



Finance, Competitiveness & Innovation

FCI's Climate Finance Offering

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ESG Market

Key messages

- **The financial sector plays a key role** in supporting a green, resilient and inclusive recovery. This is key especially for EMDEs, which are more vulnerable and less prepared to respond to the impacts of climate change.
- **FCI Finance climate offering builds on three pillars:**
 - **Disclosure & reporting:** Requiring financial institutions/companies to report both the impact of climate change on their operations, and their impact on the climate.
 - **Risk management:** Measuring and managing the impact of physical and transition climate risks on the financial system, governments, businesses and households.
 - **Green finance:** mobilizing capital towards sustainable activities aligned with climate mitigation and adaptation goals
- FCI Finance is engaged with **international networks** (G20, FSB, SSB, NGFS, etc.) to contribute to standards and policies, as a regulation wave is coming
- FCI is supporting **policy reforms and \$11b worth lending operations in 50 countries** through analytical and advisory services
- **Prioritization of engagements** will be key to deliver timely and high-quality support

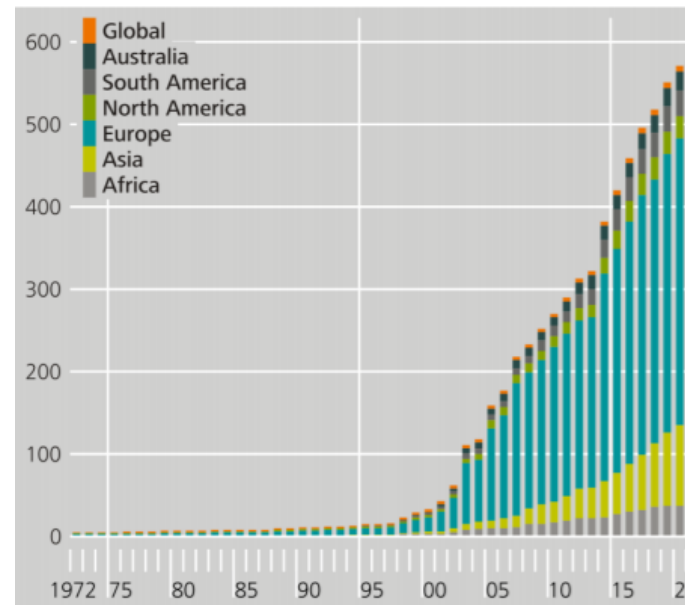
A regulation wave is coming to green the financial sector

An increasing number of global initiatives...



...are stimulating a strong surge in greening policy interventions

Cumulative number of green and sustainable finance policy interventions (1930 – 2020)



Source: NGFS based on PRI data

Note: Database tracks ESG regulation more broadly

Much more to come - Timeline of selected global initiatives

FSB/ G20 climate-related financial risk roadmap: November 2021

BCBS consults principles for climate-risk supervision: by February 2022

TCFD/ IFRS global climate/ sustainability reporting consultations: Mid-2022

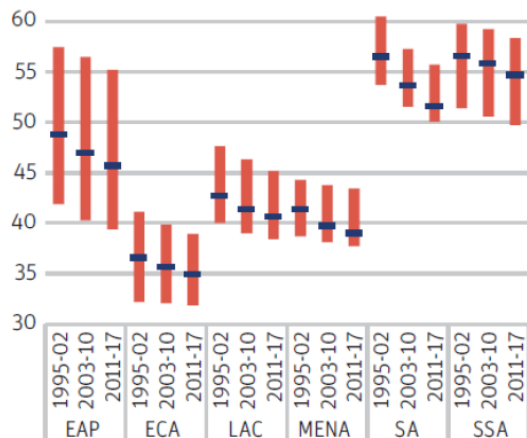


Climate change poses serious threats to sustainable development so EMDEs need 'ride the regulation wave' to increase investments for mitigation and adaptation

