

Sustainability-Linked Bond Progress Report

Market Maturing but Growing Pains Persist

“Our analysis of Fitch-rated SLB issuers finds almost no correlation between an issuer’s credit rating and the coupon step-up. We do not see the need for mass consolidation at a specific step-up level. Step-up rates should be further differentiated to account for variations in the financial, operational and sustainability profiles of issuers, and improve transparency for investors.”

Melissa Cheok, Sustainable Fitch

Wider Range of Sectors Represented Compared to Green Bonds

The flexible nature of the sustainability-linked bond (SLB) has attracted a wider range of issuers across sectors other than energy, utilities, sovereigns and financial institutions, who are the main issuers of green bonds. We believe this diversification benefits the sustainable debt market by expanding both the sectors represented and the types of sustainability performance being measured.

Market Does Not Yet Reflect SLB’s Ability for Tailored Pricing

The majority of SLBs are structured with a penalty for missing performance targets, a coupon step-up of about 25bp. This convergence means an issuer’s credit profile or sustainability ambitions are not accurately reflected in bond pricing. The bond allows for other penalties that can be more specific to the entity’s needs and reduce some challenges related to investor incentives.

Welcome Improvements in Rigour of Targets

The International Capital Market Association’s (ICMA) efforts in clarifying material key performance indicators (KPIs) for issuers by sector will improve investors’ ability to discern the quality of SLB targets. Analysis of some issued SLBs indicates a gap exists between issuer understanding of KPI materiality and the market consensus.

Non-Corporate Market Starting to Develop

Some non-corporate issuers are adopting sustainability-linked financing. Sovereign and supranational lenders are beginning to consider sovereign SLBs as a way to address fiscal needs and environmental and social challenges at the same time. Sustainability-linked features are also appearing in other areas of the fixed-income market, such as structured finance and CP.

Related Research

[Sustainability-Linked Debt Products Bring ESG into Credit Decisions \(November 2020\)](#)

[Chile Ushers in Sovereign Sustainability-Linked Bond Market \(March 2022\)](#)

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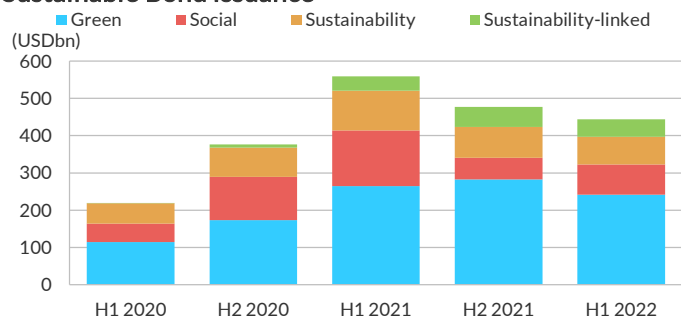
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Market Growth Affirms Role of Sustainability-Linked Format

The market has grown substantially since our previous analysis of the emergence of sustainability-linked debt, in September 2020. By June 2022, cumulative SLB issuance had reached USD147 billion and accounted for 10% of the total sustainable bond market in 1H22, compared to 1% at the end of 2020. In the second half of 2021, issuance of SLBs outpaced social bonds, the first time the new product had overtaken any of the use-of-proceeds bonds.

Issuers of SLBs set quantifiable sustainability performance targets (SPTs) and choose KPIs to measure them over a set time horizon. They then link their ability to achieve these targets to the coupon paid out to their investors. In the event a company falls short of its targets, a change in the bond's payment structure is triggered and the issuer faces a financial penalty. The most common of these is the coupon step-up.

Sustainable Bond Issuance

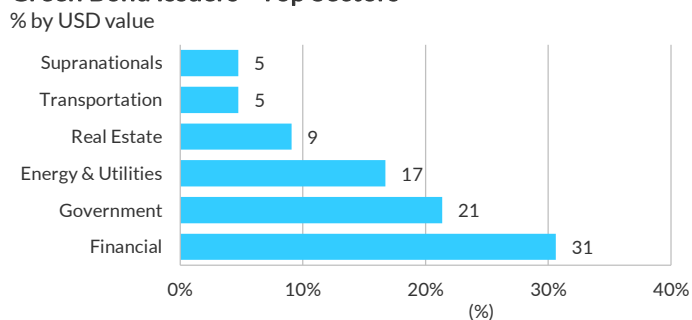


Source: Sustainable Fitch

Unlike use-of-proceeds bonds, SLBs have no restrictions on how the raised capital can be deployed. This flexible structure has allowed for more companies across different sectors to gain access to sustainable financing, particularly those that are not able to allocate large amounts of funding to dedicated green or social assets.

