# IOSCO Sustainable Bonds Report

FINAL REPORT

The Board of the
International Organization of Securities Commissions

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# Table of Contents

# Executive Summary

Since the issuance of the first green bond approximately 20 years ago, there has been increasing interest in sustainable finance and in the issuances of sustainable bonds. In 2024, the cumulative amount of green, social, sustainability, and sustainability-linked bonds surpassed USD 5.7 trillion.[1]

This report is the result of work completed by IOSCO, through the Sustainable Finance Taskforce[2], to identify the key characteristics and trends tied to the sustainable bond market and analyse the distinctive features of sustainable bond products compared to their "traditional" counterparts. IOSCO undertook this work to assist regulators to identify regulatory considerations that regulators can examine to address unique risks tied to this market.

To inform this report, IOSCO conducted research, undertook a literature review, carried out a member survey[3] in 2024 and engaged with its Affiliate Members Consultative Committee (AMCC)[4] to gain insight form market participants. IOSCO also organized a roundtable with the Organisation for Economic Co-operation and Development (OECD) on Sustainable Bonds during its 2024 Annual Meeting in Athens, Greece. The roundtable included representatives

[1] https://thedocs.worldbank.org/en/doc/dacb969cc71f53abde2d2758f1cc13ed-0340012024/original/GSSS-Quarterly-Newsletter-Issue-No-8.pdf

[2] The IOSCO Green Finance and Innovation Workstream (GFIWS), under the Sustainable Finance Taskforce, was mandated to look at green finance products starting with sustainable bonds. The GFIWS is led by staff from the Ontario Securities Commission and Financial Regulatory Authority of Egypt, with members from the staff of China Securities Regulatory Commission, Autorité des Marchés Financiers (France), Securities and Futures Commission (Hong Kong), Securities and Exchange Board of India (India), Securities Commission (Malaysia), Autorité Marocaine du Marché des Capitaux (Morocco), Monetary Authority of Singapore (Singapore), Comisión Nacional del Mercado de Valores (Spain), and Financial Conduct Authority (United Kingdom)

[3] The full list of survey respondents is provided in Annex 3. Some IOSCO members chose not to participate in this project and did not respond to the survey

[4] The AMCC is comprised of 74 IOSCO affiliate members, representing securities and derivatives markets and other market infrastructures, self-regulatory organizations (SROs), investor protection funds and compensation funds, as well as other bodies with appropriate interest in securities regulation. https://www.iosco.org/v2/about/?subsection=display_committee&cmtid=2

from the IOSCO Board, the OECD Director for Financial and Enterprise Affairs, members of the OECD Corporate Governance Committee, and an institutional investor representative from Federated Hermes.

The report includes background information on the historical evolution of the sustainable bond market and the development of applicable guidelines/standards, the characteristics of a wide range of sustainable bond types or labels, the unique risks identified in the sustainable bond market and the jurisdictional practices used by member jurisdictions to oversee the sustainable bond market and mitigate the risks identified. These practices include the adoption of specific regulatory frameworks applicable to sustainable bonds, disclosure requirements, market standardisation efforts and enhanced due diligence, external verification requirements, and self-regulation by the industry.

The report includes several key considerations, designed to address market challenges, including enhancing investor protection, ensuring sustainable bond markets are operating in a fair and efficient way, and improving accessibility. They are as follows:

| Sr. No | Key Consideration | Description |
|---|---|---|
| 1 | Greater Clarity in Regulatory Frameworks | More clarity in existing or new regulatory frameworks may be beneficial to demonstrate alignment with internationally accepted principles and standards, support consistency, build investor confidence, and support market participation. |
| 2 | Sustainable Bonds Classification | Establishing guiding principles or mapping systems aligned, where appropriate, with industry standards and other regulatory frameworks can help provide clarity and consistency across jurisdictions in categorizing bond types. |
| 3 | Enhancing Transparency and Ongoing Disclosure Requirements to Promote Public Accountability | Promote clear, consistent, and sufficiently comprehensive ongoing reporting on issuers' progress toward sustainability-related goals or sustainability performance targets (SPTs) in order to support market discipline when issuers |

| | | |
|---|---|---|
| | | fail to meet their stated sustainability commitments. |
| **4** | Promote the Use of Independent and Credible External Reviewers | Promote robust assessment and disclosure by external reviewers, including second-party opinion providers, with policies and procedures that ensure their independence and mitigate conflict of interest when conducting their work. |
| **5** | Capacity Building, Collaboration and Knowledge Sharing | To bridge the knowledge gaps within the market, capacity building and educational programs can increase awareness and understanding of sustainable bonds among issuers, investors, intermediaries and regulators. These programs can support the development of sustainable bond markets, ensuring that market participants are equipped with the necessary skills and knowledge to transact in the market effectively. Furthermore, establishing platforms for collaboration and knowledge sharing between regulators and market participants helps disseminate regulatory expectations, best practices and facilitate knowledge sharing. |

This report aims to provide a comprehensive analysis of the sustainable bond market and support the initiatives of our member jurisdictions in this area. IOSCO continues to examine other green finance products with this same objective in mind.

## Acronym list

**ACMF** – ASEAN Capital Markets Forum
**ADB** – Asian Development Bank
**AMCC** – Affiliate Members Consultative Committee
**ASEAN** – Association of Southeast Asian Nations
**ATFG** – ASEAN Transition Finance Guidance
**BAML** – Bank of America Merrill Lynch
**CBI** – Climate Bonds Initiative

**CTFH** – Climate Transition Finance Handbook
**DIBs** – Development Impact Bonds
**ECB** – European Central Bank
**EIB** – European Investment Bank
**ESG** – Environmental, Social and Governance
**ESMA** – European Securities and Markets Authority
**EU** – European Union
**EUGBSs** – European Green Bonds Standards
**FIG** – Financial Institutions Group
**GFIWS** – Green Finance and Innovation Workstream
**GFIT** – Green Finance Industry Taskforce
**GBPs** – Green Bonds Principles
**GBS** – Green Bonds Standards
**GHG** – Greenhouse Gases
**GIIN** – Global Impact Investing Network
**GICS** – Global Industry Classification Standard
**ICO** – Spanish Official Credit Institute / Instituto de Crédito Oficial
**ICMA** – International Capital Markets Association
**IFC** – International Finance Corporation
**JSE** – Johannesburg Stock Exchange
**MAS** – Monetary Authority of Singapore
**MBS** – Mortgage-Backed Securities
**MSCI** – Morgan Stanley Capital International
**NCAs** – National Competent Authorities
**NPO** – Non-Profit Organisations
**OECD** – Organisation for Economic Co-operation and Development
**PA** – Paris Agreement
**SBGs** – Sustainable Bonds Guidelines
**SBGS** – Sustainable Bond Grant Scheme
**SBPs** – Social Bonds Principles
**SBN** – Sustainable Banking Network
**S&P** – Standards & Poor's
**SEB** – Skandinaviska Enskilda Banken
**SLB** – Sustainability-Linked Bonds
**SLL** – Sustainability Linked Loans
**SLLB** – Sustainability-Linked Loans Financing Bond
**SLW** – Sukuk-linked Waqf
**SMEs** – Small and Medium Size Enterprises
**SPTs** – Sustainability Performance Targets
**SSAs** – Sovereign, Supranational, and Agency
**UNDP** – United Nations Development Programme
**UN SDGs** – United Nations Sustainable Development Goals
**ZCZP** – Zero Coupon Zero Principal Instrument

# Chapter 1. Introduction

Since 2024, IOSCO has intensified efforts to understand and analyse the sustainable bond market; with a focus on identifying the state of play, recent developments, unique risks, existing standards and guidelines, and existing regulatory frameworks applicable to sustainable bonds globally. IOSCO's aim is to consider whether the development of the sustainable bond market is creating new market risks that could impact IOSCO's objectives; namely enhancing investor protection, including through appropriate disclosures to investors, and ensuring sustainable bond markets are operating in a fair and efficient manner.

As part of this exercise, IOSCO, together with the OECD, organized a roundtable on sustainable bonds during IOSCO's 2024 Annual Meeting in Athens, Greece. The roundtable was open to all Ordinary and Associate IOSCO members, with the goal of discussing sustainable bonds, including varying definitions, characteristics of different types of sustainable bonds and the regulatory frameworks that may apply to them across jurisdictions.

In addition, IOSCO carried out a survey of its member jurisdictions to gain further insights from its members on the development of sustainable bond markets around the world and understand any geographic differences. The survey looked at 6 themes, namely:

- Definitions and taxonomies;
- Risks and vulnerabilities;
- Regulatory framework applicable to the sustainable bond market;
- Disclosure requirements;
- Market environment, including factors that support and discourage issuances; and
- Capacity building and technical assistance programs available in IOSCO member jurisdiction to support the development and regulation of the sustainable bond market.

42 IOSCO members responded to the survey. IOSCO's AMCC, in particular the International Capital Markets Association (ICMA), also provided insights and data that have been referenced in this report, notably with regards to data on historical market developments and evolution, as well as emerging trends in this space.

# Chapter 2. Overview of Sustainable Bonds

Sustainable bond markets have emerged as an important mechanism for achieving global environmental and social objectives. These markets are characterized by the issuance of bonds to finance projects, initiatives or companies [5] that contribute to environmental, sustainability and/or social responsibility or that have financial and/or structural characteristics linked to sustainability.

The chart below identifies historical developments that have occurred in the sustainable bond market over the past two decades. This chapter also outlines the characteristics of different types/labels of sustainable bonds.[6]

[5] Sustainability-Linked Bonds (SLBs) are typically used for general corporate purpose financing and hence can be used to finance a range of corporate expenditure, and not just specific projects or initiatives.
[6] Additional details on the history and evolution of sustainable bond markets are provided in Annex 1.

# Key Milestones in Sustainable Bond Market

**2007**
European Investment Bank (EIB) First Green Bond
Issued the "Climate Awareness Bond"

**2008**
World Bank Green Bond
Launched with Skandinaviska Enskilda Banken (SEB)

**2012**
Climate Bonds Standard and Certification Scheme
Climate Bonds Initiative creates voluntary labelling scheme

**2014**
ICMA's Green Bond Principles (GBPs) and Launch of Indices
GBPs become voluntary standard for issuance of green bonds; Barclays, Morgan Stanley Capital International (MSCI), Standards & Poors (S&P), Solactive and Bank of America Merrill Lynch (BAML) launch indices

**2015**
First Social Bond Issuance
Issued by Spanish Official Credit Institute (ICO)

**2017**
ICMA's Social Bond Principles (SBPs) & Sustainable Bond Guidelines (SBGs) & the Association of Southeast Asian Nations (ASEAN) Green Bond Standards (GBSs)
First voluntary standard for social bond issuance and first SBGs

**2020**
Sustainability-Linked Bonds (SLBs)
ICMA introduces Sustainability Linked Bond Principles (SLBPs)

**2022**
ASEAN Sustainability-Linked Standards
Tailored guidance for regional issuers

**2023**
European Green Bond Standards (EUGBS)
EU green bond framework

Sustainable bonds can be classified based on their funding mechanism or their label. From a funding perspective, they fall into two main categories: "use-of-proceeds" (UoPs) bonds where funds are allocated to specific environmental or social projects, and "sustainability-linked bonds" (SLBs), which tie financial incentives to the issuer's achievement of predefined sustainability targets. Labels further distinguish these instruments based on their purpose. The sections below further describes those two types of classifications in greater detail.

## Sustainable Bonds Classification based on funding mechanism: Use-of-proceeds bonds & Sustainability-linked bonds

**Use-of-proceeds bonds:** UoPs are a debt issue whose proceeds are earmarked for a particular purpose aimed at achieving green and/or social objective. UoPs are different from traditional bonds because their proceeds are exclusively allocated to these purposes and cannot be used for other ones.[7]

**Sustainability-linked bonds:** SLBs are forward-looking performance-based financial products. Unlike UoPs bonds, SLBs are not tied to specific projects but rather to the issuer's ability to meet predefined sustainability targets. These types of bonds provide flexibility in the allocation of proceeds, while linking financial terms to measurable outcomes such as reducing greenhouse gas

[7] Except in exceptional circumstances, such as under the 15% flexibility pocket of the EUGBS. All proceeds of European green bonds will need to be invested in economic activities that are aligned with the EU taxonomy for environmentally sustainable activities, provided the sectors concerned are already covered by it. For those sectors not yet covered by the EU taxonomy and for certain very specific activities there will be a flexibility pocket of 15%. This is to ensure the usability of the EUGBS from the start of its existence. The use and the need for this flexibility pocket will be re-evaluated as Europe's transition towards climate neutrality progresses and with the increasing number of attractive and green investment opportunities that are expected to become available in the coming years. https://www.consilium.europa.eu/en/press/press-releases/2023/10/24/european-green-bonds-council-adopts-new-regulation-to-promote-sustainable-finance/

emissions or increasing renewable energy capacity. The proceeds of SLBs are usually intended to be used for general purposes.[8]

## Characteristics of UoPs bonds, SLBs and Traditional Bonds

Traditional bonds are debt instruments issued by companies or governments, obligating them to repay the principal amount of the bond along with interest. Key features include par value (redemption value), coupon/interest rate, and maturity period. Bonds can be unsecured, with claims on general assets, or secured, benefiting from claims to specific assets, credit enhancements, or protective covenants.[9]

Bonds typically pay a coupon tied to a fixed interest rate, though some offer floating rates tied to a reference rate. In the case of zero-coupon bonds interest is replaced by a discounted purchase price. Maturity periods range from one year to over 30 years. Additional features may include call provisions, embedded options, or conversion rights. Convertible bonds provide the possibility to exchange the bond for equity in the issuer. Corporate bonds may be publicly or privately offered.[10]

Sustainable bond financing requires a specific strategic approach as it incorporates features beyond those of traditional bond financing. These features include a specific set of assets/projects that may be eligible, a structured process for project evaluation and selection, and comprehensive reporting requirements, among others.[11]

Key differences between UoPs bonds, SLBs and traditional bonds are outlined in the table below:

[8] OECD (2023), *Report on green, social and sustainability bonds issued by multilateral development banks and its use for infrastructure financing*, https://one.oecd.org/document/DAF/CMF/AS(2023)3/REV2/en/pdf

[9] https://www.iosco.org/library/pubdocs/pdf/ioscopd168.pdf

[10] Ibidem

[11] Green Bond Handbook: A Step-By-Step Guide to Issuing a Green Bond

**Table 2.** Characteristics of UoPs bonds vs. SLBs vs. Traditional Bonds[12]

| Category | Traditional Bonds | UoP Bonds | SLBs |
|---|---|---|---|
| **Pre-Issuance** | | | |
| Proposal and Planning | Focuses on general funding needs without specific project allocation. | Requires identification of eligible projects, scoping, and a project team to oversee compliance. | Requires identification of entity-level (or sovereign level, in the case of sovereign issuers) Key Performance Indicators (KPIs) and 'SPTs[13] for measuring performance. |
| Define Objectives and Eligibility | Not constrained to specific project categories. | Limited to eligible projects aligned with recognized global standards (e.g., ICMA GBPs, Climate Bonds Innitiative (CBI) Standard) or regulatory frameworks (e.g., EUGBS). | Not project-specific; focuses on company-wide (or sovereign, in the case of sovereign issuers) KPIs and SPTs. Should define material KPIs and ambitious SPTs. |
| Offer Documents | Prospectus or other offer documents outline bond terms, risks, and returns.[14] | In addition to a prospectus/offer documents, may require a | In addition to a prospectus/ offer document, may require a SLB Framework. |

[12] The table is primarily based on ICMA and CBI Standards while allowing enough flexibility to accommodate jurisdiction-specific requirements.

