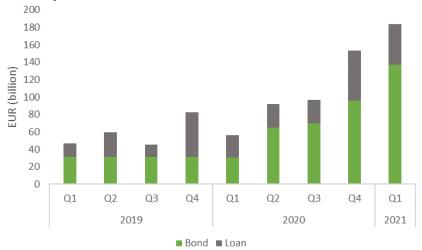


afme/ Contents Finance for Europe

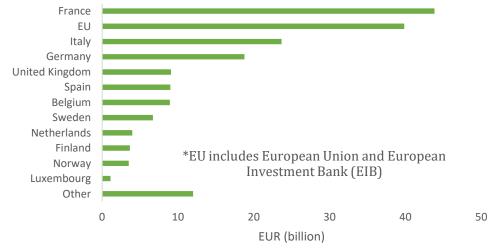
Key Findings	3
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afme/ Key findings

1.1 European ESG Bond and Loan Issuance 2017-21



1.2 European ESG Bond and Loan Issuance by Country Q1 2021



Source: Dealogic

The European ESG bond and loan market experienced substantial growth in Q1 2021, continuing the upward trend seen since 2015.

As of Q1 2021, European ESG Bond and Loans issuance has accumulated EUR 184.0 bn in proceeds, up 228% from EUR 56.1 bn in Q1 2020 and up 19.8% from EUR 153.6 bn in Q4 2020. [See graph 1.1]

In Q1 2021, the top issuers of ESG bonds and loans were located in France, Italy and Germany. The EU institutions (EU Commission on behalf of the EU and the EIB) continued their leading market presence issuing a total of EUR 39.8bn in ESG bonds during Q1 2021 (predominantly social bonds) [See graph 1.2].

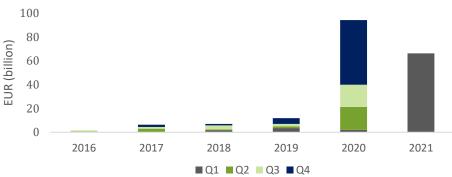


Key findings

1.3 European Green Bond Issuance 2015-21 (Q1)



1.4 European Social Bond Issuance 2016-21 (Q1)



1.5 European Sustainable Bond Issuance 2015-21 (Q1)



Source: Dealogic

ESG Bond issuance comprises Green, Social and Sustainable bonds and totalled EUR 136 bn in Q1 2021, up 385% from the issuance of 28.1 bn in Q1 2020.

63.5% of ESG bonds were issued in the Sovereign, Supranational and Agency sector, 18% by Financial Institutions, 18% by non-financial corporates and 0.4% in ABS/RMBS.

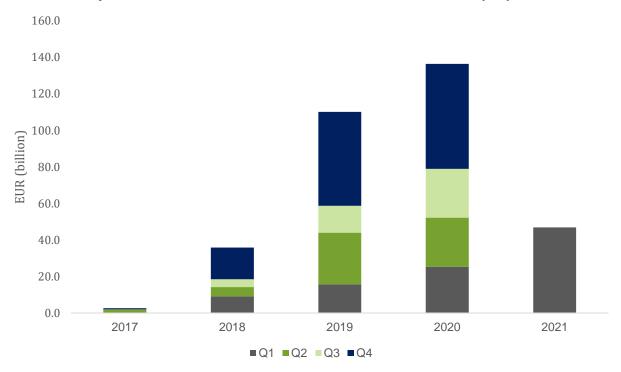
- Green Bond issuance increased 41.0% YoY, to EUR 60.4 bn in Q1 2021 from EUR 22.4 bn in Q1 2020.
- Social Bond issuance increased by 236% to EUR 66.3 bn in Q1 2021 from EUR 19.7 bn in Q1 2020.

The EU issued EUR 36.0 bn in social bonds Q1 2021 as part of the SURE Scheme. In Q1 2020, the EU issued no social bonds.

 Sustainable Bond issuance increased 150%to EUR 9.6bn in Q1 2021 from EUR 3.8 bn in Q1 2020.



1.6 European ESG & Green Linked Loan Issuance 2017-21 (Q1)

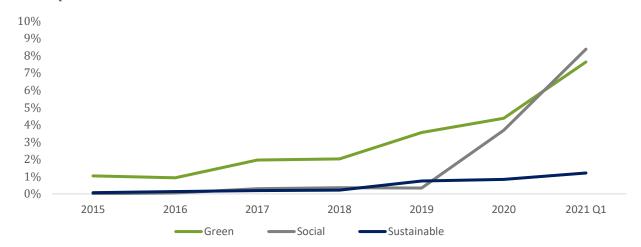


ESG and Green Linked Loans increased by 85.4% to EUR 46.9 bn in Q1 2021 from EUR 25.3 bn in Q1 2020.

