

2 Overview of sustainable finance definitions and taxonomies

This chapter provides an overview of sustainable finance taxonomies in five jurisdictions: the EU, Japan, China, France and the Netherlands. The overview provides a synopsis of the environmental objectives (e.g. climate change mitigation, adaptation) and sectors (power generation, etc...) covered by the taxonomies.

2.1. Overview of the emerging EU taxonomy

This section briefly describes the emerging EU taxonomy, and then analyses its key features. The main characteristics of the emerging EU taxonomy are that it addresses economic activities, located in the European Union, on a mandatory basis, with a multi-criterion framework, including transition activities, with stringent thresholds and with no verification framework identified yet.

2.1.1. Brief description

On June 20, 2020, the “Regulation on the establishment of a framework to facilitate sustainable investment” was published at the Official Journal of the European Union (EUOFFICIALJOURNAL, 2020^[1]). This regulation sets a framework for the taxonomy design. The details for implementing the regulation, called Technical Screening Criteria, will be developed progressively over time. The regulation will enter into force in stages between 2021 and 2022.

The EC Action Plan on Financing Sustainable Growth (European Commission, 2018^[2]), published in March 2018, includes ten initiatives (including the taxonomy), and has three stated objectives:

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

The EU taxonomy aims at defining which economic activities can be considered as sustainable as per European legislation. The definition of sustainability includes social elements on top of environmental objectives. The six environmental objectives identified for the purposes of the taxonomy are:

1. Climate change mitigation
2. Climate change adaptation
3. Sustainable use and protection of water and marine resources
4. Transition to a circular economy
5. Pollution prevention and control
6. Protection and restoration of biodiversity and ecosystems.

For an economic activity to be considered taxonomy-compliant, it must:

1. Contribute substantially to one or more of the environmental objectives
2. Do No Significant Harm to any other environmental objective
3. Comply with minimum social safeguards (the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights, including the International Labour Organisation’s (‘ILO’) declaration on Fundamental Rights and Principles at Work, the eight ILO core conventions and the International Bill of Human Rights).

The Technical Expert Group on Sustainable Finance (TEG) developed principles, metrics and thresholds for substantial contribution to climate change adaptation and mitigation (including Do No Significant Harm screening criteria) for 72 economic activities. Those economic activities belong to the following economic sectors: agriculture, forestry, manufacturing, electricity, waste, water, transport, buildings, and Information and Communication Technologies. The TEG issued an interim report in June 2019 on which a public consultation was held from July to September (EUTEG, 2019^[3]). The TEG produced its final reports in March 2020 (EUTEG, 2020^[4]) (TEG, 2020^[5]). The EC will use these final reports as a basis to produce the Delegated Acts to implement the taxonomy regulation.

Economic activities, even when making a substantial contribution to climate change mitigation, will not be eligible if they cannot be performed in a way that avoids significant harm to other environmental objectives. Substantial contribution (as per 1 above) and Do No Significant Harm (as per 2 above) are assessed on the basis of general principles, metrics and thresholds.

An example of principles is technology neutrality: the selected criteria must not discriminate amongst technologies, provided they have the same impact on environmental objectives. An example of a metric is grams CO₂e/kWh for power generation, with a Life Cycle Assessment required or not, depending on activities (EUTEG, 2019, p. 236^[3]). Thresholds (e.g. 100 gr CO₂e/kWh for power generation) were identified on the basis of existing EU legislation when available. Otherwise, they were assessed based on current technological performance, taking into account foreseeable technological developments, in consultation with some 150 external experts plus internal EC experts.

For example, passenger cars must not only meet climate mitigation objectives (a), but also must not significantly harm other environmental objectives, including pollution (b). For (a), the TEG proposed a threshold of tailpipe intensity of 50 gr CO₂/km until 2025, and 0 gr CO₂/km after 2025. For (b), the TEG proposed compliance with the emission thresholds for clean light-duty vehicles in Table 2 in the Annex of Directive (EU) 2019/1161 of the European Parliament and of the Council of 20 June 2019 amending Directive 2009/33/EC on the promotion of clean and energy-efficient road transport vehicles (EUTEG, 2020, pp. 339,341^[4])

2.1.2. Addressing economic activities, not financial products

The regulation defines environmental sustainability criteria for economic activities, not for financial products. Further legislative guidance will be provided on how to use the regulation for financial products. The EC is preparing an Ecolabel regulation that will define sustainability criteria for investment funds.

