

# Course 2023-2024 in Sustainable Finance

## Lecture 4. Sustainable Financial Products

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<sup>1</sup>The opinions expressed in this presentation are those of the authors and are not meant to represent the opinions or official positions of Amundi Asset Management.

# Agenda

- Lecture 1: Introduction
- Lecture 2: ESG Scoring
- Lecture 3: Impact of ESG Investing on Asset Prices and Portfolio Returns
- **Lecture 4: Sustainable Financial Products**
- Lecture 5: Impact Investing
- Lecture 6: Engagement & Voting Policy
- Lecture 7: Extra-financial Accounting
- Lecture 8: Awareness of Climate Change Impacts
- Lecture 9: The Ecosystem of Climate Change
- Lecture 10: Economic Models & Climate Change
- Lecture 11: Climate Risk Measures
- Lecture 12: Transition Risk Modeling
- Lecture 13: Climate Portfolio Construction
- Lecture 14: Physical Risk Modeling
- Lecture 15: Climate Stress Testing & Risk Management

# Greenwashing

## The big issue for an investor is: How to avoid Greenwashing (& ESG washing)?

### Greenwash (also greenwashing)

- Activities by a company or an organization that are intended to make people think that it is concerned about the environment, even if its real business actually harms the environment
- A common form of greenwash is to publicly claim a commitment to the environment while quietly lobbying to avoid regulation

Source: Oxford English Dictionary (2020), <https://www.oed.com>

In finance, greenwashing is understood as making misleading claims about environmental practices, performance or products

# Greenwashing

We must distinguish two types of risk:

- Explicit & deliberate greenwashing

**Deliberate greenwashing = mis-selling risk**

- Unintentional greenwashing

**Unintentional greenwashing = misinterpretation risk**

# Market

- Investment vehicles
  - Mutual funds
  - ETFs
  - Mandates & dedicated funds
- Investment strategies
  - Thematic strategies (e.g. water, social, wind energy, climate, plastic, etc.)
  - ESG-tilted strategies (e.g. exclusion, negative screening, best-in-class, enhanced ESG score, controlled tracking error, etc.)
  - Climate strategies (e.g. low carbon, 2°C alignment, activity exclusions<sup>2</sup>, etc.)
  - Sustainability-linked securities (e.g. green bonds, social bonds, etc.)

## Both $\alpha$ and $\beta$ management

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<sup>2</sup>e.g. coal exploration, oil exploration, electricity generation with a high GHG intensity

# Market

## Mutual funds

- Amundi Climate Transition
- Amundi ARI European Credit SRI
- AXA World Funds – Euro Bonds SRI
- CPR Invest Social Impact
- Fidelity U.S. Sustainability Index
- Fidelity Sustainable Water & Waste
- Natixis ESG Dynamic Fund
- Vanguard FTSE Social Index
- Etc.

## ETFs

- Amundi Index MSCI Europe SRI UCITS ETF
- Amundi MSCI Emerging ESG Leaders UCITS ETF
- Amundi EURO ISTOXX Climate Paris Aligned PAB UCITS ETF
- Lyxor New Energy UCITS ETF
- Lyxor World Water UCITS ETF
- SPDR S&P 500 ESG
- First Trust Global Wind Energy ETF
- Invesco S&P 500 ESG UCITS ETF
- Etc.

# Market

- ESG represents **58% of the net new assets** (NNA) in the European ETF market
- ESG fund assets reach \$1 652 bn
  - Europe: \$1 343 bn (or 81.3%)
  - US: \$236.4 bn (or 14.3%)
  - Asia: \$43.1 bn (or 2.6%)
- Net flows into sustainable mutual funds and ETFs in Q4 2020: \$370 bn (or **+29% of assets**)
- Net flows into sustainable mutual funds and ETFs in 2020
  - Europe: \$273 bn, almost double the total for 2019, almost 5 times more than in 2017
  - US: \$51.2 bn, more than double the total for 2019, almost 10 times more than in 2018

Source: Morningstar, Global Sustainable Fund Flows: Q4 2020 in Review (January 2021)

# Labels

## European sustainable finance labels

- Novethic label (pioneer label in 2009, suspended in 2016)
- French SRI label — <https://www.lelabelisr.fr>
- FNG label (Germany) — <https://fng-siegel.org>
- Towards Sustainability label (Belgium) — <https://www.towardssustainability.be>
- LuxFLAG label (Luxembourg) — <https://www.luxflag.org>
- Nordic Swan Ecolabel (Nordic countries) — <https://www.nordic-ecolabel.org>
- Umweltzeichen Ecolabel (Austria) — <https://www.umweltzeichen.at/en>
- French Greenfin label — <https://www.ecologie.gouv.fr/label-greenfin>



# Labels

## Remark

According to Novethic (2020), 806 funds had a label at the end of December 2019. Nine months later, this number has increased by 392 and the AUM has been multiplied by 3.2!

# Regulation

*“Today it is difficult for consumers, companies and other market actors to make sense of the many environmental labels and initiatives on the environmental performance of products and companies. There are more than 200 environmental labels active in the EU, and more than 450 active worldwide; there are more than 80 widely used reporting initiatives and methods for carbon emissions only. Some of these methods and initiatives are reliable, some not; they are variable in the issues they cover” (European Commission, 2020).*

Source: <https://ec.europa.eu/environment/eussd/index.htm>

# Regulation

- 1 EU taxonomy regulation
- 2 Sustainable Finance disclosure regulation (SFDR)
- 3 Climate benchmarks
- 4 Sustainability preferences (MiFID II & IDD)

# Regulation

## SFDR

- Article 6: Non-ESG funds (standard funds)
- Article 8: ESG funds (funds that promote **E** or **S** characteristics)
- Article 9: Sustainable funds (funds that have a sustainable investment objective: impact investing or reduction of carbon emissions)

# Regulation

## New benchmark rules

- Climate transition benchmarks (CTB): high level of decarbonization (−30%), no controversial weapons and tobacco, high positive impact on climate change, etc.
  - Paris-aligned benchmarks (PAB): high level of decarbonization (−50%), no controversial weapons and tobacco, no activities in coal, oil and natural gas, global warming below 2°, etc.
- 
- MSCI Climate Paris Aligned Indexes — [www.msci.com/esg/climate-paris-aligned-indexes](http://www.msci.com/esg/climate-paris-aligned-indexes)
  - FTSE TPI Climate Transition Index Series — [www.ftserussell.com/products/indices/tpi-climate-transition](http://www.ftserussell.com/products/indices/tpi-climate-transition)
  - STOXX Climate Transition Benchmark (CTB) and STOXX Paris-Aligned Benchmark (PAB) Indices — [qontigo.com/solutions/climate-indices](http://qontigo.com/solutions/climate-indices)

