs to be based on **diverse funding streams, both private and public**. An effective public-private cooperation and an alignment of public strategies and policies with the needs of the private sector, is imperative if we are to accelerate sustainable development and its financing. While banking sector is ready to support the EU policies, it cannot drive them. The starting point to any EU policy has to be an **appropriate industrial strategy**.

Company efforts on environmental deliverables should be valued, measured and integrated into their overall assessment and possibly converted into financial terms. It will require a **systematic integration of financial and environmental ratings**, rather than treating the two aspects in silos. A more systematic research, demonstrating the correlations between environmental performance and financial performance, should be undertaken

Banks themselves will have to intensify their efforts to integrate ECC considerations and risk mitigation into their strategies, and risk management, given their potential relevance to credit and market risk. **Different time horizons** of medium-term investment and risk performance management versus long-term environmental risk **need to be bridged**. Clear accountabilities and an integrated approach to sustainability with responsibilities at the highest level of management are needed.

Well-developed and mature ECC risk factors should also be integrated into regulatory and supervisory frameworks on a basis of a comprehensive analysis and understanding of the risks and their spillover effects on the whole financial system and society. The extent to which

the environmental risk is already reflected in the credit, operational or, to a lesser extent, market risk should be assessed to avoid double counting. **Avoiding overlaps and inconsistencies** with already existing requirements is important if we are to avoid confusion within the investor community as well as an unnecessary burden for financial institutions.

Banking regulators should work with banks to adopt current best practices in the management of environmental issues, and to collect the necessary data and conduct analysis to refine the banking sectors' understanding of, and ability to address, systemic environmental risk in the future.

While banks are clearly increasing their engagement in financing sustainable activities, it is acknowledged that more needs to be done to attract private capital to support the transition to a sustainable economy. **Fostering long-term finance is currently constrained by regulatory requirements**, challenges to perform risk assessment on the long-term horizon, or demand for higher risk and liquidity premiums, making projects less viable from an economic and finance perspective. Some of these constraints can be addressed by targeted regulatory or policy decisions to incentivise long-term sustainability finance. The clarity and stability of the regulatory environment and public policies are essential for banks to engage in long-term business models and decision-making.

Implementation of an **adequate set of incentives** to support lending to green projects and low ECC risk sectors, and providing technical assistance as well as risk sharing by the public sector, would also act as a catalyst to public environmental policies, bearing in mind the role banks can play as transmitters of political economic impulses on environmental issues. Incentives should however always consider the materialisation of the associated risk and their impact on the EU financial system as a whole.

Key recommendations³

- Alignment of long-term EU sustainable finance developments with political objectives, clarity and certainty of policies and regulatory environment and an appropriate industrial strategy.
- Development of a common taxonomy, set of principles and minimum standards (based on existing international standards and initiatives such as green bonds and green lending principles) and a disclosure framework consistent with the TCFD recommendations.
- Implementation of an EU environmental and climate change (ECC) risk categorising system by economic sectors/sub-sectors for ECC screening to provide a sound and reliable basis for setting high-level policies for credit allocation.
- Banks to foster retail investors' understanding of sustainable projects' positive consequences.
- Public entities to share risks for which there is no market and to provide technical assistance.
- Introduction of subsidies (tax benefits or subsidised funding conditions)/phase-out of inappropriate subsidies.
- Monetary policy measures, (e.g. accepting certain green assets as collateral for central bank loans).
- Dissemination of data to speed up and standardise performance risk analysis; development of standard contracts for various types of green projects.
- Integration of the ECC risk mitigation in banks' risk strategies and risk management.
- Regulatory and supervisor framework to acknowledge environmental risks and to focus on systemic risk and risk of individual non-sustainable assets (common ECC scenarios, stress testing).
- Considerations of changes to prudential regulations based on the risk sensitivity and evidence of the macroprudential benefits of green assets in reducing the probability of the climate-related risks (e.g. capital treatment that varies over time to encourage financing of origination of sustainable assets and their subsequent refinancing in the capital markets, changes to Capital Requirements Regulation (CRR2) re liquidity coverage ratio (LCR) and net stable fund ratio (NSFR) to reduce liquidity constraints for medium to long-term green funding and green supporting factor).

³ For complete set of recommendations, please see Annex III

1. Impact of environmental factors on economy and financial stability

There is incontrovertible scientific evidence of global warming. This will have a progressively significant impact on economies, societies and markets. The present climate change threatens the basic elements of human life such as access to water, food production, health, and use of land and the environment. There is also growing evidence suggesting that climate change and environmental risks have important implications for financial stability that cannot be disregarded.

Policy measures to bring down global emissions of greenhouse gasses are needed to restrain climate change and curb climate risk. Envisaging a future where energy is based on alternative sources puts in place an end date for many investments that did not have one. This affects valuations, and may be dramatic. Since so many large parts of the economy are based on prevailing energy sources, the consequences could be dramatic for individuals, institutions and countries. The transition itself thus constitutes a risk to financial stability.

However, not transforming the economy also entails risks to financial stability, and a far larger one. Rising sea levels and soil erosion will reduce living space and threaten cities. Extreme weather conditions will challenge people's welfare. In this process values will be destroyed. This challenge will be felt throughout the whole financial system.

The most recent catastrophic events are a blunt reminder of the effect drastic changes in the weather can cause to economies. In 2010 only, Moscow was hit by an unprecedented heatwave that caused costs equalling 1% of the Russian GDP; meanwhile during the same month, one fifth of Pakistan was flooded with damages up to 5% of its GDP. One year later a vast industrial area in Thailand (with production activities of some of the largest industrial Japanese groups) was flooded with total damages up to 10% of its GDP. In the USA, the National Oceanic and Atmospheric Administration (NOAA) reported that the average amount of extreme weather events exceeding \$1bn each in the last 5 years has doubled since 1980 and the number is now up to 11 events per year.

Such events are becoming more frequent and affecting businesses of all kinds, and indeed areas of human activity; often, they affect whole economies. With such wide-ranging implications, there is an undeniable impact on the creditworthiness of borrowers/projects and therefore a strong link with the credit risk profile of banks.

If we compare a financial crisis with a systemic environmental crisis, we may find some analogies. Before a financial crisis, the majority of actors in the investment community act with some degree of rationality and predictability in line with their self-interest. Ex post, it is often easy to see how the collective sum of individually rational actions has undermined the interest of the whole system and indeed led to major disruption. In addition, individual financial behaviour (as well as risk management) is focusing on the short and medium-term horizons, while environmental risks are of a long-term nature.

The impact of environmental factors on insurance is evident. This is less the case in the banking sector where these factors remain less relevant in capital allocation and lending decisions.

However, given the potential impact on banks' loan default rate and potential large implications to financial stability it is important to incorporate climate-related criteria and the systemic risk stemming from climate change into banks' decision-making and risk modelling. It is a process that has begun, and methodology for capturing and reducing these risks is under development.

Being able to describe and measure these risks in a uniform taxonomy, will enable a clearer understanding, and through that, some mitigation of these risks.

Today, the regulatory framework on the corporate global environmental impact is still narrow. Green guidelines and standards for bank lending, trading and investment practices are critical for achieving the core mandates of international financial organisations and to evaluate the associated risks for banks. Economic growth and financial development should aim to be economically, socially and environmentally sustainable. Mark Carney, Governor of the Bank of England and Chair of the Financial Stability Board noted, on more than one occasion, that unless we begin to give serious consideration to environmental factors now, we may very well find, from a financial stability perspective, it is too late to make a smooth transition to a green economy.

In this regard, it is also relevant to note the 2006⁴ report of Lord Nicholas Stern which concluded that **the cost of tackling climate change upfront was much smaller than the cost of confronting the consequences of climate change.**

Hence, it makes economic sense to address climate change and related finance. It is to be welcomed that policymakers are beginning to focus more on sustainable finance, following on from the momentum generated by the adoption of the 2030 Agenda for sustainable developments, and the agreements reached in December 2015, at the Paris Climate Summit. The development of an EU comprehensive strategy for sustainable finance in the context of the European Commission's Capital Markets Union Action Plan and the work of the High-Level Expert Group on Sustainable Finance are welcome. European banks are ready to support the EU policies in the transformation to a more sustainable financial system.