With definitions applying to economic activities, the existing taxonomy regulation is not readily usable for firms. For instance, the regulation defines conditions under which the economic activity “construction of a water project” can be considered as a sustainable activity. One can infer that the shares or the debt of a company solely involved in this activity will therefore be considered as a sustainable investment. However, this activity could be undertaken by a construction and civil works company that is also involved in building highways and/or airports, which are not among the economic activities eligible for sustainable tagging by the EU regulation. Therefore, it will be necessary to have a rule allowing for calculation of this civil works company’s overall sustainability (and of its shares or debt) based on its full range of economic activities. Such a rule could consider, for example, the percentage of its total sales or investments attributable to sustainable activities.

In a similar vein, a rule will be necessary for determining whether a financial product is taxonomy-compliant. An example of financial product is an investment fund. It may hold a variety of assets, including debt and equity securities of firms. A rule such as the percentage of taxonomy-compliant holdings over the total holdings of the fund¹ will be necessary to assess the taxonomy-compliance of the whole investment fund.

2.1.3. Mandatory regulation

The EU taxonomy is a mandatory scheme in the sense that financial market participants will be obliged to comply with the regulation when they want to market a financial product as “environmentally sustainable as per EU legislation”. It is worth noting that an issuer, for instance a bank, will still be able to issue a (self-labelled) “transition bond” with no reference to the EU taxonomy, as long as the bank does not mention “environmentally sustainable” in communications on the transition bond. This feature is consistent with the legislators’ intention, which is not to impose prescriptions on financial markets, but rather to spur the development of a market for “environmentally sustainable” investments as defined in the regulation. The achievement by the EU taxonomy of this objective will depend on whether financial market participants

will adopt the EU taxonomy in lieu of other alternatives, including their existing in-house classification frameworks.

2.1.4. A multi-criterion framework

The regulation defines six environmental objectives. In order to be eligible, an economic activity must be checked at the same time against the six objectives, one for “substantial contribution” and the five others for “Do No Significant Harm”. Therefore, all environmental objectives are interlinked together in the EU taxonomy framework. This feature is significant and unique. None of the other four definitions considered in this analysis interlinks various objectives in this way, or seeks to do so. In practice, however, this approach may raise usability issues. Demonstrating such multi-criteria compliance could involve significant time and costs from financial market participants and/or corporates.

2.1.5. Applicable to activities located within the European Union

More than 80% of the “Do No Significant Harm” (DNSH) criteria identified so far² refer to existing EU environmental regulation. So, if other jurisdictions were to apply the EU taxonomy, they would need to apply also the corresponding part of EU environmental regulation. Furthermore, the 72 activities currently considered in the EU taxonomy have been selected based on the highest emitting sectors and the highest emissions reduction potential³. Other jurisdictions may wish to prioritise other activities.

Financial institutions such as asset managers hold global investment portfolios, notably with holdings in the US and Japan, but also Switzerland and “off-shore financial centres”⁴. For these global institutions, it may be useful to have a taxonomy of sustainable finance that may cover holdings in various jurisdictions beyond the EU. There is an emerging dialogue initiated by the EC on an international approach to sustainable finance definitions (see section below).

2.1.6. Transition and enabling activities included in addition to low-carbon activities

An important area of debate around the EU taxonomy has related to its scope. Some were expecting the EU taxonomy to be “pure green” – i.e. to limit eligible activities to those associated with a near-zero or zero-carbon economy. At the other end of the spectrum, others wanted the taxonomy to include “all colours”. Such a framework would provide a comprehensive screening system that would enable the ranking of a whole portfolio from “pure green” to “dark brown”, and any activities that might be characterised by other colours (e.g. those with ambiguous or no climate implications, such as the health or media sectors).

In light of the above, the following considerations may be of interest:

- The EU taxonomy is first of its kind in aiming to address multiple environmental goals as well as social and governance objectives.
- Integrating these multiple considerations in a taxonomy can provide a means for policymakers to ensure that sustainable finance supports the achievement of not only the Paris Agreement, but also other environment-focused Sustainable Development Goals (SDGs) as well as social objectives in the SDGs.
- Having multiple criteria will add complexity and costs to reporting, but there are already many precedents for taking ESG criteria into account both within the scope of this study (e.g. green bonds) and outside the scope (e.g. Multilateral Development Banks (MDBs) investment guidelines).
- The EU taxonomy’s approach (Contribute substantially to one or more of the environmental objectives, Do No Significant Harm to any other environmental objective) is one of potentially many approaches that could be taken. It differs, for example, from other impact measurement

approaches. Some of those impact measurement approaches in principle could help steer finance to projects with the greatest impact. However, they likely would involve higher costs than the EC approach, which (for mitigation) involves assessment against a threshold rather than measurement of impact. There is already concern among some potential taxonomy users that the EC taxonomy's approach will be too burdensome and costly due to data gaps. In addition, it remains to be seen whether a single agreed approach for impact measurement for all relevant ESG considerations can be achieved.