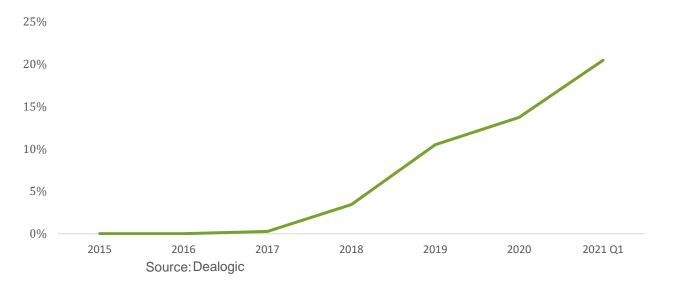
The large majority of ESG & Green linked loan issuance in the Syndicated Loans Market in Q1 2021 were social loans, which represented 85.1% of the total Q1 2021 loan origination, compared to 12.6% of green loans.

afme/ Key findings

1.7 European ESG Bond Issuance as % of Total Bond Issuance



1.8 European ESG & Green Linked Loan Issuance as % of Syndicated Loan Origination



As of March 2021, ESG Bond issuance represented 17.2% of total European bond issuance during 2021, up 8.3% from 8.9% in 2020FY. This is comprised of 7.6% green bonds, 8.4% Social Bonds, and 1.2% Sustainability Bonds [See Chart 1.7]

The top 3 issuing countries account for 65.9% of the total ESG Bond issuance in Q1 2021 with the EU issuing 29.1%, France 27.2% and Italy 9.5% of total issuance.

In Q1 2021, ESG & Green Linked Loan Issuance equals 20.5% of total European Loan Issuance [See Chart 1.8] up 6.8% from 13.7% in 2020.

The top 3 Issuing countries make 54.4% of total ESG and Green Linked Loans issuance in Q1 2021, with Italy issuing 22.4%, Belgium 17.7% and Italy 12.85 % of total issuance.



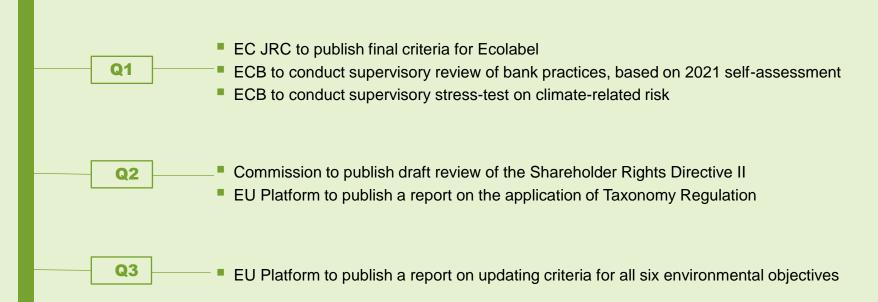
Regulatory Update

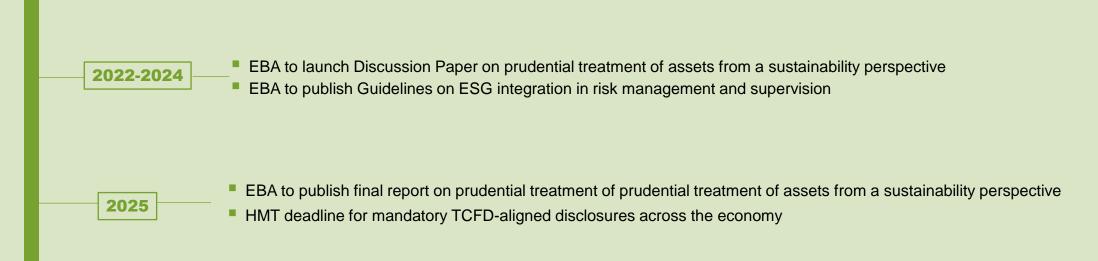
Regulatory/Supervisory Snapshot – Sustainable Finance

- Q1
- IPSF announces workstream on a "common ground taxonomy" and "comparison of ESG disclosure frameworks"
- Self-assessment based on ECB guide on supervisory expectations for climate and environmental risks begins
- EU Commission places first EU SURE bond for 2021
- EBA launches a consultation on integration of ESG risks into Pillar III disclosures (due on 1 June)
- ESAs launch a consultation on RTS on taxonomy-related disclosure for Art 8 and 9 products of SFDR (due 12 May)
- EU Platform publishes a report with recommendations to EC on Transition Finance

- Q2
- EC adopts first Taxonomy DA (climate change adaptation/mitigation)
- EC amends DAs on sustainability preferences, fiduciary duties and product governance (UCITS, AIFMD, MIFID II, IDD, Solvency II)
- EC publishes proposal for CSRD (revising current NFRD)
- EC to adopt SFDR RTS (Art. 8 & 9, PAI)
- EU Platform to publish reports on criteria for rest of env. objectives, social objectives and on harmful and low impact criteria (May)
- EC to publish Sustainable Corporate Governance proposal (June)
- EC to launch CBAM/EU-ETS proposals (June)
- EC to launch Renewed Sustainable Finance Strategy and publish EU Green Bond Standard proposal (July)
- BoE to publish Climate Biennial Exploratory Scenario (June)
- EBA to publish final report on integration of ESG in risk management and supervision (June)
- Q3
- ESAs to develop draft RTS on content, methodologies, presentation of sustainability indicators for securitisation disclosure
- BCBS to consult on integration of climate risks in Basel Framework
- EC to launch proposal on ESAP
- EBA to publish final draft ITS on Pillar III disclosures (Q3-Q4)
- IPSF to publish reports on Common Ground Taxonomy Report and Report on sustainability related disclosure
- Q4
- EBA to publish report on sustainable securitisation framework
- EBA to publish results of 2020 pilot climate sensitivity analysis
- IFRS Foundation to announce details om creation of Sustainability Standards Board
- EU Platform to publish Report on review of Taxonomy Regulation and Report on minimum social safeguards
- EC to adopt Taxonomy DAs for remaining environmental objectives (likely to drift into 2022)

