

DANMARKS
NATIONALBANK

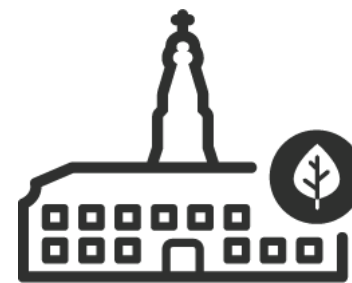
Climate change and green government bonds

FRIC'22 Conference on Financial Frictions
10 June 2022

Agenda



Climate change



Green bonds



Climate change and price and financial stability



CONSEQUENCES OF CLIMATE CHANGE

Income and wealth shocks due to a hotter climate and natural disasters

Exposure of financial institutions to natural disasters



CONSEQUENCES OF GREEN TRANSITION

Price level effects of carbon taxation

Volatile energy prices in energy transition

Exposure of financial institutions to 'stranded' assets

Mispricing of climate risk



IMPLICATIONS FOR CENTRAL BANKS

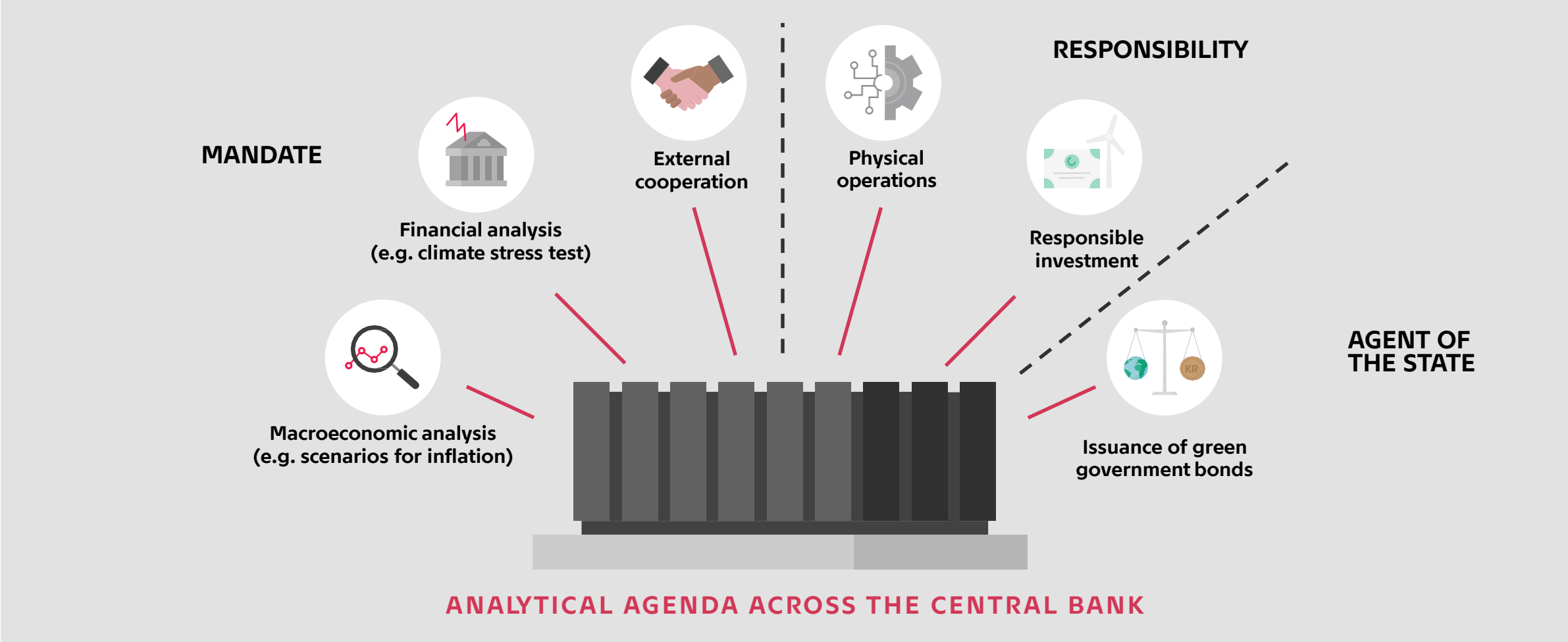
Understanding implications for price and financial stability