- Costs, data gaps and other issues are some of the disadvantages of the EC's approach to a complete taxonomy. Benefits include the ability to provide a complete picture of a portfolio of activities or investments – this will encourage firms and investors to take actions that will increase the share of their portfolio that can be described as EU sustainable. If it is used by a large share of the market, the EC approach to a complete taxonomy will make greenwashing more difficult, as users will have their sustainability share highlighted, and non-users will be questioned as to why they opted not to use the EC standard.
- In the same vein, whether there is a need for a social taxonomy could be an issue for further consideration. The EU Taxonomy addressed the social dimension by including a set of minimum social safeguards in the requirements for compliance: the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights, including the International Labour Organisation's ('ILO') declaration on Fundamental Rights and Principles at Work, the eight ILO core conventions and the International Bill of Human Rights. The lessons learnt from the first steps at implementing the EU Taxonomy will determine whether this minimum safeguards approach is needed to be complemented with further elements on a social taxonomy.

The emerging EU taxonomy includes not just low-carbon economic activities, but also two other categories: “transition” and “enabling” activities.

“Transition activities” are activities that contribute to a transition to a net-zero emissions economy in 2050, but are not currently close to a net-zero carbon emissions level. In order to be taxonomy compliant, transition activities must show that they can significantly enhance their performance beyond the industry average, without lock-in to carbon intensive assets or processes. Thresholds for compliance will tend toward zero over time, consistent with the future net-zero emissions economy⁵. One example is passenger cars, with a threshold of emissions at 50g CO₂e/km until 2025, and then zero.

Enabling activities are those enabling improvement of environment performance to a fairly demanding level in other sectors of the economy. They are evaluated on a sector-by-sector basis. Examples in the current TEG report include manufacture, sale and installation, rather than operation or purchase of, highly efficient boilers and micro-renewables. Another example would be the manufacture of wind turbine blades.

2.1.7. Stringent thresholds

In some cases, threshold levels are derived from trajectories to achieve net carbon neutrality by 2050 at sector level. In other examples, they derive from the requirement to match the best performers' level⁶ in a given sector. Several market observers have considered the thresholds proposed by the TEG as rather stringent. The choice of stringency in thresholds is a key element in the design of a sustainable finance taxonomy. Looser thresholds favour an uptake of the taxonomy by issuers of green financial products, for whom it will be easier to find taxonomy compliant projects. Thresholds that are more stringent tend to favour an uptake by investors, who will be more confident the thresholds will ensure avoidance of green washing concerns.

Current research suggests that only a modest share of investments in infrastructure and equipment may be compliant with the current draft EU taxonomy. To examine the climate consistency of real economy investments and underlying financing, the Research Collaborative for Tracking Finance for Climate Action

is completing pilot studies for individual sectors in individual countries, such as manufacturing industries in Norway (Dobrinevski, 2019^[6]). One element of this work consists of an estimation of the shares of investments in infrastructure and equipment which are compliant with the criteria from the current draft of the EU taxonomy. The estimated shares for manufacturing industries in Norway that are compliant with the current version of the EU taxonomy is well below 5%.

2.2. Overview of taxonomies and sustainable finance definitions in other jurisdictions

This report examines definitions and taxonomies in five jurisdictions: the EU, China, France, the Netherlands and Japan. The world “taxonomy” is used only with reference to the EU and China classification frameworks. For the three other jurisdictions, sustainable finance definitions are not called taxonomies. Only sustainable definitions included in legislation or issued by government bodies were examined, as opposed to definitions based on market practice or individual institutions. The five jurisdictions have issued official definitions for green loans and green bonds (with the exception of Japan where there is no official green loan definition). The Sovereign Green Bond frameworks of France and the Netherlands were also included in the study. A summary is provided in the table below.