[13] Sustainability Performance Targets (SPTs) are measurable improvements in KPIs on to which issuers commit to a predefined timeline. https://www.icmagroup.org/assets/documents/Sustainable-finance/2023-updates/Sustainability-Linked-Bond-Principles-June-2023-220623.pdf

[14] Sovereign, supranational, and agency (SSAs) issuers often benefit from exemptions under Regulation (EU) 2017/1129 (the EU Prospectus Regulation). These exemptions are designed to simplify issuance processes for entities with high creditworthiness and public mandates, such as sovereigns, supranationals (e.g., the European Investment Bank), and government agencies. Regulation (EU) 2017/1129 of the European Parliament and of the Council of 14 June 2017 on the prospectus to be published when securities are offered to the public or admitted

| | | | |
|---|---|---|---|
| | | Sustainable Bond Framework with a lower liability threshold to describe strategy, project eligibility, and allocation processes. In some jurisdictions, a fact sheet may be required. | Prospectus / offer document can include details on financial/structural adjustments based on SPT achievements. |
| Underwriting | Standard process with an investment bank determining terms (e.g., interest rate, maturity date). | Similar to traditional bonds but may involve green-specific considerations for frameworks and principles. | Involves reviewing KPI relevance and linking financial terms to SPT outcomes. |
| Due Diligence | Underwriter reviews issuer's creditworthiness, financial history, and overall risk profile. | Additional to traditional due diligence, may include external review of framework alignment with recognized global standards (e.g., ICMA GBPs, CBI Standard) or applicable regulatory frameworks. | Additional to traditional due diligence, there may include external review of KPIs, annual progress towards SPTs and framework alignment with recognized global standards (such as ICMA SLBP) or applicable regulatory frameworks. |

to trading on a regulated market, and repealing Directive 2003/71/ECText with EEA relevance.

| | | | |
|---|---|---|---|
| Pricing[15] | Standard pricing based on credit risk and market conditions. | Similar to traditional bonds pricing but may consider sustainability-related investor interest. | Pricing may incorporate potential financial or structural changes tied to KPI / SPT outcomes. |
| Marketing | Focus on general investor base. | In addition to potential general investors, targeted marketing to sustainability-focused investors. | In addition to potential general investors, appeals to investors with a sustainability-related mandate by linking performance metrics to bond terms. |
| Issuance | | | |
| Issuance | Complies with local regulations without adherence to global frameworks. | Often issued under recognized global standards (e.g., ICMA GBP, CBI Standard) or regulatory | Often issued under recognized global standards (such as ICMA SLBP) or regulatory frameworks, focusing on achieving |

[15] The debate over whether green bonds provide cheaper funding to issuers by trading at a premium, known as the greenium, remains unsettled. The European Central Bank (ECB) finds that green bonds issued by euro-area entities trade at a negative spread compared to conventional bonds, suggesting a greenium. Academic literature presents results that are not always consistent regarding the existence and magnitude of the greenium. Hachenberg and Schiereck (2018), Larcker and Watts (2020), do not find significant differences between traditional bonds and green bonds. Empirical evidence on the 'greenium' is highlighted among others in Ehlers and Packer (2017), Gianfrate and Peri (2019), Partridge and Medda (2020), Kapraun, et al. (2021). The conclusions vary depending on the time period analysed, the geographic area, and the issuer's sector. ESMA (https://www.esma.europa.eu/sites/default/files/2023-10/ESMA50-524821-2938_The_European_sustainable_debt_market_-_do_issuers_benefit_from_an_ESG_pricing_effect_0.pdf) and OECD (https://www.oecd.org/en/publications/global-debt-report-2024_91844ea2-en/full-report/component-9.html#chapter-d1e10890-7ffceee231) find a non-significant greenium.

| | | | |
|---|---|---|---|
| | | frameworks (e.g., EUGBS), which may indicate alignment with sustainability goals. | predefined KPIs and SPTs. |
| Bond Characteristics and Coupon Types | Fixed or floating rate coupons with no adjustments to financial terms. | Bond characteristics remain static and are not linked to project outcomes. Typically, fixed or floating coupons tied to market rates. | Bond characteristics, such as coupon rate or maturity, can vary based on KPI / SPT achievements. |
| **Post-Issuance** | | | |
| Reporting | Annual financial disclosures as required by local regulations. | Annual (or periodic) reporting to varying degrees, such as on allocation of proceeds and/or environmental impacts of financed projects. | Annual (or periodic) reporting on SPT performance, with potential adjustments to bond characteristics happening at one or multiple predetermined dates. |
| Post-Issuance Verification | N/A | Common to verify, via an auditor or other third-party, the allocation of proceeds and impact reports for transparency and alignment with recognized global standards (e.g., ICMA GBP, CBI Standard) or regulatory frameworks. | Mandatory independent and external verification of KPI performance against SPTs. |

## Labels (types) of sustainable bonds

As noted earlier, there are different types of labels assigned to sustainable bonds based on the specific purpose or thematic focus of the projects that are financed by the bond proceeds.

**Jurisdictional definitions**

Beyond the widely recognized green, social, sustainability, and sustainability-linked bonds, the sustainable finance market has seen the emergence of more specialized bond labels tailored to address specific environmental and sectoral goals and challenges.

While there is no international regulatory definition for the various labels of sustainable bonds, and the criteria for their classification may differ across jurisdictions, many jurisdictions are either inspired by or using currently available voluntary standards to underpin their definitions and categorizations of these products.

In the survey of IOSCO members, most respondents noted that their local definitions refer to the ICMA Principles [16] or CBI Standard instead of jurisdiction-specific definitions for well-established bond types such as green and social bonds. These definitions are in their view sufficiently broad to cover most applicable bonds. This can help facilitate cross-border capital flows, as international investors need not familiarize themselves with a wide range of definitions. Jurisdictions tend to create their own definitions when aiming to offer specific types of instruments, for example, with green sukuk.

- **Green bonds:** proceeds or an equivalent amount are used for financing or re-financing eligible projects aimed at achieving environmental objectives, which include climate change mitigation and adaptation, biodiversity conservation, and preserving ecosystem services, among others. In the case of China, this also includes sub-types such as carbon neutral bonds and carbon yield bonds.
    - **Climate Bonds:** focus on climate change mitigation or adaptation projects**.**

[16]For example, ICMA considers blue, transition, gender and orange bonds as themes and not as new labels.

    - **Blue bonds:** focused on the sustainable use and/or conservation of ocean and marine resources, supporting initiatives such as sustainable fisheries, coastal protection, marine biodiversity, etc.

- **Social bonds:** proceeds or an equivalent amount are used for financing or re-financing eligible projects aimed at achieving certain social outcomes, such as gender equality, access to basic infrastructure, healthcare, education, other essential services, employment generation, food security, and empowerment.
    - **Gender bonds:** a subset of social bonds, focused on diversity, equity and inclusion in gender issues, specifically around women and the LGBTI+ community.
    - **Orange bonds:** focused exclusively on cultural projects.[17]

- **Sustainability bonds:** proceeds or an equivalent amount are used for financing or re-financing a combination of green and social projects that offer environmental and social benefits, respectively.
- **SLBs:** focused on the issuer's predefined objectives and KPIs/SPTs.
- **Sukuk-linked waqf (SLW):** focused on optimizing the benefits of waqf assets[18] (endowment).
- **Transition bonds:** focused on the issuer's climate transition and emissions reduction initiatives (instead of wider environmental objectives or specific use of proceeds).[19]

[17] This definition is applicable only in Colombia. There are industry initiatives defining orange bonds as a sustainable debt asset class for investing with a gender lens. https://orangemovement.global/orange-bonds

[18] Waqf is a form of endowment under Islamic law. Waqf funds can be used in three ways: social waqfs, productive waqfs or a combination of the two. Social waqfs support social initiatives, typically non-profit-oriented, that provide free services or facilities for the general public. Productive waqfs support ethical business or investment practices. https://www.climateworkscentre.org/news/waqf-indonesias-untapped-potential-to-fight-climate-change/

[19] ICMA's Climate Transition Finance Handbook (CTFH) states that transition is best conceived as a theme that can be financed by green and sustainability bonds, as well as SLBs, while recognising the development of a "climate transition" label adapted notably to certain jurisdictions and regions. https://www.icmagroup.org/assets/Transition-Finance-in-the-Debt-Capital-Market-paper-ICMA-14022024.pdf

**Transition Bonds**

When it comes to the categorization or labelling of transition bonds, differing approaches and definitions are used.

The concept of transition bonds emerged in 2017 when, a major Spanish oil company, completed a green bond issuance. In light of this company's significant business activities in oil and gas industry, the bonds were excluded from major green bond indexes, which sparked a push for a new type of bond called transition bonds. Many market participants view transition bonds as a mechanism to finance high-emitting industries, such as the oil and gas industry, transition toward sustainability.

According to the CBI, the limited opportunities for issuers to use sustainable bond markets to finance the transition of high-emission activities can be attributed to a lack of robust eligibility criteria, rather than incompatibility with the green bond market or the green label. In fact, they believe that adherence to principles aligned with the Paris Agreement (PA) could enable transition investments to be considered "green". Existing frameworks and taxonomies—such as the CBI Taxonomy, the EU Taxonomy, and the China Green Bond Catalogue—already include high-emission sectors like manufacturing, power generation, transport, buildings, and agriculture.

On the other hand, ICMA aims to integrate bonds financing a "just transition"[20] into existing bond structures. Therefore it does not plan to endorse transition bonds as a separate label.[21] Instead, it views transition as "a process, a trajectory, a theme" and provides guidance on transition

[20] ICMA's GBP or SBG aligned instruments, where the use of proceeds intends to make a meaningful contribution to an issuer's GHG emissions reduction strategy. This can include green projects that will make a direct contribution to an issuer's own GHG emissions trajectory, and/or projects (including social) tied to a "just transition". Climate-Transition-Finance-Handbook-CTFH-June-2023-220623v2.pdf

[21] https://www.capitalmonitor.ai/analysis/the-reasons-why-icma-wont-label-transition-bonds/?cf-view&cf-closed

strategies and disclosures for issuers of all types of sustainable bonds, through ICMA's Climate Transition Finance Handbook (CTFH).[22]

Others believe there may be value in drawing a distinction between 'green' and 'transition' financings. CBI believes that a distinction should be made between:

- Activities that lack a long-term role in a low-carbon economy due to their high emissions; and
- Activities that, despite high emissions, have a viable role in a low-carbon economy.

This distinction can serve to underpin a dedicated transition label, which CBI advocates for. CBI proposes the following to distinguish between the green and transition label:

- The **green label** could apply to eligible investments in activities or entities that play a long-term role in a low-carbon economy, are already near-zero emissions, or are following decarbonization pathways aligned with halving global emissions by 2030 and achieving net-zero by 2050.
- The **transition label** could apply to eligible investments that:
    - Contribute substantially to halving global emissions by 2030 and achieving net-zero by 2050 but lack a long-term role in a low-carbon economy; or
    - Have a potential long-term role in a low-carbon economy, though their alignment with net-zero goals remains uncertain.

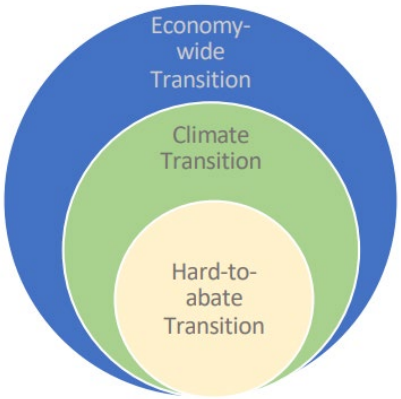
The lack of a uniform universal agreement on the definition of transition bonds has given rise to greenwashing concerns tied to the bonds issued with a transition label.

ICMA's February 2024 report "Transition finance in the debt capital market"[23] identified at least three different overlapping definitions that are generally used for transition finance, as illustrated below:

[22] Climate-Transition-Finance-Handbook-CTFH-June-2023-220623v2.pdf

[23] https://www.icmagroup.org/assets/Transition-Finance-in-the-Debt-Capital-Market-paper-ICMA-14022024.pdf

- Economy-wide transition refers to transformation of the entire economy with the objective of meeting the goals of the PA but also wider sustainable objectives (e.g. biodiversity or circular economy) embedded in taxonomies, or with reference to the United Nations Sustainable Development Goals (UN SDGs) (see for example G20 Sustainable Finance Report[24]).
- Climate transition covers the goals of the PA and the target of achieving net zero emissions by 2050 but typically with a narrower sectoral or industry focus especially on the energy and high-emissions sectors (see the OECD Guidance on Transition Finance[25]).
- Hard-to-abate transition emphasises the specific challenges of reducing emissions in the fossil fuel and other hard-to-abate sectors or promoting more sustainable alternatives to their output (see for example Japan's roadmaps for Green House Gases (GHG)-intensive industries).




Currently, there are several efforts that attempt to provide guidance or clarity on the products that can be classified as 'transition' products:

i. The **CBI framework** identifies and defines a credible transition aligned with the PA;

[24] https://g20sfwg.org/wp-content/uploads/2024/10/2024-G20-Sustainable-Finance-Report.pdf

[25] https://www.oecd.org/en/publications/oecd-guidance-on-transition-finance_7c68a1ee-en.html

ii. The **ASEAN Transition Finance Guidance (ATFG)** provides entities with a framework for assessing and demonstrating a credible transition within ASEAN to facilitate access to capital market financing, by providing a regional guidance for what can be considered as a transitioning company which could then be used to create transition-labelled financial instruments as part of a 'transition' asset class.[26]

iii. The **EU's Taxonomy Regulation** provides a definition for contributions to transitional activities; the Climate Delegated Regulation indicates specifically which activities are transitional. In the EU, the European Securities and Markets Authority (ESMA) has recommended in its opinion on Sustainable investments the creation of high quality labels for transition bonds, based on the experience with the EUGBS[27] .

iv. The **Singapore-Asia Taxonomy** launched by the Monetary Authority of Singapore (MAS) and the Green Finance Industry Taskforce (GFIT) in Singapore adopts a traffic light system classifying activities as green, amber (transition), and red (ineligible).

v. The Government of Japan has developed the **Japan Climate Transition Bond Framework**. This provides guidance for bonds that can be issued with the label of "Japan Climate Transition Bond". The framework highlights four key elements of transition, that are explicitly based on ICMA's CTFH, namely:
    a. Issuer's climate strategy and governance;
    b. Business model environmental materiality;
    c. Climate transition strategy to be science-based including targets and pathways; and
    d. Implementation transparency.

[26] https://www.theacmf.org/images/downloads/pdf/20241014%201142%20ACMF%20ATFG%20Version%202%20vFinal.pdf

[27] Regulation (EU) 2023/2631, which lays down uniform requirements for issuers of bonds who wish to use the designation 'European Green Bond' for their bonds that are made available to investors in the EU and establishes a system to register and supervise external reviewers of European Green Bonds. The Regulation also provides optional disclosure templates for bonds marketed as environmentally sustainable and for sustainability-linked bonds in the EU. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L_202302631

Since, transition themed bonds may be issued as a UoP bond or SLB they have not been classified as a third type of sustainable bond in this report.

**Criteria for Classifying Sustainable Bond Types**

Various frameworks and standards have been developed to define what qualifies a bond as "sustainable", with the criteria often focusing on the environmental and social impact of the projects being financed.

Environmental impact is the most commonly used criterion for sustainable bonds. 30 responding jurisdictions indicated that they use environmental impact as a criterion for classifying bonds as sustainable. Social impact is the second-most widely used criterion, identified as being used by 28 respondents.

Respondents in 24 jurisdictions also indicated that issuers in their markets offer sustainable bonds with specific project objectives. Areas of focus include marine biodiversity and coastal protection (blue bonds), cultural projects (orange bonds), and sukuk-linked waqf for optimizing endowment assets (predominantly in Indonesia).