Greening financial system challenges faced by EMDEs

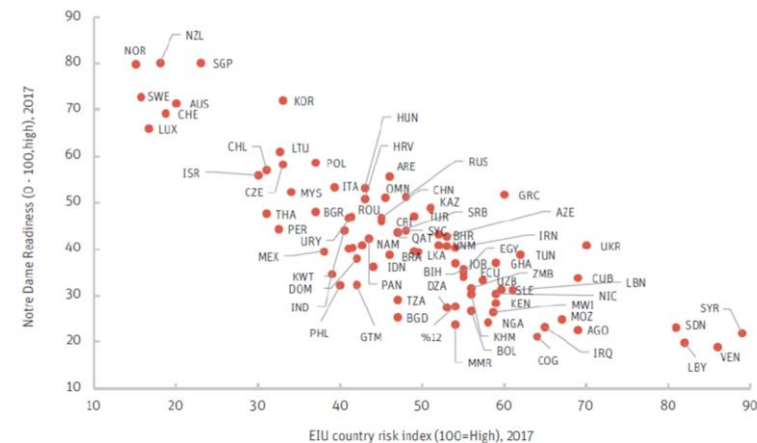
- EMDEs are **most vulnerable to climate impacts** while less able to respond to the impacts of climate change
- **Insufficient funding to meet EMDEs' green goals**, with limited green financing and product innovation by the financial sector
- Many EMDEs are at the **nascent stage of greening their financial sector**. Some EMDEs lack knowledge, capacity and data to implement policies.
- **Lack of understanding** of how global green finance standards might affect EMDEs.
- **Global regulation risk being barrier to mobilizing finance for EMDEs** unless set in way which can be implemented all contexts

High vulnerability of EMDEs to climate risk
Climate vulnerability per region (1995-2011)



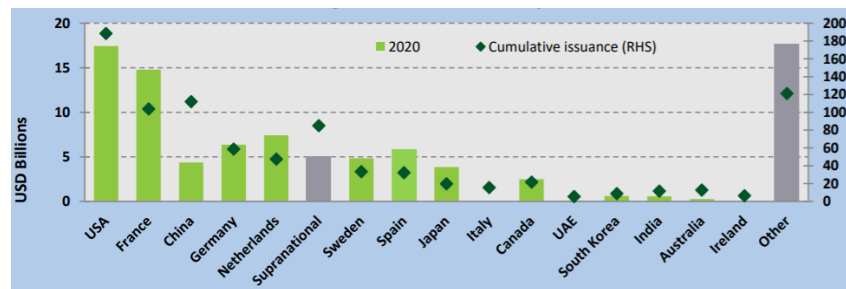
Source: ND-GAIN Vulnerability Index

Low macro-financial capacity EMDEs to deal with impacts
Scatterplot climate readiness vs macro financial conditions



Source: EIU Country Risk Model, ND-Gain Readiness Index

Limited issuance of green bonds in EMDEs
H1 2020 green bond issuance top 15 countries



Source: Climate Bonds Initiative

Policy initiatives lacking in EMDEs
Map of green/sustainable regulations



Source: PRI (Note: Tracks ESG regulation)

FCI Climate Finance Offering



Disclosure & Reporting

- **Taxonomies and reporting standards** to support transparency for climate-risk informed investments.
- **Environmental credit ratings**, external review providers (e.g., verification, certification, assurance)



Risk Management

- **Climate risk finance instruments** to protect households, businesses and governments against climate shocks and disasters
- **Prudential regulations & stress testing** to manage risk, increase financial stability, and incentivize greener investments



Green Finance

- **Green finance instruments** (e.g., green bonds, green housing finance, cat bonds) to allow for investments with a positive climate impact and financial return
- **Green investors** to support institutional investors in incorporating climate into their investment strategies
- **Private capital mobilization:** co-investment partnerships global + local EMDE investors

Analytical & Advisory Services (e.g., FSAPs, Climate and Disaster Risk Finance Diagnostics)

Global Discussions (e.g., FSB, TCFD, NGFS, G7, G20, InsuResilience Global Partnership, Coalition of Finance Ministers)

Lending (e.g., IPF, DPF, CAT DDO, P4R)

Diagnostic Tools (CCDR/ FSAP/ Country work)

Climate and Environmental Risk & Opportunity Assessments (CERO)

Climate-related and Environmental Risks and Opportunities (CERO) Assessment

Vulnerabilities to Climate and Environmental Risks	Supervisory Response	Deepening Markets for Green Growth
<ul style="list-style-type: none"> Identifying physical and transition risks. Using qualitative and quantitative tools (e.g. exposure assessment, sensitivity analyses, stress test (in cooperation with the IMF)) Review of the sector's response to risks 	<ul style="list-style-type: none"> Benchmarking the supervisory responses in banking, insurance and capital markets, drawing on recommendations from the NGFS, and several of the international standard-setting bodies 	<ul style="list-style-type: none"> Assessment of the financing gap and barriers for green finance Options to tackle barriers and stimulate markets
<p>Examples of assessment tools</p>	<p>Aspects covered in the assessment framework</p> <ul style="list-style-type: none"> Greenhouse & Strategy Risk Identification, Reassessment & Monitoring Supervisory Actions & Tools 	<p>Aspects covered in the assessment framework</p> <ul style="list-style-type: none"> Strategy & Contribution Transparency & Data Green Finance Instruments Markets for Risk Resilience

