



Sustainability-Linked Bonds: A Promising Tool for Financing ESG Transformation

**Astana
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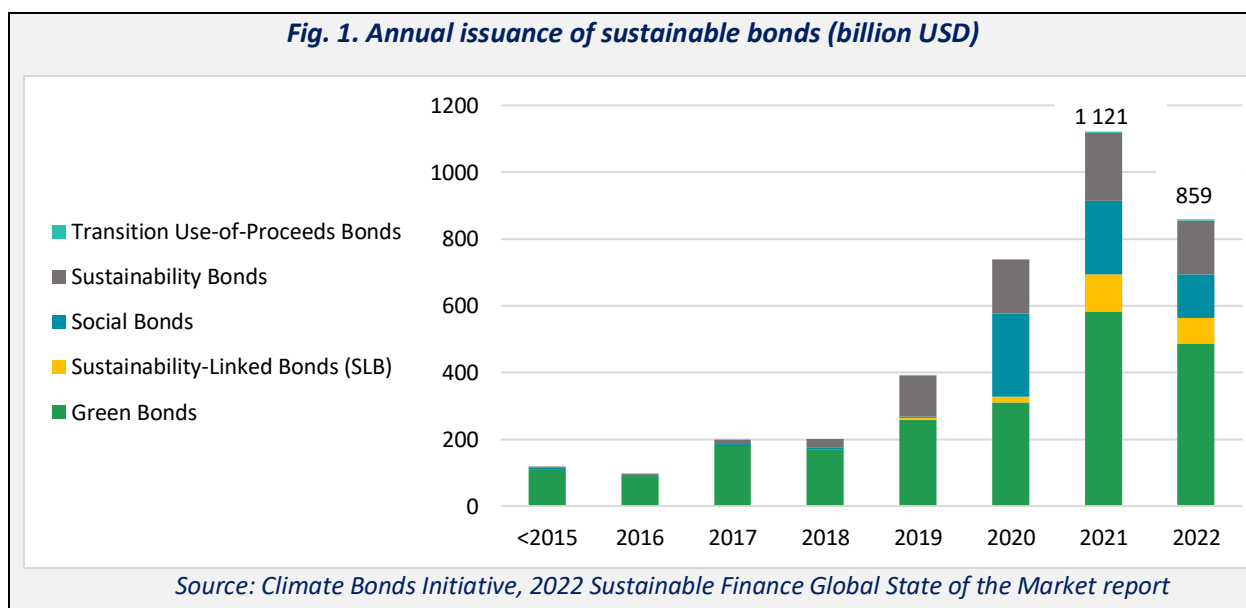
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I. INTRODUCTION

General information on the GSS+ market and sustainability-linked bonds

Despite the rapid growth of green and sustainable finance markets in recent years, efforts to support climate finance have largely focused on “pure green” and near-“pure green” activities, while support for the broader range of investments needed across the economy, including transition activities and investments by GHG-intensive sectors and companies, has been limited, with some sectors finding it increasingly difficult to do so. Effective transition finance policies can support this transition across the economy and improve the ability of sectors or companies to access finance to support their transition to zero emissions.

ESG (green bonds, social bonds, sustainability bonds, sustainability-linked bonds, or GSS+ bonds) finance instruments continue to evolve globally, with total annual global issuance reaching **US\$860-900** billion in 2022 according to various estimates¹. Meanwhile, the Climate Bonds Initiative estimates that the cumulative issuance of GSS+ bonds reached **US\$3.7** trillion by the end of 2022.



The market for climate transition-labeled financial instruments has grown as well, including sustainability-linked bonds (SLB), with issuer targets for climate change mitigation as well as use-of-proceeds bonds. However, SLB instruments themselves can be linked to a broader range of sustainability targets (both environmental and social).

¹ US\$858.5 bn in 2022 according to Climate Bonds Initiative estimates (https://www.climatebonds.net/files/reports/cbi_sotm_2022_03e.pdf), US\$863 bn according to Bloomberg estimates (<https://www.bloomberg.com/news/articles/2023-01-05/sustainable-debt-issuance-fell-amid-rates-turmoil-esg-pushback?leadSource=uverify%20wall>) and US\$899 bn according to Environmental Finance estimates (<https://www.environmental-finance.com/content/news/sustainable-bonds-insight-2023-published.html>)

According to the CBI, SLB issues in 2022 amounted to US\$76.4 billion (142 issues)², and the cumulative issue volume to US\$241.5 billion (accounting for 5.75% of the cumulative volume of the labeled debt market) by H1 2023³. Meanwhile, SLB issuances are planned under the Climate Bonds Initiative’s new standard, which targets transitioning companies. According to the report of the G20 Sustainable Finance Working Group, developing transition finance policies was one of the Group’s three main tasks in 2022.

The SLB story began with a major innovation in the sustainability bond market (GSS+) in 2019, when Italian energy company Enel issued the world’s first sustainability-linked bond (SLB). In June 2020, the International Capital Markets Association (ICMA) published the Sustainability-Linked Bond Principles (SLBP). The document included guidelines that set out certain rules for structuring sustainability-linked bonds and disclosure and reporting requirements.



Italian power utility company Enel issued a Sustainable-Development-Goal-(SDG)-linked bond in September 2019. It targeted a 55% share of renewables in its power generation capacity by the end of 2021, with a 25 basis points (bps) step-up in case of failure. It linked the target to executive remuneration⁴.

SLBs are therefore bonds for which the financial and/or structural characteristics depend on whether the issuer meets predefined sustainability targets (related to environmental and/or social factors, as well as factors related to the quality of corporate governance – ESG factors). Issuers commit to achieving material, numerically expressed, predefined, ambitious ESG targets in the future, regularly monitored and verified by independent external organizations, through Key Performance Indicators (KPIs) and Sustainability Performance Targets (SPTs).

Rather than linking the yield to specific green projects – such as renewable energy production, pollution prevention, or climate change adaptation – SLBs link coupon rates to the achievement of predetermined KPIs/SPTs. This distinguishes them from use-of-proceeds sustainability bonds, as the proceeds from the issuance of SLBs are not earmarked for a specific use but can be used to finance the issuer’s overall corporate objectives.

Fig. 2. Major differences between use-of-proceeds bonds and SLBs

	USE OF PROCEEDS	STRUCTURE	REPORTING	EXAMPLES
‘Use of Proceeds’ Bonds – green, social, blue, sustainability	‘Eligible Projects’ defined by framework	Typical	Reporting on allocation of proceeds, impact of projects	<i>GREEN: Renewable energy (solar, wind, hydropower), TRANSITION USE OF PROCEEDS: Construction and modernization of gas turbine plants, transition to an efficient combined cycle, gas-based CHPP – with total GHG emissions not exceeding 270 CO2/kWh.</i>

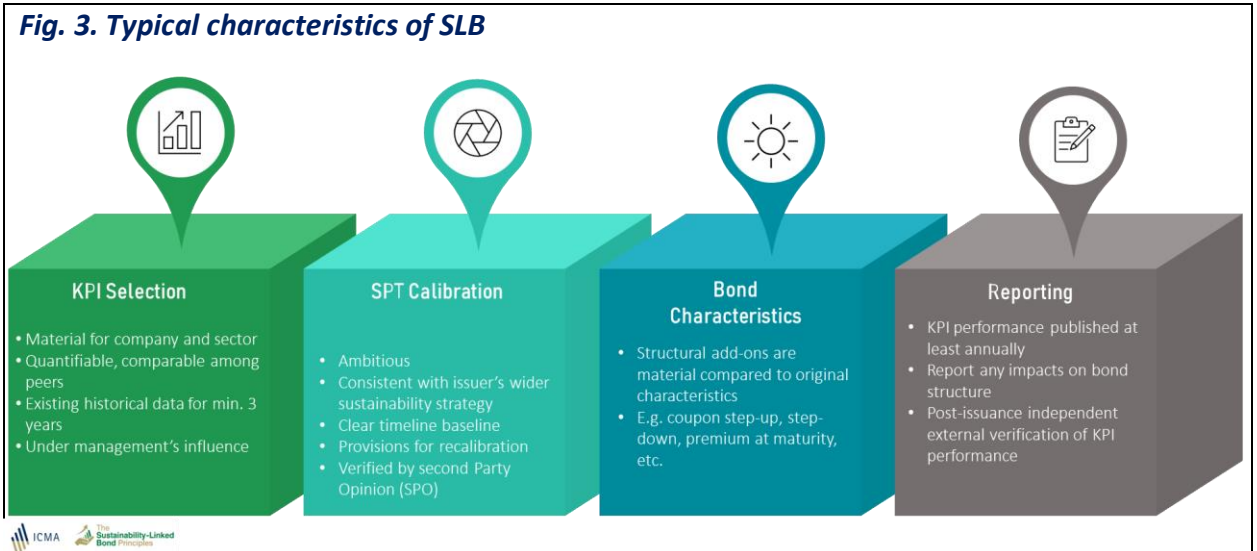
² According to Bloomberg, this value amounted to US\$60 bn in 2022 (Article by Financial Times (<https://www.ft.com/content/309a703a-3a5f-420e-afea-38a142a2f21a>), and according to Environmental Finance, US\$74 bn (Sustainable Bonds Insight 2023, <https://www.environmental-finance.com/content/news/sustainable-bonds-insight-2023-published.html>)