## Sustainable Bonds Market Statistics

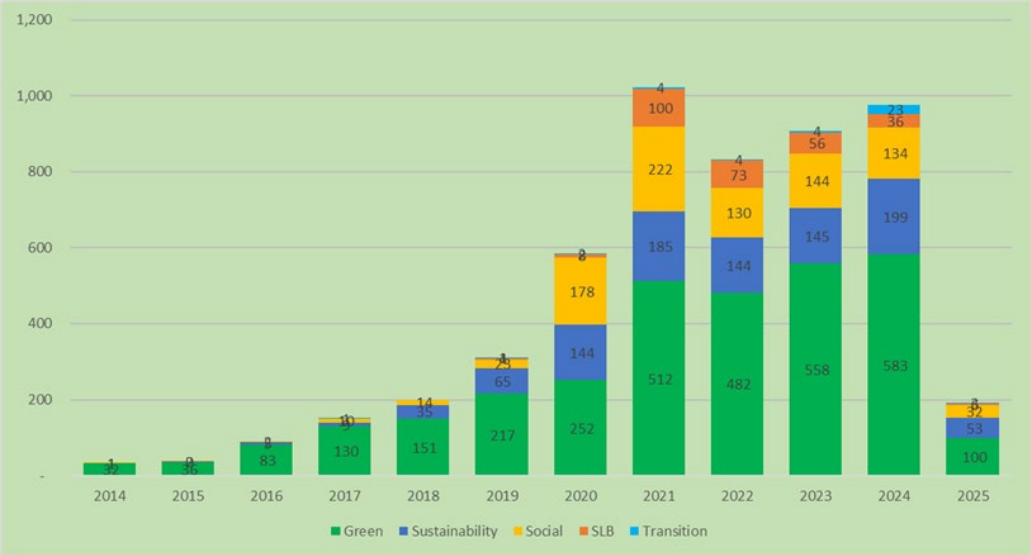
By September 2020, the cumulative issuance of sustainable bonds crossed USD 1 trillion.[28] This growth has been supported by frameworks and principles that have brought certainty and transparency to this market and, in turn, enabled the issuance of a broad range of sustainable financial products. The COVID-19 pandemic led to the issuance by governments of social and sustainable bonds to finance healthcare, job protection, and economic resilience programs further increasing issuances.

Nevertheless, as observed in the chart below, sustainable bond issuances decreased 19% from 2021 to 2022. This decrease may be attributable to the end of pandemic-era government programs and the rise of interest rates globally starting in 2022, which increased the cost of capital and led to fewer

[28] https://about.bnef.com/blog/record-month-shoots-green-bonds-past-trillion-dollar-mark/

offerings across all debt markets.[29] In recent years, we have seen an increase in issuances of sustainable bonds, particularly in 2023 and 2024 compared to 2022 levels.

**Chart 1:** Annual Sustainable Bond Growth (USDbn equiv)




***Source:*** *ICMA based on Dealogic data, 12 March 2025*

Survey respondents highlighted a range of incentives that encourage intermediary and market participant involvement in the sustainable bond market. Some of these include:

- Financial support mechanisms, such as grants and subsidies, that effectively lower issuance costs, facilitating greater accessibility for smaller issuers.
- Recognition programs that highlight exemplary issuers or issuances enhance visibility, motivating increased participation in the sustainable bond segment.
- Development of national or regional sustainability frameworks that are aligned with internationally recognised frameworks and principles, provide a transparent framework that fosters confidence and simplifies compliance with sustainability requirements.

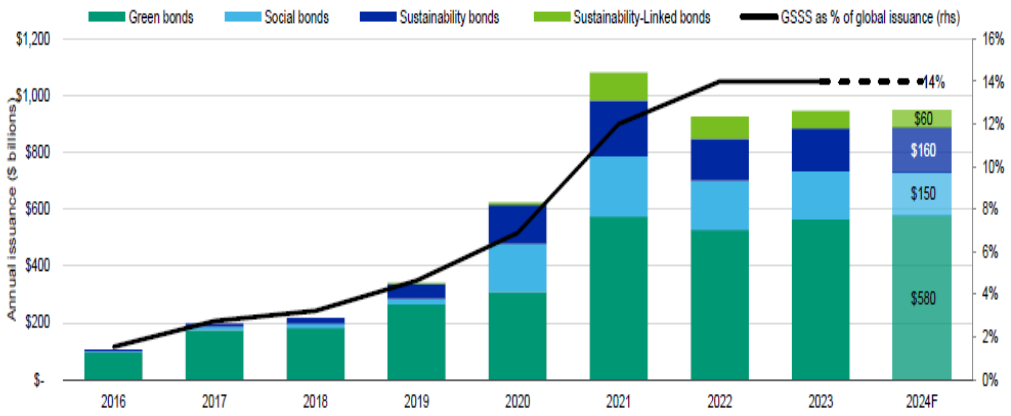
[29] https://www.environmental-finance.com/content/the-green-bond-hub/sustainable-bonds-innovation-regulation-and-decarbonisation.html

- Issuance of sovereign sustainable bonds provide valuable precedents that industry can mirror, promoting market trust and encouraging private sector participation.

**Current Market Data/Trends**

The chart below outlines the increasing share of the sustainable finance market relative to the entire bond market over the last 9 years in the private sector. In 2020 and 2021, robust growth in overall bond sustainable issuances was observed, as they went from under USD 400 billion in 2019 to over USD 1 trillion in 2021. Since then, the overall sustainable bond market has stabilised and accounts for approximately 14% of all bond issuance, excluding government securities.

**Chart 3:** Sustainable Bond Market Share (ex-government securities)

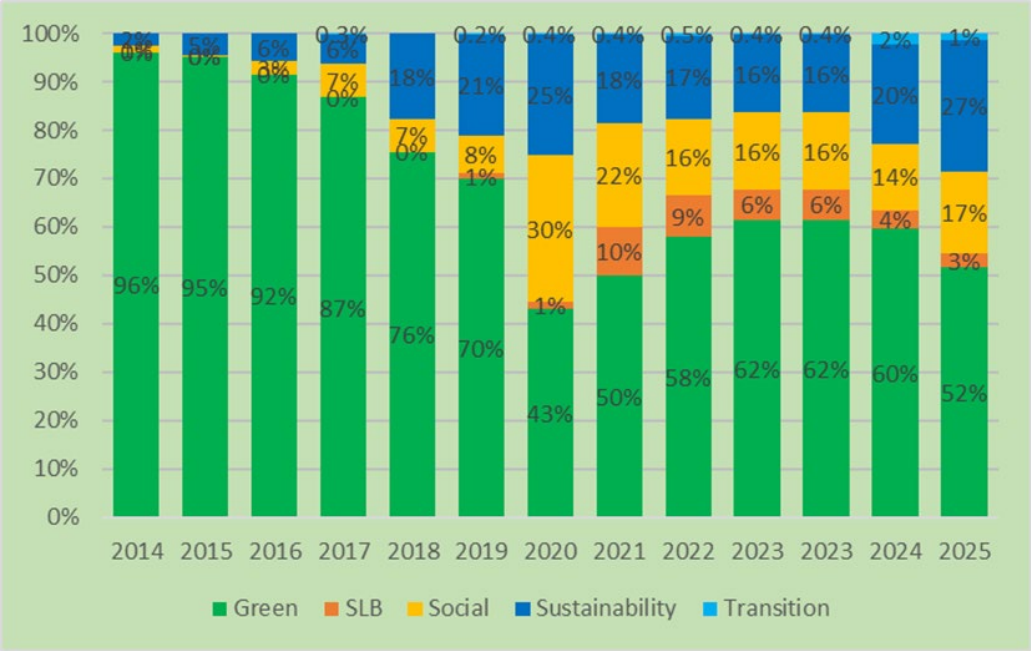



**Source:** Moody's Investor Services, Sector in dept, 24 Jan 2024, Sustainable Finance Global (provided by ICMA)

**Size of overall market and breakdown by jurisdiction, type of product, type of issuer and market/industry sector**

The sustainable bonds market continues to be dominated by green bonds, followed by sustainability and social bonds, despite a notable rise in SLB issuances since 2021.

**Chart 4:** Annual Sustainable Bond Issuance Distribution Per Type of Bond




***Source:*** *ICMA based on Dealogic data, 25 September 2024*

## 1. Use of Proceeds Bonds Analysis

Type of Issuer

The types of issuers frequently issuing sustainable bonds can be broadly divided into four categories:

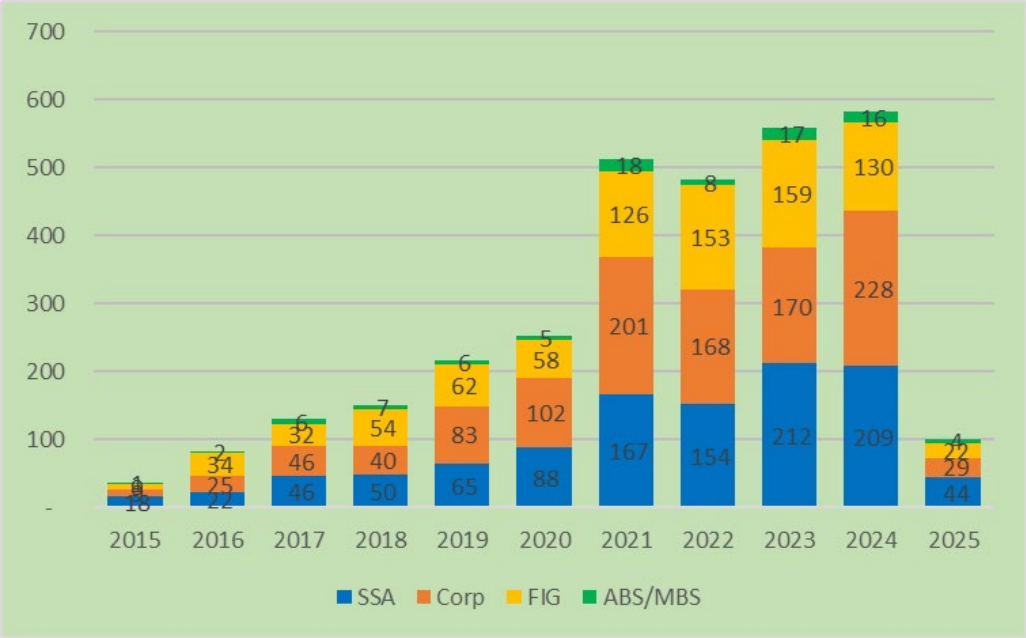
- Sovereign, Supranational and Agency (SSA)
- Corporate
- Financial Institutions Group (FIG)
- Entities issuing Asset/Mortgage Backed Securities (ABS/MBS)[30]

While issuances in each of the categories listed above have grown in the last 10 years, notable sub-trends within each of these categories can be observed.

[30] ABS/MBS are usually issued by Agency or Non-Agency issuers. When referring to this category, we are referring to these types of issuers that have issued sustainable bonds.

As shown in the graph below, corporations are the largest issuers of green bonds.

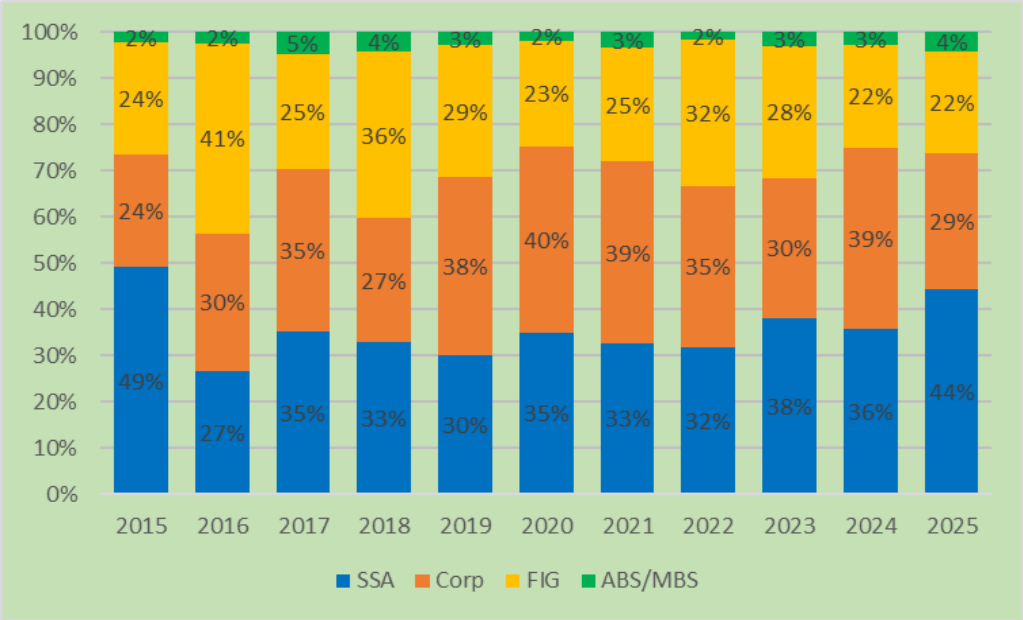
**Chart 5:** Annual Green Bond Issuance by Issuer Type (USDbn)




***Source:*** *ICMA based on Dealogic data, 12 March 2025*

Over the last 10 years, corporations have increased their relative share in of green bond issuances, from 24% in 2015 to 39% in 2024. While the relative share of SSA issuances declined in 2016 and has yet to regain its 2015 level, SSAs continue to be sizable issuers. FIGs have shown relatively low market share levels of green bond issuances, with notable peaks in 2016 (41%) and 2018 (36%).

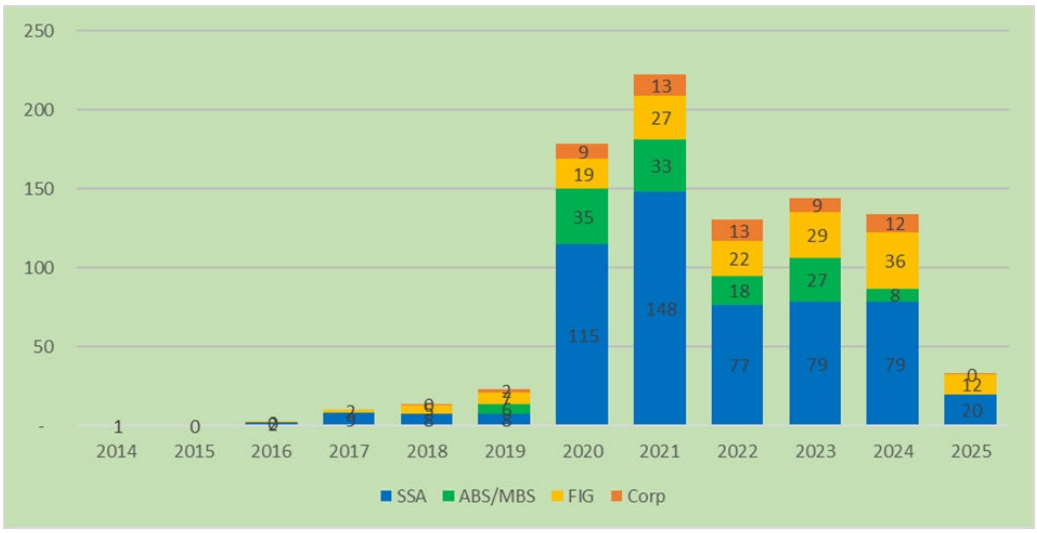
**Chart 6:** Relative Share of Green Bond Issuance by Issuer Type




***Source:*** *ICMA based on Dealogic data, 12 March 2025*

In addition, as shown in the following graphs, SSAs form the largest category of issuers of social and sustainability bonds having a market share of 59% and 68% in 2024 respectively. However, overall issuances of social and sustainability bonds are lower than green bonds.