Supporting data, standards initiatives

Recommendations to authorities and the financial sector



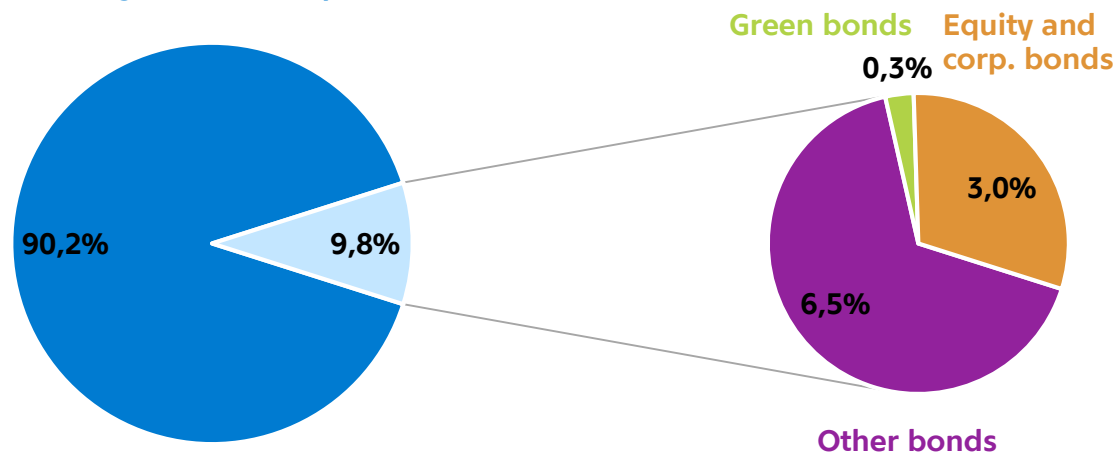
Climate-related activities in Danmarks Nationalbank



The FX reserve is invested as responsibly as possible taking into account our mandate

Around three per cent of the FX reserve is invested in equities and corporate bonds

Sovereigns and money market



Note: Danmarks Nationalbank's FX reserve excl. gold and IMF loans.