Green bond issuers, in comparison, skew towards entities with sizeable capital investment needs or a large capacity to deploy capital. Around 57% of total green bond issuance is by sovereigns, local government and agencies, supranationals and financial institutions. Capex-intensive sectors such as energy and utilities, real estate, and transportation make up around one-third of green bond issuers.

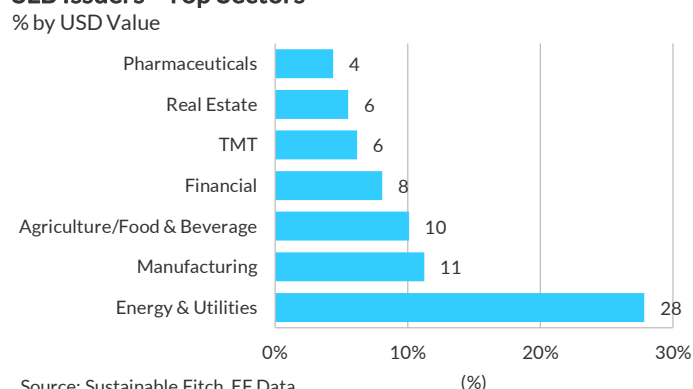
Green Bond Issuers - Top Sectors



Source: Sustainable Fitch, EFDData

While energy and utilities entities have issued the largest amount of sustainability-linked debt in US dollars, there is notable diversity among sectors represented in the market, including food and beverage, TMT, and pharmaceuticals. Most of these bonds have environmental KPIs, and more than half have at least one target related to greenhouse gas emissions. This supports our view in 2020 that SLBs would have strong appeal for companies that want to use financing for sustainable activities but are too asset-light to utilise a use-of-proceeds structure.

SLB Issuers - Top Sectors



Source: Sustainable Fitch, EF Data

As the market has developed, we also observe SLBs being used to address supply chain sustainability. These activities contribute to an issuer's sustainability profile but are difficult to address through a use-of-proceeds format. Common supply-chain-focused targets for issued SLBs include scope 3 greenhouse gas emissions, share of purchased energy from renewable sources, supplier water consumption, and recycling and waste reduction. They can also address social supply chain factors, such as a 2022 "gender-linked" bond by South African industrial firm Barloworld Limited with a KPI on the share of procurement from black-women-owned suppliers.

The wider range of issuers and targets in SLBs helps investors to diversify their portfolios in the sustainable debt market compared to the use-of-proceeds category, which is dominated by sovereigns and financial institutions. Another benefit to investors is the increase in issuer-level sustainability data. This may enable a shift from exclusion-focused environmental, social and governance (ESG) investing to strategies that utilise quantifiable metrics for portfolio management and asset valuation.

Price Adjustment Choices Extend Beyond Most Common Bond Structure

Coupon Step-Up is One of Several Pricing Options

The first SLB issued set a market pricing convention. Italian energy group Enel S.p.A's 2019 bond ties performance targets to the UN's Sustainable Development Goals. The USD1.5 billion five-year bond has a coupon of 2.65% along with a one-time step-up of 25bp if it failed to achieve 55% of installed capacity from renewable energy by 31 December 2021. It exceeded the target, reaching 57.5% of installed capacity at the observation date.

Since Enel's SLB issuance, the market has seemingly coalesced around a 25bp step-up regardless of the original coupon, credit quality or scale of the issuer's operations.



Our analysis of Fitch-rated SLB issuers finds almost no correlation between an issuer's credit rating and the coupon step-up. 'BBB'-rated issuers have the highest average maximum step-up of 41bp on an average bond coupon of 1.45%. In comparison, 'BB'-rated issuers have an average step-up of 28bp on a much higher average bond coupon of 5.27%. Essentially, SLB coupon step-ups do not reflect the issuer's credit rating. There is also no indication that step-ups are structured based on the ambition of the targets or on the cost required to achieve them.

