

REPORT | Central government borrowing and debt 6 February 2025 | no. 1

# Central government borrowing and debt 2024

Central government debt fell to a historic low of kr. 217 billion, equivalent to 7.4 per cent of GDP in 2024. Interest costs remained low at a total of kr. -0.3 billion and the yield spread to Germany became negative during the year. The highest possible credit rating of AAA has been retained with a stable outlook. Consolidation remained a key focus to maintain a well-functioning and liquid government securities market. In February, a new 2-year government bond was opened and in September a 2-year euro denominated bond was issued under the government's EMTN programme. Robust risk management has continued to stabilise the government's interest rate and market risk. Combined with the solid Danish economy, the Danish government enters 2025 in a strong position for managing government debt.

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# Historically low central government debt

For the fourth consecutive year, a surplus in government finances has led to a decrease in Denmark's central government debt to kr. 217 billion, equivalent to 7.4 per cent of GDP.



# Consolidation remains a key focus

To maintain a well-functioning and liquid government securities market while realising cost savings, the government continued to focus on consolidating public borrowing centrally in 2024. Among other things, total cost savings of kr. 5.3 billion are estimated to have been realized since 2018 through government funding of social housing.



#### Interest costs remain low

During 2024, the government incurred interest expenses of kr. -0.3 billion. The average yield to maturity on nominal bonds issued by the Danish government in 2024 was 2.36 per cent p.a.

## Why is it important?

The publication *Central government borrowing and debt* is Danmarks Nationalbank's annual report on central government debt. There can be several reasons why a state incurs debt. For example, it could be due to refinancing of existing debt or public investment costs. In Denmark, Danmarks Nationalbank manages the central government debt on behalf of the Minister of Finance.

### Main chart: Historically low central government debt and interest costs



Note: Denmark's central government debt as a share of GDP (left axis) and government interest costs (right axis). Calculated at year-end.

Source: Danmarks Nationalbank.

REPORT | No. 1 Central government borrowing and debt



# Keywords

Central government borrowing and debt

Central government finance and debt

Central government debt

# **Content**

Content	4
01 Brief summary of the year	5
02 Central government debt and interest costs	6
03 Central government borrowing	15
04 Market development	22
05 Trading and liquidity in the secondary market	26
06 Risk management	30
07 On-lending and central government guarantees	36
08 Social housing	39
09 Government funds	41
10 Appended tables	43

01

# Brief summary of the year

#### A solid Danish economy has ensured historically low central government debt

State finances ended 2024 with a surplus of kr. 78 billion, which is the fourth consecutive year with a surplus. As a result, government debt has fallen further by kr. 77 billion to kr. 217 billion, equivalent to 7.4 per cent of GDP. The surplus reflected strong public finances, and was supported by continued growth in economic activity, particularly driven by a strong Danish export sector in 2024. Employment remained high and domestic demand was stable.

Government deposits grew by kr. 51 billion, reaching kr. 212 billion by the end of 2024, the highest level since 2014. This means that the government has a significant liquidity buffer, which makes it possible to meet any future increases in the government's borrowing needs without having to change the existing central government debt policy.

#### Government issuances followed the strategy for 2024

In 2024, the Danish government issued kr. 65 billion in domestic government bonds evenly distributed throughout the year. The focus was primarily on the 2-year and 10-year maturity segments, which together accounted for 74 per cent of the year's issuances. A new 2-year government bond was opened in February, which by the end of 2024 had an outstanding amount of kr. 30.2 billion. A further EUR 1 billion was borrowed in September as a 2-year EMTN loan. This was done to maintain the best possible access to the largest and most liquid international debt markets.

#### Financing costs remained low

Government interest costs in 2024 remained low. Total costs were kr. -0.3 billion, which means the government had net interest income for the past two years. The low level is partly due to low coupon payments on low central government debt and buybacks of government bonds recent years at lower prices than they were originally issued at. The government also received interest income from its account deposits of kr. 6.6 billion in 2024. Stabilising its interest costs continued to be an active part of the government's risk management.

During the year, the government issued nominal government bonds at an average yield to maturity of 2.36 per cent p.a. and the loans had an average remaining term of 7.6 years.

# The government's 10-year yield spread to Germany ended negative and at the lowest level since 2012

2024 saw a significant narrowing in the 10-year yield spread to Germany, ending the year at -23 basis points, 44 basis points lower than at the beginning of the year. This is the lowest level since 2012 and the first time since early 2020 that the spread has been negative.

### 02

# Central government debt and interest costs

# For the fourth year in a row, government surpluses lead to record low levels of central government debt

At the beginning of 2024, the government's finances were expected to be in surplus for the fourth consecutive year. The surplus was adjusted upwards from kr. 45.3 billion<sup>2</sup> at the beginning of the year to kr. 78 billion by the end of the year. The improvement is partly due to higher than expected income from corporation tax and PAL tax. In addition, government spending was also revised downwards during the year. The surplus corresponds to 2.6 per cent of GDP.<sup>3</sup>

The government surplus should be seen in the context of continued growth in economic activity in 2024, mainly driven by a strong Danish export sector. Employment remained high, domestic demand was stable and inflation was below 2 per cent.<sup>4</sup>

The government was therefore able to reduce central government debt by kr. 77.2 billion in 2024. Central government debt was thus kr. 217.1 billion at the end of 2024, corresponding to 7.4 per cent of GDP. Central government debt as a share of GDP has therefore fallen to its lowest level in more than 45 years, see chart 1 (left). The reduction of central government debt has been achieved by reducing domestic debt by kr. 19.5 billion and increasing the assets included in government debt by kr. 54.7 billion overall, see chart 2 (right).

Central government debt is calculated as the total domestic and foreign debt less the government's deposits in the central government's account at Danmarks Nationalbank, bonds for financing social housing and the assets in government funds, see box 1.

<sup>&</sup>lt;sup>1</sup> The government surplus/deficit is based on the net cash balance, which reflects the total actual receipts and payments flowing through the central government's account in a given year, and is the sum of the annual result of the Finance Act (DAU balance), government on-lending (net) and the movements of holdings, etc. The surplus on the net cash balance is thus an expression of the budget's liquidity effect in the current year and will therefore differ from the actual balance for 2024, according to the principles of the national accounts.

<sup>&</sup>lt;sup>2</sup> Economic Report, December 2023.

<sup>&</sup>lt;sup>3</sup> GDP estimate for 2024 of kr. 2,944 billion, Economic Survey, December 2024.

<sup>&</sup>lt;sup>4</sup> Economic Report, December 2024.

CHART 1

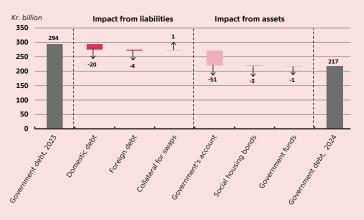
# Central government debt reduced to lowest level in more than 45 years



Note: Central government debt as a share of GDP. Source: Statistics Denmark and Danmarks Nationalbank.

#### CHART 2

# Debt repayments and a substantial account buffer reduced debt levels



Note: Impacts on central government debt from 2024 to 2025 Source: Danmarks Nationalbank.

#### EMU debt remains among the lowest in Europe

Denmark's gross public debt (called the EMU debt) was estimated to be 31 per cent of GDP at the end of 2024. Consequently, Denmark's EMU debt remains among the lowest in Europe and significantly below the EU Stability and Growth Pact limit of 60 per cent of GDP, see chart 3.

Denmark's EMU debt is higher than the amount of central government debt because EMU debt is a gross calculation of the total public debt and thus also includes debt raised by regions, municipalities and social funds, see box 1. The gross calculation means that government assets, e.g. in the form of government account deposits and holdings of social housing bonds, are not offset in the calculation of EMU debt.

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#### How government debt is calculated

Three concepts are often used to describe government debt:

- Central government debt is calculated as the nominal value of the government's domestic and foreign debt less the balance on the central government's account at Danmarks Nationalbank, bonds for financing social housing and the assets in government funds: Innovation Fund Denmark and the Danish Foundation for Prevention and Retention. On-lending to state-owned companies is not offset in the calculation of central government debt. Central government debt is managed by Danmarks Nationalbank on behalf of the Danish Ministry of Finance.
- EMU debt is a standardised measure of EU countries' debt and includes central, regional and local government debt, as well as social security funds and foundations. The EMU debt is stated at nominal value. The debt is stated gross, but the public sector can consolidate the debt with claims against itself. This

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means, for example, that bonds held by municipalities, regions and government funds issued by public entities are deducted in the EMU debt calculation. On the other hand, the government's holdings of social housing bonds and the balance on central government's account at Danmarks Nationalbank cannot be deducted. According to the EU Stability and Growth Pact, the EMU debt-to-GDP ratio must not exceed 60 per cent.

• Net public debt comprises all financial assets and liabilities in the central government, regions, municipalities as well as social security funds and government-owned funds. The assets side of the government's balance sheet includes the government's account balance at Danmarks Nationalbank, assets in government funds, on-lending to state-owned companies and the government's holdings of shares and other securities. The net public debt is stated at market value and is thus affected by value adjustments of public assets and liabilities. International calculations of net public debt are made by, for example, the Organisation for Economic Co-operation and Development, OECD, and the International Monetary Fund, IMF.

#### Denmark maintains the highest credit rating

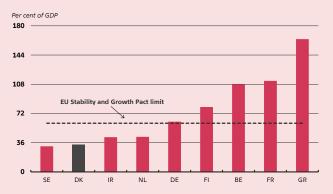
Denmark is one of only nine countries in the world which have the highest credit rating (AAA with stable prospects) from the three largest international credit rating agencies.<sup>5</sup>

The high credit rating helps keep the government's overall financing costs down as it allows the government to borrow at lower interest rates than less creditworthy countries, see chart 4. This is because investors do not demand a high credit risk premium when buying Danish government bonds, as they are considered among the safest in the world.

<sup>&</sup>lt;sup>5</sup> The nine countries are Australia, Denmark, Luxembourg, the Netherlands, Norway, Switzerland, Sweden, Singapore and Germany. All the countries have an AAA/Aaa credit rating from Fitch, Moody's and Standard and Poor's.

CHART 3

# Denmark has a low EMU debt compared to the rest of the European countries



Note: EMU debt for selected countries is from the third quarter of 2024, while for Denmark estimates for 2024 are based on the Economic Report, December 2024. Denmark's EMU debt is significantly below the EU Stability and Growth Pact limit of 60 per cent of GDP.

Source: Economic Report, December 2024, Eurostat.

#### CHART 4

# A high credit rating ensures Denmark has low borrowing costs



Note: Credit ratings and yields on 10-year government bonds for selected European countries. Countries with lower credit ratings have higher interest costs. The interest rates in the chart are par rates and calculated as the average of daily interest rates in 2024. To make euro rates and Danish rates more comparable, a 3-month EUR/DKK forward with an implied interest rate differential of 38 basis points has been added.

Source: Nordea Analytics and Fitch Ratings.

#### Central government debt policy in light of decreasing central government debt

When government borrowing<sup>6</sup> is reduced, the need to issue central government debt is reduced. The government has therefore significantly reduced the issuance of government securities and accelerated debt repayments by buying back existing debt. For the past three years, net issuance of government securities has been negative, see chart 24 in chapter 5.

Although the government has had less need to raise debt in recent years, it is important that it continues to maintain a well-functioning domestic central government debt market. This is achieved by maintaining a government securities market of a certain size with a functional primary and secondary market. Tentral government debt policy aims to strike a healthy balance between offering a wide range of government securities that attract a diverse investor base, while ensuring the build-up of liquid government securities. The Danish government has set its target for the total sale of government bonds with this in mind and has focused its issuance in the 2- and 10-year nominal benchmark segments, supplemented by limited issuance in other government securities, see chart 12 in chapter 3.