⁴ <http://www.lse.ac.uk/GranthamInstitute/publication/the-economics-of-climate-change-the-stern-review/>

2. Role of banks in financing the transition to a 2-degree economy

Banks have a key role to play in financing major environmental policy shifts given their unique position in facilitating the capital flows through their lending, investment and advisory roles and the financing of innovative technologies integral to developments.

2.1. Maturity transformation

While banks are increasing their engagement in financing sustainable activities, it is acknowledged that **more needs to be done to attract private capital to support the transition to a sustainable economy.**

There is an ongoing public debate about banks' engagement in sustainable finance. While most commentators recognize the importance of the banking sector as a major driver for sustainable developments and are suggesting that banks increase their involvement in financing sustainable projects, there are others that see a limited role for banks given the mismatch between the short to medium-time horizon of the banking system and the long-term nature of sustainable development activities. This, they argue, would create maturity mismatches on the balance sheet and raise other forms of financial stability concerns.

The mismatch between sustainable investments and financing opportunities is also evidenced in the debt capital markets.

- The duration of the credit for a material percentage of environmental risk reduction activities (i.e. air, water and waste management) and for climate change management activities (i.e. improvement of energy efficiency) is short to medium term, despite the long-term nature of the investments.
- Green bonds tend to be of short to medium-maturity while long-term investors, like pension funds and insurance companies, eager to 'green' their portfolios, are looking for long-term instruments matching their liabilities. A substantial part of the projects that could benefit from green classification tend to be of small to medium-scale (often below 1 million euro) whilst an average investment size project is not below 5 million euro with an average investment size of 20 million euro. In addition, bond markets focus on highest credit quality (with a public rating), while stand-alone green projects may be of lower credit quality.

The challenge for the banking industry lies in **bridging supply and demand while taking into account the entire spectrum of risks**, some of which may arise precisely because the counterparty lacks perception of the investment needs to make its environment and climate change (ECC) risk profile manageable.

The maturity transformation and risk assessment are key activities of banks and, as such, are not perceived by banks themselves as a main obstacle for long-term funding.

Instead, **compliance with regulatory requirements** and even more importantly, the **instability and uncertainty of the regulatory environment** forces banks to build their balance sheets in a constrained way to:

- comply with the current regulatory requirement;
- optimize the use of capital under the current regulatory environment; and
- avoid “locking in” capital in case of future changes to the regulatory framework.

Also, for banks to engage in green financing activities and investments, a project needs to be **environmentally sound and viable from both an economic and financial perspective**. While banks cannot trade the results for sustainability aspects, they can and are willing to consider both. While the debate on the stimulation of long-term finance is welcome, it cannot be expected that the majority of short-term finance be switched to ‘long-term’. There has to be a distinction between ‘natural’ short-term finance (e.g. need to settle daily balances or stemming from short-term financial needs) and ‘artificial’, where long-term finance is constrained by regulatory requirements, challenges to perform risk assessment on the long-term horizon, or demand for higher risk and liquidity premiums, making the projects less viable from an economic and finance perspective. Some of these constraints can only be addressed by targeted regulatory or policy decisions to incentivise long-term sustainability finance. The clarity and certainty of the regulatory environment and public policies is also essential for banks to engage in long-term business decisions and models. Several recommendations are addressed elsewhere in this report.

2.2 Examples of best practices

The banking sector recognizes the importance of tackling climate change and is committed to supporting the EU policymakers and customers in delivering on the objectives of COP 21 to accelerate the transition to a two-degree economy. Banks’ activities impact the environment in which they operate not only through their own operations and financing portfolios, but also by supporting their clients in transition efforts to more sustainable business models. Indeed, while many banks have already undertaken steps to reduce direct impact on the environment stemming from their own activities and investments, their main contribution lies in providing financial solutions for environmentally sound projects and companies.

Several banks have set ambitious objectives of multiplying their exposures to the renewable energy sector and decreasing their exposure to carbon-related industries. Banks are offering a wide range of environmentally friendly products and services with a focus on quality and innovation that also improve sustainability. Banking activities support and finance renewable energies, energy saving and environmental protection, with measures for all public and private customer segments: retail customers, SMEs, large companies, public administration, start-ups, third sector and major projects in their own country and abroad.

Corporate banking

Regarding corporate customers, business loans support projects for photovoltaic panels, biomass plants, hydropower plants and energy efficiency measures. New initiatives are being developed in the field of agricultural protection, covering crop damage caused by hail, fire and rain.

Retail banking

In terms of the retail market, banks disburse loans for environmental purposes. This includes loans for energy-efficient renovation of property, the purchase of ecological equipment and installation of solar and photovoltaic panels. Banks are also involved in the European Mortgage Federation-European Covered Bond Council (EMF-ECBC) initiative on green mortgages.

The average retail investor however still remains motivated, chiefly, by a mix of financial performance and containment of financial risk. Environment, social and corporate governance (ESG) products are mostly chosen for diversification purposes and are perceived as riskier or poorer in performing. The Green bonds and investment funds' market is almost entirely driven by big institutional investors focusing on issuers of best credit quality, medium maturities and very large public transactions. While there is an awareness of Millennial values reflected in their buying decisions, this has not yet significantly affected the investment product offer.

Digital technology

Banks are also exploring the use of digital technology as a lever for Green Finance in lending and investments, given their potential to raise awareness. There are interesting innovations such as a bank's debit/credit card tracking consumers' climate impact from his/her purchases paid with a card.

The relationship between Financial Technology (FinTech) and green finance is still in its early phase. Yet, with the digitalization of the banking industry the potential of FinTech for sustainable development has started to grow, from crowdfunding and mobile payments to artificial intelligence. We are likely to see increasing cooperation and partnership in the banking sector between incumbent banks and new FinTech startups providing innovative products and services to the market. Indeed, the arrival of Fintech startups and the establishment of digital platforms have spurred innovation, accelerated the transformation of banks and opened a door to new win-win collaborations. In this regard, it is essential that operations and cooperation take place in a regulatory environment that ensures a level playing field for all actors providing the same services.

A noteworthy example of such teamwork is the launch of the so-called "Green Digital Finance Alliance" platform created to address the potential for FinTech-powered business innovations to reshape the financial system in ways that better align it with the needs of environmental sustainability. At its core, the Alliance's members comprise innovative financial institutions committed to using digital technology to advance green finance in lending, investment, and insurance.⁵ Banks are also direct investors in funds that commit own risk capital to the

⁵ Further information regarding this platform can be found at: www.greendigitalfinance.org/.

environment, infrastructure, and energy sectors so as to promote the social/economic development of local areas.

Private equity

Private equity (PE) firms within banking groups in Europe embed, more and more, Environmental, Social and Governance (ESG) criteria into their investment process or incorporate ESG key performance indicators (KPIs) into their monitoring of portfolio companies. Some of the private equity firms ask their portfolio companies to report on their non-financial KPIs, such as the carbon footprint. Private equity firms also invest in green infrastructure such as waste management, biomass plants, hydro- or solar power plants.

Impact investing

Impact investing is a further possibility for banks to invest in solutions with a high social or ecological impact and a financial return. Some banks have set up impact funds which only invest in social organizations in Europe which lead to an ecological and social impact. Impact investing is a possibility for smaller and riskier projects to obtain funding.

Green revolving credit facilities

Lately, a number of banks have started to issue green revolving credit facilities where the margins are linked to the sustainability performance of the borrower. This creates an additional economic incentive for the borrower to improve sustainability.

Integration of climate-related considerations into decision-making process

Many banks are also integrating climate-related considerations into their investment and lending decisions, and disclose their framework on managing environmental and social risks, thus showing involvement from various levels of management. In cooperation with academics, some banks are working on the introduction of assessment criteria related to climate risks for energy industry clients, in order to promote alignment with a 1.5 degrees' climate scenario. The work of the [Natural Capital Finance Alliance](#) provides some interesting examples of integrating environmental factors into pricing.