**Chart 7:** Annual Social Bond Issuance by Issuer Type (USDbn)




***Source:*** *ICMA based on Dealogic data, 12 March 2025*

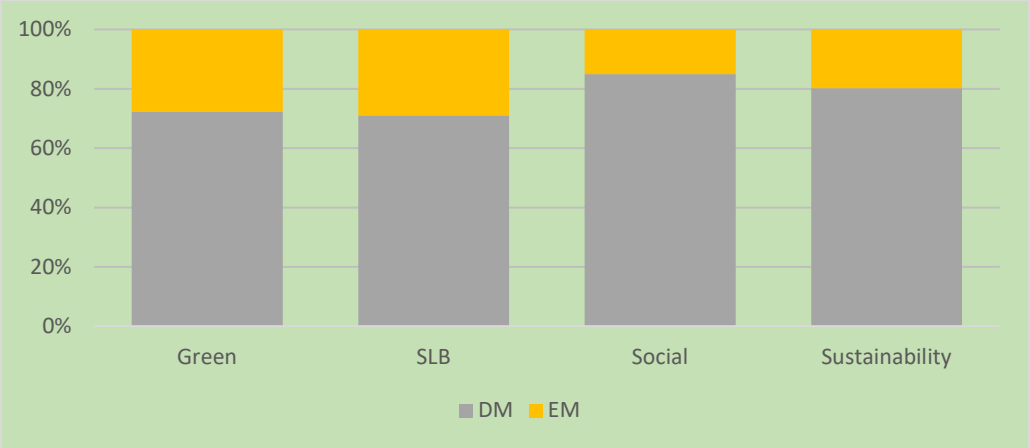
**Chart 8:** Annual Sustainability Bond Issuance  Issuer Type (USDbn)


***Source****: ICMA based on Dealogic data, 12 March 2025*

Issuance by Developed and Emerging Markets

As shown in the graph below, across all types of sustainable bond instruments, developed markets have a higher level of issuance relative to emerging markets between 2013 and 2024.

**Chart 9:** Regional Issuance of Sustainable Bonds. EM vs DM (2013-2024)

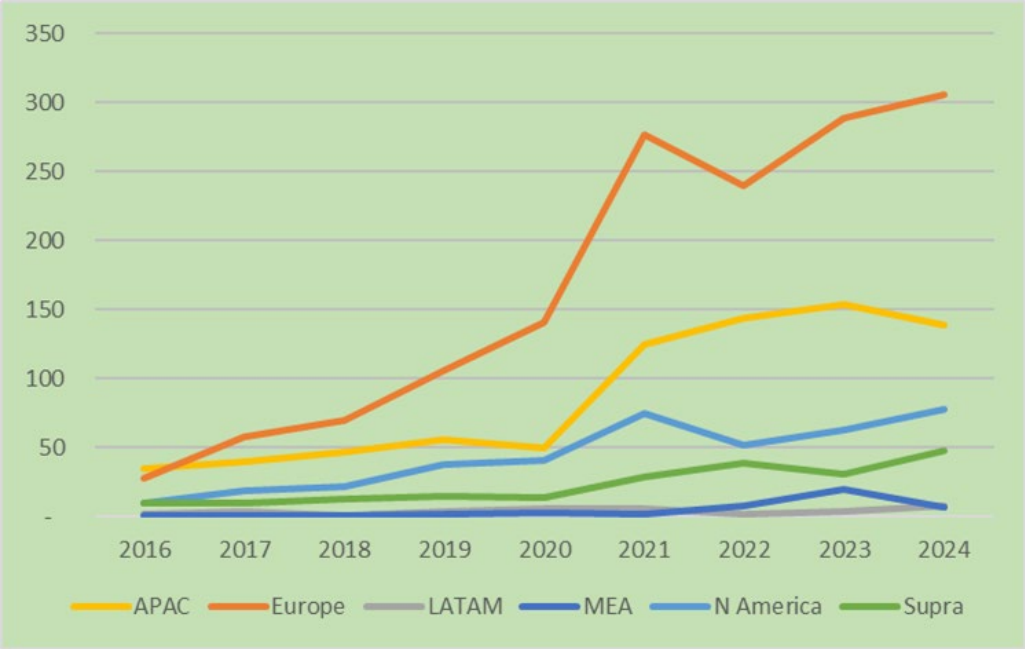



***Source:*** *ICMA based on Dealogic data, 25 September 2024*

Additional regional insights include (refer to chart 10):

- Europe is the region where issuers raise the highest dollar amount via green bond financings. In 2024, it surpassed amounts raised in all prior years.
- The dollar value of green bond issuances in the Asia-Pacific ('APAC') has grown notably in the last 10 years.
- North America and supranational bodies are the third and fourth in terms of green bond issuances respectively with around USD 75 billion and USD 50 billion in issuance during 2024.
- Latin America ("LATAM") and Middle East and Africa ("MEA") had relatively smaller amounts raised via green bond issuances.

**Chart 10:** Regional Issuance of Green Bonds (USDbn equiv)

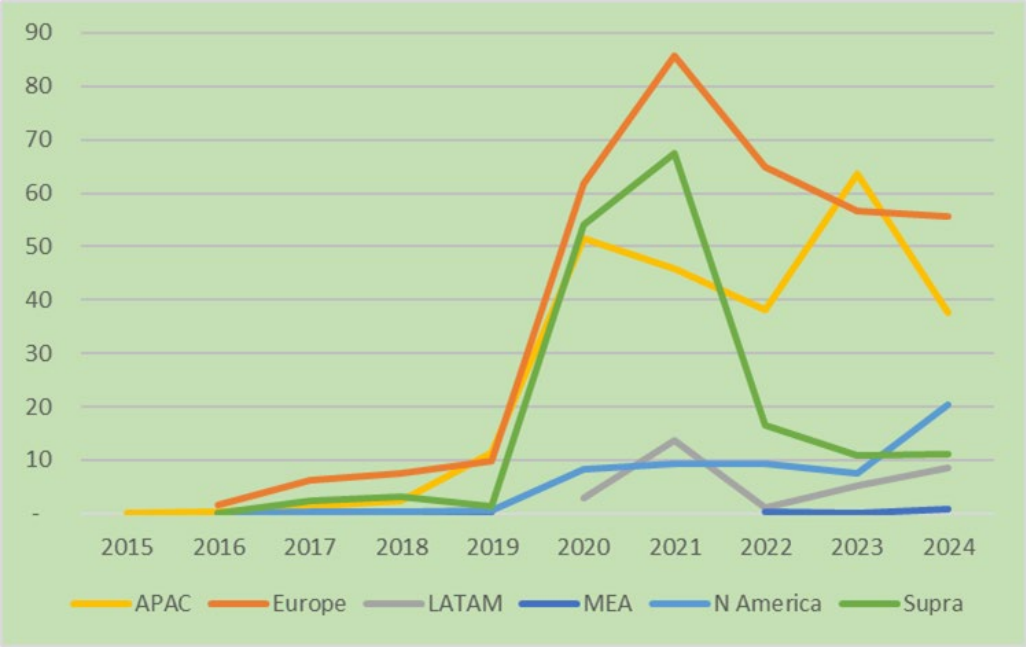



***Source:*** *ICMA based on Dealogic data, 12 March 2025*

Although the overall size of social bond issuances is smaller than green bond issuances, similar trends are observed in that market with the notable exception of APAC which is comparatively more active in this space. Some of the key insights include:

- Europe is generally the largest issuer of social bonds. The issuance of social bonds peaked in 2021 and has been declining since then.
- Supranational bodies are generally large issuers of social bonds. In line with overall trends, issuances peaked in 2021 and have declined since then.
- APAC has shown divergent trends as the issuance of social bonds increased until 2023, making them the largest issuers of social bonds that year.
- LATAM started issuing green bonds in 2020 and their total issuance is relatively smaller than other regions.

**Chart 11:** Regional Issuance of Social Bonds (USDbn equiv)

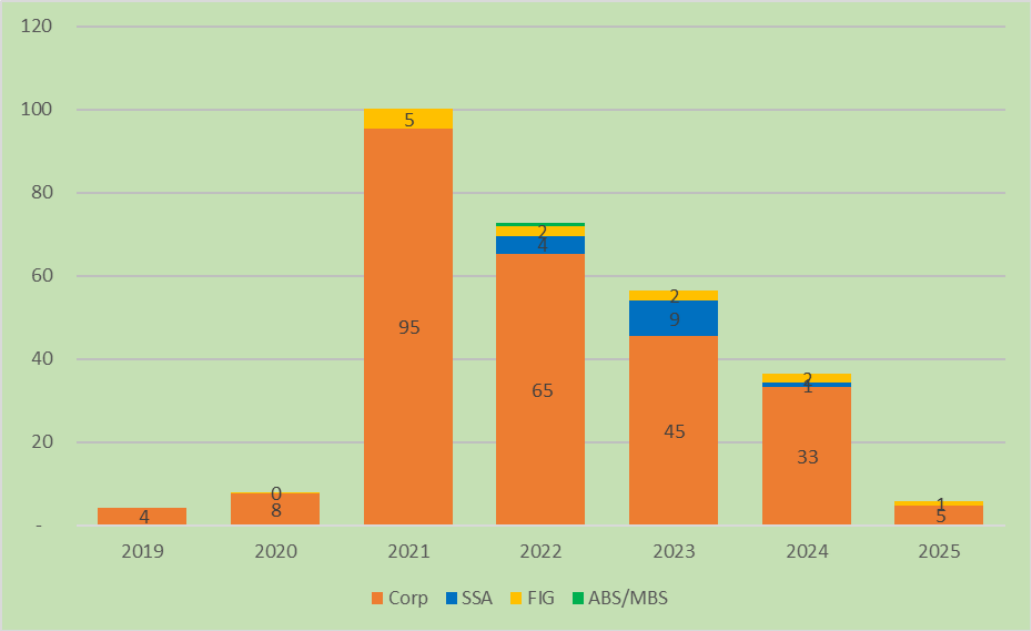



***Source:*** *ICMA based on Dealogic data*

## 2. Sustainability Linked Bonds Analysis

As the issuance of SLBs began in 2019, they have been offered for a relatively shorter period. In 2021 there was a significant rise in the issuances of SLBs, increasing from USD8 billion in 2020 to USD100 billion in 2021. However, in line with some of the overall trends, issuances have fallen since then and are just shy of USD36 billion in 2024.

**Chart 12:** Annual SLB Issuance Per Sector (USDbn)




***Source:*** *ICMA based on Dealogic data, 12 March 2025*

Type of Issuer

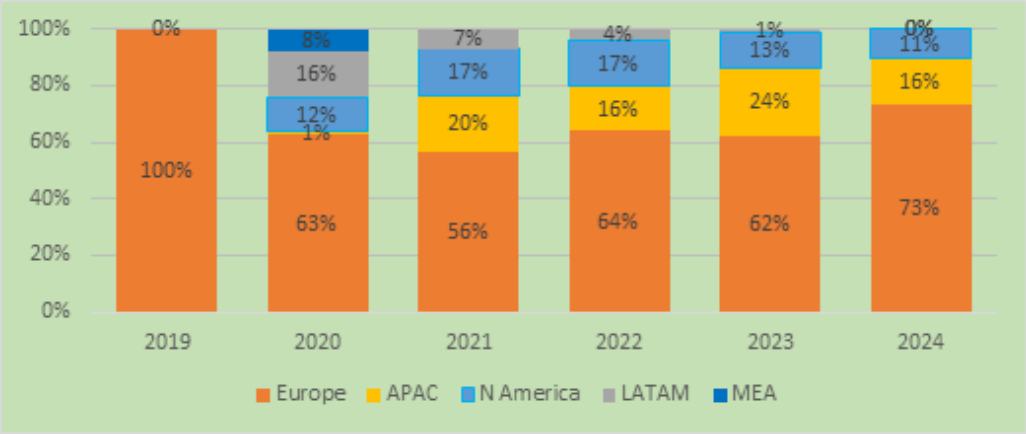
As shown in Chart 12, the bulk of issuances in SLBs are from corporate issuers. There have also been issuances from SSAs and FIGs over the last 4 years, but these have been small compared to the issuance from corporations.

Notably, sovereign issuers such as Chile and Uruguay have started issuing SLBs, using these instruments to align their countries' sovereign debt policies with their climate goals. Recognizing the growing role of sovereign issuers, ICMA updated the SLBPs in 2023 to better account for sovereign debt issuances.

Issuance by Region

While the issuance of SLBs is still at a nascent stage, trends can be observed relating to the regions where they are being issued. For example, Europe has consistently remained the region where the most SLB issuances have occurred. APAC also has a sizeable market share.

**Chart 13:** Annual SLB Issuance by Region

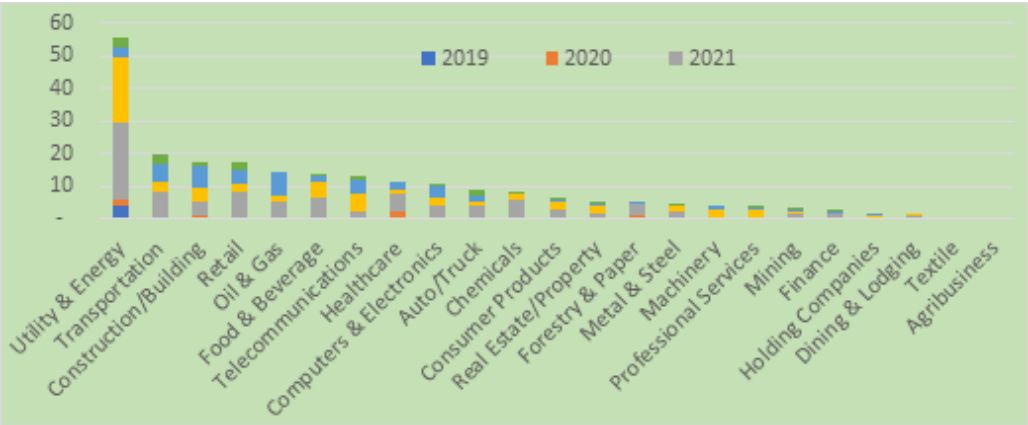



***Source**: ICMA based on Dealogic data, 25 September 2024*

Issuance by Sector

Between 2019 and 2021, emission intensive sectors have issued SLBs at a greater rate than others. These sectors tend to rely on sustainable finance instruments where investor payments or coupon payments depend on KPIs and SPTs. The top 5 sectors issuing SLBs between 2019 and 2021 were Utility & Energy, Transportation, Construction/Building, Retail, and Oil & Gas.

**Chart 14:** SLB Issuance by Sector Between 2019 and 2021 in USDbn

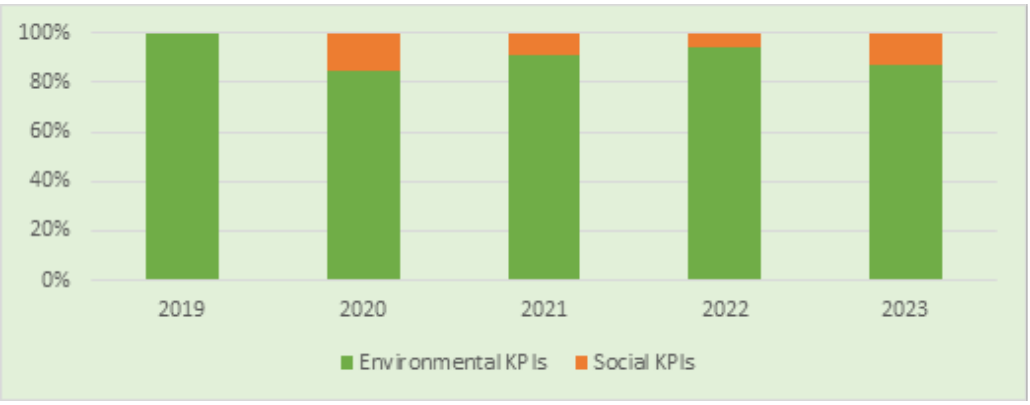



***Source:** ICMA based on Dealogic data, 31 December 2021*

KPI Analysis

Each SLB issued relies on certain KPIs and SPTs. A majority of the KPIs used over the last 5 years have focused on environmental goals/targets. Reliance on social goals/targets is significantly less.