We do not see the need for mass consolidation at a specific step-up level. Step-up rates should be further differentiated to account for variations in the financial, operational and sustainability profiles of issuers, and improve transparency for investors.

Average SLB Coupon Step-Ups by Credit Rating

Number of Issuers=122

	Fitch Credit Rating	Average Maximum Step-Up (bp)
Investment Grade	AA-	25
	A+	25
	A	33
	A-	28
	BBB+	31
	BBB	41
	BBB-	33
Speculative Grade	BB+	22
	BB	28
	BB-	39
	B+	33
	B	23
	C	35

Source: Sustainable Fitch, Fitch Ratings, EF Data

While an SLB can have a variety of pricing adjustments, the vast majority of bonds on the market have chosen a step-up paid to the investor. This inherently presents a moral hazard for an investor, who can potentially benefit from an improved return on the bond due to a coupon bonus. Several alternatives can mitigate this, including: committing to purchase a predefined amount of carbon emission offsets; allocating funds to additional green or social capex; or donating specified amounts to a charitable organisation.

Etihad Airways PJSC's USD600 million, five-year sustainability-linked sukuk in 2020 has one SPT: a 17.8% reduction in the carbon intensity of its passenger fleet by December 2024. Instead of a step-up, the airline will purchase carbon offsets of a corresponding amount against the notional value of issued notes, rather than pay out a higher margin to investors. Few subsequent issuers have used this format although it was one of the earliest sustainability-linked instruments on the market after the publication of the ICMA Principles.

A coupon step-down for achieving SPTs could theoretically address the investor's moral hazard. This pricing mechanism is the most common one for sustainability-linked loans (SLLs), creating an incentive to the borrower for good performance rather than a

penalty for underperformance. Bond investors, however, have a clear preference for step-up bonds, which may be why few step-downs have come to the market. Asset managers including PIMCO and APG have issued firmwide guidance that investments in SLBs with step-down features should be avoided.

Multi-Label Bonds Can Target Impact and Transition

Issuers may also combine a use-of-proceeds format with a sustainability-linked pricing adjustment. This structure more directly connects sustainable capex to operational impact, with the issuer aiming to improve one or more quantifiable metrics as part of the investment's outcome. Three companies have issued green SLBs so far: Ukraine's state-owned utility NPC Ukrenergo, Austrian power company Verbund AG and Japanese builder Takamatsu Construction Group.

Multi-label bonds may be a natural fit for transition financing, an important area of sustainable finance that lacks a formal definition. In general, transition bonds have dedicated proceeds for assets or activities that reduce the issuer's contribution to climate change but do not qualify as green. Transition bonds may appeal to sectors where pathways to full decarbonisation remain limited, such as shipping and aviation; issuers may wish to raise funds for less carbon-intensive activities but cannot do so under a green label.

Verbund AG March 2021 Green SLB

Size	Maturity	Step-Up Year	Step-Up
EUR 500 million	2041	2032	25bp per coupon date
Use of Proceeds	KPI	SPT	Baseline (2020)
Solar and wind power, hydropower, associated grid infrastructure	Newly-installed renewable production capacity	2,000 MW by 2032	8,687 MW
	Additional transformer capacity	12,000 MVA by 2032	30,810 MVA

Source: Sustainable Fitch, Verbund AG

Transition bonds accounted for less than 1% of the sustainable bond market in 2021. These come primarily from Japan and other markets in APAC, as the region is more reliant on fossil-fuel-generated power compared to Europe and North America. Such companies wish to raise financing to improve their sustainability performance, but are unable to designate it for assets or activities that qualify as green. However, many investors tend to be sceptical of transition bonds, preferring deals with established standards. ICMA recommends that issuers align climate transition instruments to either a use-of-proceeds or sustainability-linked format.

A transition-focused SLB has advantages over a use-of-proceeds transition bond regarding additionality. This refers to whether the issuer would have undertaken the activity in the absence of the financing – a measure of whether the bond generates additional sustainable activity to business as usual. Additionality of impact can also be measured by the investment's outcomes, such as a reduction in emissions or energy intensity.

A 2021 Stanford University working paper identifies the “absence of a focus on the firm-level commitments and progress” as a greenwashing risk for transition financing.¹ We believe SLBs are well-suited to provide more structure to the transition debt market, as they are based on firm-level commitments.