Regulatory/Supervisory Snapshot – Sustainable Finance (Cont.)





afme/Glossary of Regulatory Abbreviations

BoE: Bank of England

CBAM: Carbon Border Adjustment Mechanism

CSRD: Corporate Sustainability Reporting Directive

DA(s): Delegated Acts

EC: European Commission

ECB: European Central Banks

ESAP: European Single Access Point

EU Platform: European Platform on Sustainable Finance

EU-ETS: EU Emissions Trading System

IPSF: International Platform on Sustainable Finance

ITS: Implementing Technical Standards

JRC: European Commission Joint Research Centre

NFRD: EU Non-Financial Reporting Directive

PAI: Principal Adverse Impact

RTS: Regulatory Technical Standards

SFDR: Sustainable Finance Disclosures Regulation

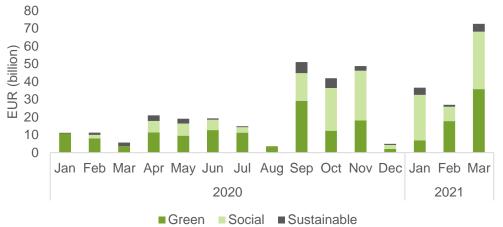


ESG Bond and Loan Issuance

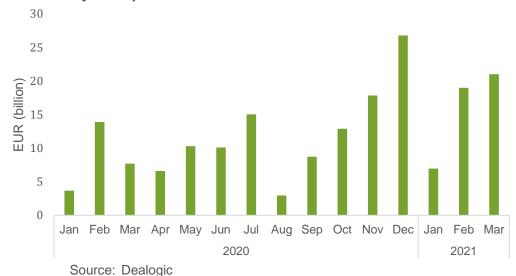


ESG Bond and Loan Issuance

2.1 Monthly European ESG Bond Issuance



2.2 Monthly European ESG and Green Linked Loan Issuance



The European ESG bond and loan market experienced substantial growth in Q1 2021, continuing the upward trend seen since 2015.

March saw the highest ESG bond issuance amount of the year so far (as of Q1'21), driven by a significant increase in green and social bond issuance. EUR 22.0 bn in social bonds were issued by the European Union in March. Issuers located in Italy and France were the top originators of green bonds in March, issuing a combined amount of EUR 15.5 bn during the month.

ESG and Green Linked Loan Issuance has steadily increased each month in Q1 2021, from EUR 6.9 bn in Jan to EUR 21.0 bn in March. Q1 issuance increased 85% from EUR 25.3 bn in Q1 2020 to EUR 46.9 bn in Q1 2021.

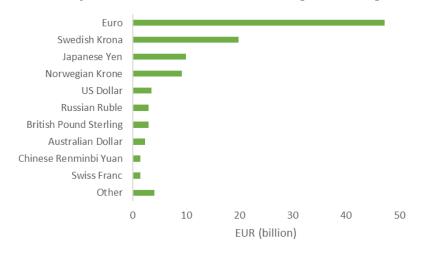
ESG securitisation issuance in Q1 2021 reached EUR 1.1 bn., surpassing the total amount issued during 2020FY (EUR 0.8 bn).