3. Reflection of the Environment and Climate Change (ECC) risk in banks' decision-making processes and regulatory framework

3.1 Integration of ECC risks into banks' strategies and risk management systems

Investors' exposure towards environmental factors such as pollution, carbon emission and climate change impacts the assessment of credit risk. If material factors are ignored, these issues can constitute a violation of international agreements, conventions including the ethical foundations of society. The unawareness is in itself a risk, since it can entail fines, prosecution of management, loss of market trust leading to loss of clients, loss of licence to operate and reputational risk. It is essential that the financier understands and can mitigate such risk.

The concept of "true value" is perhaps too idealistic at present. For the market to become mainstream, practices cannot continue to be assessed based only on financial performance indicators. Applying the ECC screening criteria, **ECC risk factors should be integrated into credit ratings and into the concepts of Probability of Defaults (PDs) and Loss Given Defaults (LGDs)** to differentiate between sustainable and less sustainable companies. Company efforts on environmental deliverables should be valued, measured and **integrated into their overall performance** / assessment and possibly converted into financial terms. It will require a **systematic integration of financial and ECC ratings, rather than treating the two aspects in silos. It will also require time to build up long data series sufficiently.**

Credit assessment is a determining factor in the competitive profile of banks. Therefore, the use of standardised sources of information in the evaluation of ESG risks⁶ will have to be coupled with internal expertise from bank risk departments.⁷

Some banks perform **environmental due diligence audits** and assess the environmental and social risks related to investment projects. The screening is performed **throughout the lifetime of such projects** and is **included in their internal credit policies and processes**. Dedicated committees and departments have been established to analyze and address environmental and societal risks and formulate relevant guidelines for their personnel. What is more, some banks have developed dedicated **Climate Risk Management Models** that assess the risk deriving from climate change at sector, sub-sector and business level. Such models assess the cost of implementing practices to reduce climate change risk as well.

⁶ World-Check is used for "Know Your Customer"-vetting, AML/CEP and PEP due diligence. MSCI and GES is used for ESG-analysis of individual companies, industries and countries. The Equator-principles are used for assessment of project financing by some banks.

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In close collaboration with international institutions, such as the International Finance Corporation (IFC) and the European Bank for Reconstruction and Development (EBRD), a number of banks have implemented within their internal processes and mechanisms the **Environmental and Social Management System Standard (ESMS)**.

The ESMS constitutes a set of procedures that are integrated into the internal processes of credit institutions by aligning the policy requirements for loans and other forms of credit to the standards and requirements set by the International Finance Corporation (IFC) and the European Bank for Reconstruction and Development (EBRD). It is applicable to new and existing forms of financing provided by credit institutions. In a nutshell, it is a methodology for identifying, evaluating, managing, preventing/avoiding and mitigating environmental and social risks that may arise from the business activities of either the credit institution or the borrower. As such, it is deemed a subset of the credit risk assessment carried out by credit institutions

The implementation of the ESMS leads, in principle, to lower pricing of green products and services compared to the traditional ones.

Since 2017, the clients of Greek banks for example are obliged to provide their public document "Environmental Risk Assessment", to facilitate credit institutions in conducting an Environmental and Social Risk Assessment, accompanied by an Action Plan entailing corrective measures, if judged necessary, according to the procedure laid down in the ESMS relevant documentation.

While several banks have already integrated environmental considerations and risks into their governance, strategies, operations and risk management, it is recognized that more can be done at European level.

Clear **accountabilities and an integrated approach to sustainability** with **responsibilities at the highest level of management** need to be introduced.

Analytical and modelling tools to quantify the environmental costs and benefits of new projects are still in their infancy. The lack of a common taxonomy, standard methodologies for reporting and information makes the risk analysis even more difficult.

Convergence on basic definitions does make a case for pooling good examples that can be publicly promoted. The European Banking Federation is happy to commit itself to **raising awareness and promoting best practices within the European banking sector.**

3.2 Incorporation of ECC risks into the regulatory and supervisory framework

The regulatory framework that governs today's banking system may not be used to its full capacity for systemic ECC risks. This, we believe, is mainly due to the absence of a common taxonomy and disclosure framework at global level. While we believe the Basel Committee should **explicitly acknowledge environmental risks** and their increasing impact on the stability and sustainability of the economy as an emerging source of systemic risk for banks and banking stability, **introduction of any Pillar I or Pillar II measures prior to establishment of a common taxonomy and disclosure framework would not be possible.** It should also be assessed to what degree the environmental risk is already reflected in the credit, operational or, to a lesser extent, market risk to avoid double counting.

The regulatory and supervisory framework should **focus on systemic risk** (e.g. arising from lack of governance or ECC risk management) and the risk of individual non-sustainable assets. The governance of ECC risk management should be captured in the annual Internal Capital Adequacy Assessment Process (ICAAP), while the individual non-sustainable risks should be captured in the credit, market and operational risk assessment.

On this basis, **banking regulators should work with banks to adopt current best practices in the management of environmental issues, collect the necessary data and conduct analysis to refine the banking sectors' understanding of, and ability to address, systemic environmental risk in the future.**

Pillar 1

Pillar 1 Basel III incorporates a requirement on the part of banks to assess the impact of specific Environmental and Climate Change risks on their credit and operational risk exposures. For example, paragraph 510 of Basel III (Pillar1) requires banks to *appropriately monitor the risk of environmental liability arising in respect of the collateral, such as the presence of toxic material on a property.*

Nevertheless, the tenor of the exposure is a relevant risk factor in the Basel III Accord. It assigns a lower risk weight to short-term (1-3 year) recourse balance sheet corporate loans, in comparison to, long-term (7 years or more) project finance loans to off-balance-sheet entities as the latter type of loans is riskier due to their longer maturity and non-recourse structure. Consequently, **the risk-weighting framework, resulting in higher capital requirements for bank long-term lending project finance for environmentally sustainable economic activities, is typically long-term, and has a significantly higher cost in terms of capital requirements.**

Pillar 2

The Supervisory Review and Evaluation Process (SREP) follows a structured approach to assess additional risks banks are exposed to complementing the Pillar 1 process.

Among others, it requires an assessment of the sustainability of the bank's business model, analysing, for instance, whether it is exposed to a variety of businesses or focuses on one or only a few. SREP also requires a focus on the bank's governance and how risk is embedded into the management roles. In general, it tackles the so-called risk to capital and risk to liquidity issues.

Environmental risk aspects could become an integral part of the supervisory framework and considered within the revisions of the assessment methodology of the Basel Core Principles for Effective Bank Supervision.

Banking supervisors could explore the **feasibility of incorporating forward-looking scenarios** that estimate the potential financial stability impact of supplying credit to environmentally unsustainable or sustainable activities, over time, into their Pillar 2 Supervisory Review stress tests.

From a prudential and competitive point of view, **common ECC scenarios and stress testing appear to be the most viable options in the short term**, providing that they lead to a range of **soft measures** (investments in know-how building, ECC-related covenants in credit contracts, collection of ECC risk-related defaults in the banks' portfolios and inter-banking data pooling, financial support to ECC-related start-ups or research centred, etc.) **and not necessarily to capital requirements' add-ons or capital guidance measures.**

A Pillar 2 add-on, sometimes evoked for "brown" exposures or for insufficient ECC risk assessment performed by banks, is **to be avoided**. Banks, willing to include ECC risks in their high-level policies for credit allocation (allocation of credit flow to the different sectors) or in the process of the single borrower's risk assessment, need data, not in their core business, and have to rely on receiving information from others. Financial services sector should not be unfairly penalized for non-availability of such information and data.