Target Assessment Dates Could Be More Tailored

Assessment dates to evaluate progress on targets are set close to maturity in some deals, which means step-ups are paid on few coupon payments. This entails smaller overall penalties paid out by companies and a lower cost for missing targets. Bringing assessment forward, closer to the midpoint of the bond's tenor, would increase the penalty's impact.

In a 2022 Black-Scholes option pricing analysis of SLBs by the Anthropocene Fixed Income Institute, two of the three variables used to determine an SLB's option value are the timing of coupon step-ups and the likelihood of the step-up being triggered. They note that these factors are interrelated: “as time passes, the probability to reach the target increases, which in other terms, leads to a lower probability the SLB will pay the coupon step-up.”²

Time is also a factor in the effectiveness of targets. A target set 10 years in the future will reflect contemporary expectations of sustainability performance. Without an interim observation date, the chance that the target is no longer material or ambitious increases as the bond approaches maturity. This could be a concern for bonds with targets linked to third-party ESG scores or inclusion in ESG equity indices; over time, the methodologies or reputation of these benchmarks can change.

Fashion retailer Chanel issued a two-tranche EUR600 million SLB in 2020 with six- and 11-year tenors and target observation dates within one year of maturity. In its 2021 sustainability performance report, the company was behind progress on its 2025 SPT of 100% renewable energy used in operations, achieving only 92% against an interim target of 97%. It also reported an increase in scope 3 emissions against a target of a 10% reduction by 2030. As the coupon premium is not triggered until December 2025 for the six-year tranche and 2030 for the 11-year, Chanel faces no financial penalty at this time.

In comparison, Greek high-yield issuer [Public Power Corporation S.A.](#) (BB-/Stable) has issued three bonds totalling EUR1.275 billion under its SLB framework. For its EUR500 million bond [maturing in 2028](#), the issuer has set a target of reducing scope 1 emissions by 57% with an observation date in 2024 and will pay a 50bp step-up on every subsequent coupon date if the SPT has not been met by then.

ICMA has addressed this matter in its updated guidance for the Sustainability-Linked Bond Principles in June 2022. It now recommends that companies include an intermediate observation date for performance targets.

KPI Guidance Needed to Strengthen Target Materiality

The main attraction of SLBs for issuers – unrestricted use of the proceeds – remains an area of concern for some investors. Asset manager [Nuveen LLC](#) disclosed in 2021 that it had passed on investing in SLBs from a US high-yield issuer and an Indian cement company because it felt the structure allowed the issuers too much “latitude” to invest proceeds, and penalties did not provide enough incentive to significantly improve their carbon footprint. They felt this would make it impossible for investors to really know how the proceeds were used and what specific objectives were obtained.

The lack of clear guidance on the suitability of performance targets at the product's launch creates a knowledge vacuum for both issuers and investors. This is particularly the case for targets without science-based or policy benchmarks. It can be difficult for investors to determine a target's ambition or compatibility with corporate sustainability strategy without a more comprehensive framework.

Sustainability-Linked Bond Principles – KPI Registry

KPIs are classified into two categories based on the guidance to structure a credible SLB.

- **Core:** KPI is generally material, relatively mature and holistic enough, can in principle be used as a standalone.
- **Secondary:** desirable, but does not necessarily constitute a commitment to change that fundamentally alters the issuer's business-as-usual trajectory; is partially material; or is not sufficiently mature (e.g. data quality).

Source: ICMA

ICMA's June 2022 update to the Sustainability-Linked Bond Principles aims to provide more clarity to market participants. The KPI Registry includes 300 illustrative KPIs covering 22 sectors and a “sector materiality matrix” to help identify the relevance of key sustainability themes. Although ICMA's principles are still based on voluntary participation, they form the basis of many third-party assessments of sustainable finance instruments and frameworks.

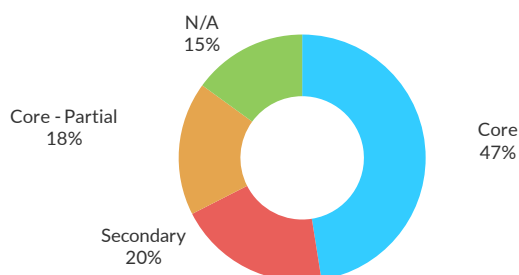
We reviewed the first 30 SLB issuers in the market and their bonds' KPIs, and found that just under half of them included a KPI designated as core to the economic activity under ICMA's registry. Another 18% had a core KPI that was only partially fulfilled, such as greenhouse gas emissions with scopes 1-2 intensity when the recommendation includes scope 3.