Table 2.1. Sources of sustainable finance taxonomies and definitions

	China Taxonomy	EU Taxonomy	France Definitions	Netherlands Definitions	Japan Definitions
Sources					
Sovereign Green Bond			x	x	
Green loans definition in legislation	x	x	x	x	
Green bonds definition in legislation	x	x	x	x	x

Source: Authors

2.2.1. China

Through regulations, China has created separate definitions of green credit and green bonds. What is usually referred to as the “Chinese taxonomy” is the regulation concerning green bonds.

Green credit

The China Banking and Insurance Regulatory Commission issued green lending guidelines in 2012, Green Credit Statistics Forms in 2013, and Key Performance Indicators (KPIs) for implementing the guidelines in 2014. There are no environmental criteria or thresholds mentioned in the English translation of these documents. Further research would be necessary to identify environmental criteria and metrics if they exist. Banks are required to report every six months the loan balance of credits identified as green, and report the impacts of these credits on energy savings and emissions reductions, as well as water savings. Green credit sectors are agriculture and forestry, energy and water saving, nature protection, ecological restoration and disaster prevention projects, waste disposal, recycling and pollution prevention, clean energy, rural clean water projects, green buildings and green transportation. Green loans meeting eligibility requirements and having at least a double-A (AA) credit rating can obtain preferred central bank refinancing.

Green bonds

Under the supervision of the People's Bank of China (PBOC), a China Green Bond Endorsed Project catalogue was issued in 2015 (Green Finance Committee, 2015^[7]). The catalogue applies to green bonds issued by financial institutions. Green bonds may be used as collateral for low-interest central bank loans, which gives financial institutions an incentive to issue them. The six categories of eligible green bonds are energy savings, pollution prevention and control, resource conservation and recycling, clean transportation, clean energy and ecological prevention and climate change adaptation. The catalogue provides detailed criteria and thresholds, in the form of references to domestic industrial standards and regulations. The PBOC also issued guidelines for listed and non-listed domestic corporate bond issuances, which are aligned with this taxonomy. Large banks such as Bank of China, Industry and Construction Bank of China, and the Development Bank of China, have tapped global markets with green bonds, using international standards (more specifically, the Climate Bonds Standard issued by CBI).

As noted by CBI, "In 2018, green bond issuance from Chinese issuers aligned with international practice for green bond issuance reached 31.2 billion US dollars. Internationally aligned green bonds from Chinese issuers account for 18% of global issuance, with China the largest country of issuance after the United States. If bonds that align only with China's local definitions are factored in, total issuance in 2018 reached 42.8 billion US dollars." (CBI China Green Bond Market, 2019^[8])

2.2.2. Japan

The Ministry of Environment of Japan (MOEJ) issued Green Bond Guidelines in 2017 (MOEJ, 2017^[9]), and a guide for good adaptation practice by the private sector. The Guidelines aim at promoting issuance of domestic green bonds while ensuring the reliability of the environmental benefits of green bonds and reducing the costs and administrative burdens of issuers. The Guidelines are consistent with the widely recognised International Capital Market Association's Green Bond Principles. Under the Japanese Green Bond Guidelines, funds procured through green bonds must be allocated to green projects that have clear environmental improvement effects. Issuers should evaluate and disclose these effects, and quantify them to the maximum extent possible. Metrics are provided in the following sectors: renewable energy, energy conservation, pollution prevention and management, sustainable management of natural resources and land use, biodiversity conservation, clean transportation, sustainable water resource management, adaptation to climate change, environmentally friendly manufacturing technologies and processes, and green buildings. The MOEJ supports green bond issuance by subsidising issuers' costs of establishing a green bond framework and of securing an external review.

2.2.3. France

Green investment funds: the GreenFin and ISR Labels

French legislation has defined "green investments" within the context of the GreenFin label (formerly named Transition Énergétique et Ecologique, or "TEEC") (Ministère de la Transition Ecologique, 2019^[10]) for investment funds. The label is based on the Climate Bonds Initiative (CBI) taxonomy (see below) for green bonds. It defines three categories of issuers of financial securities: those with more than 50% of their sales coming from an activity identified as "green" by CBI; those with between 10 and 50% of sales from a green activity; and those with between 0 and 10% of their sales in green activities. For each category of investment funds, levels are set for the maximum permissible percentage of "minimally green" issuers' securities and the minimum permissible percentage of "very green" issuers' securities, measured as a percentage of the Net Asset Value of the investment fund. For private equity funds, the threshold is 75% of the Net Asset Value (NAV) of the fund in securities from issuers with at least 50% of their sales compliant with the CBI taxonomy. The label has been in existence since 2015 and is managed by the Ministry for the Ecological Transition (MTE). The label has been awarded to 40 investment funds to date,

with net assets under management of 11.5 billion euros. France also has an Environment, Social and Governance (ESG) label (Label ISR, Investissement Socialement Responsable). The label targets investment funds with good ESG practices and verification. This label, which is less stringent than the GreenFin label, has received more uptake, with 210 labelled funds accounting for 54 billion euros under management.