In addition, credit institutions' assessment of their internal capital adequacy (ICAAP), which is later assessed by their respective supervisory authorities, allows them to identify material risks and describe their management process. This would include, inter alia, environmental risks. In such cases, **credit institutions assess their regulatory capital requirements in the context of a stress test exercise** under two plausible scenarios (baseline and stress). **This exercise encompasses business risks associated with the transition to a low-carbon economy** under various hypotheses of the impact such a transition might have on GDP growth.

Pillar 3

Bank supervisors should examine Pillar 3 (Market Discipline) to **assess the feasibility of banks disclosing information** about their exposure to, and management of, systemic environmental risks in a standardised manner across countries.

4. How to stimulate green finance

4.1 Harmonization

4.1.1 Common accepted taxonomy

While bank credit dominates financing in the EU economy representing more than two thirds of investment, **only a small portion, is explicitly classified as 'green'**.

This may also be due to the lack of clear and uniform definitions. Lack of clarity as to what constitutes Green Finance activities and products, such as green loans and green assets, represents an obstacle, inter alia, for investors, enterprises and banks seeking to identify opportunities for green investing. **Without appropriate definitions - the starting point for internal budgeting, accounting and performance measurement - it is difficult to see how banks can begin to allocate efficiently financial resources for green projects and assets.**

A true and fair view is the fundamental principle for all reporting. Materiality entails the ability to identify, measure and value items and all their inherent relevant risks. This concept presents nothing new. In fact, materiality already demands that industry and financiers include climate risks in their valuation of investments. However, definitions, metrics and methodology in general, vary across sectors and across different parts of the global financial market. There is a need for convergence to enable the successful inclusion of these risks across the markets. Diverging definitions and methodology create risks in themselves, exacerbating the difficulties in the methodological inclusion of climate-related risks in different parts of the financial system.

The Financial Stability Board sponsored the Task Force on Climate-Related Financial Disclosure (TCFD). The Task Force provides both the means by which financial measurement can be used to catalyze market developments, and, an opportunity to establish a common global framework for Green Finance.

A reasonable level of harmonization around which financial measurement can converge, common definitions and technical implementation measures or guidelines (once suitably translated into EU statute) have the potential to provide a common basis for reporting, for review and certification processes and for the creation of a protected EU green bond label.

Common taxonomy (including carbon-related assets, green assets), and a set of minimum standards will also be important in **mitigating the risk of greenwashing**, or the overstating of the environmentally or socially conscious attribute of a firm's offering. It is important that such a taxonomy is developed through a transparent multi-stakeholder process.

The risk of greenwashing is real and particularly present in emerging green asset classes (e.g. ESG funds, Green asset backed securities or index-linked green products). Green bonds benefit from a clearer framework (although the lack of controls and sanctions still poses a risk). For other products, over-marketing the environmental factors remains a threat given

the absence of controls, sanctions and investors' lack of knowledge to assess investment policies correctly.

There should be clarity too as to whether an investment remains green even when evidence or science changes. For example, a decade ago, diesel engines were perceived as being environmentally friendly, today this is no longer the case.

4.1.2 Common Disclosure Framework

Comparable disclosures on Environmental and Climate Change performance and ECC risks are a prerequisite to addressing the lack of information and to internalizing associated costs.

Currently, existing data is not available for support market analysis, impact assessment or any other recommendation. **The lack of data, non-harmonised metrics** (e.g. regarding Co2 emissions of the energy mix in individual countries, or lack of harmonization of energy labels for houses) and resulting lack of comparability represents a **major obstacle for awareness-raising, market and risk analysis and developments of new products that could be offered on a comparable basis.**

A common European taxonomy and disclosure framework would improve the data collection, key performance indicators (KPIs) and the availability of quantitative data. Furthermore, disclosure requirements have the potential to act as a catalyst for increased sustainability in lending portfolios.

The European Commission should take steps towards a common disclosure framework that commands broad global support. This necessitates a keen eye as to the practicalities involved. Rather than seeking to draw up its own definitions, **the Commission should seek to build on work, underway, by the FSB-sponsored Taskforce on Climate-Related Financial Disclosure, ensuring it is suitable for the EU economic, legal and regulatory environment.** The availability and cost of the information collection as well as materiality and proportionality are important aspects to be taken into account.

A common disclosure framework would require internal capacity building within institutions and the development of tools and methodologies. Banks are dependent on information provided by their counterparties. Further work also needs to be done to define appropriate scenarios and related analysis requirements. Consequently, **it may be more feasible in the short run to think about a qualitative disclosure framework complemented by voluntary quantitative information as it becomes available e.g. through developmental work on the TCFD recommendations.**

Instead of seeking to mandate on an overly-prescriptive basis, the European Commission, should **put in place a 'comply or explain' framework in which governance, responsibility and disclosure, based upon common definitions, should feature.** A tick-the-box reporting will not improve sustainability and will most likely increase the risk of window dressing. It is also unlikely to contribute to the understanding of risk and risk mitigation as reporting is based on banks' own analysis of what is important for their business and stakeholders.

A period of three to five years should be a reasonable timeframe for firming up disclosures. **Mandatory quantitative disclosures should be introduced only after commonly**

accepted taxonomy and comparable metrics on the key issues are agreed upon, and the materiality principle included, as in any reporting requirement. Common definitions and methodologies are important to avoid distortion and misleading investors.

Over 100 global firms, many within financial services, have committed support to the TCFD's recommendations. Our understanding is that many of these are working towards making some form of qualitative disclosure within the next 12 months and are planning developmental work on the quantitative disclosures. The UNEP Finance Initiative⁸ should be closely monitored given its importance in understanding how to overcome operational implementation challenges of the TCFD recommendations with an eye to transposition into the EU disclosure framework.

Consideration should be given as to whether public regulatory reporting requirements under Pillar 3 of the Basel Capital Accord build upon the TCFD's recommendations (and accompanied by implementation guidelines from the European Banking Authority) may provide a suitable conduit for bank-specific disclosure. The disclosures for asset managers not captured by Basel III or Solvency II would need to be addressed via non-financial disclosure requirements.

4.1.3 Common standard and labelling on green bonds

Bonds and securities are vehicles to transfer projects and industries on to the market. While the green bond market is picking up with every reporting period, it still only represents around 1% of the bond market. While the guidelines for green bonds are quite clear, their traceability remains rather complex, although a recent study by the Climate Bond Initiative on green bond Post-Issuance Reporting showed that "there is public reporting for 74% of green bonds issued before 1 April 2016".⁹

As seen in China, defining minimum standards for green bonds can help as part of the efforts to accelerate market growth. The EU should give priority to considering how it could use existing, or develop, international standards and initiatives in order to provide a common EU-wide basis. **A common EU standard** has a potential to the support growth of the Green Bond market so long as it does not impose overly strict requirements on issuers thereby curbing the development of a nascent market.

As a first step, the EBF envisages the **development of green instruments on the basis of two types of bonds**; the covered bond and the project bond, followed by other types of bonds.

The covered bond is a hypothecation of mortgages with underlying securities, typically the securities are very high quality. The bond is priced with respect to the underlying securities, mortgage institute rating and country rating as main elements. We believe that the **development of a green covered bond** is feasible through the definition of the standards

⁸ UNEP FI WG pilot project with 11 banks on implementing the TCFD recommendations <http://www.unepfi.org/news/industries/banking/eleven-unep-fi-member-banks-representing-over-7-trillion-are-first-in-industry-to-jointly-pilot-the-tcdf-recommendations/>

⁹ Source: <https://www.climatebonds.net/resources/reports/post-issuance-reporting-green-bond-market-trends-best-practice-june-2017>

needed for new housing or rehabilitation of old housing deemed green. In these areas, best practices are developing in the local markets.

The green project bond – financing a specific project – could have a green label if the underlying project is deemed green. Provision of second opinions - a third-party assessment of risks against which the investor can benchmark his/her own assessment, together with the development of common taxonomy, valuation and reporting - will mitigate the risk of green washing of projects and housing that is not truly green.