¹ Shrimali G, “Transition Bond Frameworks: Goals, Issues, and Guiding Principles,” Sustainable Finance Initiative, Stanford University Working Paper, April 2021

² Meilnik S and Erlandsson U, “An option pricing approach for sustainability-linked bonds,” Anthropocene Fixed Income Institute, March 2022

Alignment to ICMA KPI Registry - First 30 SLB Issuers

Issuers = 30; KPIs = 40



Source: Sustainable Fitch, EFDData

15% of the selected issuers had KPIs that are neither core nor secondary, meaning that they were not likely to be material to their business. Examples include a reduction in pollutants (e.g. sulphur oxide) or investment into non-green but lower-emitting vehicles – activities that are beneficial but do not mitigate the issuers' primary sustainability impacts.

This data indicate that while some issuers have ensured relevance in their KPI selection, many others still need clarification. This is especially important for non-emissions targets in cases where companies are looking into the effect of other environmental and social factors on their businesses. Most importantly, the KPI registry provides specific metrics that will provide quantitative sustainability data for investors, regulators and other stakeholders.

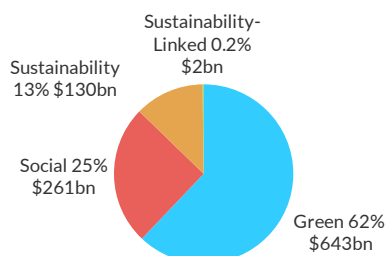
Differing Needs of Non-Corporate Issuers

Sovereign SLB Market Has Been Slow to Start

The issuance of the first sovereign SLB by the Republic of Chile (A-/Stable) in March 2022 shows that the product can meet the financing needs of non-corporate entities. Sovereigns, supnationals and government entities are major issuers in the sustainable use-of-proceeds space, making up one-fifth of the green bond market. They are in many ways a natural issuer for sustainable bonds, as they build infrastructure and provide essential services.

Sustainable Bond Issuance by Government Entities

Cumulative USD value to August 2022



Source: EFDData, Sustainable Fitch

Setting and delivering on sustainability targets, however, is a more difficult area for governments to navigate. [Political resistance](#) to making long-term commitments has proven formidable in recent

months, and changes in leadership can derail years of prior progress. The best practice to develop sovereign SLB issuance would be a bond based on KPIs that are approved as part of government policy or a country's nationally determined contribution to the Paris Accords, in the case of climate change.

Potential Indicators for Sovereign SLB Assessment

Indicator	Sustainability theme	Indicator theme	Indicator metric
Level of water stress	Natural capital	Natural resources	Freshwater withdrawal as a % of available freshwater resources
Total natural resource rents	Natural capital	Natural resources	% of GDP
Installed renewable electricity-generating capacity	Energy	Renewable energy	watts per capita
Fossil fuel energy consumption	Energy	Energy use	% of total
PM2.5 air pollution	Energy	Pollution	% population exposed to levels exceeding WHO guidance
Country has a National Adaptation Plan	Climate	Policy	Yes/no
Total greenhouse gas emissions	Climate	Emissions	MT CO ₂ equivalent per GDP/per capita
Forest area	Biodiversity	Forest area	'000 hectares
Arable land	Biodiversity	Agriculture area	% of total land area

Source: Sustainable Fitch, World Bank

Only one other sovereign has made concrete plans to issue SLBs. Uruguay published an SLB framework in September 2022 with several unique features. One is the inclusion of a biodiversity KPI – maintenance of the country's native forest area – alongside a more typical absolute greenhouse gases emissions indicator. The second is a step-up/step-down coupon mechanism. As with most SLBs, the coupon step-up is triggered by missing performance targets. Uruguay also proposes a step-down for target outperformance: more than 2% over the emissions reduction target and more than 3% over the forest preservation target.