# Sustainable fixed-income products

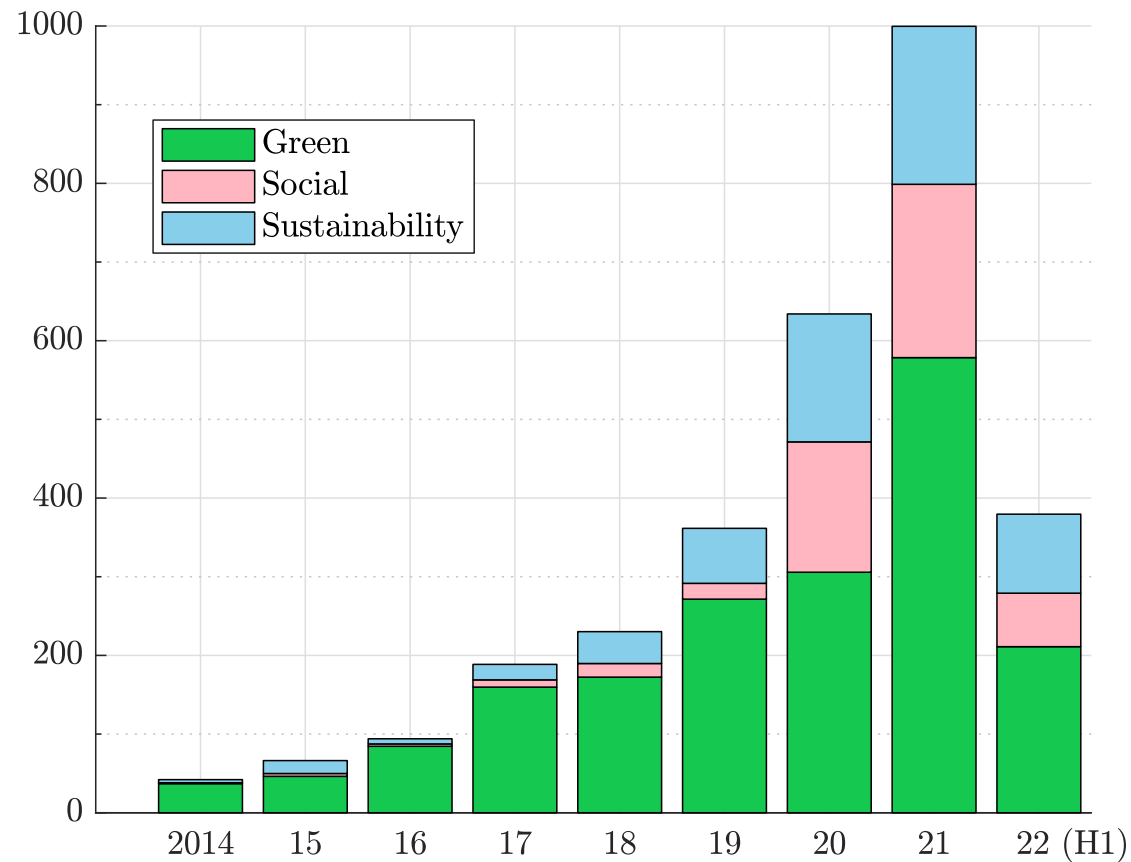
Table 1: Sustainable fixed-income market

Theme		Label	Format
GSS+	GSS	Green	Use of proceeds
		Social	Use of proceeds
		Sustainability	Use of proceeds
	Transition	Sustainability-Linked Transition	Entity KPI-linked Use of proceeds

Source: CBI (2022).

# Sustainable fixed-income products

Figure 1: Issuance of GSS securities (in \$ bn)



Source: <https://www.climatebonds.net/market/data>.

# Definition

## Definition

Green bonds are any type of bond instrument where the proceeds or an equivalent amount will be exclusively applied to finance or re-finance, in part or in full, new and/or existing eligible **green projects** and which are aligned with the four core components of the Green Bond Principles (GBP).

Source: ICMA (2021).

⇒ Green bonds are “*regular*” bonds<sup>3</sup> aiming at funding projects with positive environmental and/or climate benefits

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<sup>3</sup>A regular bond pays regular interest to bondholders



# Green Bonds Principles

## Green Bonds Principles (GBP)

The 4 core components of the GBP are:

- 1 Use of proceeds
- 2 Process for project evaluation and selection
- 3 Management of proceeds
- 4 Reporting

[https://www.icmagroup.org/sustainable-finance/  
the-principles-guidelines-and-handbooks](https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks)

# Green Bonds Principles

The use of proceeds includes:

- Renewable energy
- Energy efficiency
- Pollution prevention (e.g. GHG control, soil remediation, waste recycling)
- Sustainable management of living natural resources (e.g. sustainable agriculture, sustainable forestry, restoration of natural landscapes)
- Terrestrial and aquatic biodiversity conservation (e.g. protection of coastal, marine and watershed environments)
- Clean transportation
- Sustainable water management
- Climate change adaptation
- Eco-efficient products
- Green buildings

# Green Bonds Principles

With respect to the **process for project evaluation and selection** (component 2), the issuer of a green bond should clearly communicate:

- the environmental sustainability objectives
- the eligible projects
- the related eligibility criteria

The **management of proceeds** (component 3) includes:

- The tracking of the “*balance sheet*” and the allocation of funds<sup>4</sup>
- An external review (not mandatory but highly recommended)

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<sup>4</sup>The proceeds should be credited to a sub-account

# Green Bonds Principles

The **reporting** (component 4) must be based on the following pillars:

- Transparency
- Description of the projects, allocated amounts and expected impacts
- Qualitative performance indicators
- Quantitative performance measures (e.g. energy capacity, electricity generation, GHG emissions reduced/avoided, number of people provided with access to clean power, decrease in water use, reduction in the number of cars required)

# Several standards

Standardization is strongly required by investors and regulators

- Green Bond Principles<sup>5</sup> (ICMA, 2021)
- Climate Bonds Standard<sup>6</sup> (CBI, 2019)
- EU Green Bond Standard (2021)
- China Green Bond Principles (PBOC, CBIRC, July 2022)
- Asean Green Bond Standards (ACMF, 2018)

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<sup>5</sup>The first version is published in January 2014

<sup>6</sup>The first version is published in November 2011

# Types of debt instruments

## Asset-linked bond structures

- Regular bond
- Revenue bond
- Project bond
- Green loans

## Asset-backed bond structures

- Securitized bond
- Project bond
- ABS/MBS/CLO/CDO
- Covered bond

# Certification

- Second party opinion provided by ESG rating agencies (ISS, Sustainalytics, Vigeo-Eiris);
- Certification by specialized green bond entities (CBI, CICERO, DNV);
- Green bond assessment by statistical rating organizations (Moody's, S&P).

