

8th Environment Action Programme

Green bonds



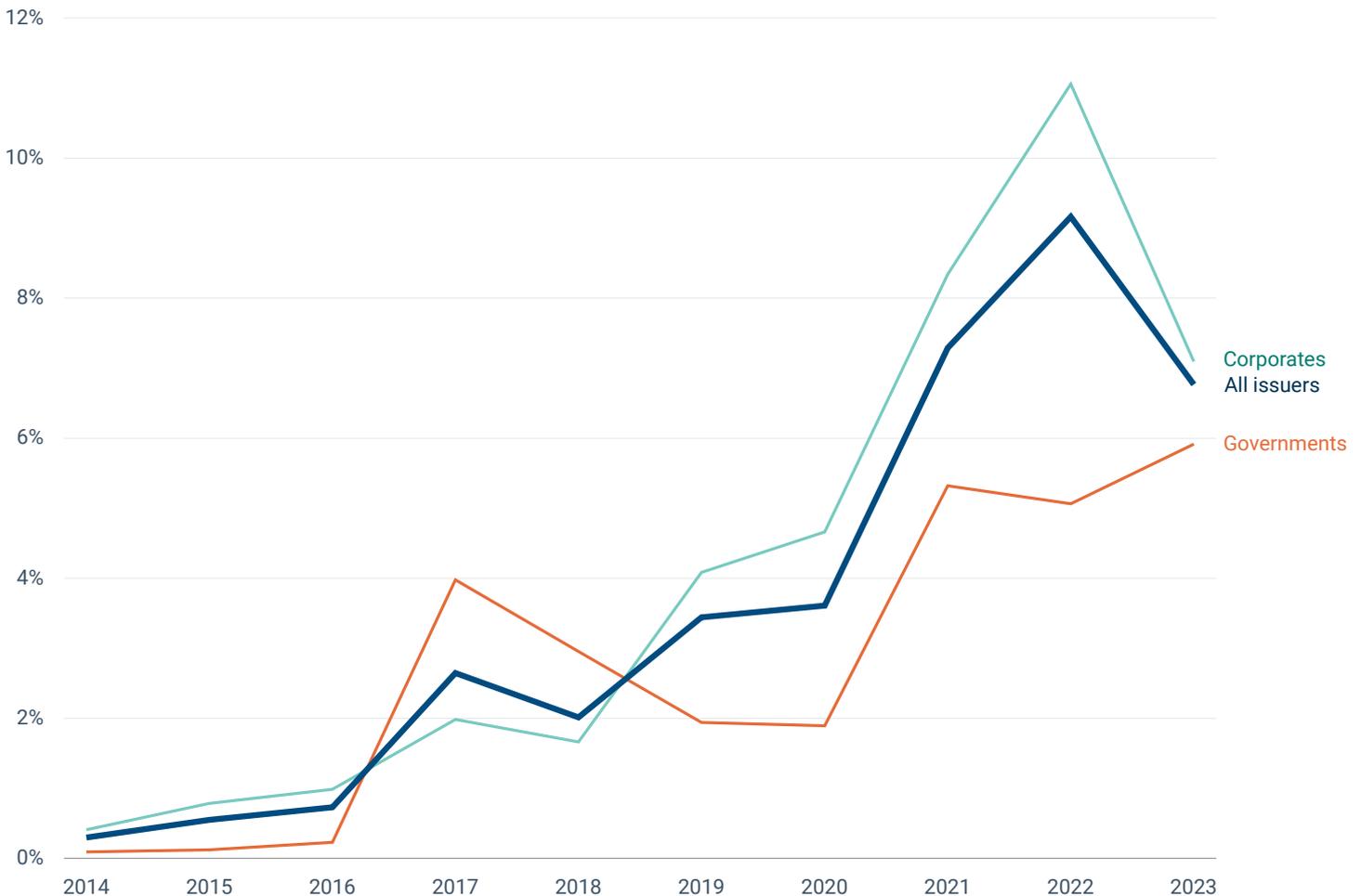
Green bonds in Europe

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Bonds used to finance activities that address climate change and environmental issues - green bonds - provide a means to increase green investment. Green bonds account for only 0.3% of all bonds issued by corporations and governments in the European Union in 2014. This rose to 9.2% in 2022, then fell to 6.8% in 2023. Trends reflect growing interest in offering financial products that support sustainability and demand among investors to finance environmentally sustainable projects. Issuances of green bonds are likely to increase given the ambitious environment and climate goals of the European Green Deal.

