Danmarks Nationalbank

Danish Government Borrowing and Debt

2007

DANISH GOVERNMENT BORROWING AND DEBT 2007
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Explanation of symbols
- Magnitude nil
0 Less than one half of unit employed
• Category not applicable
In tables figures may not add because of rounding.

This publication is based on information available up to 31 January 2008.

This publication is a translation of "Statens låntagning og gæld 2007".

Contents

Highlights of Government Debt Policy

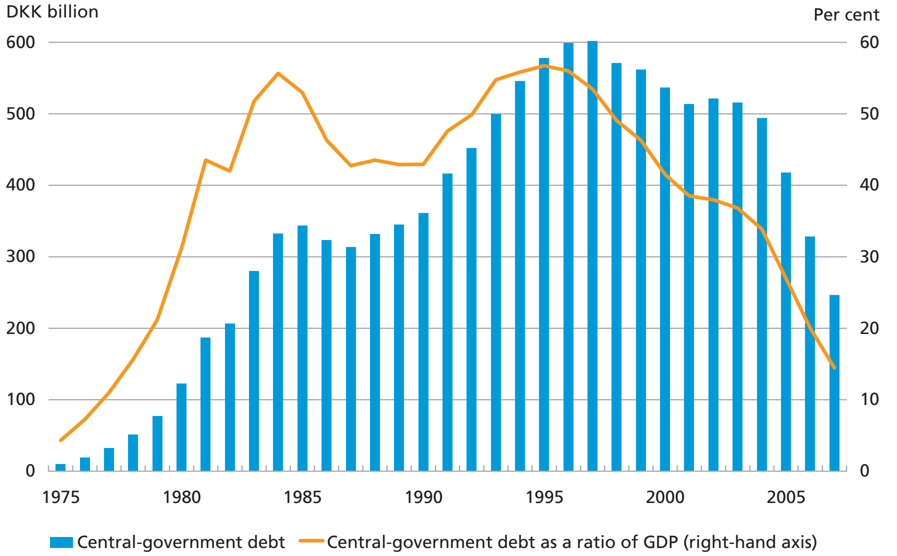
In view of the expected central-government surpluses in the years to come, Government Debt Management has published the report *Government Debt Policy in the Light of Falling Debt* at the back of this publication. The future perspectives of the market for Danish government securities are analysed in this report, given the objectives of:

- covering the central-government financing requirement at the lowest possible long-term borrowing costs, while taking the degree of risk into account;
- facilitating the central government's access to the financial markets in the longer term and supporting a well-functioning domestic financial market.

GOVERNMENT DEBT POLICY IN THE LIGHT OF FALLING DEBT

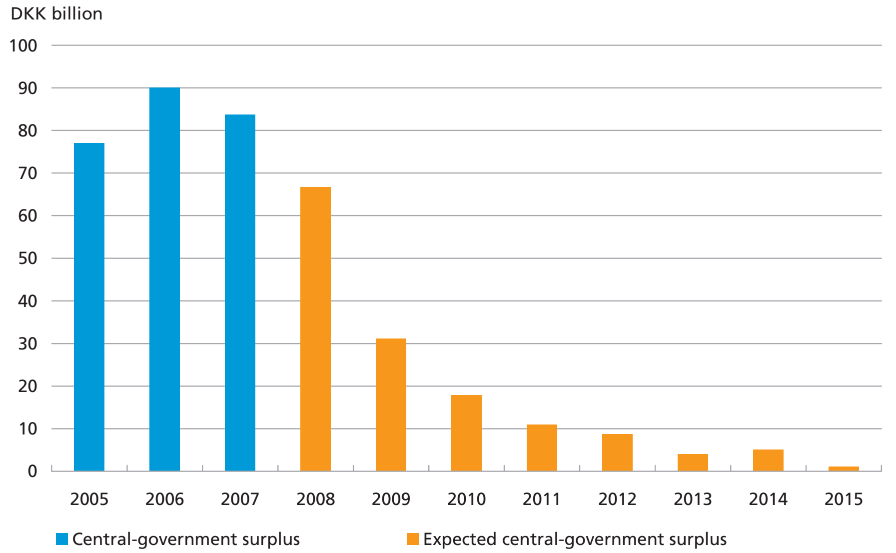
The government debt has been reduced from approximately DKK 600 billion in 1997 to approximately DKK 250 billion in 2007 as a result of central-government surpluses for the last decade, cf. Chart 1. Govern-

DEVELOPMENT IN CENTRAL-GOVERNMENT DEBT Chart 1



Note: The government debt has been calculated including government funds as from 1982.

CENTRAL-GOVERNMENT SURPLUS, 2005-15 Chart 2



Note: The surplus in 2008 is based on *Budget Outlook 1*, February 2008. The surpluses in 2009-15 are based on the Danish government's report *Towards New Goals – Denmark 2015*. The surplus measure applied is the net cash balance.

ment debt was approximately DKK 115,000 per capita in 1997 against approximately DKK 45,000 per capita in 2007.

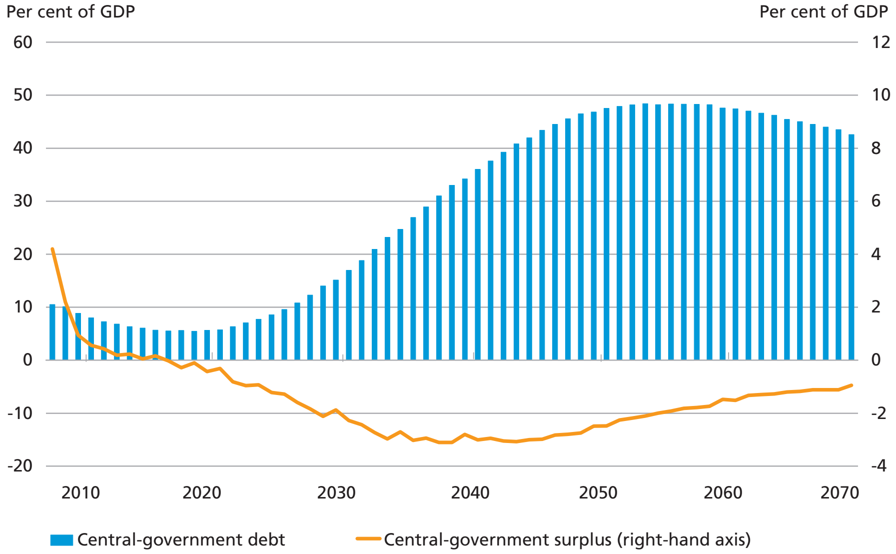
According to the Danish government's report *Towards New Goals – Denmark 2015*[1] (the 2015 plan), central-government surpluses are envisaged in the coming years, although they are expected to fall towards 2015, cf. Chart 2.

On the basis of the projection of central-government surpluses in the 2015 plan there will still be a need to issue government bonds due to maturing government securities. The annual borrowing requirement is expected to average around DKK 30 billion in the period 2008-15.

According to the government's long-term projection, government surpluses will cease as from 2015, and the borrowing requirement will increase again, cf. Chart 3. Consequently, there are no indications that the issuance of government securities can be suspended. Closing the market for government securities is only an option in the event of a prolonged period with considerably higher surpluses than those envisaged in the 2015 plan.

[1] *Mod nye mål – Danmark 2015*, the Danish government, August 2007. In Danish only.

CENTRAL-GOVERNMENT DEBT AND SURPLUS, 2008-70 Chart 3



Source: The Danish government's report *Towards New Goals – Denmark 2015*.

ISSUANCE STRATEGY FOR THE COMING YEARS

In connection with the preparation of *Government Debt Policy in the Light of Falling Debt*, key participants in the market for Danish government securities were consulted, including primary dealers and other market participants. The central government's primary dealers have indicated that the outstanding volume in 10-year government bonds should be large enough to ensure liquidity and continued trading on the international electronic platforms.

The annual borrowing requirement in government bonds is expected to be around DKK 30 billion in the coming years. The issuance strategy is as follows:

- To open a new 10-year government bond series approximately every second year and build it up to a final outstanding volume of around DKK 50 billion.

Should the central-government surplus be larger than expected for a period, it would be an advantage to maintain the central government's issuance programme to facilitate the government's access to the financial market in the longer term. The report concludes that re-establishment of the market for government securities entails considerable costs. It is estimated that in the start-up phase the central government will borrow at an interest rate that is approximately 30 basis points higher than under an established borrowing programme. The primary reasons are that a new borrowing programme will not be liquid from the outset and that it takes time to build up the framework to support a well-functioning market.

Government securities may support a well-functioning domestic financial market. The report shows that, in normal circumstances, this can be ensured by other types of financial instruments as well, but in periods of turmoil in the financial markets, the absence of government securities could mean that the financial market functions less efficiently.

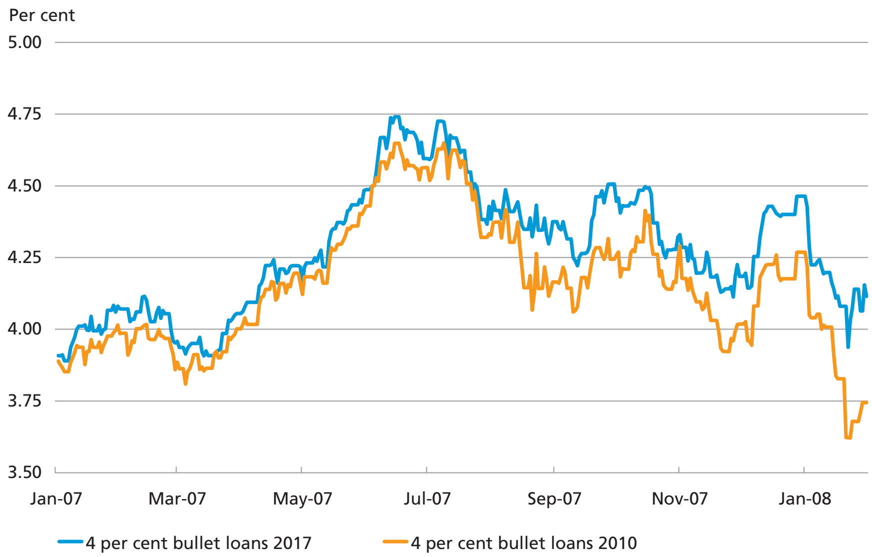
In the event of a larger than expected borrowing requirement over a prolonged period, the issuance strategy may be adjusted, e.g. by building up the securities to a higher outstanding volume or opening additional series of government securities.

The strategy set out in *Government Debt Policy in the Light of Falling Debt* will be reviewed after 3-4 years.

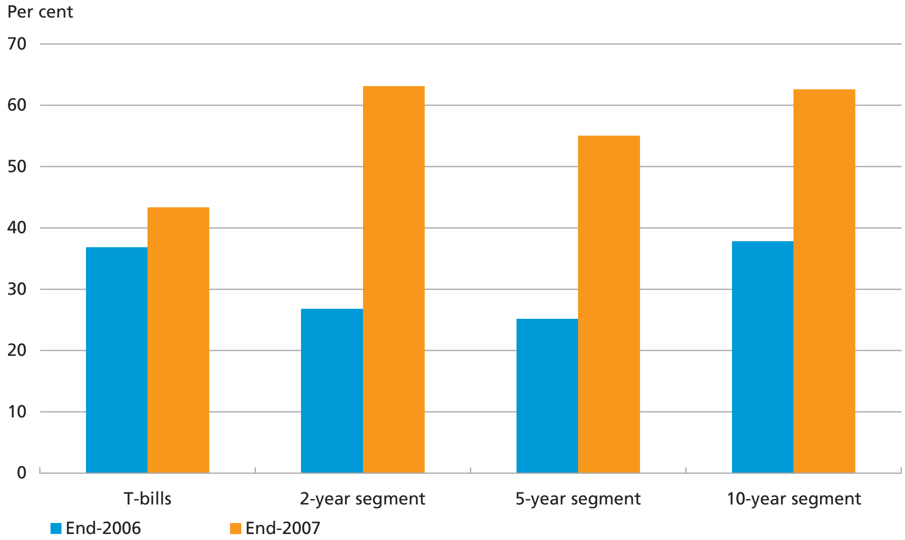
GOVERNMENT DEBT IN 2007

In 2007, central-government debt was reduced by DKK 82 billion to DKK 246 billion as a result of the central-government surplus. The government debt amounted to 14 per cent of GDP. The considerable debt reduction brought the central government's interest costs to DKK 15.2 billion, corresponding to 0.9 per cent of GDP.

YIELDS TO MATURITY FOR KEY ON-THE-RUN ISSUES | Chart 4



NON-RESIDENT OWNERSHIP OF DOMESTIC GOVERNMENT SECURITIES Chart 5



Note: The calculation of the ownership share excludes portfolios of government funds.
Source: Danmarks Nationalbank, *Securities Statistics*.

The central government issued bonds for DKK 20 billion. In the 1st half of 2007, the borrowing terms were influenced by interest-rate increases as a result of improved growth prospects in the euro area and expectations of monetary-policy tightening, cf. Chart 4. Over the summer, considerable turmoil arose in the financial markets. Investors increasingly converted their portfolios to safe assets, which led to marked declines in interest rates on government bonds, particularly in the short maturity segment.

Non-resident ownership of domestic government securities has grown in all maturity segments, averaging approximately 50 per cent, cf. Chart 5. Foreign demand for domestic government securities contributes significantly to supporting liquidity and to ensuring low interest costs on the central-government debt. Both the domestic and the foreign debt have been assigned the highest rating by the credit-rating agencies.

STRATEGY 2008

In 2008, the borrowing requirement in government bonds is expected to be DKK 30 billion. Central-government issuance will be concentrated in the 10-year maturity segment, which at the beginning of 2008 consists of 4 per cent bullet loans 2017, and which in mid-2008 will be replaced by a new 10-year key on-the-run issue, cf. Box 1. Issuance will continue

STRATEGIC BENCHMARKS FOR 2008 Box 1

Issuance and liquidity

- Issuance in government bonds of DKK 30 billion
- Target for outstanding volume in 4 per cent bullet loans 2017 of around DKK 50 billion in 2008
- In mid-2008, a new 10-year government-bond series 2019 will be opened. This series will be built up to a final outstanding volume of around DKK 50 billion
- Issuance in 4 per cent bullet loans 2010 continues
- T-bill programme to be phased out
- In the event of unusual market conditions, issuance in other bullet loans for small amounts is possible
- All government securities except key on-the-run issues can be bought back.

Risk management

- In 2008, the interest-rate risk to be managed within a duration band of 3.25 years ± 0.5 year.

in 4 per cent bullet loans 2010 for small amounts. The T-bill programme will be phased out in 2008.

Buy-backs are conducted to the extent that market prices are deemed to be fair, e.g. when compared with prices for issuance in key on-the-run issues.

In 2008, the interest-rate risk on the central-government debt is managed on the basis of a strategic benchmark for the duration of the debt portfolio of 3.25 years ± 0.5 year. The duration band was shifted up 0.25 year in relation to 2007.

The central government has primary-dealer agreements with 11 regional and international banks, cf. Table 1. The primary dealers evaluate the market infrastructure, including the choice of trading platform for market making, on an ongoing basis. In view of the declining debt, among other factors, the primary dealers find that the Danish market for government securities is too small to support more than one trading platform. The primary dealers have decided that market making in Danish government bonds takes place on MTSDenmark in 2008.

PRIMARY DEALERS IN DANISH GOVERNMENT BONDS, 2008 Table 1

Barclays Bank	Morgan Stanley
Danske Bank	Nordea
Deutsche Bank	Nykredit Bank
Fionia Bank	SE-Banken
HSH Nordbank	Sydbank
JP Morgan	

Main Principles

CHAPTER 1

Main Principles of Government Debt Management

Government Debt Management at Danmarks Nationalbank manages the central-government debt on behalf of the Ministry of Finance. The central government borrows in the financial markets in order to meet its financing requirement covering maturing loans and budget deficits.

The overall objective of the government debt policy is to cover the central government's financing requirement at the lowest possible long-term borrowing costs, while taking the degree of risk into account. Furthermore, the aim is to facilitate the central government's access to the financial markets in the longer term and to support a well-functioning domestic financial market.

The government debt policy is based on well-reputed international principles for good governance of debt management, including clearly defined objectives, transparency, credibility and a clear division of responsibilities.

RESPONSIBILITIES OF GOVERNMENT DEBT MANAGEMENT 1.1

Government Debt Management manages the central-government borrowing and debt within the following areas:

- Issuance of government securities to cover the central government's borrowing requirement
- Management of the assets of the four government funds[1] included in the central-government debt
- Management of risk on the central-government debt portfolio
- Management of access to re-lending and government guarantees for a number of companies
- Settlement and bookkeeping of transactions
- Establishment of a framework to ensure a well-functioning market for government securities, e.g. through market-making agreements with primary dealers in Danish government securities.

[1] The Danish National Advanced Technology Foundation, the Financing Fund for increased distributions from the Danish National Research Foundation, the Preventive Measures Fund and the Social Pension Fund.

- Advising the Ministry of Finance on issues concerning other financial risks, e.g. interest-rate risk in relation to the financing of subsidised housing.
- Participation in international cooperation in the area of government debt management, including the OECD's Working Party on Government Debt Management and the Economic and Financial Committee on EU Government Bonds and Bills Markets.
- Advising other government debt management offices.

OBJECTIVES AND STRATEGY 1.2

The overall objective of the government debt policy is to cover the central government's financing requirement at the lowest possible long-term borrowing costs, while taking the degree of risk into account. Furthermore, the aim is to facilitate the central government's access to the financial markets in the longer term and to support a well-functioning domestic financial market.

The strategy for management of central-government debt is agreed at quarterly meetings between the Ministry of Finance and Government Debt Management on the basis of a strategy proposal prepared by Government Debt Management. At the meetings, the Ministry of Finance authorises Government Debt Management to implement the agreed strategy, which among other things provides strategic benchmarks for the on-the-run issues, and the risks that may be assumed, cf. Box 1.1. At the meeting in December, the overall strategy for the following year is agreed upon, and at the subsequent three quarterly meetings any further specifications and adjustments of the overall strategy for the year are adopted. Government Debt Management reports to the Ministry of Finance on the implementation of the strategy on a monthly basis, and also reports and provides an

STRATEGIC BENCHMARKS Box 1.1

The strategic benchmark for issuance and liquidity concerns the central government's issuance volume and choice of debt instruments and e.g. includes a target for the issuance volume in government securities in the coming year. The benchmark is determined on the basis of a range of factors such as market conditions and the central government's expected borrowing requirement.