afme/ Green Bond Issuance Finance for Europe

2.3 European Green Bond Issuance by Deal Type Q1 2021

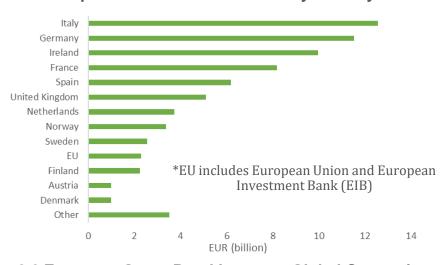


2.5 European Green Bond issuance by Currency Q1 2021

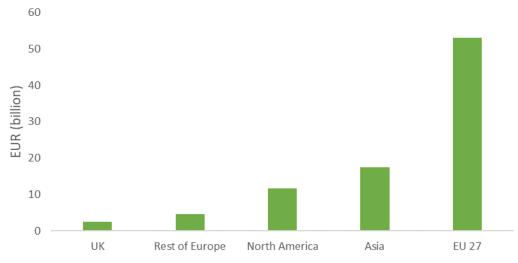


Source: Dealogic

2.4 European Green Bond Issuance by Country Q1 2021



2.6 European Green Bond Issuance Global Comparison Q1 2021

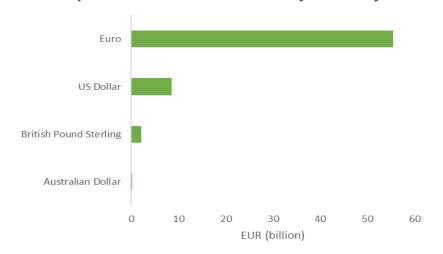


afme/ Social Bond Issuance

2.7 European Social Bond Issuance by Deal type: Q1 2021

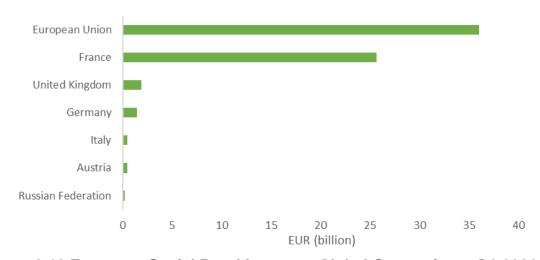


2.9 European Social Bond Issuance by Currency: Q1 2021

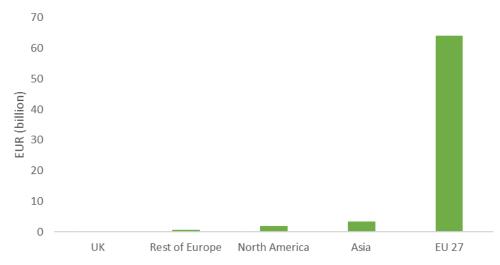


Source: Dealogic

2.8 European Social Bond Issuance by Country: Q1 2021



2.10 European Social Bond Issuance Global Comparison: Q1 2021

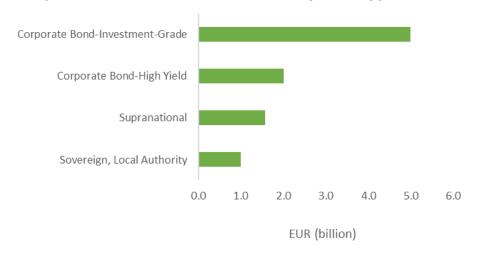




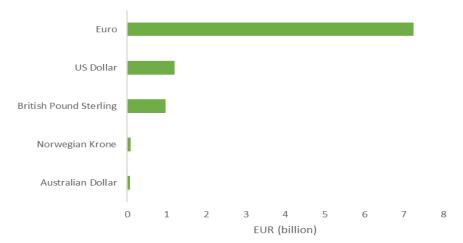
Sustainable Bond Issuance

Proceeds of Sustainable Bonds are allocated between green projects and social projects

2.11 European Sustainable Bond Issuance by Deal Type: Q1 2021

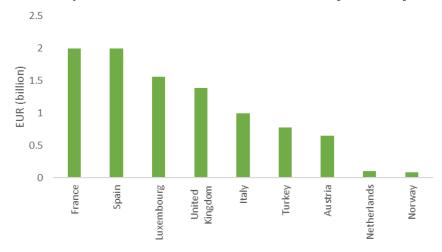


2.13 European Sustainable Bond Issuance by Currency: Q1 2021

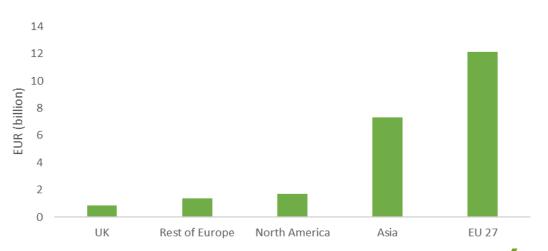


Source: Dealogic

2.12 European Sustainable Bond Issuance by Country:Q1 2021

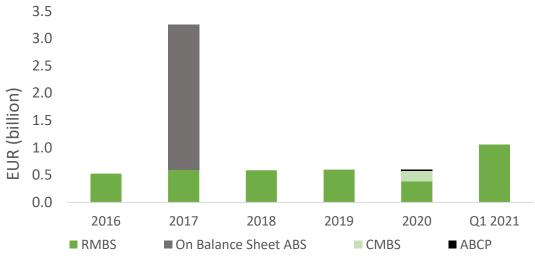


2.14 European Sustainable Bond Issuance Global Comparison: Q1 2021

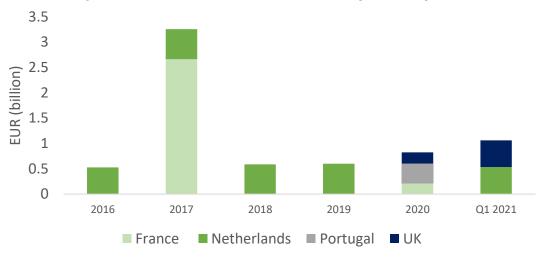


afme/ ESG Securitisation Issuance

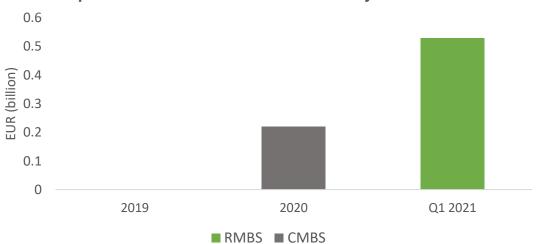
2.15 European ESG Securitisation Issuance by Asset Class Q1 2021



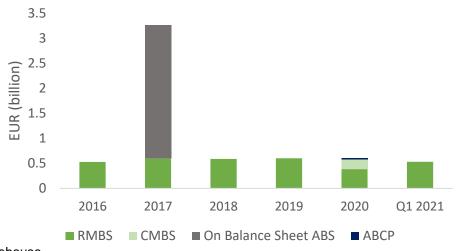
2.16 European ESG Securitisation Issuance by Country Q1 2021