A well-functioning and liquid central government debt market is a prerequisite for stable financing and low interest costs. This reduces the liquidity premium

<sup>&</sup>lt;sup>6</sup> The borrowing requirement covers the government's deficit (net financing requirement), as well as repayments on central government debt, financing of the government's purchase of social housing bonds and purchases for government funds.

<sup>&</sup>lt;sup>7</sup> The government takes out loans in the primary market. This is primarily done through auctions of government securities. The secondary market for government securities is a cost-efficient and secure platform, MTS, on which participants can trade government securities in a fair and transparent manner. <sup>8</sup> Liquidity can be defined as the ability to quickly transact large trades at low cost and at any given time. One of the prerequisites for high negotiability of government bond securities is that there is a sufficiently large outstanding volume of each individual paper. If liquidity is low, it is expensive for investors to trade, which will ultimately result in a lower price (higher interest rate) for the bond. Good liquidity reduces the liquidity premium that investors demand for buying the bonds. It is therefore less expensive for the central government to issue debt when the bonds have good liquidity.

that investors require to lend the government money, making it cheaper for the government to borrow in the long term.

At the same time, a continuously functioning central government debt market ensures that the government has access to long-term borrowing. This improves the government's ability to take out large loans at a limited additional cost in the event of an economic crisis and acute increase in government financing needs. This was the case during the COVID-19 crisis, for example, when the government had to quickly borrow a large amount to fund a number of relief packages.

Furthermore, a well-functioning central government debt market is fundamental to the pricing of the mortgage and corporate bond markets, which use government bonds as a relative price reference. A secure relative price reference enables investors, including banks and pension funds, to better manage their portfolios and ensure efficient risk allocation. The central government debt market thus supports a well-functioning domestic capital market, which contributes to cheap financing for businesses and homeowners.

# Consolidation of public debt supports a stable outstanding stock of government securities while realising cost savings for the public sector

Focus on consolidating other public borrowing centralised with the government has been consistent for several years. The aim is to attain cost savings on interest, as the government borrows more cheaply, and to support the government securities market, as the centralisation of government borrowing makes it possible to maintain a domestic government securities market of a certain size, despite the fact the reduced need for government financing in recent years.

At the beginning of 2000, several state-owned companies began to switch from taking out state-guaranteed loans themselves to being financed via an onlending scheme under which the state provides on-lending to state-owned companies, see box 3 on page 36.9 In 2018, the financing of social housing was also centralised with the state, meaning that the state finances social housing directly by purchasing the mortgage bonds that finance social housing construction at the government yield.¹0 Both schemes provide the government with cheaper financing for state-owned companies and social housing construction respectively.

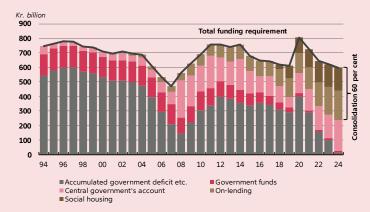
The total outstanding amount of on-lending and social housing bonds was kr. 203 and 157 billion respectively at the end of 2024. This corresponds to approximately 63 per cent of the government's total outstanding amount of government securities, see chart 5 (left).

<sup>&</sup>lt;sup>9</sup> Financing through on-lending will usually be cheaper than if the company financed itself by issuing bonds with a government guarantee. One reason for this is that the government bond series have much higher liquidity. The company thus saves the liquidity premium that investors would otherwise demand in the form of a higher yield.

<sup>&</sup>lt;sup>10</sup> In the past, social housing has primarily been financed through mortgage bonds, which had a higher interest rate than government bonds. When the government buys such bonds at the government yield rate, an interest saving is realised. See Danmarks Nationalbank, New financing of social housing strengthens the market for Danish government securities, *Danmarks Nationalbank Analysis*, no. 24, December 2018.

CHART 5

#### Consolidation of other public borrowing from the government maintains a stable outstanding amount of government securities

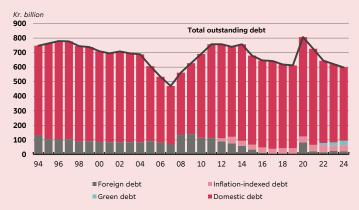


Note: The government's total financing needs (assets) consist of the government's accumulated deficit, including the repayment of existing debt, the assets of government funds, government account deposits, onlending to state-owned companies and the government's holdings of bonds for financing social housing.

Source: Danmarks Nationalbank.

#### CHART 6

# The government's total borrowing requirement is primarily financed by raising domestic debt



Iote: The government's outstanding debt (liabilities) consists of domestic borrowing (nominal bonds, T-bills issued in kroner), inflation-indexed bonds issued in kroner and foreign bonds and commercial papers issued in foreign currency (typically euros or dollars).

Source: Danmarks Nationalbank.

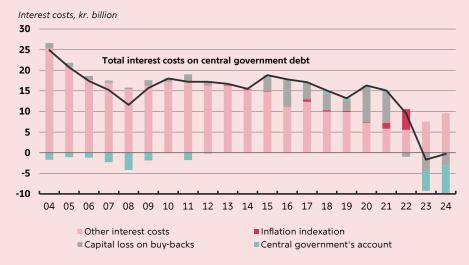
#### Despite a period of higher interest rates, the total cost of financing central government debt remains low

After a period from summer 2022 to autumn 2023 when monetary policy interest rates were consistently increased as part of the efforts to combat rising inflation, interest rates were continuously reduced again from mid-2024. Changes in interest rates do not affect the interest charges on that part of the nominal debt already raised by the central government, but do affect those on the new debt raised by the government.

In 2024, the total interest cost on central government debt was kr. -0.3 billion, see chart 7 and table 1. The government has thus had net interest income for the past 2 years. Among other things, the state received interest income from its deposits at Danmarks Nationalbank totalling kr. 6.6 billion in 2024. Furthermore, gains on bond buybacks count as interest income (negative interest expense). When the government reduces its debt by buying back bonds at a lower price than they were originally issued at, a capital gain is realised, which was the case in both 2023 and 2024, see chart 7.

CHART 7

Total interest costs for central government debt are limited



Note: Negative numbers are interest income. Other interest charges cover all interest costs and income otherwise included in the government's total interest costs. See also table 1 under.

Source: Danmarks Nationalbank.

TABLE 1
Central government debt and interest costs at the end of 2024

Kr. billion	Outstanding	Interest costs
Domestic debt	577.7	6.0
Udenlandsk gæld	20.4	0.8
Collateral for swaps	1.2	*
Central government's account	-211.7	-6.6
Government funds	-12.9	0.0
Social housing	-157.6	-0.6
Central government debt	217.1	-0.3

Anm.: For outstanding amounts, positive values indicate a liability, while negative values indicate an asset. For interest costs, negative values are an interest income, while positive values are an interest expense. No summary to total due to rounding. Collateral for swaps is included in the table as it is recognised in the central government's account, but not in the definition of central government debt. \* Interest costs related to collateral for swaps are included in the interest costs for domestic central government debt.

Kilde: Danmarks Nationalbank.

The government issued nominal bonds in 2024 at an average yield to maturity of 2.36 per cent p.a. overall, and the loans had an average remaining maturity of 7.6 years, see table 2. This was a decrease of 0.51 percentage points from the average yield to maturity at which the government borrowed in 2023. For loans raised by issuing inflation-indexed bonds, the average effective real interest rate was 0.63 per cent p.a. in 2024.

TABLE 2

Average effective yield to maturity
on government bond issues in the year indicated

	Average maturity, years	Average Interest rate, per cent p.a.
2015	6.8	0.32
2016	7.4	0.04
2017	7.5	0.15
2018	7.5	0.14
2019	7.8	-0.33
2020	11.6	-0.33
2021	10.4	-0.20
2022	9.3	1.13
2023	7.8	2.87
2024	7.6	2.36

Note: The yield to maturity is weighted by market value and excludes inflation-indexed bonds in the central government's total issuance (including switch operations) in the given years.

Source: Danmarks Nationalbank.

# The prospect of increased financing needs is not expected to change the overall central government debt policy

After a number of years with a surplus on the structural balance<sup>11</sup>, minor public deficits are expected from 2026 and for a number of years to come, see chart 8.<sup>12</sup> The expected future deficits are partly due to the age composition of the population in the long term. However, the expected deficits have been continuously revised downwards, partly due to changes in population figures and an expectation of higher structural employment in the long term.<sup>13</sup>

Seen in isolation, these deficits are not expected to result in changes to the current central government debt policy. This is partly due to the fact that fiscal policy and liquidity improvements compared to the planned budgets in recent years have resulted in a significant account balance at Danmarks Nationalbank. By the end of 2024, the government's account balance will amount to kr. 212 billion, which is well above the level of between kr. 50-75 billion considered necessary to handle ongoing liquidity fluctuations in the central government's account. This provides the government with a significant liquidity buffer, making it possible to meet any future increases in government borrowing needs without having to significantly change the existing central government debt policy.

 $<sup>^{11}</sup>$  The structural balance is the government surplus or deficit adjusted for cyclical fluctuations and a number of temporary factors.

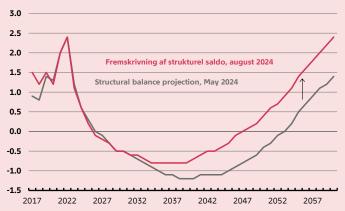
 <sup>&</sup>lt;sup>12</sup> See Ministry of Finance, Updated 2030 trajectory: Basis for spending caps 2028, August 2024 (*link*).
 <sup>13</sup> A new population projection was incorporated in August 2024. The projection now takes into account that fertility seems to have declined more permanently, meaning that fewer children will need child benefit, childcare and education, easing the pressure on public finances in the years with the prospect of a structural deficit. In addition, there are updates to assumptions about employment trends. See Ministry of Finance, Updated 2030 trajectory: Basis for spending caps 2028, August 2024 (*link*).

**CHART 8** 

# Future structural balance deficit is now smaller than previously expected

Central government borrowing and debt

Surplus on the govnerment's structural balance, per cent of GDP

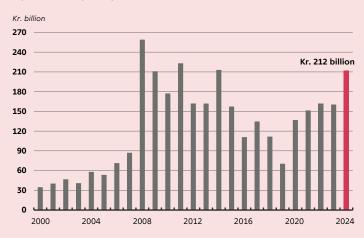


Note: The structural balance is a measure of the underlying position of public finances and is the public balance adjusted for contributions from cyclical fluctuations and other temporary factors. The government uses long-term projections based on population projections, current regulations and political agreements to project public finances in the long term. Such projections are used to assess the long-term sustainability of public finances, but they are sensitive to changes in the underlying assumptions. The long-term projections of public finances show that fiscal policy is sustainable.

Source: Ministry of Finance, Updated 2030 trajectory: Basis for spending caps 2028, August 2024.

#### CHART 9

# The government has a significant liquidity buffer in the account



Note: Balance on the central government's account at Danmarks Nationalbank, year-end.

Source: Danmarks Nationalbank.

# 03

# Central government borrowing

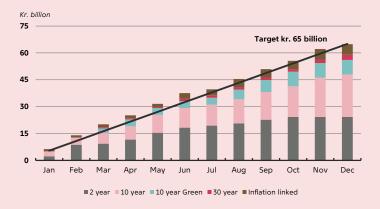
#### Government issuance followed the 2024 target

In 2024, the government issued domestic government bonds via auction and tap sales totalling kr. 65 billion at market value, see chart 10 (left). This was in line with the target for the year of kr. 65 billion set in the government borrowing strategy. As in previous years, the government focused its issuance in the 2- and 10-year nominal benchmark segments.

