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In Q1’23, European ESG bond and loan issuance accumulated a total of €156bn in proceeds, declining 4.3% year-on-year (YoY) but increasing 10.7% quarter-on-quarter (QoQ).

ESG bonds and loans include ESG-labelled bonds (proceeds-based), sustainable-linked bonds, transition bonds, green-linked loans and sustainable-linked loans.

The quarterly increase was driven by ESG-labelled bonds, which accumulated €116bn in proceeds, the second-largest quarterly issued amount on records.

French issuers continued to lead in total ESG bond and loan issuance, followed by German issuers.

In Q1 2023, ESG Securitisation issuance accumulated €1.1bn in proceeds, an increase of 103.3% compared to the first quarter of 2022, on two green RMBS and one social ABS.
1.3 European Green Bond Issuance

1.4 European Social Bond Issuance

1.5 European Sustainable Bond Issuance

1.6 European Sustainable-linked and transition Bond Issuance

ESG-labelled bond issuance which comprises Green, Social and Sustainable bonds, accumulated €115.9bn in proceeds in Q1 2023.

All ESG-labelled market segments exhibited an annual expansion in Q1 2023:

- Green bond issuance stands out as the ESG sub asset class that has grown the most on an annual basis by 69.6% YoY (63.9% QoQ). The increase was driven by the corporate and supranational sectors, with Germany leading as the top nationality of issuers.

- Social bond issuance increased 8.2% YoY and 23.5% QoQ. We continue to see a strong participation of the French agency CADES as it consolidates as a market leader for social bonds.

- Sustainable bond issuance increased 47.6% YoY and 97.4% QoQ, which shows the largest expansion on a quarterly basis. France and Spain were the top issuers of sustainable bonds in the Europe in Q1 2023.

The sustainable-linked bond market, however, exhibited a large annual decrease of 40.1% YoY but an increase of 26.0% QoQ.
During 2023, the sovereign sector had a significant participation across the green primary market, with the Government of Italy originating the largest single issue with a deal amount of €10 bn.

The European Commission (on behalf of the EU) issued the second-largest green bond of the quarter with a total amount of €6bn. Other important single sovereign issues were originated by the governments of Ireland (€3.5 bn), Turkey (€2.3 bn) and Austria (€1.3 bn).

The French Caisse d’Amortissement de la Dette Sociale (CADES) continues to consolidate as a market leader for social bonds.

### Key Findings

#### Top single ESG bond issues by amount in 2023 YtD

<table>
<thead>
<tr>
<th>Environmental</th>
<th>Amount EUR (bn)</th>
<th>Maturity date</th>
<th>ISIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>10.0</td>
<td>30 October 2031</td>
<td>IT0005542359</td>
</tr>
<tr>
<td>European Union</td>
<td>6.0</td>
<td>04 February 2048</td>
<td>EU000A3K4DM9</td>
</tr>
<tr>
<td>European Investment Bank - EIB</td>
<td>4.65</td>
<td>14 February 2033</td>
<td>US298785J96</td>
</tr>
<tr>
<td>Ireland</td>
<td>3.50</td>
<td>18 October 2043</td>
<td>IE000GVLBXU6</td>
</tr>
<tr>
<td>KfW</td>
<td>3.00</td>
<td>14 February 2033</td>
<td>XS2586942448</td>
</tr>
<tr>
<td>Turkey</td>
<td>2.3</td>
<td>13 July 2030</td>
<td>US900123DJ66</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social</th>
<th>Amount EUR (bn)</th>
<th>Maturity date</th>
<th>ISIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>CADES</td>
<td>5.00</td>
<td>25 May 2028</td>
<td>FR001400F5U5</td>
</tr>
<tr>
<td>CADES</td>
<td>4.00</td>
<td>01 March 2030</td>
<td>FR001400G6E6</td>
</tr>
<tr>
<td>CADES</td>
<td>3.69</td>
<td>25 January 2026</td>
<td>US2580310246</td>
</tr>
<tr>
<td>BNG</td>
<td>1.50</td>
<td>11 January 2033</td>
<td>XS2573952517</td>
</tr>
<tr>
<td>La Banque Postale Home Loan SFH</td>
<td>1.25</td>
<td>31 January 2031</td>
<td>FR001400FD12</td>
</tr>
<tr>
<td>Walloon Region</td>
<td>1.00</td>
<td>22 June 2033</td>
<td>BE0002922038</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Sustainability</th>
<th>Amount EUR (bn)</th>
<th>Maturity date</th>
<th>ISIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agence Francaise de Developpement - AFD</td>
<td>1.50</td>
<td>21 January 2030</td>
<td>FR001400F7C9</td>
</tr>
<tr>
<td>Republic of Slovenia</td>
<td>1.25</td>
<td>11 March 2033</td>
<td>SI0002104303</td>
</tr>
<tr>
<td>Action Logement Services</td>
<td>1.20</td>
<td>25 May 2043</td>
<td>FR001400FT11</td>
</tr>
<tr>
<td>Autonomous Community of Madrid</td>
<td>1.00</td>
<td>30 April 2033</td>
<td>ES00001010K8</td>
</tr>
<tr>
<td>Cyprus</td>
<td>1.00</td>
<td>13 April 2033</td>
<td>XS2610236445</td>
</tr>
<tr>
<td>OPEC Fund for International Development - OFID</td>
<td>0.92</td>
<td>26 January 2026</td>
<td>XS2578939105</td>
</tr>
</tbody>
</table>
Key findings