2.17 European Social Securitisation Issuance by Asset Class Q1 2021



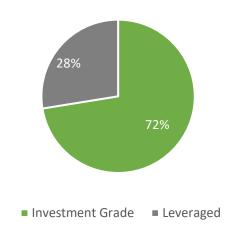
2.18 European Green Securitisation Issuance by Asset Class Q1 2021



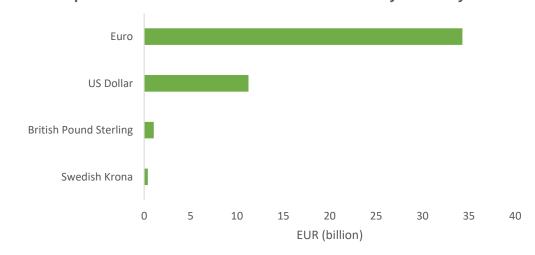
Source: Climate Bond Initiative, Credit Agricole, S&P, and European Data Warehouse

afme/ ESG Linked and Green Loan Issuance

2.18 European ESG linked and Green Loan Issuance by Deal Type: Q1 2021

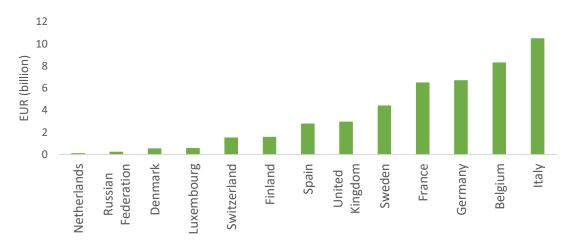


2.20 European ESG linked and Green Loan Issuance by Currency: Q1 2021

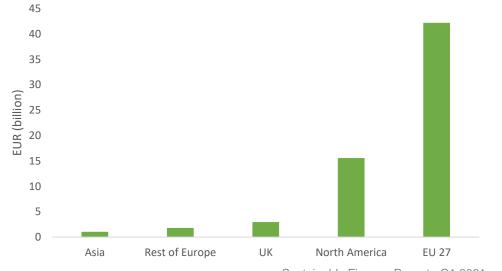


Source: Dealogic

2.19 European ESG linked and Green Loan Issuance by Country: Q1 2021



2.21 European ESG linked and Green Loan Issuance Global Comparison Q1 2021



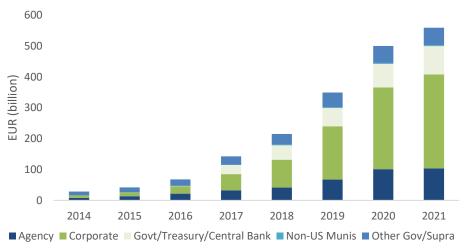


ESG Bonds Outstanding

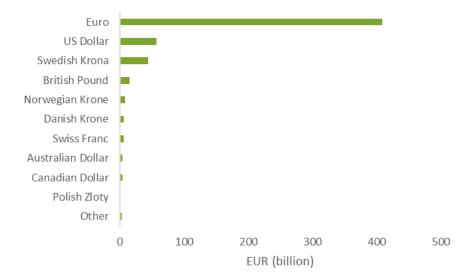


afme/ Green Bonds Outstanding

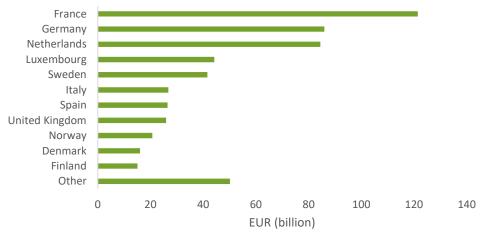
3.1 Evolution of European Green Bonds Outstanding 2021 Q1



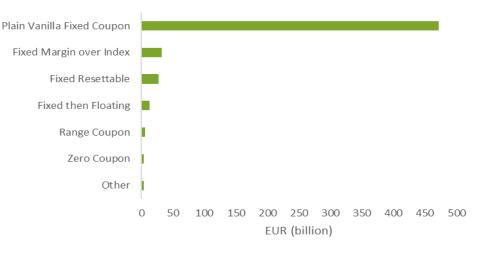
3.3 European Outstanding Amount by Currency: Q1 2021



3.2 European Green Bonds outstanding by Country: Q1 2021

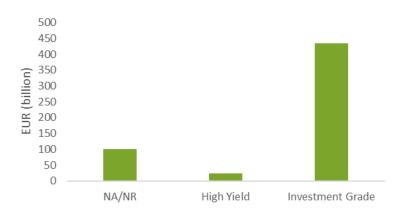


3.4 European Outstanding Amount by Coupon Type: Q1 2021

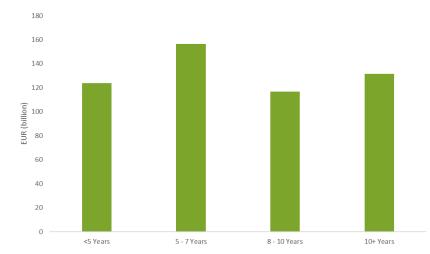


afme/ Green Bonds Outstanding

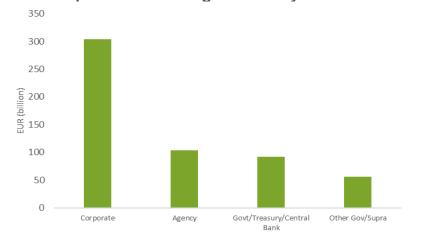
3.5 European Outstanding Amount by Bond Grade: Q1 2021



