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Dynamic Sustainability Classifications

A proposal for governmental interoperability

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Dynamic Sustainability Classifications:
A proposal for governmental interoperability

Andreas G. F. Hoepner[1], Ifigenia Paliabelos[2], & Joeri Rogelj[3]

In this discussion paper, we develop a proposal for intergovernmental interoperability of dynamic sustainability classifications, which distinguish economic activities based on their sustainability credentials in a dynamic manner that updates over time to reflect the increasing urgency in global sustainability goals. To develop our proposal, we first review current developments on dynamic sustainability classifications in G20 members and for selected institutions. Based on knowledge and years of experience working with the EU Technical Expert Group / Platform for Sustainable Finance and IPCC, we then continue to develop a proposal for common principles for dynamic sustainability classifications.

The views expressed in this report do not necessarily reflect the views of any departments, organizations, agencies or programmes of the United Nations.

1   University College Dublin and SDGLabs.ai
2   SDGLabs.ai
3   Imperial College London and IIASA

1. Introduction

In this discussion paper, we develop a proposal for intergovernmental interoperability of dynamic sustainability classifications, which distinguish economic activities based on their sustainability credentials in a dynamic manner that updates over time to reflect the increasing urgency in global sustainability goals. To develop our proposal, we first review current developments on dynamic sustainability classifications in G20 members and for selected institutions. Based on knowledge and years of experience working with the EU Technical Expert Group/Platform for Sustainable Finance and IPCC, we then continue to develop a proposal for common principles for dynamic sustainability classifications in three steps. First, we discuss all relevant building blocks for dynamic sustainability classifications and outline key contextual challenges regarding these. Second, we outline investors' expectations for such classifications. Third, and maybe most crucially for intergovernmental consensus, we explain political fault lines as we see them and make suggestions how to avoid overstressing these fault lines.

Given these lines of reasoning, we develop 7 common principles and apply these to two sustainable development goals. We commence the application with Sustainable Development Goal (SDG) 13 'Climate Action' which is closely related to the sustainability classification exercises currently taking place in several G20 member states. Following the IPCC, we measure SDG 13 based on carbon dioxide equivalent (CO_2e) emissions, since the core challenge is to reduce this KPI to zero by a certain point in time. To demonstrate that our principles are more generally applicable to any SDGs as long as a key metric such as CO_2e can be identified, we also apply our principles to SDG 5 'Gender Equality'. For this purpose, we use the percentage of females among corporate top executive as the key measure, which we label executive gender diversity. Finally, we offer concluding thoughts on opportunities arising from these principles for the international community.

2. An overview on the state of Dynamic Sustainability Classifications development as of Q2 2021

The information provided in this section 2 offers the best of our knowledge as of Q2 2021. Knowledge is hereby defined as both, legislative initiatives where those already exist as well as informed opinions about the direction of travel in certain jurisdiction where legislative initiative have not yet been launched or published. We also include in depth media commentary. All external views are end-noted in detail so the interested reader can follow the links to the developing narratives in any relevant jurisdiction.

a. G20 Members with developed Dynamic Sustainable Classifications

Within the G20 only three countries have fully developed classification systems for green finance products: EU, China and India. The (i) EU taxonomy is legally in place since 2020 but only applicable by 2022, (ii) in China various public authorities are trying to align classification systems of different financial markets that are individually regulated (iii) while in India the taxonomy is linked to the disclosure of the proceeds of green bonds.[4]

The following section summarises classification systems in these three jurisdictions.

European Union (EU)

The European taxonomy is a classification system of environmentally sustainable economic activities.[5] "Today we are taking a leap-forward with the first ever climate taxonomy which

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4   https://ec.europa.eu/info/files/international-platform-sustainable-finance-annual-report-2020_en
5   https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities_en#why

will help companies and investors to know whether their investments and activities are really green" (Valdis Dombrovskis 21st of April 2021, press release ec)[6] (Fig. 2). "We need all companies to play their part, both those already advanced in greening their activities and those who need to do more to achieve sustainability. Today's new rules are a game changer in finance. We are stepping up our sustainable finance ambition to help make Europe the first climate-neutral continent by 2050" (Mairead McGuinness 21st of April 2021, press release ec).[7]

The EU taxonomy regulation entered into force on the 12th of July 2020 and establishes three conditions that qualify an economic activity environmentally sustainable.[8]

Specifically, an environmentally sustainable activity must (Fig. 1)[9]:

1. Make a contribution to one of the six environmental objectives (listed below) or to be enabling or a transitional activity based on technical screening criteria
2. Do 'no significant harm' to the other five environmental objectives based on technical screening criteria
3. Meet minimum safeguards, including OECD guidelines on Multinational Enterprises and the UN Guiding Principles on Business and Human Rights

Moreover, the EU taxonomy establishes six environmental objectives[10]:

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

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6   https://ec.europa.eu/commission/presscorner/detail/en/ip_21_1804
7   Ibid.
8   https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities_en#why
9   https://corpgov.law.harvard.edu/2020/06/10/the-ripple-effect-of-eu-taxonomy-for-sustainable-investments-in-u-s-financial-sector/
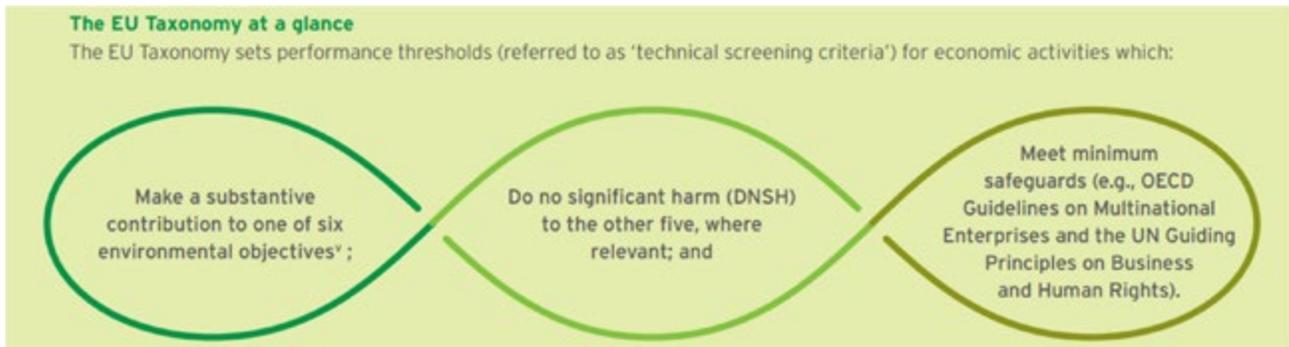10   https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities_en#why

Figure 1: Three conditions to qualify an economic activity as environmentally sustainable[11]

The EU taxonomy set **technical screening criteria** in order to assist participants to identify environmentally friendly activities. The European Commission assigned the task for developing the technical screening criteria to the EU Technical Expert Group on sustainable finance (TEG).[12] On March 9, 2020 the TEG released its final report on the design and implementation of the EU taxonomy. Specifically, the report explains how users should practice disclosure based on the EU taxonomy and a summary of economic activities covered by the EU Taxonomy's technical screening criteria. Finally, the technical annex of the report embeds technical screening criteria for 68 climate change adaptation activities, 70 climate change mitigation activities and criteria for the 'do not significant harm' standard.[13]

Public and private sector participants may use the taxonomy for both equity and debt based financial products e.g., investment funds, mutual funds, insurance-based investment products, private pensions, occupational pensions, in insurance advice and investment advice.[14] The EU Taxonomy disclosure requirements vary by financial product according to the Sustainability-Related Disclosures in the Financial Services Sector (SFDR Regulation). In essence, the Taxonomy Regulation amends the Disclosure Regulation to enhance disclosure by financial market participants.[15] Specifically, the Taxonomy Regulation and Disclosure Regulation will require participants to disclose specific information for financial products that either promote environmental characteristics or have sustainable investment objectives. For other financial products, a negative disclosure must be made.[16] Specifically, market participants offering products in the EU are