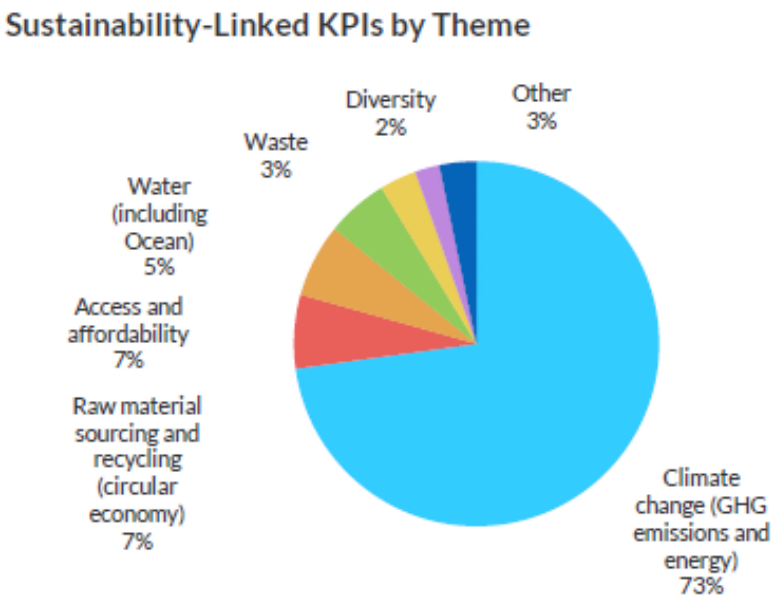
**Chart 15:** Environmental vs. Social KPIs




***Source:*** *ICMA based on HSBC Jan 2024*

Of the sustainability-linked KPIs relied upon by SLBs, 73% are related to climate change (GHG emissions and energy). This reliance may stem from the fact that environmental KPIs are easier to quantify than other sustainability-linked KPIs and, therefore, are easier to include as part of an offering with legally binding performance features. The fact that the ECB is only buying SLBs with Environmental KPIs may also explain the reliance on them over SLBs with social KPIs.

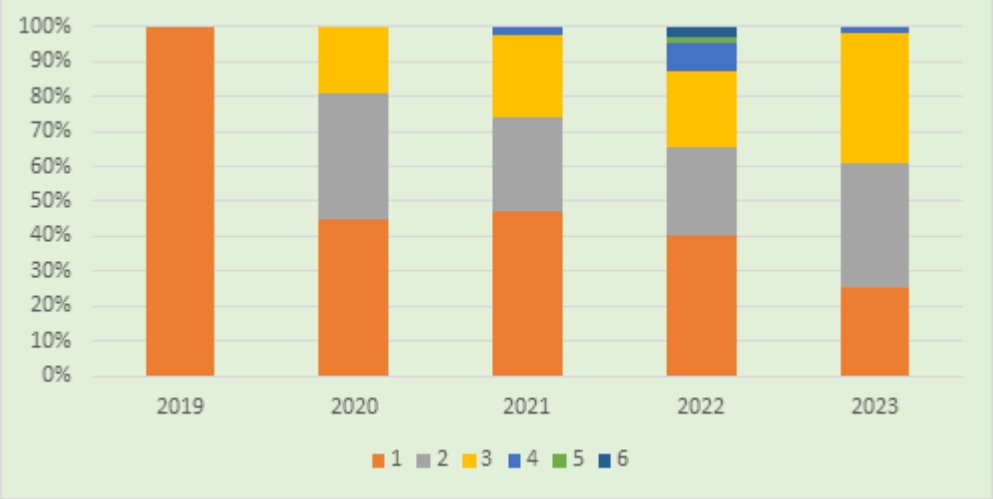
**Chart 16:** Sustainability-Linked KPIs by Theme (Jan 2024)




Source: Sustainable Fitch, ICMA

Another noted trend has been the increased use of multiple KPIs per offering. In 2019, all SLBs issued relied on a single KPI. Since then, SLB issuances have increasingly relied on multiple KPIs, to the point where SLB offerings relying on a single KPI now represent a minority of issuances.

**Chart 17:** No. of KPIs Used



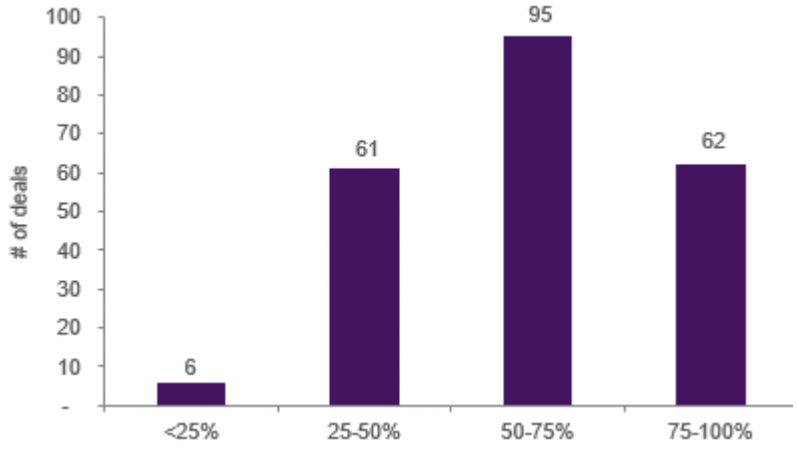

***Source:*** *ICMA based on HSBC Jan 2024*

Timeframe for Meeting SPTs

Issuers generally align the timeline to meet a specific SPT based on the KPI(s) being used to measure the target. For instance, an SPT based on the reduction of scope 3 emissions may require long timeframes to allow for accurate measurement and impact realization.[31] An issuer's preferences and intentions regarding how quickly it intends to meet a given target will also impact the timing of the SLB's maturity.

As suggested in the chart below, issuers prefer aligning the target dates of SPTs towards the latter half of an SLB's life cycle. Many SLB issuances (95) have their target date set to meet their SPT after 50-75% of the time has passed between the bond's issuance and its maturity.

**Chart 18:** Target timeframe of meeting SPT as % of final maturity



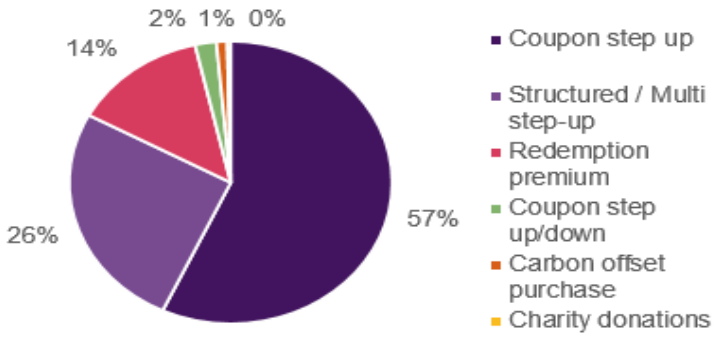

***Source:*** *ICMA based on NatWest & Bloomberg, Aug 2023*

Additionally, SLBs use varying mechanisms to address non-compliance with SPTs. Currently, most SLBs feature coupon step-ups when an SPT is not met, typically standardized at 25 basis points. Some issuers also opt for principal uplifts (see Chart 19). It is interesting to note that a study

[31] Accounting for Scope 3 emissions can be difficult and time-consuming, as there can be literally thousands of sources to catalogue and estimate. Reducing them can be even trickier, as the sources of Scope 3 emissions are, by definition, not under an institution's direct control. https://sustainability.yale.edu/explainers/yale-experts-explain-scope-3-emissions

conducted by Sustainable Fitch from September 2022 found "almost no correlation between step-ups and credit ratings".[32]

**Chart 19:** Additional SLB Features




***Source:*** *ICMA based on NatWest & Bloomberg, Aug 2023*

**Innovations in Sustainable Bond Markets**

Over the past decade, the market has demonstrated significant growth and diversification, reflecting its increasing role in mobilizing capital to address climate change, social inequality and other critical challenges.

This evolution has been accompanied by the development of innovative financial instruments and an increasing sophistication in market structures and mechanisms.

A **sustainability-linked loans financing bond (SLLB)** is an emerging bond type in the sustainable bond market. This instrument is defined as:

*Any type of bond instrument (i) where the proceeds or an equivalent amount will be exclusively applied to finance or re-finance, in part or in full, a portfolio of new and/or existing eligible Sustainability Linked Loans (SLL) aligned with the SLL Principles and (ii) which are aligned with the four*

[32] Sustainable Fitch: Sustainability-Linked Bond Step-Ups Need Refinement

*components of Sustainability-Linked Loans financing Bonds Guidelines (SLLBG).*[33]

According to ICMA, SLLBs should be classified as a separate category of bond and not be classified or presented as Green, Social, Sustainability or SLBs.[34]

While this instrument is relatively new, it has the potential to grow the overall market. Financial institutions could deploy a business model similar to that used to finance or re-finance SLLs. This would in-turn increase the capital available to finance the sustainability plans of corporations around the world and increase the amount of transition finance available globally.

The rapid evolution of the sustainable bond market is further noted by jurisdiction-specific innovations. Countries such as Egypt have introduced specialized innovations to tackle localized challenges, such as the **women empowerment bonds**, which finances goals, projects, initiatives, or policies that support women's empowerment issues and promote gender equality. Colombia, meanwhile, has developed **orange bonds** to support its creative industries.[35]

Technological innovations are also being adopted to improve transparency and facilitate investor participation in sustainable bond issuances. Hong Kong's government launched the world's first tokenized green bond in 2023, and subsequently the world's first tokenized green bond in multi-currencies (i.e., HKD, RMB, USD and EUR) in 2024, using distributed ledger technology (DLT).[36]

[33] https://www.icmagroup.org/assets/documents/Sustainable-finance/2024-updates/Guidelines-for-Sustainability-Linked-Loans-financing-Bonds-June-2024.pdf

[34] Ibidem

[35] This definition is applicable only to Colombia. There are industry initiatives defining orange bonds as a sustainable debt asset class for investing with a gender lens. https://orangemovement.global/orange-bonds

[36] https://www.hkma.gov.hk/eng/news-and-media/press-releases/2023/02/20230216-3/

Other jurisdictions such as Egypt, the Netherlands [37] and China, have witnessed the rise of **ABS** or **green securitization bonds**. Leveraging from the structure of securitization to scale up financing, green ABS contribute to address sustainability-related matters by channelling capital into environmentally beneficial projects. A securitisation can be defined as 'green' when cash flows backing it come from low-carbon assets. Green securitisation is suitable both for asset classes that are already being securitised, such as mortgages (where the 'green' loans would have to be identified) and for new asset classes that have not previously been securitised (lease payments for rooftop solar energy installations, for example).[38] According to China's 2020 report on Green Securitization State of the Market[39]**,** the securitised asset types typically range from residential and commercial mortgages, corporate loans, auto loans, and consumer loans, to trade receivables, and leasing receivables.

India, has taken an innovative approach by launching a Social Stock Exchange that aims to channel financial flows into activities geared towards social impact. A number of innovative financing structures that are linked to social returns have been identified for funding Non-Profit Organisations (NPO) including the **zero coupon zero principal instrument (ZCZP)** and **development impact bonds (DIBs)**. Regarding ZCZP, no coupon or principal payments are made at maturity as it is not designed to offer any financial return. However, it entails the promise of a social return to the funder and that distinguishes it from a typical type of charitable donation. The DIB is a blended financial instrument. In this, a grant is made to an NPO after it delivers on pre-agreed social metrics at pre-agreed costs/ rates. The donor who makes the grant when the social metrics are achieved is termed an "Outcome Funder". A "Risk Funder" enables the financing of operations of the NPO on a pre-payment basis, thereby undertaking the risk of non-delivery of social metrics by the NPO. To compensate for this risk, a Risk Funder typically earns a small return if the social metrics are delivered. An independent third party evaluator plays a key role in measuring and validating whether the outcomes have been achieved. This example

[37] https://www.dnb.nl/en/general-news/statistical-news/2024/sharp-increase-in-green-securitisations-in-2023/

[38] https://www.climatebonds.net/files/files/-GreenSecuritization-EU_policy-paper_20_04_17-FINAL.pdf

[39] https://www.climatebonds.net/resources/reports/china-green-securitization-state-market-2020-report

highlights the innovation undertaken by some jurisdictions in the remit of social bonds.

# Chapter 3. Market environment and associated risks

Over two-thirds of respondents to IOSCO's survey suggested the issuance of sustainable bonds may involve risks that are not typically present during the issuance of traditional bonds. However, some also noted difficulty in observing risks given the small size of the sustainable bond market in their jurisdiction.

This chapter sets out the risks that were identified by IOSCO members.[40]

*Risks tied to "Greenwashing"*

As interest in financing projects, companies or governments seeking to achieve certain sustainable goals has grown, so has the risk of entities misleading investors about the criteria used to designate or label a product as supporting sustainability objectives. The IOSCO Call for Action on Good Sustainable Finance Practices for Financial Markets, Voluntary Standard Setting Bodies, and Industry Associations,[41] describes greenwashing as "*the practice of misrepresenting sustainability-related information, practices or features throughout the investment value chain*. "

The risk of greenwashing can also result in reputational damage, discouraging market participation or leading to greenhushing. Some of the activities that may fall under greenwashing are:

1. Misrepresentations relating to sustainability factors that could damage investor trust and market integrity.

[40] The Financial Markets Standards Board (FMSB) has released a Statement of Good Practice for the governance of sustainability-linked products in late 2024 that may cover some of the risks highlighted in this section that are associated with SLBs. (https://fmsb.com/wp-content/uploads/2024/12/Sustainability-linked-product-governance-SoGP_TD_Final_171224.pdf)

[41] CALL FOR ACTION (IOSCO Good Sustainable Finance Practices). For Financial Markets Voluntary Standard Setting Bodies and Industry Associations)

2. Proposing sustainability commitments that are inconsistent with an issuer's overall business strategy or broader environmental and social impact.
3. Proposing sustainability targets that are unambitious or irrelevant.
4. Overstating an issuer's sustainability commitments in its marketing or promotion materials.

These risks may be particularly relevant when entities seek to raise capital through the issuance of sustainable bonds. As noted greenwashing is a broad term that may encompass other risks that contribute to and/or amplify concerns, such as the lack of transparency, inconsistent reporting practices, and lack of common terminologies, which are further outlined below.

*Lack of common terminology/metrics*

As markets for sustainable bonds develop, varying regulatory and industry approaches can cause differences in the issuances of these products, both within jurisdictions and between jurisdictions. Several survey respondents identified the lack of clear, internationally accepted definitions related to the issuance of sustainable bonds as a risk in the sustainable bond market. One respondent noted that there could be confusion or inconsistencies regarding what qualifies as a sustainable bond. Another respondent added that issuers can identify issuances as sustainable, and name them accordingly, without any reference to common market standards or taxonomies.

A notable feature of sustainable bonds is that they are issued with a stated intent of supporting sustainability-related goals. Given the claims made during the issuance of these securities, it is essential that evaluation metrics be built into the terms of the sustainable bonds issued to provide a mechanism by which investors can evaluate whether the stated sustainability-related goals have been met. However, survey respondents noted that there were no universally accepted metrics for measuring sustainability-related goals. Some survey respondents highlighted that issuances may have unclear metrics. One respondent stated that information related to sustainability-related goals is often presented with qualitative rather than quantitative data and that this variability can undermine comparability and hinder the accurate monitoring of progress. Respondents also highlighted the absence of appropriate certification frameworks.

Other respondents noted that the use of inappropriate metrics to meet a stated sustainability-related goal or noted the goals set by an issuer at times showed insufficient ambition relative to the issuer's principal business operations.