# Examples

- Solar bond by the City of San Francisco in 2001
- Equity-linked climate awareness bond by the European Investment Bank (EIB) in 2007
- First green bond issued by the World Bank (in collaboration with Skandinaviska Enskilda Banken) in November 2008
- First corporate green bonds: French utility company EDF (\$1.8 bn) and Swedish real estate company Vasakronan (\$120 bn)
- Toyota introduced the auto industry's first-ever asset-backed green bond in 2014 (\$1.75 bn)
- The Commonwealth of Massachusetts issued the first municipal green bond in 2013 (\$100 mn)
- The first sovereign green are: Poland in December 2016 (\$1 bn) and France<sup>7</sup> in January 2017 (\$10 bn)

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<sup>7</sup>Green OAT 1.75% 25 June 2039.



# The green bond market

## Green bond issuers

- Sovereigns (agencies, municipals, governments)
- Multilateral development banks (MDB)
- Energy and utility companies
- Banks
- Other corporates

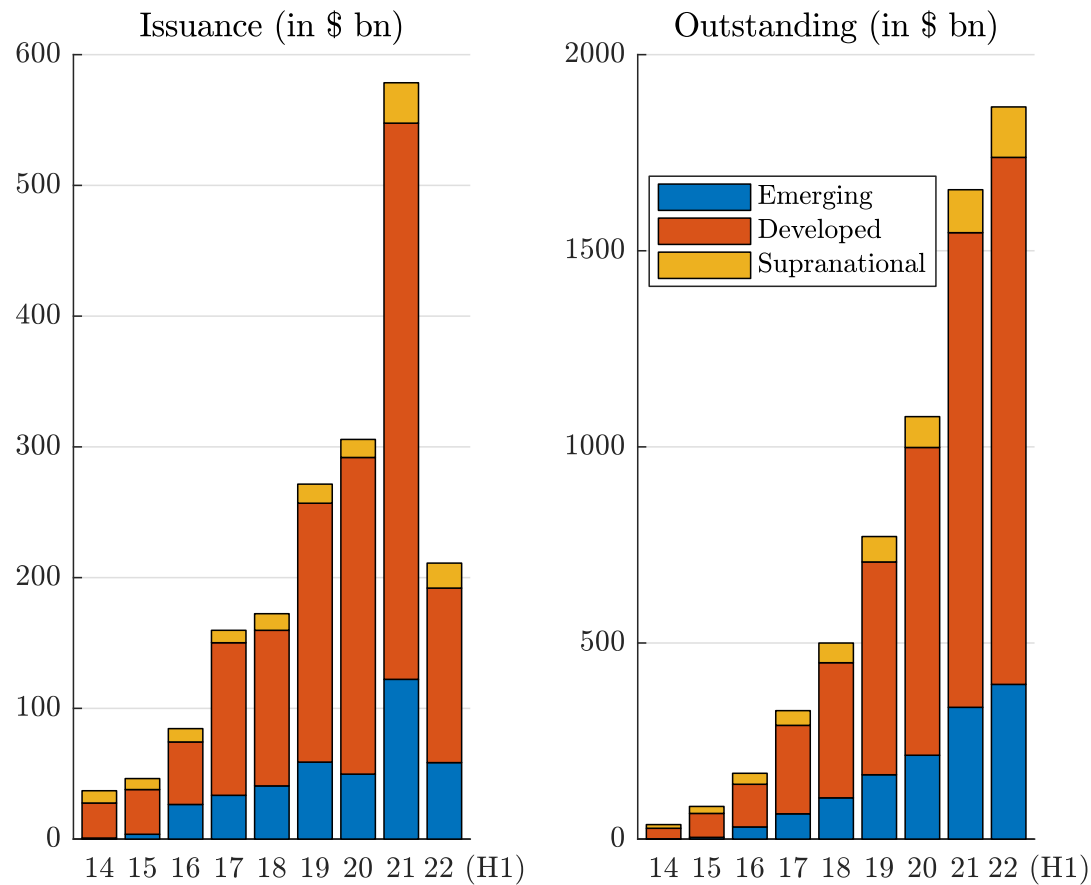
## Green bond investors

- Pension funds
- Sovereign wealth funds
- Insurance companies
- Asset managers
- Retail investors (e.g. employee savings plans)

**Strong imbalance between supply and demand**

# The green bond market

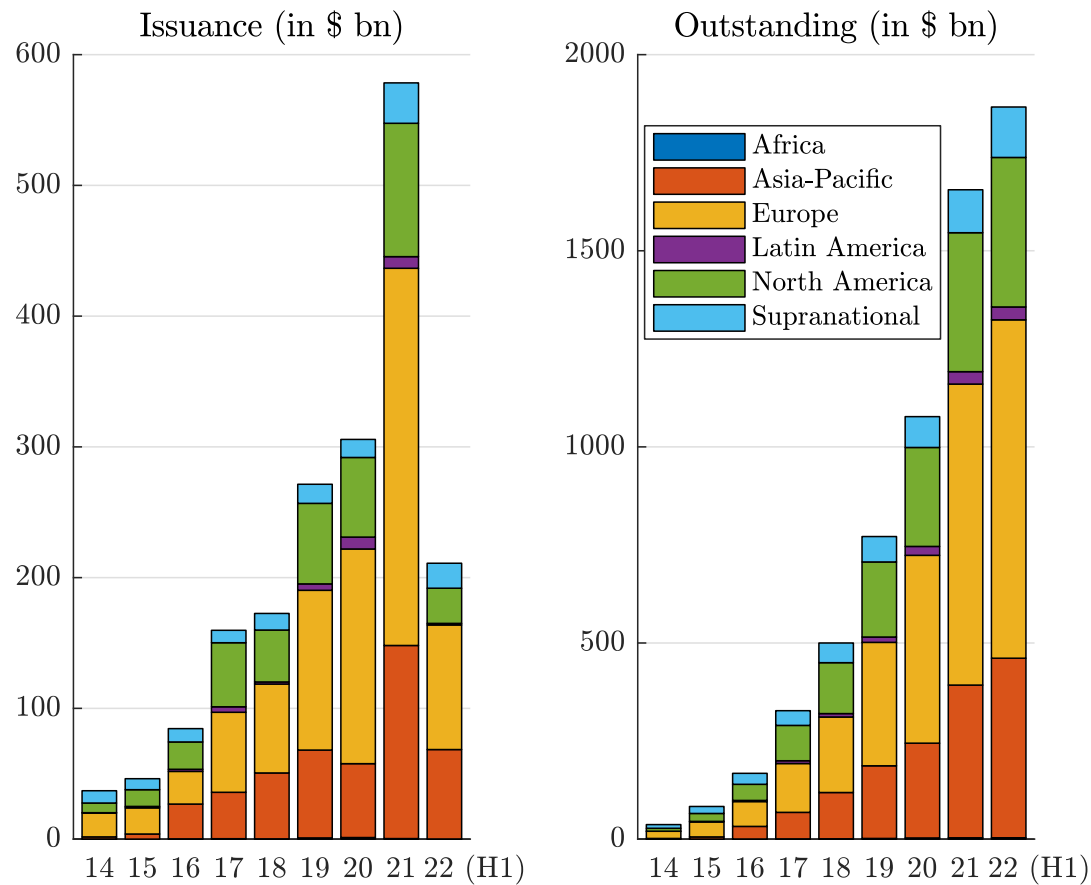
Figure 2: Issuance and notional outstanding of green debt by market type