4.1.4 Green Lending Principles

Green lending policy usually refers to supportive products such as preferential interest rates offered by banks for environmentally friendly projects or restrictions of projects with negative environmental performance. Green lending includes, but is not limited to, personal housing mortgage loans, motor-vehicle loans and green credit card services, along with project financing, construction lending and equipment leasing for enterprises.

As a member of the Global Green Finance Council, a coalition of financial sector trade associations¹⁰, the EBF is engaging in the ongoing project to develop an industry-led principle for green lending.

4.1.5 Standardization of contracts and risk performance analysis

Banks could, even if, only incrementally, decrease the costs of financing by **developing standard contracts for various types of green projects**. Some initiatives aiming for standardization are emerging in the banking sector but appear limited by the boundaries of competition law. Such initiatives could be facilitated by public institutions.

Banks and the public sector could jointly work on **faster dissemination of accurate risk and performance data to speed up and standardise performance risk analysis**, thus further increasing the odds for smaller projects.

¹⁰ The members of the GGFC currently include AFME (Association of Financial Markets in Europe), EBF (European Banking Federation), EMF-ECBC (European Mortgage Federation - European Covered Bond Council), GFMA (Global Financial Markets Association), ICMA (International Capital Market Association), IIF (International Institute of Finance), LMA (Loan Market Association), and WFE (World Federation of Exchanges). Participating observers are CERES, EFAMA (European Fund and Asset Management Association), EFR (European Financial Services Roundtable), and Insurance Europe. The secretariat of the GGFC is provided by ICMA.

4.2 Strategic public-private cooperation

Given the huge financing needs, financing of sustainable development activities needs to be based on diverse funding streams, both private and public. An effective use of public policies and finance is vital to lower the risks and maximize the involvement of public and private capital in financing sustainable investments.

4.2.1 Public strategies and policies

Effective public-private cooperation and an **alignment of public strategies and policies with the needs of the private sector**, including the financial industry, is imperative if we are to accelerate sustainable development and its financing. To provide market participants with enhanced clarity, transparency and certainty, the EU needs to define a **long-term EU sustainability strategy and agenda** and pathway up to 2050 to align long-term sustainable finance developments with political objectives.

A question would be whether the European Commission wishes to embark on a path of an EU-level statutory regime or whether it would see EU-level measures operating together with pre-existing Member State policies. We believe that, to remove some of the obstacles at EU level, Member States should be ready to **align national initiatives within a more coherent EU-wide framework**.

Finally, far greater effort must be made to ensure that financial and environmental policies and the relevant regulatory framework are coordinated across government agencies and departments in their promulgation, implementation and enforcement.

4.2.2 Sharing of risks for which there is no market

While the financial systems' area of expertise is the handling of risk, the handling of tail-end risks and so called Black Swans have proven to be challenging for a system consisting mostly of relatively small individual companies. Thus, there is clearly a role for risk sharing with public entities.

However, it is acknowledged that this is an area fraught with difficulties. The difficulties straddle a multitude of issues such as, who carries the responsibility for technological development to, who is responsible for the legal infrastructure governing the financial instruments and the underlying business. Going forward, there is clearly a need for a division of tasks and responsibilities between private financial institutions and public entities.

The objective of public financing should be that of facilitating the participation of private and institutional investments, securing substantial private investment for every public euro submitted.

New emerging and relatively unknown risks need to be priced and tested in order to achieve both a standardised assessment, and a market. This is a societal task, where there is an obvious role for the public investment banks and public funds like the European Long-term Investment Fund (ELTIF). When the financial institution carries all the risks that are well defined in the market, the public entity should focus its participation on the risks for

which there is no market. In this way, the financial institution and the public entity can cooperate to enable projects that would not find financing without public intervention.

Nonetheless, the demand for risk mitigation within such public entities are a problem in this context. The implicit guarantee carried by such institutions skews the cost of risk and risks crowding out financial institutions operating on a commercial basis in the market. The primary objective of such bodies should be areas where markets are missing.

4.2.3 Direct subsidies

Direct subsidies in the form of tax benefits or subsidised funding conditions similar to the energy efficient private home market in certain countries could be considered. In Italy for example, the new energy consumption reduction target for 2020 is based on the strengthening of the measures and instruments already in place including tax deductions (55%/65%).

In the United States for example, municipal bonds holders do not have to pay income tax where the bonds were issued (neither at federal nor state level) on interest from the bonds they hold, allowing issuers to offer lower yields.

Phasing out of inappropriate subsidies to fossil intensive industries, for instance, is likely to have an impact on risk as well as the pricing of financial assets.

4.2.4 Publicly sponsored technical assistance

Project promoters need to access differing sources of financing according to the needs of their project, at a given moment of its lifecycle. Many green projects, perhaps with the exception of sustainable energy projects such as large scale wind, solar or hydro plants, are faced with a number of hurdles in the way of accessing finance.

- Projects, especially in the private sector, often have relatively small investment needs and management is often inexperienced or lacks financial knowledge. Citizens' initiatives, such as energy cooperatives, and other non-professional parties are overrepresented. Consequently, project promoters have difficulties in calculating return on investment in a reliable way.

This may be solved by recruiting external consultants to certify the validity of green projects and to help forecast expected cash flows. Certification and validation of green projects, such as second party opinions, however entails additional costs which in many instances are unaffordable for small scale projects.

Coverage of such external costs could be considered by public authorities. For example, the Monetary Authority of Singapore plans to offset costs for the external review of green bonds.

- Lack of clarity about purchasing contracts often results in weak cash flow projections, thus implausible business cases.

- For financiers, the lack of information on the expected performance of certain types of technology, combined with the sometimes highly specialist content of the proposed solutions, makes it hard to evaluate the technical risk of the projects. This leads to perceived high risk, perhaps unfairly.

Performance guarantees can play an important role in lowering this perceived risk, but these are not universally available. In these cases, a guarantor assumes all or part of the performance risk and ensures that the counterpart will receive the expected benefits in terms of physical results (performance) of the project itself. Expected performance can be measured in terms of energy savings, avoided greenhouse gas emissions, agricultural production or renewable energy production. With these performance benefits ensured, the risks of not achieving the financial benefits of the projects are reduced.

- Projects generally have little equity to invest and find it hard to attract venture capital as the returns are considered low. This too increases the risk for the bank.
- The necessity of case-by-case assessment of the ownership structure for financiers (especially for energy cooperatives and other innovative structures intended to increase the size and thus bankability of the project) results in high financing costs.

These hurdles may represent a significant barrier for green enterprises applying for credit. Banks in general cannot sponsor the additional costs for technical assistance, nor can the initiators of these typically small-scaled projects carry them. Considering that small-scale projects, especially in energy efficiency, are an essential component for reaching the two-degree economy, this constitutes a serious market imperfection.

Publicly sponsored technical assistance could help increase the number of projects constituting a bankable business case. In the Netherlands, for example, banks have taken the initiative to cooperate with government to provide this technical assistance but this effort needs to be stepped up to a scale beyond the capacity of the banks and needs to be replicated at an EU level or across Member States.

4.2.5 The Establishment of a European Union Environmental Climate Change (ECC) risk categorising system for ECC Screening

Besides financing activities that create direct benefits for ECC (Direct Financing), banks have an important role in assessing ECC risk, embedded in the risk profile of a counterparty that applies for financing for any other reason (ECC Screening).

Granting a credit to an enterprise, even with excellent traditional financial indicators, should be double-checked, for example, if an environmental due diligence shows that:

- the market share will probably be reduced by new environmental standards given that its competitors are already compliant with these new constraints;
- the market share will be reduced by a shift in green consumer preferences that are not taken into account in its business plan;

- the environmental management system has not improved despite receiving material fines, thereby raising the odds of new fines;
- the internal control system does not include crisis policies related to relevant climate change weather events for the enterprise and its providers.

Considering the above, **an environmental due diligence should be performed also for projects/activities not explicitly categorised as green**. Otherwise, banks will not be aware of part of their credit risk deriving from the exposure of its borrower to ECC risks.