³ https://www.climatebonds.net/files/reports/cbi_susdebt_q1_2023_01e.pdf . Bloomberg provides a similar SLB share estimate, about 6% of the GSS+ sustainable development instrument market (<https://www.natwest.com/corporates/insights/sustainability/the-sustainability-linked-bond-landscape-continues-to-exhibit-in.html>)

⁴ <https://www.enel.com/company/stories/articles/2023/02/new-framework-sustainable-finance-group>

Sustainability-Linked Bonds (SLB)	General corporate purposes	Structure linked to achievement of Sustainability Performance Targets (SPTs)	Reporting on KPI performance, any impacts on bond characteristics	<i>TRANSITION AND ESG BONDS, linked to the implementation of the medium- and long-term plan (strategy) for the transition from coal to gas generation (e. g. for 10 years), or the transition to full CO2 capture technologies</i>
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Source: Federated Hermes, ICMA



The flexibility of the instrument attracts a large base of issuers who cannot issue green bonds (or other ESG financial products) – for example, because their operations are not taxonomized as sustainable. Thus, SLBs create opportunities for issuers to raise funds from responsible investors at the beginning of their transition to sustainability.

According to ICMA's recommendations, the issuer should provide a clear definition of the KPIs and indicate the scope or scale of activity to which the indicators apply (e.g., the percentage of the issuer's total emissions to which the target applies), the method of calculation (e.g., a clear definition of the denominator of the KPI based on intensity), the definition of the baseline – science-based or comparable to an industry standard. The selection of KPIs can be based on the SMART (Specific, Measurable, Achievable, Relevant and Time-bound) philosophy.

The chosen corporate goals should be ambitious, i.e., they should:

- offer a significant improvement in relevant KPIs and go beyond normal business operations,
- be comparable to benchmarks or external indicators where possible,
- be consistent with the issuer's overall ESG strategy,
- be pre-defined within the timeframe established before or at the same time as the issuance of the bonds.

A critical element of SLBs is that they provide for financial and/or structural consequences upon the occurrence of the trigger event(s). The most common example is a potential change in coupon payments, but changes in other financial and/or structural features of the SLB may also be considered. It is desirable that the changes in bond characteristics be appropriate and meaningful relative to the original financial characteristics of the issuer's bonds.

Science-based targets embedded in SLBs are a key mechanism for attracting investors because they enhance corporate credibility, transparency, and accountability. In the global market, expert organizations are engaged to verify the targets.

The Science Based Targets initiative (SBTi), for example, was created specifically for this market segment. It promotes best practices for reducing greenhouse gas emissions and achieving net-zero emissions consistent with climatology, provides technical assistance and expert resources to companies that set science-based targets consistent with the latest climate science, and provides companies with independent evaluation and verification of targets. SBTi is a partnership between several respected international organizations, such as Carbon Disclosure Project (CDP), the United Nations Global Compact (UNGC), the World Resources Institute (WRI), and the World Wildlife Fund (WWF).

USE OF SLBs COMPARED TO THE CONVENTIONAL APPROACH OF GSS USE-OF-PROCEEDS SUSTAINABILITY FINANCING INSTRUMENTS

Relevance of SLB use

- Flexibility in the allocation of proceeds, leaving the issuer to decide how to best achieve its sustainability targets.
- Creates an alignment between the corporate sustainability strategy and the financial structure, through a financial incentive.
- Issuers can benefit from a discount on coupon payments (normally around 25 bps based on existing market transactions) if the KPIs are met.
- SLBs can be used by issuers that operate in hard-to-abate and carbon-intensive industries. These issuers would struggle in finding the green investments necessary to justify the issuance of a use-of-proceeds bond.
- In some situations, issuing an SLB reduces greenwashing risks, as the level of ambition and verification of sustainability indicators at the corporate-wide strategy level is higher than for use-of-proceeds instruments, for which a specific pool of ESG assets is allocated, but a less ambitious and less controlled level of sustainability performance is possible.

Challenges in SLB use

- SLBs require quite complex structuring in order to design the KPIs and financial structure. Reporting and verification can be burdensome.
- Unambitious KPIs risk to seriously jeopardize the integrity of the security and defeat the sustainability purposes. Similarly, the more rigorous environmental investors do not appreciate the flexibility in the use of proceeds that could be used potentially even for environmentally harmful investments. In sum, SLBs are more prone to the risk of being accused of ‘greenwashing’ compared to ‘use of proceeds’.
- Enforceability of the KPIs written into the contracts can also be a challenge. To date, no SLB has reached its maturity, therefore this aspect should be carefully monitored in the future.
- Alignment with green taxonomies can be problematic for SLBs, which lack a clear “use of proceeds” reporting.

Conclusion

SLBs are a promising tool for the sustainable financing needed to support a successful energy transition in developing countries. The structural features of the bonds and the way they are regulated should evolve to meet the needs of a rapidly growing and developing market. Therefore, attention should be paid to the following aspects:

- There is a need for a robust structural configuration of SLBs that has a meaningful impact and provides incentives for further market growth, such as ambitious targets and financial mechanisms (such as coupon step-up, etc.) that motivate compliance. For example, two structural features of a bond – the timing of target achievement and the conditions regarding

the possibility of early redemption by the issuer (callability⁵) – can influence the effectiveness of the incentives contained in these instruments. It is preferable if the target dates do not fall in the second half of the bond’s term or in the last 10 percent of maturity.

- Addressing these issues appropriately, particularly for borrowers/issuers with poor environmental performance, can help maximize the positive sustainability impacts of bonds.
- Finally, emphasis needs to be placed on more rigorous industry standards, robust third-party verification, and investor awareness to address emerging issues.



Eni is one of the largest oil and gas/energy companies in the world and is regarded as one of the supermajor oil companies. In 2022, it recorded some EUR132.5bn of revenues, more than double (+73%) the revenues recorded in 2021. In 2022, Eni recorded 456m of CO₂e, of which 2.2% was Scope 1, 6.7% was Scope 2, and 91.1% was Scope 3. If Eni was a country, its emissions would place it 13th in the world, between Brazil and Turkey.

In February 2023, Eni priced an SLB of EUR2bn (USD2.1bn) due 2028, with a 4.3% interest rate, targeted at retail investors, tied to two targets⁶.

Target 1.

- **KPI:** GHG emissions (Scope 1, 2)
- **Target:** -65% vs 2018 (5.2 million MTCO₂e)

Target 2.

- **KPI:** RES capacity
- **Target:** 5 GW

Deadline: December 31, 2025

Financial vehicle: Coupon step-up

Coupon step-up: 50 bp

Can SLB be categorized as transition bonds?

There are many definitions of transition finance, and so far none has been agreed upon internationally. The ICMA Handbook states that the “climate transition” label applied to a debt instrument “should inform the issuer’s corporate strategy to transform its business model to effectively address climate risks and contribute to the achievement of the Paris Agreement goals” (ICMA, 2020). In the meantime, according to ICMA, “transition bonds” can be either **green use-of-proceeds bonds**, sustainability bonds, or **sustainability-linked bonds (SLBs)**.

The Climate Bonds Initiative (CBI) proposes its label “climate transition” and defines transition bonds as use-of-proceeds instruments used to finance low- or zero-emission (i.e., non-green) activities, but with a short- or long-term role in decarbonizing activities or supporting the issuer in the climate transition in line

⁵ According to IFC research (February 15, 2023), SLBs are three times more likely to be callable than corporate green bonds and five times more likely than conventional corporate bonds. <https://www.ifc.org/en/insights-reports/2023/making-sustainability-linked-bonds-more-impactful>

⁶ <https://www.eni.com/en-IT/investors/sustainable-finance.html>

with the goals of the Paris Agreement, as well as general-purpose finance and entity level finance instruments aligned with the a credible transition pathway (CBI, 2022).

