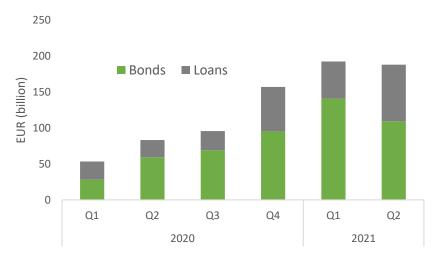


# afme/ Contents Finance for Europe

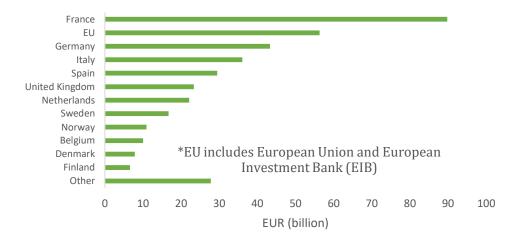
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## afme/ Key findings

### 1.1 European ESG Bond and Loan Issuance 2020-21



### 1.2 European ESG Bond and Loan Issuance by Country H1 2021



Source: Dealogic

ESG bond and loan issuance marginally decelerated in Q2 2021 compared to Q1 2021. However, ESG fixed income issuance continues to display robust volumes driven by the active participation of the public sector in the ESG bond market (EU and country sovereigns) and continued increase in ESG loan origination.

During Q2 2021, European ESG Bond and Loans issuance accumulated EUR 188.7 bn in proceeds, up 227% from EUR 83.1 bn in Q2 2020, with only a 3% drop from Q1 2021.

In Q2 2021, the top issuers of ESG bonds and loans were located in France, Germany institutions Italv. The EU (EU and Commission on behalf of the EU and the EIB) continued their leading market presence issuing a total of EUR 56.3bn in ESG bonds during Q2 2021 (predominantly social bonds) [See graph 1.2].

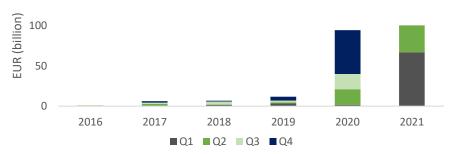


### Key findings

### 1.3 European Green Bond Issuance 2015-21 (Q2)



### 1.4 European Social Bond Issuance 2016-21 (Q2)



### 1.5 European Sustainable Bond Issuance 2015-21 (Q2)



Source: Dealogic

ESG Bond issuance comprises Green, Social and Sustainable bonds and totalled EUR 109 bn in Q2 2021, up 184% from the issuance of 59.3 bn in Q2 2020.

60.1% of ESG bonds were issued by the official sector (predominantly government bonds), 35.5% by corporates and 0.4% in ABS/RMBS.

- Green Bond issuance increased 79% YoY, to EUR 60.1 bn in Q2 2021 from EUR 33.5 bn in Q2 2020.
- Social Bond issuance increased by 74% to EUR 33.5 bn in Q2 2021 from EUR 19.2 bn in Q2 2020.

By Q2 2021, the EU had issued a total of 89.6 bn in social bonds under the SURE scheme.

• Sustainable Bond issuance increased by 138% to EUR 15.6 bn in Q2 2021 from EUR 6.5 bn in Q2 2020.

ESG securitisation issuance in H1 2021 reached EUR 5.2bn on two social RMBS deals, two green RMBS deals, and an on-balance sheet ABS. This represents a substantial increase from EUR 0.2 bn issued in 2020FY.



### 1.6 European ESG & Green Linked Loan Issuance 2017-21 (Q2)

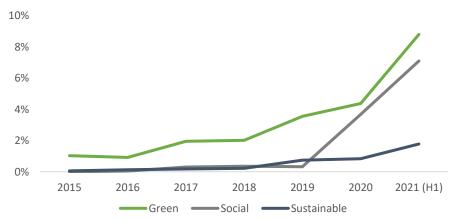


ESG and Green Linked Loans increased by 191% to EUR 78.6 bn in Q2 2021 from EUR 27 bn in Q2 2020.

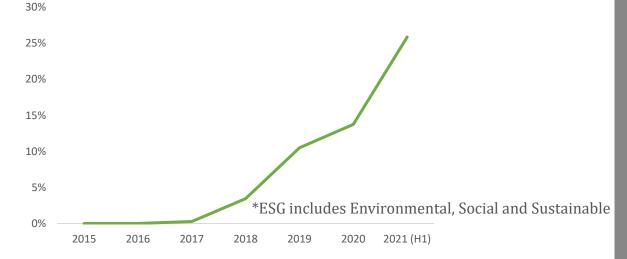
The majority of ESG & Green linked loan issuance in the Syndicated Loans Market in Q2 2021 were social loans, which represented 67.4% of the total Q2 2021 loan origination, compared to 32.5% of green loans.