* Not yet covered in the guidance note

WORLD BANK GROUP
Equitable Growth, Finance & Institutions

Toolkits to Green the Financial System – Benchmarking Policies

TOOLKITS FOR POLICYMAKERS TO GREEN THE FINANCIAL SYSTEM

Strategy and coordination	Green Finance Roadmap	National Climate Finance Strategy		
Build skills & capacity	National Taskforce	International Networks	Paris Alignment by Fis*	
Regulation & central banks	Risk Analysis	Supervisory Practice	Supervisory Guidance	Greening Central Bank Activities
Transparency	Disclosure & Reporting; issuers	Disclosure & Reporting; investors	Taxonomy	
Greening Fis*	Greening NDDs*/ public Fis	National Green Bank		
Green Finance Instruments	Corporate Green Bonds & Equities	Sovereign Green Bonds	Blended Finance Products	Green Loans

Demystifying Sovereign ESG – Benchmarking methodologies



Climate and Disaster Risk Finance Diagnostic

Assessing Financial Protection against Disasters: A Guidance Note on Conducting a Disaster Risk Finance Diagnostic

Financial Risk Assessment (Tool 1)
What could happen?
1. How likely are worst case scenarios?
Vietnam Floods - Distribution Fitting
\$99m (RP = 1-in-10)
Larger CDR protection's 91m

Financial Response Design (Tool 2)
How to best respond financially?
2. How to best respond financially?
Optimize combination of instruments: Risk Retention, Risk Transfer, Line of Contingent Credit, Insurance, Budget Reallocation, Reserve Fund, Residual Risk on top of USD 91m Ex-post Sovereign Borrowing (International Aid/Taxes)

Climate Physical Risk Assessment for the Financial Sector

Granular, bottom-up, model-agnostic approach to climate physical risk assessment

Climate Exposure, Hazard & Direct Economic Risk Assessment based on future extreme scenarios

Acute Climate Scenarios (e.g., 1-in-100 drought or urban flood events)

Country-specific Macro-economic modelling

Direct & Indirect Economic Impact at sectoral level

Financial Sector Impact Evaluation & Stress-Testing

Methodological and Analytical work in partnership with Bank of England and NGFS to support Ministries of Finance and Central Banks address, quantify and integrate (acute) physical risks into climate scenario analysis

Combining climate science + risk analytics + macro-economic + financial modeling to evaluate financial vulnerability of sectors, banks, populations to extreme climate events

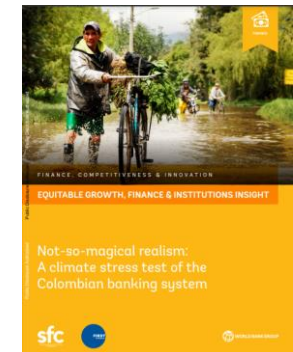
Bottom-up implementation framework

Exposure mapping and risk profiling → Characterization of future extreme conditions → Definition of plausible worst-case scenarios → Impact assessments: 1st round effects → Economic and financial impact assessments: 2nd and 3rd round effects

And additional applications

- Climate Risk Financing Strategy for MoF
- Insurance and de-risking products
- Informing Climate Adaptation investments
- Sector-specific financial resilience and policies
- WBG CCDRs

Climate Transition Risk Assessment



Contribution to Country Climate and Development Reports (CCDR)

Areas of involvement

- Financial policies and climate change
 - Vulnerability of financial sector to climate change: e.g., climate (physical and transition) risk scenario analysis; stress testing
 - Financing options for resilient economy: e.g., (parametric) insurance, cat bonds
 - Financing options for greening the economy: e.g., green bonds, sustainability-linked bonds
 - Opportunities and barriers to mobilize private finance
 - Benchmarking of financial sector policies against international good practice
- Fiscal policy and climate change
 - Assessment of government contingent liabilities related to climate shocks and natural disasters
 - Policies and instruments to manage fiscal risks of climate shocks and natural disasters (e.g., disaster funds, sovereign risk transfer)

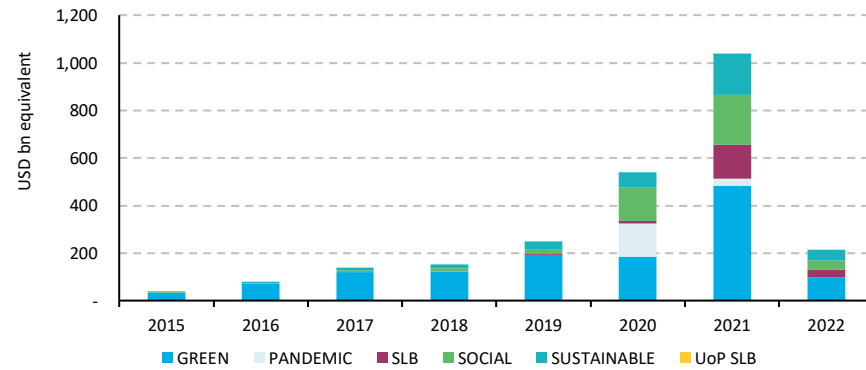
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ESG Market