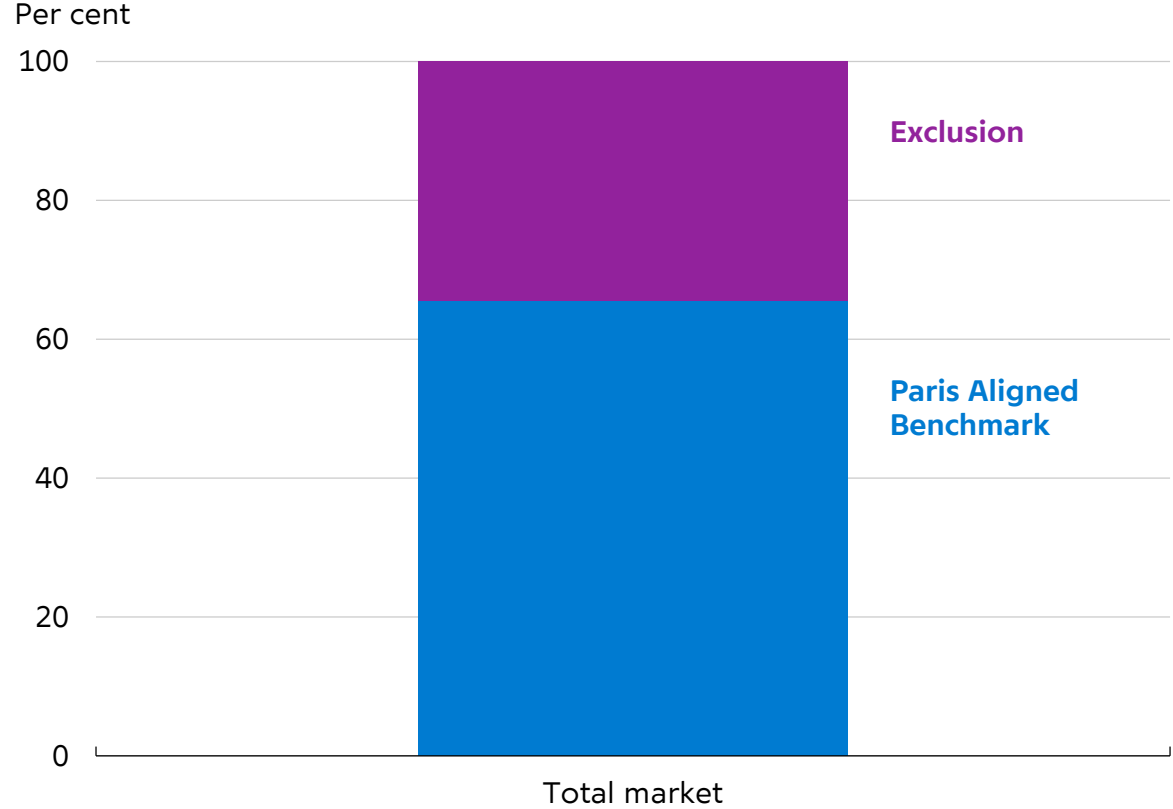


GUIDELINES FOR RESPONSIBLE INVESTMENT

- We adhere to legislation, sanctions and conventions that Denmark has endorsed
- We aim to align the financial portfolios with the Paris Agreement
- We focus on the part of our portfolio where the impact of the Paris alignment will be most significant, i.e. equity and corporate bonds

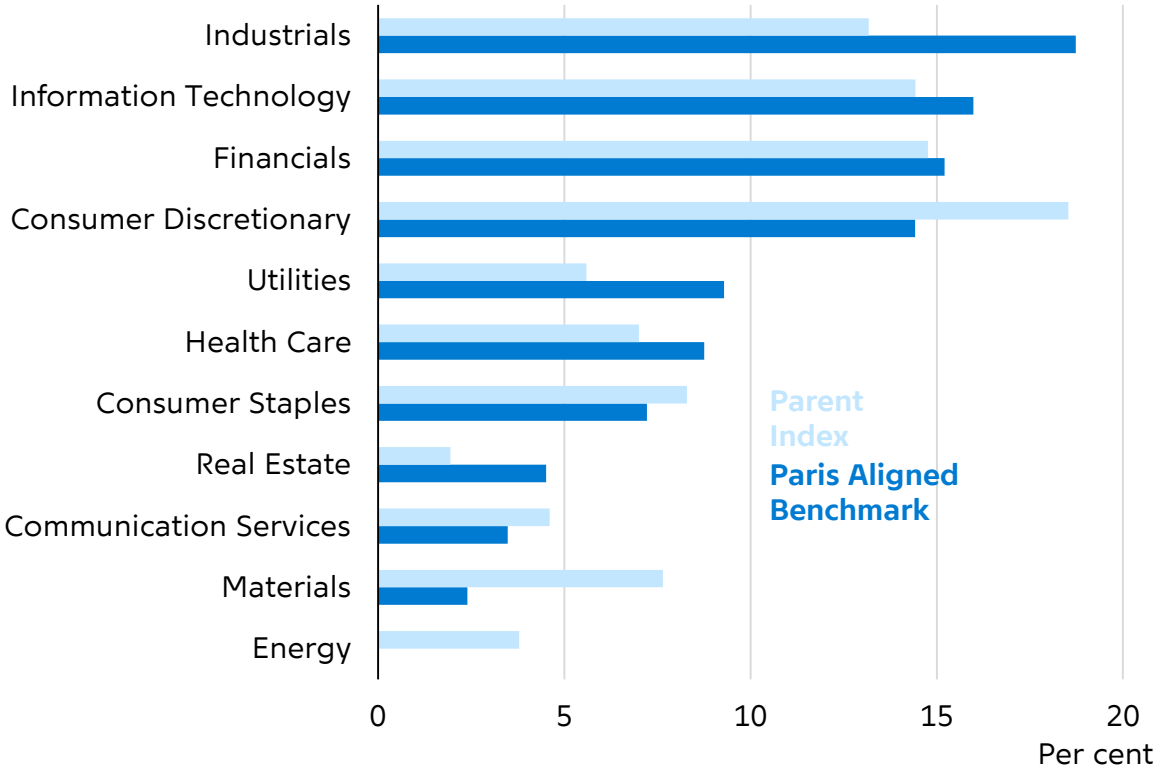
Our equity exposure follows the EU minimum requirements for Paris-Aligned Benchmark

A Paris-Aligned Benchmark index contains approx. 66 per cent of the total market



Source: MSCI.

Composition of the EA investment universe changes due to Paris alignment. However, markets are still diversified



Source: MSCI.