## 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



Source: Dealogic

As of June 2021, ESG Bond issuance represented 17.7% of total European bond issuance during 2021, up 8.8% from 8.9% in 2020FY. This is comprised of 8.8% green bonds, 7.1% Social Bonds, and 1.8% Sustainability Bonds [See Chart 1.7]

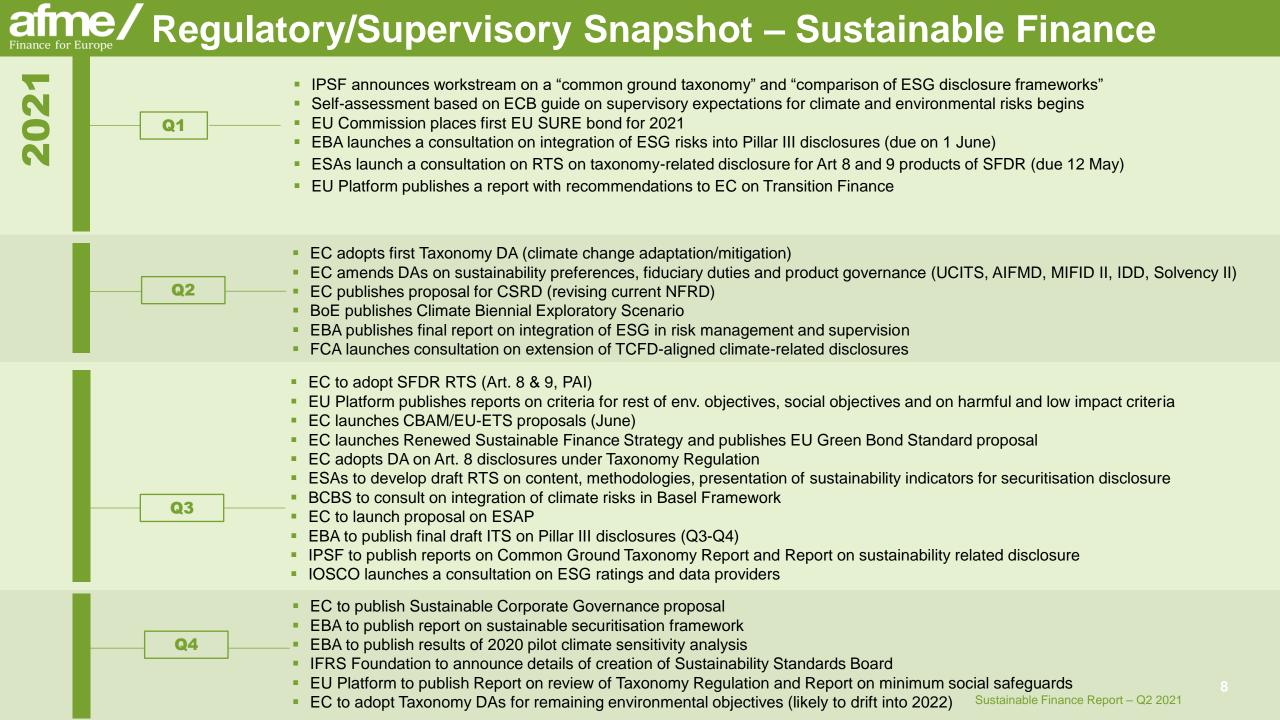
The top 3 issuing countries and supranationals account for 60.2% of the total ESG Bond issuance in Q2 2021 with the EU institutions issuing 21.4%, France 26% and Germany 12.8% of total issuance.

In Q2 2021, ESG & Green Linked Loan Issuance equals 25.9% of total European Loan Issuance [See Chart 1.8], up 12.2% from 13.7% in 2020.

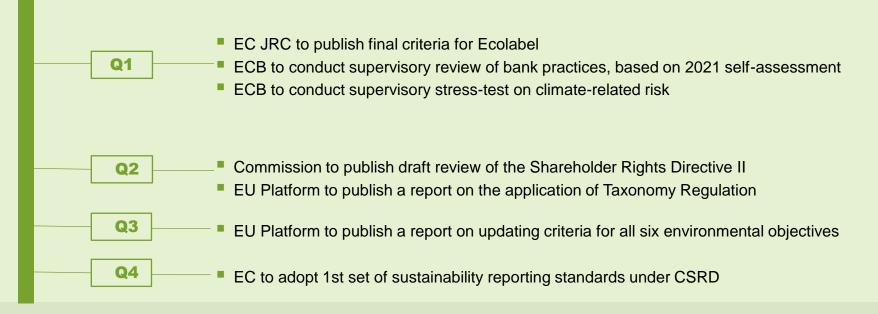
The top 3 Issuing countries make 47.2% of total ESG and Green Linked Loans issuance in Q2 2021, with France issuing 19%, Italy 15.58% and Spain 12.53 % of total issuance.