Sustainability-linked and green-linked loan decreased 56.4% to EUR 29.3bn in Q1’23 from EUR 67.2bn in Q1’22, and 49.7% from Q4’22.
**Key findings**

**1.8 European ESG Bond Issuance as % of Total Bond Issuance**

ESG bond issuance, including ESG-labelled, sustainable-linked and transition bonds, represented 17.4% of total European bond issuance during 2023YtD, a lower proportion from 21.3% in 2022 FY and 19.9% in 2021 FY. This was comprised of 10.9% green bonds, 3.3% social bonds, 1.7% sustainable bonds, 1.5% of sustainable-linked and transition bonds [See Chart 1.8]

**1.9 European Sustainability Linked and Green Loan Issuance as of Syndicated Loan Origination**

Sustainability-linked and Green-linked loan issuance represented 18.6% of total European syndicated loan origination during Q1’23, down from 24.1% in FY 2022 [See Chart 1.9].

*ESG includes Environmental, Social and Sustainable
Source: Dealogic*
Regulatory Update
- EU green Bond Standard agreement reached
- SFDR RTS to apply
- European Commission announces members for the new mandate of the Platform on Sustainable Finance
- European Commission adopts delegated act on criteria for remaining 4 EU Taxonomy objectives
- European Commission publishes responses to key SFDR questions raised by the ESAs
- European Commission consults on EU Taxonomy delegated regulation
- European Commission to begin assessing the merits of a general framework for sustainable labels for financial instruments
- European Commission mandates ESAs to conduct a climate risk scenario analysis exercise
- EBA launches industry survey on green loans and mortgages
- First Pillar 3 reporting of ESG risks due to be published
- ECB publishes first own climate report on corporate bond holdings
- FCA consults on sustainable governance, incentives and competence in regulated firms
- TNFD releases its Beta v0.4 framework for nature-related financial disclosures
- BCBS begins assessing implementation of principles on climate risk management

- European Commission to adopt sector-agnostic sustainability reporting standards as delegated acts
- European Commission to propose legislation to strengthen the reliability and comparability of ESG ratings
- UK Government consults on bringing ESG ratings within the regulatory perimeter
- UK Government publishes refreshed Green Finance Strategy
- ESAP trialogues to begin
- ISSB to publish first two Standards – S1 (general requirements) and S2 (climate)
- ESAs to publish a progress report by on identifying greenwashing practices in the EU financial sector
- ESAs to submit review of SFDR RTS

*Please note that the above is a selective list of initiatives and timelines are indicative and may be subject to change. For further details see AFME and Linklaters report Sustainable Finance in Europe: Regulatory State of Play (2023 updated edition)
Regulatory/Supervisory Snapshot – Sustainable Finance*

Q2

- EBA to publish final report on whether dedicated prudential treatment of assets exposed to activities associated substantially with ESG objectives is justified
- UK Transition Plan Taskforce to publish final disclosure framework and implementation guidance

Q3

- Sustainability reporting standards delegated acts enter into force
- UK Government to consult on the UK Green Taxonomy
- UK Government to consult on Scope 3 GHG emissions reporting
- UK Transition Plan Taskforce to consult on sectoral Transition Plan Templates
- FCA to publish policy statement on SDRs and product labels
- TFND to release its final framework for nature-related financial disclosures