In October 2022, the CBI extended its Climate Bonds Standard and Certification Scheme to include the scope of SLBs to raise the level of ambition and integrity of the market. The standard draws on recommendations from other organizations, including ICMA, GFANZ (Glasgow Financial Alliance for Net Zero), SBTi (science-based target setting) and others, and is focused on transition companies. The certification is designed to facilitate identifying bonds, loans, and other debt instruments that are consistent with limiting warming to 1.5°C or less for investors. CBI certification is a prerequisite for inclusion in some green bond indices.

The standard identifies five key principles to ensure robust climate transition and an organization's readiness to achieve its goals:

1. Harmonization with the goals of the Paris Agreement.
2. Robust action plans.
3. Measures to implement such action plans.
4. Internal monitoring.
5. External reporting.

A company's transition plans and related targets for the issuance of SLB instruments under the Standard must meet the following requirements:

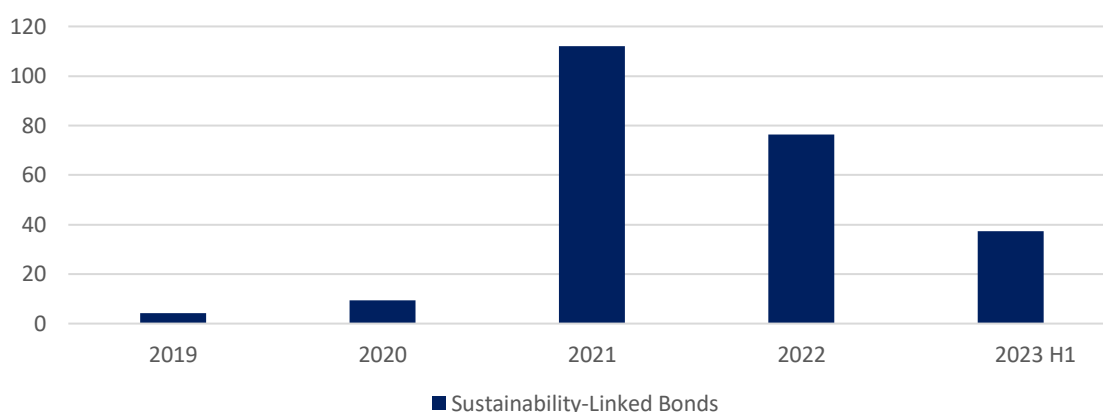
1. The company's climate change mitigation targets must reach net zero from the date of certification by 2050 at the latest.
2. Intermediate targets should be set for shorter periods of 3 years during the life of the SLB instrument, and then for periods of 5 years until the Company is expected to reach net zero.
3. The CBI taxonomy criteria must be achieved by 2030.

II. SLB MARKET STATISTICS AND TRENDS

As mentioned earlier, the SLB market volume has currently (by the end of H1 2023) grown to US\$241.5 bn since Enel launched its ground-breaking bond in September 2019 (5.75% of cumulative global labeled debt market)⁷.

Issuance of the performance-based instruments has struggled since its breakout year in 2021, however. Geopolitical tensions, a cycle of interest rate hikes by central banks, and the expectation of a recession in a number of developed countries led to an overall decline in global new issuance volumes of 2022 GSS+ bonds for the first time in history. However, it is worth noting that GSS+ issuance reached a record volume of more than US\$1 trillion in 2021, accounting for 5% of the global bond market. In 2022, GSS+ issuance maintained its 5%⁸ share of the global bond market despite a challenging environment that led to a decline in GSS+ issuance volume to US\$863.4 billion.

Fig. 4. SLBs issued since the instrument was introduced (in billion USD)



Source: Compiled based on data from Climate Bonds Initiative and Environmental Finance

The global market for GSS+ bonds accounts from 5%⁹ to 13.5%¹⁰ of the global bond market, according to various estimates, and this proportion is expected to continue over the next two or three years. However, as the global economy emerges from the crisis, the issuance of “younger” financial instruments, such as SLBs, as well as use-of-proceeds transition bonds, have a significant growth potential. Above-average momentum in this segment is expected in the Asian countries, especially in India and China, where the potential of the market for GSS+ bonds has not yet been fully realized. For example, according to Climate Bonds¹¹, the emerging Indian economy (the second largest economy among the G20 countries in terms of GDP growth in 2022) is the sixth largest issuer of GSS+ in the Asia-Pacific Region and issued sovereign green bonds in local currency with greenium for the first time in January 2023, suggesting strong demand

⁷ According to Environmental Finance, since they were launched in 2019, SLB issues have raised over US\$ 220 bn and there are currently over 200 SLBs and over 500 SLLs (sustainability-linked loans) on the market.

⁸ According to CBI <https://www.climatebonds.net/2023/01/2022-market-snapshot-and-5-big-directions-sustainable-finance-2023#:~:text=2022%20saw%20GSS%2B%20issuance%20hold,4bn.&text=Lifetime%20GSS%2B%20volumes%20had%20topped,b%20the%20end%20of%202022> and Bloomberg (<https://www.bloomberg.com/news/articles/2023-01-05/sustainable-debt-issuance-fell-amid-rates-turmoil-esg-pushback?leadSource=uverify%20wall>

⁹ According to CBI <https://www.climatebonds.net/2023/01/2022-market-snapshot-and-5-big-directions-sustainable-finance-2023#:~:text=2022%20saw%20GSS%2B%20issuance%20hold,4bn.&text=Lifetime%20GSS%2B%20volumes%20had%20topped,b%20the%20end%20of%202022>.

¹⁰ Environmental Finance, Sustainable Bonds Insight 2023 (<https://www.environmental-finance.com/content/news/sustainable-bonds-insight-2023-published.html>)

¹¹ <https://www.climatebonds.net/2023/03/india%E2%80%99s-debut-sovereign-green-bond-market-first-deal-landed-greenium>

from domestic investors. In China, which was already listed as the world’s largest source of green bonds in 2022 (according to Climate Bonds), transition financing is still at an early stage. As the Chinese economy is heavily reliant on energy-intensive, emissions-intensive industries, the combined issuance of SLBs and transition bonds listed by Chinese issuers in domestic and offshore markets totaled US\$ 19.6 billion at the end of 2022 (83 registered SLBs in total), and in June 2022, the Shanghai Stock Exchange and NAFMII approved the relevant guidelines for transition bonds¹².

Fig. 5. SLB market dynamics (2019 to Q1 2023)