As already mentioned, it is difficult for banks to perform such a due diligence, or in other words to assess the ECC risk profile of single borrowers outside the framework of a green project. The main reasons are lack of know-how, well tested methodologies and data, real predictive indicators that link credit performance with ECC risk profile, as well as costs of the due diligence that need to be consistent with the volume of the financial support granted by banks.

It is not easy to perform this analysis even at the level of economic sectors as opposed to single borrowers. Therefore, as a short-term solution to facilitate the ECC screening, we would like to suggest **implementation of a credible and robust EU Environmental Climate Change risk categorising system by economic sectors/sub-sectors/areas as a first step. Similar to the EBRD Environmental and Social Risk Categorisation List¹¹**. Such a categorising system would provide banks that do not have other proprietary solutions with a sound and reliable basis for setting their high-level policies for credit allocation (by sectors/sub-sectors/areas) also in respect to the ECC risk/opportunity dimension, pending further research and developments.

Different grading should be attributed to economic sectors and subsectors and, if relevant, broken down by territorial areas (alluvial, coastal areas, etc.). The categorisation should be periodically updated taking into consideration the improvements in terms of the average potential ECC risk profile in the same sector and shifting towards the EU ECC policy goals.

Given that the actual Environmental Climate Change (ECC) risk of enterprises within the same (sub-) sector, can differ from the potential risks addressed by the ECC risk categorisation system we believe it will force the less risky businesses in the same sector to disclose evidence that would result in better rating compared to the sector average.

Calibrating the credit policies, based on third party technical categorisation developed outside the financial sectors, will also ease the application of potential incentives for banks committed to the incorporation of the ECC screening into their decision-making processes. It would **enable banks in the short to mid-term to set clear goals in allocation of less credit to sectors with higher ECC risk grading** (and conversely more credit to less riskier ones), therefore supporting indirectly the public institutions in delivering on its sustainability agenda.

An EU ECC risk categorisation system for ECC Screening should be implemented with the engagement of stakeholders, including the banking sector, and with the formal involvement

¹¹ <http://www.ebrd.com/downloads/about/sustainability/ebrd-risk-english.pdf>

of public/institutional entities primarily responsible for environment, energy, infrastructure, industrial policies, health etc.

The ECC Screening, driven by the sector to which an enterprise belongs, goes hand in hand with the assessment of a specific green project of the same enterprise under the Direct Financing.

4.2.6 Monetary policy

National monetary authorities should consider their role in developing targeted monetary policy measures, such as **employing green reserve management measure, establishing green finance guidelines and accepting certain high-quality 'green' assets from banks as collateral** for central bank loans that would assist banks in providing more funding for environmentally sustainable economic activity.¹²

4.2.7 Increasing awareness

To redress the lack of dialogue between those seeking finance for their projects and financial contributors/investors in search of investable projects, banks and public authorities should cooperate and coordinate in **developing measures to increase the awareness of Green Finance** issues amongst key players. Currently, there is no adequately defined regime upon which this could be based. **The aim should be for Green Finance to become a mainstream part of the banking business.**

To promote and accelerate green finance, the Global Green Council has launched a number of projects including Green Lending Principles and a Directory of the Global and European Green Finance Policy Initiatives. The objective of the Directory is to provide policymakers and global and regional market participants with a simple, easy-to-use reference guide as to which international and regional governments and industry bodies have implemented or are implementing major initiatives on green, sustainability and climate change initiatives.¹³

The European Investment Project Portal (EIPP), which constitutes a crucial element of the European Fund for Strategic Investments (EFSI), is a publicly available web portal of investment projects acting as a platform to promote projects to potential investors worldwide. The EIPP's overarching goal is to catalyse and accelerate the development and fruition of investment projects in the European Union, and through this, to contribute to higher employment and economic growth.

Taking into account the European Commission's legislative proposal as regards the extension of the duration of the European Fund for Strategic Investments (EFSI), currently under discussion at EU level, the particular emphasis to be given to the areas of energy, environment and climate action, and the achieving of the EU ambitious targets set at the COP21 Paris Agreement, the exploitation of the European Investment Project Portal (EIPP) for Green Finance awareness purposes could be envisaged.

¹² Further information on the role of national monetary authorities in enhancing green finance can be found at: http://unepinquiry.org/wp-content/uploads/2017/02/On_the_Role_of_Central_Banks_in_Enhancing_Green_Finance.pdf.

¹³

4.3 Development of green bond market

To incentivise the issuance of green bonds, Singapore's financial regulator, Monetary Authority of Singapore (MAS), announced the introduction of a Green Bond Grand scheme during the course of this year. Under the scheme, qualifying issuances can offset 100% of expenses attributable to obtaining an external review of green bonds, up to a cap of \$100,000 per issuance.

Also, the **appetite for market parties to bear these start-up costs** (or amortize them over time) or **provide equity, might increase if the risk-return profile of projects improves, which would happen if the price for CO2-emissions would substantially rise.**

Against this background, the use of the so-called "Structural Reform Support Programme" (SRSP) for the period 2017-2020, established by the Regulation (EU) 2017/825¹⁴, could be envisaged. The general objective of this Programme is to contribute to institutional, administrative and growth-sustaining structural reforms in the EU Member States by providing support to national authorities for measures aimed at reforming and strengthening institutions, governance, public administration, and economic and social sectors in response to economic and social challenges. And this, with a view to enhancing cohesion, competitiveness, productivity, sustainable growth, job creation, and investment. In particular, in the context of economic governance processes, including through assistance for the efficient, effective and transparent use of EU funds. This programme may prove quite useful for national authorities aiming at, inter alia, implementing climate action-related policies, promoting energy efficiency and achieving energy diversification, as well as for the agricultural sector, fisheries and the sustainable development of rural areas.

Additionally, in terms of technical assistance, taking further advantage of the European Investment Advisory Hub (a crucial element of the European Fund for Strategic Investments) by providing advisory support to national authorities and project promoters for the identification, preparation and development of sustainable investment projects, as well as **acting as a single technical advisory hub for project financing within the EU**, could be envisaged.

Finally, some NGOs, such as the CDP (formerly the Carbon Disclosure Project), which run a global disclosure system enabling entities to measure and manage their environmental impact, can play a role in assisting investors in their decision-making processes.

4.4 Securitisation to increase banks' lending capacity

In principle, **securitisation in the field of green/sustainable assets will improve access to capital**, as well as lower significantly the relevant costs of raising capital. In particular:

¹⁴ OJ L 129, 19.5.2017, pp. 1-16.

- loans to small-scale projects can be aggregated and then securitised to reach an adequate deal size for bond markets;
- capital raised through the sale of asset-backed securities by the loan originators can be used to create a fresh portfolio of loans; and
- tagging the securitisation as 'green' enables issuers to tap into the increasing demand for securities with environmental benefits.

4.5 Sustainable lending practices in export credit guarantees

Export credit agencies in OECD countries have committed to not providing coverage/loans to public entities and buyers in heavily indebted poor countries in situations where there is no appraisal by the World Bank or the International Monetary Fund (IMF), or, where there is no linkage to a grant element or official development assistance, as per the 2008 OECD Principles and Guidelines to Promote Sustainable Lending Practices in the Provision of Official Export Credits to Low Income Countries (hereinafter called "sustainable lending guidelines"). This results in loss of opportunity for economic development in heavily indebted poor countries, as green growth investments are eschewed in favour of more carbon-intensive alternatives to support growing energy and infrastructure needs. Moreover, some IMF and/or World Bank member countries are not complying with the sustainable lending guidelines, leading to competitive distortions.

In this regard, the EBF supports BIAC's¹⁵ call for a revision of the sustainable lending guidelines, with a view to providing greater possibilities for commercial loans accompanying the respective products/projects. This should be feasible for projects which are classified under the 2014 Sector Understanding on Export Credits for Climate Change Mitigation and Adaptation, Renewable Energies and Water Projects (CCSU), or investments in infrastructure.