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11   https://www.citibank.com/mss/solutions/pfss/solutions/fund/fiduciary-services/assets/docs/complexity/sustainable-finance/Taxonomies-Standing-Test-Of-Time.pdf
12   https://corpgov.law.harvard.edu/2020/06/10/the-ripple-effect-of-eu-taxonomy-for-sustainable-investments-in-u-s-financial-sector/
13   Ibid.
14   Ibid.
15   Ibid.
16   Ibid.

required to make EU taxonomy disclosures periodically. Market participants must disclose:

1. How and to what extent the EU taxonomy determines the sustainability of the underlying investments
2. What environmental objectives the investments contribute
3. The proportion of underlying investments that is Taxonomy-aligned expressed as a percentage of the investment, fund or portfolio. Moreover, market participants are requested to disclose proportion of 'enabling' or transition activities, as defined by taxonomy Regulation

Since corporations outside the EU have a considerably smaller incentive to disclose this information so that their European investors can report it. Hence, the introduction of the green taxonomy for non-EU investee companies has been delayed by at least one year as of July 6th 2021, a clear admittance of challenges with the interoperability of the EU taxonomy.

The proposed Corporate Sustainability Reporting Directive (CSRD) aims to improve data comparability and accountability in corporate sustainable information for corporations, investors and public users.[17] Under the CSRD, sustainability reporting is extended to all large companies and listed companies, increasing corporate compliance to sustainability reporting to 50,000 companies; that is almost five times the pre-existing companies subject to sustainability reporting.[18] Most importantly, the CSRD sustainability reporting standards provide means to estimate double materiality risk as companies are requested to report how sustainability issues affects their business and the impact of their activities on people and the environment.[19]

China

The 'Chinese Taxonomy' refers to the regulation of green bonds that is mandatory and binary in terms of the green-brown factor (see Figure 2)[20] [21]. In 2015, the People's Bank of China (PBoC), issued Guidelines, which consists of six areas and several sub-levels under each area: energy saving, pollution prevention and control, resource conservation and recycling, clean transport, clean energy and ecological adaptation and climate change adaptation.[22] In 2019, a Green Industry Guiding Catalogue has been published by the National Development and Reform Commission (NDRC). The catalogue contains all the industries eligible to green financing i.e., green

17 https://ec.europa.eu/commission/presscorner/detail/en/ip_21_1804
18 Ibid.
19 Ibid.
20 https://www.oecd.org/environment/developing-sustainable-finance-definitions-and-taxonomies-134a2dbe-en.htm
21 https://ec.europa.eu/info/files/international-platform-sustainable-finance-annual-report-2020_en
22 https://www.ngfs.net/en/status-report-financial-institutions-practices-respect-risk-differential-between-green-non-green-and

loans, green bonds including fossil fuel financing.[23]

In June 2020, the Catalogue has been updated excluding fossil fuels.[24] The 2020 Catalogue contains 6 Level-I industry categories:

1. Energy-saving and environmental protection industry
2. Cleaner production industry
3. Clean energy industry
4. Eco-environment industry
5. Green upgrading of infrastructure
6. Green services

The 2020 edition is attracting international attention for several reasons.

Firstly, in comparison with the 2015 catalogue, there is a clear definition of Green Bond: "Green bonds refer to the use of raised proceeds to support green industries, green projects or green economic activities that meet the prescribed conditions, and are issued in accordance with legal procedures."[25] [26]

Secondly, the removal of clean utilisation of fossil fuel projects that can be funded via green bonds. This achieves closer alignment with relevant international practices.[27]

Thirdly, the 2020 catalogue unifies the standards of China's green bonds; including all types of bonds (green financial bonds, green corporate bonds, green debt financing instruments and green asset-backed securities).[28]

India

The Indian taxonomy embeds green bonds in terms of financial products and is binary (green or brown) (see Figure 2). The taxonomy is linked to mandatory disclosure of the proceeds of green bonds according to guidelines by the Securities and Exchange Board of India (SEBI).[29] Specifically, during 2015-2017, SEBI implemented mandatory sustainability reporting and disclosure regulations.[30] Issuers have to provide disclosure upon the time of issuance as well qualitative indicators and quantitative measures of

23   https://ec.europa.eu/info/files/international-platform-sustainable-finance-annual-report-2020_en
24   Ibid.
25   https://gsh.cib.natixis.com/our-center-of-expertise/articles/a-greener-green-bond-catalogue-the-incoming-china-s-unified-taxonomy-notches-new-win
26   https://ec.europa.eu/info/files/international-platform-sustainable-finance-annual-report-2020_en
27   https://gsh.cib.natixis.com/our-center-of-expertise/articles/a-greener-green-bond-catalogue-the-incoming-china-s-unified-taxonomy-notches-new-win
28   Ibid.
29   https://www.icmagroup.org/sustainable-finance/international-policy-initiatives/
30   https://www.sebi.gov.in/sebi_data/meetingfiles/1453349548574-a.pdf

the environmental impact of projects and/or assets.[31]

Yet, research by the Climate Policy Initiative argues that for the Indian case the best bet in adopting a Green Finance definition would be through a combination of approaches.[32] An Indian Green Finance classification should, firstly, adopt international taxonomy practices, and establish principles for what is green and hence green economic activities.[33] For example, green principles could include:

1. Aligning with national goals, that is economic activities that align with the Paris Agreement and India's NDC commitment and sustainable development plan, and
2. Net carbon emission reduction, that is economic activities that reduce net carbon emissions over the lifetime of a project.

Finally, research highlights that would be beneficial for a common adoption of Green Finance definition in both public and private sector in India, thus increasing green investments.[34] Other important steps would be the adoption of the definition in the form of compliance by the regulators and the voluntary adoption of the definition in financial institutions' reporting and disclosure.[35]

31   https://ec.europa.eu/info/files/international-platform-sustainable-finance-annual-report-2020_en
32   https://www.climatepolicyinitiative.org/publication/accelerating-green-finance-in-india-definitions-and-beyond/
33   Ibid.
34   Ibid.
35   Ibid.

Figure 2: Overview of developed and yet to be further developed sustainable finance classification systems[36]

Geographic application	Legally enforced	Mandatory/ Voluntary	Financial application	Objectives	Green and/ or brown activities	Data provider	Disclosure level	Other sustainability criteria	Developed by
Europe	Yes	Mandatory	EU/ Large corporations /market participants	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 & control 6. Protection and restoration of biodiversity and ecosystems	Binary (solid fossil fuels are excluded)	Main buy side ESG vendors are assessing corporations accordingly	Activities within 7 sectors: Agriculture, & forestry, manufacturing, electricity & gas, air conditioning, water, transport, ICT & buildings	Minimum safeguards & DNSH	EC & Technical Expert Group
China	Yes, from 2022	Mandatory for green bond issuers	Green bond issuers	1. Climate change response 2. Environmental improvement 3. Resource efficacy: circular economy, water recycling & pollution prevention	Binary	Specialist buy side ESG vendors are assessing corporations accordingly	Activities and projects within select sectors	Chinese laws	PBoC, NDRC & CSRC
India	No	Mandatory	All financial instruments	Phase 1: Climate change & climate adaptation and resilience	Binary	TBC	Projects funded via green bonds	No	National treasury, national business initiative, carbon trust, IFC
Japan	No	Mandatory	TBC	Transition for high emitting companies/sectors & ensuring the credibility of transition finance level	Binary	TBC	Corporate activities within select sectors	No	Transition Principles (2021)
Canada	No	Voluntary	TBC	Transition taxonomy	Binary	TBC	Activities within 7 sectors: Oil & gas, utilities, agriculture, forestry, transportation, materials, mineral mining via transition	TBC	Canadian Standards Authority Technical Committee, Canadian banks, pension funds, NGOs, asset managers, auditing firms and industry
Russia	No	Mandatory verification on specific assets	All financial instruments except government	Environmental improvement; pollution prevention; greenhouse emissions reduction; energy efficiency enhancement; adaptation to climate change	Binary	TBC	Green projects within 9 select sectors	No	Russian Ministry of Economic Development, VEB.RF, the Bank of Russia & experts
South Africa	No	Mandatory	All financial instruments	Climate change mitigation climate change adaptation & sustainable water resource use	TBC	TBC	TBC	South African laws for minimum safeguards	National treasury, national business initiative, carbon trust & IFC
Mexico	No	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC

36   https://ec.europa.eu/info/files/international-platform-sustainable-finance-annual-report-2020_en

b. G20 Members developing Dynamic Sustainable Classifications

Japan

The Japanese Transition Finance Study Group in collaboration with the Research Institute for Environmental Finance published an interim report, *Transition Finance Guidance*, that is a proposition for a Japanese transition taxonomy.[37] Transitional finance consists of debt-based instruments such as transition bonds and loans. It will be applied to finance or re-finance, existing or new transitional corporate activities or corporate entities that are aligned with the principles of this guidance.[38] The guidance covers the following areas:[39]

1. Use of proceeds
2. Process of evaluation and selection for projects and companies
3. Identification of the transition process and outcomes
4. Management of proceeds
5. Reporting
6. External assessment

While the first four principles are the evaluation criteria used in green bonds for corporate activities set out by Green Bond Principles (GBP)[40], under the sixth principle "external assessment" companies are requested to pay additional incremental interest to lenders if they fail meet their transitional targets, equivalent to a sustainability linked bond.[41]

Within the proposed transitional taxonomy two kinds of taxonomies are embedded: (i) transition taxonomy for A-Type (i.e. A=asset) finance for corporate activities; and (ii) transition taxonomy for C-Type (i.e. C=companies) finance.[42] C-Type transition finance and eligibility is limited to carbon intensive or high impact environmental sectors, supposedly to provide these with sufficient support to survive the transition. Consequently, A-Type finance does not only cover assets but also corporate entities which either wish to reduce corporate climate impact or corporate entities that do not belong to carbon intensive sectors but have carbon intensive projects or activities in their assets.[43]

The Japanese Interim report classifies basic taxonomy for both A-Type and C-type.

The A-Type brown taxonomy includes the following corporate projects:

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37 https://www.responsible-investor.com/articles/japanese-climate-experts-propose-national-transition-taxonomy-for-investors
38 https://www.meti.go.jp/press/2019/03/20200331002/20200331002-2.pdf
39 https://www.responsible-investor.com/articles/japanese-climate-experts-propose-national-transition-taxonomy-for-investors
40 Ibid.
41 Ibid.
42 Ibid.
43 http://rief-jp.org/wp-content/uploads/Pressrelease-for-Final-version-fo-Transition-Finance-Guidance.pdf

1. Coal-fired power generation plants
2. Natural gas power generation
3. Automobiles
4. Ships
5. Aircraft
6. Buildings and houses
7. Cement
8. Metals and glass
9. Iron and steel and chemistry
10. Palm oil
11. Food and beverage business
12. Agriculture
13. Clothing
14. Consumer goods
15. Real estate and land use
16. Services
17. Others

C-Type brown taxonomy includes the following sectors:

1. Electric power companies
2. Energy developers for fossil fuels such as oil and gas
3. Iron and steel manufacturing
4. Chemicals
5. Metals and processing
6. Cement
7. Ceramics and glass
8. Pulp or paper
9. Infrastructure related (e.g., railways, airplane-related, etc.)

Canada

The Canadian Standards Association (CSA) is developing a Canadian Transition Finance Taxonomy designed on the basis of the EU taxonomy; this document is due for publication in the second half of 2021.[44] The rationale of the Canadian taxonomy is to foster transition, mainly via transition bonds, to a lower carbon economy focusing on seven high emitting sectors:

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44   https://iiac.ca/wp-content/uploads/Taxonomy-Developments-and-Issuance-Potential-in-Canadian-Transition-Bond-Markets-in-2021_February-2021.pdf

1. Oil and gas
2. Utilities
3. Agriculture
4. Forestry
5. Transportation
6. Materials
7. Mineral mining

While a transition taxonomy enables carbon intensive sectors to access sustainable financing a significant greenwashing risk remains. For example, a number of transition bond transactions have been labelled with different transition activities definitions.[45] Thus, it is vital that green financial instruments i.e., transition bonds are designed in a robust manner and follow transition pathway guidelines: detailed corporate disclosure, consistent and uniform data measurement, agreed upon taxonomy and definitions.[46]

Furthermore, the development of transition bond taxonomy by the local Investment Industry Association is using as reference point the guidelines of the investment manager AXA, which are described as "similar to the well-established Green Bond Principles":

1. Use of proceeds: the proceeds must finance predefined climate aligned projects with transition related activities not limited to energy, transportation and heavy industry.
2. Process and for project evaluation and selection: investors must give a clear definition of what is an eligible investment, the eligibility criteria and process used for asset selection.
3. Management of proceeds: accountability that the proceeds are allocated to the designated purpose and that the use of proceeds is being tracked.
4. Reporting: transparency and availability of information on the use of proceeds and external certification through annual auditing.[47]

Although Canada's taxonomy may be voluntary, bond issuers are incentivised to take best-in-class approach in order to be eligible for transition bond finance and avoid reputational risk.[48]

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45   Ibid.
46   Ibid.
47   https://iiac.ca/wp-content/uploads/Taxonomy-Developments-and-Issuance-Potential-in-Canadian-Transition-Bond-Markets-in-2021_February-2021.pdf
48   https://www.responsible-investor.com/articles/canada-s-transition-angle-to-the-great-taxonomy-debate

Russia

State development corporation VEB.RF in collaboration with the Bank of Russia, the ministries, companies and experts are developing the Russian green finance system which will allow Russian companies to finance green projects mostly via loans in accordance with the national development goals of the Russian Federation, the SDGs, and the Paris agreement.[49]

The Russian green finance system[50] follows the Russian Green Finance Guidelines that take into account guidelines of other international organisations such as CBI, ICMA, and IDFC and are compliant with the OECD Guidelines for Multinational Enterprises.[51]

The current draft Guidelines outline:

1. The Russian national taxonomy for green projects,
2. Procedures for determining compliance of financial instruments with the Guidelines including:
    a. What is a green financial instrument and what is a green project?
    b. How to obtain green certification for a financial instrument
    c. How to become an approved verifier

The Russian national taxonomy for green projects aims towards environmental improvement, pollution reduction, greenhouse emissions reduction, energy efficiency enhancement and adaptation to climate change and is divided into nine categories:

1. Waste management and recycling
2. Energy
3. Construction
4. Industrial production
5. Transport
6. Water supply and wastewater disposal
7. Forestry
8. Conservation of natural landscapes and biodiversity
9. Information and communication technologies [52]

49   https://xn--90ab5f.xn--p1ai/en/sustainable-development/green-finance/
50   https://xn--90ab5f.xn--p1ai/files/?file=6c8da95d7f0ad3826ba1a01c9e18caee.pdf
51   https://xn--90ab5f.xn--p1ai/en/sustainable-development/green-finance/
52   Ibid.