3.6 European Outstanding Amount by Years to Maturity: Q1 2021

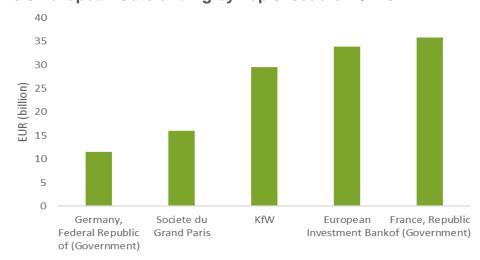


3.7 European Outstanding Amount by Asset Class: Q1 2021



Source: Refinitiv - Eikon

3.8 European Outstanding by Top 5 Issuers: Q1 2021

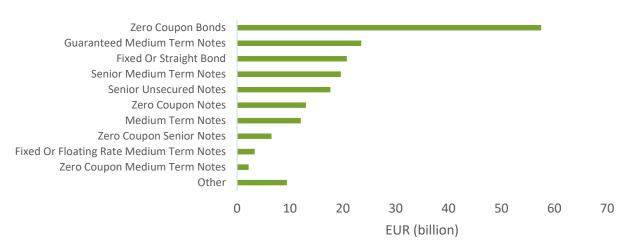


afme/ Social Bonds Outstanding

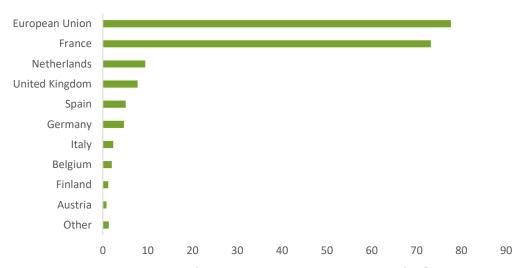
3.9 Evolution of European Bonds Outstanding Q1 2021



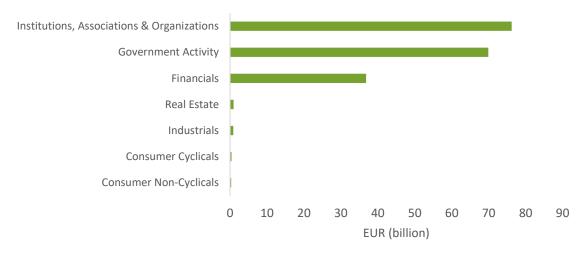
3.11 European Outstanding Amount by Security Type: Q1 2021



3.10 European Outstanding Amount by Country: Q1 2021



3.12 European Outstanding Amount Issuer Economic Sector Type: Q1 2021



Source: Refinitiv - Eikon

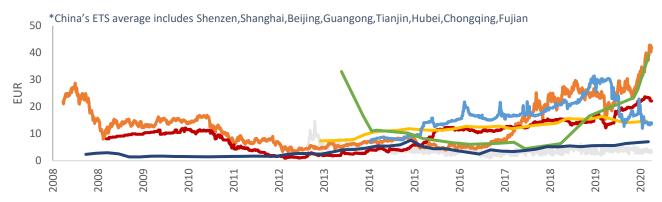


Carbon pricing, emissions and trading

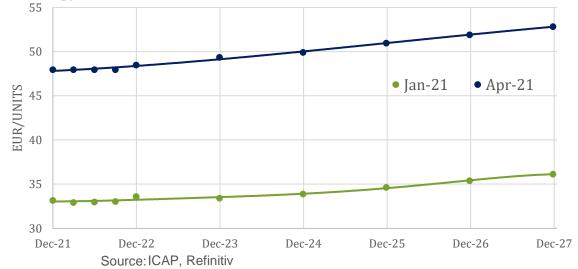
afme/ Carbon Market Prices

4.1 Comparison of Global ETS Allowance Prices





4.2 Forward curve: European Union Allowance (EUA) Electronic Energy Future Chain Contract



Market curves observed in January and April 2021

The European Union Allowance (EuA) price per metric tonne stood at €42.4 in March 2021 a 150% increase from €16.8 in March 2020 and a 38.9% increase from €30.52 in December 2020.

The EU ETS has the highest allowance price globally. The second highest ETS allowance price is the Switzerland ETS at €39.25, followed by New Zealand at €22.1. Contrastingly, the Regional Greenhouse Gas Initiative (USA) has an allowance price of only €7.0.

We must note that prices are not directly comparable across systems and vary greatly, given different circumstances and differences in ETS design.

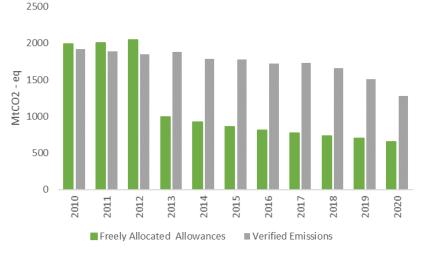


Measurement of Carbon Emissions

4.3 Amount of Emissions Covered by ETS (MtC02e)



4.4 EU 27 + UK Allowance Vs verified Emissions



Source: The World Bank, European Environment Agency

In 2021, China has overtaken the EU as the largest emissions trading scheme globally was implemented with 3454.4 Mt Co2-eq covered.