¹⁵ BIAC, Green Finance, [Key Business Considerations for Financing a Sustainable and Low-Carbon Economy](#), page 6, June 2016

5. Green Finance in the regulatory framework of banks

While lack of common taxonomy and data are obstacles to further development of Green Finance, there is also a **lack of internal incentives to channel funds into the areas of Green Finance**. This limits market participants' efforts to allocate funds to environmentally sound finance projects and generation of new green projects as the credit supply and raising capital for green investment is currently, in most cases, not economic, given the absence of government incentive.

For example, the price of green bonds and non-green bonds - both coming from same issuer - is not different. The extra costs added to the established process and reporting required for a green bond issuance is not compensated by any financial benefits. In addition, the lack of financial benefits does not serve as an incentive to source additional assets/projects that qualify for refinancing by issuing a green bond.

Implementation, of an **adequate system of incentives** to lend more to projects that have a direct and positive beneficial impact on the ECC issues and to low ECC risk sectors, would act as catalyst for the public environmental policies, bearing in mind the role banks can play as a transmitter of political economic impulses on environmental matters. Importantly, incentives should always consider the materialisation of the associated risk and their impact on the EU financial system.

5.1 Capital requirement reliefs

There are indications of a positive correlation between investments that directly provide environmental benefits and their financial performance. The research of Hermes Investment shows that companies with better environmental, social and governance (ESG) ratings have lower credit default spreads¹⁶. Furthermore, according to the Industrial and Commercial Bank of China, loans to green businesses and sectors have lower default rates than non-green loans.

Less evidence is available on the positive correlation between enterprises which are less exposed to direct ECC risks and their financial performance but research is ongoing.

While green assets seem to imply a lower risk than non-green assets, the cost of financing the energy transition remains a major challenge. To support and accelerate the financing of these assets in an economy where more than 70% of finance comes from banks, it is necessary to keep working on **the recognition of the beneficial nature of such assets** for the energy transition, and, ultimately, for the mitigation of systemic risk through a comprehensive analysis.

Based on the evidence of the macroprudential benefits of these assets to reduce the probability of the climate-related risks, **an appropriate prudential treatment** according to

¹⁶ <http://www.institutionalassetmanager.co.uk/2017/04/19/250817/hermes-shows-relationship-between-esg-factors-and-credit-spreads>

the lower risk of these assets and their sound environmental benefits **would incentivise the financing** and investment in the energy transition (decarbonisation of bank balance sheets).

From a regulatory perspective, and **after an empirical analysis**, this should result in **lowering capital requirements for direct financing of these assets and investment in them, as well as possibly low ECC risk sectors** (subject to ECC Screening) to support them.

To achieve this, the possibility of introducing a **green supporting factor** should be discussed (See Annex I).

The **prudential calibration for green and sustainable finance must be consistent with the associated financial risks of the projects and investments. Financial stability**, which is the goal of macroprudential policies, **must always be ensured**. For that reason, the **capital required must be enough** to cope appropriately with the materialisation of the associated risks.

5.2 Capital treatment that varies over the time horizon of an asset

Introduction of a capital treatment of an asset held on the balance sheet, where capital weight will start low and increase over time, would **encourage the financing of the origination of sustainable assets and their subsequent refinancing on the capital markets**.

5.3 Reduced liquidity constraints for medium and long-term green funding

The long tenures associated with a high percentage of infrastructure investments for the protection of the environment and the climate put liquidity ratios under pressure.

To ease the pressure, we would like to propose that any promotional loan linked to green finance - including in the form of pass-through loans - is treated as an interdependent asset not only for Liquidity Coverage Ratio (LCR) (see article 424.6 of CRR and Delegate Act 2015/61 art. 26, art. 31 (9) and art 33) but also for the Net Stable Funding Ratio (NSFR), as already envisaged in the proposal of the Commission under article 428.f.2

Please see Annex II for further details

Furthermore, we would suggest the introduction of a specific incentive for the liquidity coverage ratio (LCR) and the NSFR treatment for green finance, directly provided by banks, in order to bridge the environmental specific long-term goals and the limits to maturity transformation of the prudential rules. As an example for NSFR, a lower required stable funding (RSF) factor could be introduced under certain conditions aimed at identifying green exposures. Such treatment could be subject to a review clause following the introduction of common definitions and availability of further data.

5.4 Incentives for long-term infrastructure funding

Most of the projects' financing needs are funded with loans, the majority of which, are provided by commercial banks. The long-term nature of the investments and the crossover rating profile however results in high capital charges for those lenders.

The proposal from the European Commission to amend the CRR/CRD in order to adjust capital requirements for credit risk for exposures to entities - operating or financing physical structures, facilities - systems and networks (that provide or support essential public services (new article 501a)), is critical to enable investments in the EU to recover historical growth trends.

Among the sectors which would benefit from this proposal are energy production facilities (renewable or conventional) with long-term Power Purchase Agreements and renewable energy projects benefiting from regulated incomes (feed-in tariff schemes, green certificates, etc.) as well as Water & Waste facilities. We believe the legislation process to implement the proposed Commission's amendments should be fast-tracked for the benefit of whole European economy.

Annex I

Introduction of a green supporting factor

Suggested Amendments to CRR Article 501

CRR Article 501bis (new): Capital requirements deduction for financing and investing in Green assets	
	<p>Text of the amendment</p> <p>1. Capital requirements for financing and investing in Green assets shall be multiplied by a green supporting factor that should be calculated as XX¹⁷</p> <p>2. For the purpose of this Article:</p> <p>(a) Green assets are defined as XX¹⁸</p> <p>(b) For the purpose of paragraph 2(a) the EBA shall develop draft regulatory technical standards to transpose this definition.</p> <p>The EBA shall submit those draft regulatory technical standards to the Commission by XXX.</p> <p>3. Institutions shall report to competent authorities annually on the total amount of Green assets calculated in accordance with paragraph 2.</p> <p>4. The Commission shall report, by 2 January 2020, on the impact of the own funds requirements laid down in this Regulation on financing and investing in Green assets and shall submit that report to the European Parliament and to the Council, together with a legislative proposal, if appropriate.</p> <p>5. For the purpose of paragraph 4, EBA shall report the following to the Commission:</p>

¹⁷ To be further developed based on a supportive empirical analysis and in consultation with stakeholders.

¹⁸ To be developed based on the G20 recommendations in the context of the EC work on sustainable finance in consultation with stakeholders. The EBF is ready to take part in the discussions. Only assets contributing to the environment and climate change mitigation should benefit from the green supporting factor to avoid a risk of "green washing". A system of checks of adherence to the taxonomy and eligibility of assets as "green" should also be developed, for example by means of a third-party assurance

- (a) analysis of the progress of financing and investment in Green assets over the period referred to in paragraph 4;
 - (b) analysis of effective riskiness of Green assets over a full economic cycle.
6. This Green Supporting Factor cannot be combined with the SME or infrastructure Supporting Factor.

Justification

There is some empirical evidence that sustainable companies seem to be less risky¹⁹.

While green assets seem to imply a lower credit risk than non-green assets, the cost of financing the transition to two-degree economy in line with the Paris Accord remains a challenge. To support and accelerate the financing of these assets in an economy where 70% of finance comes from banks, it is necessary to work on the recognition of the beneficial nature of such assets and, ultimately, for the mitigation of systemic risk through a comprehensive analysis.

The macroprudential benefits of these assets to reduce the probability of the environmental and climate-related risks (ECC) should be recognized, and based on this evidence, an appropriate prudential treatment, conceding the lower risk of these assets, would incentivise the financing and investment of the transition to a two-degree economy.

From a regulatory perspective, and after a supportive empirical analysis, this should result in lowering capital requirements for the financing of, and the investment in, these assets in order to support them. The prudential calibration for green and sustainable finance must however remain consistent with the associated financial risks of the projects and investments. Financial stability, which is the goal of macroprudential policies, must always be ensured. For that reason, the capital required must be enough to deal with the materialisation of the associated risks.