Demand in the 2024 auctions was high and stable, see chart 11 (right). This reflects market dynamics described in chapter 4 and investor confidence in the government's creditworthiness and enabled an even distribution of issuances throughout the year.

#### CHART 10

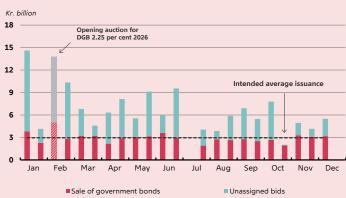
# Government issuances have been evenly distributed over the year



Note: The chart shows bond sales at market value excluding switch auctions. Source: Danmarks Nationalbank.

#### CHART 11

#### Regular issuance was made possible by high demand



Note: The chart shows demand and allocation in Danish government bonds across all 22 auctions this year.

Source: Danmarks Nationalbank

#### Continued focus on the 2- and 10-year maturity segments

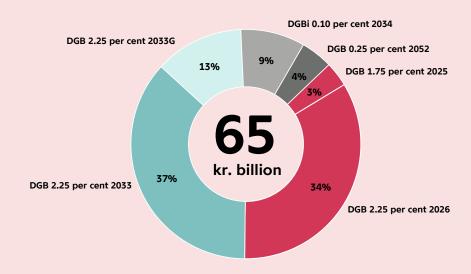
Government bond issues in 2024 continued to focus on the 2- and 10-year maturity segments with issues of kr. 24,2 and 23,7 billion at market value respectively, corresponding to a total of 74 per cent of the year's issues, see chart 12.

Due to the low level of central government debt, the majority of government issuance is focused on a few core securities built up to benchmark size to ensure continued good liquidity in the government securities market. Most of the investor demand was also in the 2- and 10-year maturity segments, which often complement each other well from an investment perspective. Different investor groups may find the segments attractive at different times and for different

reasons. Together, the two segments therefore serve as important reference points for both the Danish and international capital markets.

CHART 12

Focused issuance in the 2- and 10-year maturity segments



Note: The chart shows the distribution of government bond issuance at paper level. Percentages do not necessarily add up to totals due to rounding.

Source: Danmarks Nationalbank.

#### Opening of new 2-year benchmark bond

On 7 February 2024, the government opened a new 2-year government bond with a coupon rate of 2.25 per cent and maturing in 2026. The new bond replaced the 1.75 per cent Danske Stat 2025 as a 2-year on-the-run security.

At the opening auction, the maximum of kr. 5 billion announced was issued, while there were bids for kr. 13.7 billion. In total, kr. 30.2 billion was issued in the new 2-year benchmark bond in 2024, of which kr. 8.1 billion was issued via switch auctions.

The opening of the new 2-year bond was part of the strategy to maintain a liquid government yield curve. By regularly issuing in different maturities, the government ensures a broad investor base and, with the opening of the new 2-year bond, meets the demand for government bonds with shorter maturities.

#### Continued issuance under the government's Green Bond Framework

In 2024, the government continued to issue green bonds under its Green Bond Framework, selling kr. 8.1 billion at market value. The total revenue from the programme was kr. 32 billion by the end of 2024. The majority of the bonds are owned by Danish insurance and pension companies, reflecting the sector's mandate.

The government ensures that an amount equal to the proceeds from the sale of green bonds is linked to eligible government expenditures and investments specified under its Green Bond Framework. The proceeds correspond to

government spending to support the expansion of renewable energy production – such as wind and solar energy – and are for expenses that promote the green transition of the transport sector in Denmark, see chart 13. More details on costs and specific projects can be found in the government's green bond programme on Danmarks Nationalbank's website (<u>link</u>).

The overall framework for the government's green bonds, including the type of green expenditure, is described in the government's Green Bond Framework from 2021 (<u>link</u>). The framework was developed in line with current market standards and based on the EU taxonomy of sustainable economic activities. The framework received the highest possible green rating of dark green in the 'Second Party Opinion', (<u>link</u>). The assessment ran from the time of writing the Assessment in 2021 to mid-November 2024. The government has not issued any green bonds after expiry of the assessment. The government expects to open a new green government bond under an updated Green Bond Framework during 2025.

The government reports on the allocation of proceeds from green issues and the climate and environmental effects of green spending. The reports can be found on the websites of the Ministry of Finance and Danmarks Nationalbank (*link*).

CHART 13

A total of kr. 32 billion has been allocated for green spending under the government's Green Bond Framework



Note: The proceeds from the green Danish government bond issuance in 2022-2024 will finance eligible green expenses under the government's green bond framework from 2021-2023. The distribution between categories is based on actual allocations for 2021-2023.

Source: Danmarks Nationalbank and the Ministry of Finance.

#### Issuance of inflation-linked bonds continued in 2024

The issuance of inflation-linked bonds continued in 2024, with the Danish government issuing inflation-linked bonds totalling kr. 5.9 billion at market value. The total outstanding amount of inflation-indexed bonds thus amounted to kr. 42 billion, corresponding to 7.4 per cent of the state's total outstanding government bonds. The issues were made in the inflation-indexed government bond maturing in 2034. The strategy is to continue to build the programme to a total outstanding amount of kr. 40-60 billion across three government securities.

Despite Germany choosing to close its inflation-linked bond programme and Sweden scaling its programme down, Danish inflation-linked government bonds are still considered relevant for investors and the government. Nevertheless, the programme continues to contribute to a broader investor base and supports the risk management of central government debt.

Inflation-indexed bonds offer investors a return that follows the development of Danish consumer prices and are therefore attractive to investors who need to protect their liabilities against inflation, such as the insurance sector and parts of the pension sector. Some insurance products, including certain SUL insurances<sup>14</sup>, may have benefits or payouts that in practice are adjusted in line with price developments. This creates a natural need for inflation hedging and makes these bonds particularly relevant in this sector.

Inflation-indexed bonds are also attractive for the government, as they help spread the risk on the debt portfolio. Firstly, they dampen fluctuations in central government debt as a percentage of GDP, as both inflation-indexed debt and GDP move in line with consumer prices. Secondly, index-linked bonds can, under certain circumstances, make government budget management easier. This applies, for example, in situations where government revenue increases with inflation, e.g. through higher tax revenues and VAT revenues when prices rise. In such cases, the increased interest costs on the government's inflation-indexed debt will be partially offset by higher revenues, reducing the overall impact on the budget.

To support the liquidity of the government's inflation-indexed bond programme, the 2025 on-the-run issues will contain outstanding inflation-indexed bonds, i.e. both DGBi 0.10 per cent 2030 and DGBi 0.10 per cent 2034.

#### Government short-term loan programmes maintained at a low level

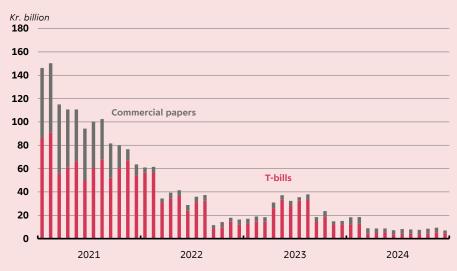
The government's short-term loan programmes, including T-bills and commercial papers, CP, remain an important part of the government's liquidity contingency planning. During the initial phase of the COVID-19 pandemic in 2020, these programmes were a crucial source of short-term funding before a significant reduction in the backlog took place. In 2024, the outstanding balance in both programmes was maintained at a low level, see chart 14. The continued low outstanding amount of T-bills reflects that the government does not want to issue at prices that do not reflect its limited borrowing capacity, and this pricing results in lower demand. It was therefore also decided to reduce the maximum outstanding amount of T-bills to kr. 20 billion by 2025.

At the end of 2024, the outstanding amount in T-bills was kr. 4.5 billion, while the outstanding amount in CP programmes was kr. 2.5 billion.

The strategy remains to maintain market access to the international capital markets through the CP programmes and to ensure flexibility in the government's liquidity preparedness through the short-term loan programmes. This approach supports effective cash management and contributes to the government's overall financing strategy.

<sup>&</sup>lt;sup>14</sup> For example, insurance schemes with a direct link between payouts and inflation.

CHART 14 Continued low level of short-term government loan programmes



Note: Outstanding balance in the government's two commercial paper programmes (ECP and USCP) and in T-bills

Source: Danmarks Nationalbank.

#### Foreign borrowing maintains access to international debt markets

In order to maintain the best possible access to the largest and most liquid international debt markets, the strategy is to be regularly present in currencies other than DKK, e.g. through the central government's EMTN programme (Euro Medium Term Note) and commercial papers. Government borrowing in foreign currency will account for approximately 3.4 per cent of total government debt by the end of 2024.

As part of the government's strategy to annually raise a loan in either dollars or euros, a 2-year loan of EUR 1 billion, equivalent to kr. 7.4 billion, was issued on 25 September. The loan was raised at a yield to maturity of 2.293 per cent p.a., which corresponded to a yield to maturity of 17 bp. above a similar German government bond. This is a significantly lower spread to Germany than the last 2year euro loan in 2022, when the spread was 33 bp, and is partly due to the fact that the yield on German government bonds rose significantly over the year, see the section on yield spreads to Germany in chapter 4.

Borrowing in foreign currency is generally not used to finance the government's current financing needs, but supports liquidity contingency planning for the foreign exchange reserves of the government and Danmarks Nationalbank. Furthermore, issuing bonds in foreign currency helps to diversify the central government's investor base, which in the long term can lead to lower funding costs as investors in foreign-denominated government debt become active in the domestic government debt market. The government is therefore expected to continue to have an annual issuance in foreign currency.

#### **Domestic investors have increased** their ownership share in Danish government bonds

A broad investor base is key to a well-functioning and robust market for Danish government bonds. Foreign ownership of Danish government bonds now stands at 30 per cent, which corresponds to a decrease of 1 percentage points since the end of 2023. The latest drop in ownership comes after a period since January 2022 when foreign investors gradually increased their exposure from 27 per cent to 34 per cent by mid-2023, see chart 15 (left).

The decline in foreign ownership reflects a trend in which Danish investors – including pension and insurance companies, banks and investment funds – have steadily increased their relative share in the domestic government bond market.

Danish banks have various incentives to increase their purchases of government bonds. For example, government bonds can be used as highly liquid assets to fulfil regulatory requirements and as collateral in the money and capital markets. Investment funds often seek stable and liquid securities to balance their portfolios, and Danish government bonds are generally associated with low volatility and high credit quality.

Insurance and pension companies have long-term obligations in kroner to pension savers, which means that they must ensure payments many years into the future. To match these long-term obligations in kroner (liabilities), the sector has a natural need to hold assets in kroner with a correspondingly long maturity and low risk profile, where government bonds are often a core element, see chart 16 (right).

Danish insurance and pension companies have increased their holdings in Danish government bonds since 2000 by kr. 235 billion to a total nominal holding of kr. 294 billion by the end of 2024. This increase has occurred at the same time as the government's total debt level has fallen by kr. 111 billion.

The gradual build-up of Danish pension assets, including through mandatory labour market-based schemes, has continuously increased the sector's total assets and thus the need for safe and liquid investments that match the long-term payout horizon.

The insurance and pension sector's growth and active demand in the Danish market – in parallel with a gradually ageing population and increased pension savings – thus contributes to a sustained high domestic ownership share. This supports the liquidity, stability and robustness of central government debt market when, for example, foreign demand fluctuates.

CHART 15

# The relative share of foreign countries in Danish government bonds has decreased

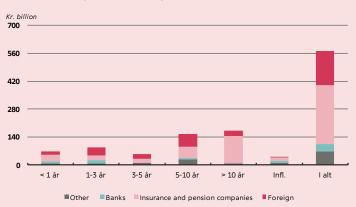


Note: The chart shows the ownership distribution of Danish government bonds in the 4 largest owner groupings. "Other" consists of investment funds, households, non-financial companies and general government.

Source: Danmarks Nationalbank.