The European Union Emissions Trading System (EU ETS) is now the second largest greenhouse gas ETS globally, with 2249.1 Mt CO2-eq covered, with a value of \$33.66 billion.

The third largest ETS globally is the Korea ETS, with 488.97 Mt CO2-eq covered, with a value of \$ 17.97 billion. The evolution of ETS globally will continue to be covered in future editions of this report.

EU+UK verified emissions have been approximately twice as high as freely allocated allowances each year since 2013, with the most recent data showing verified emissions to have been 49% higher than freely allocated allowances in 2020.

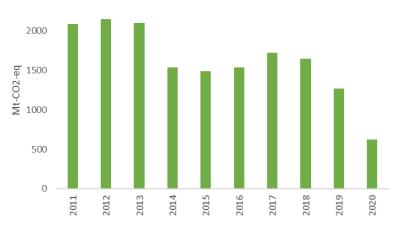
Freely traded allowances: Companies receive or buy emissions and can trade them with one another. The total number of allowances is limited, which ensures that they have a value. At the beginning of each trading period, most installations (companies) receive a percentage of their allowances for free. This proportion decreases gradually each year.



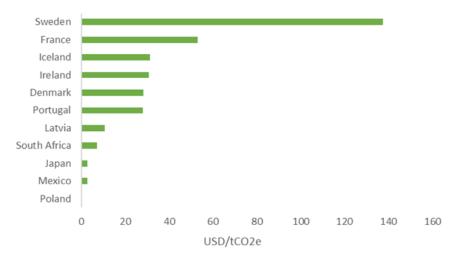
Carbon Pricing – Allowance & Tax

4.5 Allowances auctioned or sold (EUAs and EUAAs) (latest available-Nov 2020)

EUA: European Union Allowance. EUAA: European Union Aviation Allowance



4.6 Carbon Tax by Country (latest available-Nov 2020)



Source: European Environment Agency, The World Bank

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 emission. 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) has decreased from 1304.82 Mt CO2-eq in 2019 to 652.24 Mt CO2-eq in 2020.

Carbon Tax is another method of carbon pricing. Sweden currently has the highest carbon tax globally at 137.5 USD/tCO2e. The country with second highest carbon tax is France, 62% lower than Sweden, at 52.8 USD/tCO2e.

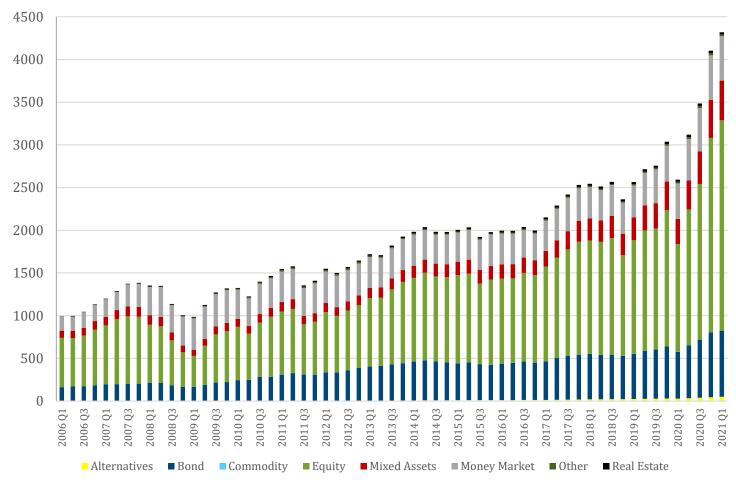


Fund Management

afme/ Global ESG funds Finance for Europe

7.1 Global ESG Funds by Asset Class (USD bn)

Mutual Funds (including Fund of Funds) and Exchange Traded Funds



Global ESG Funds continued to grow during Q1 2021.

Funds with an ESG mandate (including Mutual Funds and ETFs) totalled \$4.3tn as of Q1 2021, a \$200bn increase from \$4.1tn in Q4 2020 and a \$1.7tn increase from \$2.6tn in Q1 2020.

ESG equity funds continue to be by far the largest fund asset class, over 3x larger than fixed income.

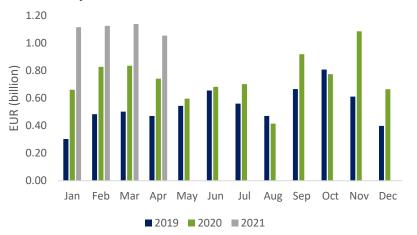


ESG Bond Trading

afme/ Finance for Europe

ESG Bond Trading Volumes

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



6.3 Average Daily Trading Volumes: European ESG Government, Agency, Supranational, and Sovereign Bonds



Source: Trax data from MarketAxess

6.2 Average Daily Trading Volumes: European ESG Corporate Bonds



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

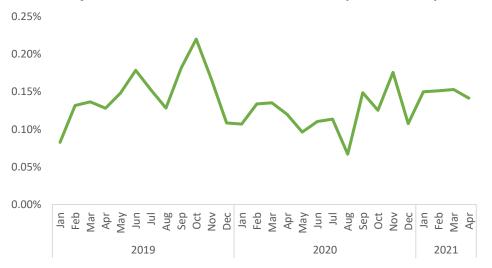


■ ABS & Covered Bonds

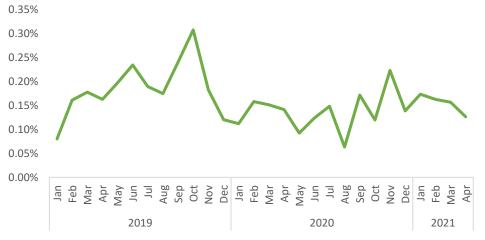
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ESG Bond Turnover Ratios