*Varied ongoing reporting practices*

Once sustainability-related goals have been set in relation to a sustainable bond issuance and the associated metrics on which the goals will be measured have been determined, investors are made aware of the issuer's progress to achieve those goals on a periodic basis. Survey respondents stated that they have identified issues related to ongoing reporting associated with issuances. This lack of transparency raises questions on the actions taken by issuers, after the issuance has been completed, to meet the goals that have been set.

The lack of broadly accepted standards related to ongoing reporting can lead to investor and industry confusion as to whether an issuer's stated goals have been met, the sustainability impact of the issuance, and whether punitive features tied to the failure to meet goals have been triggered. This could subsequently undermine investor and market confidence. A respondent noted a lack of granularity in cases where issuers combined the reporting of progress on many projects together (a portfolio-based approach) instead of a project-by-project approach. Other respondents noted that there was a risk that investors may not have the necessary information to assess the sustainability-related impact of the sustainable bonds because of a lack of reporting, which led to uncertainty over use of proceeds and achievement of metrics used to evaluate the bond. This may arise due to insufficient rules requiring ongoing reporting or the failure on the part of issuers to adhere to applicable rules.

*Role of third parties: potential conflicts of interest and additional costs*

Third parties play an important role in the issuance and verification of sustainable bonds, including to review disclosures made relating to the stated sustainability-related goals and to assess the impact of the proposed actions/projects on those goals. They also play an important role in the ongoing monitoring and reporting of progress made once an issuance is completed. A few respondents noted an absence of independent third-party verifiers providing assurance regarding the alignment of use of proceeds with the taxonomy applied by the issuer, if any.

The relationship between an issuer of sustainable bonds and a third party it engages may also create additional risks. One respondent noted that while these third parties perform a 'gatekeeper role' that assists to mitigate other risks tied to sustainable bond issuances, such as identifying misleading statements in disclosure documents, the potential conflicts of interest they face could create additional risks. These conflicts of interest exist due to the compensation model often used to pay external reviewers for their assessments. The compensation model often involves the issuer paying the

external reviewer directly, resulting in the external reviewer being financially dependent on the issuer. For example, there may be a desire by the external reviewer to secure future business from the issuer by providing favourable assessments that could undermine the impartiality of these external reviewers and result in biased assessments that misrepresent a bond's sustainability credentials.

In these scenarios, a third party may be unduly influenced to provide a positive outcome for the issuer that may not reflect an unbiased view of the issuer or project's sustainability-related characteristics (e.g. Environmental, Social and Governance (ESG) rating), to the detriment of investors.

Another respondent to the survey added that the lack of availability and additional cost of external reviewers pose a risk to the efficient functioning of the market overall (e.g. as required for the issuance of green bonds in the EU).

High issuance costs, particularly for external certifications and reviews, often prevent smaller issuers and new markets from participating in the sustainable bond market. Financial incentives such as grants and subsidies have proven effective in addressing this challenge.

Several respondents highlighted initiatives aimed at reducing the fixed costs associated with sustainable bond issuance while maintaining investor protection. In Egypt, efforts are underway to build local capacity by developing qualified verifiers, which is expected to lower the costs of validation and verification processes. Similarly, the MAS has introduced the Sustainable Bond Grant Scheme (SBGS), which offsets up to S$125,000 of expenses for pre- or post-issuance external reviews. To qualify, bonds must align with internationally recognized standards such as those set by ICMA and ASEAN.

Similarly, the Hong Kong Monetary Authority provides subsidies through the Green and Sustainable Finance Grant Scheme, covering general bond issuance and external review costs. Issuers must meet minimum issuance requirements and obtain independent third-party verification to ensure alignment with global standards. In Malaysia, the SRI Sukuk and Bond Grant Scheme subsidizes up to 90% of external review costs, complemented by a tax incentive that allows issuers to deduct issuance expenses.

*Lack of accountability*

Risks related to non-adherence of sustainability goals are amplified when the implications of non-adherence are unclear. Respondents to the survey highlighted examples of limitations on issuer liability when they fail to meet their

stated sustainability-related goals. One respondent noted concerns around the effectiveness of penalty mechanisms used when projects deviate from their stated goals. Another highlighted that there tends to be a lack of contractual consequences when an issuer fails to comply with its sustainable bond framework.

Non-adherence to sustainability related goals has different impacts on the issuer depending on the type of sustainable bond issued.

Typically, UoPs bonds do not face direct enforceable financial penalties if the underlying projects fail to meet or deviate from sustainability objectives. Disclosure of non-adherence may affect an issuer's ability to raise capital by issuing UoPs bonds in the future, providing incentive to meet the stated commitments.

On the other hand, SLBs typically include enforceable financial consequences, such as interest rate step-ups, if issuers fail to meet predefined SPTs. For this reason, in the case of SLBs, issuers may seek to redeem bonds early to mitigate larger penalties associated with unmet sustainability targets. However, as most call penalties are relatively low, they are generally insufficient to deter early redemption, except in cases where steep early call penalties apply.[42]

*Lack of Liquidity*

Liquidity in a given market promotes the efficient functioning of that market. It also supports further issuances by giving investors confidence that they will be able to liquidate their invested capital when needed. While liquidity risks exist for many types of bonds, some survey respondents noted that, due to the nascent nature of the sustainable bond market, there could be particularly low liquidity in the trading of sustainable bonds. Low liquidity could cause difficulties for investors to buy and sell these securities at fair market value. These risks can be amplified in times of economic stress.

*Regulatory Risks*

Issuers participating in the sustainable bond market may face higher regulatory costs and scrutiny associated with the issuance of sustainable bonds relative to traditional bonds. These compliance costs, including the expenses

[42] https://www.adb.org/sites/default/files/event/854081/files/p10-rv-structural-loopholes-slb-share-rev.pdf

associated with certification and external verification, which can be significant. This issue is exacerbated when the sustainable bond market faces numerous regulatory requirements. Excessive regulation may therefore run the risk of stifling growth in this space and could lead to "greenhushing", where issuers avoid issuing sustainable bonds to avoid the added regulatory cost and scrutiny.

Conversely, a lack of comprehensive regulations applicable to the sustainable bond market may increase regulatory uncertainty and reduce clarity for issuers. This, in turn, can also affect an issuer's willingness to enter the sustainable bond market due to increased costs tied to determining applicable regulatory requirements.

*Lack of expertise and infrastructure*

Insufficient knowledge and awareness among market participants and intermediaries presents a risk to the fair and efficient functioning of the sustainable bond market.

In smaller jurisdictions, the absence of expertise and capacity-building initiatives limits stakeholders' ability to effectively participate in sustainable bond-related activities, further restricting participation and growth.

In addition, in some regions, the sustainable bond market is still in its infancy. Underdeveloped capital markets may lack the necessary infrastructure for sustainable bond issuances and intermediary services, which limits accessibility and stifles market development.

# Chapter 4. Jurisdictional Practices & Disclosures

## Regulatory Frameworks

Jurisdictions have taken various approaches to regulate and develop their sustainable bond markets. Some jurisdictions regulate sustainable bonds as traditional bonds with same registration and issuance procedures, while others have separate regulatory frameworks applicable for sustainable bonds with differing requirements. Industry principles and standards play an important role to mainstream good practices and encourage interoperability.

Capacity-building and technical assistance programs support the development and regulation of sustainable bond markets. They play a pivotal role in addressing knowledge gaps among market participants, building local expertise, and fostering alignment with international standards. These efforts ensure the effective functioning of sustainable bond markets and enable broader participation, particularly in jurisdictions with less mature financial ecosystems. Further information on capacity building initiatives is included in Annex 2.

### Existing Frameworks

*Regulatory framework for sustainable bonds*

24 respondents indicated a regulatory framework is in place specifically for sustainable bonds. Out of these 24 respondents, seven of them are member states of the EU and all seven indicated that they adopt the EU Green Bonds Regulation.

18 respondents indicated their regulatory framework for sustainable bonds comprises of one or multiple components of the following:

- **Sustainable bond or sukuk guidance / framework** to support bond issuance and registration, with reference to industry principles or standards. Guidance may be produced by securities regulators or stock

exchanges as part of or supplementary to the regulatory requirements. [Reported by 14 respondents.]

- **Additional chapters or amendments to existing listing and / or securities-related legislations or guidance** specifying disclosure and other requirements pre- and post-issuance of sustainable bonds. [Reported by seven respondents.]
- **Rules that align to supranational or regional sustainable bond regulations / standards**, such as those at the ASEAN and EU level. [Reported by three respondents.]
- **Recognition or endorsement of specific industry principles or standards** to encourage good market practices. [Reported by three respondents.]
- **Sustainable finance taxonomy** to classify and categorize eligible sustainable projects or activities. [Reported by three respondents]
- **Issuance of public statement / circular** to support or encourage uptake of sustainable bonds. [Reported by two respondents[43].]

Regulatory frameworks for sustainable bonds may differ from those of traditional bonds with incremental requirements in certain aspects. For instance, rules and regulations in the sustainable bond market may be designed with reference to sustainable bond principles or standards commonly used in the market, such as the GBPs developed by ICMA.

*Regulatory framework for traditional bonds*

Ten respondents indicated that their regulatory framework for traditional bonds is applicable for sustainable bonds. The relevant components of these regulatory frameworks typically comprise of listing and/or securities-related rules, regulations and guidelines. For instance, in Australia sustainable bond issuers are subject to the general obligations applying to primary market bond issuance. The provision of financial services in relation to sustainable bonds must adhere to (legislative) prohibitions against misleading and deceptive

[43] ESMA Public Statement on Sustainability Disclosure in Prospectuses (ESMA32-1399193447-441 Statement on sustainability disclosure in prospectuses) applicable across EU members, and "Guiding Opinions on Promoting Investment and Financing in Response to Climate Change" jointly issued by the People's Bank of China, China Ministry of Ecology and Environment, National Financial Reporting Authority and CSRC on 12 October 2024 (https://www.gov.cn/zhengce/zhengceku/202410/content_6979595.htm)

conduct. ASIC's recent work on the application of these prohibitions in the context of disclosures about use of proceeds in relation to sustainable bonds is set out in_Report REP 791 ASIC' s interventions on greenwashing misconduct: 2023–2024 (page 25).[44]

Among these ten respondents, four indicated that they have plans to revise their existing regulations for traditional bonds to (i) include sustainability disclosure requirements and (ii) cover sustainable bonds registration and issuance. They also plan to consider other initiatives such as development of a sustainable taxonomy to support sustainable bonds issuance.

For example, the OSC relies on its existing principles-based framework applicable to all types of publicly issued bonds to regulate the issuance of sustainable bonds. Issuers are required to apply disclosure requirements, including to provide full, true and plain disclosure of all material facts, in the context of sustainable bond offerings. The OSC has also issued guidance on incomplete, misleading or overly promotional ESG disclosure, and on expectations regarding the disclosure of material factors underpinning any stated targets or plans.

**Voluntary Guidelines and Self-Regulatory Initiatives**

Four respondents indicated that domestic regulators have published guidelines regarding sustainable bonds for voluntary use. For instance, between 2017 and 2023, Japan's Ministry of Economy, Trade and Industry, Ministry of Environment, together with the Financial Services Agency of Japan published multiple guidelines for green bonds, social and SLBs, respectively. These guidelines align with ICMA principles with illustrative examples of specific approaches and interpretations catered to Japan's bond market to assist decision-making and promote uptake. In addition, stock exchanges in three Latin American markets have published voluntary guidelines on how to issue various types of sustainable bonds and their differences with traditional bonds. These guidelines reference ICMA principles as well.

[44] Report REP 791 ASIC's interventions on greenwashing misconduct: 2023–2024 (page 25)

## Market Standardization Efforts

The progress to standardize and harmonize sustainable bond markets has been notable, but significant challenges remain. The absence of a universal taxonomy and differing levels of alignment with international frameworks continue to cause fragmentation and inconsistencies across jurisdictions. Greater harmonization is crucial to establish a common language, enhance transparency, and strengthen investor protection.

The lack of globally harmonized taxonomies and definitions is particularly challenging for emerging categories of sustainable bonds. Without standardization, inconsistencies in labelling and reporting can arise, potentially undermining transparency, eroding investor confidence, and increasing the risk of greenwashing.

The OECD[45] notes that the greater use of new taxonomies for sustainable activities set by regional and national institutions may raise concerns. In particular, on the following challenges:

1. "comparability between sustainable bonds may be reduced if they follow taxonomies that are meaningfully different";
2. "organised industry interests may be successful in securing the inclusion of their business activities in a national or regional taxonomy in a way that may not fully take account of scientific evidence and broader policy objectives".

Addressing these challenges requires collective action but efforts to standardize and harmonize taxonomies and definitions in sustainable bond markets remain a work in progress, with no universal taxonomy currently in place.

However, several initiatives at the international, regional and national level have been contributing to improving consistency and comparability of issuance, and evaluation of sustainable bonds.

**International Standards**

[45] Sustainable bonds: State of the market and policy considerations | OECD

Globally, issuances may align with internationally recognized frameworks, such as ICMA GBP,[46] SBP,[47] and SLBP.[48] 16 out of 41 respondents to the survey indicated issuances must meet the criteria contained in ICMA's principles.

Other widely accepted frameworks include frameworks from the CBI, used by eight respondents, which provides certifications standards, and the UN SDGs.

In one jurisdiction, issuers can establish their own criteria and thresholds for activities deemed eligible for the use of the underlying proceeds. Often in such instances, issuers default to internationally recognized standards like the ICMA Principles, CBI Standards, or the EU taxonomy.

**Regional initiatives**

At the regional level, those jurisdictions that are a part of economic blocs rely on bloc initiatives for standardization. Regional taxonomies often focus on the most environmentally impactful and economically significant activities in that region, while adjusting criteria based on local realities and the local pace of environmental transition. Like national taxonomies, regional taxonomies can help investors to situate issuers and products in the appropriate regional contexts.

In the EU, the EUGBS provides a robust framework for green bonds aligned with EU Taxonomy, introducing pre- and post-issuance requirements with a dedicated supervision regime for external reviewers. Nevertheless, green bond issuances that do not meet the EUGBS requirements can still be aligned with other private standards, such as ICMA.

Similarly, ASEAN has introduced their Green, Social, Sustainability and SLBs Standards, which are based on ICMA's principles and utilised across ASEAN jurisdictions.

[46] Green-Bond-Principles-June-2022-060623.pdf

[47] https://www.icmagroup.org/assets/documents/Sustainable-finance/2024-updates/Sustainability-Linked-Bond-Principles-June-2024.pdfhttps://www.icmagroup.org/assets/documents/Sustainable-finance/2024-updates/Sustainability-Linked-Bond-Principles-June-2024.pdf

[48] Sustainability-Linked-Bond-Principles-June-2024.pdf

### National and Sector-specific or market-based taxonomies

Nine respondents indicated they use national taxonomies, while two respondents indicated they were currently developing such taxonomies. As with jurisdiction-specific definitions of sustainable bonds, national taxonomies can be useful for jurisdictions to take into consideration their unique economic and geographic characteristics when defining thresholds for environmentally sustainable or transitional activities. Investors can more readily assess the sustainability of the issuer's activities in the context of that issuer's operating environment.

In Colombia, the Colombian Green Taxonomy was developed in 2022 to classify green economic activities and assets that contribute substantially to achieving environmental objectives, which respond to the country's environmental commitments, strategies, and policies, in a way that is aligned with international standards.

Relatively fewer jurisdictions have created sector-specific or market-based taxonomies. Most pertain to industrials and its related sub-sectors such as transportation, construction, infrastructure and manufacturing. Other notable sectors include energy and utilities (with sub-sectors including waste and water management).