Denmark sovereign green bonds

Danmarks Nationalbank serves as a debt management agent for the Danish state

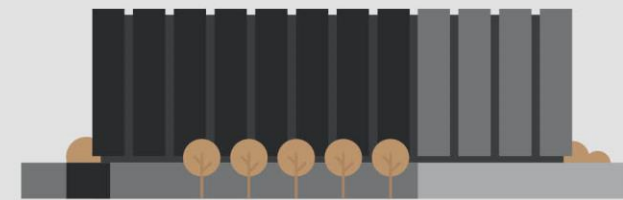
Responsible for central-government borrowing and debt



The Ministry of Finance

Management of government debt on behalf of the Ministry of Finance

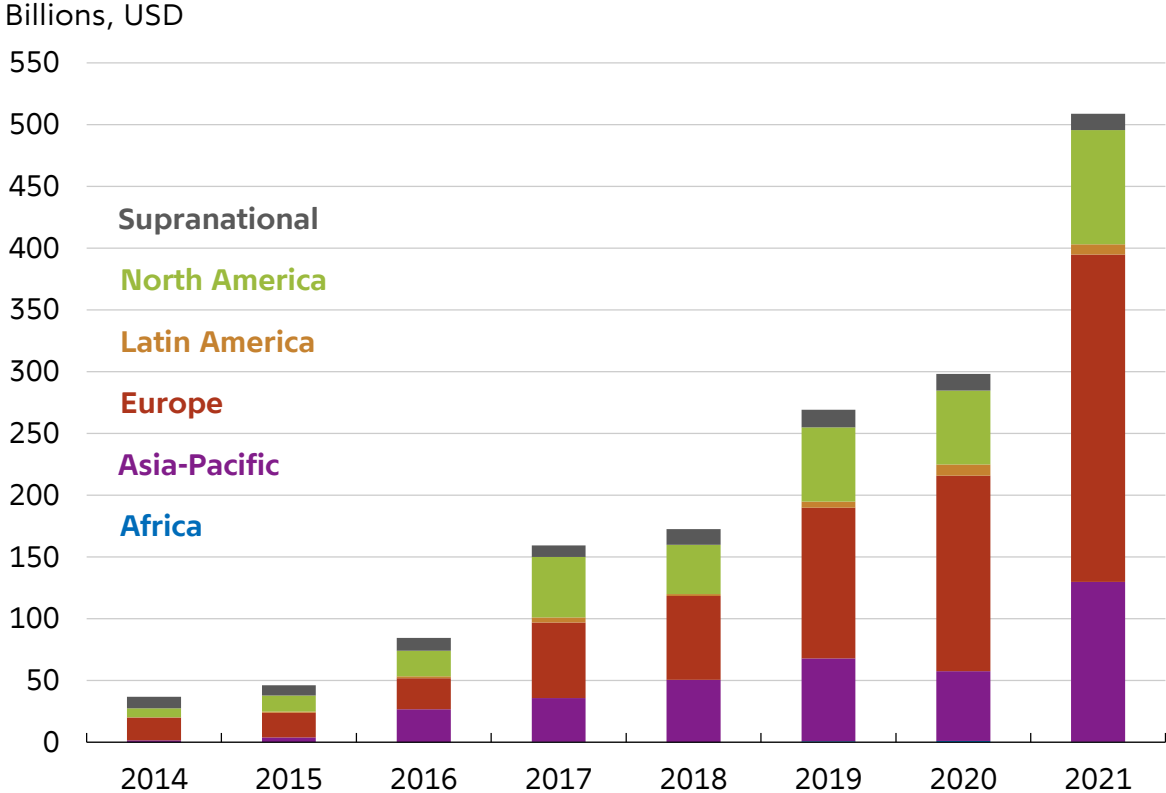
- Strategy and Issuance of government securities
- Management of re-lending and government guarantees
- Risk management