France's Sovereign Green Bond: the Green OAT (Obligation Assimilable du Trésor)

The French state raised a total of 20.5 billion euros under its sovereign green bond (Green OAT, Obligation Assimilable du Trésor) (Agence France Trésor, 2018^[11]) in several tranches. Eligible expenditures under the Green OAT framework (Agence France Trésor, 2017^[12]) are some central government budget expenditures, and expenditures under the Invest for the Future programme (Programme pour les Investissements d'Avenir, PIA). Proceeds are managed like those of a conventional sovereign bond, but allocations of expenditures to the Green OAT are tracked and reported. More than 50% of allocations need to relate to current or future years' expenditures; other allocations can relate to past years' expenditures. Expenditure should relate to one of the six following green sectors: building, transport, energy (including smart grids), living resources, adaptation, pollution control and eco-efficiency. Nuclear energy, armament and all expenditure dedicated to fossil fuels are excluded. The four environmental objectives addressed are climate change mitigation, adaptation, biodiversity and pollution.

The 2018 allocation went for 60% to mitigation objectives, 20% to adaptation objectives, 13% to biodiversity and 7% to pollution relevant objectives. In terms of sectors, 38% of the 2018 allocation went to the buildings sector, 15% to living resources, 13% to transport, 7% to energy, 15% to adaptation and 11% to multisector destinations. Examples of expenditures are studies and research, together with investments in sustainable forestry or the maintenance of French waterways under an investment programme to increase waterborne transport. Buildings expenditures are mainly the refinancing of a tax rebate to homeowners on energy efficiency improvements (CITE, Crédit d'Impôt pour la Transition Energétique). The OECD sits on the evaluation committee for the Green OAT.

2.2.4. The Netherlands

The Netherlands has not developed a sustainable finance taxonomy per se. However, the Dutch government offers a wide range of green financial support instruments mostly in the form of targeted grants and tax reliefs. It also put in place a specific legislation and financial incentive scheme for green mortgages. In May 2019 the Netherlands became the first AAA sovereign to issue a green bond.

The green funds scheme

The Netherlands has had since 1995 a detailed legislative approach to green lending, with a high degree of involvement of the retail banking sector. The Green Funds Scheme (RVO, 2010^[13]) incentivises retail and corporate lending for housing, agriculture and nature such as individual greenhouses in farms, transport, public works and water management. The Scheme is coordinated between four Ministries: Housing and Spatial Planning, Agriculture, Public Works/Water Management and Finance. The scheme includes environmental criteria and thresholds and comes with lower costs of funding for banks enabling lower lending rates for clients.

The green mortgage scheme

The Netherlands also issued legislation in 2016 to create a green mortgage scheme, in which homeowners or buyers provide energy savings certificates for purchase or renovation works. The certificate enables them to borrow on cheaper terms. By linking energy efficiency investments to mortgages, the programme aims to facilitate and greatly expand such investments.

A study reported in a Dutch National Bank position paper in 2017, “Bottlenecks in funding of green investment”, found that based on data from 1997 – 2017, out of the 45% of homeowners who invested in making their home more energy efficient⁷, only 4% financed this investment by borrowing. The study was based on a sample of 1588 home owners-occupiers. Of the households not making investment to green their homes in the past ten years, a mere 1.4% said this was due to their not being able to get a bank loan. More frequently stated reasons include a lack of savings and aversion to run up debt. High installation costs, and difficulty to compare costs and benefits, were also quoted. This suggests that the green mortgage scheme may not have had a significant direct impact on accelerating investment in “greening homes”.

The Sovereign Green Bond

The Netherlands issued a sovereign green bond in 2019 with part of the allocation destined to fund the Delta Programme for sustainable water management and resilience to increased sea levels. Eligible expenditures are limited to central government budget expenditures in the budget year preceding the issuance, the budget year of the issuance and future budget years. Sectors covered are renewable energy, climate change adaptation and sustainable water management, clean transportation (passenger railway and linkage of cycling to other modes of transportation), energy efficiency of residential homes.