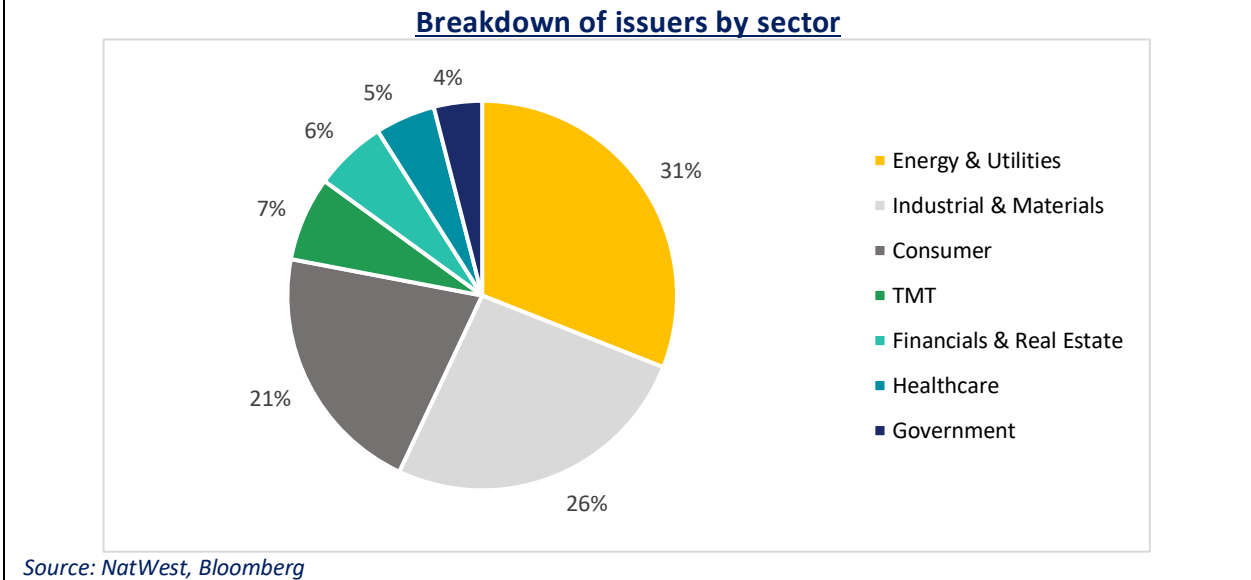
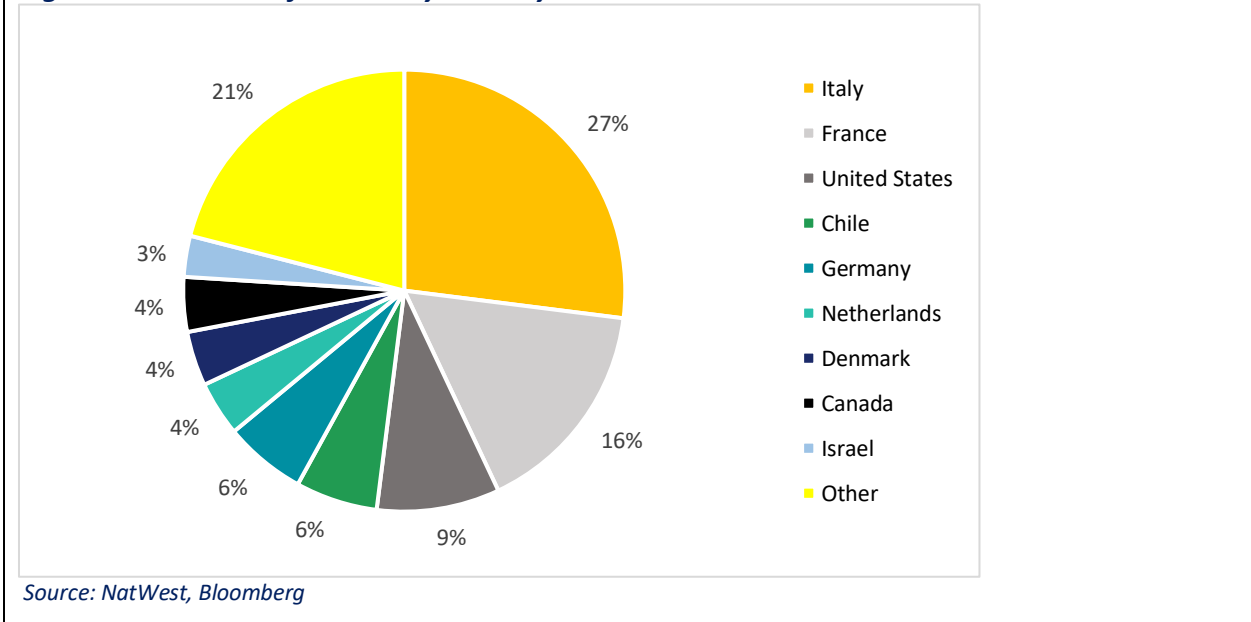


Fig. 6. Breakdown of issuers by country



Although there has been criticism of the reliability of some elements, the general tone toward SLBs has become more constructive in Q1 2023 as issuers and investors increase their knowledge of the product and additional research and certifications are published.

¹² https://www.climatebonds.net/files/reports/cbi_china_sotm_22_en.pdf

FTSE Russell launched the SLB index series on July 24, 2023, the second index of its kind to date with performance-based securities. The reference FTSE Global Sustainability-Linked Bond 0+ Year (Global SLB0+) Index will include over 190 bonds valued at US\$134 billion. This includes over 120 investment-grade bonds and 55 high-yield bonds, with the remainder being unrated issues denominated in Chinese yuan and Japanese yen. If the issuer does not file a report, the SLB will be placed on a “watch list” for six months. If after 18 months still no report has been published, the bond is permanently classified as “unacceptable” for the FTSE Russell Index.

III. REGULATORY AND STATUTORY FRAMEWORK FOR SLB ISSUANCE IN KAZAKHSTAN AND THE REGION

In AIFC, an expanded range of sustainable instruments, including sustainability bonds and SLBs, are regulated by the ESG-Labeled Bonds Rules under the AIX Business Rules and additional Tier 2 regulatory documents of the AIFC Exchange (AIX), such as the AIX Market Notice.

The Kazakhstan Stock Exchange (KASE) also amended its listing rules in 2022 to allow sustainable financial instruments, which include green, social, sustainability bonds and SLBs. The rules also require disclosure of the intended use of proceeds or sustainability targets in the prospectus, as well as an external assessment by a specified list of organizations. Green, social, sustainability and sustainability-linked bonds (SLBs) are included in the Law on the Securities Market of the Republic of Kazakhstan.

Among the countries of the EAEU and Central Asia, it is worth mentioning that, in Russia, updated Securities Issuance Standards came into force in November 2022, in which the Bank of Russia expanded the list of ESG bonds by adding three new types of bonds to the already existing green, social and sustainability bonds: adaptation bonds, climate transition bonds, and sustainability-linked bonds (SLBs).

In Kyrgyzstan, SLBs and sustainability bonds have not yet been embedded in regulation, but the sustainability sector of the Kyrgyz Stock Exchange may include sustainable financial instruments, including green, social and sustainability bonds issued by private, public, or international organizations that comply with ICMA principles (including SLBs).

In the Republic of Belarus, only green bonds have been legislated so far (in the National Action Plan for the Development of Green Economy and the Concept (Framework) of State Green Bonds), but work is underway to introduce ESG standards to promote ESG financing.

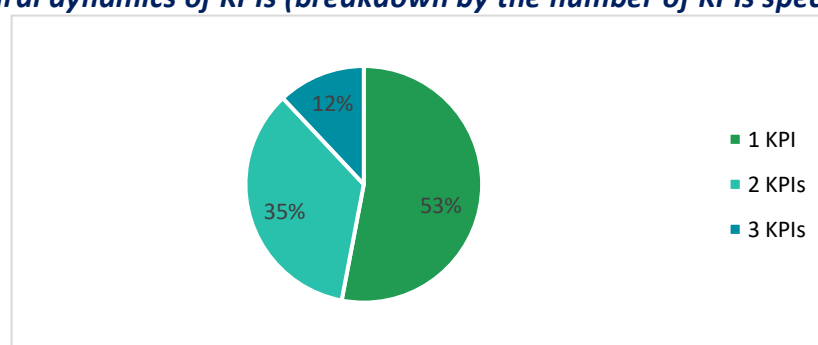
Uzbekistan is in the process of developing the ESG dimension in the financial sector. The government issued SDG bonds in 2021, but the regulatory framework and experience with issuing ESG instruments have yet to be developed.

IV. FOCUS ON KPI

According to the Luxembourg Stock Exchange analysis (2021), the vast majority of KPIs were environment-related ones. For example, 90% of SLB KPIs were related to green targets, including RES and water consumption. Only 1% was associated with the company's ESG rating, 6% included social targets, and 2% included governance targets. The most common KPI was GHG emissions reduction, which accounted for 70% of all targets, but only 32% of issuers that set GHG emissions targets in their bond were SBTi compliant.