Source: <https://www.climatebonds.net/market/data>.

# The green bond market

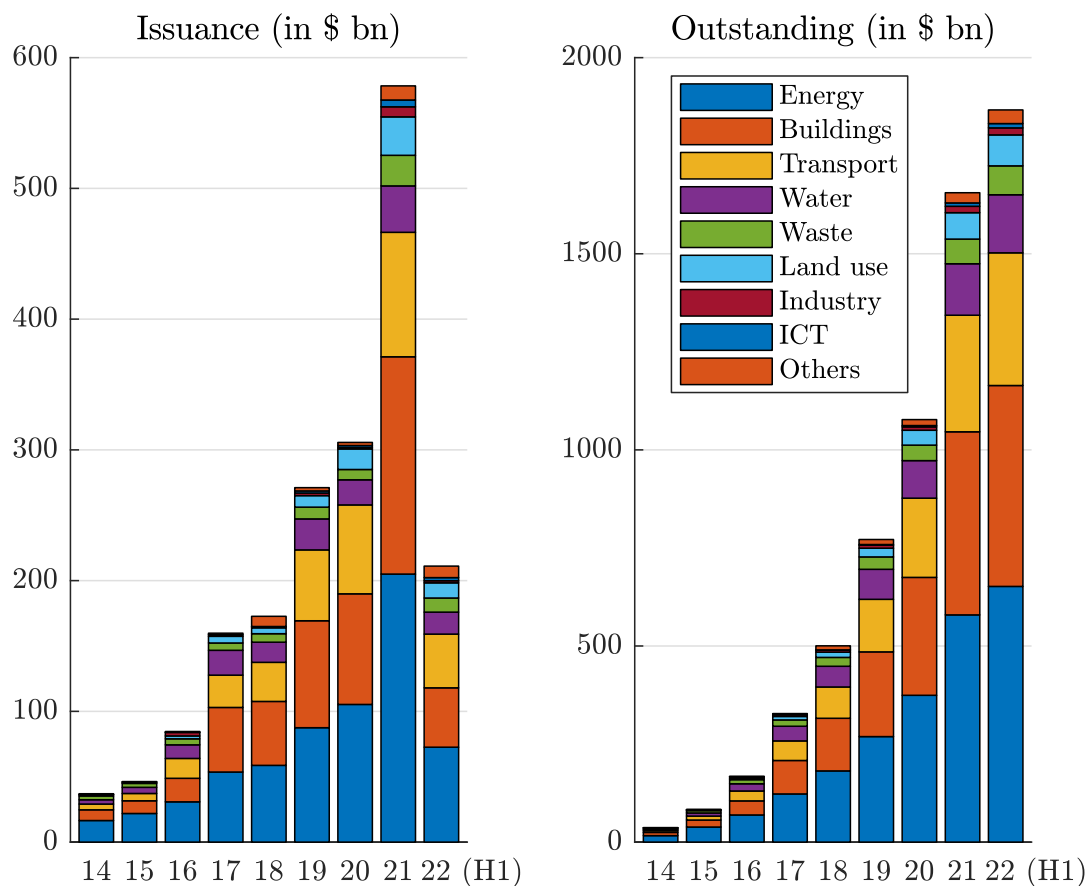
Figure 3: Issuance and notional outstanding of green debt by region



Source: <https://www.climatebonds.net/market/data>.

# The green bond market

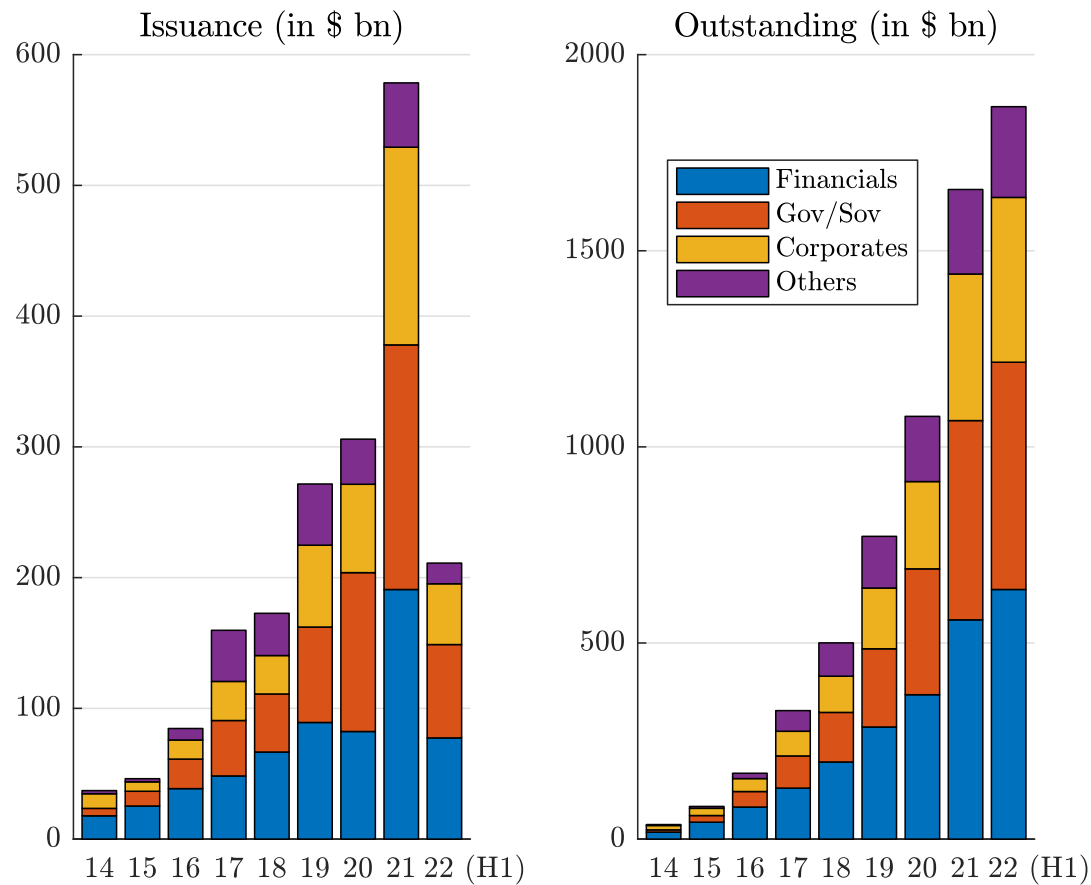
Figure 4: Issuance and notional outstanding of green debt by use of proceeds