One challenge for future sovereign SLBs is data availability and the frequency of reporting. While quarterly reporting is the norm for corporates and financial institutions, governments often update national-level data on an annual or semi-annual basis. In an analysis of KPI setting for sovereign SLB issuers, the World Bank recommended assessing data on five factors: availability, attributability, frequency/recency, regularity and comparability.³

³ Flugge ML, Mok RCK, Stewart FE, "Striking the Right Note: Key-Performance Indicators for Sovereign Sustainability-Linked Bonds," World Bank Group, November 2021

This will hinder many governments that would otherwise enter the market, particularly if proposed targets are related to natural capital preservation, where data are often limited.

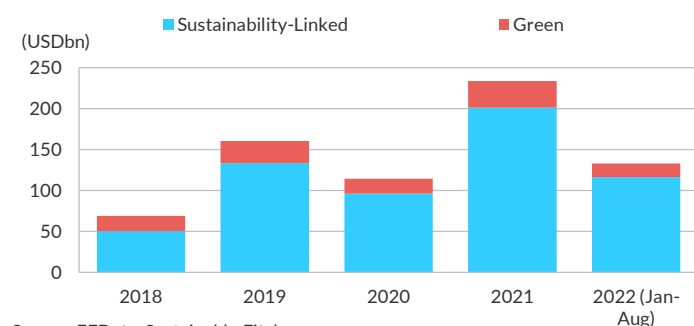
Opportunities in Structured Finance and Money Markets

A sustainability-linked securitisation market is also emerging. The first was in 2021 – a EUR1.6 billion sustainability-linked synthetic ABS by [Banco Santander, S.A.](#) (A-/Stable). The bond has a coupon step-down if the portfolio's share of green assets rises to a set target. Earlier in 2022, [M&T INVESTMENTS PTE. LTD.](#) raised SGD145 million in [sustainability-linked auto asset-backed securities](#) backed by Singapore vehicle leasing company Lion City Rentals Pte. Ltd., with a KPI on the fleet's emissions intensity.

Several banks have come to the market with innovative structures designed to increase financing for SLLs. [Bank of China Limited](#) (A/Stable) raised USD300 million with a "sustainability-relinked" [bond in November 2021](#). The bond's target is tied to performance of an underlying portfolio of SLLs. The proceeds of [Nordea Bank Abp's](#) (AA-/Stable) USD400 million bond in September 2022 will finance or refinance SLLs from its asset pool. The selected loans must have a KPI for climate change mitigation and be aligned with the Sustainability-Linked Loan Principles. Nordea's bond does not have an ESG label – its use of proceeds does not qualify as green or social, as SLLs are for general corporate purposes, and the bond lacks any SPTs or adjustment mechanisms.

These bonds could be templates for introducing sustainability-linked features into collateralised loan or debt obligations in the future. The main constraint at the moment is the supply of loans and mortgages with sustainable characteristics or with high-quality ESG-related disclosures. The growth in sustainable lending, fuelled by borrowers converting existing credit facilities into SLLs, will expand the pool of eligible corporate loans over time.

Green and Sustainability-Linked Loans



Enel issued sustainability-linked CP in 2020, applying its early experience with SLBs. The EUR8 million programme had a target of 60% renewable-energy installed capacity by 2022. Several other European issuers, including Spanish utility [Iberdrola, S.A.](#), Swiss cement manufacturer [Holcim Ltd.](#), and Portuguese telecommunications provider [NOS, S.G.P.S., S.A.](#), have entered this market as well.

Sustainability-linked CP is suitable for issuers that can report on and deliver sustainability improvements over a short period of time. Iberdrola's EUR5 billion CP programme, launched in April 2021, has three targets for the end of 2022: reduction in emissions intensity, increase the percentage of women in leadership, and integration of Task Force on Climate-related Financial Disclosures recommendations into its sustainability management. Bonds or loans remain a better option for companies with a longer time-horizon for meeting sustainability targets.

As of 2Q 2022, US ESG-focused money market funds had USD9.1 billion in assets under management, but only around 1% of holdings were CP from non-financial corporates. Proposed regulation from the SEC would require fund names to correspond to at least 80% of the value of assets in the portfolio. The agency has said the policy is specifically focused on ESG funds due to their rapid growth in recent years. This, along with the EU's Sustainable Finance Disclosure Regulation, could increase the demand for short-term assets that are clearly sustainable so that ESG-labelled money market funds can comply with stricter regulatory standards.

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