European ESG Related Bond Issuance

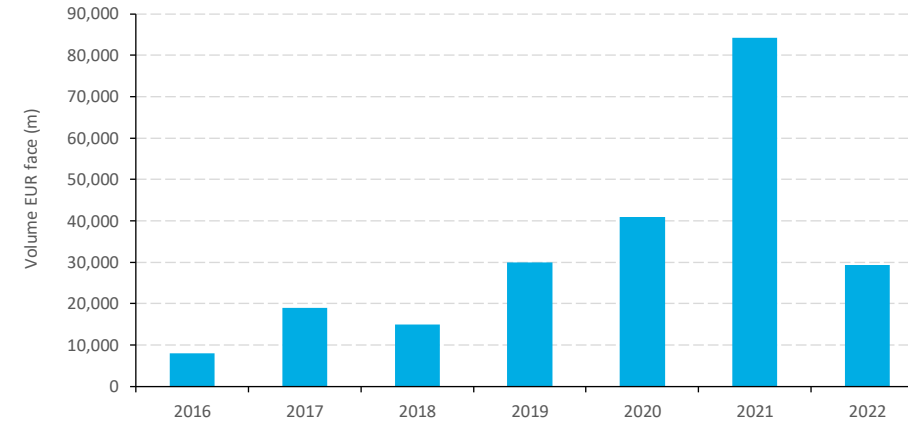
ESG volumes have boomed as both investors and issuers increase their focus on ESG

Global ESG Bond Issuance



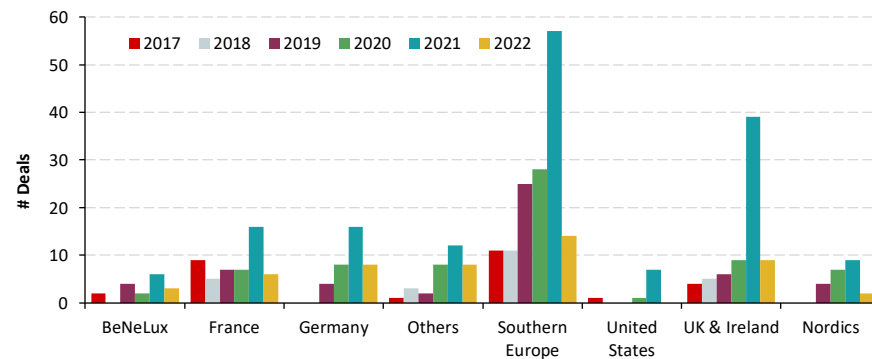
Source: Bloomberg as of 30 March 2022; Criteria: Corporate deals, All Currency, Green/social/sustainable indicator. Excludes PPs

Total European Green/Sustainable Bond Issuance



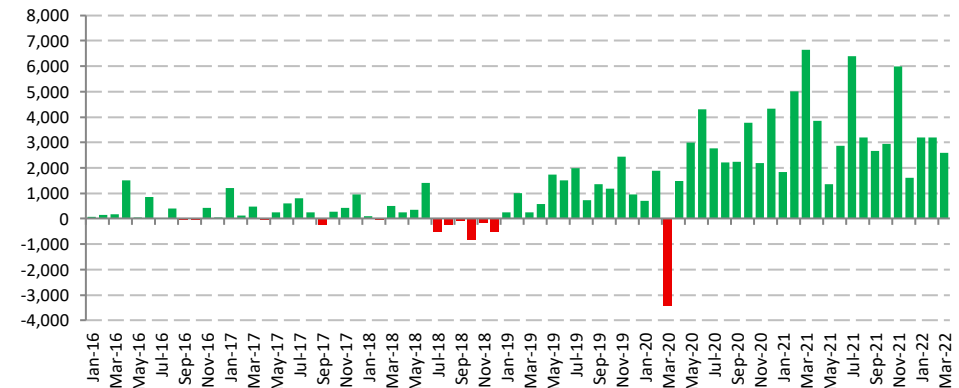
Source: Bloomberg as of 30 March 2022; Criteria: Corporate deals, All Currency, Green/social/sustainable indicator. Excludes PPs

Deal Issuance 2017-2022 by Country



Source: Bloomberg as of 30 March 2022; Criteria: Corporate deals, All Currency, Green/social/sustainable indicator. Excludes PPs