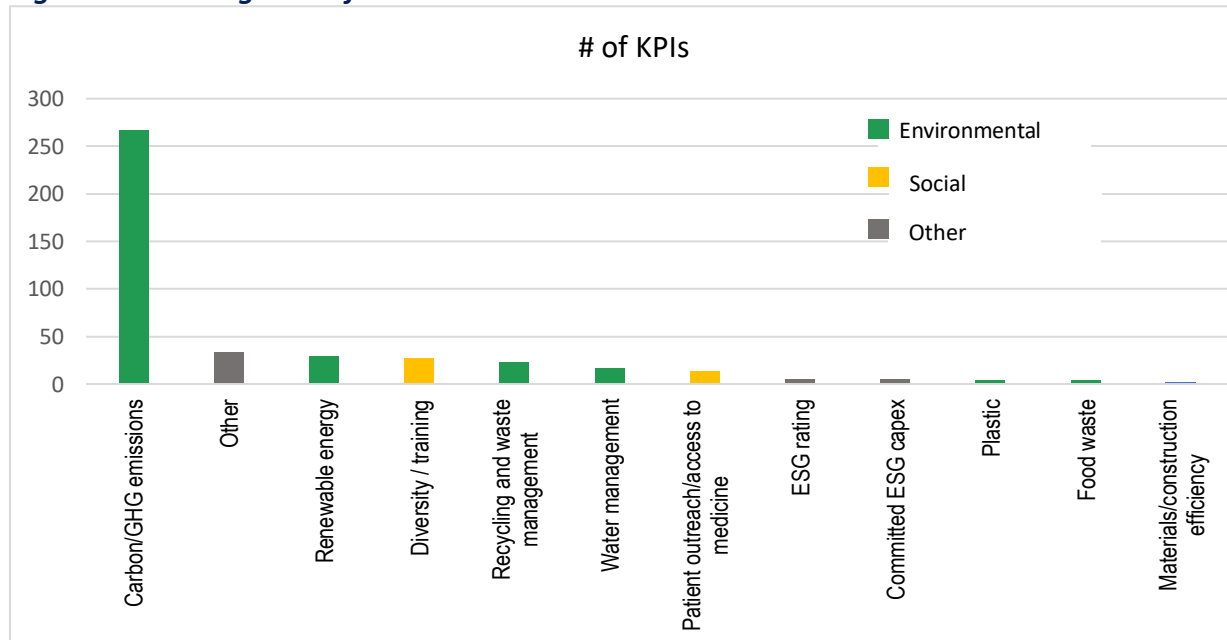
In addition, the Luxembourg Stock Exchange's market report showed that nearly 40% of SLBs were classified as high-yield (i. e. riskier)¹³ and, according to Moody's, only one-third of transactions since June 2020 were investment-grade issues. In comparison, offering a sufficient volume of high-yield issues proved more modest in the market for use-of-proceeds ESG instruments¹⁴.

Fig. 7. Structural dynamics of KPIs (breakdown by the number of KPIs specified)



Source: NatWest, Bloomberg

Fig. 8. Main categories of KPIs



Source: NatWest, Bloomberg. The analysis is based on KPIs for SLBs issued from June 20, 2022 to June 30, 2023.

¹³ <https://www.luxse.com/discover-lgx/sustainable-securities-on-lgx>

It is worth noting that corporate ESG metrics (KPIs) are increasingly publicly available in annual sustainability reports and are gradually becoming more popular than third-party ESG ratings, which can be perceived as a black box due to the fact that the assessment methodologies for the KPIs are owned by the external reviewer and progress is outside the direct control of the issuer¹⁵.

Fig. 9. Evolution of indicators used in the issuance of sustainability-linked instruments in the period 2017–2021.

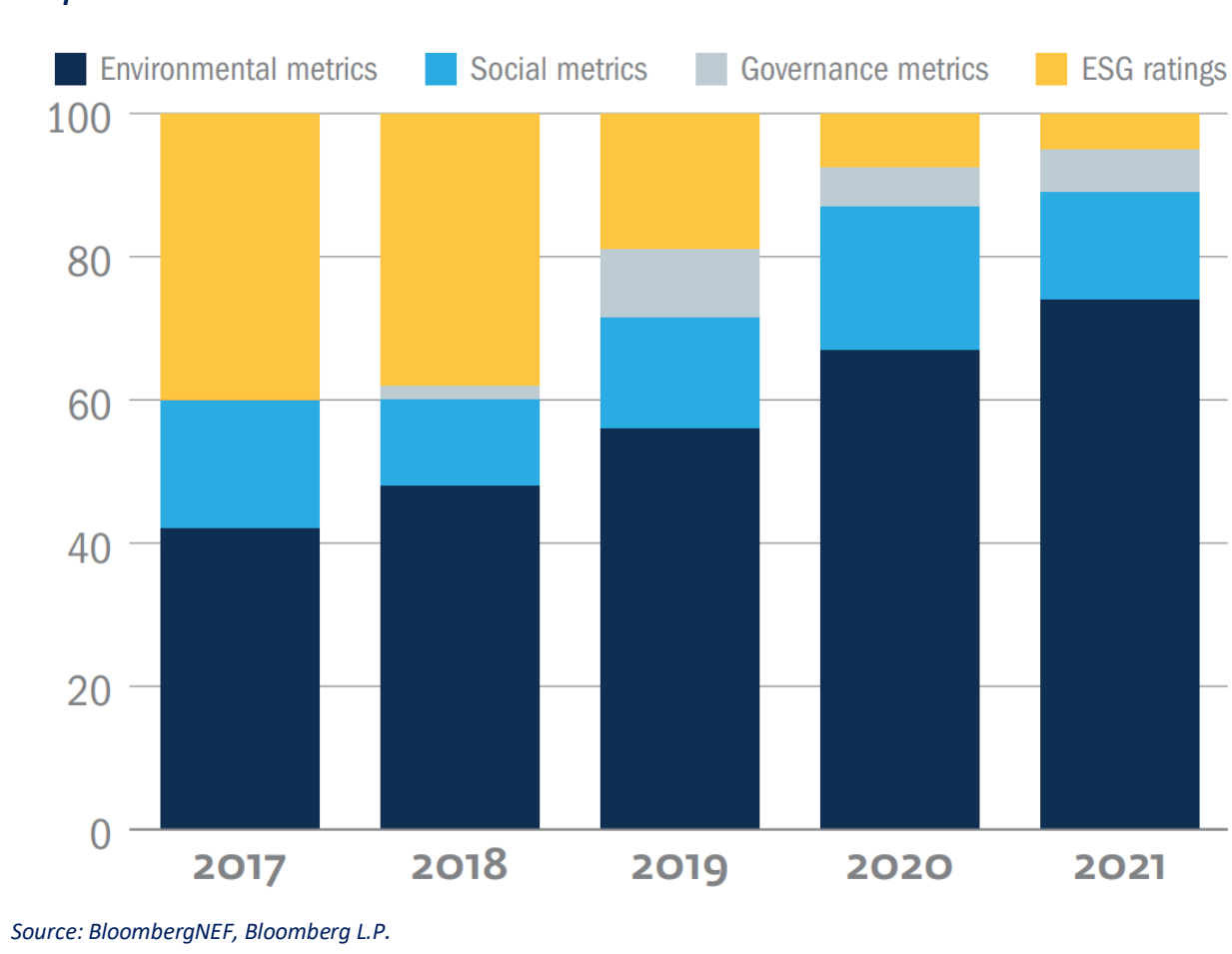
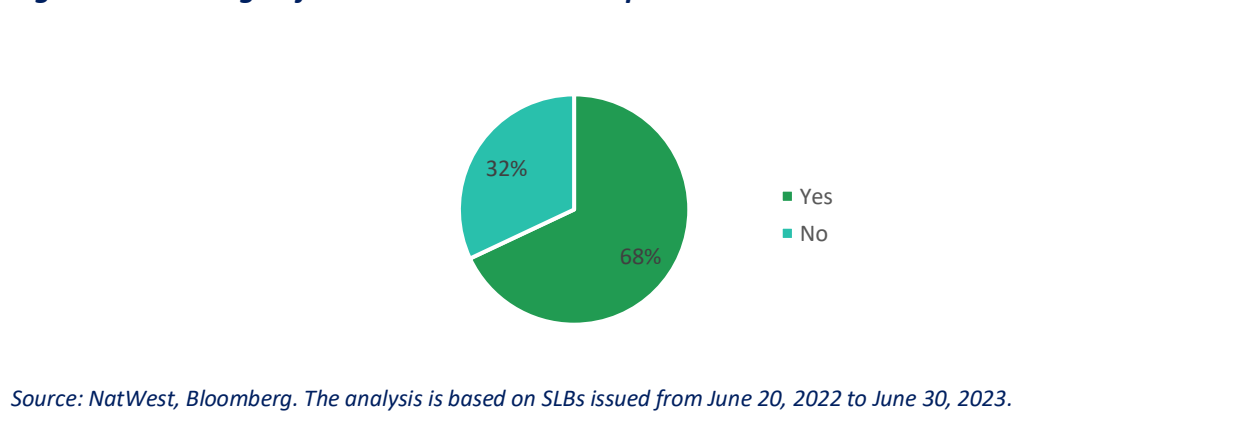


Fig. 10. Percentage of KPIs that meet SBTi requirements



To date, key market players have focused on attempts to tighten the selection of KPIs.