South Africa

The National Treasury, together with the IFC (part of the World Bank Group), the National Business Initiative (NBI), and Carbon Trust and in partnership with SECO (Swiss State Secretariat for Economic Affairs) and Sida (Swedish International Development Corporation Agency), are developing the first national Green Finance Taxonomy for South Africa, currently circulated in a draft *Technical paper on Financing a Sustainable Economy* that contains the key recommendations of the National Treasury.[53] The South African government is to play instrumental role in maintaining the national taxonomy (Figure 3).[54]

Figure 3: First phase of the South African taxonomy output[55]

In the South African taxonomy, relevant economic activities should be seen as the interaction[56] of (i) economic activities contributing to climate change adaptation, (ii) economic activities contributing to climate change mitigation and (iii) other environmental impact objectives (Figure 4).[57]

53   http://sustainablefinanceinitiative.org.za/taxonomy-working-group-oct/
54   Ibid.
55   Ibid.
56   This interaction can be seen as similar to the connection between the six environmental goals of the EU's Green Taxonomy.
57   http://sustainablefinanceinitiative.org.za/taxonomy-working-group-oct/

Figure 4: The nexus of economic activities that are considered green in the South African taxonomy
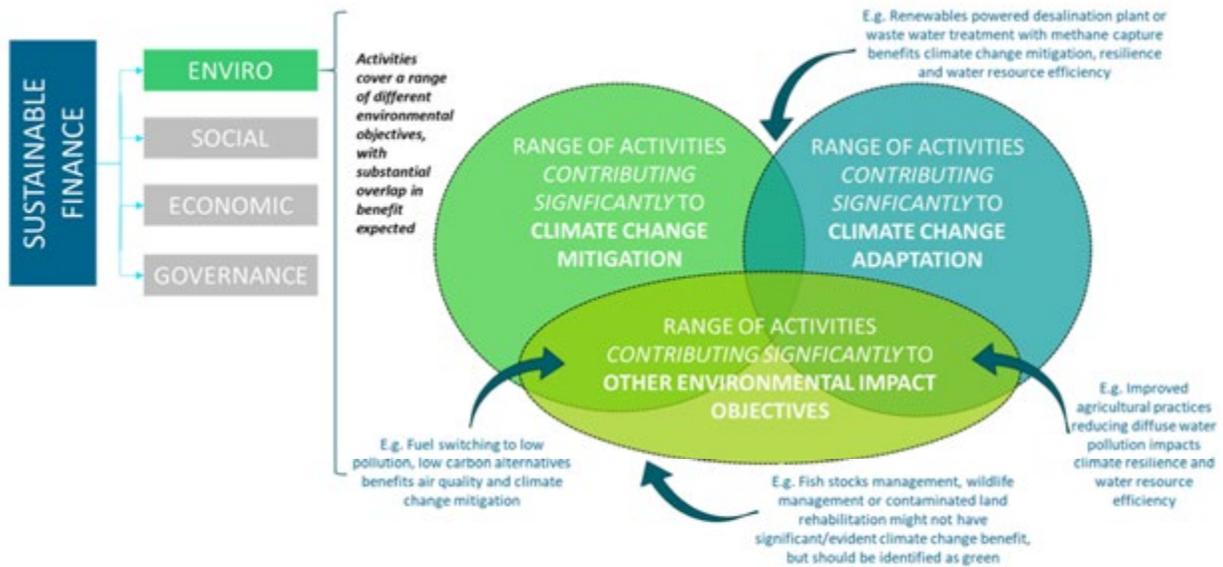
South Africa ratified the Paris Agreement in November 2016 and committed to a decline in emissions after 2036, when in 2019 the Carbon Tax Act (No 15 of 2019) came into effect. According to the Carbon Tax Act, large emitters should report GHG emissions and pay tax. Such climate policy measures can potentially lead to write-downs of loans and corporate investments involved in carbon intensive processes.[58]

Mexico

On October 12th, 2020, the collaboration between the Banking Association of Mexico (ABM) and the German Climate Change Alliance of the Deutsche Gesellschaft fur Internationale Zusammenarbeit (GIZ) GmbH has been announced for the development of the Mexican taxonomy.[59]

The Mexican taxonomy is a system that includes six elements: principles, criteria, methodologies, operational and governance mechanisms, reporting framework, and diffusion mechanisms. The beginning of the Mexican taxonomy is based on revision of current national and international taxonomic frameworks: international ones to understand the best practices (e.g. China, EU and CBI) and local ones to assimilate local needs and capacities. A Mexican taxonomy with scientific base and support from the EU could promote green recovery and mitigate physical and transitional climate risk for investors, hence increasing greenness in investors' portfolios.[60]

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58   Ibid.
59   https://iki-alliance.mx/en/why-is-it-important-to-have-a-green-financing-taxonomy-in-mexico/
60   Ibid.

c. G20 Members which announced the development of Dynamic Sustainable Classifications

The Indonesian Financial Services Authority (OJK) announced it would complete a green taxonomy during Phase II roadmap 2020-2024. The Indonesian green taxonomy includes economic activities and sectors that contribute towards climate change mitigation and climate change adaptation.[61]

The UK announced the implementation of a green taxonomy in order to obtain a common framework for sustainable economic activities and greener portfolios.[62] The UK taxonomy will adopt the metrics and thresholds of the EU taxonomy and UK Green Technical Advisory Group-the equivalent to the Commission's platform will be reviewing these metrics to ensure they are adequate for the UK market. However, the UK Green Technical Advisory Group will be based on experts and no industry representation as opposed to the Commission's process. The UK government argues that a transparent process and independence of corporate interests are key for developing robust metrics and green taxonomy thresholds.[63]

While many countries are making significant progress on developing or at least considering to develop a taxonomy, the Australian government is rather silent on the topic. Only recently, the private sector acted as a collaboration of 80 organisations forming the Australian Sustainable Finance Initiative (ASFI) published a Roadmap for a Sustainable Financial System in Australia that aims to establish a sustainable finance system. This Initiative expresses 37 recommendations on actions, actors and timelines for a net-zero Australian economy following environmental and social objectives in terms of the SDGs.[64]

The Roadmap expresses an effort for a national sustainable finance system that yet is lagging well behind international developments. For example, the Roadmap includes pre-2018 developments in the EU such as the Green Bond Standard, the EU taxonomy, adoption of legislative acts on disclosure and further mandated sustainable finance policies. Within the Roadmap the development of Australia's taxonomy is planned mid-way of the Initiative.[65] It would be important for Australia to take immediate action of the development of a national Australian taxonomy, learn from lessons of other countries and hence gain a seat on the international negotiations table.

61 https://www.salaamgateway.com/story/learning-from-mistakes-indonesia-moves-to-next-phase-of-sustainable-finance-roadmap
62 https://www.responsible-investor.com/articles/uk-green-taxonomy-what-we-should-learn-from-the-eu-taxonomy-and-how-the-uk-can-create-a-race-to-the-top
63 Ibid.
64 Ibid.
65 Ibid.

d. Other G20 members

Other G20 countries such as Argentina, Brazil, Saudi Arabia, South Korea, Turkey, and USA do not have national dynamic sustainability classification systems yet. However, South Korea's Green New Deal commits to green infrastructure, the industrial sector and renewable energy, promising millions in subsidies for electric and hydrogen fuel-cell electric cars.[66] Within the Korean Green New Deal, a Korean taxonomy is expected to be developed, mirroring the EU taxonomy.[67]

e. Selected other institutions

Climate Bonds Initiative (CBI) taxonomy

The CBI taxonomy is a guide for climate-aligned assets and projects and is mandatory for certified climate bonds. It was the first private led sustainability related taxonomy and as such has influenced various other initiatives worldwide.[68] The CBI identifies eight categories: energy, transport, water, buildings, land use and marine resources, industry, waste and ICT. Specifically, the CBI considers GHG criteria and other relevant criteria aligned with a two degrees Celsius Paris Agreement target . The CBI working group follows the latest science from IPCC (Intergovernmental Panel on Climate Change) and International Energy Agency (IEA) in order to provide climate-aligned criteria to green or climate investors, issuers, municipalities and governments. The CBI working group is also further developing the Climate Bonds Standard and Certification Scheme.[69]

International Energy Agency (IEA)

While the IEA has not proposed a formal classification system, its recent work is noteworthy for its dynamic nature and could easily be converted into a dynamic sustainability classification system that excludes so called brown activities from consideration at certain points in time (Figure 5). The IEA notes that as of April 2021 44 countries have made a commitment for a net-zero emissions target by 2050; accounting for 70% of emissions and GDP. Out of a total of 44 countries with a net zero 2050 pledge, only 10 countries made their net zero target a legal obligation,

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66   https://www.undp.org/blogs/south-koreas-green-new-deal-year-transition
67   https://www.researchgate.net/publication/347432588_Green_New_Deal_Policy_of_South_Korea_Policy_Innovation_for_a_Sustainability_Transition
68   Buy side ESG rating agencies have been developing private led taxonomy scoring system based on especially the EU Green Taxonomy to supply their clients with data. These are not taxonomies themselves (i.e. no new classifications are created) but instead represent the scaling of existing taxonomy schemes towards thousands of relevant investee companies.
69   Ibid.