Q4

- Corporate Sustainability Due Diligence Directive agreement expected
- European Commission to publish report on the state of play of EU financial markets' transition to a sustainable economy
- European Commission to publish report on climate-related financial stability risks
- European Commission to publish a digital sustainable finance roadmap (tbc)
- UK Government to consult on the introduction of requirements for the UK’s largest companies to disclose their transition plans (supported by final TPT recommendations)
- UK Government to consult on the specific steps and interventions needed to mobilise additional finance through high-integrity voluntary carbon markets
- FSB potential peer review of supervision of climate risks
- Deadline for SSM banks to integrate climate and environmental risks in their governance, risk management and strategy
- IAASB to consult on draft standards for sustainability reporting assurance

*Please note that the above is a selective list of initiatives and timelines are indicative and may be subject to change. For further details see AFME and Linklaters report Sustainable Finance in Europe: Regulatory State of Play (2023 updated edition)
ESG Bond and Loan Issuance
In Q1 2023 ESG, sustainable-linked and transition bond issuance accumulated €127.2bn in proceeds, with an annual and quarterly increase of 32.0% YoY and 52.8% QoQ.

ESG linked loans decreased 49.7% compared to last quarter to EUR 29.3bn and the YoY drop was at 56.4%.
Proceeds of Sustainable Bonds are allocated between green projects and social projects.

2.11 Sustainable Bond Issuance by Country: 2023 YtD (Q1)

2.12 Sustainable Bond Issuance by Currency: 2023 YtD (Q1)

2.13 Sustainable Bond Issuance by Deal Type: 2023 YtD (Q1)

2.14 Sustainable Bond Issuance Global Comparison: 2023 YtD (Q1)
Sustainable-linked and Transition Bond Issuance

Sustainable-linked bonds are performance-based bonds where payment is contingent on pre-determined KPIs which are aligned with sustainability strategies. Transition bonds are brown bonds issued by carbon intensive companies with the intention of starting to green their operations.

### 2.15 European Sustainable-linked Bonds Issuance by Country: 2023 YtD (Q1)

<table>
<thead>
<tr>
<th>Country</th>
<th>EUR (Billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>5</td>
</tr>
<tr>
<td>France</td>
<td>2</td>
</tr>
<tr>
<td>Germany</td>
<td>1</td>
</tr>
<tr>
<td>Denmark</td>
<td>1</td>
</tr>
<tr>
<td>Finland</td>
<td>0.5</td>
</tr>
<tr>
<td>Norway</td>
<td>0.2</td>
</tr>
<tr>
<td>Sweden</td>
<td>0.1</td>
</tr>
</tbody>
</table>

### 2.16 European Sustainable-linked Bond Issuance by Deal Type: 2023 YtD (Q1)

- **Sovereign, Local Authority**
- **Corporate Bond-High Yield**
- **Corporate Bond-Investment-Grade**

Source: Dealogic
2.19 European ESG Securitisation Issuance by Asset Class

2.20 European ESG Securitisation Issuance by Country

2.21 European Social and Sustainable Securitisation Issuance by Asset Class

2.22 European Green Securitisation Issuance by Asset Class

Source: AFME, Climate Bond Initiative, Credit Agricole, S&P, and European Data Warehouse
2.23 ESG linked and Green Loan Issuance by Deal Type: 2023 YtD (Q1)

- Investment Grade: 95%
- Leveraged: 5%

2.24 ESG linked and Green Loan Issuance by Country: 2023 YtD (Q1)

2.25 ESG linked and Green Loan Issuance by Currency: 2023 YtD (Q1)

2.26 ESG linked and Green Loan Issuance Global Comparison 2023 YtD (Q1)
ESG Bonds Outstanding
### 3.1 Evolution of European Green Bond Outstanding

![Graph showing the evolution of European Green Bond Outstanding](image)

**Source:** Refinitiv Eikon

### 3.2 Green Bonds outstanding by Country

![Chart showing green bonds outstanding by country](image)

EU includes EU Commission and the EIB

### 3.3 Outstanding Amount by Currency

![Chart showing outstanding amount by currency](image)

*Source:* Refinitiv Eikon

### 3.4 Outstanding Amount by Coupon Type

![Chart showing outstanding amount by coupon type](image)

*Source:* Refinitiv Eikon
Green Bond Outstanding

3.5 Outstanding Amount by Bond Grade

3.6 Outstanding Amount by Years to Maturity

3.7 Outstanding Amount by Asset Class

3.8 Outstanding by Top 5 Issuers

Source: Refinitiv Eikon
Social Bond Outstanding

3.9 Evolution of Outstanding

3.10 Outstanding Amount by Country

EU includes EU Commission and the EIB

3.11 Outstanding Amount by Security Type

3.12 Outstanding Amount Issuer Economic Sector Type

Source: Refinitiv Eikon
Carbon pricing, emissions and trading
Carbon prices have increased during Q1’23 in the EU and UK.