¹⁵ <https://www.ifc.org/content/dam/ifc/doc/mgmt/emcompass-note-110-sustainability-linked-finance-web.pdf>

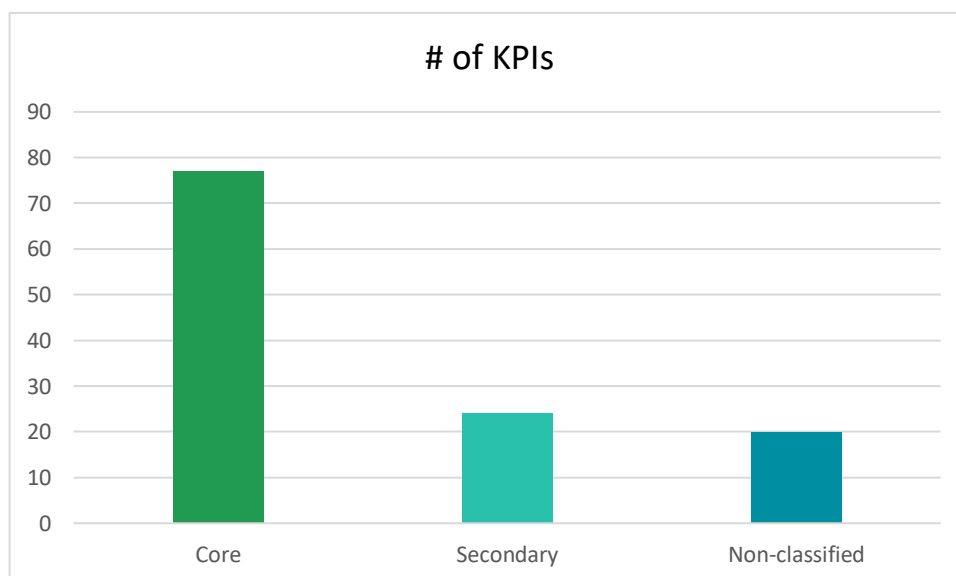
For example, ICMA has published an updated and expanded “KPI Registry” for SLB issuers. The Registry now includes approximately 300 KPIs, categorized by sector and divided into “core” and “secondary” KPIs. ICMA’s KPI Registry is clearly becoming a valuable resource for current and potential SLB issuers, underwriters, and investors in identifying core and secondary KPIs¹⁶.

Fig. 11. KPI Registry for SLB issuers (ICMA) (a fragment for the automotive sector)

Sector	Sub-sector	Sustainability theme	Potential KPIs	Core vs Secondary	SDGs	Global Benchmarks for KPI definition	Global Benchmarks for calibration	EU Objectives
Automotive	Auto Manufacturers, Auto Parts	Climate change (GHG emissions and energy)	Scope 1, 2 and 3 GHG emissions (in carbon intensity per vehicle produced, vehicle sold, vehicle kilometer or absolute)	Core	7, 13	SBTi TPI ACT SDA GHG Protocol Corporate Value Chain Accounting and	Science Based Target Initiative (SBTi), Transition Pathway Initiative; TPI, ACT, sectoral Decarbonisation	Climate change mitigi
Automotive	Auto Manufacturers, Auto Parts	Climate change (GHG emissions and energy)	Scope 3 GHG emissions (in carbon intensity per vehicle produced, vehicle sold, vehicle kilometer or absolute)	Core	7, 13	SBTi TPI ACT SDA GHG Protocol Corporate Value Chain Accounting and	Science Based Target Initiative (SBTi), Transition Pathway Initiative; TPI, ACT, sectoral Decarbonisation	Climate change mitigi
Automotive	Auto Manufacturers, Auto Parts	Climate change (GHG emissions and energy)	% of zero emission vehicles or low-carbon vehicles (hybrid or plug-in hybrid vehicles) sold	Secondary	7, 13	SDA SASB Sector Standards	Sectoral Decarbonisation	Climate change mitigi
Automotive	Auto Manufacturers, Auto Parts	Raw material sourcing and recycling (circular economy)	Average recyclability of sold vehicles/products (% by sales-weighted metric tons)	Secondary	12	Ellen McArthur Foundation New Plastics Economy	Ellen McArthur Foundation New	The Transition to a Ci Economy
Automotive	Auto Manufacturers, Auto Parts	Climate change (GHG emissions and energy)	% of produced/sold vehicles/components with zero (tailpipe) emissions or hybrid vehicles or plug-in hybrid vehicles (less than 50g CO2/pkm until 2025)	Core	11, 13	EU Taxonomy EU Regulation 2018/858 SDA SASB Sector Standards	Sectoral Decarbonisation Approach	Climate change mitigi
Automotive	Auto Manufacturers, Auto Parts	Raw material sourcing and recycling (circular economy)	Proportion or amount of recycled or renewable/sustainable raw materials used in	Secondary	12	Ellen McArthur Foundation New Plastics Economy	Ellen McArthur Foundation New	The Transition to a Ci Economy

In June 2023, the SLBP Sub-Working Group added additional KPIs related to social themes to the Registry, as well as KPIs for sovereign issuers. ICMA’s Sector Materiality Matrix for KPIs is provided in Appendix 1.

Fig. 12. Break-down of primary and secondary KPIs based on ICMA Registry classification



Source: NatWest, Bloomberg. The analysis is based on SLBs issued from June 20, 2022 to June 30, 2023.

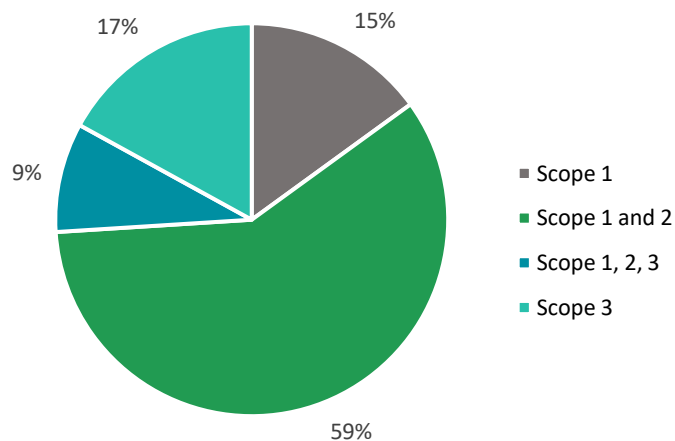
More and more companies are considering including Scope 3 GHG emissions in their SLB policies to cover at least some indirect emissions across the company’s value chain. At the end of Q1 2023, 26% of all SLBs with key environmental KPIs included some form of Scope 3. However, it is important to recognize that a company’s ability to impact upstream and downstream emissions varies widely. The lack of consistent

¹⁶ https://www.icmagroup.org/assets/documents/Sustainable-finance/2022-updates/Registry-SLB-KPIs_Final_2022-06-24-280622.xlsx

methodologies combined with the use of industry averages makes the inclusion of Scope 3 KPIs a non-trivial decision.

The use of carbon credits in SLB schemes is on the rise. 21% of bonds issued in Q1 2023 included an indication of the extent to which carbon credits can be used to meet the sustainability goal. Carbon credits purchased on a voluntary carbon market (e.g., Carbonplace) can help offset company's residual emissions toward net-zero emissions. However, issuers should disclose the extent to which they are being used. The SBTi, for example, sets an upper limit of 10 percent for offsets.

Fig. 13. Breakdown by Scope (1, 2, 3) among KPIs for GHG emissions

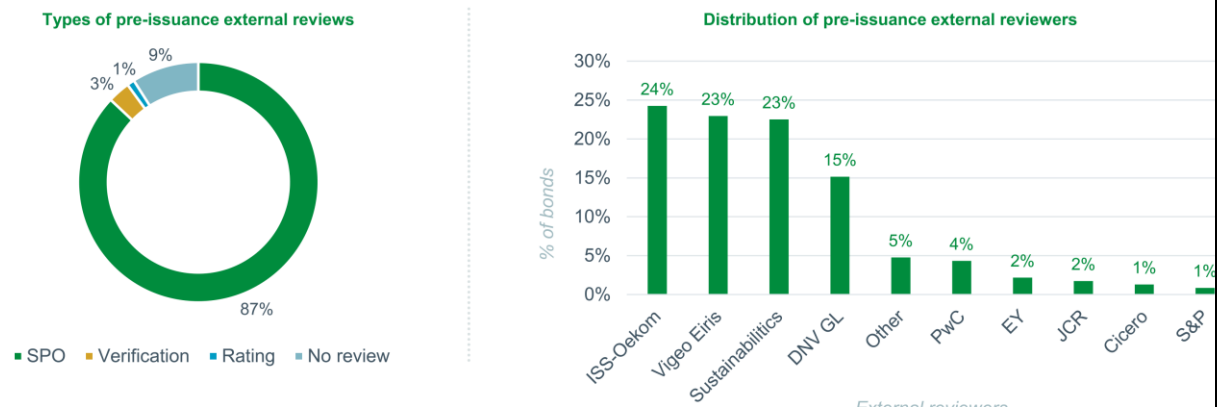


Source: NatWest, Bloomberg. The analysis is based on SLBs issued from June 20, 2022 to June 30, 2023.