**Table 4**: Jurisdictions with sector-specific taxonomies[49]

| Sector* | # of respondents | List of respondents |
|---|---|---|
| Industrials | 6 | Hong Kong, Belize, Greece, Indonesia, Thailand, SCA-UAE |
| Real Estate | 4 | Greece, Indonesia, Netherlands, Singapore |
| Utilities | 3 | Hong Kong, Indonesia, Singapore |
| Energy | 3 | Indonesia, Thailand, SCA-UAE |
| Financials | 1 | Sri Lanka |
| Consumer Staples | 1 | Indonesia |

*Sectors are based on the Global Industry Classification Standard (GICS).

[49] The table is not definitive in nature and is based on the jurisdictional responses submitted to us in the survey.

The development of sectoral taxonomies remains largely limited to carbon-intensive sectors like industrials and energy. While national taxonomies have specific criteria based on sector and activity, the development of sectoral taxonomies may indicate that national taxonomies are sometimes not sufficiently granular for sector-specific needs.

It remains to be seen whether there will be widespread development of taxonomies for less carbon-intensive sectors. As jurisdictions start to develop national climate transition plans, the further development of in-depth sectoral taxonomies could enable jurisdictions to chart a path towards a sustainable low-carbon economy. Entities in these jurisdictions, especially small and medium size enterprises (SMEs), may find more specific taxonomies to be helpful in transitioning towards more sustainable business models.

**Combined approaches: International, regional and national**

Some jurisdictions have adopted a combined approach. For example, Singapore encourages use of the ASEAN Standards, which are based on ICMA's Principles, and the Singapore-Asia Taxonomy, which has been included in the Multi-Jurisdiction Common Ground Taxonomy launched at COP29 in November 2024. [50] This ensures regional consistency while promoting interoperability with internationally recognised standards and widely used taxonomies.

Similarly, other jurisdictions have implemented national frameworks that incorporate internationally recognised standards. Egypt, for instance, has standardized the issuance of green, social, and sustainability-linked Sukuk bonds, ensuring alignment with ICMA principles and international best practices. Argentina and Taiwan have also developed tailored frameworks to meet local sustainability priorities while referencing global standards.

Malaysia adopts a multi-framework approach, which includes the ASEAN Taxonomy, ASEAN Bond Standards, its own national taxonomy (Principles-Based Sustainable and Responsible Investment Taxonomy for The Malaysian Capital Market), and a Sustainable and Responsible Investment Sukuk framework. In Italy the most commonly used frameworks are the EU Taxonomy,

[50] https://www.mas.gov.sg/news/media-releases/2024/multi-jurisdiction-common-ground-taxonomy

the UN SDGs, CBI, ICMA and impact metrics from the Global Impact Investing Network (GIIN) framework.

These examples indicate that various jurisdictions rely on different frameworks to fill gaps found in any one framework, while tailoring criteria to their respective regions.

## Disclosure Requirements

This section analyses key aspects of mandatory and voluntary disclosure requirements, their alignment with international frameworks, and how these requirements differentiate sustainable bonds from traditional bonds. The findings highlight the evolving landscape of the sustainable bond market and its role in advancing ESG objectives.

### Mandatory vs. Voluntary Disclosures

Disclosure requirements and guidelines vary across jurisdictions, reflecting diverse regulatory approaches.

Some jurisdictions have specific disclosure requirements (20 respondents). These specific requirements ensure consistent and standardized reporting, thereby enhancing market integrity and fostering investor confidence by mitigating risks such as greenwashing.

Others apply voluntary disclosure guidelines (ten respondents). Rather than imposing mandatory disclosure requirements, these jurisdictions encourage issuers to adopt good practices at their own pace while fostering alignment with global standards. In many cases, voluntary guidelines act as a transitional phase, paving the way for more formal regulatory frameworks—especially in emerging sustainable finance markets.

Some jurisdictions have no specific requirements for sustainable bond issuances. These jurisdictions apply the same disclosure requirements as traditional bonds or rely on market-driven initiatives or international standards to promote transparency.

### Types of Disclosure Requirements

In some jurisdictions, sustainable bonds are subject to a multi-layered set of reporting obligations to maintain credibility and investor trust. Based on the survey data:

- **Use-of-proceeds reporting** stands out as the most widely mandated requirement, adopted by approximately 20 jurisdictions. This reporting ensures transparency in the allocation of bond proceeds to specific projects aligned with sustainability objectives, a requirement that is not applicable to traditional bonds.
- **External reviews or certifications**, required by 19 jurisdictions, further enhance the credibility of statements made issuers by involving independent third parties to verify a bond's alignment with recognized standards such as the ICMA Principles or the CBI Standard.
- **Regular reporting intervals**, mandated by 16 jurisdictions, emphasize ongoing transparency throughout the bond's lifecycle, with periodic updates on project performance and the use of funds.
- **Environmental impact reports**, required by around 12 jurisdictions, provide tangible metrics on the environmental benefits achieved, such as emissions reductions or energy savings.

Additionally, eight jurisdictions have introduced other localized reporting requirements, such as sustainability performance indicators or detailed pre-issuance disclosures, tailored to address specific national or market priorities.

**Alignment with international Frameworks**

A significant number of jurisdictions align their regulations with well-established international frameworks, underscoring the importance of global consistency. Among these, the ICMA Principles—encompassing the GBP, SBP, and SBG—are the most frequently cited.

The CBI also plays a prominent role, with jurisdictions like Pakistan, Colombia, and Sri Lanka leveraging its science-based criteria and certification schemes. In Europe, the EUGBS and Taxonomy Regulation are pivotal.

South and Southeast Asian countries surveyed demonstrate a distinct preference for region-specific standards, particularly the ASEAN Green Bond Standards, ASEAN Social Bond Standards, ASEAN Sustainability Bond Standards and the ASEAN SLB Standards (collectively ASEAN Standards). Countries such as Brunei, Philippines, Malaysia, and Thailand prominently reference ASEAN Standards, which provide tailored solutions for regional challenges. For example, Indonesia has adapted these standards to include

mandatory periodic reporting and full disclosure of external reviews, ensuring compatibility with both international and national sustainability goals.

Local frameworks further enrich the regulatory landscape by addressing market-specific needs. For example, India's comprehensive regulations require detailed pre- and post-issuance disclosures, including sustainability objectives, project evaluation criteria, and tracking mechanisms for fund allocation. While India's framework aligns with ICMA and CBI standards, it emphasizes local accountability by enforcing strict compliance measures. Colombia's framework exemplifies another localized approach, focusing on stringent requirements for external verification and annual reporting to ensure transparency and accountability.

The prevalence of certain disclosure requirements highlights the evolving expectations for sustainable finance. UoPs reporting, external certifications, and regular reporting intervals are core elements in most jurisdictions, ensuring alignment with sustainability objectives and transparency throughout the bond's lifecycle. In contrast, environmental impact reports, though significant, are less universally required, indicating room for broader adoption of tangible impact assessments. Regional frameworks, particularly in Asia, show a strong emphasis on accessibility and adaptability, balancing local priorities with global compatibility. These frameworks, such as the ASEAN Standards, serve as important tools for fostering market growth in emerging economies while aligning with international best practices.

**Differing Disclosure Requirements**

There may be a need for additional disclosure requirements for the sustainable bond market relative to requirements for traditional bonds, reflecting their unique purpose of addressing sustainability-related objectives.

Sustainable bond issuers are often asked to provide additional information such as SPTs, KPIs (for SLBs) and other material information in the prospectus; transition plans; sustainable bond framework alignment; and undergo external reviews by approved external reviewers pre- and / or post-issuance.

Purpose-Specific Disclosures: This feature is one of the most distinctive differences between traditional and sustainable bonds related to use-of-

proceeds reporting. Unlike traditional bonds, where the proceeds can be used for general corporate purposes without specific restrictions, UoPs bonds require issuers to explicitly disclose how the funds will be allocated to eligible green, social, or other sustainability-related projects or goals. This ensures that the proceeds contribute directly to predefined sustainability objectives, such as renewable energy projects, affordable housing, or community development.

Impact Reporting: UoPs bonds may be accompanied by environmental or social impact reports to provide stakeholders with insights into the tangible outcomes achieved by the funded projects. These reports often detail metrics which could include greenhouse gas emissions reductions, energy savings, or the number of beneficiaries from social projects. Similar requirements are not applicable to traditional bonds, as their focus is not tied to achieving specific sustainability objectives.

External Reviews and Certifications: Another distinction is the potential requirement for external reviews or certifications in sustainable bond frameworks. Issuers often engage third-party verifiers to assess the alignment of the bond with recognized standards like the ICMA, GBP, or CBI Standards. These external certifications validate the credibility of the bond's sustainability claims, mitigating the risk of greenwashing. Traditional bonds are not subject to similar requirements as they are not tied to sustainability objectives.

Regular and Transparent Reporting: UoPs bonds emphasize ongoing reporting through regular intervals, ensuring continuous accountability in relation to the use of proceeds and the impact achieved. Some regulatory frameworks, such as those in the EU and ASEAN, mandate periodic disclosures that detail the progress of funded projects and their alignment with a bond's stated goals. In contrast, traditional bonds are primarily subject to disclosures requirements at issuance, with less focus on ongoing reporting unless related to financial performance.

Alignment with International Standards: The regulatory frameworks for sustainable bonds often align with global standards like the ICMA Principles, CBI Standards or regional frameworks such as the ASEAN Standards. These frameworks set guidelines for reporting and impact assessment, hence promoting consistency across markets.

Additional Localized Requirements: In jurisdictions like India and Colombia, sustainable bond regulations include specific local adaptations, such as detailed pre-issuance disclosures and targeted post-issuance reporting requirements. These often include sustainability objectives, project eligibility

criteria, and sustainability performance indicators, reflecting a level of granularity absent in traditional bond frameworks.

# Chapter 5. Key Considerations

The following key considerations are put forward to help overcome the identified market challenges by enhancing investor protection, ensuring sustainable bond markets are operating in a fair and efficient way, and improving accessibility. These considerations highlight additional observations but do not prescribe any actions from securities market regulators.

**Key consideration 1: Greater Clarity in Regulatory Frameworks**

More clarity in existing or new regulatory frameworks may be beneficial to demonstrate alignment with internationally accepted principles and standards, support consistency and interoperability, build investor confidence, and support market participation.

Given the nascent nature of the sustainable bond market, there may remain ambiguity regarding how regulatory requirements apply to sustainable bond issuances. This may be especially true where a regulatory framework specific to sustainable bonds has not been developed.

Jurisdictions may find it beneficial to clarify how their existing rules/regulatory frameworks apply to sustainable bond issuances, or develop guidance (e.g. information papers, sharing of findings from inspections) and/or rules specific to the sustainable bond market. Guidance and/or rules specifically designed for sustainable bonds may be better suited to address the unique risks tied to that market such as those identified in Chapter 3. Incorporating or aligning regulatory frameworks with internationally recognized standards and guidelines, such as the ICMAs Principles, and CBI Standard, can further strengthen a jurisdiction's overall regulatory framework. Increasing adoption of such frameworks can contribute to consistency across markets, making it more familiar and accessible to global investors.

Should the need arise for new requirements to be introduced a balanced regulatory approach, which includes familiarization periods without the fear of penalties for issuers and intermediaries, could help support this market in its infancy.

**Key consideration 2: Sustainable Bonds Classification**

Establishing guiding principles or mapping systems aligned, where appropriate, with industry standards and other regulatory frameworks can help provide clarity and consistency across jurisdictions in categorizing bond types.

Regulatory definitions of sustainable bond types/labels are broadly aligned across jurisdictions and regions (essentially, what qualifies a bond as green, social, sustainable, or transition). That being said, the classification of these bond types/labels (i.e. how these bonds are grouped) within specific regulatory frameworks may differ. For example, in the EU, climate bonds and blue bonds are often considered a sub-category of green bonds, but Belize's framework only addresses blue bonds without mentioning green bonds.

Additionally, the label of "transition" bonds may also be a source of confusion. With recent increased attention on transition finance and ongoing discussions on the definition of "transition" funds and products, many bond issuances labelled as "transition" have been based on varying definitions of transition, potentially raising concerns about greenwashing. While some jurisdictions do not classify transition bonds separately or recognize them as a distinct category, others, such as Japan, explicitly classify them as a standalone bond type.

To this end, market participants may find it useful to provide guidance or to map across categorisation systems that reflects key aspects of industry standards and regulatory frameworks. For example, guidance could map the different requirements with respect to project eligibility, external reviews, use of proceeds, etc. for products to be considered aligned to ICMA, CBI, EU GBS, etc.

**Key consideration 3: Enhancing Transparency and Ongoing Disclosure Requirements to Promote Public Accountability**

Promote clear, consistent, and sufficiently comprehensive ongoing reporting on issuers' progress toward sustainability-related goals or SPTs in order to support market discipline when issuers fail to meet their stated sustainability commitments.

When issuing sustainable bonds, issuers set sustainability-related goals that they, or the projects they manage, will meet in the future. Once the issuance has closed, issuers of sustainable bonds may diverge from their initial commitments. There can be many reasons for such a divergence, both within and outside of an issuer's control. When this occurs, issuers may not adequately inform their investors that a divergence has taken place and the causes of that divergence. The lack of clarity surrounding non-adherence to these goals can increase uncertainty in the sustainable bond market to the detriment of investors leading to investor protection concerns.

Without clear and ongoing reporting, investors may struggle to assess whether issuers are meeting sustainability commitments made, potentially increasing the risk of greenwashing and misallocation of capital to projects that do not deliver meaningful sustainability impact. The sustainable bond market would then risk becoming ineffective in driving meaningful sustainability impact that is expected by investors in this market.

Regulators may consider adopting rules that enhance clarity on penalties faced by an issuer and on the enforceable features of the sustainable bonds they issue for non-adherence to sustainability related goals.

Robust enforcement of regulatory violations for sustainable bonds can increase adherence to sustainability requirements. In Indonesia, if a sustainable project no longer meets applicable criteria, the issuer must prepare an action plan to remedy the status of the project and provide it to the regulator. If the remedy fails, investors are allowed to request that their securities be repurchased by the issuer or that the coupon paid by the issuer increases. Egypt is in the process of issuing guidelines specifically designed to address and prevent greenwashing practices, ensuring that claims of environmental benefits are genuine and measurable. Furthermore, they have noted that greenwashing will be penalized as a form of fraud, with strict enforcement mechanisms in place to maintain market integrity.

In addition, several IOSCO members emphasized the implementation of stricter reviews of prospectuses and other offering documents, sometimes using specialized frameworks, to improve disclosure transparency and accuracy. This includes outlining characteristics of misleading sustainability claims to assist reviewers in identifying any claims that may be viewed as greenwashing, using previously identified occurrences of misleading claims to instruct review teams, and identifying scenarios where these types of claims are prone to arise. These reviews also consider the domestic regulatory framework applicable to the issuance of a sustainable bond, applicable international standards, the completeness and consistency of the information provided in the offering

documents, and disclosure surrounding the use of proceeds, process for project selection, and management of proceeds. Specifying how bonds contribute to the achieving of an issuer's transition plan, where the company has developed and published one, can also help to ensure the sustainable bond is representative of the issuer's overall sustainability performance.

**Key consideration 4: Promote the Use of Independent and Credible External Reviewers**

Promote robust assessment and disclosure by external reviewers, including second-party opinion providers, with policies and procedures that ensure their independence and mitigate conflict of interest when conducting their work.

External review providers can play an important role in assessing and verifying sustainability claims made by issuers of sustainable bonds. Some regulators require third parties to be involved in the issuance of sustainable bonds, e.g., sustainability coordinators in setting up governance protocols and controls for identifying and mitigating greenwashing risk, external reviewers that ascertain alignment with internationally recognized standards, and external verifiers appointed at the pre-issuance and post-issuance stage to assess use of proceeds, the project selection process and the management of proceeds.

The claims made as part of a sustainable bond offering gain credibility when they are assessed and validated by external reviewers. Involvement of external reviewers in the sustainable bond market may also increase overall investor confidence in the market.