The European Union Allowance (EuA) price per metric tonne finalised Q1’23 at €89.2/Tn, from €83.3/Tn at the end of 2022.

During the first weeks of Q2’23, EuA spot prices have marginally increased to €92.8/Tn.

The Shanghai ETS price is the lowest among the main global ETS systems with a price per metric tonne of CNY56 as of Apr 2023 (€7.4/Tonne) with minimal fluctuation during the year.

Prices may not be directly comparable across systems and vary greatly, given different institutional settings and differences in ETS design.

*China’s ETS includes exclusively the Shanghai ETS. Does not include other pilot programmes (Shenzen, Beijing, Guangong, Tianjin, Hubei, Chongqing, or Fujian)
EU and UK forward curves anticipate higher carbon prices for the medium- and long-term future.
As of 2022, China had the largest emissions trading scheme, with a share of 8.80% of annual GHG emissions.

The European Union Emissions Trading System (EUETS) remains the second largest green house gas ETS globally, with a share of 3.20%.

The third largest ETS globally is the Korea ETS, with a share of 1.10%.

EU+UK verified emissions have continuously decreased since 2013.
The EU ETS involves a cap being set on the total amount of certain greenhouse gases that can be emitted by companies covered by the system. The cap is reduced over time so that total emissions fall.

Within the cap, companies receive or buy emission allowances, which they can trade as needed. The limit on the total number of allowances available ensures that they have a value.

Every year a company must surrender enough allowances to cover all its emissions. If a company reduces its emissions, it can keep the spare allowances to cover its future needs or sell them to another company that is short of allowances.

Total allocated allowances (EUA and EUAA) continued to decreased from 1349.73 MtCO2-eq in 2020 to 1004.47 MtCO2-eq in 2021.

Carbon Taxes are another method of carbon pricing. Uruguay currently has the highest carbon tax globally at 137.3 USD/tCO2e. The country with second highest carbon tax is Sweden, at 129.89 USD/tCO2e.
Fund Management
Global Funds with an ESG mandate (including Mutual Fund sand ETFs) totalled $7.9tn as of Q1’23, a 10.7% decrease from Q1’22 but marginal increase of 0.11% from Q4’22.

Most of the asset classes did not exhibit significant changes during the quarter, with the exception of Real Estate (-34% QoQ) and Alternatives (-22.4% QoQ)

The marginal quarterly increase in Global ESG funds was driven by higher asset valuations only partially offset by net outflows. As observed in chart 5.4, net outflows from ESG funds accumulated a total of $27.1bn during the first quarter of 2023.
5.2 Global ESG Funds by currency base (USD tn)

- Euro
- US Dollar
- UK Pound Sterling
- Swedish Krona
- Swiss Franc
- Australian Dollar
- other

5.3 Global ESG Funds by geographical location (USD tn)

- EUROPE
- AMERICAS
- APAC

5.4 Global ESG fund flows ($bn)

5.5 European ESG fund flows ($bn)

Source: Lipper, Refinitiv Eikon

Sustainable Finance Report – Q1 2023
ESG Bond Trading
ESG Bond Trading Volumes

6.1 European ESG Bond Average Daily Trading Volumes (all issuers)

6.2 Average Daily Trading Volumes: European ESG Corporate Bonds


6.4 Average Daily Trading Volumes: European ESG ABS and Covered Bonds

Source: Trax (a MarketAxess company)
6.5 European ESG Bond Turnover Ratio (all issuers)

6.6 Turnover Ratio: European ESG Corporate Bonds

6.7 Turnover Ratio: European ESG Government, Agency, Supranational, and Sovereign bonds

* Turnover Ratio has been calculated by dividing the average daily trading volume by the outstanding amount.