The strategic benchmark for risk management relates to the management of interest-rate risk on the overall government debt portfolio. The benchmark comprises a target band for the Macauley duration. The benchmark for the year is inter alia determined on the basis of quantitative analyses of interest-rate risk in Government Debt Management's Cost-at-Risk model.

evaluation at the quarterly meetings. In addition, Government Debt Management is regularly in contact with the Ministry of Finance in connection with current tasks.

To support the openness and credibility of government debt policy, the government debt strategy is announced to the market immediately after the government debt meetings in June and December. The strategies are assessed on an ongoing basis in order to ensure the best possible fulfilment of the objectives, and to ensure that Danish government debt management complies with international standards formulated by e.g. the IMF, the OECD and the World Bank.

GOVERNMENT DEBT MANAGEMENT PORTFOLIOS 1.3

The central-government debt comprises domestic and foreign debt, the assets of four government funds and the balance of the central government's account with Danmarks Nationalbank:

- The domestic debt is denominated in Danish kroner
- The foreign debt is denominated in foreign currency. The main part of the foreign debt is raised in order to maintain a foreign-exchange reserve and is denominated in euro
- The assets of the four government funds administered by Government Debt Management are invested in primarily Danish government securities and other listed bonds
- The central government's liquid funds are held in an account with Danmarks Nationalbank and accrue interest at the discount rate.

The central government's domestic and foreign debt, the assets of the government funds, the central government's account and the central government's re-lending are subject to coordinated management, i.e. taking due account of the overall costs and risks.

At end-2007, the central-government debt amounted to DKK 246 billion, equivalent to 14 per cent of GDP, cf. Table 1.3.1. In addition to managing government debt, Government Debt Management administers the central government's re-lending. Re-lending is part of the central-government debt portfolio, but assets related to re-lending are not included in the definition of central-government debt. The central-government debt adjusted for re-lending amounted to DKK 209 billion, or 12 per cent of GDP, at the end of 2007.

Government Debt Management uses standardised, well-known financial instruments in relation to issuance, management of the assets of the government funds and swap agreements applied in the management of the government's interest-rate risk and foreign-

CENTRAL-GOVERNMENT DEBT	Table 1.3.1
DKK billion	End-2007
Domestic debt	402
Foreign debt	69
Government funds	-137
Central government's account with Danmarks Nationalbank	-87
Central-government debt	246
Central-government re-lending	-38
Central-government debt, adjusted for re-lending	209

exchange exposure. This reduces operational risk. The central government's credit risk on swap agreements is limited by only transacting swaps with counterparties with high credit ratings that have signed a unilateral collateral agreement. Legal risk is minimised by using standardised contracts.

DOMESTIC AND FOREIGN FUNDING RULES 1.4

The Danish Ministry of Finance and Danmarks Nationalbank have agreed on the framework for the distribution and volume of the central government's domestic and foreign borrowing. The domestic and foreign funding rules support the separation of fiscal and monetary policy. The funding rules are formulated in the "*Agreement on the division of work in the area of government debt between Danmarks Nationalbank and the Ministry of Finance*", 13 November 2006.[1]

Under the domestic funding rule, the central government issues debt denominated in kroner to cover its current deficit and redemptions of the domestic debt. This means that the central government's payments as a general rule have no impact on domestic liquidity, and the separation of fiscal and monetary policy is supported.

The foreign debt is issued in order to maintain the foreign-exchange reserve. As a general rule, the central government issues debt denominated in foreign currency equivalent to the redemptions of the foreign debt. Borrowing in foreign currency does not influence domestic liquidity, but is included directly in the foreign-exchange reserve.

Under Article 101 of the EU Treaty, which prohibits monetary financing, the central government's account with Danmarks Nationalbank must not show a deficit. Central-government borrowing is planned to ensure an appropriate balance on the central government's

[1] See www.governmentdebt.dk under Key figures.

account which can absorb fluctuations in central-government receipts and payments. Uncertainty concerning the balance of the central government's account is inter alia related to predicting the size of receipts from e.g. taxes and duties.

When central-government debt is declining, the domestic funding rule in principle entails an increasing foreign-debt share of the total central-government debt. The agreement between Danmarks Nationalbank and the Ministry of Finance has been amended so that it is possible to reduce the foreign debt via an equivalent increase in debt denominated in kroner, provided that the foreign-exchange reserve gives scope for this.

FRAMEWORK OF GOVERNMENT DEBT MANAGEMENT IN DENMARK 1.5

The Minister of Finance is authorised by law to raise government loans and has the overall and political responsibility for central-government borrowing and debt, including relations with the Folketing (Parliament), cf. Box 1.2. The day-to-day management of the central-government debt is conducted by Government Debt Management on behalf of the Ministry of Finance, and in accordance with the government debt strategy agreed with the Ministry of Finance.

The distribution of responsibilities between Government Debt Management and the Ministry of Finance is governed by the "*Agreement on the division of work in the area of government debt between Danmarks Nationalbank and the Ministry of Finance*", 13 November 2006.[1] The framework for management of the assets of the Social Pension Fund is laid down in the "*Regulations governing the management of the Social Pension Fund*"[2]. Other tasks undertaken by Government Debt Management on behalf of the Ministry of Finance relating to the management of the assets of the three other government funds and the management of re-lending and government guarantees are specified in separate agreements.

In most countries, day-to-day management of the central-government debt is undertaken by the ministry of finance or a separate government debt management office. In Denmark, Government Debt Management is located in Danmarks Nationalbank, but its tasks and organisation correspond to those found in other countries.

The internal structure of Government Debt Management reflects international standards and recommendations. Government Debt Management is divided into front, middle and back offices with

1 See www.governmentdebt.dk under Key figures.
2 See www.governmentdebt.dk under Government Funds.

ACT ON THE AUTHORITY TO RAISE LOANS ON BEHALF OF THE CENTRAL GOVERNMENT Box 1.2

Under the Danish Constitution, debt can only be issued by the central government according to law. The statutory basis for central-government borrowing is set out in the "*Act on the authority to raise loans on behalf of the central government*" of 1993[1], which authorises the Minister of Finance to raise loans on behalf of the central government for a maximum amount of DKK 950 billion. This amount is the upper limit for domestic and foreign debt. In connection with current debt management, the Minister of Finance is moreover authorised to enter into swap agreements and other financial transactions. The central government's costs of borrowing, i.e. interest costs and capital losses on issues and buy-backs, must be appropriated under the annual finance acts.

[1] Act no. 1079 of 22/12/1993 as subsequently amended. See www.governmentdebt.dk under Key figures.

separate functions. A division of functions and clear procedures reduce operational risks and ensure a clear division of responsibilities, which in turn facilitates internal control. A well-defined division of responsibilities also ensures that tasks related to the management of government debt are undertaken independently of other activities at Danmarks Nationalbank.

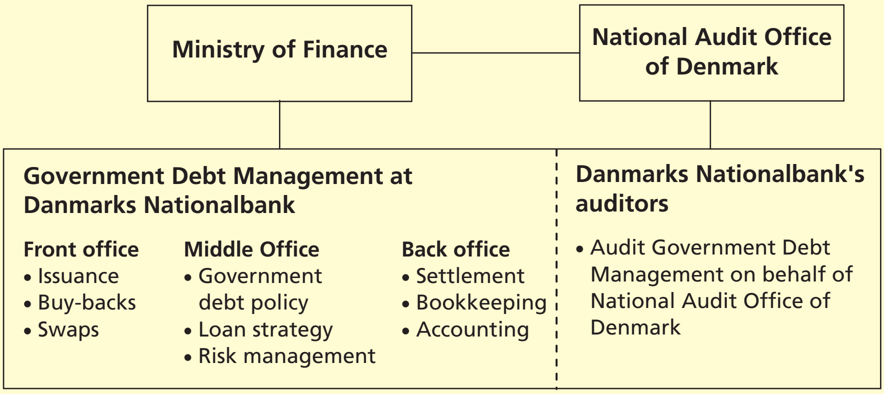
The middle office formulates the general principles concerning government debt policy and prepares proposals for borrowing strategies and risk management prior to the quarterly meetings. With due consideration of current market conditions, the middle office also lays down monthly guidelines for the front office with regard to issuance, buy-backs and swap transactions in accordance with the overall objectives for government debt and the agreed strategies. In addition, the middle office undertakes the overall management of re-lending and government guarantees, represents Danmarks Nationalbank on the Committee of the Social Pension Fund and has an advisory role regarding the financing of subsidised housing.

The front office is responsible for the operational element of the government debt policy, including issuance of government securities, buy-backs and execution of swap transactions, within the framework of the monthly guidelines. In addition, it determines market terms for re-lending and manages government guarantees.

The back office undertakes settlement of payments, including servicing of debt and swaps, and prepares the accounts together with the Danish Agency for Governmental Management.

Government Debt Management is audited by Danmarks Nationalbank's auditors on behalf of the national audit office of Denmark. The national audit office of Denmark reviews the accounts of government

STRUCTURE OF GOVERNMENT DEBT MANAGEMENT Box 1.3



institutions, i.e. checks that they are without significant errors and discrepancies. The national audit office of Denmark may in addition assess whether the funds received by government institutions are applied in the best possible way. The results of its investigations are published at www.rigsrevisionen.dk.

Box 1.3 summarises the structure of Government Debt Management.

INFORMATION ON THE CENTRAL-GOVERNMENT DEBT 1.6

An important element of government debt policy is to give market participants and the public access to information on the central-government borrowing strategies, borrowing requirement, etc., as well as information of a more general nature on the framework for government debt management.

Following the implementation of the EU Transparency Directive on 1 June 2007, issuers can choose their preferred information system for publication of news. Government Debt Management uses Danmarks Nationalbank's news service, DN News, as the primary channel for announcements concerning government debt. DN News ensures that the announcements are distributed simultaneously to a number of news agencies.[1]

In 2007, Government Debt Management updated its website, www.governmentdebt.dk, with a view to increasing the accessibility of the information provided. In addition, information is published via other sources on an ongoing basis, cf. Box 1.4.

[1] All news agencies can subscribe to DN News free of charge.

SOURCES OF INFORMATION ON DANISH GOVERNMENT BORROWING AND DEBT — Box 1.4

- Danmarks Nationalbank's news service (DN News)
- Government Debt Management's website, www.governmentdebt.dk [1]
- The annual publication *Danish Government Borrowing and Debt*
- The semi-annual announcement *Danish Government Debt Management Strategy*
- The Ministry of Finance's *Budget Outlook*, www.fm.dk
- Danish and international trading platforms and news agencies, e.g. Bloomberg, MTS, OMX Copenhagen, Reuters, Ritzau, etc.
- For information and enquiries, please e-mail: governmentdebt@nationalbanken.dk.

[1] Subscribers to the news service automatically receive e-mail notification of news concerning Danish government borrowing and debt.

An overview of the information regularly published on central-government borrowing and debt is presented in the Appendices.

Report Section

CHAPTER 2

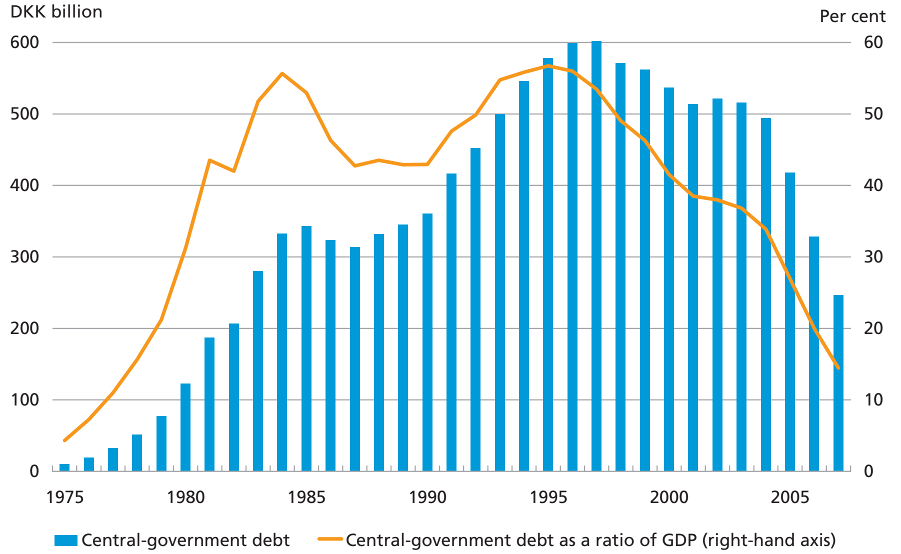
Central-Government Debt and Interest Costs

In 2007, the central-government debt was reduced by DKK 82 billion to DKK 246 billion as a result of the central-government surplus. The government debt amounted to 14 per cent of GDP at end-2007, or approximately DKK 45,000 per capita. The considerable debt reduction in 2007 brought the central government's interest costs down to DKK 15.2 billion, or approximately 0.9 per cent of GDP.

CENTRAL-GOVERNMENT DEBT 2.1

The central-government debt is compiled as the nominal value of domestic and foreign debt less the balance of the central government's account with Danmarks Nationalbank and the assets of four government funds, cf. box 2.1. The central-government debt totalled DKK 246 billion at end-2007, corresponding to 14 per cent of GDP, cf. Chart 2.1.1.

DEVELOPMENT IN THE CENTRAL-GOVERNMENT DEBT Chart 2.1.1



Note: The central-government debt includes the assets of government funds as from 1982.

DEBT MEASURES Box 2.1

Central-government debt: Compiled as the nominal value of domestic and foreign debt less the balance of the central government's account with Danmarks Nationalbank and the assets of the Social Pension Fund (SPF), the Financing Fund, the Danish National Advanced Technology Foundation and the Preventive Measures Fund. The distribution of domestic and foreign borrowing is based on currency exposure. In relation to re-lending, the compilation of central-government debt only includes liabilities, i.e. government issues to finance re-lending.

EMU debt: The EMU debt is compiled in accordance with the EU Treaty. The EMU debt is compiled at nominal value and comprises the debt of the central, regional and local governments as well as social security funds. The debt is compiled on a gross basis, but the general-government sector may consolidate debt positions. This means that the government securities in the portfolios of the government funds are deducted from the debt. On the other hand, SPF's portfolio of mortgage-credit and index-linked bonds and the balance of the central government's account with Danmarks Nationalbank are not deducted.

Net general-government debt: Comprises all financial assets and liabilities of the central, regional and local governments as well as social security funds. The net general-government debt is compiled at market value and is thus affected by the price of general-government assets and liabilities. The central government's asset side includes the account with Danmarks Nationalbank, all assets in government funds, lending to government-guaranteed companies and the central government's equity portfolio.

CENTRAL-GOVERNMENT DEBT AT NOMINAL VALUE, 2005-07 Table 2.1.1

DKK billion	2005	2006	2007
Domestic debt	516.5	454.4	402.0
Foreign debt	90.7	79.8	68.6
Central government's account with Danmarks Nationalbank[1]	-53.3	-71.0	-87.1
Social Pension Fund[2]	-133.2	-128.9	-126.9
Advanced Technology Foundation	-1.8	-4.3	-6.2
Financing Fund	-0.9	-1.4	-1.4
Preventive Measures Fund	•	•	-2.7
Central-government debt at nominal value	417.9	328.6	246.4
Outstanding re-lending[3]	-23.1	-34.0	-37.6
Central-government debt adjusted for re-lending	394.9	294.7	208.8

Note: As from 2006, the liabilities of the Mortgage Bank of the Kingdom of Denmark are included in the central-government debt.
Source: *Central-Government Accounts* 2005 and 2006. For 2007, figures are provisional.
1 For 2007, the account is compiled in accordance with the monthly balance sheet of Danmarks Nationalbank.
2 SPF's portfolio of index-linked bonds is compiled at indexed value.
3 Re-lending to the Danish Broadcasting Corporation, the Danish North Sea Fund, Danish Ship Finance, Energinet.dk, the Great Belt Bridge, the Port and City Development Corporation and Øresund Landworks.

In 2007, the central-government debt was reduced by DKK 82 billion to DKK 246 billion as a result of the central-government surplus, cf. Table 2.1.1. At end-2007, the government debt was approximately DKK 45,000 per capita, compared with approximately DKK 115,000 per capita at end-1997.

GOVERNMENT DEBT AT MARKET VALUE 2.2

At end-2007, the government debt compiled at market value totalled DKK 254 billion, cf. Table 2.2.1. The debt at market value depends on market interest rates. The difference between market value and nominal value is small in the current situation where the debt is traded around par.

A number of OECD countries have increased their focus on compiling the central-government debt at market value, particularly countries with falling and/or low debt. For example, Australia and New Zealand compile central-government debt at both nominal and market value. Compilation at market value is especially relevant if asset portfolios are being built up, debt is bought back before maturity, or derivatives are used in government debt management.

CENTRAL-GOVERNMENT DEBT AT MARKET VALUE, 2005-07 Table 2.2.1

DKK billion	2005	2006	2007
Domestic debt	564.2	480.2	416.4
Foreign debt	87.9	78.5	68.6
Central government's account with Danmarks Nationalbank[1]	-53.3	-71.0	-87.1
Social Pension Fund[2]	-149.4	-139.2	-133.4
Advanced Technology Foundation	-2.0	-4.5	-6.4
Financing Fund	-1.0	-1.5	-1.5
Preventive Measures Fund	•	•	-2.8
Central-government debt at market value	446.5	342.5	253.8
Outstanding re-lending[3]	-25.6	-36.0	-38.8
Central-government debt adjusted for re-lending	420.9	306.5	214.9

Note: As from 2006, the liabilities of the Mortgage Bank of the Kingdom of Denmark are included in the central-government debt. Market value is calculated on the basis of the official stock-exchange prices at year-end. Unlisted instruments, e.g. swaps, are priced at market value in accordance with current market interest rates.
Source: Danmarks Nationalbank.

1 For 2007, the account is compiled in accordance with the monthly balance sheet of Danmarks Nationalbank.

2 SPF's portfolio of index-linked bonds is compiled at indexed value.

3 Re-lending to the Danish Broadcasting Corporation, the Danish North Sea Fund, Danish Ship Finance, Energinet.dk, the Great Belt Bridge, the Port and City Development Corporation and Øresund Landworks.