Source: <https://www.climatebonds.net/market/data>.

# The green bond market

Figure 5: Issuance and notional outstanding of green debt by issuer type



Source: <https://www.climatebonds.net/market/data>.

# How to investing in green bonds

Example of green bond funds:

- Allianz IG green bond fund
- Amundi RI impact green bonds
- AXA WF ACT green bonds
- BNP Paribas green bond
- Calvert green bond fund
- Mirova global green bond fund
- TIAA-CREF green bond fund
- Etc.

# How to investing in green bonds

List of green bond indices:

- Bloomberg Barclays MSCI Global Green Bond Index
- S&P Green Bond Index
- Solactive Green Bond Index
- ChinaBond China Climate-Aligned Bond Index:
- ICE BofA Green Index

⇒ ETF and index funds

# The economics of green bonds

*[...] “I show that investors respond positively to the issuance announcement, a response that is stronger for first-time issuers and bonds certified by third parties. The issuers improve their environmental performance post-issuance (i.e., higher environmental ratings and lower CO<sub>2</sub> emissions) and experience an increase in ownership by long-term and green investors. Overall, the findings are consistent with a signaling argument – by issuing green bonds, companies credibly signal their commitment toward the environment.” (Flammer, 2021, page 499).*



# The economics of green bonds

Green bonds = second-best instrument

# The green bond premium

## Definition

- The green bond premium (or greenium) is the difference in pricing between green bonds and regular bonds
- The greenium is defined as:

$$g = y(\text{GB}) - y(\text{CB})$$

where  $y(\text{GB})$  is the yield (or return) of the green bond and  $y(\text{CB})$  is the yield (or return) of the conventional twin bond

# The green bond premium

- From the issuer's point of view, a green bond issuance is more expensive than a conventional issuance due to the need for external review, regular reporting and impact assessments
- From the investor's point of view, there is no fundamental difference between a green bond and a conventional bond, meaning that one should consider a negative green bond premium as a market anomaly

# The green bond premium

## Green twin bonds

- Introduced in 2020 by Germany
- Issuance of a green and conventional bond at the same time with the same characteristics
- Investors may swap the green bond with the conventional bond any time, but not vice-versa
- Liquidity of the green bond market ↗

# The green bond premium

Examples of twin bonds:

- On 3 September 2020, the 10-year German green bond with a coupon of 0.00% was priced 1 basis point below the 10-year conventional German bond
- On 19 January 2022, Denmark issued a 10-year green bond with the same maturity, interest payment dates and coupon rate as the conventional 2031 Danish bond. The effective yield of the green bond was 5 basis points below the twin regular bond

# The green bond premium

## Example #1

We consider a 10-year green bond  $GB_1$  whose current price is equal to 91.35. The corresponding conventional twin bond is a 20-year regular bond, whose remaining maturity is exactly equal to ten years and its price is equal to 90.07%. We assume that the two bonds have the same coupon level, which is equal to 4%.

# The green bond premium

Computation of the greenium with the current yield:

- We have:

$$y(\text{GB}) = \frac{4}{91.35} = 4.379\%$$

and:

$$y(\text{CB}) = \frac{4}{90.07} = 4.441\%$$

- We deduce that the greenium is equal to:

$$g = 4.441\% - 4.379\% = -6.2 \text{ bps}$$

# The green bond premium

Computation of the greenium with the yield to maturity:

- We solve the equation:

$$\sum_{t=1}^{10} 4e^{-ty} + 100e^{-10y} = 91.35$$

and find:

$$y(\text{GB}) = 5\%$$

- We solve the equation:

$$\sum_{t=1}^{10} 4e^{-ty} + 100e^{-10y} = 90.07$$

and find:

$$y(\text{CB}) = 5.169\%$$

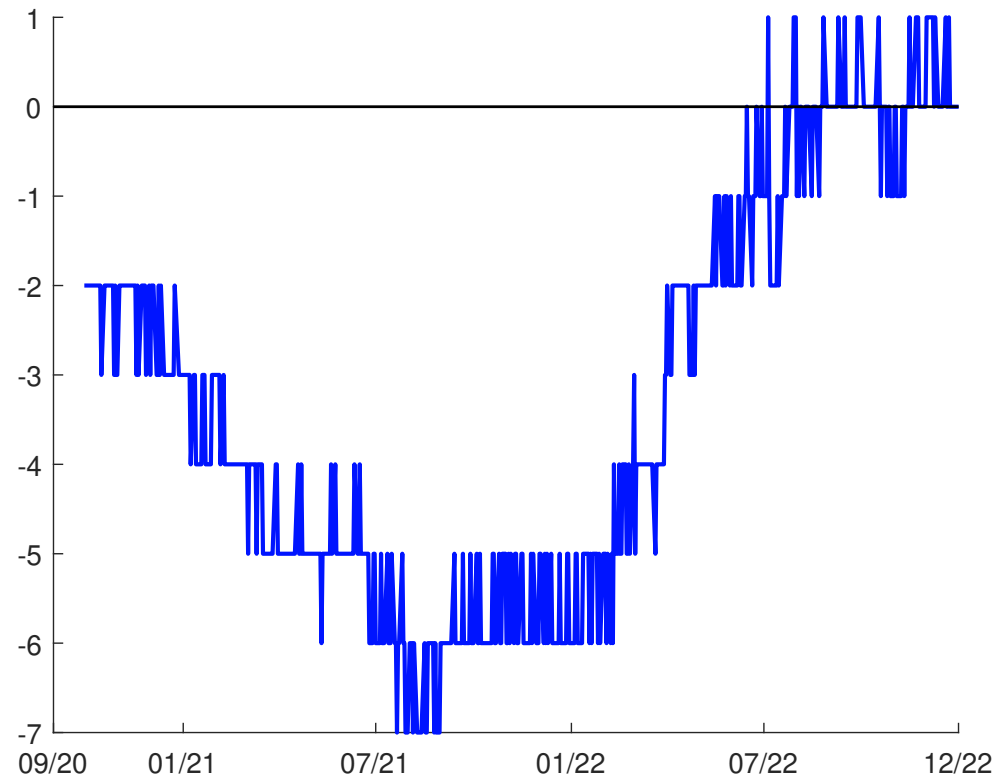
- We deduce that the greenium is equal to:

$$g = 5\% - 5.169\% = -16.9 \text{ bps}$$



# The green bond premium

Figure 6: Greenium in bps of the German green (twin) bond (DBR 0% 15/08/2030)



Source: ICE (2022).

# The green bond premium

**What about the greenium when the green bond is not a twin bond?**

⇒ We must distinguish primary and secondary markets

# The green bond premium

- In the primary market, the greenium is negative ( $\approx 5 - 10$  bps on average)
- How to measure the persistence of the greenium in the secondary market?

# The green bond premium

There are two approaches:

- 1 Bottom-up approach
  - Compares the green bond of an issuer with a synthetic conventional bond of the same issuer
  - Same characteristics in terms of currency, seniority and duration
- 2 Top-down approach
  - Compare a green bond index portfolio to a conventional bond index portfolio
  - Same characteristics in terms of currency, sector, credit quality and maturity

# The green bond premium

## Bottom-up approach

- 1 We filter all the conventional bonds, which has the same issuer, the same currency, and the same seniority of the green bond GB
- 2 We select the two conventional bonds  $CB_1$  and  $CB_2$  which are the nearest in terms of modified duration:

$$|\text{MD}(\text{GB}) - \text{MD}(\text{CB}_j)|_{j \neq 1,2} \geq \sup_{j=1,2} |\text{MD}(\text{GB}) - \text{MD}(\text{CB}_j)|$$

- 3 We perform the linear interpolation/extrapolation of the two yields  $y(\text{CB}_1)$  and  $y(\text{CB}_2)$ :

$$y(\text{CB}) = y(\text{CB}_1) + \frac{\text{MD}(\text{GB}) - \text{MD}(\text{CB}_1)}{\text{MD}(\text{CB}_2) - \text{MD}(\text{CB}_1)} (y(\text{CB}_2) - y(\text{CB}_1))$$

# The green bond premium

## Example #2

- We consider a green bond, whose modified duration is 8 years. Its yield return is equal to 132 bps
- We can surround the green bond by two conventional bonds with modified duration 7 and 9.5 years. The yield is respectively equal to 125 and 148 bps
- The interpolated yield is equal to:

$$\begin{aligned}y(\text{CB}) &= 125 + \frac{8 - 7}{9.5 - 7} (148 - 125) \\ &= 134.2 \text{ bps}\end{aligned}$$

- It follows that the greenium is equal to  $-2.2$  bps:

$$g = 132 - 134.2 = -2.2 \text{ bps}$$

# The green bond premium

## Top-down approach

- 1 We consider a portfolio  $w = (w_1, \dots, w_n)$  of green bonds.
- 2 We perform a clustering analysis by considering the 4-uplets (Currency  $\times$  Sector  $\times$  Credit quality  $\times$  Maturity)
- 3 Let  $(C_h, S_j, R_k, M_l)$  be an observation for the 4-uplet (e.g. EUR, Financials, AAA, 1Y-3Y). We compute its weight:

$$\omega_{h,j,k,l} = \sum_{i \in (C_h, S_j, R_k, M_l)} w_i$$

- 4 The greenium is then defined as the weighted excess yield:

$$\mathbf{g} = \sum_{h,j,k,l} \omega_{h,j,k,l} (y_{h,j,k,l}(\text{GB}) - y_{h,j,k,l}(\text{CB}))$$

# The green bond premium

## Main result (Ben Slimane *et al.*, 2020)

The greenium is negative between  $-5$  and  $-2$  bps on average

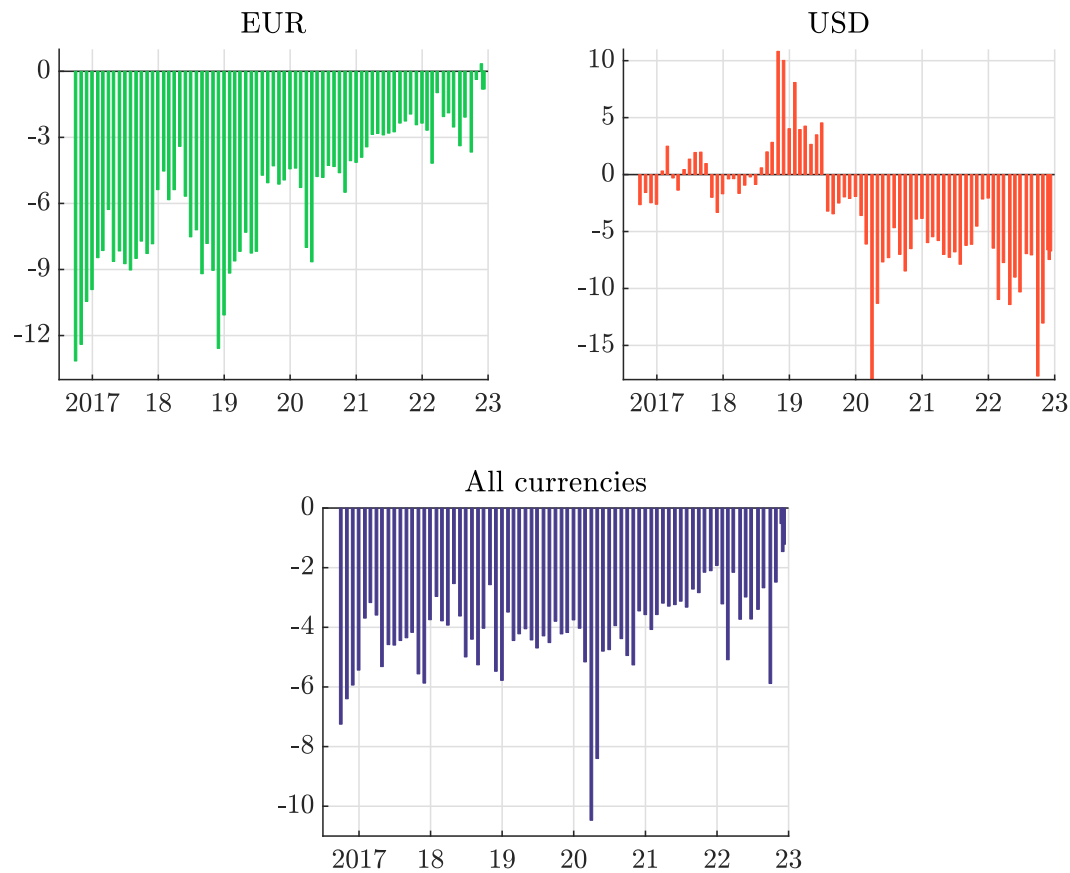
### Other results:

- Differences between sectors, currencies, maturities, regions and ratings
- Transatlantic divided between US and Europe
- The volatility of green bond portfolios are lower than the volatility of conventional bond portfolios  $\Rightarrow$  identical Sharpe ratio since the last four years
- Time-varying property of the greenium



# The green bond premium

Figure 7: Evolution of the greenium (in bps)



Source: Ben Slimane *et al.* (2020)

# The green bond premium

## Green financing $\Leftrightarrow$ green investing

- 1 Bond issuers have a competitive advantage to finance their environmental projects using green bonds instead of conventional bonds
- 2 Another premium? the “green bond issuer premium”

# Social bonds

## Definition

Social Bonds are any type of bond instrument where the proceeds, or an equivalent amount, will be exclusively applied to finance or re-finance in part or in full new and/or existing eligible **social projects** and which are aligned with the four core components of the Social Bond Principles (SBP).

Source: ICMA (2021), <https://www.icmagroup.org/sustainable-finance>

# Social Bonds Principles

## Social Bonds Principles (SBP)

The 4 core components of the SBP are:

- ① Use of proceeds
  - ① Eligible social project categories
  - ② **Target populations**
- ② Process for project evaluation and selection
- ③ Management of proceeds
- ④ Reporting

<https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks>

# Social Bonds Principles

The **eligible social projects categories** (component 1) are:

- Affordable basic infrastructure (e.g. clean drinking water, sanitation, clean energy)
- Access to essential services (e.g. health, education)
- Affordable housing (e.g. sustainable cities)
- Employment generation (e.g. pandemic crisis)
- Food security and sustainable food systems (e.g. nutritious and sufficient food, resilient agriculture)
- Socioeconomic advancement and empowerment (e.g. income inequality, gender inequality)
- Etc.

# Social Bonds Principles

The **target populations** (component 1) are:

- Living below the poverty line
- Excluded and/or marginalised populations/communities
- People with disabilities
- Migrants and /or displaced persons
- Undereducated
- Unemployed
- Women and/or sexual and gender minorities
- Aging populations and vulnerable youth
- Etc.

# Social Bonds Principles

With respect to the **process for project evaluation and selection** (component 2), the issuer of a social bond should clearly communicate:

- the social objectives
- the eligible projects
- the related eligibility criteria

The **management of proceeds** (component 3) includes:

- The tracking of the “*balance sheet*” and the allocation of funds<sup>8</sup>
- An external review (not mandatory but highly recommended)

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<sup>8</sup>The proceeds should be credited to a sub-account

# Social Bonds Principles

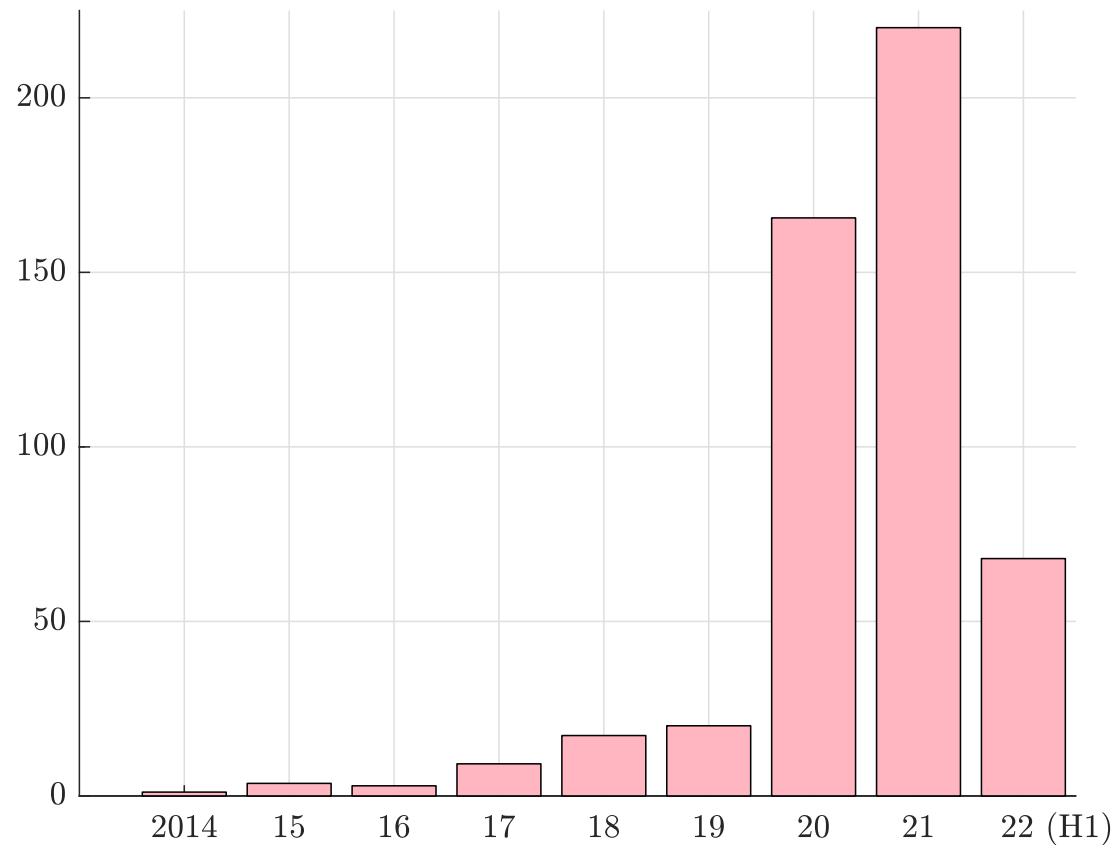
The **reporting** (component 4) must be based on the following pillars:

- Transparency
- Description of the projects, allocated amounts and expected impacts
- Qualitative performance indicators
- Quantitative performance measures (e.g. number of beneficiaries)



# Social bond market

Figure 8: Issuance of social bonds



Source: <https://www.climatebonds.net/market/data>.