#### CHART 16

# The insurance and pension sector is a natural buyer of Danish government bonds



Note: The chart shows holdings of Danish government bonds by sector and remaining maturity, at market value. "Other" consists of households, non-financial companies and general government.

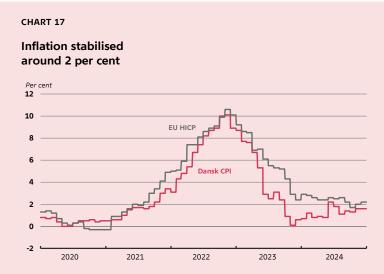
Source: Danmarks Nationalbank.

## 04

# Market development

Financial markets in 2024 were dominated by geopolitical tensions, falling interest rates and slightly decreasing inflation levels, see chart 17. Euro area central government debt markets were affected by weaker than expected economic data, significant net issuance and the ECB's wind-down of quantitative easing. The Danish economy has performed better than expected, there has been negative net issuance and Danmarks Nationalbank has not had a QE programme to wind down. This has led to differences in the market development for the eurozone and Denmark and has, among other things, contributed to a significant narrowing of the government yield spread between Germany and Denmark.

The lower inflation in 2024 led to monetary policy easing both in Denmark and globally, see chart 18. The leading monetary policy interest rate in Denmark, the current account rate, was reduced from 3.60 per cent to 2.60 per cent over the year, which followed the movements in the European Central Bank's, ECB's, interest rate. As a result, the monetary policy rate spread to the ECB remained unchanged.

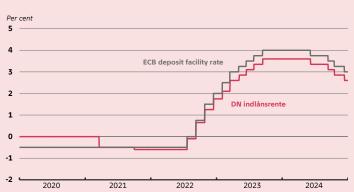


Note: Annual HICP inflation in the euro area and the Danish consumer price index.

Source: Bloomberg.

# CHART 18 Leading monetary policy interest rates

were cut four times in 2024



Note: The deposit rate of the European Central Bank (ECB), and the current deposit rate of Danmarks Nationalbank.

Source: Bloomberg.

At the beginning of 2024, the market expected monetary policy interest rates to be reduced by 1.64 percentage points over the year. The partial realisation of this meant interest rates fell, especially at the short end of the yield curve. <sup>15</sup> Long-term interest rates also fell, but to a lesser extent, which helped widen the gap between short- and long-term bond yields. By the end

<sup>&</sup>lt;sup>15</sup> At the start of 2024, the market expected the ECB and Danmarks Nationalbank to lower their key interest rates by 1.64 percentage points during the year. The expectations were reflected in the prices of interest rate swaps.

of 2024, the market expected further interest rate cuts in 2025, followed by a period of relatively stable interest rates.

Danish government bonds followed the trend in global fixed-income markets with interest rates falling, but with larger declines than observed abroad. The drop in yields on government bonds in 2024 was 70 basis points in the 2-year maturity segment and 20 basis points in the 10-year maturity segment during 2024, see chart 19.



Note: Yield to maturity on benchmark bonds. The curve for DGB 2.25 per cent 2026 only starts on the day of the opening auction.

Source: Bloomberg.

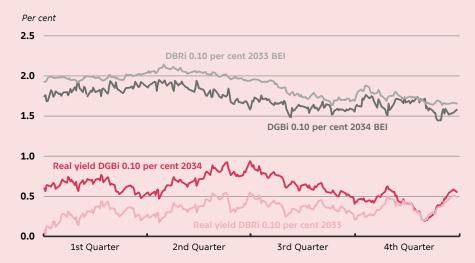
CHART 19

The development in nominal interest rates can be attributed to lower inflation and growth prospects, both of which lead to a market expectation of lower interest rates in the future. These expectations are reflected in the interest rate on inflation-indexed government bonds, which also fell in 2024. The real interest rate on the on-the-run bond, DGBi 0.10 per cent 2034, fell from 0.60 per cent p.a. to 0.55 per cent p.a., see chart 20. The fact that the decrease in real interest rates was lower than the decrease in nominal interest rates in the same maturity segment is due to breakeven inflation rates falling over the year.

Breakeven inflation rates, BEIRs, are an expression of the future inflation levels where the government's interest costs for inflation-indexed bonds are the same as when issuing nominal bonds with the same characteristics. BEIRs thus also partly indicates investors' expectations of future inflation along with inflation risk and liquidity premia. In 2024, the BEIR decreased by 16.6 basis points to 1.58 per cent p.a.

CHART 20

# Danish and German real interest rates and breakeven inflation converged in 2024



Note: Breakeven inflation calculated as the spread between the real interest rate and the nominal interest rate of the government bond that is closest to having the same maturity.

Source: Bloomberg.

#### Yield spread to Germany was negative in 2024

During 2024, there have been significant fluctuations in the 10-year yield spread to Germany, ending the year at -23 basis points, which was 44 basis points lower than at the beginning, see chart 21. This is the lowest level since 2012 and the first time since early 2020 that the spread has been negative.

The narrowing of the yield spread is mainly due to the fact that interest rates on German government bonds rose significantly over the year relative to, for example, euro interest rate swaps, see chart 22. The increase is attributed to a general deterioration in German economic indicators, increased financing needs in Germany, the German government crisis<sup>16</sup> and a number of structural changes in the European money and bond markets as a result of ECB quantitative tightening.<sup>17</sup> The unwind of the ECB's asset purchase programmes, combined with increased issuance, has significantly increased the availability and supply of German government bonds, reducing their scarcity and special status in the money and bond markets<sup>18</sup>. This followed a number of years in which significant demand created a shortage of German government bonds, which was further exacerbated by several years of the ECB purchasing them. As a result, German government bonds have become cheaper relative to interest rate swaps, and for the first time since the establishment of the ECB's asset purchase programme in

<sup>&</sup>lt;sup>16</sup> In autumn 2024, the German government found itself in crisis due to disagreements over German business and economic policy, including the 2025 Finance Act.

<sup>&</sup>lt;sup>17</sup> Quantitative tightening was implemented by not actively selling holdings of government securities, but by letting them mature without reinvesting the principal in new government bonds.

<sup>18</sup> The special status of German government bonds is due to the fact that they are considered to be

<sup>&</sup>lt;sup>20</sup> The special status of German government bonds is due to the fact that they are considered to be among the most secure and liquid markets and are widely used as collateral for financial contracts. The ECB's quantitative easing also meant that the ECB had built up large holdings of German government bonds, which meant a low available outstanding amount in the market in the individual securities. You can read more about this in Monetary and financial trends from September 2024.

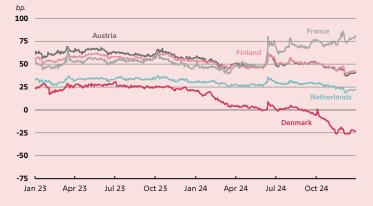
2015, all leading benchmark euro-denominated bonds traded at yields above the ESTR swap curve.

The ECB's quantitative tightening also affected the interest rates of other countries in the euro area's government bonds, which is why they did not show as large a spread tightening relative to Germany as Denmark, see chart 21. However, several euro area countries also narrowed their spreads to Germany. An exception to this is France, which significantly widened its gap to Germany in 2024 from 48 to 81 basis points. The expansion was due to France's political and economic uncertainty. As a result, rating agency Moody's downgraded France's credit rating to Aa3 in December.<sup>19</sup>

Danish government bonds were not subject to the same upward pressure on yields, so the 10-year Danish-German yield spread narrowed significantly. The continued low bond yields in Denmark were partly due to stable Danish conditions: a long period of budget surpluses and thus a low issuance need, cf. the section on government surpluses in chapter 2. Unlike the euro area, the interest rate differential between Danish interest rate swaps and Danish government bonds was stable throughout the year, see chart 22. As a result, Danish benchmark government bonds against German government bonds were traded at the end of 2024 at a spread to Germany that was very close in size to the spread between the reference rates for the euro area and Denmark, ESTR and DESTR.

The continued lower monetary policy interest rate in Denmark enabled investors to borrow kroner both via repo financing and currency swap financing at an interest rate around 38 basis points lower than the euro rate. This contributed to Danish government bonds remaining attractively priced despite the narrowing of the spread to Germany.

# CHART 21 Yield spreads to Germany for several European countries narrowed



Note: Spreads to Germany in the 9-year segment for Denmark, and the 10-year segment for France, Finland, Austria and the Netherlands. The 9-year point is chosen for Denmark due to the remaining maturity of the Danish 10-year benchmark paper.

Source: Nordea Analytics.

# CHART 22 Convergence of 2- and 10-year bond and swap rates



te: German yield spreads calculated as the spread between generic government bonds and the reference rate ESTR in the two maturity segments. Danish yield spreads calculated as the spread between benchmark government bonds and intrapolated DESTR in the two maturity segments.

Source: Bloomberg.

<sup>&</sup>lt;sup>19</sup> The downgrade means that S&P, Moody's and Fitch now all have the same rating for France at AA-, Aa3, AA-, respectively. (<u>link</u>).

## 05

# Trading and liquidity in the secondary market

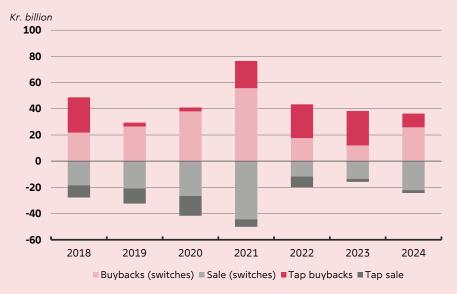
# Supporting liquidity in the secondary market helps minimise government funding costs

The Danish government once again supported liquidity in Danish government bonds in 2024 through active participation in the secondary market. Maintaining good liquidity in the secondary market reduces the liquidity premium that investors require to buy the bonds, which helps minimise the government's financing costs.

To support the market, the government holds switch auctions where it is possible for primary dealers and investors to buy on-the-run securities by selling off-the-run issues. This type of auction contributes to a faster build-up of outstanding amounts in new bonds. Building the series to benchmark size ensures continued good liquidity in the government securities market. Besides the government, this also benefits investors and primary dealers as it makes it easier for them to trade the bonds. At switch auctions in 2024, the state sold approx. 22.1 billion kr. against buying up approx. 25.8 billion, cf. chart 23. In addition, to a lesser extent than in previous years, the government also made tap buybacks and sales, buying back government securities outside the on-the-run issues or issued on-the-run securities. Tap sales were lower due to stable auction demand and limited issuance needs.

CHART 23

Buying and selling government bonds in the secondary market



Note: Sales and buying are recognised at market value. Buying excludes buying bonds maturing within

the year.

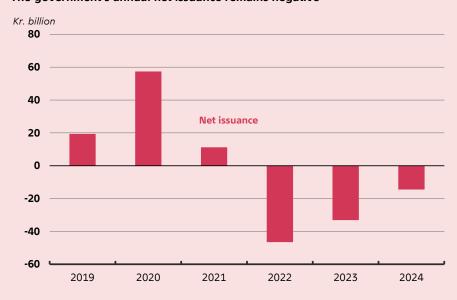
Source: Danmarks Nationalbank.

CHART 24

Buybacks can contribute to levelling out the government's repayment profile and take into account the outstanding amount of government securities. A condition for government activities in the secondary market is that the transactions can take place at fair market prices. This means that there is an appropriate correlation between the prices of government buyback securities and on-the-run securities.

The government repaid and bought back government bonds to a higher kroner value than it issued in 2024, resulting in a negative net issuance. Total buybacks and repayments from the state in 2024 amounted to kr. 104.2 billion, while the government issued a total of kr. 89.7 billion when exchange auctions are included. The government's net issuance in 2024 was thus kr. -14.5 billion, making 2024 the third consecutive year with negative net issuance, see chart 24.