Figure 1. Green bonds as a percentage of total bonds issued by corporations, by governments, and by both corporations and governments in the EU-27, 2014-2023



The [European Green Deal](#) emphasises the need to **direct capital flows** to green investments. One way to achieve this is by issuing green bonds, which, supported by the EU [Sustainable Finance Framework](#), raise finance for projects, assets and specific business activities that help achieve environmental and climate objectives.

Green bond **issuance** increased significantly in the EU between 2014 and 2023, from 0.3% to 6.8% of total bonds issued. This indicates an increasing demand to finance sustainable investments, driven in part by the European Green Deal and the need to fund the transition to a low-carbon, green economy.

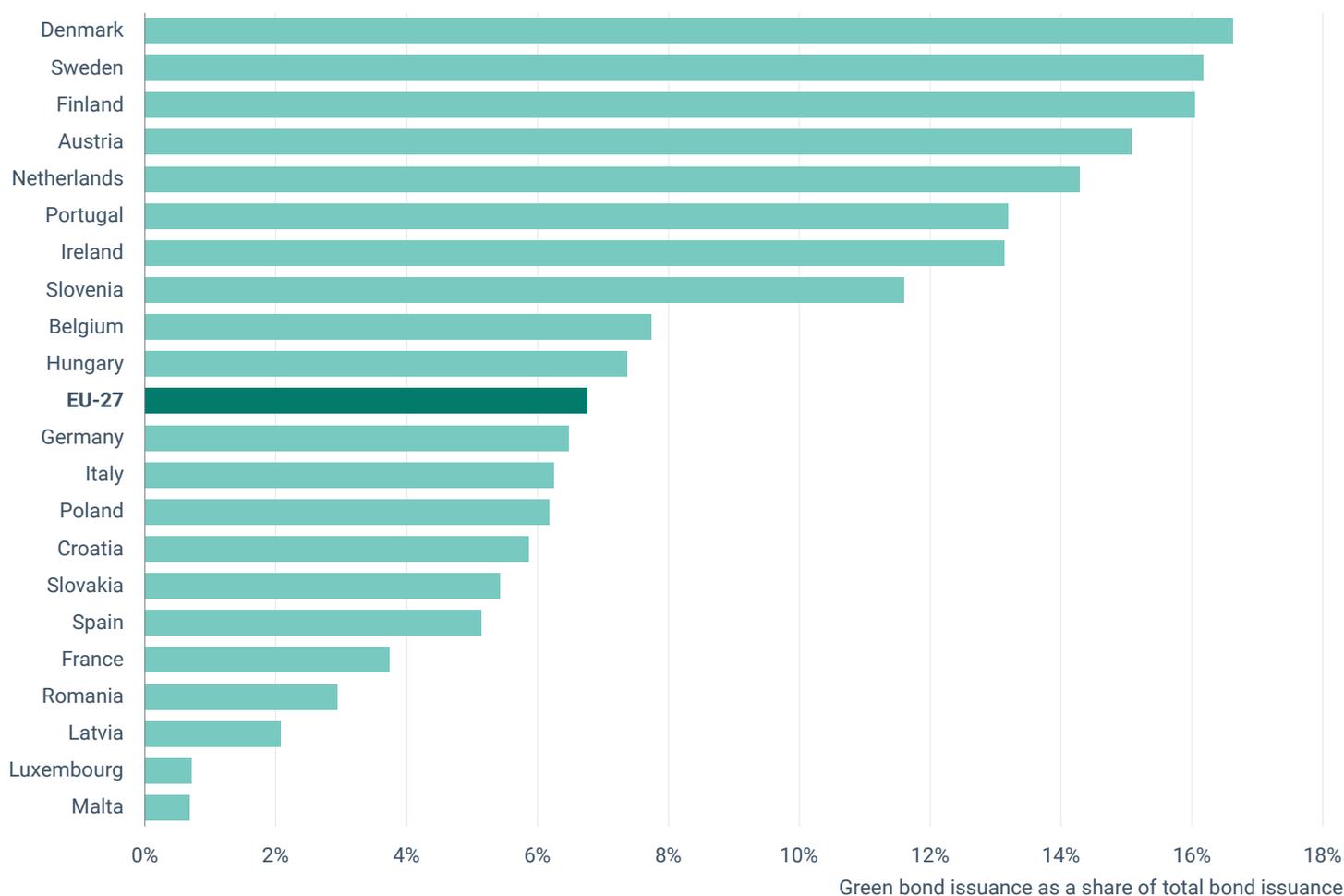
Green bonds can be issued by various types of entities. The rates at which these entities have increased green bond issuance vary. In recent years, green bond issuance by **corporations** increased rapidly, from 4.7% of total corporate bonds issued in 2020 to a high of 11.1% in 2022, before falling to 7.1% in 2023. The share of green bonds issued by **governments** (sovereign bonds) increased from 1.9% in 2020 to 5.9% in 2023. In 2023, corporations accounted for 76% percent of the total value of corporate and government green bonds issued in the EU, reaching €197.3 billion ^[1].