Source: AFME from Trax (a MarketAxess company) and Refinitiv Eikon
Valuations
Spreads of corporate ESG bonds against non-sustainable benchmarks have tightened in the first quarter of the year from c2.5bps at the start of the year to c0bps in April 2023.

As shown on pages 36 and 37, the green premia (i.e. greenium) for sovereign bonds varies by issuer and by instrument, suggesting that in addition to the sustainability features of the sovereign benchmarks, other technical factors such as liquidity may influence yield premia against conventional bonds.
Sovereign green premia

7.2 Spreads of sovereign green bonds against conventional reference (bps)

Germany

Spread against conventional twins

Interpolated spread maturity-adjusted against conventional OATs

France

Negative spreads represent a green premium

Sweden

Maturity-adjusted interpolated spread against conventional Swedish sovereigns

Netherlands

Maturity-adjusted interpolated spread against conventional Dutch sovereigns

Source: Refinitiv Eikon and Datastream
Sovereign green premia

7.3 Sovereign yield curves and yields for selected green sovereign bonds. 13 Apr 2023

Source: Refinitiv Eikon. Selected green references highlighted in green
ESG Bond Spreads

7.4 ESG EUR Corporate spreads (OAS, bps)

7.5 EUR corporate spreads by ESG rating (OAS, bps)

Source: Barclays and Bloomberg
7.6 Green bond spreads by currency (OAS, bps)

7.7 EUR Corporate green bond spread (OAS, bps)

7.8 Global Green bond spreads by credit rating (bps)

Source: Barclays and Bloomberg
**ESG Equity Indices**

7.9 MSCI Europe SRI Net Index EUR and EUR STOXX 600 (1 Jan 2023=100)

7.10 STOXX Global ESG Environmental Leaders

7.11 STOXX Global ESG Governance Leaders

7.12 STOXX Global ESG Social Leaders

Source: Refinitiv Eikon
Methodology and Criteria

Green Bonds: Green bonds fund projects that have positive environmental and/or climate benefits. Most of the green bonds issued are green “use of proceeds” or asset-linked bonds. Proceeds from these bonds are earmarked for green projects but are backed by the issuer’s entire balance sheet. There are also green “use of proceeds” revenue bonds, green project bonds and green securitized bonds. The Green Bond Principles (GBP) are voluntary process guidelines that recommend transparency and disclosure and promote integrity in the development of the Green Bond market by clarifying the approach for issuance of a Green Bond.

Carbon Pricing: Carbon pricing is an instrument that captures the external costs of greenhouse gas (GHG) emissions—the costs of emissions that the public pays for, such as damage to crops, health care costs from heat waves and droughts, and loss of property from flooding and sea level rise—and ties them to their sources through a price, usually in the form of a price on the carbon dioxide (CO₂) emitted. Carbon pricing can take the form of a carbon tax or fee, or a cap-and-trade system that depends on government allotments or permits.

ESG: ESG stands for Environmental Social and Governance. It refers to the three key factors when measuring the sustainability and ethical impact of an investment in a business or company.

ETS: Emissions trading system is a market-based approach to controlling pollution by providing economic incentives for reducing the emissions of pollutants. The EU emissions trading system (EU ETS) is a cornerstone of the European Union’s policy to combat climate change and its key tool for reducing industrial greenhouse gas emissions cost-effectively.

EUA: A European Union allowance (EUA) is the official name for Europe’s emission allowances, which in 2008 was defined as the official Kyoto allowance for countries in the EU. One EUA entitles the holder to emit one ton of carbon dioxide or carbon-equivalent greenhouse gas.

Europe: Countries included: Austria, Belgium, Bulgaria, Croatia, Republic of Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Switzerland, United Kingdom.

Social Bonds: Social Bonds are bonds’ whose proceeds are used to raise funds for new and existing projects that tackle a specific social issue and/or seek to achieve positive social outcomes. The reference framework for issuance of Social Bonds is the Social Bond Principles (SBP). The SBP promote integrity in the Social Bond market through guidelines that recommend transparency, disclosure and reporting Social objectives may include, but are not limited to affordable housing, affordable basic infrastructure, employment generation and sustainable food systems.

SRI: Socially responsible investing or SRI, is a strategy that emphasizes not only the financial gains from an investment but also ethical or social change.

Sustainable Bonds: Proceeds of Sustainable Bonds are split between green projects and social projects.
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