The government's annual net issuance remains negative



Note: Net issuance is calculated as the sale of government bonds via auctions, tap and switch auctions less the central government's buying of bonds maturing outside the year via tap and switch auctions and redemption of bonds maturing within the year. Calculated at market value.

Source: Danmarks Nationalbank.

#### Supporting liquidity reduces trading costs

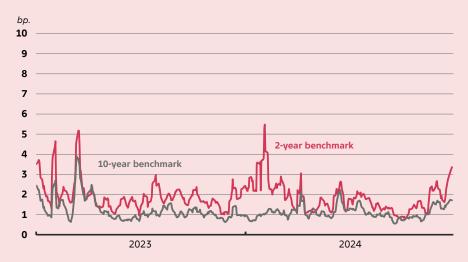
In a liquid market, all else being equal, trading costs are lower as it is easier for investors to execute trades. Government trading costs can be measured by the spread between buying and selling prices on the interdealer platform MTS Denmark.<sup>20</sup> By providing tradable prices on the platform, primary dealers give investors a clear price picture, which supports the demand for Danish government securities.

<sup>&</sup>lt;sup>20</sup> MTS Denmark is a trading platform for Danish government securities, including government bonds and T-bills. It is on this platform that the government and its primary dealers trade with each other in the secondary market.

In 2024, the spread was extended by 1 basis points in the 2-year maturity segment and stood at the end of the year at 3.36 basis points, while the spread in the 10-year maturity segment widened by 0.75 basis points and ended the year at 1.71 basis points, see chart 25. Within the year, there were significant fluctuations in the 2-year spread, mainly due to uncertainty about the development of short-term interest rates, but also partly due to a benchmark shift in connection with the opening of a new 2-year government bond.

CHART 25

Spreads between buying and selling prices in 2- and 10-year points end the year unchanged



Note: The bid-ask spread is calculated as a 5-day moving average of the difference between the best bid and ask prices for a given volume over 5 hours per day.

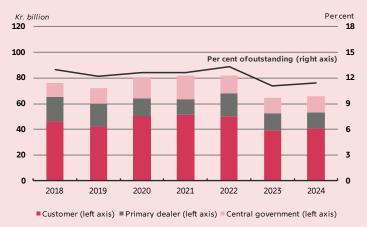
Source: MTS Denmark.

#### Slightly decreasing turnover at state primary dealers

The government's market maker scheme<sup>21</sup> is based on the primary dealers acting as a link between the state as issuer and investors. The average monthly customer turnover of the government's primary dealers in 2024 was approximately kr. 40.3 billion, cf. chart 26. This was on par with previously observed levels and also as a share of the outstanding amount of government bonds, there was a slight increase from 11.1 per cent to 11.4 per cent. Turnover for the government and other primary dealers was also at stable levels. The total revenue amounted to kr. 65.5 billion on a monthly average and was concentrated in the primary on-the-run securities, the 2-and 10-year point, which accounted for half of the turnover, cf. chart 27.

<sup>21</sup> State primary dealers are required to act as market-makers in Danish government securities to ensure a continuous market for trading in these securities. This is done by quoting bid and ask prices in Danish government bonds.

CHART 26
Slightly decreasing monthly turnover in Danish government bonds

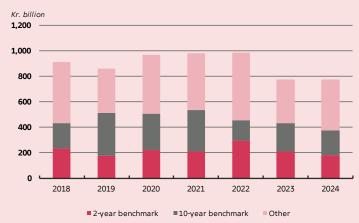


Note: The chart shows the average monthly turnover in Danish government bonds by buyer segment.

Source: HRF data, which is reported monthly by the government's primary dealers and contains information about their transactions in Danish government bonds broken down by counterparty type.

#### CHART 27

# Highest turnover in 2- and 10-year Danish government bonds



Note: The chart shows the annual turnover in Danish government bonds by maturity segment.

Source: HRF data, which is reported monthly by the government's primary dealers and contains information about their transactions in Danish government bonds broken down by counterparty type.

## 06

# Risk management

Risk management of central government debt is intended to ensure that borrowing takes place within an acceptable risk level and can generally be divided into three categories:

- Refinancing risk: Covers the risk of having to refinance debt at extraordinarily high interest rates or in extreme cases not being able to access financing.
- Liquidity risk: Covers the risk that the government cannot meet its financial obligations in the event of extraordinary expenses, lack of revenue or lack of access to financing.
- Market risk: Covers the risk of fluctuations in market prices such as interest rates and exchange rates.

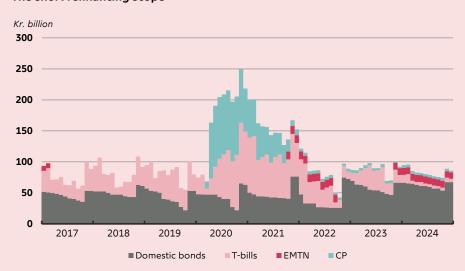
# Government refinancing risk remains low and liquidity risk is continuously monitored

Central government debt refinancing risk is the risk of having to issue debt at extraordinarily high interest rates or, in extreme cases, not being able to access the loan market. Refinancing risk will be high if large parts of government debt are due to mature at the same time. Central government debt management therefore focuses on spreading the maturity of government bond issues over time. Refinancing risk is highlighted in central government debt management by using the short-term refinancing volume, the maturity profile and the average remaining maturity of the debt.

The amount of existing debt to be refinanced within the next 12 months is monitored continuously and is defined here as the short-term refinancing volume. Chart 28 shows developments in the government's short-term refinancing volume over time. The short-term refinancing volume increased slightly in 2024, primarily due to ongoing buybacks of the government bond, DGB 0.00 per cent 2024, which matured on 15 November 2024. In addition, short-term government loan programmes account for a relatively small share of total debt, which also points towards a lower short-term refinancing volume. The increase towards the end of the year was a result of the fact that the government issue maturing in 2025 had less than a year to maturity at that time.

CHART 28

#### The short refinancing scope



Note: Each column shows the next 12 months maturity of domestic bonds, T-bills, foreign currency bonds, EMTN and commercial papers, CP.

Source: Danmarks Nationalbank.

In addition to the short-term refinancing volume, the average remaining maturity of government assets and liabilities is tracked over time, as shown in chart 29. The average remaining maturity serves as a summarising measure of the maturity profile of government issued bonds, where holdings in government funds and on-lending to state-owned companies are offset.<sup>22</sup> A high average maturity therefore means that the majority of government issues, less government funds and on-lending, mature further into the future. Conversely, a low average remaining maturity indicates that large parts of the debt are due in the near future, which means a higher refinancing risk.

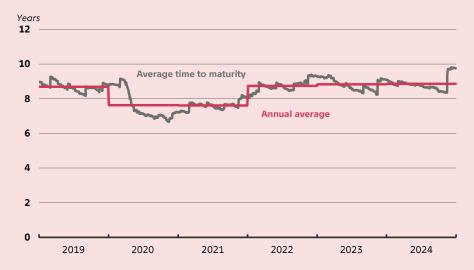
The average remaining maturity is mainly a result of the government's issuance strategy and the maturity of the on-lending companies' borrowing. The government's issuance strategy is primarily determined to ensure liquidity in the outstanding series of government bonds. The borrowing of on-lending companies will also be customised to their individual needs. Adjustments to the average remaining maturity are therefore made on an ongoing basis through repurchase and exchange operations, smoothing out the maturity of outstanding bonds.

As shown in chart 29, the average remaining maturity of government debt has remained relatively stable at around 8.9 years since the beginning of 2022. The increase towards the end of 2024 is due to the maturity of the government issue, DGB 0.00 per cent 2024, maturing on 15 November 2024.

<sup>&</sup>lt;sup>22</sup> The state's holdings of bonds for financing social housing are not offset, as the state pays benefit support on these. In a situation where the government had to refinance large parts of the debt at extraordinarily high interest rates, new bonds for financing social housing would not correspondingly result in higher interest income for the government due to the benefit subsidy.

CHART 29

Average time to maturity remains stable at the same level



Note: The average remaining time to maturity is calculated for domestic and foreign debt, government funds and on-lending to state-owned companies combined.

Source: Danmarks Nationalbank.

Refinancing risk is closely related to the liquidity risk of central government debt. Liquidity risk is the risk of not being able to fulfil financial obligations due to lack of market access or insufficient funds in the central government's account. By spreading the maturity profile of the government's issues and consolidating assets and liabilities, the likelihood of large liquidity drains from the central government's account on individual days is minimised.

In daily liquidity management, projections of central government's account are monitored to ensure that the government has the liquidity to cover expected payments. It also ensures that the central government's account contains a sufficient buffer to cover unexpected liquidity drains. The size of this buffer is continuously revised in line with developments in other central government debt.

In addition to such monitoring, the government has a solid liquidity contingency plan through the international money markets via the CP programmes. CP programmes enable the government to obtain large amounts of short-term liquidity during periods of extraordinary liquidity needs.

# Fluctuations in interest costs in interest rate rise scenarios represent a market risk for central government debt

A significant risk factor for central government debt is fluctuations in the interest rates at which the government can borrow. As government issues mainly consist of bonds with a fixed interest rate, changes in interest rates will be reflected as new debt is issued and old debt matures. For the government's short-term loan programmes and central government's account, there will be a direct impact of a change in interest rates on the total interest costs. As the central government's account is significantly larger than the current level of government short-term

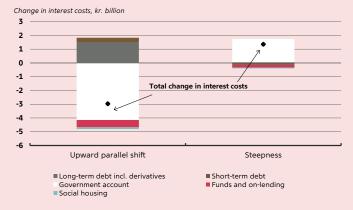
loan programmes, a higher short-term interest rate results in an interest income for the government. Therefore, an increase in short-term interest rates will lead to lower net interest costs for the government.

The government's net interest costs for 2025 are expected to fall by almost kr. 3 billion in a scenario where the yield curve is shifted parallel upwards by 2 percentage points, see chart 30. A higher interest rate level will have a direct effect on interest income on the central government's account and will only impact other debt as new debt is issued. Furthermore, higher interest income is realised on new on-lending at the higher interest rates, offset by increased financing costs for new on-lending. Interest income on assets will exceed interest expenses on liabilities overall, which means that net interest costs will decrease in the short term.

The government is most exposed in a scenario where the yield curve steepens, i.e. short-term interest rates fall while long-term interest rates rise. In that scenario, net interest costs are expected to increase by just over kr. 1 billion. Falling short-term interest rates reduce interest income on government account balances, and higher long-term interest rates increase the cost of issuing new debt. This effect is partly offset by the government's holdings of interest rate swaps, where the government typically pays a variable interest rate in exchange for a fixed interest rate. As the short-term interest rate falls in the scenario, the government's payments to the floating leg of the interest rate swap are reduced. Overall, however, the effects favour higher net interest costs for the government, primarily as a result of lower income on the account.

CHART 30

Scenarios for interest rate risk in 2025

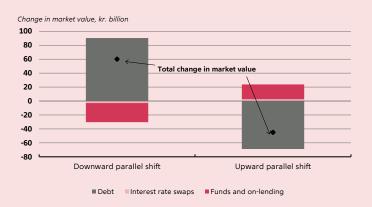


Note: Change in interest costs for 2025 in a scenario where the yield curve parallels upwards or steepens, i.e. short-term interest rates fall and long-term interest rates rise. The changes have been calculated in relation to the scenario in which the forward interest rate structure is realised. The interest rate scenarios are defined as in the European Banking Authority's guidelines for managing interest rate risk in the banking book, IRRBB.

Source: Danmarks Nationalbank.