INTEREST COSTS ON THE CENTRAL-GOVERNMENT DEBT, 2005-07 Table 2.3.1

DKK billion	2005	2006	2007
Interest costs concerning			
Domestic debt	27.8	23.0	21.0
Foreign debt	1.7	2.3	2.6
Interest income concerning			
Central government's account with Danmarks Nationalbank	-1.1	-1.2	-2.3
Social Pension Fund	-7.6	-6.6	-5.8
Advanced Technology Foundation	0	-0.1	-0.2
Financing Fund	0	0	-0.1
Preventive Measures Fund	•	•	-0.1
Interest costs on the central-government debt	20.7	17.4	15.2
Interest income from re-lending	-0.9	-1.2	-1.6
Interest costs on the central-government debt adjusted for re-lending	19.8	16.2	13.6

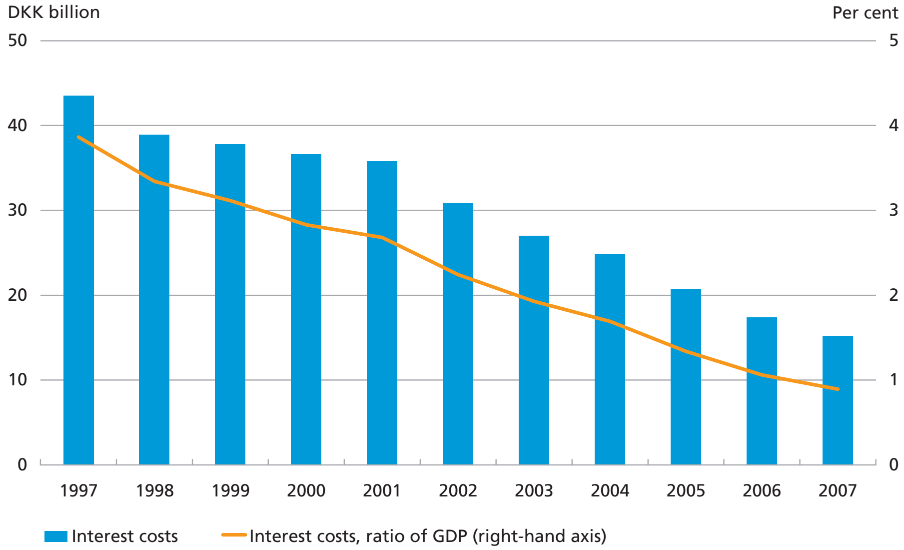
Source: *Central-Government Accounts* 2005 and 2006. For 2007, figures are provisional.

INTEREST COSTS 2.3

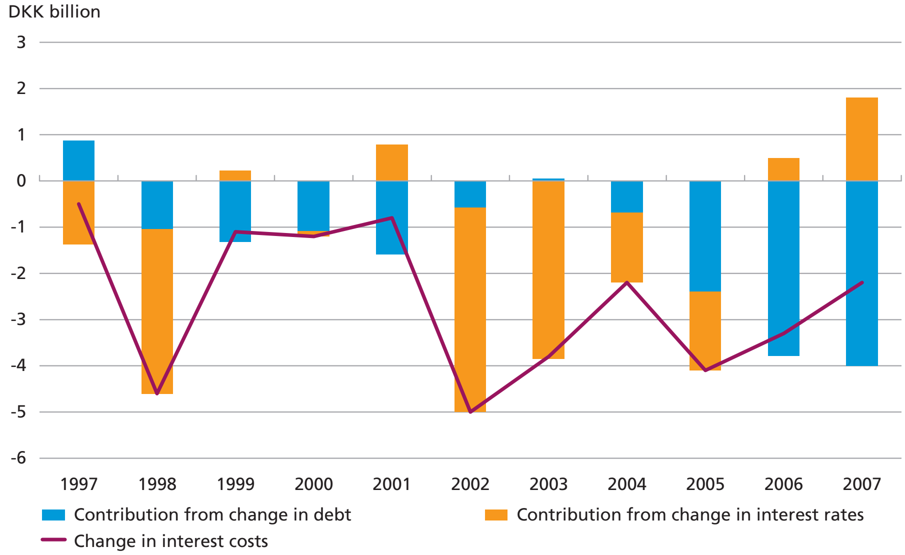
In 2007, the interest costs on the central-government debt totalled DKK 15.2 billion, which is a decline of DKK 2.2 billion from 2006, cf. Table 2.3.1.

The interest costs on the central-government debt amounted to 0.9 per cent of GDP in 2007, compared with approximately 4 per cent of GDP in 1997, cf. Chart 2.3.1.

DEVELOPMENT IN INTEREST COSTS Chart 2.3.1



BREAKDOWN OF ANNUAL CHANGE IN INTEREST COSTS — Chart 2.3.2



Note: The breakdown is performed by calculating the interest costs at an unchanged level of interest rates. The difference between the calculated and the actual interest costs is the contribution from the change in debt. The contribution from the change in interest rates is the residual.

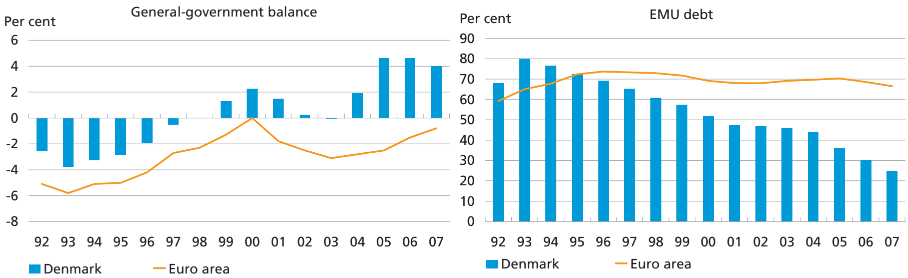
The interest costs have been reduced since 1997, which reflects declining central-government debt and interest rates, cf. Chart 2.3.2. In 2007, the decline in interest costs was attributable to the falling central-government debt, whereas, viewed in isolation, the interest-rate level contributed to higher interest costs on the central-government debt.

OTHER DEBT MEASURES — 2.4

EMU debt

The European Commission and the Ecofin Council monitor the development in the budgetary situation of the EU member states in

GENERAL-GOVERNMENT BALANCE AND EMU DEBT AS A RATIO OF GDP — Chart 2.4.1



Source: *The European Commission's autumn 2007 forecast.*

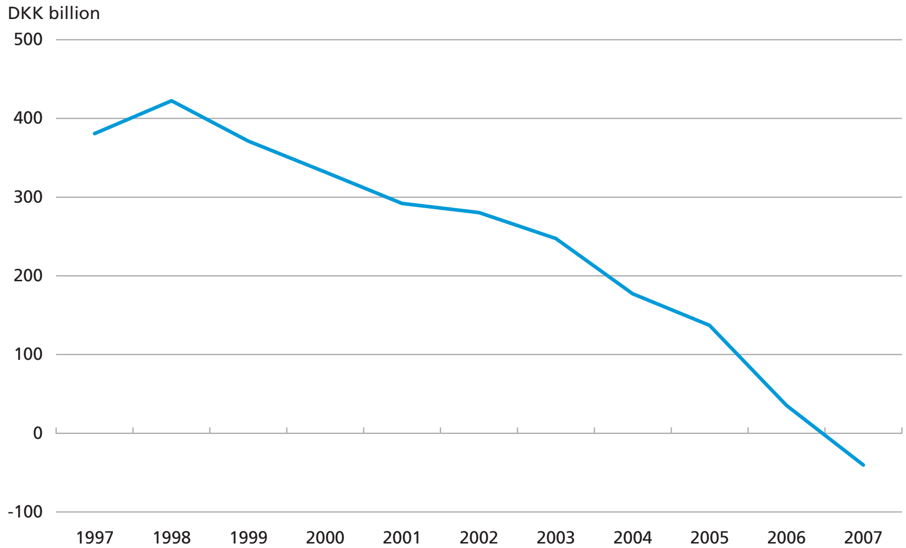
order to assess fiscal discipline. This assessment is based on the criteria set out in the EU Treaty and in the Stability and Growth Pact. As a general rule, the general-government deficit may not exceed 3 per cent of GDP, and the EMU debt may not exceed 60 per cent of GDP.

Denmark has by and large shown a general-government surplus since the late 1990s. The general-government surpluses have contributed to reducing Denmark's EMU debt to DKK 424 billion in 2007, or approximately 25 per cent of GDP. The EMU debt in the euro area in the same period averaged around 70 per cent, cf. Chart 2.4.1.

Net general-government debt

The net general-government debt has been declining in recent years and by the end of 2007 the government is expected to have net assets, cf. Chart 2.4.2. The net general-government debt includes the central government's shareholdings in e.g. Copenhagen Airports, DONG Energy, Postdanmark (the Danish postal service) and Scandinavian Airlines (SAS). The decline in the net general-government debt reflects general-government surpluses and value adjustments of the central government's asset portfolios, cf. Box 2.1. The net general-government debt is an element of the sustainability analyses of government finances carried out by the Ministry of Finance.

NET GENERAL-GOVERNMENT DEBT — Chart 2.4.2



Note: Net general-government debt comprises all financial assets and liabilities of the central, regional and local governments as well as social security funds and is compiled at market value. Year-end observations. The 2007 figure is an estimate from *Budget Outlook 1*, February 2008.

Source: Statistics Denmark and Ministry of Finance.

Chapter 3

Borrowing in 2007

In 2007, the central-government surplus was DKK 83.6 billion, corresponding to 4.9 per cent of GDP. The surplus was larger than expected at the beginning of the year.

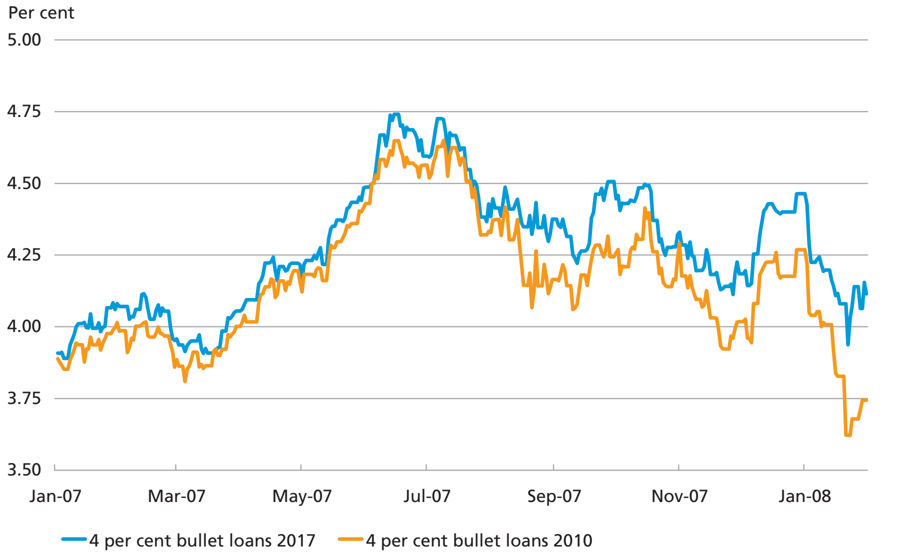
The issuance in 2007 was based on a total borrowing requirement of 0. The issuance requirement for government bonds was DKK 20 billion, resulting from an expected reduction of the T-bill programme by DKK 20 billion. Sales amounted to DKK 16.9 billion in 4 per cent bullet loans 2017 and DKK 3.7 billion in 4 per cent bullet loans 2010. The net financing contribution from the T-bill programme amounted to DKK -23.9 billion.

Interest rates increased in the 1st half of 2007 due to improved growth prospects. Turmoil in the financial markets in the 2nd half of 2007 increased investors' risk aversion, which led to a fall in interest rates on government bonds.

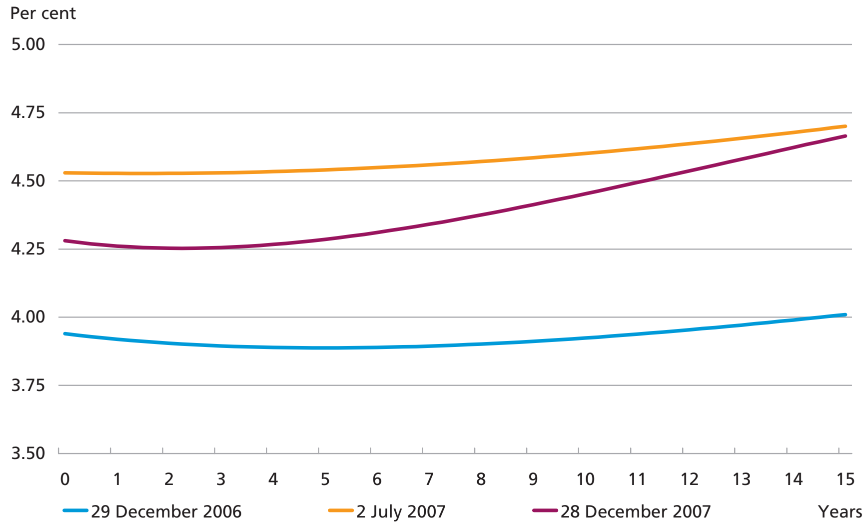
DEVELOPMENT IN INTEREST-RATES 3.1

In the 1st half of 2007, the interest rates increased by 70-80 basis points on the key on-the-run issues, cf. Chart 3.1.1. Interest rates rose due to im-

YIELDS TO MATURITY OF KEY ON-THE-RUN ISSUES Chart 3.1.1



GOVERNMENT ZERO-COUPON YIELD CURVES Chart 3.1.2



improved growth prospects in the euro area, especially in Germany, and the consequent expectations of monetary-policy tightening. During the 2nd half of 2007, interest rates fell by 50-60 basis points, inter alia because of turmoil in the financial markets.

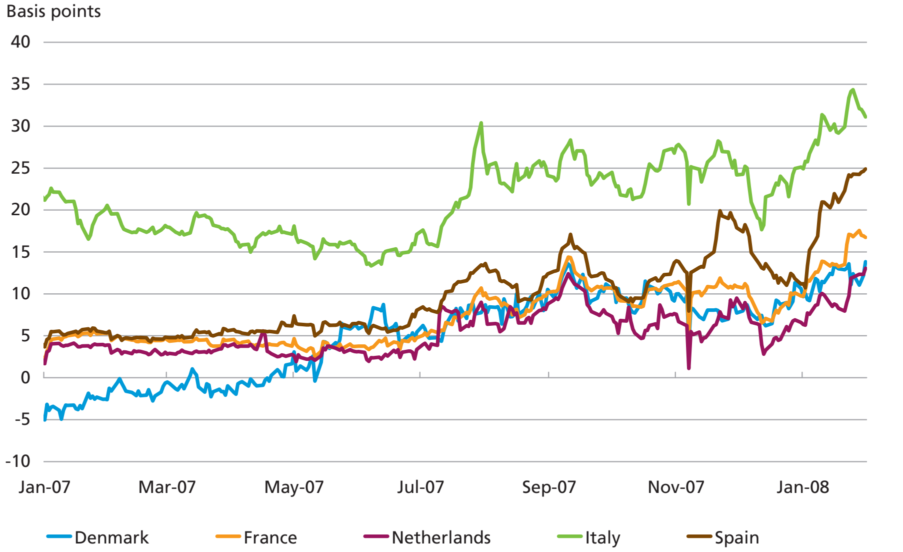
The interest-rate increase in the 1st half of 2007 was evenly spread over the entire curve. In the 2nd half, interest rates decreased especially in the short maturity segments, and the yield curve steepened towards the end of the year, cf. Chart 3.1.2. At the beginning of 2008, the trend towards a steeper slope has been reinforced by falling interest rates on government securities with a shorter time to maturity.

Over the summer 2007, considerable turmoil arose in the financial markets, triggered by increasing losses on US subprime mortgages, cf.

THE TURMOIL IN THE FINANCIAL MARKETS Box 3.1

Since the summer of 2007, the financial markets in the USA and Europe have been characterised by considerable turmoil. The turmoil arose from losses on mortgages to less creditworthy US homeowners, so-called subprime mortgages. Specialised funds that had invested in securities collateralised by subprime mortgages found it difficult to obtain financing on normal terms in the money market. The funds began to draw on liquidity facilities in US dollars, which e.g. US and European banks had made available. In order to ensure that they had sufficient liquidity to settle their own payments, the banks became reluctant to lend. Uncertainty about the extent of the banks' exposure to the subprime crisis, and which banks would be affected, also contributed to the general restraint.

10-YEAR YIELD SPREADS VIS-À-VIS GERMANY IN 2007 Chart 3.1.3



Note: The yield spreads are adjusted for differences in maturity. Denmark, France, the Netherlands and Spain are rated Aaa/AAA. Italy is rated Aa2/A+.
Source: Bloomberg.

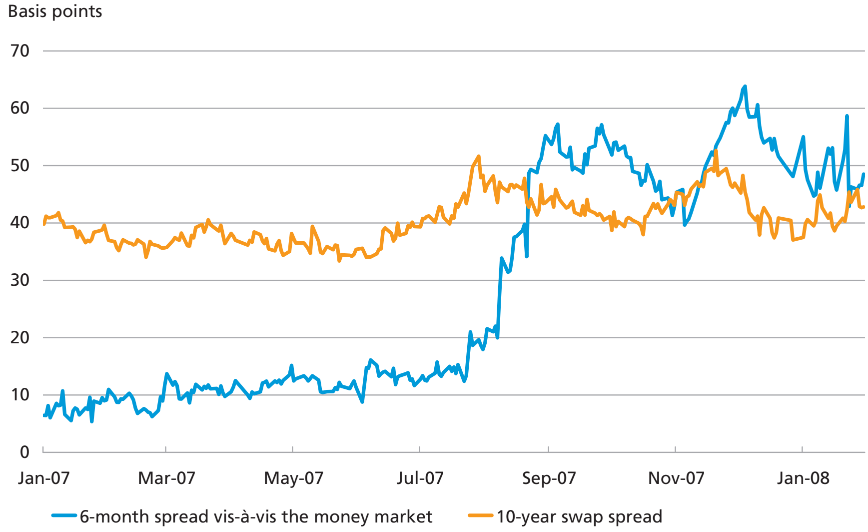
Box 3.1. This resulted in large price fluctuations in the financial markets due to higher uncertainty. On the basis of greater risk aversion, investors increasingly converted their portfolios to safe assets, which led to a decline in interest rates in the 2nd half of the year.