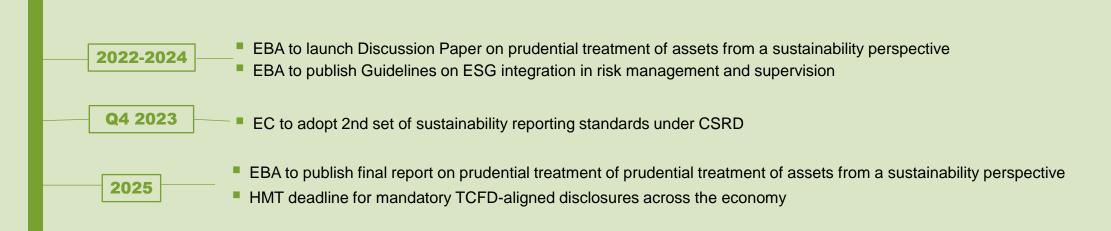


## Regulatory Update



### 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

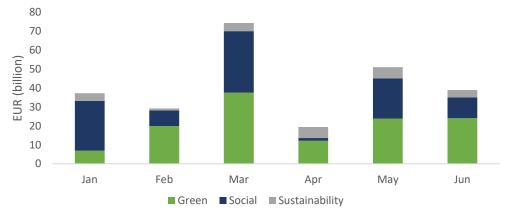


### ESG Bond and Loan Issuance

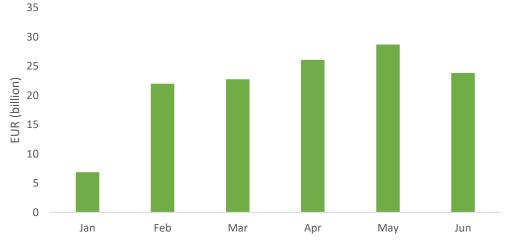


# **ESG Bond and Loan Issuance**

### 2.1 Monthly European ESG Bond Issuance: 2021YtD



2.2 Monthly European ESG and Green Linked Loan Issuance: 2021YtD



Source: Dealogic

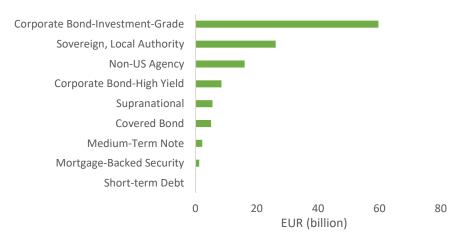
ESG bond supply has averaged EUR 41.6 bn per month during 2021 (as of H1), a large increase from the average monthly supply observed in 2020FY (EUR 21.04 bn) and in H1 2020 (EUR 14.6 bn).

The month of March saw the highest ESG issuance in 2021, followed by the issuance in May, which was the highest in Q2, driven by a significant increase in social bond issuance, predominantly by the European Union, which issued EUR 14.13 bn in social bonds in May.

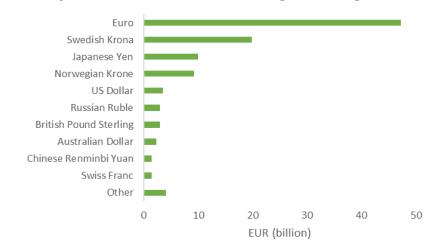
Monthly ESG loan issuance has almost consistently increased throughout the year, with a small drop of EUR 4.8 bn from May to June.