Fund Flows into European Fixed Income Credit Funds (\$m Equiv) has boomed

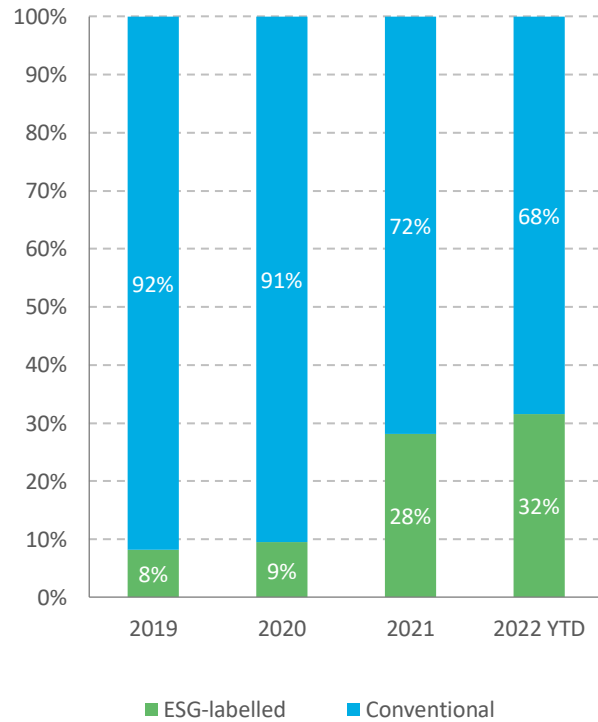


Source: Bloomberg as of 01 March 2022.

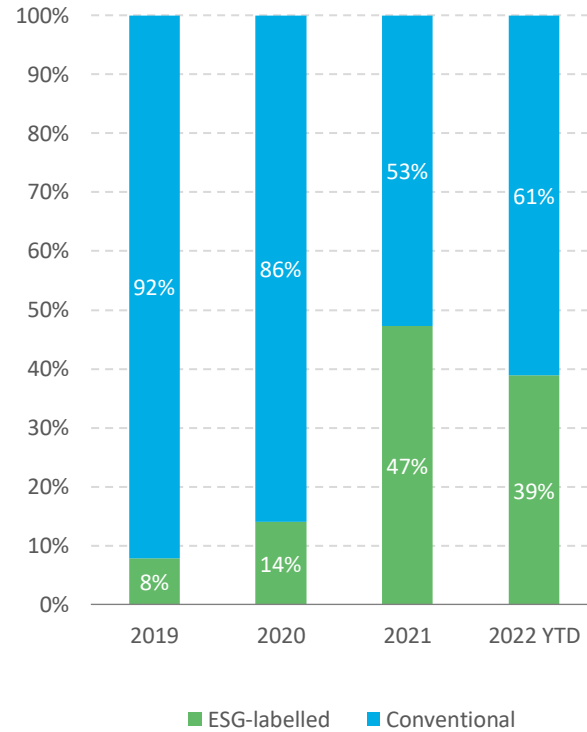
ESG vs Conventional Supply Over the Years Across Currencies

ESG-Supply in the EUR, GBP and USD Market

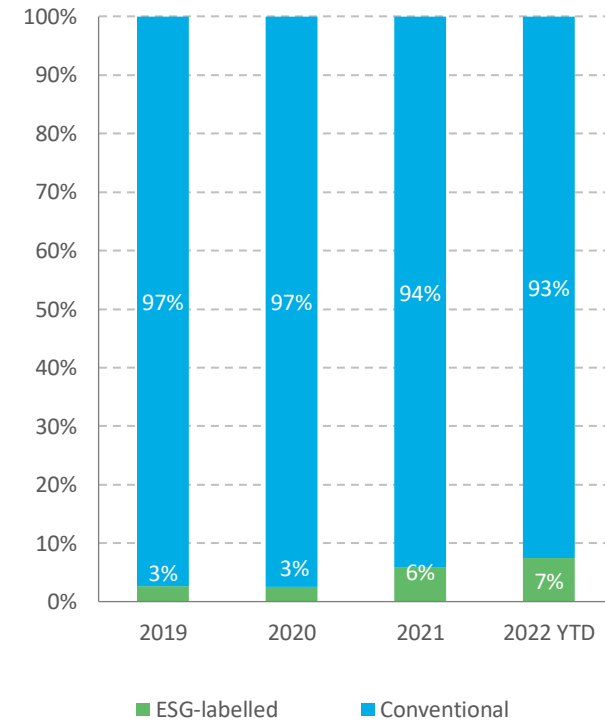
ESG-Supply in the EUR Market as % of Overall Volumes