¹⁹ There are indications of a positive correlation between investments that directly provides environmental benefits and their financial performance. According to Industrial and Commercial Bank of China, loans to green businesses and sectors have lower default rates than non-green loans. Also, the research of Hermes Investment shows that companies with better ESG ratings have lower credit default spreads. <http://www.institutionalassetmanager.co.uk/2017/04/19/250817/hermes-shows-relationship-between-esg-factors-and-credit-spreads>

Annex II

The Proposal for treatment of promotional loans linked to green finance (including in the form of pass-through loans) as interdependent assets, not only for the Liquidity Coverage Ratio (LCR) (see Article 424.6 of CRR and Delegate Act 2015/61 Article 26, Article 31 (9) and Article 33), but also, the Net Stable Funding Ratio (NSFR), as already envisaged in the proposal of the Commission under Article 428.f.2

The funding for green finance should be subject to treatment in terms of a wider application of the principle already stated in:

- **Article 424.6 of CRR**

6. *By way of derogation from paragraph 5, institutions which have been set up and are sponsored by at least one Member State's central or regional government may apply the treatments set out in paragraphs 2 and 3 also to credit and liquidity facilities that are provided to institutions for the sole purpose of directly or indirectly funding promotional loans qualifying for the exposure classes referred to in those paragraphs. **By way of derogation from point (d) of Article 425(2), where those promotional loans are extended via another institution as intermediary (pass through loans), a symmetric in and outflow may be applied by institutions.** Those promotional loans shall be available only to persons who are not financial customers on a non-competitive, not for profit basis in order **to promote public policy objectives of the Union** and/or that Member State's central or regional government. It shall only be possible to draw on such facilities following the reasonably expected demand for a promotional loan and up to the amount of such demand linked to a subsequent reporting on the use of the funds disbursed.*

- **Delegate Act 2015/61 Article 26, Article 31 (9) and Article 33 inflows-outflows treatment, but also in the case of Leverage Ratio in Article 429a (1e) CRR2**

For the purpose of NSFR, green long-term finance should be treated as already foreseen (and potentially extended under revision by means of ad hoc Delegate Act) in the European Commission's proposal under Article 428.f.2 CRR2 - Interdependent asset.

*"Article 428f defines the conditions under which some assets and liabilities can be considered as interdependent and draws a list of products whose assets and liabilities shall be considered as such: centralised regulated savings, promotional loans, covered bonds issuance without funding risk on a one-year horizon and derivatives client clearing activities. **The Commission is empowered to adopt a delegated act to review this list** (new paragraph 3 of Article 460)".*

Annex III

List of recommendations

Harmonisation

1. A common taxonomy, and set of minimum standards and disclosure framework, consistent with the TCFD's (Task Force on Climate-related Financial Disclosures) recommendations should be developed. The pilot project of the UNEP Financial Institutions should be considered to identify any potential challenges in the implementation of the TCFD's recommendations.
2. Consideration should be given to whether public regulatory reporting requirements under Pillar 3, accompanied by the implementation guidelines from the European Banking Authority (EBA), and based on the TCFD's recommendations may provide a suitable conduit for bank-specific disclosure.
3. Clarity should be provided as to whether investment could remain classified as green even when evidence of science changes.
4. The EU should consider how it could use existing or developing international standards and initiatives to provide a common EU-wide basis for minimum standards for green bonds. As a first step, development of green instruments on the basis of covered bond and project bonds, followed by other types of bonds could be envisaged.
5. The EU should consider industry-led initiatives for developing principles for green lending.
6. The public sector could facilitate development of standard contracts for various types of green projects.

Public private cooperation

7. Alignment of public strategies and policies with the needs of the private sector is imperative to accelerate sustainable development and its financing. The EU needs to define a long-term EU sustainability strategy and agenda and pathway up to 2050 to align long-term sustainable finance developments with political objectives. Financial and environmental policies and the relevant regulatory framework must be coordinated across government agencies and departments.
8. To encourage green projects not viable without public intervention, the public entities should participate in risk sharing, for which there is no market, and consider providing technical assistance and cost cover for external reviews and certifications.

9. Direct subsidies in the form of tax benefits or subsidised funding conditions, similar to the energy-efficient private home market in certain countries, could be considered, as well as the phase-out of inappropriate subsidies, e.g. to fossil intensive industries. This will likely have an impact on risk as well as the pricing of financial assets.
10. National monetary authorities should reflect on their role in developing targeted monetary policy measures, such as accepting certain high-quality 'green' assets from banks as collateral for central bank loans that would assist banks in providing more funding for environmentally sustainable economic activity.
11. To facilitate the ECC screening, a credible and robust EU Environmental Climate Change risk categorising system should be implemented by economic sectors/sub-sectors/areas. Such a categorising system would provide banks, without other proprietary solutions, with a sound and reliable basis for setting their high-level policies for credit allocation.
12. A more systematic research showing the correlations between environmental and financial performance should be undertaken. Banks and the public sector could jointly work on faster dissemination of accurate risk and performance data to speed up and standardise performance risk analysis, thus further increasing the odds for smaller projects.
13. The OECD should revise the sustainable lending guidelines, with a view to providing greater possibilities for commercial loans accompanying the respective products/projects.

Reflection of the ECC risk in banks' risk management and regulatory framework

14. The Environmental Climate Change considerations and risk mitigation should be integrated into banks' strategies and decision-making processes and risk management, including, evaluation of the risk of default. Clear accountability and an integrated approach to sustainability - with responsibility exercised at the highest level of management - are needed.
15. Where material, financial and environmental ratings should be systematically integrated, rather than treated in silos. Company efforts on environmental deliverables should be valued, measured and integrated into their overall assessment and possibly converted into financial terms. The ECC risk factors should be integrated into credit ratings and Probabilities of Default.
16. The regulators should explicitly acknowledge environmental risks, and their increasing impact on the stability and sustainability of the economy, as an emerging source of systemic risk for banks and banking stability. To what extent the environmental risk is already reflected in the credit, operational or, to a lesser degree, market risk, should be assessed, to avoid double counting.
17. The regulatory and supervisory framework should focus on systemic risk and the risk of individual non-sustainable assets. The governance of ECC risk management should be

captured in the annual ICAAP, while the individual non-sustainable risks should be captured in the credit, market and operational risk assessment.

18. Banking supervisors could explore the feasibility of incorporating forward-looking scenarios that estimate, over time, the potential financial stability impact of supplying credit to environmentally unsustainable or sustainable activities into their Pillar 2 Supervisory Review stress tests.
19. From a prudential and competitive point of view, common ECC scenario and stress testing appear to be the most viable options in the short to medium-term, providing they lead to a range of soft measures, and not necessarily to capital requirement add-ons, or capital guidance measures.
20. No Pillar 1 or Pillar 2 measures should be introduced prior to the establishment of a common taxonomy and disclosure framework.
21. A Pillar 2 add-on, sometimes evoked for “brown” exposures or for insufficient ECC risk assessment performed by banks, is to be avoided. It would lead to penalising banks for their lack of policies when they simply do not have access to the information needed to form them.
22. Banking regulators should work with banks to: a) adopt current best practices in the management of environmental issues; and b) collect the necessary data and conduct analysis to refine the banking sectors' understanding of, and ability to address, systemic environmental risk in the future.

Incentives for Green Finance in the regulatory framework of banks

23. Based on the evidence of the macroprudential benefits of green assets in reducing the probability of the climate-related risks, an appropriate prudential treatment would incentivise the financing and investment in the energy transition (decarbonisation of bank balance sheets). The possibility of introducing a green supporting factor should be discussed. The prudential calibration for green and sustainable finance must be consistent with the associated financial risks of the projects and investments in question. Financial stability, the goal of macroprudential policies, must be ensured.
24. Capital treatment which varies over the time horizon of an asset would encourage financing of origination of sustainable assets and its subsequent refinancing on the capital markets.
25. Changes to CRR/CRR 2 regarding the Liquidity Coverage Ratio and Net Stable Funding Ratio, as proposed in this report, would reduce liquidity constraints for medium to long-term green finding.

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