## afme/ Green Bond Issuance

### 2.3 European Green Bond Issuance by Deal Type: H1 2021

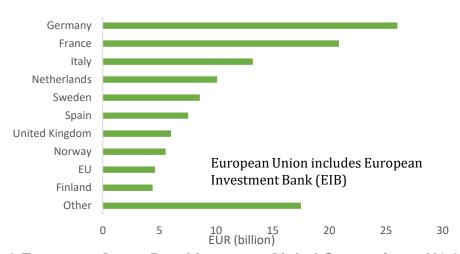


### 2.5 European Green Bond issuance by Currency: H1 2021

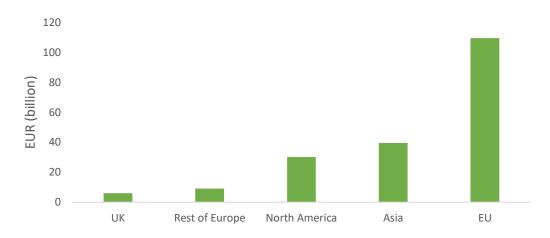


Source: Dealogic

### 2.4 European Green Bond Issuance by Country: H1 2021

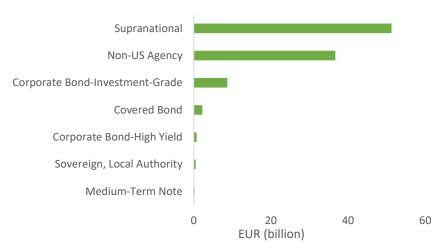


### 2.6 European Green Bond Issuance Global Comparison: H1 2021

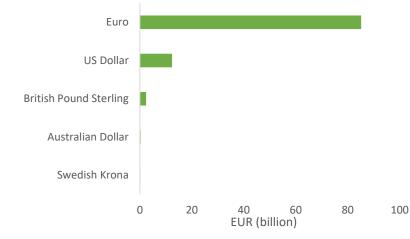


## afme/ Social Bond Issuance

### 2.7 European Social Bond Issuance by Deal type: H1 2021

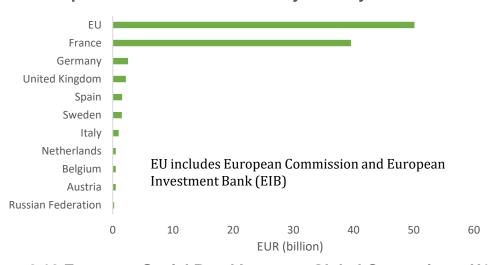


### 2.9 European Social Bond Issuance by Currency: H1 2021

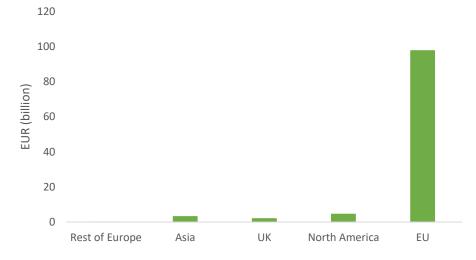


Source: Dealogic

### 2.8 European Social Bond Issuance by Country: H1 2021



### 2.10 European Social Bond Issuance Global Comparison: H1 2021

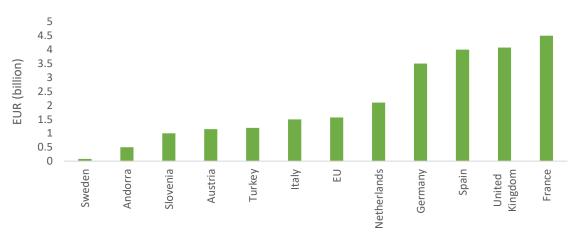




### **Sustainable Bond Issuance**

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

### 2.11 European Sustainable Bond Issuance by Country: H1 2021

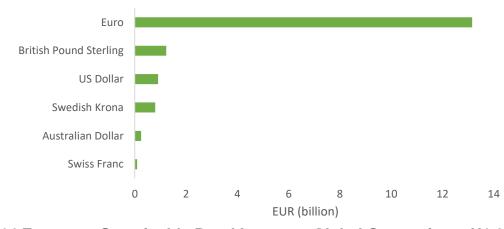


### 2.13 European Sustainable Bond Issuance by Deal Type: H1 2021

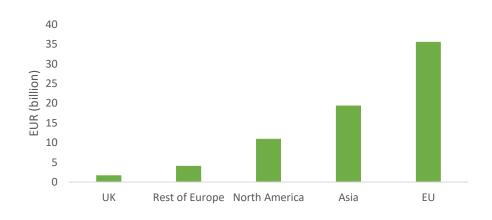


Source: Dealogic

### 2.12 European Sustainable Bond Issuance by Currency: H1 2021

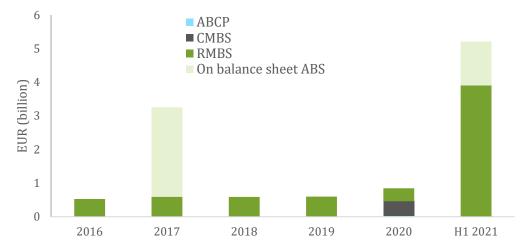


### 2.14 European Sustainable Bond Issuance Global Comparison: H1 2021

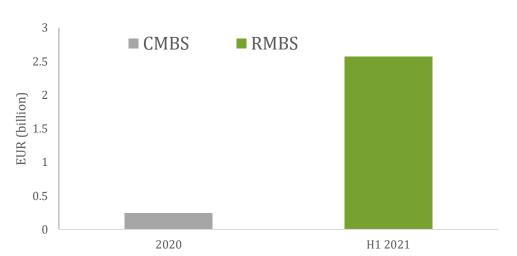


### afme/ ESG Securitisation Issuance

### 2.15 European ESG Securitisation Issuance by Asset Class H1 2021



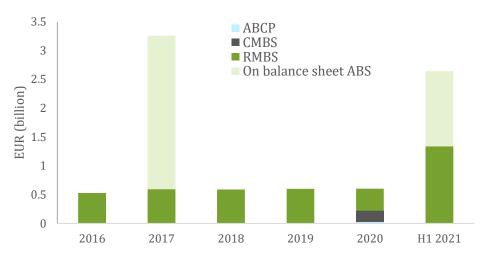
### 2.17 European Social Securitisation Issuance by Asset Class H1 2021



### 2.16 European ESG Securitisation Issuance by Country H1 2021



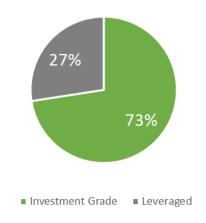
2.18 European Green Securitisation Issuance by Asset Class H1 2021



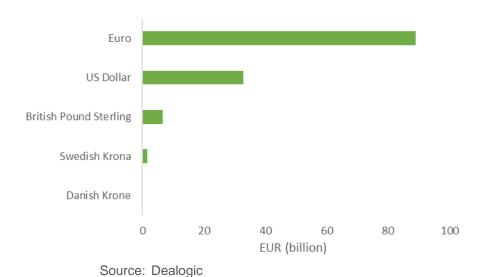
Source: Climate Bond Initiative, Credit Agricole, S&P, and European Data Warehouse

### afme/ ESG Linked and Green Loan Issuance

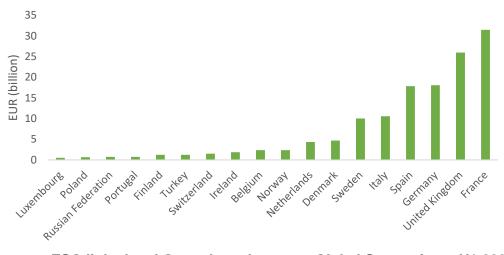
### 2.18 European ESG linked and Green Loan Issuance by Deal Type: H1 2021