The following sub-chapters will situate these official definitions within the broader universe of definitions used by market practitioners in the five jurisdictions, including those not issued by government bodies.

2.3. Other institutional and market-based definitions of sustainable finance

In the five jurisdictions considered for this study, other institutional and market-based definitions of environmentally sustainable finance are in use. The following brief, non-exhaustive review of such definitions is intended to shed light on the broader context in which legal definitions or taxonomies operate.

2.3.1. Institutional definitions

The OECD tracks climate finance provided and mobilised by developed countries (OECD, 2019^[14]). In addition, the OECD is working on methodologies for tracking investment consistent with achieving a low greenhouse gas development (Jachnik, Mirabile and Dobrinevski, 2019^[15]).

Multilateral Development Banks (MDBs) have issued since 2015 joint Common Principles for Climate Mitigation Finance Tracking and (separately) for Adaptation Finance Tracking. This is a joint effort by International Development Finance Club (IDFC), the World Bank Group, the African Development Bank (AfDB), the Asian Development Bank (ADB), the European Bank for Reconstruction and Development (EBRD), and the European Investment Bank (EIB). Each of those banks and the members of IDFC also use their in-house definitions to track and publish the amount of climate and/or sustainable finance they handle (see for instance EIB’s yearly sustainability report (EIB, 2019^[16])). Definitions vary among these MDBs, and were not scoped in detail for the purpose of the present research.

2.3.2. Widely used market-based definitions

The most widely used framework is the private, market-based Climate Bonds Initiative (CBI) standard (the Climate Bonds Standard). CBI issues a detailed, sector- based taxonomy (CBI, 2020^[17]) to complement its standard. The Climate Bonds Initiative is a non-profit organisation involved in certifying green bonds worldwide. In 2019, the amount of green bonds issuance aligned with CBI definitions amounted to 231 billion US dollars, and the amount of labelled green bond issuance aligned with CBI definitions amounted to 189 billion US dollars (CBI, 2020^[18]).

The CBI taxonomy broadly covers the same economic activities as the EU taxonomy. However, the EU taxonomy differs from the CBI taxonomy because of its design: for a given economic activity, the EU taxonomy uses a matrix approach, where six sets of metrics and thresholds are used, one for each environmental objective. In contrast, the CBI taxonomy uses only one metric/threshold, and is focused on climate mitigation, rather than other environmental objectives. As stated in the CBI taxonomy, « it identifies the assets and projects needed to deliver a low carbon economy and gives GHG emissions screening criteria consistent with the 2-degree global warming target set by the COP 21 Paris Agreement » (Climate Bonds Initiative, 2020^[19]).

Another framework is the voluntary Green Bonds Principles (GBP) framework, issued by the market association International Capital Markets Association (ICMA). Issued in 2014 and updated in 2016, the GBP provided a framework for the process of issuing a green bond. The procedural standardisation provided by this framework, which is fully incorporated into the Climate Bonds Standard, appears to have supported the rapid growth of the green bond market. However, stakeholders using the GBP framework have noted that different standards for assessing greenness (Climate Bond Standard, shades of green, others) and verification (second party opinion, third party assurance, etc.) create concerns about inconsistencies and the potential for greenwashing. Further information on the GBP framework is provided in the OECD report “Mobilising Green Bonds for the Low Carbon Transition” (OECD, 2017^[20]).

In this context, the EU TEG was tasked with developing recommendations for the European Commission regarding a future legislation on an EU Green Bond Standard. The TEG recommended that the EC propose a standard in 2020, “aligned with the EU taxonomy”, but not necessarily exactly matching the requirements, given the fact that the taxonomy is not likely to be fully implementable before 2022. The TEG also recommended that second opinion verifiers be systematically accredited through an ad hoc EU supervisory body.

2.3.3. Non-financial reporting frameworks

Other relevant classification and assessment schemes for investments and economic activities include non-financial reporting frameworks like the Sustainability Accounting Standards Board (SASB) and the GRI (the Global Reporting Initiative).

The Sustainability Accounting Standards Board, SASB, is one of the most widely used frameworks. This independent non-profit organization was set up with the support of the Bloomberg group in 2012. It has 25 000 mostly corporate users in 200 countries (50% in the US, 25% in Europe). It provides Environmental, Social and Governance (ESG) information, with a financial materiality angle, i.e. which ESG considerations can materially impact financial performance. It developed 77 industry specific disclosure standards with metrics, which feed into communications to investors in addition to financial accounting.