Demand was strongest for German government bonds that are especially liquid among European government securities. This resulted in a widening of the 10-year yield spread between highly-rated European government bonds and Germany, cf. Chart 3.1.3. Especially in the 1st half of 2007 the 10-year Danish yield spread to Germany increased from around -5 basis points to around 10 basis points. In the 2nd half, the Danish yield spread mirrored the development in the other highly-rated European countries.

The financial turmoil resulted in significantly higher risk premiums on uncollateralised loans, which was reflected in a substantial widening of the government yield spread to the money market in August, cf. Chart 3.1.4. Since then, the spread has remained at a high level.

The use of interest-rate swaps to restructure exposure from long-term to short-term rates means that the central government has interest-rate exposure in short-term money-market interest rates, cf. Chapter 8. Viewed in isolation, the widening of the government yield spread to the money market has led to higher interest costs.

GOVERNMENT YIELD SPREAD VIS-À-VIS THE MONEY MARKET AND THE SWAP MARKET — Chart 3.1.4



Note: Spread vis-à-vis the money market is the difference between the uncollateralised money-market interest rate and the T-bill rate. The swap spread is the difference between the swap rate and the government-bond yield.
Source: Bloomberg.

OWNERSHIP DISTRIBUTION 3.2

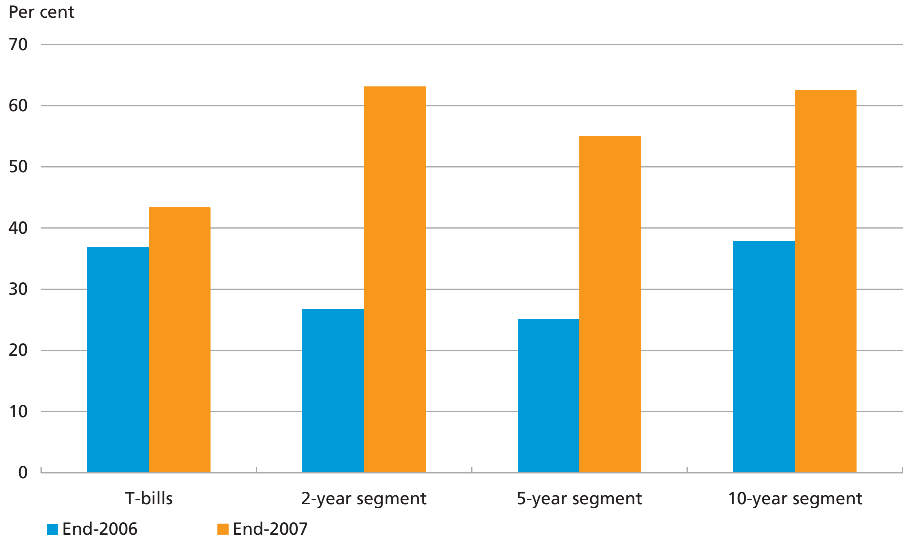
During 2007, non-residents increased their portfolio of domestic government securities from DKK 113 billion to DKK 170 billion, cf. Table 3.2.1. The increase in the portfolio of non-residents is offset by decreases in all other sectors, especially in life-insurance companies and pension funds (L&P) and financial institutions. The ownership share of the L&P sector, adjusted for the portfolio of the government funds, decreased from 43 per cent after Danmarks Nationalbank's interest-rate increase in February 2006, to 21 per cent at the end of 2007.

OWNERSHIP DISTRIBUTION OF DOMESTIC GOVERNMENT SECURITIES — Table 3.2.1

DKK billion, nominal outstanding volume	Dec 2005	Dec 2006	Dec 2007
Financial institutions incl. Danmarks Nationalbank	104.7	74.4	47.8
Life-insurance companies and pension funds	127.3	134.8	61.2
Non-financial corporations	14.9	8.1	4.2
General government	131.6	136.1	127.7
Households, etc.	7.6	5.1	5.1
Non-residents	141.2	113.4	170.0
Not stated	7.6	6.9	6.9
Total	534.8	478.8	422.7

Source: Danmarks Nationalbank, *Securities Statistics.*

NON-RESIDENT OWNERSHIP SHARE OF DOMESTIC GOVERNMENT SECURITIES Chart 3.2.1



Note: The ownership share is calculated excluding the portfolios of the government funds. The 2-year segment includes 1 to 3.5-year government bonds, the 5-year segment includes 3.5 to 6.5-year government bonds and the 10-year segment includes 6.5 to 13.5-year government bonds.
Source: Danmarks Nationalbank, *Securities Statistics*.

Non-resident ownership of domestic government securities has grown in all maturity segments, averaging approximately 50 per cent, cf. Chart 3.2.1. Foreign demand for domestic government securities contributes significantly to supporting liquidity in the Danish government-securities market and to ensuring low interest-rate costs on the central-government debt.

BORROWING 3.3

Issuance in 2007 was based on a total borrowing requirement of 0. The issuance requirement for government bonds was DKK 20 billion as a result of an expected reduction of the T-bill programme by DKK 20 billion. Government-bond issuance was primarily focused on the 10-year maturity segment, cf. Box 3.2.

The central-government surplus was larger than expected at the beginning of the year, with a net financing requirement of DKK -83.6 billion. The balance of the central government's account increased by DKK 15.6 billion, and at year-end the balance totalled DKK 87.1 billion. The balance of the central government's account fluctuated strongly over the year as a result of the distribution of the central government's payments, cf. Chart 3.3.1.

STRATEGIC BENCHMARKS FOR 2007	Box 3.2

Issuance and liquidity

- 4 per cent bullet loans 2017 is built up to a final outstanding amount of around DKK 50 billion.
- In 2007, 4 per cent bullet loans 2010 is built up to a final outstanding amount of minimum DKK 35 billion.
- The net financing contribution from the T-bill programme is expected to be around DKK -20 billion. Two new T-bills are opened in 2007.
- In the event of special market conditions in secondary trading, smaller issues in the other bullet loans maturing after 2007 are possible.
- The central government may buy back in all government securities except the key on-the-run issues (4 per cent bullet loans 2010 and 4 per cent bullet loans 2017).

Risk management

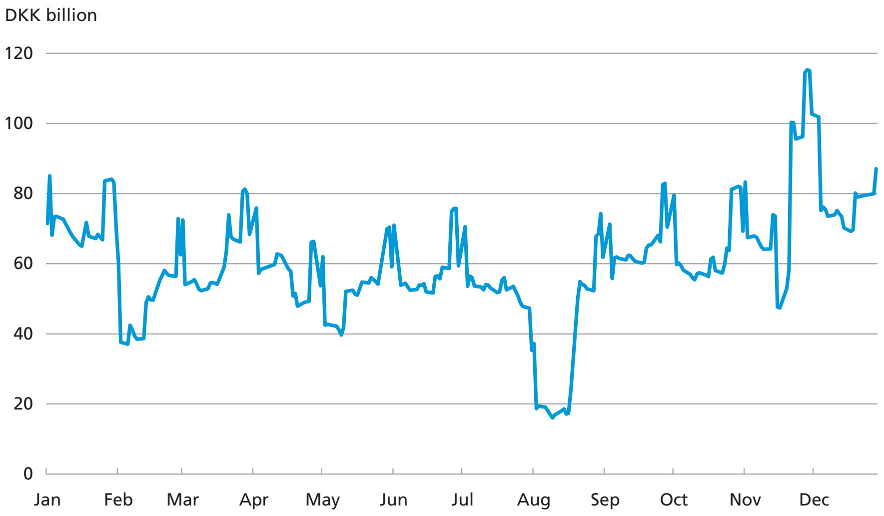
- In 2007, the interest-rate risk is managed within a duration band of 3 years ± 0.5 year.

Note: Published in *Danish Government Borrowing and Debt 2006*, Chapter 4.

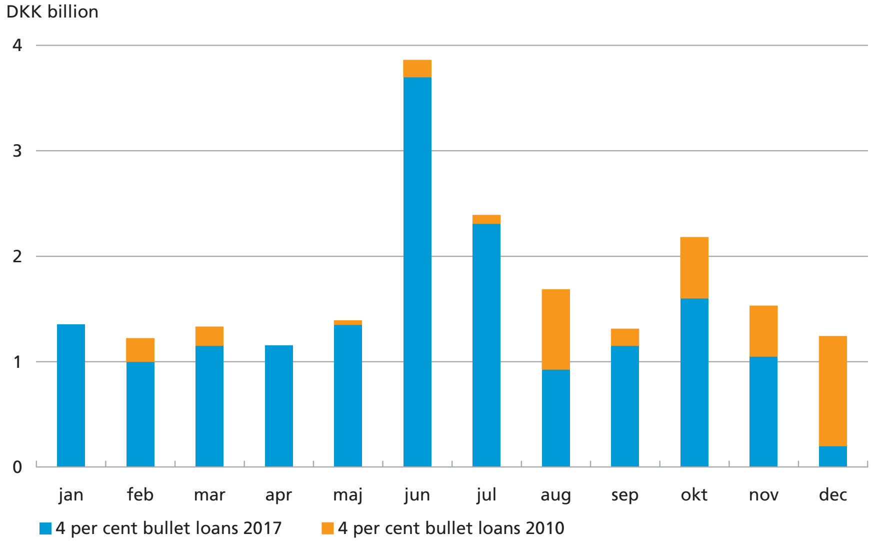
Domestic government bonds

The issuance requirement for Danish government bonds of DKK 20 billion was covered by sales for DKK 16.9 billion in 4 per cent bullet loans 2017 and DKK 3.7 billion in 4 per cent bullet loans 2010, cf. Table 3.3.1. The outstanding in 4 per cent bullet loans 2010 was built up to the minimum amount of DKK 35 billion announced for 2007.

BALANCE OF THE CENTRAL GOVERNMENT'S ACCOUNT, 2007	Chart 3.3.1



SALE OF GOVERNMENT BONDS, 2007 Chart 3.3.2



The sale of government bonds was evenly distributed over the year with June as an exception, cf. Chart 3.3.2. The larger sales in June were inter alia caused by a switch auction of DKK 1.6 billion.

T-bills

Issuance of T-bills in 2007 totalled DKK 28.3 billion at market value, while redemptions totalled DKK 52.2 billion. The T-bill programme was consequently reduced by DKK 23.9 billion, which was slightly more than expected. The demand for T-bills was relatively low with the exception of the auctions in April and July when T-bills matured.

Foreign borrowing

In 2007, foreign debt of DKK 19.4 billion matured. Foreign redemptions are financed with domestic borrowing.

DOMESTIC GOVERNMENT ISSUES IN 2007 Table 3.3.1

DKK million	Issuance		Nominal outstanding end-2007
	Nominal	Market value	
4 per cent bullet loans 2010	3,700	3,682	35,590
4 per cent bullet loans 2017	16,935	16,433	41,635
Total bullet loans	20,635	20,115	
T-bills	29,180	28,254	19,660
Redemptions	-52,180	-52,180	
T-bills, net	-23,000	-23,926	
Sales of domestic government securities, total	-2,365	-3,811	

Currency swaps between kroner and euro for DKK 6.0 billion were transacted. Moreover, the central government received a euro payment corresponding to DKK 5.9 billion in connection with its sale of Scandlines in June. This reduced the need for further currency swaps during the rest of 2007.

BUY-BACKS 3.4

Buy-backs of government securities take place to support liquidity in the key on-the-run issues, and to smooth the domestic redemption profile. Buy-backs are made if the market prices are deemed to be fair, for example in relation to the prices of government issues.

In 2007, the central government and the government funds bought back domestic government securities from the market for DKK 32.1 billion, cf. Table 3.4.1. The buy-backs were mainly in 5 per cent bullet loans 2013 and 4 per cent bullet loans 2015. Furthermore, the central government has bought back foreign government securities for DKK 0.7 billion.

BUY-BACKS BY THE CENTRAL GOVERNMENT AND NET BUY-BACKS BY THE GOVERNMENT FUNDS IN 2007 — Table 3.4.1

DKK million, market value	Central government	Government funds[1]	Buy-backs from the market
7 per cent bullet loans 2007	13,980	-13,376	604
5 per cent serial loans 2007	0	-	0
Securities maturing in 2007	13,981	-13,376	605
4 per cent bullet loans 2008	149	4,482	4,631
6 per cent bullet loans 2009	4,547	-3,009	1,539
6 per cent bullet loans 2011	54	2,448	2,503
5 per cent bullet loans 2013	4,058	5,795	9,853
4 per cent bullet loans 2015	2,644	7,098	9,742
4 per cent serial loans 2017	0	-	0
7 per cent bullet loans 2024	667	2,524	3,191
3.5 per cent 1886 perpetuals	0	-	0
Securities maturing after 2007	12,122	19,338	31,460
Domestic government securities, total	26,102	5,962	32,064
3.125 per cent euro loans 2010	724	-	724
3.0 per cent 1894 perpetuals	0	-	0
3.5 per cent 1909 perpetuals	0	-	0
Foreign government securities, total	724	-	724

Note: A negative sign indicates net sales. The government funds do not sell to the market.

[1] The Danish National Advanced Technology Foundation, the Financing Fund for increased distributions from the Danish National Research Foundation, the Preventive Measures Fund and the Social Pension Fund.

DURATION MANAGEMENT 3.5

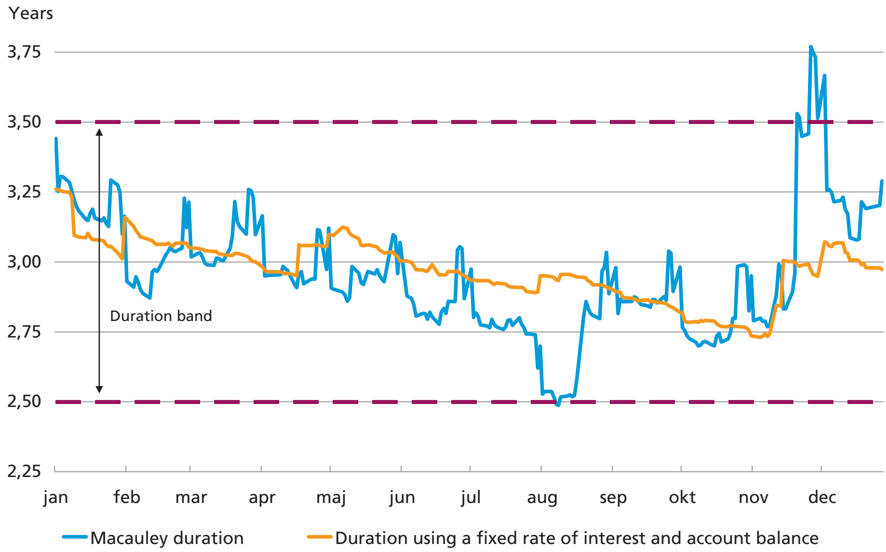
The duration of the government-debt portfolio is calculated as the Macauley duration and is managed within a band fixed annually in connection with the quarterly meeting in December. In 2007, the band was 3 years ± 0.5 year.

Substantial changes in the balance of the central government's account led to considerable fluctuations in the duration in 2007, cf. Chart 3.5.1. A low balance of the central government's account in August and a high balance in November thus briefly brought the duration outside the year band. As the government debt decreases, fluctuations in the balance of the central government's account will impact more strongly on the duration development, as the central government's account has a greater weight in the total debt portfolio. Interest-rate fluctuations may also influence the duration but were only of marginal importance in 2007. The duration calculated on the basis of a fixed balance of the central government's account and a fixed interest rate was close to 3.0 years throughout the year.

EVALUATION OF THE GOVERNMENT DEBT POLICY 3.6

In 2007, a systematic framework was introduced for quantitative evaluation of government transactions, buy-back policy and duration

DURATION IN 2007 Chart 3.5.1



Note: Duration using a fixed rate of interest and account balance was calculated on the basis of an account balance of DKK 60 billion and an interest rate of 3.89 per cent.

EVALUATION OF ISSUANCE AND BUY-BACKS — Table 3.6.1

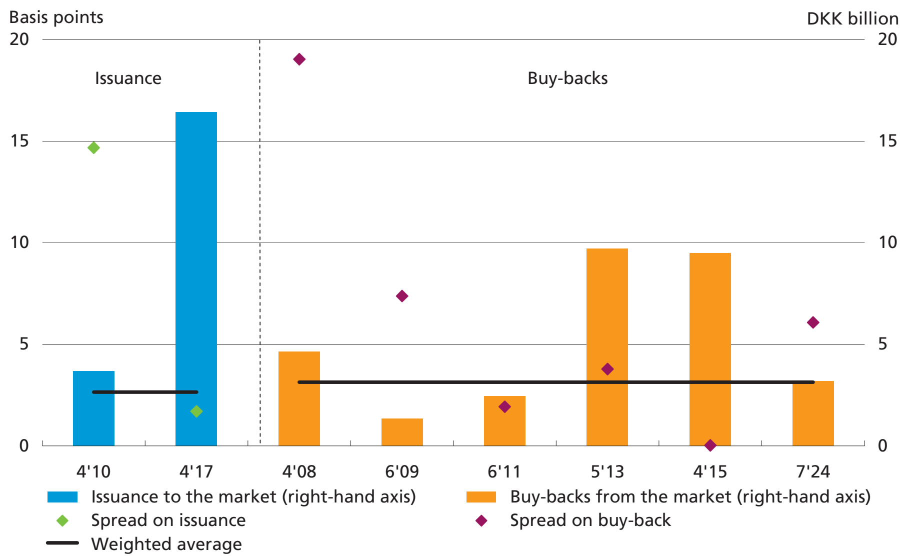
DKK million	Volume	Average spread vis-à-vis monthly average (basis points)	Value of spread
Tap issuance	18,657	-0.1	1.4
Buy-backs	26,445	0.5	7.8
Switch auction, issuance	1,550	6.8	-4.6
Switch auction, buy-backs	1,415	5.2	
Total			4.6

management, cf. *Danish Government Borrowing and Debt 2006*, Chapter 11. The evaluation framework is subject to ongoing development.

Evaluation of transactions

The evaluation compares the timing of the issuance and buy-backs of each month to a reference. The reference includes a portfolio where the transactions of each month are distributed evenly on all trading days. Calculations for 2007 show that the value of the actual transactions compared to the reference was approximately DKK 5 million, cf. Table 3.6.1.