8 countries are considering to make a net zero legal obligation and the remaining countries have made net zero pledges in official policy documents.[70]

On a corporate level, as of February 2021, approximately 110 companies announced a net zero 2050 commitment. Specifically, out of 110 companies, 60-70% account for global production of heating and cooling equipment, road vehicles, electricity and cement, 60% in the technology sector, 30-40% of air and shipping operations, 15% of transport logistics and 10% of construction.[71]

In this direction, IEA released a report in May 2021 entitled *Net Zero by 2050-A Roadmap for the Global Energy Sector*, where it states that for a transition to a net zero economy by 2050 global sectoral milestones for policies, infrastructure and technology deployment are needed. Thus, a global sectoral and simultaneous effort is needed to reduce emissions to net-zero by 2050. If any sector is a laggard, it may be impossible to substitute for the reduction in emissions elsewhere. In essence, getting to net zero emissions requires efforts from all levels of government, all countries, and particularly those affected by the transition to a net-zero economy. Finally, it would be efficient to adopt a double and synchronous 'top-down' and 'bottom-up' approach of net zero 2050 targets. More precisely, it would be efficient for governments to adopt long-term net zero 2050 targets supported by short-term net zero 2050 targets and policy measures that set out the 2050 pathway, considering the country's unique starting conditions to deploy new infrastructure and technology.[72]

70   https://www.iea.org/reports/net-zero-by-2050
71   Ibid.
72   Ibid.

Figure 5: Global sectoral net zero 2050 milestones (measured in Gt of Co2).

Figure 5 — Global sectoral net zero 2050 milestones (Gt CO₂).

Legend: Buildings · Transport · Industry · Electricity and heat · Other
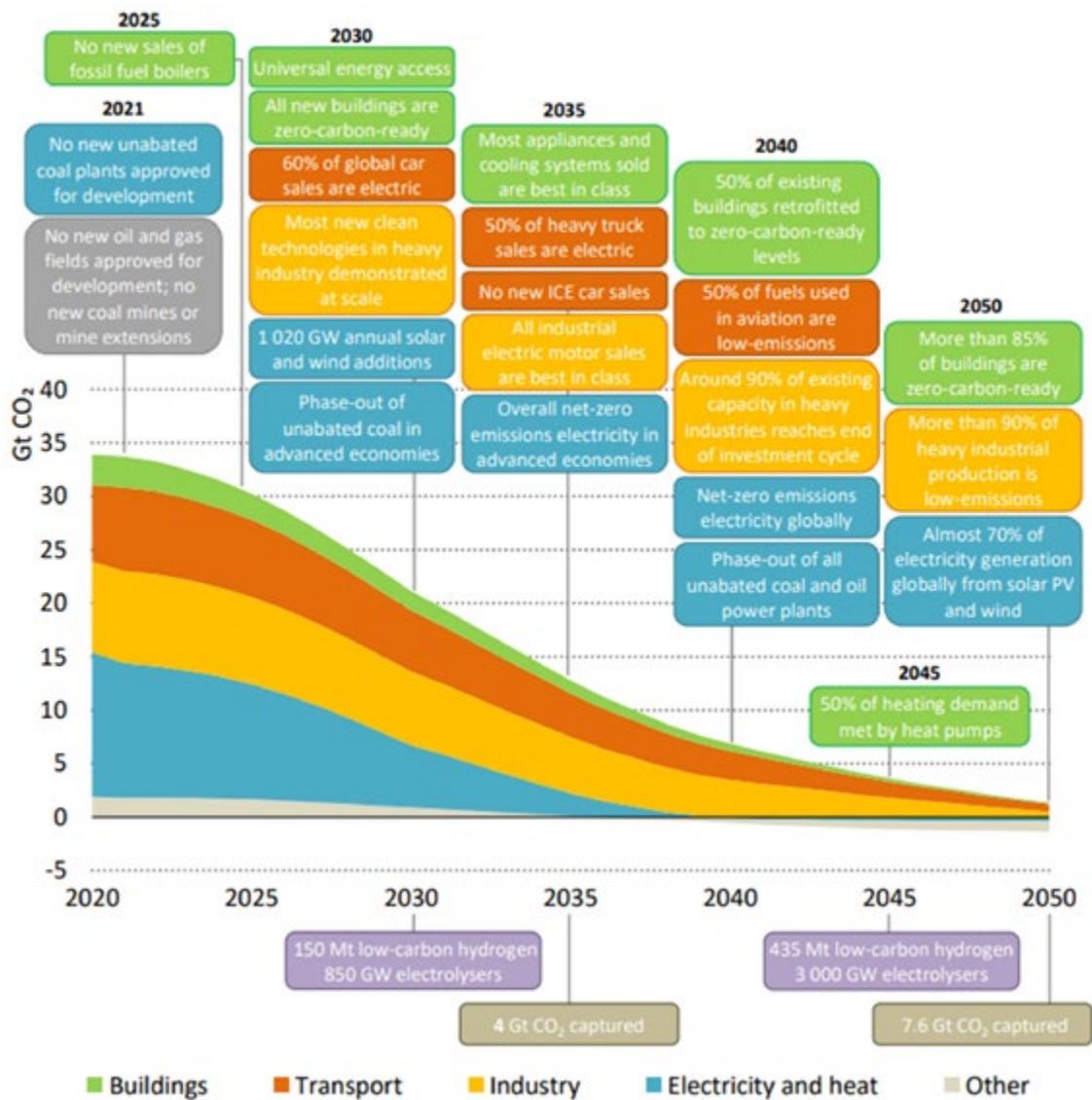
IPSF common taxonomy project

TThe IPSF working group is aiming to publish a common ground taxonomy by 2021 to analyse the commonalities among taxonomies within IPSF countries. This work will provide a reference point on what is commonly perceived as green, thus defining a cross-border sustainable finance definition for both investors and companies.[73] The common ground taxonomy will ultimately provide transparency in green investing and reduce transaction costs across jurisdictions.