Another widely used framework, complementary to SASB, is the GRI. The Global Reporting Initiative (known as GRI) is an international independent standards organization that helps businesses, governments and other organizations understand and communicate their impacts on issues such as climate change, human rights and corruption. Although the GRI is independent, it remains a collaborating centre of UNEP and works in cooperation with the United Nations Global Compact. It is mainly used as a basis of corporate extra financial reporting for corporate social responsibility (CSR) or environmental, social and governance (ESG) report. First launched in 2000, GRI's sustainability reporting framework is now widely used: in 2017, 63 percent of the largest 100 companies (N100), and 75 percent of the Global Fortune 250 (G250) reported applying the GRI reporting framework. The most recent of GRI's reporting frameworks are the GRI Standards, launched in October 2016. As far as climate change disclosure frameworks are concerned, the leading instrument seems to be the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD). The EC guidelines on reporting climate related information, published in June 2019 (European Commission, 2019^[21]), supplement the existing 2017 guidelines to the NFRD and integrate the recommendations of the TCFD⁸.

2.3.4. In house taxonomies

Most large financial institutions are using their own standards and definitions to count and report their “climate finance”, or Paris-aligned or transition-aligned finance. One of the issues for uptake of the voluntary EU taxonomy is how far the final taxonomy will be from non-financial reporting standards that financial institutions currently use, like GRI, and therefore what will be the time and costs involved to adapt to the new EU standard.

The preceding overview of non-legislative standards defining climate and/or sustainable finance is not exhaustive. There is a proliferation of standards. In addition to standards that have been used in various developed markets, separate standards are under consideration in a number of emerging economies.

2.4. Countries considering taxonomy development, and the International Platform for Sustainable Finance (IPSF) of the EU

2.4.1. Canada

In June 2019, the Expert Group on Sustainable Finance appointed by the Canadian government - and perhaps inspired by the EU High Level Expert Group on Sustainable Finance (convened at the end of 2016) - delivered its final report. One of the Expert Panel’s recommendations was for the Government of Canada to work with the private sector to develop a green and transition-oriented fixed income taxonomies. The Canadian Standards Association (CSA Group) has convened a committee, comprised of private sector experts, to develop a taxonomy of activities that would qualify for “green” or “transition” financing in Canada through dedicated instruments like green or transition bonds and loans.

2.4.2. Kazakhstan

As of 2019, Kazakhstan is working with the OECD Secretariat (Environment Directorate) in implementing the project “Introduction of Green Growth Indicators and Preparation of the Report on Green Growth in Kazakhstan”. The main objective of the project is to assist Kazakhstan in integrating the measurement of green growth into the regulatory reporting system, in implementing the concept for the transition to a green economy, in assessing progress and achieving green growth. As part of this work, insights from the EU TEG experience and the EU taxonomy were shared with relevant interlocutors in the country.

2.4.3. Indonesia

The OECD Secretariat (Environment Directorate) is working with the Indonesia government under the Clean Energy Finance and Investment Mobilisation programme (CEFIM, 2019^[22]). Indonesia’s Financial Services Authority (thereafter, OJK) launched the country’s first Sustainable Finance Roadmap in 2015. OJK defined standards in 2017 for green bond issuance. Furthermore, Bank Indonesia (the country’s central bank) became a member of the Network for Greening the Financial System (NGFS) in 2019. Indonesia’s Ministry of Finance (MoF) issued the country’s first sovereign green sharia-compliant bond (or green sukuk) in 2018 with proceeds allocated to sustainable transportation (46%) and climate resilience (40%), with the remainder used for energy efficiency (10%) and renewable energy (4%) (MinistryofFinance, 2019^[23]).

2.4.4. The EU IPSF

At the Climate Action Summit in New York in September 2019, the EU launched an International Platform on Sustainable Finance (Commission, 2019^[24]). Members of the Platform are the EU and national, non-EU governments. The aim of the Platform is to exchange and disseminate best practices in environmentally

sustainable finance, to compare the different initiatives and identify barriers and opportunities to help scale up environmentally sustainable finance internationally. The Platform also aims at enhancing international cooperation where appropriate, while respecting national and international contexts. To date, members of the IPSF are the EU and Argentina, Canada, Chile, China, India, Kenya and Morocco. Observers are the Coalition of Ministers for Climate Action, the EBRD, the EIB, and the International Organisation for Securities Commissions, the Network for Greening the Financial System, the UNEP-FI and the OECD. The IPSF held its first Sherpa meeting back-to-back with the OECD Forum on Green Finance and Investment on November 30, 2019 at the OECD, and is currently mapping sustainable finance definitions among its members.