Danmarks Nationalbank

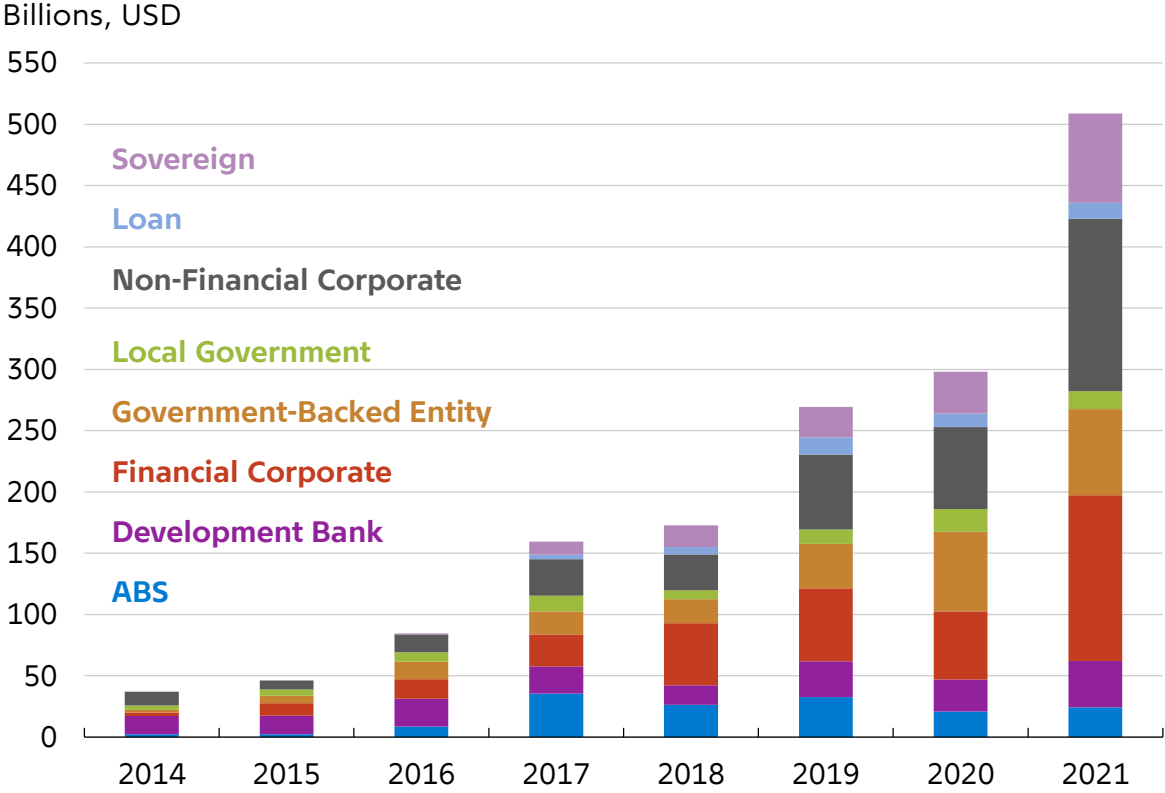
The market for green bonds has grown significantly over the previous years

Annual issuance by region



Source: Climate Bonds Initiative.

Annual issuance by issuer type



Source: Climate Bonds Initiative.

The Danish green government bond aims to support the development of the green financial markets

Motivation

- Support the continued development of green financial markets
- Maintain a broad and diversified investor base in Danish government bonds