SPREAD VIS-À-VIS THE GERMAN GOVERNMENT CURVE ON ISSUANCE AND BUY-BACKS — Chart 3.6.1



Note: The yield spread is adjusted for maturity differences. The weighted average spread on issuance and buy-back was weighted with trading volume and modified duration.
Source: Bloomberg and own calculations.

Evaluation of the buy-back policy

Buy-backs are only transacted if the market price is deemed to be fair e.g. in relation to the prices of government issues. The buy-back policy is evaluated by comparing the yield spreads vis-à-vis Germany for sales and buy-backs. In 2007, the average yield spread vis-à-vis Germany for buy-backs was 0.5 basis points higher than for issues, cf. Chart 3.6.1. This indicates that the buy-back policy was appropriate in 2007.

Evaluation of duration management in 2007

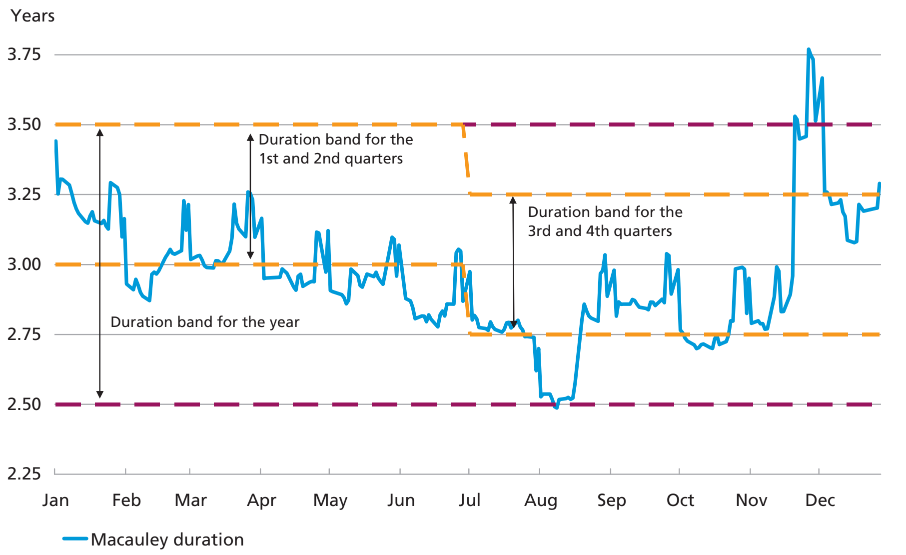
The duration management for the year is evaluated by comparing the actual duration management with the midpoint of the year band. In 2007, the average duration of the debt portfolio was 3.01 years. Hence, on average, no positions were taken throughout the year in relation to the reference of 3 years.

A narrower quarterly target band for the duration is fixed each quarter, enabling tactical adjustments of the duration management. The quarterly target bands are evaluated by comparing the central values of the quarterly bands with the actual duration.

In the 1st and 2nd quarters, the quarterly bands were in the upper part of the year band (central value 3.25 years), cf. Chart 3.6.2. In the 3rd and 4th quarters, the quarterly target bands were in the middle of the year band (central value 3.0 years).

The difference between the central values of the quarterly target bands and the actual duration corresponds to transacting opposite

ACTUAL DURATION AND QUARTERLY BANDS, 2007 — Chart 3.6.2



EVALUATION OF THE QUARTERLY BAND VIS-À-VIS THE ACTUAL DURATION					Table 3.6.2
DKK million	1st quarter	2nd quarter	3rd quarter	4th quarter	Total
Swaps in the reference portfolio......	-8,000	-5,300	8,500	15,100	10,300
Value end-2007..................................	254	15	7	-111	165

(payer) swaps for approximately DKK 13 billion in the 1st half of 2007 and transacting (receiver) swaps for approximately DKK 24 billion in the 2nd half of 2007. At year-end, the market values of these swaps would have been DKK 165 million, cf. Table 3.6.2. This market value especially reflects that a high position within the yearly duration band would have been appropriate in the 1st half of the year when the interest rates were low. In the main part of the 1st and 2nd quarters, the duration was lower than the central value of the quarterly target band.

In 2008, Government Debt Management will increase the flexibility of the duration management. This could be done through transactions in the futures market as part of the overall duration management.

CHAPTER 4

Strategy 2008

In 2008, the borrowing requirement in government bonds is expected to be DKK 30 billion. Central-government issuance will be concentrated in the 10-year maturity segment, which is composed of 4 per cent bullet loans 2017 at the beginning of 2008. In mid-2008, it will be replaced by a new 10-year on-the-run issue. Issuance will continue in 4 per cent bullet loans 2010 for small amounts. The T-bill programme will be phased out in 2008.

Buy-backs are conducted to the extent that market prices are deemed to be fair, e.g. when compared with prices for issuance in key on-the-run issues.

ISSUANCE STRATEGY 4.1

Government Debt Management has analysed the future perspectives of the market for government securities in the report *Government Debt Policy in the Light of Falling Debt*. According to the report, the average annual borrowing requirement in the period 2008-15 will be around DKK 30 billion. Against this background, the issuance strategy in the coming years is to open a new 10-year government bond approximately every second year, building it up to a final outstanding volume of around DKK 50 billion. The strategy will be reviewed after 3-4 years.

Strategic benchmark for issuance and liquidity in 2008

In 2008, the borrowing requirement in government bonds is expected to be DKK 30 billion. Central-government issuance will be concentrated in the 10-year maturity segment. Issuance in 4 per cent bullet loans 2017 will continue in order to build up an outstanding volume of around DKK 50 billion. In mid-2008, a new 10-year on-the-run issue will be opened with maturity on 15 November 2019, cf. Table 4.1.1. The new series will replace 4 per cent bullet loans 2017 as the key on-the-run issue and will be built up to a final outstanding volume of around DKK 50 billion. Issuance will continue in 4 per cent bullet loans 2010 for small amounts. In the event of special market conditions, issuance in the other bullet loans maturing after 2008 is possible, cf. Box 4.1.

KEY ON-THE-RUN ISSUES, 2008		Table 4.1.1
Loan	Maturity segment	Maturity
4 per cent bullet loans 2010	2 years	15 November
4 per cent bullet loans 2017	10 years	15 November
x per cent bullet loans 2019 (to be opened mid-2008)	10 years	15 November
T-bills	≤12 months	
T-bill 2008 I		2 June 2008
T-bill 2008 II		1 December 2008

The T-bill programme will be phased out in 2008. Some market participants recommended that Government Debt Management continue issuance in T-bills. However, in the light of the declining debt, an overall objective is to concentrate issuance in a few liquid government series, primarily the 10-year maturity segment. The phasing-out of the T-bill programme should be seen as a result of this strategy.

In 2008, auctions in the existing T-bills (T-bill 2008 I and T-bill 2008 II) will still be held up to one month prior to maturity.

Securities can be bought back in all outstanding government series except key on-the-run issues in the 2-year and 10-year maturity segments, cf. Table 4.1.2. Buy-backs are conducted to the extent that market prices are deemed to be fair, e.g. when compared with prices for issuance in key on-the-run issues.

BUY-BACK ISSUES AND SECURITIES LENDING FACILITIES, BEGINNING OF 2008 — Table 4.1.2

DKK million, nominal value	Outstanding volume, end-2007	Buy-back issues	Central govt. securities lending facility	SPF securities lending facility[1]
T-bills	19,660	X	X	
Bullet loans				
4 per cent 2008	47,124	X		X
6 per cent 2009	61,950	X		X
4 per cent 2010	35,590		X	
6 per cent 2011	60,500	X		X
5 per cent 2013	74,180	X		X
4 per cent 2015	57,560	X		X
4 per cent 2017	41,635		X	
7 per cent 2024	24,431	X		X
Foreign loans				
3.25 per cent euro loans 2008	17,150	X		
3.125 per cent euro loans 2009 ...	15,025	X		
3.125 per cent euro loans 2010 ...	12,676	X		
Other loans		X		

[1] The terms for securities lending are specified in *Terms for the Securities Lending Facilities of the Central Government and the Social Pension Fund* in the Appendices section at the end of this publication.

STRATEGIC BENCHMARKS FOR 2008 Box 4.1

Issuance and liquidity

- Issuance in government bonds of DKK 30 billion
- Target for outstanding volume in 4 per cent bullet loans 2017 of around DKK 50 billion in 2008
- In mid-2008, a new 10-year government-bond series 2019 will be opened. This series will be built up to a final outstanding volume of around DKK 50 billion
- Issuance in 4 per cent bullet loans 2010 continues
- T-bill programme to be phased out
- In the event of unusual market conditions, issuance in other bullet loans for small amounts is possible
- All government securities except key on-the-run issues can be bought back.

Risk management

- In 2008, the interest-rate risk to be managed within a duration band of 3.25 years ± 0.5 year.

The central government's lending facility comprises key on-the-run issues, while securities lending in other central-government securities can take place via the lending facility of the Social Pension Fund (SPF), cf. Table 4.1.2.

RISK MANAGEMENT 4.2

The interest-rate risk on the central-government debt is managed on the basis of a strategic benchmark for the duration of the debt portfolio, i.e. a Macauley duration of the liabilities and assets of the overall debt, cf. Chapter 8. The duration is managed using interest-rate swaps, which entails separation of issuance and risk management. A duration band of 3.25 years ± 0.5 year is set as the strategic benchmark for 2008.

A narrower, quarterly target band for the Macauley duration of ± 0.25 year is applied in the day-to-day risk management. This target band is within the strategic benchmark for the year and is determined at quarterly meetings with the Ministry of Finance.

CHAPTER 5

Issuance and Trading in Danish Government Securities

Danish government bonds are issued to a group of primary dealers. The primary dealers have an obligation to quote current bid and ask prices (market making). Market making contributes to a transparent and efficient market for Danish government bonds.

The primary dealers have decided that market making in Danish government bonds will take place on MTSDenmark in 2008. The primary dealers will evaluate the choice of trading platform on an ongoing basis.

Danish government bonds are traded on a number of electronic platforms, as well as the OTC market. The average daily turnover on electronic trading platforms doubled in 2007 and was around DKK 3 billion at year-end. The higher turnover in Danish government bonds can inter alia be related to increased demand for government securities due to the turmoil in the financial markets.

PRIMARY DEALER AGREEMENTS FOR DANISH GOVERNMENT BONDS 5.1

Danish government bonds are issued to, and bought back from, a group of banks that have entered into primary dealer contracts with Government Debt Management. Primary dealer contracts were first concluded in connection with the introduction of electronic trading on the MTS system in 2003. In 2008, 11 banks had entered into primary dealer contracts, cf. Table 5.1.1.

Primary dealer contracts are concluded with market participants that intend to enter into long-term cooperation with the issuer to trade Danish government bonds with a broad range of investors. By entering into a primary dealer contract, a bank acquires the right to buy government bonds on issue and to be a counterparty in buy-back transactions. At the same time the primary dealers have an obligation to undertake market making in government bonds by quoting current bid and ask prices within fixed maximum spreads and for minimum amounts throughout most of the trading day, cf. Box 5.1.

PRIMARY DEALERS AND MARKET TAKERS IN DANISH GOVERNMENT BONDS, 2008 — Table 5.1.1

Primary dealers	Market takers
Barclays Bank	ABN AMRO
Danske Bank	Arbejdernes Landsbank
Deutsche Bank	BNP Paribas
Fionia Bank	Citigroup
HSH Nordbank	Dresdner Bank
JP Morgan	DZ Bank
Morgan Stanley	Fortis
Nordea	Jyske Bank
Nykredit Bank	Merrill Lynch
SE-Banken	Royal Bank of Scotland
Sydbank	Svenska Handelsbanken

Besides the primary dealers, market takers can trade in the wholesale market. A market taker can trade at prices quoted by primary dealers, but cannot itself quote prices. As of 1 January 2008, 11 banks were market takers, cf. Table 5.1.1.

The primary dealers comprise both regional and international banks. The international banks are also primary dealers in most of the other European government-securities markets, cf. Table 5.1.2.

In 2008, the T-bill programme will be phased out, and as a consequence no new primary dealer contracts have been concluded for T-bills. Monthly auctions will still be held, with issuance in the existing T-bills. The auctions are open to all banks with access to the auction system.

PRIMARY DEALERS IN DENMARK AND THEIR ACTIVITIES IN SELECTED EU MEMBER STATES — Table 5.1.2

	AT	BE	FI	FR	GR	IE	IT	NL	PT	ES	SE
Barclays Bank	X	X	X	X	X	X	X	X	X	X	X
Danske Bank											X
Deutsche Bank	X	X	X	X	X	X	X	X	X	X	
Fionia Bank											
HSH Nordbank											
JP Morgan	X	X	X	X	X		X	X		X	
Morgan Stanley	X	X	X	X	X		X		X		
Nordea			X								X
Nykredit Bank											
SE-Banken											X
Sydbank											

Note: An X indicates that the relevant financial institution is a primary dealer in government securities in the member state in question. The German government debt office does not operate with primary dealers and consequently Germany has been omitted.

Source: Websites of the respective debt management offices.

PRIMARY DEALER CONTRACTS Box 5.1

Government Debt Management has concluded primary dealer contracts for government bonds. The rights and obligations of primary dealers are specified in the primary dealer contract, which can be found at the Government Debt Management website, www.governmentdebt.dk. In principle, the primary dealer contract for Danish government securities contains the same elements as equivalent contracts in other EU member states.

The principal rights of primary dealers are:

- Use of the title Primary Dealer in Danish government bonds
- To be a counterparty to the central government's issuance and buy-back transactions
- Use of the securities lending facilities of the central government and the Social Pension Fund.

The principal obligations of primary dealers are:

- Current quotation of prices for at least 5 hours a day between 9.00 a.m. and 4.30 p.m. in government bonds that are bullet loans within fixed maximum spreads and for minimum amounts, cf. the table below
- To be an active counterparty in issuance and buy-back transactions
- Promotion of Danish government securities
- To support a well-functioning market for Danish government securities.

Primary dealers must quote prices in the central-government benchmark and key on-the-run issues with a remaining term to maturity of more than 13 months. Market making in other government bonds rotates between the primary dealers so that there are always at least five market makers. In practice, most primary dealers undertake market making in all government bonds comprised by the primary dealer contract.

MARKET-MAKING OBLIGATIONS FOR VARIOUS TERMS TO MATURITY

	Benchmark securities			Other government bonds		
Maturity segment	2 yrs	5 yrs	10 yrs	2 yrs	5 yrs	10 yrs
Maximum spread	3 ticks	5 ticks	7 ticks	5 ticks	8 ticks	10 ticks
Minimum amount, DKK	80 mill	40 mill	50 mill	60 mill	20 mill	20 mill

Note: 2 years is the segment from 13 months to 3.5 years; 5 years is the segment from 3.5 years to 6.5 years; 10 years is the segment from 6.5 years to 13.5 years. Each segment may comprise several government securities. 7 per cent bullet loans 2024 is included in other government bonds, the maximum spread is 20 ticks and the minimum amount is DKK 10 million. 1 tick is equivalent to 0.01 percentage point.

Choice of electronic trading platforms

As part of the ongoing assessment of the market infrastructure, Government Debt Management in 2007 asked the primary dealers to evaluate the structure of the market for government securities, including the choice of trading platform for market making.

The primary dealers found the market for Danish government securities to be too small to support market making on more than one trading platform. This was attributed to the declining central-government debt, among other factors. In the opinion of the primary dealers, there is a considerable risk that market making on several platforms would reduce liquidity in Danish government bonds. Moreover, several primary dealers stated that it would entail additional costs to be connected to several trading platforms. This could induce them to reconsider their status as primary dealers. Consequently, it would be difficult to retain the current number of primary dealers if market making were undertaken on several platforms.

In future, primary dealers will evaluate the chosen trading platform on an annual basis and decide whether a change is required.

Overall, the primary dealers were content with the current platform and against that background the primary dealer group decided to undertake market making on the electronic trading platform MTSDenmark in 2008.

Clearing and settlement

Clearing and settlement are key elements of the infrastructure for wholesale trading of government securities. Market participants can choose between VP Securities Services (VP), Euroclear and Clearstream as their preferred clearing house for straight-through processing of transactions concluded in the wholesale market for government securities. This set-up reduces the entry barriers since new participants can join the market without having to adjust their internal settlement processes.

Securities lending

Securities lending is aimed at supporting and strengthening an efficient market for trade in government bonds. The securities lending facilities support liquidity in the secondary market as primary dealers can borrow government bonds in the event of a shortfall in the market. This makes it easier for primary dealers to undertake market making and reduces the risk of distorting price formation.

Primary dealers have access to the securities lending facilities of the central government and the Social Pension Fund (SPF). The central government's securities lending facility normally comprises key on-the-run issues. SPF can lend all government bonds in the SPF portfolio that are bullet loans with a remaining term to maturity of more than 1 month. Lending of securities is collateralised by other Danish govern-

SECURITIES LENDING, 2005-07[1] Table 5.1.3

DKK billion	2005	2006	2007
Central government	18.7	83.9	36.0
SPF	20.1	49.8	92.1
Securities lending, total	38.8	133.7	128.1

[1] The average lending term of the securities weighted by market value has been more or less constant at around 1.5 days throughout the period.

ment securities. The terms and conditions for use of the facilities are presented in the Appendices.

In 2007, securities lending by the central government and SPF totalled DKK 128.1 billion, cf. Table 5.1.3. The volume of securities lending should be viewed in the light of the falling central-government debt, which may lead to periodical shortfalls in the private market for securities lending. At the same time, the turbulence in the financial markets has created added interest for government securities and thus increased securities lending.

ISSUANCE AND BUY-BACK OF GOVERNMENT BONDS 5.2

Issuance

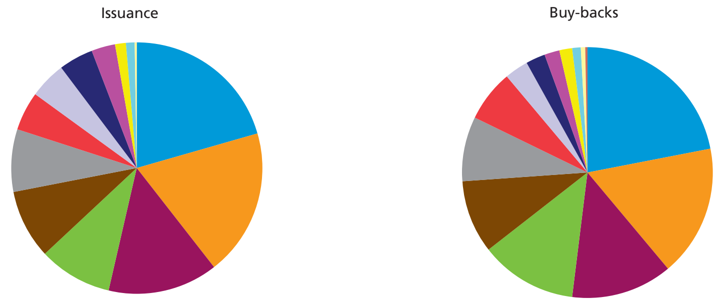
Danish government bond series are opened via an auction facility. At the opening auction the intention is to ensure a sufficient outstanding volume to enable market making. Subsequent issuance takes place by tap sale, whereby sales are dispersed over the year. Tap sales take place directly in the secondary market at prices quoted by the primary dealers. In connection with the issuance, Government Debt Management has market taker status, i.e. transactions are executed at the best bid price.