2.5. Table: Overview of sustainable finance definitions and taxonomies

The table below summarizes the landscape of sustainable finance taxonomies and definitions addressed in this report. A cross in a box indicates that there is an official text in the country addressing the issue.

Table 2.2. Sources, incentives, objectives and sectors in sustainable finance definitions and taxonomies

	China Taxonomy	EU Taxonomy	France Definitions	Netherlands Definitions	Japan Definitions
Sources					
Sovereign Green Bond			X	X	
Green loans definitions in legislation	X	X	X	X	
Green bonds definitions in legislation	X	X	X	X	X
Incentives					
Interest rate incentives	X		X	X	
Tax incentives or subsidies	X		X	X	X
Monetary policy/collateral incentives	X				
Objectives					
Social objectives included	X	X	X		
Climate change adaptation		X	X	X	X
Climate change mitigation	X	X	X	X	X
Water and marine protection	X	X	X	X	X
Pollution prevention and control	X	X	X	X	X
Waste and recycling	X	X	X	X	X
Ecosystems/Biodiversity	X	X	X	X	X
Sectors covered					
Nuclear		?			
Gas with emissions threshold		X			
Clean fuel	X				
Clean Coal (supercritical)	X				
Hydro	X	X	X	X	X
Solar	X	X	X	X	X
Wind	X	X	X	X	X
Biofuels (biogas, biomass)	X	X		X	
Power Transmission and distribution	X	X	X	X	
Energy efficiency	X	X	X	X	X
Green buildings/energy efficiency in buildings	X	X	X	X	X
Private passenger transport	X	X	X	X	
Public passenger transport	X	X	X	X	
Freight rail	X	X	X	X	
Waterborne transport	X	X	X		
Water infrastructure	X	X	X	X	
Clean water supply	X	X	X		
Forestry	X	X	X	X	X
Fisheries and aquaculture		X	X		X
Preparation, re use, recycling	X	X	X	X	
Waste to energy	X	X	X	X	
Clean steel		X			
Clean aluminium		X			
Clean cement		X			
Low carbon technologies		X			
Hydrogen		X			
Information and Communication Technology		X			

Source: Authors

Building on the above overview of legal and market-based definitions of sustainable finance used in the five jurisdictions considered in this report, Chapter 3 of the report addresses a number of issues regarding their design and the purpose they are supposed to serve.

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Notes

¹ Such a rule would also need to establish the methodology for this measurement (book value or net asset value for instance).

² The Technical Expert Group had only one year to deliver, as a recommendation for EC legislation, indicative thresholds and screening criteria to effectively implement its multi-criterion approach. Given the complexity of the task and the tight timeframe, it was not possible for the TEG to deliver “do no significant harm” criteria across all geographies of the EU. Work is continuing to provide the remaining DNSH criteria.

³ As well as some other secondary considerations such as supplementing the NACE code framework if appropriate for instance in order to add a “buildings” sector, whilst “buildings” do not correspond to a NACE code.

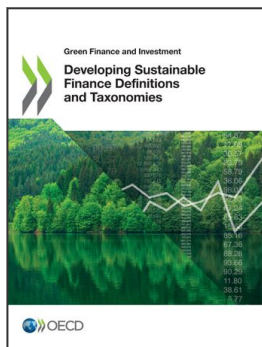
⁴ An Offshore Financial Centre is defined as a country or jurisdiction that provides financial services to non-residents on a scale that is incommensurate with the size and the financing of its domestic economy (Zoromé, 2007^[27]). They include Jersey, Guernsey, Isle of Man, Singapore and Hong-Kong, among others.

⁵ Remembering this is perhaps an economy-wide goal and that not all sectors will be able to reach net zero even later in the century.

⁶ For example using the EU ETS benchmark, see below.

⁷ Via insulation or sustainable energy.

⁸ The final TCFD recommendations contain the following statement : “The Task Force considered existing voluntary and mandatory climate-related reporting frameworks in developing its recommendations and provides information in the Annex on the alignment of existing frameworks, including those developed by the CDP (formerly the Carbon Disclosure Project), Climate Disclosure Standards Board (CDSB), the Global Reporting Initiative (GRI), the International Integrated Reporting Council (IIRC), and the Sustainability Accounting Standards Board (SASB), with the Task Force’s recommended disclosures.”



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