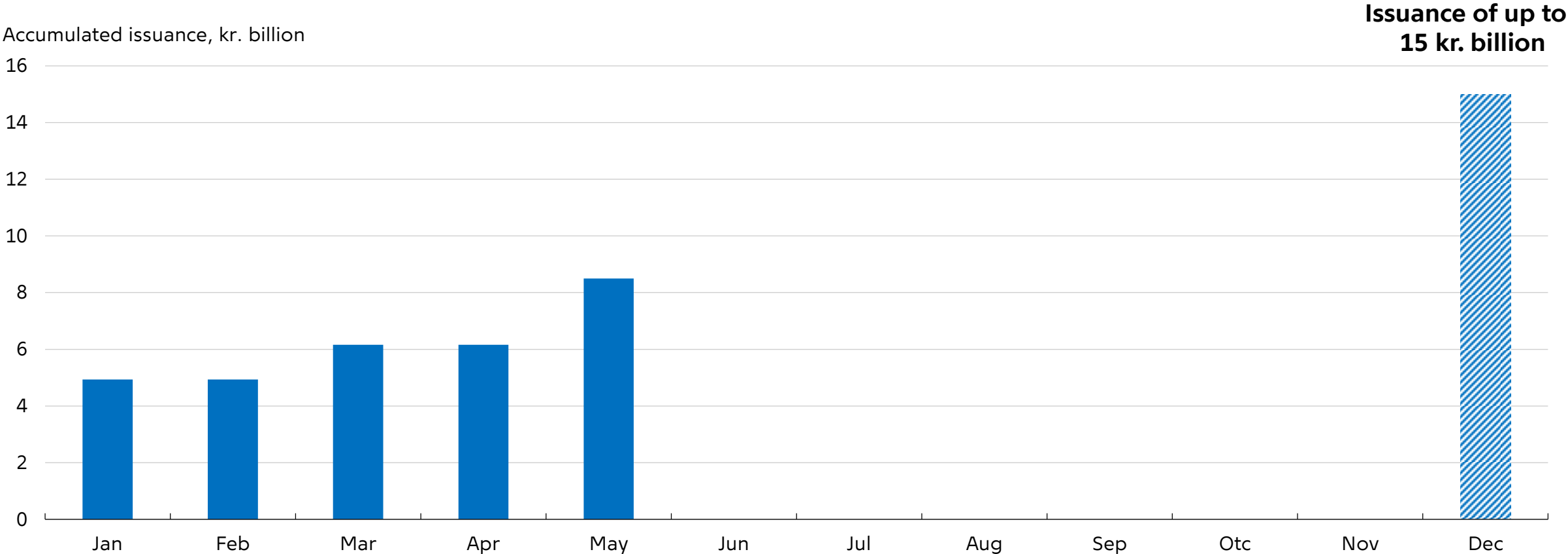
The Danish green bond follows the highest market standards

- Largely aligned with the EU Taxonomy
- Adapted to the upcoming EU Green Bond Standard
- Dark Green rating from an external institute

Issuance by twin bond concept

- Well-known and proven concept
- Supports the liquidity of the green bond

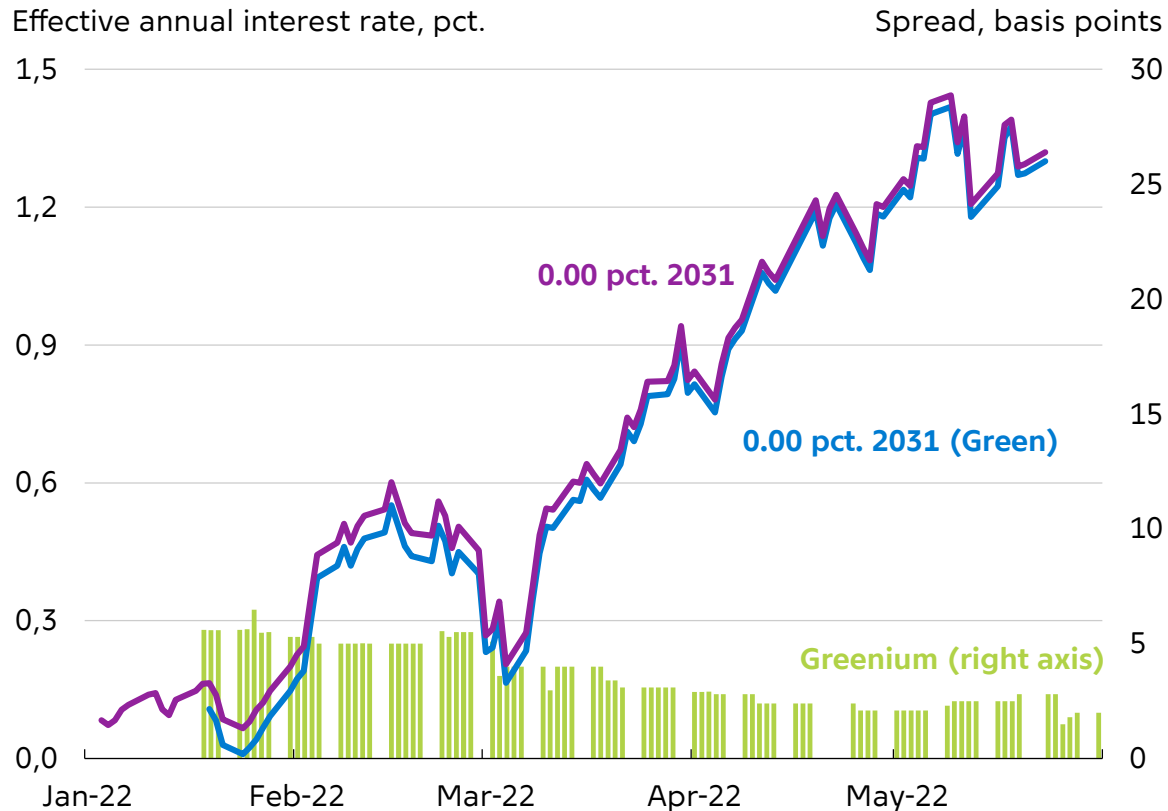
8.5 kr. billion in green bonds issued since the opening in January



Source: Danmarks Nationalbank.