V. PRE-ISSUANCE VERIFICATION

In the pre-issuance Second Party Opinion, external reviewers are encouraged to assess the relevance, validity, and reliability of the selected KPIs, the rationale and level of ambition of the proposed SDGs, the relevance and reliability of the selected benchmarking and baseline indicators, and the credibility of the strategy outlined to achieve the SDGs, based on scenario analysis where appropriate (ICMA, SLBP, 2020).

Fig. 14. Types of pre-issuance external review and pre-issuance external reviewers in the SLB market



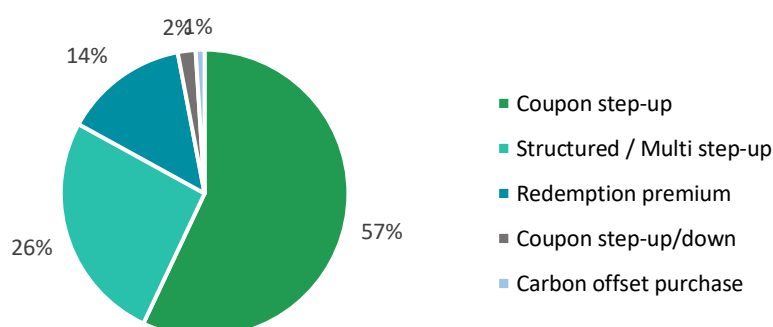
Source: LGX DataHub, as of 31 Dec 2021, Luxembourg Stock Exchange report on Trends and characteristics of the SLB market

VI. COUPON STEP-UP AND CREDIBILITY ISSUES

The following are examples of the types of penalty/incentive mechanisms that are possible in the SLB financial structure¹⁷.

Types of financial penalties/incentives	Definition
Coupon step-up	A coupon step-up penalty means that if the issuer does not meet its predetermined sustainability targets by the target observation date, subsequent interest payments will be increased by a pre-determined penalty amount (usually quoted in basis points).
Coupon step-down	A coupon step-down incentive means that if the issuer meets its predetermined sustainability targets by the target observation date, subsequent interest payments will be decreased by a pre-determined amount (usually quoted in basis points).
Redemption premium	A redemption premium means that if the issuer does not meet its predetermined sustainability targets by the target observation date, the issuer will have to pay a pre-determined premium on its redemption price at the time of redemption (usually quoted in percentage).
Donation	Donation means that if the issuer does not meet its pre-determined sustainability targets by the target observation date, an amount equal to a predetermined percentage of the bond's issuance will be donated to a foundation or organization of the issuer's choice.
Early redemption	If the issuer does not meet its pre-determined sustainability targets by the target observation date, the bond will be redeemed early at a pre-determined redemption price.
Purchase carbon emission credits	If the issuer does not meet its pre-determined sustainability targets by the target observation date, the issuer will purchase carbon offsets for an amount equivalent to a pre-determined percentage of the aggregate principal amount of the bonds.

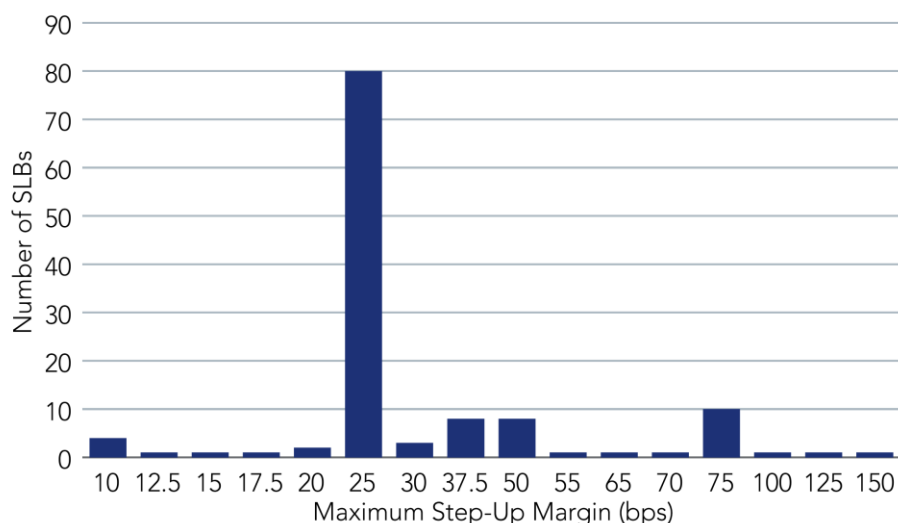
Fig. 16. Breakdown by type of penalty/incentive



Source: NatWest, Bloomberg

¹⁷ World Bank and International Finance Corporation Policy Paper. Structural Loopholes in Sustainability-Linked Bonds. Oct 2022 <https://documents1.worldbank.org/curated/en/099237410062223046/pdf/IDU0e099a50307f86045a80b33201d0b7057cedf.pdf>

Fig. 17. Breakdown by step-up margin for SLB



In cases where the SLB provides for multi-level coupon step-up, their total value is indicated as it reflects the step-up margin that the SLB issuer is willing to accept.

Source: Federated Hermes, Bloomberg. December 31, 2021.

An examination of the step-up coupon penalty amount reveals interesting trends. Step-up coupon penalties are highly clustered at 25 basis points (bps). About 60 percent of SLBs with only step-up penalties (whether single or multiple) have a step-up coupon penalty of exactly 25 bps. The average step-up penalty is 31.2 bps, with about 75 percent of SLBs having penalties lower or equal to 25 bps. There is no clear rationale for the clustering at 25 bps, and this anomaly has been raised by industry stakeholders (Moody's ESG Solutions, 2021; Capital Monitor, 2021) as a source of concern reflecting the arbitrary nature of the setting of penalty amounts. The average coupon rate for SLBs with step-up penalties is 261 bps.

The average penalty, however, is only 31.2 bps, which is less than 12 percent of the coupon rate on average. The relatively low penalty amount may be inadequate as a financial incentive to persuade issuers to undertake serious sustainability efforts. Banque de France (BdF) analysts compared the coupon penalty of 25 bps applied to SLBs with the average impact of a credit rating change on yields of 125 bps.

From an investor's perspective, the step-up coupon must balance two factors: materiality and credit risk. On the one hand, investors want to see a coupon penalty that is material. On the other hand, they do not want a penalty that is such a drain on the company's cash flow that triggering it significantly increases credit risk. This balance is difficult to strike because the point at which a coupon penalty increases credit risk varies from company to company. The financial significance of a step-up of 25 bps depends on the cost of capital and the creditworthiness of the issuer, and therefore has uneven incentive effects. An investment-grade company that fails to meet SDGs may face reputational risk but not financial risk, while a company with a high-yield bond may face both risks. Another issue raised in the World Bank's 2022 Report is that if the penalty amount is below the SLB premium, then the issuer is able to lower their cost of capital simply by issuing an SLB even if it fails to achieve the pre-set targets. Theoretically, therefore, the lower bound for the step-up penalty should be equal to the SLB premium (both in present value terms)¹⁸. This is supported by another report¹⁹ that half of the SLB issuers had a "greenium", and the

¹⁸ Source: Policy Research Working Paper Structural Loopholes in Sustainability-Linked Bonds Intiaz Ul Haq Djeneba Doumbia, International Finance Corporation October 2022

¹⁹ Kölbel, Julian and Lambillon, Adrien-Paul, Who Pays for Sustainability? An Analysis of Sustainability-Linked Bonds (January 12, 2022). Swiss Finance Institute Research Paper No. 23-07, Available at SSRN: <https://ssrn.com/abstract=4007629> or <http://dx.doi.org/10.2139/ssrn.4007629>

greenium for the sample of 102 pairs of SLB bonds (31% of the SLB market) and ordinary bonds amounted to an average of **29.2 bp**, i. e. it was higher than the step-up coupon of SLBs issued before December 31, 2021 (26.6 bp on average) according to the Bloomberg database of fixed income securities.