To avoid influencing the market, issuance generally takes place when the underlying interest is significant, i.e. when the bid-ask spread is narrow, and the market depth is large. In 2007, the six largest participants purchased almost 80 per cent of the total issues, cf. Chart 5.2.1.

Buy-backs

As the central-government debt declines, it is expedient to have several buy-back instruments. This increases flexibility in connection with the

ISSUANCE AND BUY-BACKS BY PRIMARY DEALER, 2007 — Chart 5.2.1



Note: Buy-backs comprise buy-backs on tap as well as the buy-back and exchange facilities.
Source: MTSDenmark.

central government's buy-backs in the market. The central government can buy back from primary dealers using any one of three facilities:

- *Buy-back on tap* takes place at the current market price (best ask price) quoted by the primary dealers.
- The *buy-back facility* is a further development of the auction system used for issuance of T-bills. By using this facility, Government Debt Management and the primary dealers can trade larger volumes of government bonds in one transaction.
- The *exchange facility* allows Government Debt Management to buy back government bonds while at the same time issuing in the key on-the-run issues.

The three buy-back facilities help to ensure a broad range of active participants. Six primary dealers were counterparties to approximately 80 per cent of the buy-backs in 2007, cf. Chart 5.2.1.

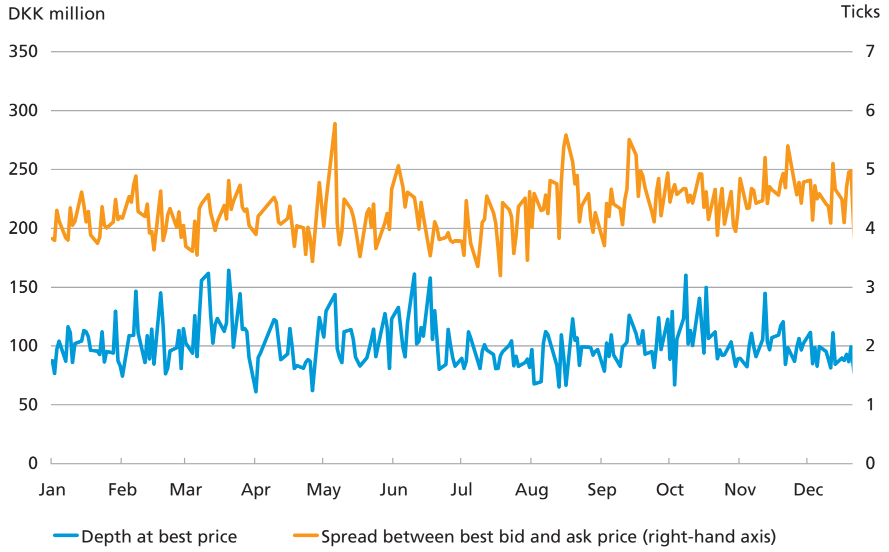
Electronic trading and market making

Market making by primary dealers gives investors access to current prices in the market for government bonds. This improves transparency and helps to increase liquidity in the market.

The 2nd half of 2007 was characterised by turbulence in the financial markets. At times, market uncertainty made it difficult for the primary dealers to quote prices within the agreed spreads. Consequently, the maximum bid-ask spread was doubled for two brief periods in the 3rd quarter of the year. This decision was taken in consultation with the primary dealers.

Despite the turmoil, current prices were quoted in the Danish market throughout this period. The bid-ask spread temporarily widened in

BID-ASK SPREAD AND DEPTH IN THE 10-YEAR BENCHMARK SERIES Chart 5.2.2

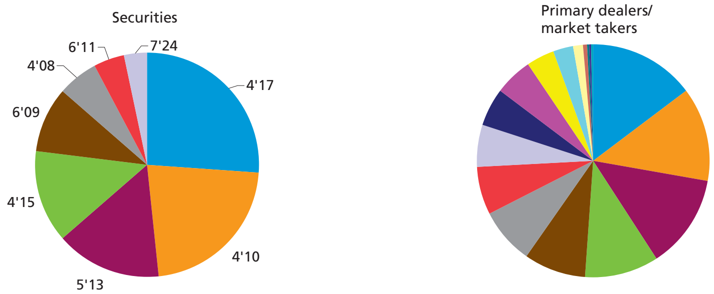


Note: The spread between bid and ask prices is calculated as a time-weighted average of the best bid and ask prices. The depth is calculated as the time-weighted average of the average volume placed at the best bid and ask prices. The depth indicates the volume that can be traded at the best price.
Source: MTSDenmark.

connection with higher uncertainty, e.g. in mid-August and mid-September, cf. Chart 5.2.2, but remained around 5 ticks. In this period, it was possible to trade for around DKK 100 million at the best price.

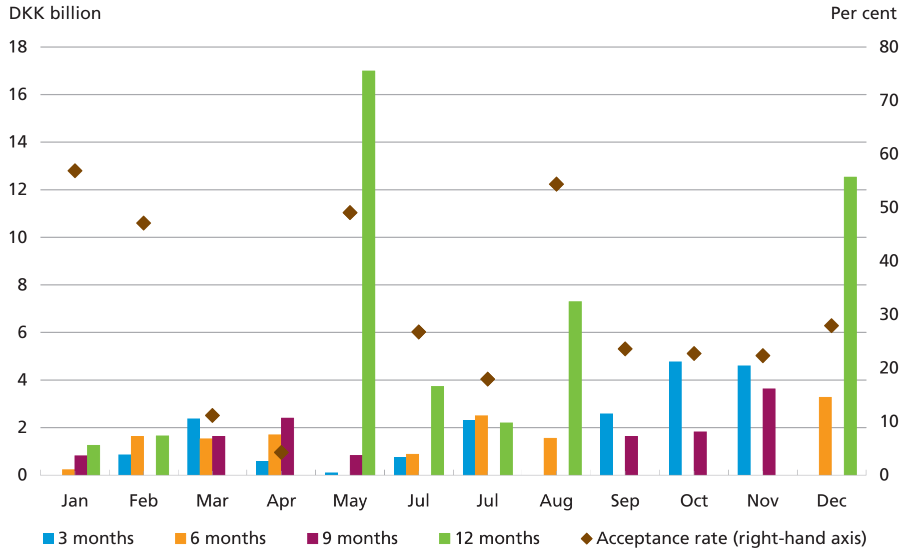
Turnover in Danish government bonds is relatively broadly distributed across series. Half of the turnover in government bonds on MTSDenmark was in the key on-the-run issues 4'10 and 4'17, cf. Chart 5.2.3. Trading was more or less equally distributed on market participants in Danish government securities.

TURNOVER IN GOVERNMENT BONDS BY SECURITY AND MARKET PARTICIPANT, 2007 Chart 5.2.3



Source: MTSDenmark.

BID VOLUME AND ACCEPTANCE RATE IN T-BILL AUCTIONS, 2007 Chart 5.3.1



Note: 3 months includes securities with a remaining term to maturity of 1, 2 and 3 months; 6 months includes securities with a remaining term to maturity of 4, 5 and 6 months; 9 includes securities with a remaining term to maturity of 7, 8 and 9 months; and 12 months includes securities with a remaining term to maturity of 10, 11 and 12 months.

Source: Danmarks Nationalbank and MTSDenmark.

ISSUANCE OF T-BILLS IN 2007 5.3

Sales of T-bills were reduced in accordance with the issuance strategy for 2007. In most other comparable countries an increased demand for T-bills was observed in the wake of the financial turmoil in the 2nd half of 2007. In Denmark, demand has been falling, and the average acceptance rate in 2007 was approximately 30 per cent, which is in line with the level in 2006, cf. Chart 5.3.1.

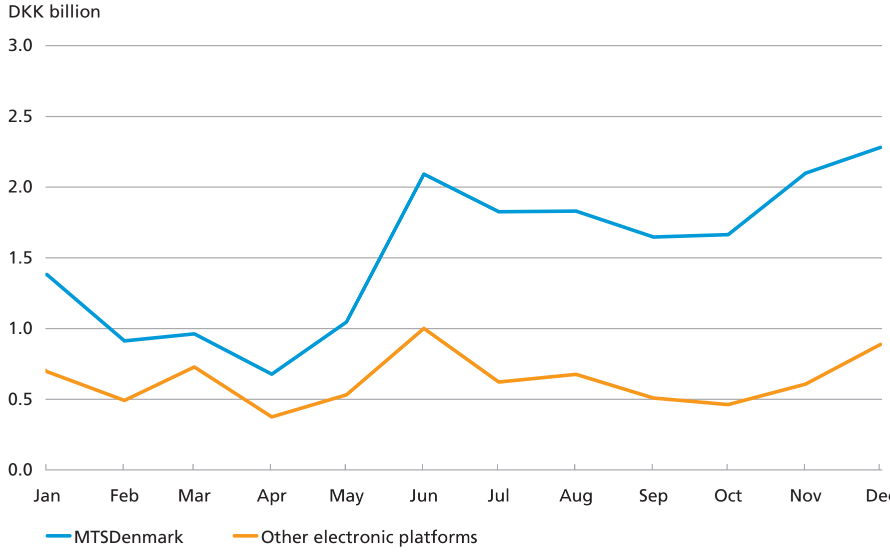
TURNOVER IN DANISH GOVERNMENT SECURITIES 5.4

In the interdealer market, Danish government securities are traded on, inter alia, MTSDenmark and ICAP/BrokerTec[1]. Besides the interdealer market, trading in Danish government securities takes place on a number of other electronic platforms such as Bloomberg, Bondvision and TradeWeb. These platforms tend to focus on resale between banks and their customers. In addition, considerable volumes of Danish government securities are traded on electronic single-dealer platforms[2]

1 ICAP/BrokerTec offers trading on an electronic platform and via a broker facility.
2 Single-dealer platforms are established as bank-to-customer trading systems.

AVERAGE DAILY TURNOVER IN DANISH GOVERNMENT SECURITIES ON ELECTRONIC TRADING PLATFORMS, 2007

Chart 5.4.1



Note: Other electronic trading platforms comprises Bondvision, ICAP/BrokerTec, OMX Copenhagen and TradeWeb.
Source: Bondvision, ICAP/BrokerTec, MTSDenmark, OMX Copenhagen and TradeWeb.

and in the OTC market. Finally, Government Debt Management has established a price-quoting system on OMX Nordic Exchange Copenhagen (OMX Copenhagen).

Electronic trading in Danish government securities

In the light of the turmoil in the financial markets, turnover on the electronic trading platforms doubled in 2007, to around DKK 3 billion per day at the end of the year, cf. Chart 5.4.1. Greater uncertainty in the financial markets has increased the demand for government securities and higher volatility has increased the need for investors to adjust their portfolios.

Besides electronic trading in government securities, there is considerable trading in the OTC market, which is often used for large-volume transactions.

Price-quoting system on OMX Copenhagen

Parallel with the introduction of the wholesale market MTSDenmark, Government Debt Management also introduced a price-quoting system on OMX Copenhagen. A group comprising six banks (Danske Bank, Fionia Bank, Jyske Bank, Nordea, Nykredit Bank and Sydbank) has committed to quote current prices in Danish government bonds on OMX Copenhagen.

The price-quoting system covers all government bonds that are bullet loans with a remaining term to maturity of more than 13 months.

Members of the OMX Copenhagen bond sub-segment can trade at the quoted prices. They can also place their own orders in the system. Moreover, other investors can place trading orders via their banks. The trading rules are designed so that any order exceeding DKK 1,000 may influence the prices in the trading system.

The price-quoting system gives investors current access to prices in the system. Combined with the option to place their own orders, this gives small investors the possibility to trade in a transparent market.

CHAPTER 6

Management of the Government Funds

On behalf of the Ministry of Finance, Government Debt Management at Danmarks Nationalbank manages the assets of the Social Pension Fund (SPF), the Danish National Advanced Technology Foundation, the Financing Fund for increased distributions from the Danish National Research Foundation (the Financing Fund) and the Preventive Measures Fund. The assets of the government funds are included in the total central-government debt and are managed on a consolidated basis with other financial assets and liabilities of the central government within Government Debt Management.

At end-2007, SPF's asset portfolio totalled DKK 128.6 billion. In 2007 DKK 9.8 billion was transferred from SPF to the Ministry of Social Welfare for pension improvement measures.

The central government contributed DKK 2.0 billion to the Advanced Technology Foundation in 2007, bringing the Foundation's assets to DKK 6.4 billion at year-end. The respective assets of the Financing Fund and the Preventive Measures Fund were DKK 1.5 billion and DKK 2.8 billion at end-2007.

THE SOCIAL PENSION FUND 6.1

The Social Pension Fund (SPF) was established by act of parliament in 1970, when a special national retirement pension contribution was introduced. The proceeds were allocated to SPF and invested in bonds. With effect from 1 January 1982, the act was amended, and the

SPF'S REVENUE AND EXPENDITURE Table 6.1.1

DKK billion	2007
Revenue	
Interest, etc.[1]	5.8
Expenditure	
Transfer to the Ministry of Social Welfare	9.8
Pension-fund tax	0.6
Net	-4.6

Source: Provisional figures from the central-government accounts.

[1] Net statement of interest received, interest receivable and distributed capital losses on buy-backs.

MANAGEMENT OF SPF'S ASSETS	Box 6.1

The Social Pension Fund (SPF) is part of the remits of the Ministry of Social Welfare and the Ministry of Finance. The governance of SPF is undertaken by a committee with representatives from the Ministry of Finance, the Ministry of Social Welfare and Government Debt Management. The principles for the management of SPF's assets are set out in a regulation[1]. The provisions relating to investment of SPF's assets include the following:

- "Amounts that have been transferred to the account of the Social Pension Fund, shall be invested in listed bonds, including index-linked bonds."
- "The placement of the funds of the Social Pension Fund shall be co-managed with other central-government financial assets and liabilities under the central-government debt area, including, in particular, the domestic government debt. The co-management and a number of other considerations mean that the funds shall be invested primarily in government bonds."
- "It shall be sought to ensure a sound return with due consideration of the overall implications for central-government finances of the transactions of the Social Pension Fund."

The revenue from SPF's bond portfolio after payment of pension-fund tax is used to finance pension improvement measures or is allocated to SPF. SPF's capital can be used to finance pension improvements, should the cost of such measures exceed SPF's revenue. SPF's operating budget is part of the central-government accounts. The Finance Act stipulates the amount to be transferred from SPF to the Ministry of Social Welfare on a current basis to cover the costs of pension improvement measures.

[1] The regulation can be found at the website of Government Debt Management, www.governmentdebt.dk, under Government Funds.

payments to SPF ceased. SPF was continued as an asset of the central government and is included in the compilation of the central-government debt.

The assets of SPF are managed in accordance with the overall government debt policy, cf. Box 6.1. The risk on SPF's assets is assessed separately, but is included in the consolidated risk management of the total debt.

SPF's capital was reduced in 2007, as its expenditure exceeded its revenue, cf. Table 6.1.1. At end-2007, SPF's bond portfolio totalled DKK 126.9 billion, and the balance of its account with Danmarks Nationalbank was DKK 1.7 billion, cf. Table 6.1.2.

Since 1994 SPF's portfolio profile has been changed in favour of government bonds. In 1994, approximately 34 per cent of the assets were placed in government bonds, while the rest were primarily invested in mortgage-credit bonds. At end-2007, government bonds constituted 93 per cent of the bond portfolio, cf. Chart 6.1.1.

THE GOVERNMENT FUNDS' BALANCE SHEETS, END-2007 — Table 6.1.2

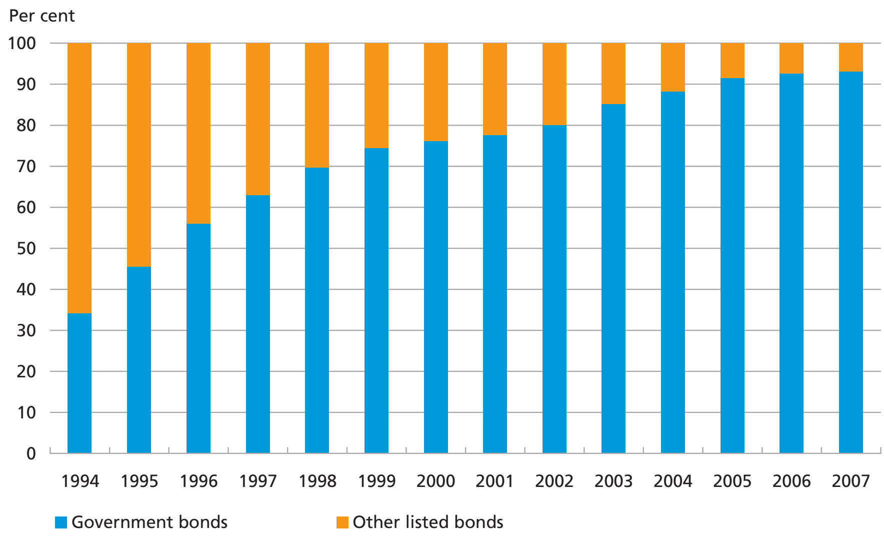
Nominal value, DKK billion	SPF	Advanced Technology Foundation	Financing Fund	Preventive Measures Fund	Share of total outstanding (per cent)
4 per cent bullet loans 2008....	4.3	0.5	-	0.3	11
6 per cent bullet loans 2009....	30.3	2.2	0.7	0.6	55
6 per cent bullet loans 2011....	39.0	0.9	0.1	0.6	67
5 per cent bullet loans 2013....	34.7	1.6	0.6	0.6	51
4 per cent bullet loans 2015....	6.2	1.1	0.1	0.6	14
7 per cent bullet loans 2024....	3.7	-	-	-	15
Government bonds, total........	118.2	6.2	1.4	2.7	
Mortgage-credit bonds, etc.[1] ..	2.1	•	•	•	
Index-linked bonds[2]	6.6	•	•	•	
Balance of account	1.7	0.1	0	0.1	
Total	128.6	6.4	1.5	2.8	

[1] Mortgage-credit bonds, etc. comprises mortgage-credit bonds as well as municipal and Fisheries Bank bonds other than index-linked bonds.
[2] Indexed value.