ESG-Supply in the GBP Market as % of Overall Volumes



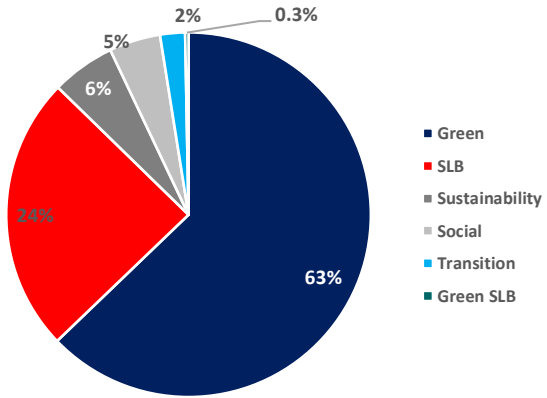
ESG-Supply in the USD Market as % of Overall Volumes



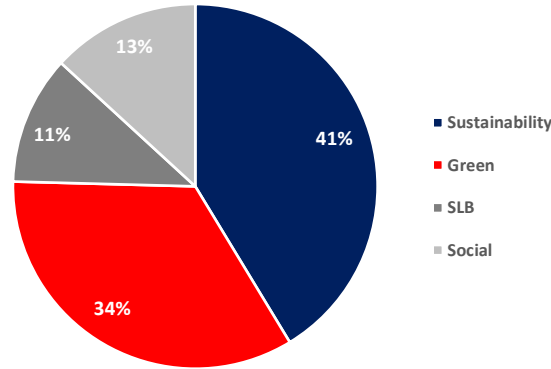
The ESG Market is Dominated by Green Deals, but SLBs are Gaining Market Share

ESG-Labelled Supply in the several markets by Product and by Sector

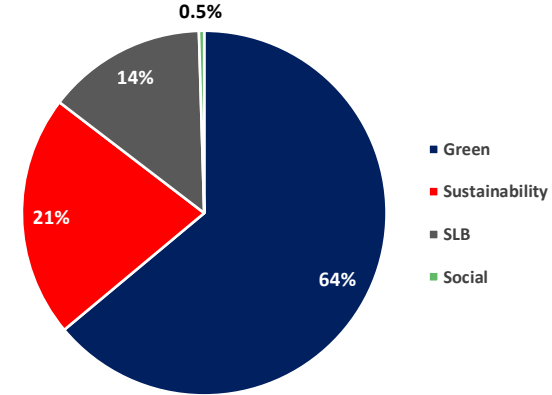
ESG-Labelled Supply in the EUR Market by Product



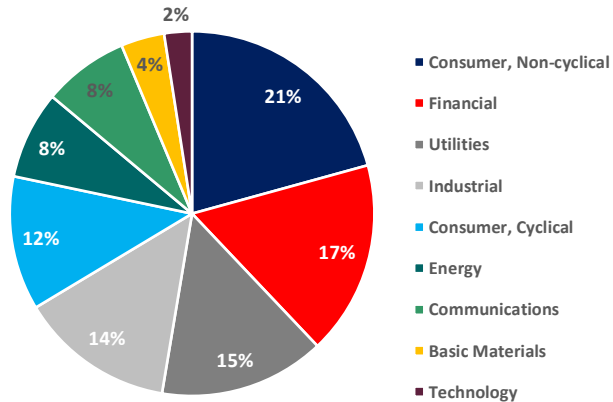
ESG-Labelled Supply in the GBP Market by Product



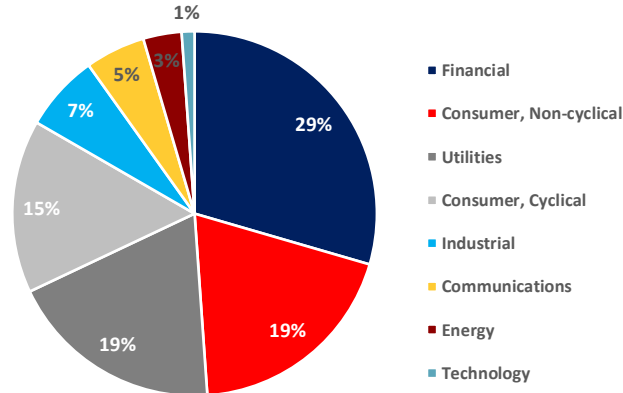
ESG-Labelled Supply in the USD Market by Product