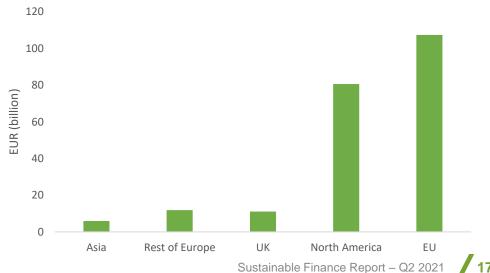
### 2.20 European ESG linked and Green Loan Issuance by Currency: H1 2021



### 2.19 European ESG linked and Green Loan Issuance by Country: H1 2021



### 2.21 European ESG linked and Green Loan Issuance Global Comparison: H1 2021

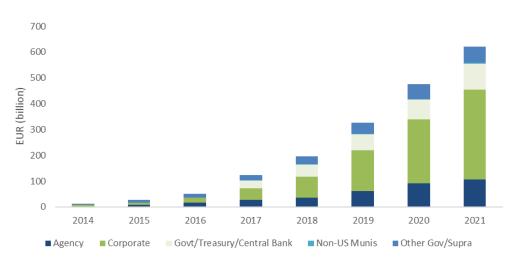




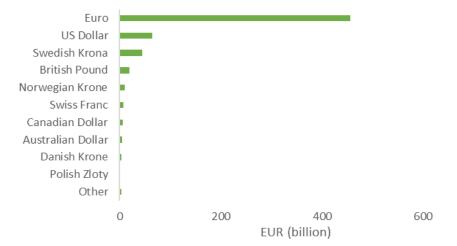
## ESG Bonds Outstanding

### afme/ Green Bonds Outstanding

### 3.1 Evolution of European Green Bonds Outstanding: H1 2021

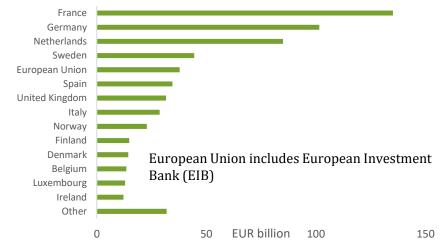


### 3.3 European Outstanding Amount by Currency: H1 2021

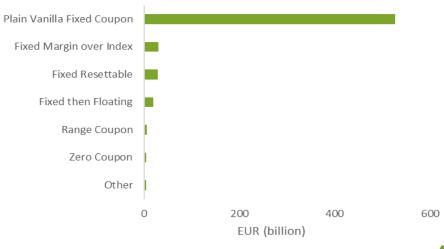


Source: Refinitiv - Eikon

### 3.2 European Green Bonds outstanding by Country: H1 2021

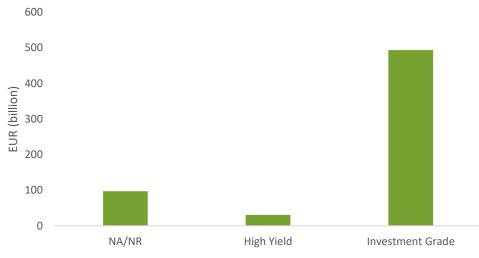


### 3.4 European Outstanding Amount by Coupon Type: H1 2021

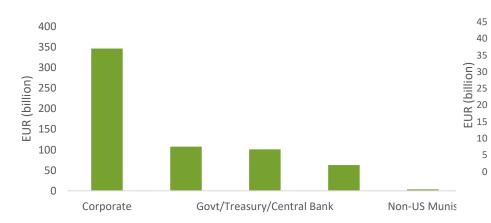


### afme/ Green Bonds Outstanding

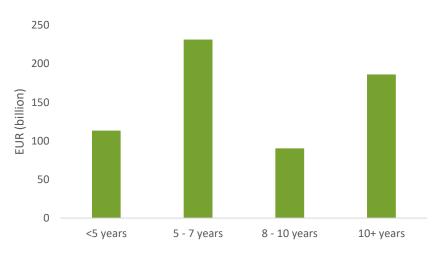
3.5 European Outstanding Amount by Bond Grade: H1 2021



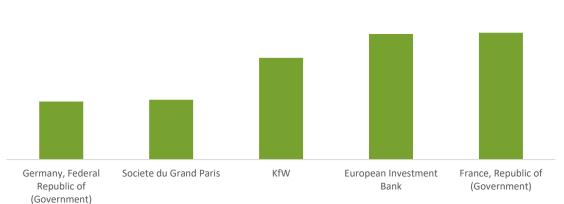
3.7 European Outstanding Amount by Asset Class: H1 2021



3.6 European Outstanding Amount by Years to Maturity: H1 2021



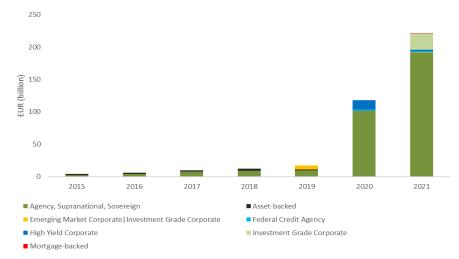
3.8 European Outstanding by Top 5 Issuers: H1 2021