Investment in government bonds entails simpler risk management than investment in other listed bonds since SPF's government bond portfolio inherently hedges part of the risk on the central government's bond debt.

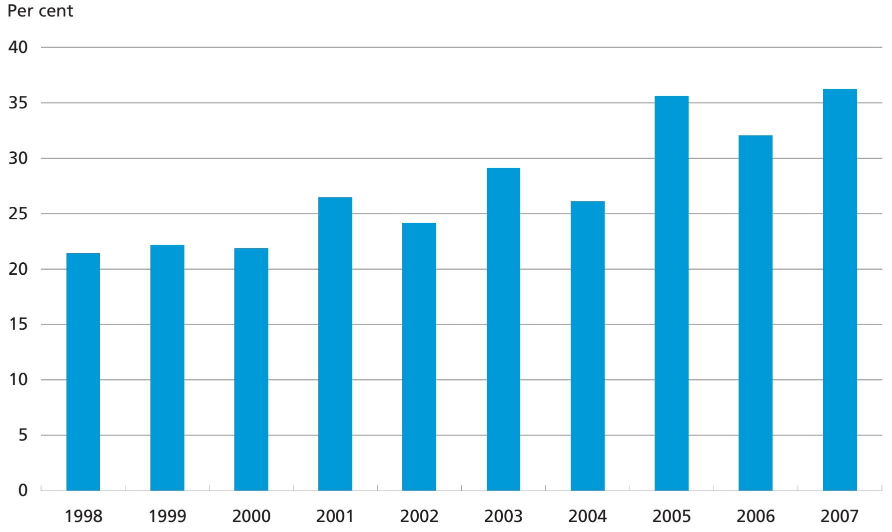
SPF does not invest in key on-the-run issues. As the central-government debt declines, SPF's portfolio constitutes an increasing share of the outstanding volume of government securities, excluding key on-the-run issues, cf. Chart 6.1.2. Against this background, SPF may have to

SPF'S BOND PORTFOLIO — Chart 6.1.1



SPF'S OWNERSHIP SHARE OF GOVERNMENT BONDS, EXCLUDING KEY ON-THE-RUN ISSUES

Chart 6.1.2



make increased use of the opportunity to buy other listed bonds than government bonds. SPF's investments will observe the regulations of the fund, cf. Box 6.1.

The ongoing management of SPF's assets is aimed at smoothing the investment profile so as to avoid investment of substantial amounts at times when market conditions are less favourable.

The duration of SPF's portfolio was 4.1 years at the end of 2007, cf. Table 6.1.3. Throughout 2007 the duration was within the specified duration band of 4 years ± 0.5 year.

DURATION OF SPF'S PORTFOLIO

Table 6.1.3

Years	End-2005	End-2006	End-2007
Government bonds	4.2	4.1	3.9
Mortgage-credit bonds, etc.	0.6	1.2	2.0
Index-linked bonds	10.5	10.7	9.9
Total portfolio	4.3	4.3	4.1

Note: For callable mortgage-credit bonds an option-adjusted duration is applied. The duration of index-linked bonds is calculated using an inflation assumption of 2 per cent per annum. The total portfolio also includes the balance of SPF's account with Danmarks Nationalbank.

THE ADVANCED TECHNOLOGY FOUNDATION, THE FINANCING FUND AND THE PREVENTIVE MEASURES FUND 6.2

In addition to SPF, Government Debt Management also manages the assets of the Advanced Technology Foundation, the Financing Fund and the Preventive Measures Fund. The accumulation of the funds' assets is stipulated in the annual Finance Act. The capital of the funds is placed in Danish government bonds, and the duration of the funds' portfolios is part of the management of the overall duration of the central-government debt.

The Advanced Technology Foundation and the Financing Fund

The Advanced Technology Foundation Act was passed in December 2004.[1] The objective of the Advanced Technology Foundation is to strengthen growth and employment by supporting Denmark's further development as an advanced technological society. The explanatory notes to the Act state that the aim is to build up the Foundation's capital to at least DKK 16 billion by 2012. In 2007, the central government contributed DKK 2 billion to the Foundation. The 2008 Finance Bill envisages a contribution of DKK 2 billion again in 2008.

The Financing Fund was established under the 2005 Finance Act to support basic research in Denmark through increased distributions from the Danish National Research Foundation[2].

The funds' assets are invested so as to achieve an equal distribution on short-, medium- and long-term bonds. At the end of 2007, the respective bond portfolios of the Advanced Technology Foundation and the Financing Fund were DKK 6.2 billion and DKK 1.4 billion. The interest received by the two funds in 2007 was DKK 233 million and DKK 52 million, respectively. Every year, an amount as stipulated in the Finance Act is transferred from each fund to the Ministry of Science, Technology and Innovation. In 2007, DKK 280 million was transferred from the Advanced Technology Foundation and DKK 65 million from the Financing Fund.

The Preventive Measures Fund

The Preventive Measures Fund was established in 2007 with a view to supporting projects to forestall and prevent physical and mental impairment.[3] The Fund's initial capital was DKK 3 billion, of which DKK

1 Act no. 1459, Advanced Technology Foundation Act of 22 December 2004, cf. www.hoejteknologifonden.dk.

2 www.dg.dk.

3 Act no. 87, the Act on the Preventive Measures Fund of 30 January 2007, cf. www.forebyggelsesfonden.dk.

2.8 billion was invested in government bonds, while the remaining DKK 200 million was transferred to the Ministry of Employment. As from 2008, an annual transfer of DKK 350 million will be made to the Ministry of Employment. There are no plans to build up further capital in the Fund. The investment strategy of the Preventive Measures Fund will be aimed at achieving revenue from interest and redemptions to match future transfers.

CHAPTER 7

Government Loan Guarantees and Re-lending

Government Debt Management is responsible for government loan guarantees and re-lending to a number of companies. Government loan guarantees and re-lending enable the companies to achieve favourable borrowing terms, since they can benefit from the central government's high credit rating.

At the end of 2007, government loan guarantees amounted to DKK 58.9 billion. Re-lending amounted to DKK 37.6 billion, of which DKK 6.9 billion to Danish Ship Finance.

In 2008, an expanded re-lending list will apply. In addition to government bullet loans in the maturity segments between 2 and 10 years, the new re-lending list provides access to synthetic re-lending on terms similar to those applying to the existing re-lending.

PURPOSE AND FRAMEWORK 7.1

A number of companies may raise government-guaranteed loans or raise loans directly from the central government (re-lending). Government loan guarantees and re-lending derive from the political objective to support the financing of certain projects. The majority are issued to government-owned companies involved in large infrastructure projects, whose purposes and borrowing frameworks are laid down by law. In addition, Danish Ship Finance (Danmarks Skibskredit A/S) has access to a special re-lending facility, cf. *Danish Government Borrowing and Debt 2003*, Chapter 10.

By issuing a loan guarantee, the central government ensures that the loans raised by the company in the private market will be repaid, thus reducing the borrowing costs. Re-lending means that loans are raised directly from the central government. Government Debt Management determines a list of eligible government loan types (the re-lending list), cf. section 7.4.

When a company requests re-lending, Government Debt Management sets the price of the loan on the basis of the current market conditions. The proceeds of the loan are paid out from the central government's account. The resulting borrowing requirement is financed via current

GUIDELINES FOR BORROWING BY THE COMPANIES Box 7.1

The guidelines for borrowing by the companies are stated in a set of agreements comprising three elements[1]:

- An agreement between the ministry in question and Danmarks Nationalbank
- An agreement between the ministry in question and the individual company
- A list of eligible loan types, which is issued and updated by Government Debt Management.

The list of eligible loan types is based on the following criteria:

- Transactions must be customary, i.e. known and used in the market by reputed borrowers
- Transactions must consist of simple elements that make them transparent
- The counterparties are subject to minimum rating requirements
- Swaps are only transacted with counterparties who have concluded collateral agreements
- The currency exposure of the loan portfolio should, as a general rule, be limited to euro (or Swedish kronor in the case of the Øresund Bridge).

[1] As far as the Øresund Bridge is concerned, a tripartite agreement has also been concluded between the Øresund Bridge, Riksgäldskontoret (the Swedish National Debt Office) and Government Debt Management.

issues, which contributes to supporting liquidity in the central government's key on-the-run issues. No specific issuance takes place to hedge the risk on individual re-lending transactions. Re-lending is part of the consolidated risk management of the central-government debt, cf. Chapter 8.

Government Debt Management formulates the general guidelines for borrowing by the companies that have access to loan guarantees and re-lending, cf. Box 7.1. The central government's exposure to a potential loss in the event that the company defaults on its loans is the same for government guarantees and re-lending. Therefore, loan guarantees and re-lending are in principle equivalent with regard to the central government's risk, cf. *Danish Government Borrowing and Debt 2004*, Chapter 9.

GOVERNMENT LOAN GUARANTEES 7.2

At the end of 2007, government-owned companies had issued government-guaranteed debt totalling DKK 58.9 billion, cf. Table 7.2.1. This is a decrease from DKK 67.1 billion in 2006. As a result of e.g. restructuring from government-guaranteed loans to re-lending, government-owned companies raised virtually no government-guaranteed loans in 2007. In addition to the government guarantees managed by Government Debt Management, the central government has provided

GOVERNMENT LOAN GUARANTEES — Table 7.2.1

DKK billion	Loan guarantees in 2007	End-2007
The Danish Broadcasting Corporation	-	2.8
The Danish State Railways	-	10.6
The Great Belt Bridge	-	23.0
Sund & Bælt Holding A/S	-	-
Øresund Landworks	-	3.2
The Øresund Link Consortium	0	19.3
Total	0	58.9

Note: The Danish Broadcasting Corporation (*Danmarks Radio*), the Danish State Railways (*DSB*), the Great Belt Bridge (*A/S Storebælt*), Øresund Landworks (*A/S Øresund*) and the Øresund Link Consortium (*Øresundsbro Konsortiet*). The table includes government guarantees managed by Government Debt Management.

further guarantees for approximately DKK 100 billion, e.g. in connection with subsidised housing, export credits and international institutions, cf. the *Government Accounts*.

RE-LENDING 7.3

In 2007, new re-lending to government-owned companies totalled DKK 6.3 billion, cf. Table 7.3.1, of which DKK 5.0 billion was related to re-financing of redemptions on re-lending. Six government-owned companies obtained re-lending in 2007, including the Danish Broadcasting Corporation and the Danish North Sea Fund as first-time borrowers. The stock of re-lending totalled DKK 30.7 billion at the end of 2007.

Re-lending to Danish Ship Finance

In 2003, Danish Ship Finance gained access to a special re-lending facility in connection with the adoption by the Folketing (Parliament) of a temporary operating subsidy for Danish shipyards. This facility is subject to

RE-LENDING — Table 7.3.1

DKK billion, nominal value	Re-lending in 2007	Portfolio end-2007
The Danish Broadcasting Corporation	1.8	1.8
Danish North Sea Fund	0.1	0.1
Energinet.dk	0.5	2.4
The Great Belt Bridge	1.5	9.2
Metroselskabet I/S[1]	-	-
Port and City Development Corporation[1]	0.4	10.8
Øresund Landworks	2.0	6.5
Total	6.3	30.7

[1] In 2007, the Ørestad Development Corporation (*Ørestadsselskabet I/S*) was dissolved and replaced by two new corporations, Port and City Development Corporation (*Arealudviklingsselskabet I/S*) and Metroselskabet I/S. The debt of the Ørestad Development Corporation was transferred to Port and City Development Corporation.

a set of agreements equivalent to those applying to government-owned companies.

Danish Ship Finance has access to re-lending in kroner or US dollars, structured as 12-year serial loans with semi-annual payments. The central government transacts currency swaps between kroner and US dollars in connection with the re-lending in order to eliminate any exchange-rate exposure on the re-lending. The pricing of the loan is fixed on the basis of the central government's borrowing terms.

In 2007, Danish Ship Finance obtained re-lending totalling USD 635 million, equivalent to DKK 3.5 billion. At end-2007, the value of re-lending to Danish Ship Finance was DKK 6.9 billion.

Re-lending can be granted to Danish Ship Finance until the end of 2012. By concluding a forward rate agreement with the central government, Danish Ship Finance can lock the interest rate on re-lending for up to three years prior to disbursement. Consequently, re-lending can be disbursed up to 31 December 2015. Re-lending is included in the central government's risk management as of the date of the agreement.

EXPANSION OF THE RE-LENDING LIST – SYNTHETIC RE-LENDING 7.4

Re-lending in government bonds reflects the characteristics of the underlying government securities, including coupon rate, interest-payment dates and redemption dates. The concentration of debt in fewer government series entails a reduced supply of loans available for re-lending. In order to ensure that companies with access to re-lending have the necessary flexibility to structure their redemption profiles and manage their liquidity, the re-lending list will in 2008 be expanded to include synthetic bullet loans, cf. Box 7.2. Consequently, the re-lending list will comprise all fixed-income government bonds of the bullet loan type denominated in Danish kroner in the maturity segments between 2 and 10 years, as well as synthetic loans maturing in 2012, 2014 and 2016, cf. Table 7.4.1.

Synthetic re-lending is granted on the following terms:

- The maturity date is 15 November in the relevant years, corresponding to re-lending in government bonds
- The coupon is 4 per cent, reflecting the current market conditions
- Synthetic loans are priced on the basis of the government zero-coupon yield curve, cf. Box 7.2
- The procedure for obtaining synthetic loans is identical to the procedure for re-lending in government bonds
- Synthetic re-lending is financed by the central government's key on-the-run issues and included in the consolidated risk management.

RE-LENDING LIST Table 7.4.1

	Last due date
4 per cent bullet loans 2010	15 November 2010
6 per cent bullet loans 2011	15 November 2011
4 per cent synthetic bullet loans 2012	15 November 2012
5 per cent bullet loans 2013	15 November 2013
4 per cent synthetic bullet loans 2014	15 November 2014
4 per cent bullet loans 2015	15 November 2015
4 per cent synthetic bullet loans 2016	15 November 2016
4 per cent bullet loans 2017	15 November 2017

Choice of interest-rate model for pricing synthetic re-lending

Government Debt Management has assessed nine well-known models for estimating the zero-coupon yield curve for government securities. The ability of these models to price existing government bonds was tested during the period 2 January 2006 to 15 July 2007. The models have been assessed in relation to the following criteria:

- On average, the theoretical price calculated on the basis of the estimated zero-coupon yield curve should match the actual price
- The variance in the spread between the theoretical and actual prices should be as low as possible.

The estimates showed that the Nelson Siegel Extended and Natural Cubic Spline models were best at meeting the above criteria. Government Debt Management has opted for Nelson Siegel Extended for pricing synthetic re-lending. Nelson Siegel Extended will regularly be compared to Natural Cubic Spline for a consistency check of pricing.[1]

[1] For further information on interest-rate models, see Jessica James and Nick Webber, *Interest rate Modelling*, 2000.

EXAMPLE OF PRICE CALCULATION FOR A SYNTHETIC GOVERNMENT BOND — Box 7.2

Unlike the price of the central government's bullet loans, the price of a fixed-income synthetic bullet loan maturing in 2012, 2014 or 2016 cannot be observed directly in the market. Instead, the price is determined on the basis of the government zero-coupon yield curve, which can be estimated using a number of methods. The estimation methods have different properties and theoretical foundations, but are all based on the price of fixed-income domestic government bonds.

The price of a synthetic government bond is determined as follows:

$$\text{Price} = \sum_i c_i (1+r_i)^{-t_i}$$

where c_i is payment on due date i, r_i is the government zero-coupon rate on due date i, and t_i is the fraction of the year until due date i.

On the basis of the government zero-coupon yield curve and the bond's cash flow, the price of a 4 per cent synthetic bullet loan 2012 was 100.55 on 4 January 2008, cf. the table below.

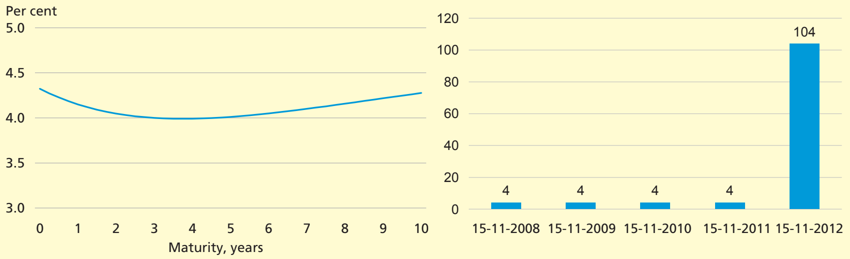
CALCULATION OF THEORETICAL PRICE OF 4 PER CENT SYNTHETIC BULLET LOAN 2012

Yield, r_i	Year(s) until due date, t_i	Cash flows, c_i	Net present value, $c_i(1+r_i)^{-t_i}$
4.17	0.85	4	3.86
4.06	1.85	4	3.72
4.00	2.85	4	3.58
3.99	3.85	4	3.44
4.01	4.85	104	85.95
Theoretical price			100.55

Note: The zero-coupon yield structure is estimated using the Nelson Siegel Extended model.

The government zero-coupon yield curve on 4 January 2008 and the cash flow on the bond are shown in the chart below.

ZERO-COUPON YIELD CURVE AND CASH FLOW



CHAPTER 8

Risk Management

The interest-rate risk on the central-government debt is managed on the basis of a strategic target band for the duration of the debt portfolio. The financial markets were characterised by considerable uncertainty at the end of 2007 when the target band was fixed. Analyses in the CaR model showed that it was possible to reduce the interest-rate risk on the central-government debt without any substantial increase in the expected interest costs. Against that background, the strategic target band for the duration was set at 3.25 years ± 0.5 year, which is 0.25 year higher than in 2007.

The central government holds foreign debt in order to maintain the foreign-exchange reserve. The exchange-rate risk is limited since the central government's foreign debt portfolio is exposed solely in euro.

Credit risk related to the central government's swap portfolio is limited by requiring that counterparties have high credit ratings, and by only transacting swaps with counterparties that have signed collateral agreements. In 2008, the central government's credit management will be revised with a view to reducing the credit risk and simplifying credit-risk management processes.