Alternative research by Barclays shows that SLBs have not so far benefited from the elusive “greenium”, a lower borrowing cost that companies hope to achieve when they issue bonds with an ESG label compared to other use-of-proceeds ESG bonds. While Barclays’ analysis of hundreds of green bonds and their vanilla equivalents suggests green bond yields are 0.05 percentage points lower, representing a cheaper borrowing cost for issuers, it has not observed any comparable spread for SLBs²⁰. This might be because the reward promised to investors for an issuer’s climate failure is not particularly high: generally 0.25 percentage points, lower than the typical 1.25 percentage point penalty built into some bonds to protect investors in case of a fall in the issuer’s credit rating.

According to Barclays, as of February 2023, there were about 150 SLBs outstanding from nearly 100 issuers that met the criteria for inclusion in the index, with 20 SLBs with target observation dates in 2022 and 2023 facing possible coupon step-up because they have failed to meet the targets. Polish oil refiner PKN Orlen’s became the first SLB issuer to pay a coupon step-up last year after its sustainability rating was slashed by data provider MSCI. Still, some observers say that an SLB market without bonds triggering coupon penalties would be a fairly meaningless market, or one that lacks any real ambition for sustainability goals. The market’s observed or expected triggering of coupon penalties is a sign that the instruments are working, not the other way around. Furthermore, initial feedback from Environmental Finance (2022) from a number of issuers has shown that failure to meet KPIs does not necessarily mean a “forced sale” and failure to meet a target is not necessarily negative. Failure to meet SLB targets should be a widely recognized and controlled aspect of the SLB market if it is to encourage ambition and the realization of transition potential.

²⁰ <https://www.ft.com/content/309a703a-3a5f-420e-afea-38a142a2f21a>

VII. SOVEREIGN SLBs

Sovereign SLBs were launched in 2022 with two issues by Chile and Uruguay, for US\$2 billion and US\$1.5 billion, respectively. Both debt issues are linked to GHG emissions reduction targets and related secondary KPIs and targets, setting a strong precedent for future sovereign SLB transactions as climate transition financing instruments.

Chile issued the world’s first sovereign SLB in March 2022. The US\$2 billion bond was four times oversubscribed. The instrument is linked to a Nationally Determined Contribution (NDC), which commits the country to emit no more than 95 MTCO₂eq by 2030 and to generate 60% of its electricity from renewable sources by 2032.



URUGUAY CASE

Uruguay’s SLB Framework identifies two KPIs: Reducing the GHG intensity of the country’s goods and services and preserving natural forest areas. Uruguay said the coupon on any bonds issued under the framework would be subject to a one-time step-up if GHG emissions per unit of real gross domestic product (GDP) are not reduced by at least 50% by 2025, compared with 1990 levels. Meanwhile, if GHG emissions intensity is reduced by 52% or more it will be subject to a coupon step down. The coupon will remain unchanged if Uruguay achieves between a 50% and 52% reduction.

Meanwhile, the coupon will be subject to a one-time step-up if Uruguay fails to maintain 100% of its native forest area by 2025 compared to 2012 levels. A step-down will occur, however, if the country increases its native forest area by at least 3% by 2025.

It is worth noting that in the new story of the SLB, investors have only been offered financial benefits so far. If a corporation or sovereign bank has failed to meet its KPIs, investors are rewarded with a coupon step-up.

Now, investors are offered the option of bilateral pricing that provides not only a coupon step-up, but also a coupon step-down if the issuer exceeds its KPIs. Uruguay has brought this innovation to the market through the structure of its SLB.

KPI commitments of Uruguay’s SLB				
	Metric	SPT	SPT deadline	Coupon change
KPI 1.1	GHG emission reduction	-50% (NDC)	12/31/2025	+15 bps
KPI 1.2		-52%		-15 bps
KPI 2.1	Forest conservation	100%		+15 bps
KPI 2.2.		103%		-15 bps

VIII. FIRST CENTRAL ASIAN CASE

SLBs could become an important instrument for transition financing in Central Asia in the next phase, offering an incentive to even “brown” companies to take measures to improve environmental sustainability, provided that they have an ambitious transformation and energy transition plan. The first such issue is in the pipeline in AIFC Green Finance Center and AIFC Exchange (AIX).



Almaty Power Plants JSC (AIES) declared they were willing to issue the first SLB in Kazakhstan by adopting a Sustainability-Linked Financing Framework aligned with the International Capital Market Association (ICMA) standards. The single KPI established is the “**Scope 1 net GHG Emissions Intensity**”, which was selected taking into account the global relevance of the climate change issue, as well as its importance and strategic significance for both the development of AIES JSC and the energy sector in general in Kazakhstan.

AIES JSC supplies about 70% of consumers in Almaty area with electricity and thermal power, is a natural monopoly in thermal power generation and a market player with a dominant position in electricity generation.

The main preliminary parameters for AIES JSC’s planned issue of SLB under its Sustainability-Linked Financing Framework

Target for the planned SLB issue by AIES JSC	Reduce the net Scope 1 GHG Emissions Intensity by 42% by 2030: from 0.5 MTCO ₂ eq/MWh in the baseline year (2019–2021) to 0.3 MTCO ₂ eq/MWh
Target Observation Date for AIES JSC	<ul style="list-style-type: none"> ▪ December 31, 2028 – Reduction to 0.4 MTCO₂eq/MWh (verification report to be submitted no later than April 30, 2029) (trigger event). ▪ December 31, 2030 – Reduction to 0.3 MTCO₂eq/MWh (verification report to be submitted no later than April 30, 2031) (trigger event). ▪ The performance is expected to remain at 0.3 MTCO₂eq/MWh by December 31, 2038 (verification report to be submitted no later than April 30, 2039) (trigger event).
The main means to achieve these targets are the implementation of the following projects	<ul style="list-style-type: none"> • Project “Modernization of Almaty CHPP-2 with minimization of environmental impact” (CHPP-2 Project) • Project “Renovation of Almaty CHPP-3 with an increase in power plant capacity of not less than 450 MW” (CHPP-3 Project)

The above AIES JSC targets by 2030 significantly exceed the national emissions reduction targets for this period set out in the Strategy for Achieving Carbon Neutrality of the Republic of Kazakhstan until 2060.

As mining and oil and gas companies around the world begin to use RES in mining or to diversify their energy portfolios, their interest in SLBs is growing. According to a study by DNV GL, in 2021, about 57% of the world’s oil and gas companies plan to increase their investments in renewable energy²¹. This figure currently includes mainly foreign oil and gas giants that have been operating in Kazakhstan for many years at Kashagan, Karachaganak, and Tengiz. Companies in the country’s “brown” and carbon-intensive sectors

²¹ <https://zonakz.net/2021/01/26/v-2021-godu-neftegazovye-kompanii-uvelichat-investicii-v-vozobnovlyaemye-istochniki-energii/>

are therefore advised to explore SLBs, which allow issuers to demonstrate their green agenda in the capital markets and to potentially differentiate themselves from peers, thereby not only attracting new investors, but also realizing potential pricing advantages associated with the greenium.

APPENDIX

Appendix 1. ICMA's Sector Materiality Matrix

Sustainability themes	Sectors																				
	Automotive	Aviation	Banking/ Brokerage (Financial institutions)	Construction	Consumer goods	Energy	Finance & Finance Companies	Food & Agri	Healthcare	Industrials & Manufacturing	Insurance	Maritime	Raw Materials - metals and mining	Real Estate (including REITs)	Retail	Technology	Telecom	Transportation	Utilities - Electricity	Utilities - Water/Waste	
Environment	Climate change (GHG emissions and energy)																				
	Air quality																				
	Water (incl. Ocean)																				
	Waste																				
	Raw material sourcing and recycling (circular economy)																				
	Biodiversity (incl. soil/land use)		Airport																		
Social	Access & affordability (incl. access to Medicine)																				
	Community & Human rights																				
	Occupational Health & Safety																				
	Diversity, Equity, and Inclusion																				
	Just transition																				
	Working conditions (employee engagement, labor practices and labor rights)																				
Governance	Value chain																				
	Business ethics																				
	Data protection & security (incl. cybersecurity)																				
	Consumers (incl. relation and welfare, responsible marketing and product labelling)																				
	Product governance (safety & quality)																				

 Most material
 Material

Source:
SASB,
TCFD,
MSCI,
GRI,
ICMA

Prepared by:

Daniyar Kelbetov,

Managing Director for Product Development,

Member of the Management Board of Astana International Financial Center Authority JSC

Aigul Kussaliyeva

Director, Sustainable Development Department,

Astana International Financial Center Authority JSC

Milana Takhanova

Senior Manager, Sustainable Development Department,

Astana International Financial Center Authority JSC