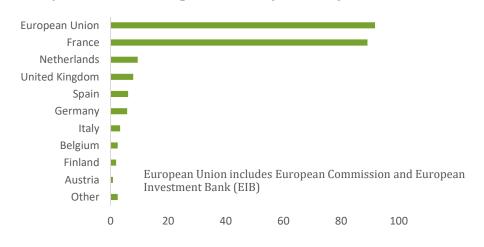
Source: Refinitiv - Eikon

## afme/ Social Bonds Outstanding

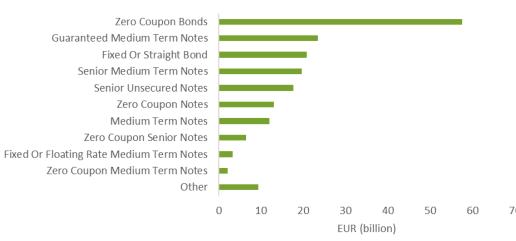
### 3.9 Evolution of European Bonds Outstanding: H1 2021



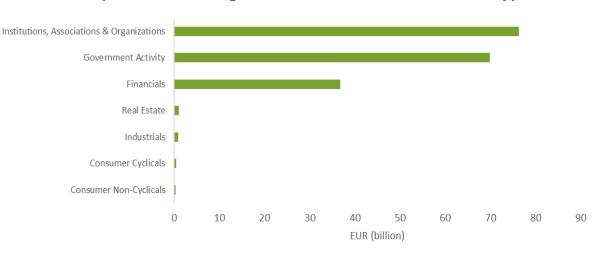
### 3.10 European Outstanding Amount by Country: H1 2021



### 3.11 European Outstanding Amount by Security Type: H1 2021



### 3.12 European Outstanding Amount Issuer Economic Sector Type: H1 2021



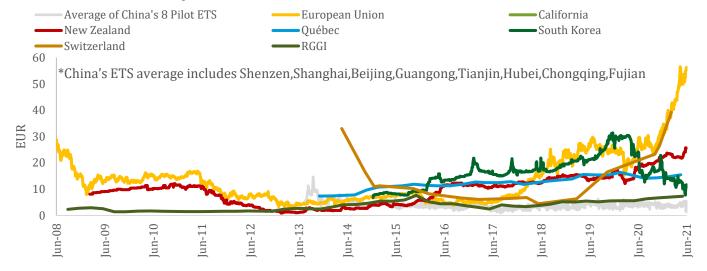
Source: Refinitiv - Eikon



## 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) and UK Electronic Energy Future Chain Contract



The European Union Allowance (EuA) price per metric tonne stood at €53.3 in June 2021, a 110% increase from €25.3 in June 2020 and a 62.5% increase from €32.8 in December 2020.

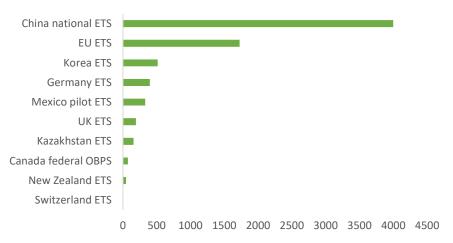
The EU ETS has the highest allowance price globally. The second highest ETS allowance price is the Switzerland ETS at €39.25 (March data), followed by New Zealand at €24.1. Contrastingly, the Regional Greenhouse Gas Initiative (USA) has an allowance price of only €7.2.

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

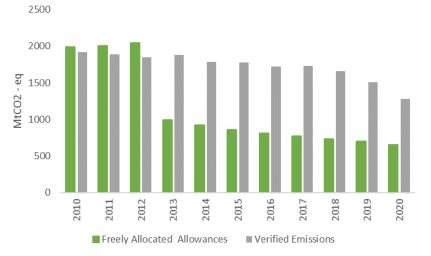


### Measurement of Carbon Emissions

### 4.3 Amount of Emissions Covered by ETS (MtC02e)



#### 4.4 EU + 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 3996.9 Mt Co2-eq covered.

The European Union Emissions Trading System (EU ETS) is now the second largest greenhouse gas ETS globally, with 1725.7 Mt CO2-eq covered.

The third largest ETS globally is the Korea ETS, with 513.4 Mt CO2-eq covered.

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.

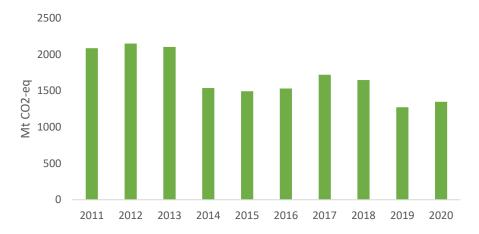
Freely traded allowances: Companies receive or buy emissions and can trade them with one another. The total number of allowances is limited, which ensures that they have a value. At the beginning of each trading period, most installations (companies) receive a percentage of their allowances for free.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



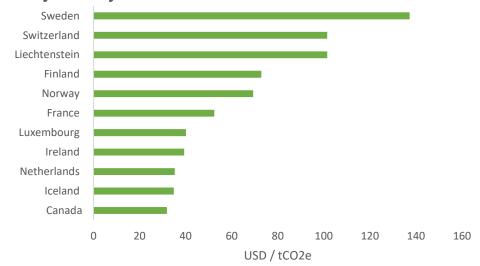
# Carbon Pricing – Allowance & Tax

#### 4.5 Allowances auctioned or sold (EUAs and EUAAs)

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



#### 4.6 Carbon Tax by Country



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 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) 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 137.2 USD/tCO2e. The country with second highest carbon tax is Switzerland, 27% lower than Sweden, at 101.4 USD/tCO2e.