CHART 31

Scenarios for market value fluctuations in 2025



Note: Change in the market value of government assets and liabilities in a scenario where the yield curve is parallel shifted downwards and a scenario where the yield curve is parallel shifted upwards. The changes in market value are calculated in relation to the scenario where the forward rate structure is realised. The interest rate scenarios are defined as in the European Banking Authority's guidelines for managing interest rate risk in the banking book, IRRBB.

Source: Danmarks Nationalbank.

# Fluctuations in the market value of central government debt are also a market risk

Fluctuations in market rates affect not only the government's interest costs, but also the market value of government debt already issued. Changes in the market value of the government's issued debt can be realised continuously through buybacks in the secondary market. Buybacks therefore result in ongoing capital gains/losses depending on the development of the general interest rate level.

A downward parallel shift in the yield curve of 2 percentage points would increase the market value of the government's issued debt by just over kr. 90 billion, see chart 31. Government assets in the form of on-lending and government funds will also increase in market value. However, those assets do not hedge the entire market value risk on the issued debt, which means that the government as a whole is negatively exposed to a fall in interest rates as it becomes more expensive to repurchase the debt.

In a scenario where the yield curve is parallel shifted upwards by 2 percentage points, the market value of the issued debt will fall by almost kr. 70 billion, although the change in market value is smaller than in a downward parallel shift of the same size. This is because the government's issues consist of fixed-rate bonds, where price sensitivity decreases as a function of the interest rate level.

#### BOX 2

#### Government use of interest rate swaps

There will usually be a trade-off between stabilising interest costs and the market value of a debt portfolio. If central government debt consisted entirely of long-term debt, interest costs would be locked in over a longer period of time, resulting in high interest rate stability. However, the market value of a long bond is more sensitive to changes in interest rates compared to a short bond, as there is a risk of locking in high interest rates if interest rates subsequently fall. Issuing a short bond instead would reduce fluctuations in the market value of the debt, which would come at the expense of stability in interest costs as the short bond needs to be refinanced more often.

As shown in the stylised representation in chart A, the government has more assets than liabilities with variable interest rates. This results in fluctuations in net interest costs, as a change in short-term interest rates has a direct effect on the central government's account and is only partially offset by a low outstanding balance in the government's short-term loan programmes, which is a liability.

To stabilise net interest costs, the government can use interest rate swaps, in which it pays a variable interest rate in exchange for a fixed long-term interest rate. Such an interest rate swap can be considered as the government owning a fixed rate bond and having issued a floating rate bond with the same maturity. The effect is that a proportion of the variable income on the central government's account is converted into fixed income during the term of the interest rate swap. The effect can also be understood by the fact that parts of the government's fixed-rate debt are converted into variable-rate debt, which hedges fluctuations in interest income in the central government's account when short-term interest rates fluctuated.

In addition to stabilising net interest costs, an interest rate swap also reduces fluctuations in the market value of the government's total assets and liabilities. In a scenario with a general decrease in interest rates, the market value of the government's issued debt will increase, causing the government to incur a capital loss in case of buybacks. An interest rate swap will also increase in value due to the fixed leg the government receives in the swap agreement, which helps to hedge part of the increase in value of the liabilities.

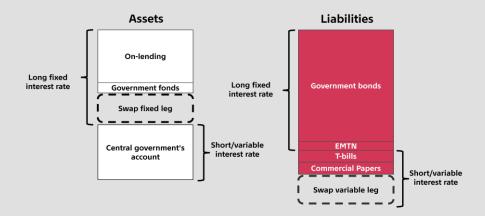
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Overall, interest rate swaps can help stabilise net interest costs, the market value of government assets and liabilities as a whole. As the government's debt portfolio consists of ever-increasing assets, it is necessary to manage the risk of both assets and liabilities together. Interest rate swaps make it possible to adjust the government's overall interest rate risk and the risk of fluctuations in market value without changing the government's issuance strategy or composition of the on-lending portfolio.

#### CHART A

#### Stylised presentation of government assets and liabilities



Note: In this instance, liabilities are understood as the government borrowing managed by Danmarks Nationalbank. Assets include on-lending to state-owned companies, holdings in government funds and deposits in central government's accounts. Government holdings of social housing bonds are not included on the asset side as the state bears the interest rate risk on these due to the benefit subsidy. The chart should not be understood as a balance sheet for central government debt, but simply a stylised representation of assets and liabilities. The items are not listed in exact proportions.

## 07

# On-lending and central government guarantees

Central government debt management administers on-lending and government guarantees to a number of state-owned companies. On-lending and government guarantees to state-owned companies are based on a political desire to secure cheaper financing for selected projects. Cheaper financing is achieved by the government assuming the risk of the companies' financial obligations, thereby utilising the its high credit rating. When providing guarantees, the government underwrites repayments by the companies to a given lender, where the company takes out loans directly from the government when on-lending, see box 3. Over the past 25 years or so, there has been focus on consolidating public debt through on-lending rather than issuing government guarantees in order to reduce overall public financing costs. This is because the government can issue debt at a lower interest rate than, for example, individual state-owned companies can with a government guarantee, as the government has the opportunity to build up larger and more liquid bond series.

At the end of 2024, on-lending volume was kr. 203.0 billion across 16 companies, see table 3, reflecting an increase of kr. 9.8 billion compared to the end of 2023. Government guarantees administered by Danmarks Nationalbank totalled kr. 6.9 billion at the end of 2024, see table 4, which is a decrease of kr. 0.8 billion compared to the end of 2023. On-lending to state-owned companies accounted for 35 per cent of total outstanding government bonds at the end of 2024, which is on par with 2023.

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#### On-lending to government-owned companies

Via on-lending, state-owned companies are legally allowed to take out loans directly from the state, where the loans are disbursed from the central government's account. The resulting increase in the government's financing needs is covered by issuing bonds. The companies pay interest and amortisations to the state corresponding to the terms of the government bonds. The companies pay an annual commission to the government when taking out on-lending, which generally corresponds to 0.15 per cent p.a.<sup>1</sup>

According to the Ministry of Finance's Budget Guide, when granting on-lending, the government must set aside funding corresponding to the expected loss from the individual on-lending, in addition to the government's interest costs from the on-lending. While interest costs are paid by the individual company, funding corresponding to the expected loss can be provided in the form of an annual commission from the individual company, funds set aside in the Finance Act or a combination of the same. In addition, the guide stipulates that when granting on-lending, a maximum loan limit must be set, as well as a borrowing and repayment period.

On-lending increases the government's borrowing needs because the on-loans are covered by increasing borrowing or by drawing on the central government's account. On-lending also increases central government debt because the asset (in the form of the government's claim on the on-lending counterparty) is not offset in the calculation of the government debt, see box 1 in chapter 2.

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Chart A

### The transaction flows between the three parties in on-lending



 $Note: Illustration \ of \ transactions \ in \ the \ government's \ on-lending \ model, \ which \ goes \ through \ Danmarks$ 

Nationalbank.

Source: Danmarks Nationalbank.

TABLE 3 On-lending in 2024

Kr. billion	Inventory, year-end 2023	Gross borrowings in 2024	Amortisations and prepayments in 2024	Inventory, year-end 2024
A/S Femern Landanlæg¹	23.1	8.2	1.0	29.2
A/S Storebæltsforbindelsen	17.2	1.5	1.8	16.9
A/S Øresundsforbindelsen	12.9	2.4	2.8	12.5
DR	2.6	0.6	0.5	2.7
Denmark's Export and Investment Fund <sup>2</sup>	35.2	7.6	10.1	32.6
Denmark's Green Future Fund	0.7	0.1	-	0.7
Energinet	34.8	7.7	5.5	37.1
Evida Holding A/S	2.5	-	-	2.5
Femern Bælt A/S	7.2	-	-	7.2
Hovedstadens Letbane I/S	4.9	1.6	0.3	6.2
Investment Fund for Developing Countries	0.8	0.1	-	0.9
Greenland Airports International A/S	0.8	1.0	0.3	1.1
Metroselskabet I/S	31.1	2.9	1.7	32.3
Naviair	0.5	-	-	0.5
Scandinavian Airlines System	1.1	-	1.1	-
Sund & Bælt Holding A/S	0.5	0.5	0.5	0.5
Udviklingsselskabet By & Havn I/S	17.4	5.2	2.8	20.3
Total	193.2	39.5	28.5	203.0

The portfolios of on-lending are stated at nominal value, while gross borrowings, amortisations Note: and prepayments are stated at market value.

 $<sup>^{1}</sup>$  Executive Order on the Act on Authorisation to Take Out Government Loans, section 2(3).

 $<sup>^1</sup>$  On-lending to A/S Femern Landanlæg is calculated without on-lending taken out on pay date.  $^2$  The figures for the former state on-lending companies Denmark's Green Investment Fund, EKF Denmark's Export Credit Agency and the Danish Growth Fund have been added to the Danish Export and Investment Fund.

TABLE 4

Loan guarantees managed by

Danmarks Nationalbank on behalf of the central government

End of 2024	Kr. million
A/S Femern Landanlæg	1,354
A/S Storebæltsforbindelsen	929
A/S Øresund	886
DR	436
DSB	123
Femern Bælt A/S	30
Garantifonden for skadesforsikringsselskaber	150
Greenland Airports International A/S	450
Øresundsbro Konsortiet I/S	2,535
Total	6,894

Note: Figures include government-guaranteed swaps.

Source: Reports from the companies.

# 08

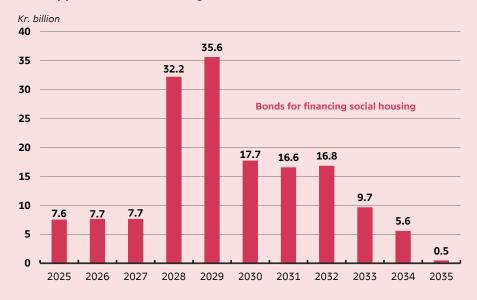
# Social housing

The financing model for social housing was reorganised in 2018 so that the government buys government-guaranteed mortgage bonds to finance social housing (social housing bonds). This results in cheaper financing of social housing, as the interest rate on loans for social housing reflects the government's financing costs rather than those of mortgage credit institutions. All else being equal, the interest savings reduce the subsidy that the government provides for social housing loan payments, as the government bears the interest rate risk on the loan payments in the financing model. The purchases have also increased the government's issuance needs and thereby supported liquidity in central government debt market.

The government purchased social housing bonds worth kr. 2.9 billion at nominal value in 2024. This brings the total holding to kr. 157.6 billion, which corresponds to approximately 28 per cent of the total outstanding government bonds. The government is expected to buy kr. 13.4 billion worth of social housing bonds in 2025, and that the maturity of social housing bonds will be kr. 7.6 billion, see chart 32.

CHART 32

Maturity profile for social housing bonds



Note: Maturity size of the government's purchased social housing bonds per year, stated at nominal value.

Source: Danmarks Nationalbank.

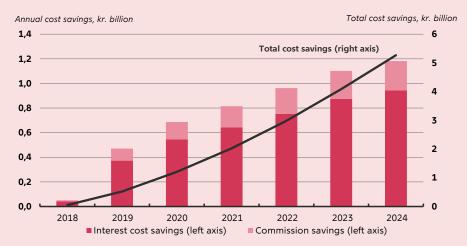
# Government funding of social housing is estimated to have resulted in total cost savings of around kr. 5.3 billion since 2018

The government's total savings from the transition to the current funding model for social housing are estimated to have totalled kr. 5.3 billion since 2018 and

will continue going forward. The largest part of the cost savings can be attributed to interest cost savings as a result of social housing being financed at government yield rather than mortgage rates. This reduces the government's annual expenditure on social housing benefits, all else being equal. The cost savings depend on the outstanding debt and the yield spread between mortgage and government yield.