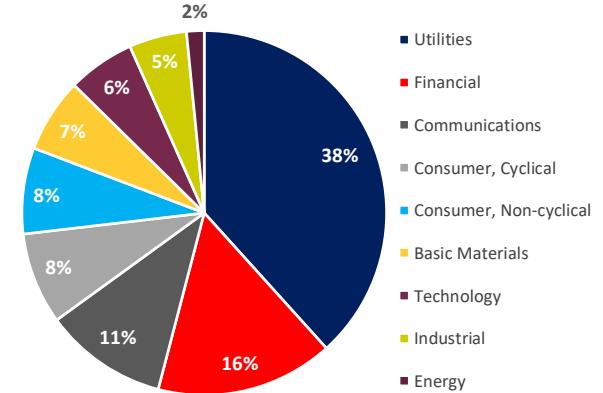
ESG-Labelled Supply in the EUR Market by Sector



ESG-Labelled Supply in the GBP Market by Sector



ESG-Labelled Supply in the USD Market by Sector

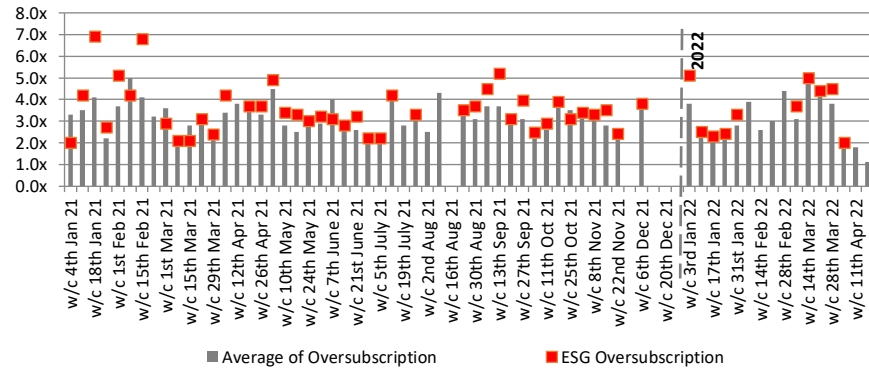


Source: Bloomberg, as of 26 April 2022

ESG Labels Led to Better Execution Dynamics but Green Curves Don't Always Trade Inside

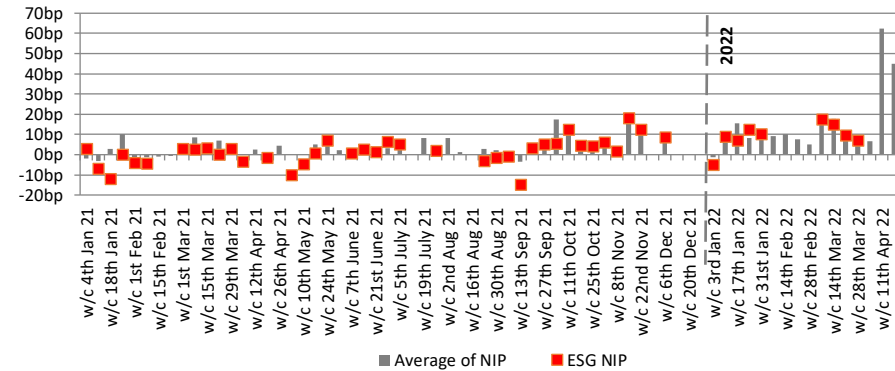
There is evidence in the Euro market that a Green label led to better execution dynamics with higher levels of oversubscription supporting increased pricing tension and lower new issue concessions. In secondary markets green curves trade inside of brown curves for some issuers but this is not consistent across all names

Labelled Bonds Achieve Higher Oversubscription Levels



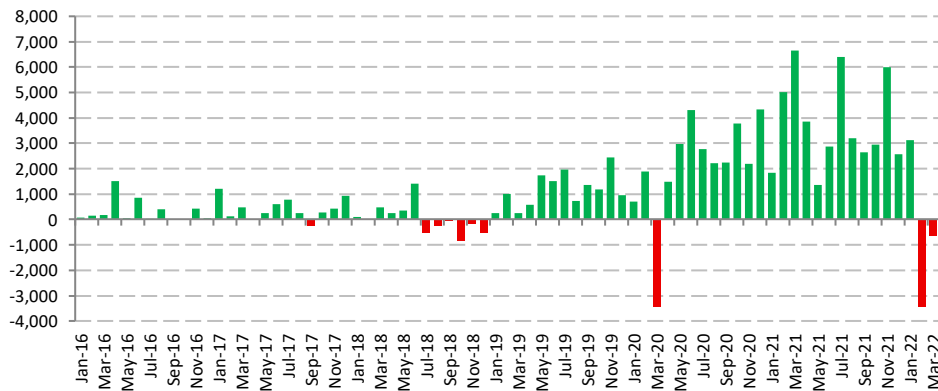
Source: Bloomberg, IFR, Informa, as of 26 April 2022