# Examples

- Instituto de Crédito Oficial (Spanish state-owned bank, March 2020)  
*“The Social Bond proceeds under ICO’s Second – Floor facilities will be allocated to loans to finance small, medium and micro enterprises with an emphasis on employment creation or employment retention in: (1) specific economically underperforming regions of Spain; (2) specific municipalities of Spain facing depopulation; (3) regions affected by a natural disaster. [...] The target populations are SMEs in line with European Union’s standards.”*

# Examples

- Pepper Money (non-bank lender in Australia and New Zealand, April 2022)  
*“The positive social impact of a Pepper Money eligible social project derives from its direct contribution to improving access to financial services and socio-economic empowerment, by using proprietary systems to make flexible loan solutions available to applicants who are not served by traditional banks. [...] Pepper Money is seeking to achieve positive social outcomes for a target population of Australians that lack access to essential financial services and experience inequitable access to and lack of control over assets. Pepper Money directly aims to address the positive social outcome of home ownership for borrowers who may have complexity in their income streams, gaps in their loan documentation or have adverse credit history. Traditionally, this cohort has been underserved by banks that rely on inflexible algorithmic loan application processing.”*

# Examples

- Danone (French multinational food-products corporation, March 2018)  
*“The eligible project categories are: (1) research & innovation for advanced medical nutrition (target populations: infants, pregnant women, patients and elderly people with specific nutritional needs), (2) social inclusiveness (target populations: farmers, excluded and/or marginalised populations and/or communities, people living under the poverty line, rural communities in developing countries), (3) responsible farming and agriculture (target populations: milk producers, farmers), etc.”*

# Examples

- Korian (European care group, October 2021)  
*“The proceeds of any instrument issued under the framework will be used [...] to provide services, solutions, and technologies that will enable Korian to meet at least one of its social objectives: (1) to increase and improve long-term care nursing home capacity for dependent older adults; (2) to increase and improve medical capacity for people in need of medical support; (3) to increase and improve access to alternative, nonmedical services, technologies, and housing solutions that facilitate the retention of older adults’ autonomy; and (4) to improve the daily provision of care to and foster a safer living environment for its patients. [...] Furthermore, Korian’s target populations are older adults, which Korian defines as being over 65 years of age, and those who are dependent on others for some degree of care, which is defined by the health authorities or insurance system of the respective country.”*

# Examples

- JASSO (Japan Student Services Organization, July 2022)  
*“The social project categories concern the financing of the ‘Category 2 Scholarship Loans’ (interest-bearing scholarship loans that have to be repaid) while the target population is made up of students with financial difficulties.”*

# Sustainability bonds

Sustainability bond = GBP + SBP

## Remark

*According to CBI, the cumulative issuance of sustainability bonds reaches \$620 bn at the end of June 2022*

# Sustainability-linked bonds (SLB)

## Sustainability-linked bond (SLB)

- Two principles:
  - = a sustainability bond (green/social)
  - + a step up coupon if the KPI is not satisfied

⇒ forward-looking performance-based instrument
- The financial characteristics of the bond depends on whether the issuer achieves predefined ESG objectives
- Those objectives are:
  - 1 measured through predefined Key Performance Indicators (KPI)
  - 2 assessed against predefined Sustainability Performance Targets (SPT)



# Sustainability-linked bonds (SLB)

## ENEL General Purpose SDG Linked Bond

- SDG: 7 (affordable and clean energy), 13 (climate action), 9 (industry, innovation and infrastructure) and 11 (sustainable cities and communities)
- SDG 7 target: renewables installed capacity as of December 31, 2021  $\geq$  55% (confirmed by external verifier)
- One time step up coupon of 25 bps if SDG 7 is not achieved
- On April 2022, the independent report produced by KPMG certifies that “*the renewables installed capacity percentage as of December 31, 2021 is equal to 57.5%*”.

# Sustainability-linked bonds (SLB)

## H&M sustainability-linked bond

- 18 February 2021
- €500 mn
- Maturity of 8.5 years
- The annual coupon rate is 25 bps
- The objectives to achieve by 2025 are:
  - $KPI_1$  Increase the share of recycled materials used to 30% ( $SPT_1$ )
  - $KPI_2$  Reduce emissions from the Group's own operations (scopes 1+2) by 20% ( $SPT_2$ )
  - $KPI_3$  Reduce scope 3 emissions from fabric production, garment manufacturing, raw materials and upstream transport by 10% ( $SPT_3$ )
- The global KPI is equal to
$$40\% \times KPI_1 + 20\% \times KPI_2 + 40\% \times KPI_3$$
- The step-up of the coupons can consequently be 0%, 20%, 40%, 60%, 80% or 100% of the total step-up rate

# Sustainability-linked bonds (SLB)

According to Berrada *et al.* (2022), “the SLB market has grown strongly since its inception. [...] Bloomberg identifies a total of 434 outstanding bonds flagged as ‘sustainability-linked’ as of February 2022. In contrast, in 2018, there was only a single SLB. The amount raised through the single 2018 SLB issue was \$0.22 bn, whereas the total amount raised through all SLBs issued in 2021 was approximately \$160 bn”.

- The large majority of SLB issues address exclusively **E** issues (65%) or a combination of **E**, **S** and **G** issues (17%) or **E** and **G** issues (3%)
- The most frequent KPI concerns GHG emissions (40 %), followed by the issuer’s global ESG score (14 %)

# Transition bonds

- Financial instruments to support the transition of an issuer, which has significant current carbon emissions
- Fund projects such as renewable energy developments, energy efficiency upgrades, etc.
- The final objective of the bond issuer is always to reduce their carbon emissions
- For example, transition bonds can be used to switch diesel powered ships to natural gas or to implement carbon capture and storage.

# Sustainable real assets