As a result of the financing model, the state also receives income in the form of guarantee commissions that mortgage credit institutions pay for the government guarantee on loans for social housing. Revenue from guaranteed commissions totalled kr. 1.1 billion between 2018-2024. The municipalities re-guarantee the risky part of the government-guaranteed loans to the government, and there are various schemes for providing operating subsidies for troubled social housing associations apart from the support provided by the government. This means that the government's risk-taking is minimally affected by the purchases of social housing bonds.

CHART 33
As the scheme has been phased-in, annual cost savings have increased, leading to a total cost saving of approximately kr. 5.3 billion in 2018-2024



Note: Annual and total interest and commission savings for the government when buying social housing bonds. Interest savings are estimated as the yield spread between a mortgage and government yield curve multiplied by the nominal value of the outstanding loans. The estimate is per transaction, but here it is calculated on a summarised annual basis. Commission income corresponds to the annual accounting figures for section 37.62.01.30 in the central government's accounts.

Source: Danmarks Nationalbank, Nordea Analytics and the Danish Authority of Social Services and Housing.

# 09

# **Government funds**

On behalf of the government, Danmarks Nationalbank is responsible for the administration of the funds in the government funds Innovation Fund Denmark and the Fund for Better Working Environment and Labour Retention. The assets of the two funds are offset in the calculation of central government debt and are managed together with the central government's other financial assets and liabilities under the central government debt area.

### **Innovation Fund Denmark**

Assets in Innovation Fund Denmark totalled kr. 12.2 billion at the end of 2024, see table 6. Of these, 99.7 per cent of the assets are invested in Danish government bonds, while the remaining funds are held in the central government's account. Throughout 2024, the fund's assets were approximately equally invested in short-, medium- and long-term Danish government bonds, which has been the strategy for investing the fund's assets. From 2025, the strategy for investing the fund's assets will change so that the portfolio will be managed according to a fixed interval for average remaining maturity. This strategy adjustment has been made to create more flexibility in the choice of buying and selling securities. The expected return from the fund will not change due to the adjustment. Kr. 400 million was transferred to the Ministry of Higher Education and Science in 2024, mainly for new initiatives that promote growth and job creation, see table 5.

As part of its ongoing efforts to ensure a well-functioning central government debt market, Innovation Fund Denmark extraordinarily chose to sell a share of its holding of DGB 7.00 per cent 2024 to the market during 2024. This was due to the fact that a high proportion of the remaining outstanding amount, which expired in 2024, was placed on the fund's balance sheet. This allowed the fund to facilitate market access to the bond towards maturity.

### **Fund for Better Working Environment and Labour Retention**

Assets in the Fund for Better Working Environment and Labour Retention totalled kr. 0.7 billion at the end of 2024. For most of 2024, the assets in the fund have been invested in government bonds maturing within the year. At the end of 2024, all of the fund's assets were invested in the government's shortest bond, DGB 1.75 per cent 2025. There were no transfers from the fund in 2024.

TABLE 5
Income and expenses for the funds in 2024

Kr. million	Innovation Fund Denmark	Fund for Better Working Environment and Labour Retention
Revenue		
Interest, etc.	-59	21
Expenses		
Transfer to Ministry	400	-
Difference		
Net income	-459	21

Note: Net statement of interest received, interest receivable and distributed capital losses on buy-backs. Source: Danmarks Nationalbank.

TABLE 6
Government fund assets at the end of 2024

	Innovation Fu	und Denmark	Fund for Better Working Environment and Labour Retention		
	Nominal value, kr. billion	Share of total, per cent	Nominal value, kr. billion	Share of total, per cent	
DGB 1.75 per cent 2025	1.3	10.9	0.7	100.0	
DGB 0.50 per cent 2027	2.6	21.1	-	-	
DGB 0.50 per cent 2029	3.1	25.0	-	-	
DGB 0.00 per cent 2031	2.5	20.1	-	-	
DGB 4.50 per cent 2039	2.8	22.7	-	-	
Government bonds, total	12.2	99.7	0.7	100.0	
Account balance	0.0	0.3	0.0	0.0	
Total assets	12.2		0.7		

Note: The funds' ownership shares may not add up to totals due to rounding. Specifying '0.0' instead of '-' refers to the fact that there is an insignificantly small amount that cannot be seen after

rounding.

# 10

# **Appended tables**

### APPENDIX TABLE A1

### Central government debt end 2014 to 2024 (continued on next page)

Kr. million	2014	2015	2016	2017	2018
A. Loans					
Domestic loans					
- bonds, nominal fixed-rate	637,617	584,356	572,020	570,222	543,732
- bonds, inflation-indexed <sup>1</sup>	35,531	35,667	38,193	38,765	43,897
- fishery bank bonds	507	424	343	272	200
- T-bills	29,800	29,840	27,180	32,740	30,400
- currency swaps from kroner to euro² (net)	-	-	-	-	-
- currency swaps from DKK to USD	-5,215	-4,067	-2,942	-1,872	-1,022
Total domestic debt	698,240	646,220	634,794	640,127	617,207
Foreign loans <sup>3</sup>					
- in USD	5,778	5,047	3,795	2,152	1,244
- in EUR	53,207	28,223	8,044	-	-
- in other currencies and multiple currencies	-	-	-	-	-
Total foreign debt	58,986	33,270	11,839	2,152	1,244
Total domestic and foreign debt	757,225	679,490	646,633	642,279	618,450
B. Collateral for swaps <sup>4</sup>	3,804	2,859	1,610	1,005	690
C. Deposits at Danmarks Nationalbank <sup>5</sup>	-213,099	-157,376	-110,928	-134,689	-111,674
D. DSP, the Fund for Better Working Environment and Labour Retention and Innovation Fund Denmark					
- government securities	-64,825	-62,399	-63,233	-52,084	-48,454
- other securities	-25,259	-17,172	-8,834	-7,432	-1,675
Total for the three funds	-90,084	-79,571	-72,067	-59,516	-50,129
E. Bonds for financing social housing	-	-	-	-	-30,298
Total central government debt (A+B+C+D+E)	457,846	445,402	465,249	449,079	427,039
Total central government debt in per cent of GDP	23.1	21.9	22.1	20.5	19.0

<sup>&</sup>lt;sup>1</sup> Index-linked bonds are recognised at indexed value at year-end.

Note: Positive values indicate a liability, while negative values indicate an asset.

 $<sup>^{\</sup>rm 2}$  Currency swaps from kroner to euro less currency swaps from euro to kroner.

 $<sup>\</sup>ensuremath{^{3}}$  Foreign loans are recognised by final exposure.

<sup>&</sup>lt;sup>4</sup> Cash collateral for the market value of the central government's swaps. Net collateral received from counterparties.

<sup>&</sup>lt;sup>5</sup> Deposits are calculated including the account deposits of government funds. The central government's account is calculated according to Danmarks Nationalbank's monthly balance sheet.

APPENDIX TABLE A1

### Central government debt at the end of 2014 to 2024 (continued)

Kr. million	2019	2020	2021	2022	2023	2024
A. Loans						
Domestic loans						
- bonds, nominal fixed-rate	543,075	597,153	602,728	561,722	549,493	530,228
- bonds, inflation-indexed¹	44,957	44,223	47,602	55,318	35,243	42,068
- fishery bank bonds	129	108	86	65	43	22
- T-bills	23,980	83,180	54,200	11,820	12,400	5,400
- currency swaps from kroner to euro² (net)	-	-	-	-	-	-
- currency swaps from DKK to USD	-400	-67	-	-	-	-
Total domestic debt	611,741	724,596	704,616	628,925	597,179	577,718
Foreign loans <sup>3</sup>						
- in USD	497	71	-	-	-	-
- in EUR	-	82,132	22,012	15,668	24,044	20,411
- in other currencies and multiple currencies	-	-	-	-	-	-
Total foreign debt	497	82,202	22,012	15,668	24,044	20,411
Total domestic and foreign debt	612,239	806,798	726,628	644,593	621,223	598,129
B. Collateral for swaps <sup>4</sup>	267	-370	573	279	517	1,178
C. Deposits at Danmarks Nationalbank <sup>5</sup>	-70,411	-136,875	-151,533	-161,779	-160,461	-211,735
D. DSP, the Fund for Better Working Environment and Labour Retention and Innovation Fund Denmark						
- government securities	-32,267	-25,851	-12,555	-12,665	-12,310	-12,897
- other securities	-1,675	-	-	-	-	-
Total for the three funds	-33,942	-25,851	-12,555	-12,665	-12,310	-12,897
E. Bonds for financing social housing	-86,784	-107,689	-124,960	-147,525	-154,707	-157,588
Total central government debt (A+B+C+D+E)	421,368	536,014	438,153	322,903	294,262	217,087
Total central government debt in per cent of GDP	18.2	23.1	17.5	11.9	10.5	7.4

 $<sup>^{\</sup>rm 1}\,{\rm Index\text{-}linked}$  bonds are recognised at indexed value at year-end.

Note: Positive values indicate a liability, while negative values indicate an asset.

 $<sup>^{\</sup>rm 2}$  Currency swaps from kroner to euro less currency swaps from euro to kroner.

<sup>&</sup>lt;sup>3</sup> Foreign loans are recognised by final exposure.

<sup>&</sup>lt;sup>4</sup> Cash collateral for the market value of the central government's swaps. Net collateral received from counterparties.

<sup>&</sup>lt;sup>5</sup> Deposits are calculated including the account deposits of government funds. The central government's account is calculated according to Danmarks Nationalbank's monthly balance sheet.

### APPENDIX TABLE A2

### Government funding needs 2022-24

Kr. billion	2022	2023	2024
Operating, capital expenditure and lending budget	186.1	108.3	NA.
On-lending etc.	-7.5	-24.8	NA.
Allocated issue tax losses and interest payable <sup>1</sup>	2.7	-4.6	NA.
Other capital items <sup>2</sup>	-52.5	-50.0	NA.
Net cash balance	128.7	28.9	78.0
Net financing requirement (= net cash balance)	-128.7	-28.9	-78.0
Repayment of long-term domestic government debt <sup>3</sup>	143.2	113.6	102.7
Amortisation of T-bills <sup>4</sup>	54.2	11.8	12.4
Domestic financing requirement <sup>5</sup>	68.7	96.5	37.1
Repayment of long-term foreign government debt <sup>6</sup>	12.6	0.0	10.7
Amortisations on commercial papers <sup>4</sup>	9.4	4.5	2.4
Financing requirement	90.7	101.0	50.3

<sup>&</sup>lt;sup>1</sup> Incl. buyback price loss.

Source: The Central Government Accounts. 2024 is based on Danmarks Nationalbank's year-end statement, which may differ from accounting figures.

 $<sup>^{2}</sup>$  Includes central government's holding movements, cf. the Ministry of Finance's budget summaries.

<sup>&</sup>lt;sup>3</sup> Including net purchases of bonds from government funds, change in collateral for swaps and purchase of bonds to finance social housing.

<sup>&</sup>lt;sup>4</sup> Corresponds to the outstanding balance at the end of the previous year.

<sup>&</sup>lt;sup>5</sup> May deviate from actual domestic funding requirement, e.g. due to foreign on-lending.

<sup>&</sup>lt;sup>6</sup> Incl. net payments on currency swaps.