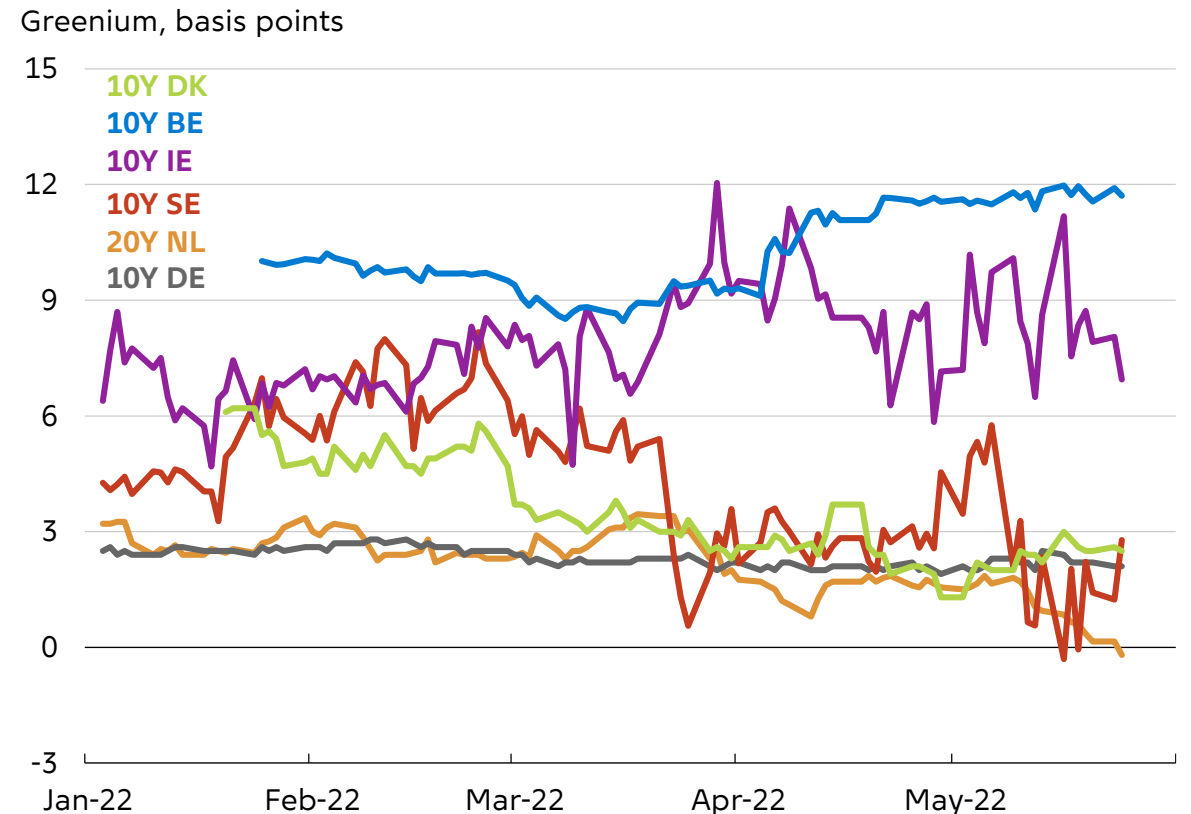
A 'greenium' seems to exist across all sovereign green bond issuers

Greenium Denmark



Source: Nordea Analytics.

Greenium relative to peers



Note: DK: Denmark, BE: Belgien, IE: Ireland, SE: Sweden, NL: Netherlands, DE: Germany.

Source: Bloomberg.

The rapid growth of the green capital markets is likely to continue



The Danish green government bond supports the development of green capital markets



The FX reserve is invested as responsibly as possible taking into account our mandate