The effectiveness of these third-party assessments can be affected by conflicts of interest, which impact an investor's ability to rely on those assessments.

When external reviews do not amount to a genuine evaluation of the claims made by an issuer, the claims made may be false, misleading or inaccurate and can amount to greenwashing. False, misleading, or inaccurate claims are especially damaging to market credibility as investors may invest in issuances based on the understanding that these claims have been properly assessed and validated by an independent source.

In addition, without truly independent verification, issuers may selectively engage third parties that provide favourable assessments, weakening investor trust and increasing the risk of greenwashing.

Robust disclosure by third-party reviewers of their own governance frameworks, policies, and procedures to mitigate conflicts of interest can enhance market transparency on the safeguards in place to deter misleading external reviews. For example, the EUGBS introduces a registration and supervisory regime for external reviewers of EU green bonds administered by the ESMA.

Beyond the use of independent and credible external reviewers, issuers may have the opportunity of having a sustainable bond issuance classified as sustainable or included in a certain bond segment with the bond's listing entity. In South Africa, once a bond is listed on the Johannesburg Stock Exchange's (JSE) Interest Rate Market, the issuer can apply to be eligible for the Sustainability Bond Segment. Staff from the JSE will assess whether the application complies with applicable sustainability bond standards. Criteria for the Sustainability Segment are based on clear disclosure of proceeds, external review and commitment to regular post-issuance reporting.

**Key consideration 5: Capacity Building, Collaboration and Knowledge Sharing**

To bridge the knowledge gaps within the market, capacity building and educational programs can increase awareness and understanding of sustainable bonds among issuers, investors, intermediaries and regulators. These programs can support the development of sustainable bond markets, ensuring that market participants are equipped with the necessary skills and knowledge to transact in the market effectively. Furthermore, establishing platforms for collaboration and knowledge sharing between regulators and market participants helps disseminate regulatory expectations, best practices and facilitate knowledge sharing.

Despite recent progress, significant challenges remain in building capacity for sustainable bond markets. A lack of local expertise and fragmented standards continue to hinder market development. Smaller jurisdictions and emerging markets may face additional barriers, such as limited access to resources and the need to rely on third-party certifications from international providers, which can increase costs and logistical complexities.

Addressing these challenges can enhance market efficiency and support the development of the sustainable bond market.

Creating tailored educational campaigns and training programs can raise awareness, build expertise and set expectations/norms between market participants. For example, knowledge sharing on successful sovereign sustainability issuances (e.g., Hong Kong's Government Sustainable Bond Programme) can serve as important references and provide valuable lessons for private issuers and encourage wider market participation.

Moreover, notably for jurisdictions that rely on traditional regulatory frameworks to regulate the issuance of sustainable bonds, capacity building initiatives can provide regulatory clarity to market participants by outlining how issuers can comply with the rules regulating the bond market in the context of sustainable bond issuances. These initiatives can also outline any additional considerations for issuers to encourage alignment with international standards.

Additionally, enhancing international collaborations could better align local practices with global standards and provide access to specialized expertise and resources.

By fostering collaboration, enhancing capacity building initiatives, and building local expertise, jurisdictions can create a more inclusive and transparent sustainable bond market that aligns with global sustainability objectives.

# Annex 1: Historical Development of Sustainable Bonds

In 2007, the EIB issued the first-ever green use of proceeds bond, called the "Climate Awareness Bond." The EIB's bonds provided investors with a vehicle to invest funds into environmentally beneficial projects.

The following year, the World Bank, in collaboration with SEB, issued the World Bank Green Bond, to respond to specific investor demand for a triple-A rated fixed income product to support projects that advance climate objectives. Since 2008, the World Bank has issued over USD19 billion equivalent in green bonds through more than 220 bond issuances in 28 currencies.[51]

In 2012, the CBI, issued the CBS and Certification Scheme, a voluntary labelling scheme for investments – and now entities – that are addressing climate change. They were later modified to incorporate alignment with the goals of the Paris Climate Agreement[52] which was signed in 2015.

Until 2013, green bonds primarily targeted a selective group of institutional and retail investors. However, that year, broader institutional investor interest grew, with larger deals entering the market. For example, in February 2013, the International Finance Corporation (IFC) issued the first $1 billion-dollar green bond, which matured in May 2016.[53]

In 2014, ICMA introduced the GBP (updated in 2021), voluntary standards for the issuance of green bonds.[54]

As the green bond market gained momentum, the first green bond indices were issued, which helped bring clarity to the green bond market for both issuers

[51] https://treasury.worldbank.org/en/about/unit/treasury/ibrd/ibrd-green-bonds

[53] https://www.ifc.org/content/dam/ifc/doc/2023/FY16-Green-Bond-Impact-Report-Final.pdf

[54] https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/Green-Bond-Principles---Brochure-2014.pdf

and investors.[55] In 2014, Barclays MSCI, S&P, Solactive and BALM[56] introduced green bond indices, enabling comparisons between green bonds and traditional fixed-income instruments.

During this period, issuers and investors in Asia also began embracing the sustainable bond market. In 2017, members of the ASEAN adopted the ASEAN Green Bonds Standards (building from ICMA's GBP), an initiative to facilitate green financing across ASEAN capital markets and meet growing investor demand for sustainable investments.[57]

Based on the success of the green bonds market, interest grew in creating similar instruments to support wider social objectives. The first social bond was issued in 2015 by ICO[58], before specific social bond guidelines were available. In 2017, ICMA issued its SBP, voluntary standards for the issuance of social bonds. Building from the SBP, the ASEAN Social Bond Standards were issued in 2018.[59]

During 2016, issuances of sustainability bonds, which combined environmental and social projects, increased. Thus, in 2017, ICMA also issued SBG which align closely with both the GBP and SBP.

Between 2018 and 2020, new sustainable finance products emerged, such as green loans, SLBs and loans, and transition finance products. Building on the creation of these new products, ICMA launched the SLBP in June 2020 with an aim to further enhance the ability of debt markets to fund and encourage companies that contribute to sustainability (from an environmental and/or social and/or governance perspective).[60] Similarly, in 2022, and building from the SLBP, the ASEAN Capital Markets Forum (ACMF) developed the ASEAN

[55] https://thedocs.worldbank.org/en/doc/460121522347658092-0340022018/original/publicationpensionfundservicegreenbonds201712.pdf

[56] Merrill Lynch, Pierce, Fenner & Smith Incorporated (Merrill) and BofA Securities (together BAML).

[58] https://www.ico.es/web/ico_en/ico/investor_relations/ico_social_bonds#:~:text=In%20early%202015%2C%20ICO%20launched,%22Social%22%20in%20ESG%20criteria.

[59] ASEAN Capital Markets Forum

[60] https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/sustainability-linked-bond-principles-slbp/

Sustainability-Linked Bond Standards. In 2023, the European Union Green Bond Regulation set out uniform requirements for the use of the label "European green bonds" in the EU. The Regulation provided also optional disclosure templates for bonds marketed as environmentally sustainable and for SLBs.[61]

[61] The intended opt-in regime for issuers of bonds marketed as environmentally sustainable or of sustainability-linked bonds is intended to drive standardization and ambition in the market. Namely, the European Commission adopted on April 16, 2025 a Communication establishing guidelines for pre-issuance disclosure templates, and a Delegated Regulation setting the content, methodologies and presentation of the information to be voluntary disclosed in the templates for period post-issuance disclosures (European Green Bond Standard Regulation - European Commission). Official publication will follow after the end of the scrutiny period for the Delegated Act.

# Annex 2. Capacity Building initiatives

## Current Landscape of Capacity Building

Jurisdictions have varied levels of engagement in capacity-building activities, reflecting differences in market maturity, resources and local priorities.

Some jurisdictions offer comprehensive training programs and technical assistance, while others focus on broader sustainable finance principles rather than sustainable bonds specifically. In some jurisdictions, capacity-building efforts are multifaceted and involve both public and private stakeholders, while in others, the activities are often launched by public authorities, together with international organizations.

Capacity-building initiatives in sustainable bond markets can be broadly grouped into three thematic areas: training and education, financial support mechanisms, and collaborative frameworks. Each theme addresses distinct challenges and opportunities within the market, with tailored approaches depending on the jurisdiction's level of development and resources.

**Training and education**

Among the most common capacity-building activities are tailored training programs and courses designed to upskill market participants. These initiatives focus on critical areas such as the issuance process, taxonomy application, disclosure requirements, and impact measurement.

For instance, MAS has implemented the Sustainable Finance Jobs Transformation Map, which identifies critical skills needed to support the sustainable finance sector, including expertise relevant to sustainable bonds.

Similarly, ESMA offers virtual seminars and workshops open to National Competent Authorities (NCAs) through its ESG-focused Training Hub. These sessions are designed to enhance the understanding of sustainability disclosures, greenwashing prevention, and regulatory compliance. ESMA's training initiatives also cover the EU Green Bond Regulation, to increase

awareness and understanding of its implementation and impact, and include technical modules aimed at equipping supervisors with the tools to navigate the evolving landscape of sustainable finance.

The Securities and Futures Commission (SFC) of Hong Kong amended its *Guideline on Continuous Professional Training* in 2022 to include ESG as a relevant topic for corporations and individual practitioners.[62] The Hong Kong Monetary Authority also launched the updated *Enhanced Competency Framework on Green and Sustainable Finance*[63] in 2024 which sets out the competency standards for practitioners performing green and sustainable finance-related functions in the banking industry, including practitioners taking up roles in sustainable finance product and servicing.

Authorities in Hong Kong have been offering various trainings and events to raise industry awareness and promote capacity building on ESG investments, as well as maintain dialogues and collaboration with relevant local and international stakeholders. In addition, the Investor and Financial Education Council, which is a subsidiary of SFC Hong Kong dedicated to improving investor and financial education, has a dedicated webpage on sustainable investments, targeting retail investors. [64]

In some markets, training and education initiatives are often delivered through partnerships with multilateral organizations. For example, some respondents organise workshops and seminars on sustainable bond issuance and taxonomy alignment. Other respondents participate in World Bank or other multilateral organization's initiatives that provide technical assistance to financial institutions on green bond issuances, among others.

**Financial support mechanisms**

[62] https://www.sfc.hk/-/media/EN/assets/components/codes/files-current/web/guidelines/guidelines-on-continuous-professional-training/Guidelines-on-Continuous-Professional-Training.pdf?rev=50728987dec448b0a2ae9e9e7f658354

[63] https://www.hkma.gov.hk/media/eng/doc/key-information/guidelines-and-circular/2024/20241121e1.pdf

[64] https://www.ifec.org.hk/web/en/investment/investment-products/green-finance/index.page

Another component of capacity-building efforts is the provision of financial support to reduce barriers to market entry. High issuance costs, particularly for external certifications and reviews, often prevent smaller issuers and new markets from participating in the sustainable bond market. Financial incentives such as grants and subsidies have proven effective in addressing this challenge.

In this sense, several jurisdictions have tried to boost issuance of sustainable bonds through this mechanism. For instance, Hong Kong offers through its Pilot Green and Sustainable Finance Capacity Building Support Scheme to provide subsidies to market practitioners, students and graduates for the training and acquisition of relevant qualifications in sustainable finance. Taiwan's Taipei Exchange launched a subsidy program in 2024 to promote sustainable bond issuance, granting financial assistance to issuers meeting accreditation standards. Malaysia has taken similar steps through the SRI Sukuk and Bond Grant Scheme, which helps subsidize issuance expenses.

On the other hand, developing jurisdictions are also exploring financial support mechanisms tailored to their unique challenges. In Indonesia, a joint initiative with the Asian Development Bank (ADB) and the United Nations Development Programme (UNDP) provides funding for capacity-building activities, including the development of frameworks and external certifications, thereby addressing the financial barriers faced by local issuers. South Africa, for its part, is sponsoring the development of tools to analyse the environmental benefits of green bond-supported projects.

**Collaborative Frameworks and Partnerships**

Collaboration with international organizations and multilateral institutions is also a key capacity building mechanism, especially in developing jurisdictions, where local expertise and resources are often limited. Joint initiatives provide access to global best practices and technical assistance, enabling jurisdictions to align with international frameworks.

South Africa recently collaborated with the CBI and the Sustainable Banking Network (SBN), facilitating the development of the South African Green Finance Taxonomy. The Hong Kong Taxonomy for Sustainable Finance also

sought technical support from CBI through its public consultation and development.[65]

Colombia demonstrated the value of collaborative frameworks through its workshops on the Green Taxonomy, conducted in partnership with the World Bank and the International Development Bank (IDB). These sessions have provided practical guidance to issuers, investors, and regulators on aligning with ICMA principles and meeting international disclosure requirements.

Singapore has collaborated with international organizations to organize large-scale sustainability conferences and workshops, such as the Sustainable Debt Asia Forum, which brought together global stakeholders to discuss best practices, share case studies, and explore innovative solutions for sustainable finance challenges.

[65] https://www.hkma.gov.hk/eng/news-and-media/press-releases/2024/05/20240503-3/

# Annex 3. Survey Responses Received from IOSCO Member Authorities

**Albania** – Albanian Financial Supervisory Authority (AFSA)
**Angola** – Comissão do Mercado de Capitais (CMC)
**Argentina** – Comisión Nacional de Valores (CNV)
**Australia** – Australian Securities and Investments Commission (ASIC)
**Belgium** – Financial Services and Markets Authority (FSMA)
**Belize** – Financial Services Commission (FSC)
**Brunei Darussalam** – Brunei Darussalam Central Bank (BDCB)
**Canada** – Ontario Securities Commission (OSC), Autorité des marchés financiers Québec (AMF/QAMF)
**Chile** – Financial Market Commission (CMF)
**China** – Securities Regulatory Commission (CSRC)
**Chinese Taipei** – Financial Supervisory Commission (FSC)
**Colombia** – Superintendencia Financiera de Colombia (SFC)
**Cyprus** – Cyprus Securities and Exchange Commission (CySEC)
**Dominican Republic** – Superintendencia del Mercado de Valores (SIMV)
**Egypt** – Financial Regulatory Authority (FRA)
**European Union** – European Securities and Markets Authority (ESMA)
**Germany** – Federal Financial Supervisory Authority (BaFin)
**Greece** – Hellenic Capital Market Commission (HCMC)
**Hong Kong** – Securities and Futures Commission (SFC)
**India** – International Financial Services Centres Authority (IFSCA)
**Indonesia** – Indonesian Financial Services Authority (OJK)
**Italy** – Commissione Nazionale per le Società e la Borsa (CONSOB)
**Japan** – Financial Services Agency (FSA)
**Jordan** – Jordan Securities Commission (JSC)
**Latvia** – Latvijas Banka (Central Bank of Latvia)
**Lithuania** – Bank of Lithuania (BoL)
**Malaysia** – Securities Commission Malaysia (SC)
**Mexico** – Comisión Nacional Bancaria y de Valores (CNBV)
**Netherlands** – Netherlands Authority for the Financial Markets (AFM)
**Pakistan** – Securities and Exchange Commission of Pakistan (SECP)
**Panama** – Superintendency of the Securities Market (SMV)
**Poland** – Polish Financial Supervision Authority (UKNF)

**Portugal** – Portuguese Securities Market Commission (CMVM)
**Singapore** – Monetary Authority of Singapore (MAS)
**South Africa** – Financial Sector Conduct Authority (FSCA)
**Sri Lanka** – Securities and Exchange Commission of Sri Lanka (SEC)
**Thailand** – Securities and Exchange Commission of Thailand (SEC)
**Tunisia** – Financial Markets Council (CMF)
**United Arab Emirates** – Securities and Commodities Authority (SCA)
**United Kingdom** – Financial Conduct Authority (FCA)
**Zambia** – Securities and Exchange Commission of Zambia (SECZ)
**Dubai (UAE DIFC)** – Dubai Financial Services Authority (DFSA)