APPENDIX TABLE A3 Interest payments on central government debt 2017-24

Kr. billion	2017	2018	2019	2020	2021	2022	2023	2024
Domestic debt	18.5	15.6	14.2	17.1	15.1	9.3	3.0	6.0
Foreign debt	0.0	-0.1	-0.1	-0.6	-0.4	-0.1	0.4	0.8
Central government's account at Danmarks Nationalbank	0.2	0.8	0.5	0.6	0.5	0.1	-4.8	-6.6
Government funds	-1.5	-1.2	-1.4	-0.9	-0.3	0.0	0.0	0.0
Bonds for financing social housing	0.0	0.0	0.0	0.1	0.2	0.1	-0.3	-0.6
Central government debt	17.1	15.1	13.2	16.3	15.1	9.4	-1.7	-0.3
Central government debt, per cent of GDP	0.8	0.7	0.6	0.7	0.6	0.33	-0.06	0.0
Government on-lending	-2.0	-1.5	-1.4	-1.3	-1.1	-1.1	-1.6	-2.2
Central government debt, adjusted for on-lending	15.2	13.6	11.8	15.1	14.0	8.3	-3.3	-2.5
Central government debt, adjusted for on-lending, per cent of GDP	0.7	0.6	0.5	0.6	0.5	0.29	-0.12	-0.1

Note: A positive sign indicates an interest expense, while a negative sign indicates an interest income. Specifying '0.0' instead of '-'

refers to the fact that there is an insignificantly small amount that cannot be seen after rounding.

Source: Central government accounts and Economic Report, December 2024. Figures for 2024 are preliminary from the government's accounting.

### APPENDIX TABLE A4

### **Government domestic borrowing 2024**

ISIN Code	Nominal interest rate, per cent.	Title	Opened	Last pay date	Amount issued, nominal, DKK million	Amount issued, market value, DKK million.
Government bonds						
DK0009923138	1.75	DGB 1.75 per cent 2025	23 May 2014	15 Nov 2025	2,300	2,264
DK0009924888	2.25	DGB 2.25 per cent 2026	7 Feb 2024	15 Nov 2026	30,195	30,020
DK0009924532	2.25	DGB 2.25 per cent 2033	8 Feb 2023	15 Nov 2033	36,675	36,608
DK0009924615	2.25	DGB 2.25 per cent 2033G	26 Sep 2023	15 Nov 2033	8,135	8,112
DK0009924458	0,10	DGBi 0.10 per cent 2034	14 Sep 2022	15 Nov 2034	5,530	5,861
DK0009924029	0.25	DGB 0.25 per cent 2052	1 Apr 2020	15 Nov 2052	7,220	4,098
Total government bon	ds				90,055	86,963
T-bills						
DK0009819237	0.00	DGTB 2024 / I	30 Aug 2023	1 Mar 2024	260	259
DK0009819310	0.00	DGTB 2024 / II	29 Nov 2023	3 Jun 2024	2,460	2,439
DK0009819583	0.00	DGTB 2024 / III	28 Feb 2024	3 Sep 2024	2,680	2,649
DK0009819666	0.00	DGTB 2024 / IV	30 May 2024	2 Dec 2024	2,740	2,708
DK0009819740	0.00	DGTB 25 / I	30 Aug 2024	3 Mar 2025	3,580	3,544
DK0009819823	0.00	DGTB 25 / II	28 Nov 2024	2 Jun 2025	1,820	1,801
Total T-bills					13,540	13,400
Total domestic borrow	ring				103,595	100,363

Note: Issues in connection with switches are included.

APPENDIX TABLE A5.1

### Domestic government loans end of 2024

Kr. million	Outstanding at year-end 2023	Issues 2024	Amortisation s 2024	Outstanding at year-end 2024	Last pay date	ISIN Code
Fixed-rate government bond lo	ans					
Bullet loan						
DGB 7.00 per cent 2024	2,897	-	2,897	-	10 Nov 2024	DK0009918138
DGB 0.00 per cent 2024	63,485	-	63,485	-	15 Nov 2024	DK0009924292
DGB 1.75 per cent 2025	68,300	2,300	3,345	67,255	15 Nov 2025	DK0009923138
DGB 2.25 per cent 2026	-	30,195	-	30,195	15 Nov 2026	DK0009924888
DGB 0.50 per cent 2027	64,300	-	8,367	55,933	15 Nov 2027	DK0009923567
DGB 0.50 per cent 2029	55,900	-	4,650	51,250	15 Nov 2029	DK0009923807
DGB 0.00 per cent 2031	66,690	-	18,350	48,340	15 Nov 2031	DK0009924102
DGB 0.00 per cent 2031G	16,240	-	-	16,240	15 Nov 2031	DK0009924375
DGB 2.25 per cent 2033	36,185	36,675	-	72,860	15 Nov 2033	DK0009924532
DGB 2.25 per cent 2033G	10,030	8,135	-	18,165	15 Nov 2033	DK0009924615
DGB 4.50 per cent 2039	105,590	-	2,696	102,894	15 Nov 2039	DK0009922320
DGB 0.25 per cent 2052	59,875	7,220	-	67,095	15 Nov 2052	DK0009924029
Inflation-indexed bullet loans <sup>1</sup>						
DGBi 0.10 per cent 2030	21,306	-	-	21,648	15 Nov 2030	DK0009923724
DGBi 0.10 per cent 2034	13,937	6,191	-	20,420	15 Nov 2034	DK0009924458
Unamortisable						
5 per cent Danish-Icelandic Fund 1918	1	-	-	1	-	-
Total fixed-rate government bond loans	585,370	90,716	103,790	572,296		
T-bills						
DGTB 2024 / I	11,260	260	11,520	-	1 Mar 2024	DK0009819237
DGTB 2024 / II	1,140	2,460	3,600	-	3 Jun 2024	DK0009819310
DGTB 2024 / III	-	2,680	2,680	-	3 Sep 2024	DK0009819583
DGTB 2024 / IV	-	2,740	2,740	-	2 Dec 2024	DK0009819666
DGTB 2025 / I	-	3,580	-	3,580	3 Mar 2025	DK0009819740
DGTB 2025 / II	-	1,820	-	1,820	2 Jun 2025	DK0009819823
Total T-bills	12,400	13,540	20,540	5,400		
Fishery bank bonds						
5 per cent fishery bank bond 2025	43	-	22	22	1 Nov 2025	DK0009604894
Total domestic debt	597,813	104,256	124,351	577,718		

 $<sup>^1</sup>$  Issues in the index-linked bond are calculated including indexation on the issue/redemption dates. Outstanding amounts in the index-linked bond at year-end are calculated at indexed nominal value.

### APPENDIX TABLE A5.2

### Foreign government loans end of 2024

		Nominal interest rate, per cent.	ISIN Code	Last pay date	Outstanding amount, kr. million.
Loans					
2023/2025	Dollar Ioans	5.00	XS2717986876	14 Nov 2025	10,714
2024/2026	Euro Ioans	2.25	XS2911156326	2 Oct 2025	7,460
2023/2025	swap from dollar				-5,357
2023/2025	swap from dollar				-5,357
2023/2025	swap to euro	ESTR + 2.85bp			5,235
2023/2025	swap to euro	ESTR + 3.00bp			5,235
Total loans					17,931
Commercial papers					
The ECP programme					2,500
- Issues in EUR					-
- Issues in USD					2,500
USCP programme in USD					-
Currency forward contracts					-19
Total CP outstanding					2,481
Total foreign debt					20,411

Note: The outstanding amount as of 31 December 2024 has been converted to kroner at the following exchange rates as of 30 December 2024: EUR/DKK 746.00 and USD/DKK 714.29.

### APPENDIX TABLE A6

### Government portfolio interest rate swaps, end 2024

	DKK interest swaps	EUR interest swaps		
Expiry year	Net exposure, DKK million	Net exposure, EUR million	Net exposure, DKK million	
2025	3,000	250	1,865	
2026	1,650	-650	-4,849	
2027	2,150	925	6,901	
2028	600	-	-	
2029	3,800	-	-	
2031	750	200	1,492	
2032	-	650	4,849	
2033	-	50	373	
2034	7,550	-	-	
Interest rate swaps in total	19,500	1,425	10,631	

Note: Net exposure is calculated as the difference in principal between interest rate swaps where the central government receives a fixed interest rate and interest rate swaps where the central government pays a fixed interest rate.

APPENDIX TABLE A7

On-lending and government guarantees administered by Danmarks Nationalbank 2019-24

Kr. million	2019	2020	2021	2022	2023	2024
On-lending						
A/S Femern Landanlæg	3,900	5,400	11,220	14,250	23,110	29,160
A/S Storebæltsforbindelsen	17,271	18,286	18,219	17,948	17,178	16,916
A/S Øresundsforbindelsen	10,722	10,772	11,122	12,022	12,872	12,460
DR	2,902	2,801	2,801	2,599	2,609	2,710
Denmark's Export and Investment Fund <sup>1</sup>	9,808	10,265	16,527	23,937	35,234	32,629
Denmark's Green Future Fund	-	-	130	454	651	741
Danmarks Skibskredit A/S²	889	347	161	73	-	-
Energinet	28,724	31,037	29,466	31,635	34,800	37,060
Evida Holding A/S	-	-	2,499	2,499	2,499	2,499
Femern Bælt A/S	11,750	11,750	7,180	7,180	7,180	7,180
Fjordforbindelsen Frederikssund	750	780	780	-	-	-
Hovedstadens Letbane I/S	1,100	1,300	1,900	2,300	4,900	6,200
Investment Fund for Developing Countries	142	188	264	426	812	869
Greenland Airports International A/S	-	-	249	634	784	1,050
Metroselskabet I/S	29,440	31,940	31,990	31,810	31,060	32,260
Naviair	-	-	500	500	500	500
Nordsøfonden (Danish national oil and gas company)	-	500	1,000	-	-	-
Scandinavian Airlines System	-	-	-	1,088	1,088	-
Sund & Bælt Holding A/S	650	650	650	300	500	500
Udviklingsselskabet By & Havn I/S	12,700	12,300	12,500	14,800	17,400	20,250
Total on-lending	130,748	138,315	149,158	164,454	193,178	202,983
Guarantees						
A/S Femern Landanlæg	22	55	86	1,215	1,308	1,354
A/S Storebæltsforbindelsen	2,285	1,023	828	1,166	877	929
A/S Øresundsforbindelsen	439	465	528	804	808	886
DR	436	436	436	436	436	436
DSB	749	286	245	205	164	123
Femern Bælt A/S	-	-	-	-	-	30
Fjordforbindelsen Frederikssund	-	2	27	-	-	-
Garantifonden for skadesforsikringsselskaber	534	761	746	245	23	150
Greenland Airports International A/S	-	73	-	-	450	450
Øresundsbro Konsortiet I/S	11,976	8,039	6,767	5,755	3,594	2,535
Total guarantees	16,442	11,141	9,664	9,826	7,660	6,894

<sup>&</sup>lt;sup>1</sup> On-lending in USD to Danmarks Skibskredit A/S is translated into DKK at the year-end exchange rate.

Note: Statement of guarantees includes guaranteed swaps. Loans based on index-linked bonds are recognised at nominal indexed value.

<sup>&</sup>lt;sup>2</sup> The figures for the former government on-lending companies Denmark's Green Investment Fund, EKF Denmark's Export Credit Agencyand the Danish Growth Fundhave been added to the Denmark's Export and Investment Fund.

APPENDIX TABLE A8

Government buybacks and funds' net purchases of government bonds from the market in 2024

Kr. million, market value	Central government	Fund for Better Working Environment and Labour Retention	Innovation Fund Denmark	Purchases from the market in total	Of which in connection with switches
DGB 7.00 per cent 2027	356	-	-657	-301	-
DGB 0.00 per cent 2024	12,310	713	-	13,023	-
DGB 1.75 per cent 2025	3,335	732	-732	3,335	2,341
DGB 0.50 per cent 2027	7,850	-	-1,089	6,760	4,870
DGB 0.50 per cent 2029	4,219	-	280	4,499	3,854
DGB 0.00 per cent 2031	15,661	-	1,059	16,720	12,107
DGB 4.50 per cent 2039	3,378	-	1,689	5,067	2,657
Total	47,108	1,445	550	49,103	25,829

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