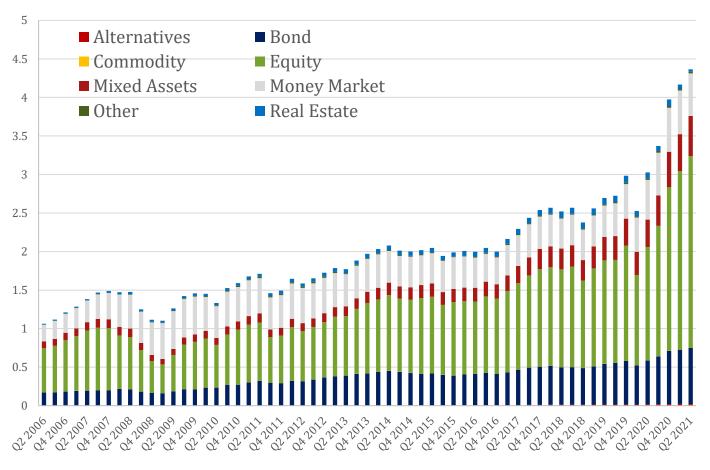


## Fund Management

## afme/ Global ESG funds

### 7.1 Global ESG Funds by Asset Class (USD tn)

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



Global ESG Funds continued to grow during Q2 2021 across all the major asset classes, with the exception of Money Market ESG Funds.

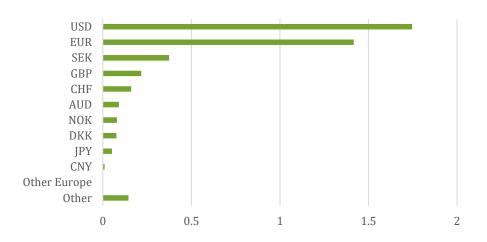
Funds with an ESG mandate (including Mutual Funds and ETFs) totaled \$4.36tn as of Q2 2021, a \$200bn increase from \$4.16tn in Q1 2021 and a \$1.3tn increase from \$3tn in Q2 2020.

ESG equity funds continue to be by far the largest fund asset class with 57% of total ESG funds and over 3x larger than fixed income which represents 17% of the total.



### **Global ESG Funds**

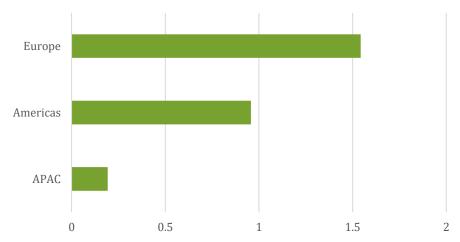
### 7.2 Global ESG Funds by currency base (USD tn)



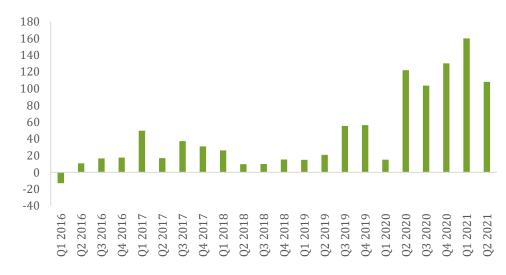
### 7.4 Global ESG fund flows (\$bn)



### 7.3 Global ESG Funds by geographical location (USD tn)



### 7.5 European ESG fund flows (\$bn)



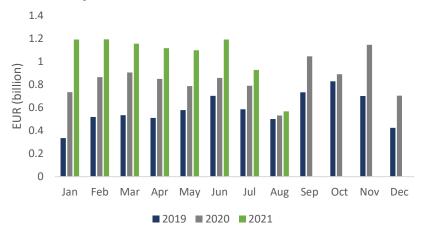


## ESG Bond Trading



### **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



■ Government, Agency, Supranational, Sovereign

6.2 Average Daily Trading Volumes: European ESG Corporate Bonds

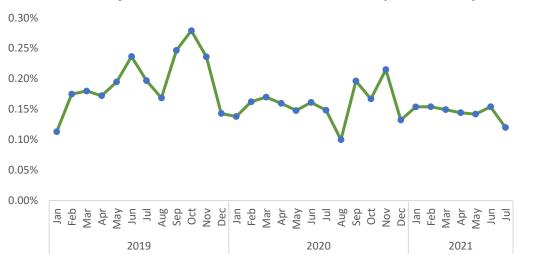


6.4 Average Daily Trading Volumes: European ESG ABS and Covered Bonds

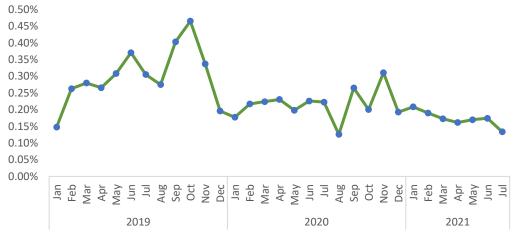


### **ESG Bond Turnover Ratios** Finance for Europe

### 6.5 European ESG Bond Turnover Ratio (all issuers)

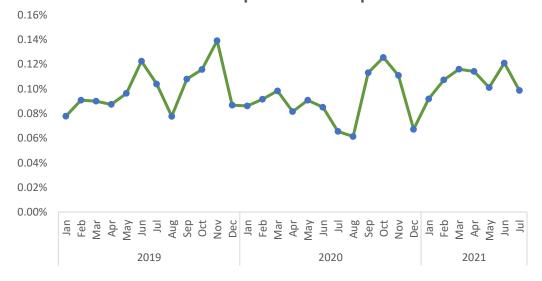


6.7 Turnover Ratio: European ESG Government, Agency, Supranational, and Sovereign bonds



#### Source:Trax data from MarketAxess

### 6.6 Turnover Ratio: European ESG Corporate Bonds



<sup>\*</sup> Turnover Ratio has been calculated by dividing the outstanding amount by the average daily trading volume