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73   https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/international-platform-sustainable-finance_en

3. Building blocks of Dynamic Sustainability Classifications[74]

a. Environmental and social objectives linked to the SDGs

Sustainability classifications will naturally focus on one or multiple objectives of environmental and/or social nature. While some jurisdictions may prefer to focus their sustainability classifications purely on a single objective such as climate change mitigation, other jurisdictions will include multiple objectives such as the six environmental objectives emphasised by the European Union. The number and nature of the objectives is likely dependent on the extent of political agreement around the respective objectives and the ability of scientists to provide a selected, interoperable metrics such as CO_2e emissions based on Global Warming Potential (GWP) 100 translations in case of the climate change mitigation objective. With respect to the SDGs, fortunately political agreement is already achieved. This means that only the selected interoperable metrics need to be identified. While many SDGs may not be fairly representable with a single metric, an array of selected metrics should be achievable, whereby sector-specific guidance can be taken from the work of the UN's Global Investors for Sustainable Development (GISD) Alliance and UN DESA.

b. Advancing balances

Sustainability is inherently a dynamic concept which evolves in reflection of advances in sciences and planetary realities in terms of degradation of nature and/or societal goodwill. Hence, any sustainability classification which defines thresholds in a given year and leaves them static even for just a few years risks the thresholds to morph from enables to obstacles of sustainable development. As a consequence, it is paramount for sustainability classifications to be designed dynamically with advancing threshold balances that enhance the situation (bi)annually. Where-

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74   This section is based on knowledge and years of experience working with the EU Technical Expert Group/Platform for Sustainable Finance and IPCC.

ever relevant scientific insights are available, the degree of (bi)annual enhancements should be predictable for economic actors to simplify business development.

c. Financial products

Dynamic sustainability classifications of various types of entities (e.g., activities, legal entities, corporations, projects etc.) are intended to inform and direct the flow of capital to enhance the effectiveness of capital allocation in favour of sustainable development. This ambition requires dynamic sustainability classifications to be equivalently usable with respect to each relevant financial product. To ensure equivalent usability the classification methodology should be seamlessly applicable within a sufficiently advanced data science infrastructure to any financial product relating to relevant entities regardless of origination process, asset class, maturity etc. For instance, financial products under Article 8 and 9 of the SFDR can originate from a variety of asset classes, which have diverging impact on achieving the SDGs. In the 'listed equities' asset class, most transactions are of 'secondary market' style, meaning that cash only changes hands between investors but no fresh cash reaches the right or wrong companies. In the 'listed fixed income' asset class, however, many transactions are of 'primary market' style, meaning that investors can hand over fresh cash to companies whose activities foster the SDGs but also to companies, e.g. in the fossil fuel sector, whose activities harm the achievement of SDGs. In conclusion: dynamic sustainability classifications do not only have to be applicable for the 'common' listed equities asset class, but expected for asset classes with many primary transactions such as listed fixed income.

d. Planning horizons

Investment planning horizons differ across corporations, legal entities, activities and project. In some lines of business, capital expenditures can enhance the sustainability of business processes within twelve months. In other lines of business, however, even reaching individual milestones of a business process sustainability enhancement can take multiple years. Hence, dynamic sustainability classifications need to employ a planning horizon which allows the vast majority of business lines to at least reach capital expenditure milestones. In other words, if dynamic sustainability classifications would expect each activity to achieve sustainability results in just one year, some activities would inherently struggle, as they operate on up to five-year time schedules.

e. Existing activity/entity classifications

Dynamic sustainability classifications can apply to various types of entities including activities,

legal entities, corporations and so on. This means that they will inevitably co-exist with existing activity/entity classification schemes. Such co-existence can be beneficial if the existing classification schemes are regularly updated to reflect economic and societal developments but it can also be confusing in case existing classifications schemes are rather stale and thereby reinforcing the past as NACE or Standard Industrial Classification (SIC) tend to be. Furthermore, any sustainability related classification scheme should avoid subject self-classification to pre-empt greenwashing, another challenge of the classification systems currently applied by most governments. An example of a positive recent development is the Sustainable Industry Classification of SASB, which views activities from a 21st century sustainability classification and does not permit corporate self-classification. It does, however, force one company into a single activity and would benefit from allowing its classification system to reflect the reality that most (multinational) companies trade along multiple activities.

f. Sustainability assessment by financially independent third party

To remain unbiased, any form of classification has to be conducted by an organisation, which is financially independent of the classified subject (i.e. does not receive a payment from the classified subject which could bias its judgement). This imperative of financial independence is particularly important when the subject matter is of particular interest to corporate marketing and public relations teams as in the case of sustainability. Currently, financial independence is practiced by those ESG rating agencies which signed the Deep Data Delivery Standards (www. deepdata.ai) but it is lacking in many other assessment roles. For instance, credit ratings naturally cluster because companies simply have no financial incentive to pay for an additional rating that makes them look worse than the previous one they received.

g. Sustainability verification

Similarly, sustainability verification needs to remain financially independent of the classified subject to represent unbiased information. In this sense, asset managers may ask buy side rating agencies or consultant to support their research on dynamic sustainability classifications without biasing the outcome. Companies, however, do not materially reduce the bias in sustainability self-assessments by paying for the services of an auditor or consultant. In other words, while buy-side ESG ratings show a healthy deviation reflecting the natural difference in views between various financially independent assessors, auditors, in theory, have two choices as to their view on corporate (financial or sustainability) accounts but in practice arrive at the same view—the one that is beneficial for their client company—in well over 99% of the cases.[75]

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75   See, for instance, the extremely low number of times auditors actually qualify accounts in respective industry databases such as MSCI.

h. Precautionary principles

When assessing the sustainability of subjects, financially independent third parties will have to make estimations in case subjects do not report relevant information at all or report it in a manner that is not deemed sufficiently trustworthy. To avoid being fooled by greenwashing or SDG-washing, these estimations should be based on the Precautionary Principle. The Precautionary Principle states that the assessor should, when in doubt, err on the side of the planet and the environment, not on the side of the assessed subject.[76]

i. Anti-greenwashing and SDG-washing provisions for societal trust building

To build societal trust and mitigate greenwashing and SDG washing concerns, jurisdictions are furthermore advised to develop their dynamic sustainability classifications with teams of experts that are financially independent from the assessed subjects. These experts can include asset managers or asset owners, academics, civil servants as well as bankers and NGOs in case delegates from these latter two categories are not funded by the assessed corporations.

j. Interoperability from the activity versus the KPI perspective

Establishing interoperability between international dynamic sustainability classifications can be attempted from two perspectives: the activity and the KPI perspective. While an activity perspective is appealing for sustainability classifications within one jurisdiction, it has drawbacks for international interoperability between jurisdictions, as these tend to have diverging activity/ sector classifications and, more importantly, differ in their existing activity legislation. Notably, the minimum requirements for the execution of activities to be conducted without significant harm for society can differ even between jurisdictions with similar ambition levels. For instance, while the EU and the USA have similar ambition levels of consumer protection, the US has much larger punitive damages to discourage violations while the EU approach is more rules based as evident in the famous 'chlorinated chicken'.[77] In an illustration of the challenges of diverging minimum activity execution safeguards between jurisdictions, the EU has itself suggested on July 6th 2021 that do no significant harm criteria may be estimated using alternative KPIs when applied to firms operating in foreign jurisdictions.[78]

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76   The precautionary principle is featured as principle 15 in the UN's 1992 Rio Declaration on Environment and Development.
77   https://www.thegrocer.co.uk/food-safety/chlorinated-chicken-explained-why-do-the-americans-treat-their-poultry-with-chlorine/555618.article
78   https://ec.europa.eu/finance/docs/level-2-measures/taxonomy-regulation-delegated-act-2021-4987_en.pdf

In contrast, looking at dynamic sustainability classifications from a KPI perspective puts the science into the centre court. Since climate science is a global discipline without substantial national flavours, KPIs such as CO_2e/KWh have the same interpretation anywhere. This means that jurisdictions can seamlessly share scientific KPIs to dynamically classify activities on their sustainability characteristics and allow individual (developing) countries to opt out contextually and temporarily. Famous examples of internationally interoperated agreements which use a KPI perspective instead of an activity perspective are the Paris Agreement focusing primarliy on CO_2e and the United Nations' SDGs.

4. Investor expectations[79]

a. Science as basis

Investors integrating the SDGs into their investment processes expect dynamic sustainability classifications to be science based in an equivalent manner as the SDGs themselves are. This implies that scientists represent a considerable portion of the expert team developing the dynamic sustainability classification. Furthermore, all arguments should be scientifically defensible. While the need to form political majorities in some jurisdictions may lead to science-based classification criteria being ignored or postponed, politicians without sufficient scientific expertise are well advised to refrain from drafting classification criteria themselves.

b. Meaningful narrative

Dynamically enhancing thresholds (i.e., no preservation of status quo)

Asset managers expect to continuously report sustainability achievements to their stakeholders, especially if these stakeholders are institutional asset owners such as pension funds, insurances or endowments. Asset owners themselves likewise expect to report sustainability process to their pension members and customers. Consequently, investors expect dynamic sustainability classifications also to have continuously enhancing thresholds to achieve and report regular progress. For instance, gender diversity metrics relevant to SDG5 are expected to increase to equity year by year.