Labelled Bonds Achieve Lower New Issue Concessions



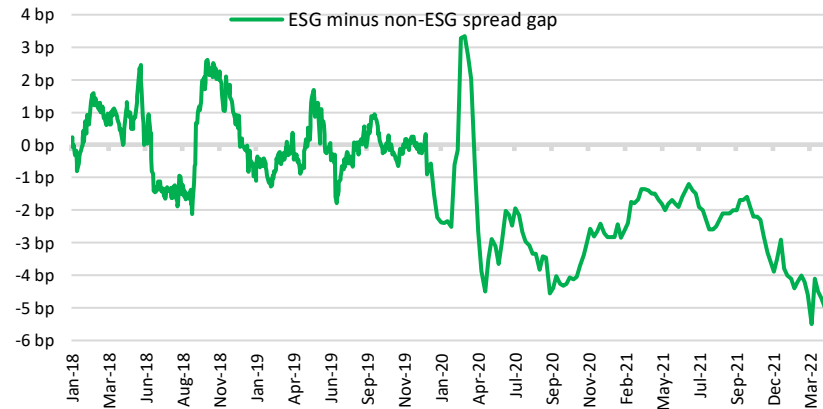
Source: Bloomberg, IFR, Informa, as of 26 April 2022

ESG Fund Flows into European Fixed Income Credit Funds (\$m Equiv)



Source: Bloomberg, as of 31 March 2022.

ESG bonds trading on average 4bps tighter than brown so far in 2022



Source: Markit, Bloomberg, as of 22 April 2022. Indices based on 61 pairs of ESG vs. non-ESG senior bonds from the same issuer and of similar duration

Experience from financial institutions ESG bond issuance

- **Especially in Europe, the ESB bond issuances in the financial sector have been driven by capital / loss-absorbency requirements**
- **Banks have been issued:**
 - Senior Bonds
 - Tier 2 Bonds
 - Senior Non-Preferred Bonds
- **Banks have seen problems on the issuance of ESG bonds:**
 - The regulator (EBA) has signaled several risks on the eligibility of green bonds as capital instruments
 - Banks have started to use sustainability-linked bonds for capital loss-absorbency purposes

Berlin Hyp - EUR500m WNG 10yr Senior Preferred SLB

Why did Berlin Hyp issue an SLB?

- Issuing in SLB format ties in with Berlin Hyp's new sustainability agenda, which they recently established after meeting their 2020 strategic goals early. The SLB will require the entire organisation to commit towards achieving their ESG goals
- Sustainability has been deeply embedded into Berlin Hyp's corporate strategy for many years, they are considered to be pioneers of the green bond market, having issued the first green bond by a bank back in April 2015 which was also the world's first ever green covered bond (they now have 13 benchmark-sized green bonds outstanding, c.€5.7bn equiv.)

The Framework

KPI: - Carbon intensity reduction rate of Berlin Hyp's entire loan portfolio

- The KPI is defined as the carbon intensity of all buildings financed by the total of all loans granted by Berlin Hyp, forming the bank's loan portfolio. The carbon intensity of its loan portfolio is expressed in percentage (%) compared to the 2020 baseline.

SPT: - Reducing the carbon intensity of the entire loan portfolio by 40% between 2020 and 2030

- Berlin Hyp have set their 1st intermediate target: 14% reduction by 2025 and 2nd intermediate target: 27% reduction by 2028 with the goal of reducing the carbon intensity of the entire loan portfolio by 40% between 2020 and 2030
- Carbon intensity is calculated as the ratio of the aggregated CO2 emissions from all commercial real estate financed by Berlin Hyp by total financed areas: $CI = \text{kgCO}_2/\text{m}^2/\text{a}$
- To calculate the intensity target Berlin Hyp published their methodology on page 13 of their framework which consider: sqm financed -> total energy used -> energy used per sqm -> conversion factor by use/country (to consider the CO2 emitted by unit of energy generated) -> CO2 emissions per sqm

Step-up: coupon will be increased by 25 bp if sustainability performance target is not met at the observation date (31 December 2030)

- Increase of the coupon by a percentage expressed in bps per annum, payable from the first coupon payment date following the SPT observation date until maturity or at the point of maturity
- Berlin Hyp proposed 4 potential penalties (in terms of bond characteristics), as follows:

Only one step up after verification date (issuer decided on this option)

2 step ups, considering an intermediate target and a final one

Step up and down, simultaneously (this last will apply if they overachieve the target by more than 10%)

Principal step up