The volume of green bonds issued by some **supranational entities** also fell in 2023. The European Investment Bank issued €13.15bn of [Climate Awareness Bonds](#) in 2023, down from €13.73bn in 2022 and the European Commission issued €12.46bn [NextGenerationEU Green Bonds](#) in 2023, down from €24.44bn in 2022. This drop does not reflect a trend as both supranationals are following a multianual plan^[2].

The recent dip in the green bond market may be due to short-term economic conditions. Rising interest rates increased borrowing costs in 2021, making it less attractive for green projects with high upfront investments to secure financing via bonds^[3]. This led to a **reduction** in green bond issuance, causing the green segment of the primary bond market to shrink and hindering its overall growth in 2023.

Interest rates are beginning to fall across Europe and the **demand** for green bonds is expected to pick up again driven by the ambitious environmental and climate objectives of the [European Green Deal](#). Conditions for sustainable finance are also improving. The [European green bond standard](#), which entered into force in December 2023, and the [EU taxonomy for sustainable activities](#) aim to boost sustainable investment. These developments indicate green bonds are likely to account for a growing share of total bonds in future.

Figure 2. Shares of green bonds issued by corporations and by governments in 2023, by EU Member State



Green bond issuance as a share of total bond issuance varies across the EU Member States. In 2023, the share of green bonds was **highest** in Denmark, Sweden and Finland, for which green bonds represented more than 16% of bonds issuance. In contrast, six Member States did not issue any green bonds in 2023, namely Bulgaria, Czechia, Estonia, Greece, Cyprus, and Lithuania.

The speed at which national green bond markets develop and mature depends on many variables, including policy and regulatory factors, market conditions and financing trends. Further growth in the issuance of green bonds across the EU faces a range of **challenges**, including fragmented capital markets in Europe, insufficient pipelines of standardised green projects ready for green bond funding, and a lack of domestic investors ^[4].

Differences in investment needs and a lack of commonly accepted green bond standards and definitions add to the challenges and lead to green bond markets of different scales across the EU. The [European green bond standard](#)^[5] aims to overcome some of these barriers and boost the share of green bonds in domestic (i.e., national) markets.

✓ Supporting information

Definition

Bonds

Bonds are loans provided by an investor to a borrower that are widely used to fund activities. The borrower agrees to pay back the loan with interest at a specified future date. Bonds can be used to finance a wide range of projects, and the proceeds are not necessarily earmarked for any particular purpose.

Green bonds

Green bonds are types of bonds that are issued specifically to finance green projects, i.e. the proceeds from green bonds are earmarked for green projects. The use of proceeds is typically guided by a set of criteria or green bond frameworks.

Green bond frameworks and standards

This indicator only includes those green bonds that are either aligned with the four core components of the [International Capital Market Association \(ICMA\) green bond principles](#) or are certified by the Climate Bond Initiative (CBI), i.e. follow the [climate bond standard](#) or are CBI aligned (i.e. unlabelled (conventional) bonds issued by a climate-aligned issuer or self-labelled green bonds that do not need to be aligned with ICMA principles or certified by the CBI).

EU Green Bond Standard

The EU Green Bond Standard establishes a new and clear gold standard for green bonds. Eighty-five percent of the bond's proceeds must be aligned with the EU Taxonomy technical screening criteria. The standard will be accessible to all issuers, including non-EU issuers, on a voluntary basis. It is scheduled to be available for use on 21 December 2024.

Types of green bond issuers

Green bonds can be differentiated by the entity that issues them. For instance, corporate green bonds are issued by a corporate entity, such as a company or financial corporation. Sovereign green bonds are issued by a national government. Supranational green bonds are issued by an international body such as the EU, which started to issue green bonds in 2021 under the [NextGenerationEU Green Bonds programme](#), or by international financial institutions (IFIs) such as the European Investment Bank, the lending arm of the EU. Data providers also differentiate green bonds issued by subnational entities such as municipalities or agencies from other types of green bond. Green bonds issued by agencies are usually securitised by a government-sponsored enterprise or a government department.

NextGenerationEU

The NextGenerationEU instrument was established to support the EU's recovery from the economic impacts of the COVID-19 pandemic. In the coming years, the European Commission intends to fund up to EUR 250 billion (or 30%) of its NextGenerationEU plan by issuing green bonds ^[6].

EU taxonomy for sustainable activities

The EU taxonomy for sustainable activities is a classification system that defines sustainable activities, e.g. activities for climate change mitigation and adaptation ^[7].