Conflict-of-interest-free

Investors are keenly aware that a lot of information communicated to them is financially conflict-

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ed in its interest, as investee firms have financed the information generation directly or indirectly through third parties. Hence, if governments aim to develop dynamic sustainability classifications which investors trust, it is key to ensure the financial independence of the classification development from the investee firms.

Impact

More generally, investors expect dynamic sustainability classifications to have a positive impact on societal trust and environmental sustainability. This impact should be additional to existing policy initiatives. Similarly, investors expect policy makers to display intentionality and political will in designing dynamic sustainability classifications.

c. Usability

Predictability political process

During the development of the dynamic sustainability classification, investors as well as other market participants face some political uncertainty. Uncertainty manifests itself for investors in a lack of predictability which is detrimental to seamless investment decision making. While some level of residual uncertainty is inevitable in policy makers, investors would appreciate policy makers to minimize the level of political process uncertainty in order to supply markets with the highest possible level of predictability.

Data availability

Investors rely on accurate and investable data to make decisions on the dynamic sustainability characteristics of investee assets. Many investors trust buy side service providers to supply this information while an increasing number of investors also develop in-house estimation capabilities. The main challenges for external data vendors or in house teams is to find information sources which are unfiltered from corporations and hence can be used as fair and independent basis for a balanced assessment of corporations' performance on sustainable taxonomies. Such unfiltered information sources can be (quasi) governmental sources such as SEC filings, EPA data or the EU ETS transaction logs. Furthermore, modern financial data science can source various digital data sources such as customer or employee reviews, media or NGO perspectives or social media activities.

In addition to these unfiltered data sources external vendors and in-house teams can obviously also use data self-reported by the corporation. In case such data has not been audited by a financially independent (i.e. not compensated) party, however, it is necessary to reflect on correcting the data for potential biases arising from the financial conflicts of interest of the reporting party. Such adjustment for biases as well as omissions of desired SDG information in corporate reporting require estimations. Since such estimations are inevitable for service providers and investors alike, following the precautionary principle offers a robust framework for these estimations and ensure that at least the availability of estimated data is sufficient.

Data timeliness and traceability

The quality of estimated data depends on the extent, timeliness and quality of disclosure by investee assets. In principle, the estimating data scientists can calibrate their model to "learn" from the advanced half of the investee firm universe and thereby raise the quality bar for all firms. For instance, if only 40% of firms disclose specific sustainability information accurately, an estimation model based on the precautionary principle can make reasonable estimations for the remaining 60% which disclosed inaccurate or not at all. However, in aspects where the vast majority of investee firms follow an unfortunate practice, data scientists struggle to raise the quality bar and need support from regulators. Two crucial aspects in this regard are timeliness and traceability. To date, very few firms disclose sustainability information within a fixed limit of days following the end of the reporting year as they do for financial information. Similarly, the notes on sustainability reports are much less detailed than for financial reports and hence do not allow much traceability of the sources of a change in performance.

d. Contextuality

Investors are used to lower their expectations in specific contexts, particularly in developing regions where routinely weaknesses in aspects such as governance are traded off against higher return and/or impact expectations. In this sense, investors are likely to tolerate considerations made in dynamic sustainability classifications for developing regions. Investors have recently, however, made substantial advances in data science and do not necessarily equate the developing status with jurisdictions. For example, financial centres of some so-called developing countries maybe displaying a much stronger performance in terms of digital connectivity, macroeconomics or social mobility in their capital regions than counties in so called developed countries which have seen decades of industrial decline.

5. Political fault lines[80]

a. Sectors against each other

When designed dynamic sustainability classification schemes, several political fault lines can prove considerable obstacles if not properly managed. Most notably, perhaps, sustainability considerations quite often result in diverging sector guidance unless the metrics used to measure sustainability performance are applicable to all sectors in an equivalent manner as, for instance, CO_2e does. If every (group of) sector(s) is assessed on its unique set of metrics, those organisations representing the respective sector interest will quasi invariably campaign for its sector to receive lighter legislation arguing that it is treated unfairly with regard to other sectors. Likely, the vast majority of sector interest organisations will claim that they were treated unfairly simply because the fundraising of their organisations depends on creating the impression to their member firms that they reduce legislative burden. Consequently, using sector specific metrics for dynamic sustainability classifications will multiply the number of potential political fault lines by at best the number of metrics at worst the relationships between the sectors.

b. Disagreements between countries due to diverging sector exposures

When considering the intergovernmental interoperability of dynamic sustainability classifications, the focus on metrics applicable to all sectors becomes even more relevant, as any signs of preferential treatments of specific sectors translate into preferential treatment of those jurisdictions with higher exposure to the respective sectors. Consequently, while sector specific metrics firstly multiply the number of potential political fault lines due to campaigning from sector interest groups, the number of potential political fault lines grows exponentially when considering that jurisdictions have organically grown differentials in sector exposure. In short: any signs of potential sector biases in the dynamic sustainability classification will inevitably be

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80   This section is based on knowledge and years of experience working with the EU Technical Expert Group / Platform for Sustainable Finance and IPCC.

interpreted as country biases and result in substantial political fault lines when aiming to agree the intergovernmental interoperability of the classification systems.

c. Buy-side versus sell-side in financial markets

Sell side participants of financial markets have obvious financial conflicts of interest in assessing the sustainability performance of their activities of sector and will hence campaign for sector specific metrics or other legislative means (e.g., delays) that would benefit their sector potentially more than other sectors. Consequently, including sell-side participants into the development of the dynamic sustainability classification is not only likely to result in bias but also risks to generate potential political fault lines between the sectors and thereby eventually the jurisdictions. In contrast, buy-side financial market participants (e.g., asset managers, asset owners, insurances) usually invest across all sectors and hence tend to be comfortable for metrics applicable to all sectors.

d. Current versus future generations

Potential political fault lines when developing dynamic sustainability classifications can also result from diverging intergenerational interests. If the team of experts' tasks with the classification development does not comprise sufficient representation of all generations eligible to vote, entire birth cohorts may feel that they are treated unfairly. For instance, the youngest generation of voters successfully sued the German government for climate legislation which in their view insufficiently protected the quality of life for those with a remaining life expectancy beyond 50 years.

e. Intentions versus actions versus results

Dynamic sustainability classifications are furthermore well advised to differentiate between intentions and actions. With a subject as long term focused as most sustainability goals, it is tempting to settle for suitable long-term intentions but overlook that near-term actions are required to actually achieve these intentions. The performance resulting from such actions also needs to be tracked to ensure that the milestone results are in line with the long-term ambition. Given the sustainability challenges faced by nations globally to date, organisations and activity need to be assessed as much on their sustainability track record as on their financial track record. While the sustainability track record needs to consider sufficiently long planning horizons so all types or organisations and activities can respond, it needs to have (bi)annual milestone assessments to ensure that intentions translate into actions which deliver results.

6. Common principles for Dynamic Sustainability Classifications

a. The case of SDG 13

Based on the reasoning above, we propose 7 Principles for Dynamic Sustainability Classification for SDG 13: Climate Action.

Principle 1: Organisation can be considered sustainable, if they reduce the sum of their Scope 1, 2 and 3 CO_2e emissions[81] by at least 7% on average per annum over a 7-year reporting period.[82]

Principle 2: The required reduction in CO_2e emissions needs to be dynamically adjusted every 7 years to align with the best available science as published by the Intergovernmental Panel on Climate Change (IPCC).[83]

Principle 3: Relevant organisational data should be verified or estimated by a financially independent third party based on precautionary principles (e.g., United Nations Rio Summit 1992) and with modern technology (e.g., satellite assessing plausibility of offsetting).[84]

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81   Greenhouse gas emissions have to be aggregated to CO2-equivalent (CO_2e) emissions by multiplying emissions of individual greenhouse gases with their respective Global Warming Potential over a 100 year period (GWP-100), with values taken from the most recent assessment by the Intergovernmental Panel on Climate Change (IPCC).