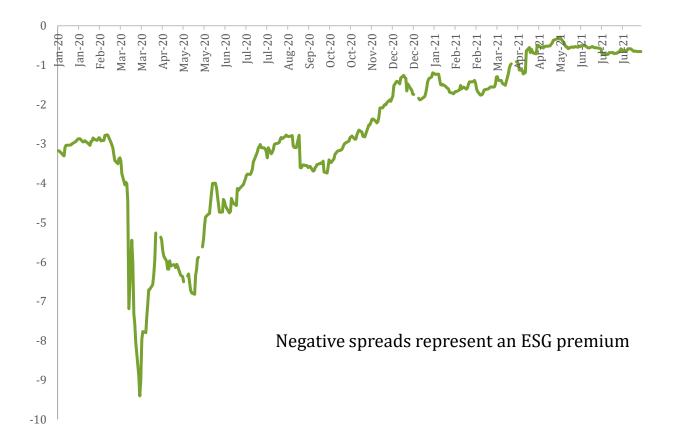
<sup>\*\*</sup> Methodology used to calculate bonds outstanding has changed since the last quarter and has thus resulted in a change in turnover ratios –A constant outstanding amount is used during the calendar year to calculate turnover ratio



## Valuations



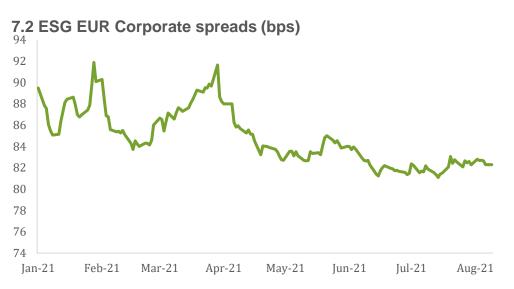
### 7.1 Spreads (OAS) of EUR-denominated corporate ESG bonds against non-ESG corporate benchmarks (bps)



Spreads of corporate ESG bonds against non-sustainable benchmarks have stabilized during Q2 2021.

ESG premia has tightened from 9bps in April 2020 to 1bp on average during the months of April – July 2021.





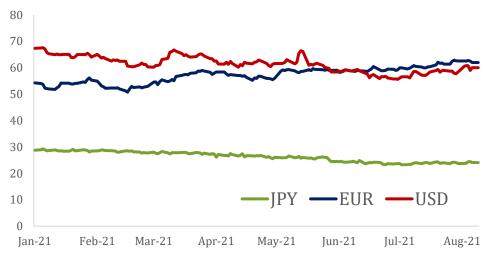
### 7.3 ESG EUR corporate spreads by credit rating (bps)



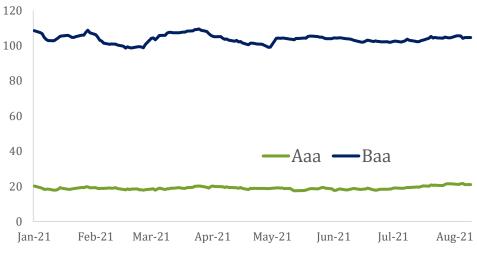
Source: Barclays and Bloomberg. INDEX\_OAS\_TSY

## afme/ Green Bond Spreads

### 7.4 Green bond spreads by currency (bps)

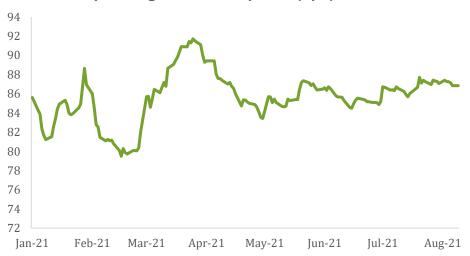


### 7.6 Global Green bond spreads by credit rating (bps)



Source: Barclays and Bloomberg. INDEX\_OAS\_TSY

### 7.5 EUR Corporate green bond spread (bps)



# **afme/** ESG Equity Indices

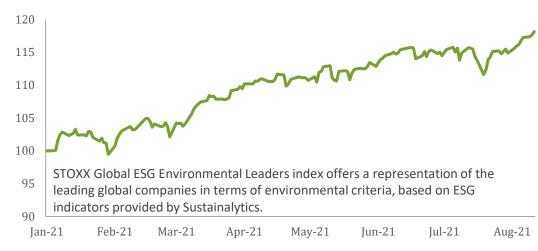
### 7.11 MSCI Europe ESG Net Index EUR\* and EUR STOXX 600 (1 Jan 2021=100)



### 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)



Source: Eikon, STOXX, MSCI

## 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 (CO<sub>2</sub>) 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, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Switzerland, United Kingdom.

<u>Social Bonds</u>: Proceeds of Social bonds 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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