Methodology

This indicator is calculated based on data on the issuance of green bonds by companies, including financial institutions, and governments in the EU. Green bonds issued from supranational entities, from agencies and sub-national entities are not included. It shows green bond issuance as a percentage of all bonds

issued and by type of green bond issuer. Data on corporate and government bonds were provided by the European Securities and Markets Authority (ESMA) in May 2024. As the groups of issuers were compiled by ESMA and Refinitive Eikon, minor double-counting at margins cannot be excluded, despite the utmost care.

Green bond indicators such as this may contain discrepancies, as they rely on data provided by various commercial data providers, which report on issuances at different dates and rely on different green bond standards or frameworks. Moreover, numbers from the same data provider can vary depending on the date of data download and the currency exchange rate used.

It is important to note that the indicator does not provide information on the environmental impact, or the sustainability of the projects financed by green bonds. In addition, the indicator does not capture the varying 'greenness' levels of the projects financed by different bonds or the contribution of financed projects to achieving the Paris Agreement goals, which are increasingly important factors for investors and regulators. Finally, fixed-income instruments cover only parts of the financial system, and this green bond indicator therefore only partially reflects trends in financing green assets. Those trends might be different for different environmental objectives depending on the financial preferences and the 'investability' of the projects and activities funded.

Policy/environmental relevance

This indicator is a headline indicator for monitoring progress towards meeting targets of the Eighth Environment Action Programme (8th EAP). It contributes mainly to monitoring in relation to aspects of 8th EAP Article 3(u), which requires 'mobilising resources and ensuring sufficient sustainable investments from public and private sources... consistent with the [Union's sustainable finance policy agenda](#)'. The European Commission communication on the 8th EAP monitoring framework specifies that this indicator should be used to monitor the 'increase [in] the issuance of green bonds to boost public and private financing for green investments' ^[8].

Accuracy and uncertainties

Data sources and providers

- [Share of bonds issued as green bonds \(copyright-protected and direct link to the dataset is not available\)](#), European Securities and Markets Authority (ESMA), based on data produced by Refinitiv

▼ Metadata

DPSIR

Response

Topics

Sustainable finance

Tags

green bond issuances # European Green Deal # SUFI004 # sustainable finance # 8th EAP

Temporal coverage

2014-2023

Geographic coverage

Austria	Belgium
Bulgaria	Croatia
Cyprus	Czechia
Denmark	Estonia
Finland	France
Germany	Greece
Hungary	Ireland
Italy	Latvia
Lithuania	Luxembourg
Malta	Netherlands
Poland	Portugal
Romania	Slovakia
Slovenia	Spain
Sweden	

Typology

Descriptive indicator (Type A - What is happening to the environment and to humans?)

UN SDGs

SDG11: Sustainable cities and communities

Unit of measure

Green bond issuance is measured as a share (%) of total bond issuance.

Frequency of dissemination

Once a year

✓ References and footnotes

1. EEA calculations based on data provided by ESMA. Data for the European Economic Area is published in ESMA's 2024 report: TRV Risk Monitor ESMA Report on Trends, Risks and Vulnerabilities No. 1. [↵](#)
2. For instance, the European Commission has announced that it will fund up to 30% of the NextGenerationEU scheme (i.e. EUR 250 million) via green bonds. [↵](#)
3. ECB, 2023, 'Monetary policy tightening and the green transition', (<https://www.ecb.europa.eu/press/key/date/2023/html/ecb.sp230110~21c89bef1b.en.html>) accessed September 5, 2024.

↵

4. OECD, 2017, 'Mobilising Bond Markets for a Low-Carbon Transition', *OECD* (https://www.oecd.org/en/publications/2017/04/mobilising-bond-markets-for-a-low-carbon-transition_g1g77998.html) accessed September 5, 2024.
↵
5. Regulation (EU) 2023/2631 of the European Parliament and of the Council of 22 November 2023 on European Green Bonds and optional disclosures for bonds marketed as environmentally sustainable and for sustainability-linked bonds (Text with EEA relevance), 2023,
↵
6. EC, 2023, 'NextGenerationEU green bonds', (https://commission.europa.eu/strategy-and-policy/eu-budget/eu-borrower-investor-relations/nextgenerationeu-green-bonds_en) accessed April 17, 2023.
↵
7. EU, 2020, Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, OJ L 198, 22.6.2020, p. 13-43.
↵
8. EC, 2022, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the monitoring framework for the 8th Environment Action Programme: measuring progress towards the attainment of the programme's 2030 and 2050 priority objectives, COM (2022) 357 final of 26 July 2022.
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