82   If organisations reduce the sum of their Scope 1, 2, and 3 CO_2e emissions at a rate smaller than 7% but their emissions reductions represent a switch from increasing to decreasing emissions relative to their previous 7 year period they can be considered, for a single 7 year period, to undergo "transition-to-pathway". While Scope 1 emissions cluster activities at the organizational level and Scope 2 emissions cluster organisations at the national/regional level, Scope 3 CO_2e emissions unite a multitude of jurisdiction on a common cause as they share a common global value chain. Hence, it is furthermore crucial to consider upstream and downstream Scope 3 emissions as a union to unite countries whose industries tend to sit at different ends of the value chain.

83   Historically, IPCC reports have followed about a 6 to 7 year cycle although this frequency is at the discretion of the IPCC.

84   In case of a new venture, commercial or non-commercial, the reduction pathway needs to start from a precautionary principle-based baseline estimate for the first period.

Principle 4: Dynamic Sustainability Classifications should be focused on the value add to society and the assessor (e.g., investor) instead of the value add to the assessee (e.g., issuer) to pre-empt SDG washing (e.g., greenwashing).

Principle 5: Dynamic Sustainability Classifications should be entity agnostic and sustainability classification estimation procedures should be available for a wide range of entities such as legal entities, activities, projects, public organisations, private corporations etc. regardless of these conducting commercial or non-commercial activities.

Principle 6: Dynamic Sustainability Classifications should be sector agnostic to avoid dissent between jurisdictions with divergent sector exposures and thereby facilitate intergovernmental collaboration and interoperability of the dynamic sustainability classifications themselves.

Principle 7: Organisations whose Scope 1 CO_2e emissions are located in regions across all types of jurisdictions which can be considered developing as opposed to developed shall be considered sustainable if they reduce CO_2e emissions to the extent that they belong to the best 7% of CO_2e emission reducing organisations within their developing region.[85]

b. The case of SDG 5

While SDG 13 is measured in terms of CO_2e, a key performance measure that we wish to decrease, equivalent principles can also be applied to an SDG which can be summarised with a performance measure the global community wishes to increase. As such as example, one can focus on the percentage of females among top executives, a key performance indicator which we label executive gender diversity. For SDG 5 'Gender Equality' and this intuitive key performance indicator, the principles would read as follows:

Principle 1: Organisation can be considered sustainable, if they increase the percentage of female top executives[86] by at least 7% percentage points on average per annum over a 7-year reporting period until it reaches a natural divergence margin around 50%.[87]

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85 In contrast, organisations located in developed regions which can shoulder a larger burden of CO_2e emissions reductions (e.g. forestry) are encouraged to display global sustainability leadership.

86 Executives are defined as those employees which organisation report as their leaders in regulatory filings (e.g. to the SEC or equivalent) or in the annual financial reports. Executives normally include Chief Executive Officer (CEO), Chief Financial Officer (CFO), Chief Operating Officer (COO) and several other C-suite roles as well as top executives of the most relevant organisational units. Additional metrics could be, for instance, gender diversity on boards, gender diversity among the workforce or gender diversity among contractors.

87 The size of the natural divergence margin depends on the number of executives and the percentage of female employees in the respective organisation. The natural divergence margin is in most cases not expected to exceed 10%.

Principle 2: The required enhancement executive gender diversity needs to be dynamically adjusted after 7 years should organisations fail to reach the natural divergence margin within the first 7-year period.

Principle 3: Relevant organisational data (e.g., a reasonable definition of executives) should be verified or estimated by a financially independent third party based on precautionary principles (e.g., United Nations Rio Summit 1992).

Principle 4: Dynamic Sustainability Classifications should be focused on the value add to society and the assessor (e.g., investor) instead of the value add to the assessee (e.g., issuer) to pre-empt SDG washing (e.g., greenwashing).

Principle 5: Dynamic Sustainability Classifications should be entity agnostic and sustainability classification estimation procedures should be available for a wide range of entities such as legal entities, activities, projects, public organisations, private corporations etc. regardless of these conducting commercial or non-commercial activities.

Principle 6: Dynamic Sustainability Classifications should be sector agnostic to avoid dissent between jurisdictions with divergent sector exposures and thereby facilitate intergovernmental collaboration and interoperability of the dynamic sustainability classifications themselves.

Principle 7: Organisations whose workforce are located in regions across all types of jurisdictions which can be considered developing as opposed to developed shall be considered sustainable if they enhance executive gender diversity to the extent that they belong to the best 7% diversity enhancing organisations within their developing region.

c. The sustainability KPI X

Based on the examples of SDG 13 and 5 in the previous sections, we can also develop general principles for any sustainability KPI, which we term X.

Principle 1: Organisation can be considered sustainable, if they increase/decrease sustainability KPI X with positive/negative polarity[88] by at least Y% percentage (points) on average per annum over a 7-year reporting period until it reaches Z.

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88   Positive polarity means that society desires the respective sustainability KPI to increase, while negative polarity means that society desires the respective sustainability KPI to decrease.

Principle 2: The required increase/reduction in sustainability KPI X needs to be dynamically adjusted every 7 years to align with the best available science.

Principle 3: Relevant organisational data on sustainability KPI X should be verified or estimated by a financially independent third party based on precautionary principles (e.g., United Nations Rio Summit 1992).

Principle 4: Dynamic Sustainability Classifications should be focused on the value add to society and the assessor (e.g., investor) instead of the value add to the assessee (e.g., issuer) to pre-empt sustainability washing (e.g., greenwashing).

Principle 5: Dynamic Sustainability Classifications should be entity agnostic and sustainability classification estimation procedures should be available for a wide range of entities such as legal entities, activities, projects, public organisations, private corporations etc. regardless of these conducting commercial or non-commercial activities.

Principle 6: Dynamic Sustainability Classifications should be sector agnostic to avoid dissent between jurisdictions with divergent sector exposures and thereby facilitate intergovernmental collaboration and interoperability of the dynamic sustainability classifications themselves.

Principle 7: Organisations whose workforce are located in regions across all types of jurisdictions which can be considered developing as opposed to developed shall be considered sustainable if they increase/decrease sustainability KPI X to the extent that they belong to the 7% best performing organisations within their developing region.

7. Concluding Thoughts on applicability to all 17 SDGs

Based on (i) all relevant building blocks for dynamic sustainability classifications, (ii) our understanding of investors' expectations for such classifications and (iii) political fault lines as we see them, we developed 7 common principles and apply these to two sustainable development goals. We apply these principles to SDG 13 'Climate Action' which is closely related to the sustainability classification exercises currently taking place in several G20 member states. To demonstrate that our principles are more generally applicable to any Sustainable Development Goal (SDG) as long as a key metric such as CO_2e can be identified, we also apply our principles to SDG 5 'Gender Equality'. For this purpose, we use the percentage of females among corporate top executive as the key measure, which we label executive gender diversity.

Hence, our principles offer opportunities for application across all 17 sustainable development goals based on two necessary conditions. First, the sustainable development goal (or subgoal) needs to be convergable on one common metric. Such conversion can either happen via translation factors such as GWP100 for CO_2e or due to a dominant narrative such as gender equity being applied to the realm where it matters most: corporate top executives. Second, a sufficient number of the assessed entities need to report some data on this common metric so that financially independent third parties can verify self-reported information and estimate the remaining information (e.g., unreported or low quality reported). While it is not a necessary condition, it is preferential to select (sub)goals and metrics for which at least a degree of political consensus exists within and beyond jurisdictions such as in case of gender equity.