6.5 European ESG Bond Turnover Ratio (all issuers)

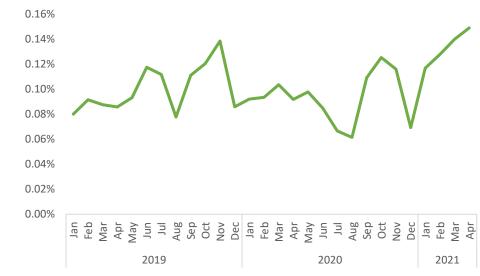


6.7 Turnover Ratio: European ESG Government, Agency, Supranational, and Sovereign bonds



Source:Trax data from MarketAxess

6.6 Turnover Ratio: European ESG Corporate Bonds



^{*} Turnover Ratio has been calculated by dividing the outstanding amount by the average daily trading volume

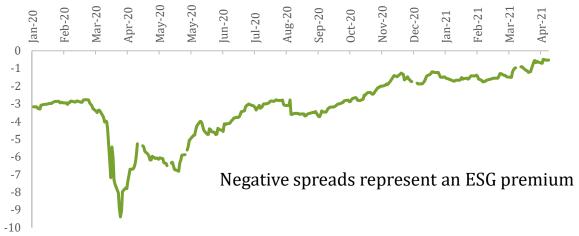
^{**} Methodology used to calculate bonds outstanding has changed since the last quarter and has thus resulted in a change in turnover ratios –A constant outstanding amount is used during the calendar year to calculate turnover ratio



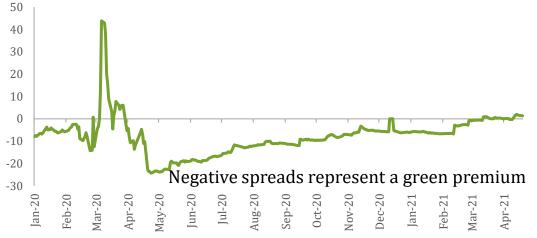
Valuations



7.1 Spreads (OAS) of EUR-denominated ESG bonds against non-ESG benchmarks (bps)



7.2 Greenium: Spreads (OAS) of EUR-denominated corporate green bonds against non-green benchmark (bps)



Source: AFME with Barclays data

Spreads of Green and ESG bonds against nonsustainable benchmarks ("Greenium") have continued to tighten during 2021.

ESG premia has tightened from 9bps in April 2020 to 1bp on average in April 2021.

According to AFME estimates, green premia has significantly tightened for corporate green instruments closer to virtually 0bps in April 2021.

There are various factors that could explain the decline in ESG and green premia, including the substantial increase in supply of new ESG and green products.

^{*} Spread between EUR-denominated ESG and Green corporate bonds and PanEuro corporate bonds

afme/ ESG Bond Spreads Finance for Europe

7.3 ESG and SRI bond spreads (bps)



7.5 ESG spreads by currency (bps)



7.4 ESG bond spreads by sector (bps)



7.6 ESG spreads by credit rating (bps)

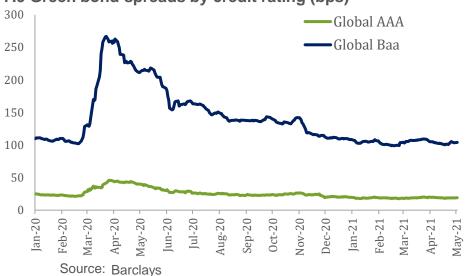


afme/ Green Bond Spreads Finance for Europe

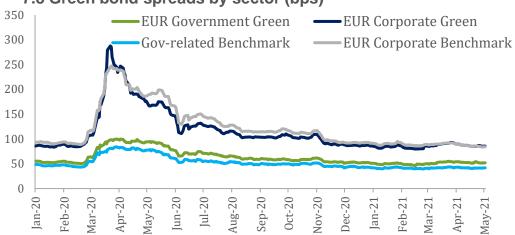
7.7 Green bond spreads by currency (bps)



7.9 Green bond spreads by credit rating (bps)



7.8 Green bond spreads by sector (bps)



7.10 Green bond spreads by economic activity (bps)





7.11 MSCI Europe ESG Net Index EUR and EUR STOXX 600 (1 Jan 2021=100)



7.13 STOXX Global ESG Governance Leaders (1 Jan 2021 =100)



7.12 STOXX Global ESG Environmental Leaders (1 Jan 2021 =100)



7.14 STOXX Global ESG Social Leaders (1 Jan 2021=100)



afme/ Methodology and Definitions

<u>Green Bonds:</u> Green bonds fund projects that have positive environmental and/or climate benefits. The majority 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 securitised 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.

<u>Carbon Pricing:</u> 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

<u>EUA</u>: 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.

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

<u>Social Bonds</u>: 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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