Operational risk is reduced through the division of functions and the use of simple, generally accepted financial instruments and well-documented operating procedures.

INTEREST-RATE RISK 8.1

Principles for management of the central government's interest-rate risk

The overall objective for Government Debt Management is to achieve the lowest possible long-term borrowing costs, while taking the degree of risk into account. A major risk factor with regard to Danish government debt is the interest-rate risk, i.e. the risk of higher interest costs as a result of the development in interest rates.

Interest-rate risk is managed on the basis of a strategic benchmark for the duration of the government-debt portfolio. Duration increases in line with the fixed-interest period, which makes it a summary measure of the trade-off between costs and risks. The shorter the duration, the higher the interest-rate risk on the central-government debt. The reasons are that short-term interest rates fluctuate more than long-term interest rates, and that short-term bonds are subject to more frequent fixing of new, unknown interest rates. Conversely, financing via short-term bonds usually entails lower expected interest costs since the interest-rate level normally increases with the term to maturity. Government Debt Management manages the interest-rate risk on central-government assets and liabilities on a consolidated basis according to the Asset Liability Management (ALM) principle. The assets comprise the assets of government funds, the balance of the central government's account and re-lending. The liabilities are domestic and foreign debt.

In 2007, Government Debt Management revised its Cost-at-Risk (CaR) model. Emphasis has been placed on increasing the transparency of the model, thereby reducing the operational risk and facilitating interpretation of the results. In addition, modelling of the government-debt asset portfolio has been extended, reflecting the fact that government assets now constitute a larger proportion of the debt than previously.

In Denmark, the issuance strategy is separated from the duration management of the central-government debt by means of interest-rate swaps. The advantage is that the issuance strategy can be targeted at building up large, liquid bond series. The central government hereby achieves lower borrowing costs.

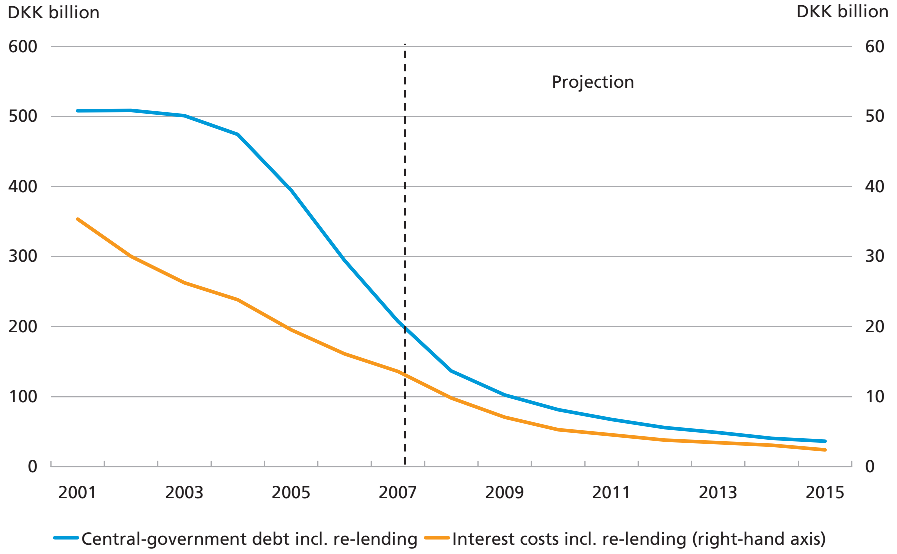
Each year, a strategic benchmark is determined for the duration of the central-government debt on the basis of a projection of the interest costs, interest-rate fixing and simulations using the CaR model. Government Debt Management's CaR model provides a systematic approach to quantification of costs versus risks. The CaR model is based on a number of assumptions concerning future borrowing and the development in interest rates. The results thus constitute only part of the foundation for decisions relating to management of interest-rate risk.

The central government's expected interest costs and interest-rate fixing

The Danish government's report *Towards New Goals – Denmark 2015*[1] (the 2015 plan) envisages central-government surpluses up until 2015. Consequently, the central-government debt, including re-lending, is expected to fall from approximately DKK 200 billion in 2007 to approximately DKK 40 billion in 2015, cf. Chart 8.1.1. The expected decline in the debt entails a reduction of interest costs from

[1] *Mod nye mål – Danmark 2015*, the Danish government, August 2007. In Danish only.

CENTRAL-GOVERNMENT DEBT AND INTEREST COSTS Chart 8.1.1



Note: Central-government debt and interest costs adjusted for re-lending.
Source: *Budget Outlook 1*, February 2008 and the 2015 plan.

approximately DKK 10 billion in 2008 to approximately DKK 2.5 billion in 2015, based on a mean scenario from Government Debt Management's interest-rate model.

The duration of the debt portfolio does not contain information on the absolute interest-rate exposure or its distribution over time. For this reason, an analysis of the interest-rate fixing of the government-debt portfolio is included in the determination of the central government's interest-rate risk. The interest-rate fixing denotes the amount in kroner

DEFINITION OF KEY RISK AND EXPOSURE TERMS Box 8.1

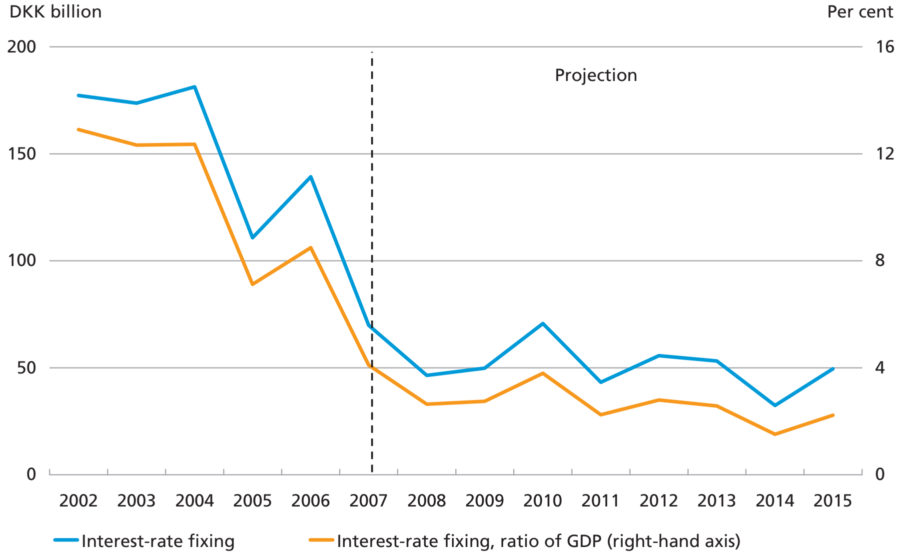
Interest-rate fixing: The proportion of the debt for which a new, unknown interest rate is fixed within a given year. The interest-rate fixing is calculated as the issuance of government securities for the year and the holdings of interest-rate swaps at the beginning of the year less buy-backs from the market during the year, re-lending during the year and the balance of the central government's account at year-end.

Duration: The duration of the debt is calculated as Macauley duration. Duration is an expression of the average fixed-interest period. Long duration means that for a large proportion of the debt the interest rate is locked for a long period of time. Long duration is thus associated with low risk.

Expected interest costs: The mean of the interest-cost scenarios in CaR.

Absolute CaR: A risk measure that indicates the maximum interest costs with a probability of 95 per cent in a year. Absolute CaR is calculated as the 95th percentile of the interest-cost scenarios in CaR.

INTEREST-RATE FIXING FOR DURATION OF 3.25 YEARS Chart 8.1.2



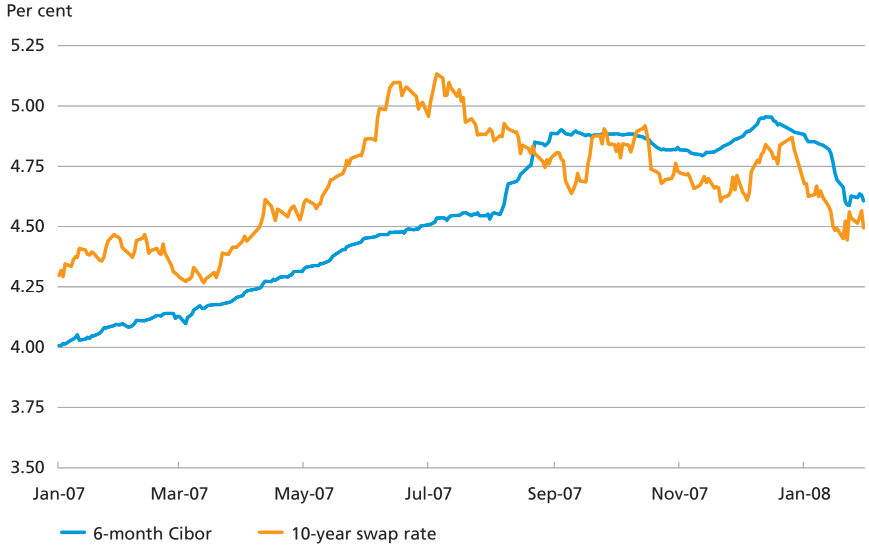
for which a new interest rate is to be fixed in a given year, cf. Box 8.1. A general increase in the level of interest rates by 1 percentage point will increase the interest costs in that year by approximately 1 per cent of the interest-rate fixing. The interest-rate fixing has fallen sharply since 2002 and was approximately DKK 70 billion in 2007, cf. Chart 8.1.2. The central government will still have considerable exposure to short-term money-market interest rates if the duration of the debt is kept at around 3 years. This is because central-government issues are concentrated in the 10-year maturity segment, and interest-rate swaps must therefore be transacted in order to achieve the desired duration.

Cost-at-Risk analysis of the strategic duration benchmark in 2008

The CaR model simulates medium-term interest costs on the basis of 2,500 scenarios for the development in interest rates. On the basis of these scenarios, a calculation is performed of the expected interest costs and their related risk, measured by the absolute CaR, cf. Box 8.1.

The interest-rate risk is analysed for different durations by adjusting the volume of interest-rate swaps on which the central government receives the 10-year swap rate and pays 6-month Cibor (uncollateralised money-market interest rate). The financial markets were characterised by considerable uncertainty at the end of 2007 when the duration target band was fixed. The 10-year swap rate was approximately 20 basis points lower than 6-month Cibor, cf. Chart 8.1.3, which meant that transaction of interest-rate swaps would entail an immediate loss. Besides higher

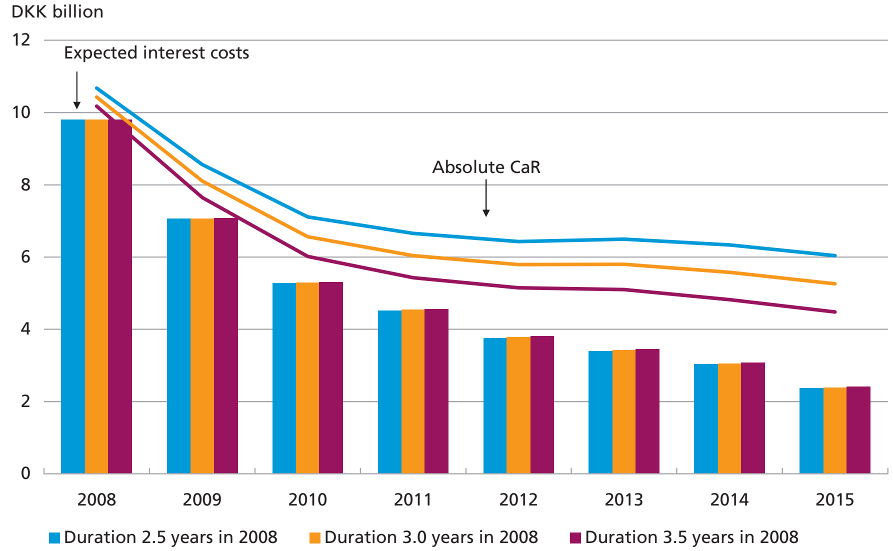
6-MONTH CIBOR AND 10-YEAR SWAP RATE Chart 8.1.3



Source: Bloomberg.

interest costs, the central government also assumes a higher interest-rate risk by transacting interest-rate swaps. At the beginning of 2008, the swap curve was still inverted. Government Debt Management does not expect to transact any interest-rate swaps until market conditions have normalised, including a positive slope of the swap curve.

EXPECTED INTEREST COSTS AND ABSOLUTE CaR Chart 8.1.4



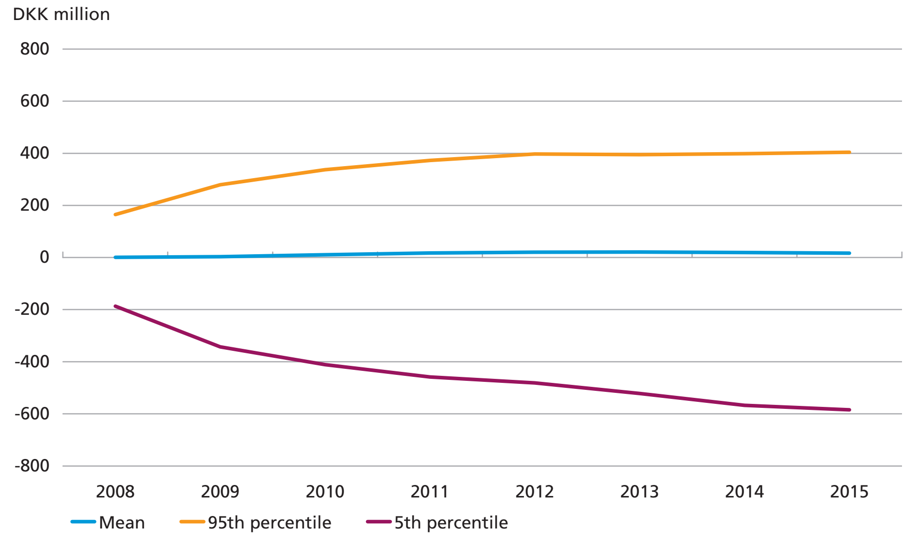
Note: Interest costs on central-government debt adjusted for re-lending.

Analyses in the CaR model showed that it would be possible to reduce the interest-rate risk on the central-government debt (increase the duration) without any significant increase in the expected interest costs. This reflects a projection using Government Debt Management's interest-rate model in which the yield curve remained flat and the level of interest rates was more or less unchanged. The effect of the falling debt is dominant in the projection, which explains why the expected interest costs and absolute CaR are reduced over the simulation horizon, cf. Chart 8.1.4.

Viewed in relation to the risk, the expected gain for the central government from transacting interest-rate swaps in 2008 is very small, cf. Chart 8.1.5. A reduction of the duration by 0.5 year in 2008 would entail a need to transact "extra" 10-year interest-rate swaps for approximately DKK 25 billion evenly distributed over the year. If the December 2007 level of swap spreads is maintained in the projection, the expected savings amount to approximately DKK 14 million p.a., while there is a 5 per cent probability of a loss of approximately DKK 350 million in 2009, rising to approximately DKK 600 million in 2015. If the swap spreads normalise in 2008, the trade-off between interest costs and interest-rate risks improves.

Against this background, it was decided to reduce the central government's interest-rate risk by increasing the strategic target band for the duration to 3.25 years ± 0.5 year in 2008. This is 0.25 year higher than in 2007.

EXPECTED COST SAVINGS AND RISK ON TRANSACTING INTEREST-RATE SWAPS FOR DKK 25 BILLION IN 2008 Chart 8.1.5



In 2008, an average duration of approximately 3.5 years is expected without transacting interest-rate swaps. As the debt falls, changes in the portfolio structure, particularly the central government's account, will have an increasing impact on the development in duration. Since the duration is managed over a longer horizon, temporary fluctuations beyond the band will not be countered.

EXCHANGE-RATE RISK 8.2

The central government holds foreign debt in order to maintain the foreign-exchange reserve. Exchange-rate risk is the risk that the value of the central-government debt in kroner increases as a result of changes in exchange rates. The foreign government debt is exposed solely in euro, which entails a low exchange-rate risk due to Denmark's fixed-exchange-rate policy vis-à-vis the euro. In addition, Danmarks Nationalbank's foreign-exchange reserve is predominantly exposed in euro.

Re-lending to Danish Ship Finance is normally denominated in US dollars, but the exchange-rate risk is hedged by transacting currency swaps from kroner to US dollars, whereby the payment flow corresponds to the redemptions on the re-lending. Overall, the central government's re-lending in US dollars therefore does not entail any exchange-rate risk.

Defence Command Denmark (Ministry of Defence) has access to an exchange-rate hedging facility with Danmarks Nationalbank. Via this facility the central government can hedge the krone value of future military procurements in US dollars.

CREDIT RISK 8.3

Credit risk is the risk of financial loss as a consequence of a counterparty defaulting on its payment obligations. The central government uses swaps to manage the risk on the government debt. When a swap is transacted, its market value is zero, but over time the market value may develop in favour of either the central government or the counterparty, depending on the changes in interest and exchange rates. If the market value develops in favour of the central government, it will have a credit exposure on the counterparty. If the counterparty goes into liquidation or defaults on the contract, the central government may lose its claim on the counterparty. The framework for the central government's credit management is described in Box 8.2. A more detailed description is found in the Appendices.

CENTRAL-GOVERNMENT CREDIT RISK MANAGEMENT	Box 8.2

Key principles of central-government credit risk management:

- Counterparties must have high credit ratings
- Swaps are transacted only with counterparties that have signed a unilateral collateral agreement
- Only standardised and simple interest-rate and currency swaps are used (plain vanilla)
- The swap volume is spread across counterparties
- Swaps can be terminated if the counterparty's rating falls below a certain level (rating triggers).

A counterparty must as a main rule be rated minimum Aa3/AA- by at least two well-reputed rating agencies. Since counterparties must maintain a high credit rating, the probability of losses is kept at a low level. If a counterparty defaults on its payment obligations, the collateral agreement limits the loss. The collateral agreements with the central government entail that the counterparty must pledge collateral if the market value of the swap portfolio exceeds a threshold that is determined by the credit rating of the counterparty. In 2007, 99 per cent of the central government's total swap portfolio was covered by collateral agreements. The last swap without a collateral agreement will expire in 2009.

All agreements concluded between the central government and swap counterparties are based on the standardised ISDA Master Agreement, one element of which is rating triggers. Rating triggers entitle either party to terminate swaps if the rating of the other party falls below a certain level (normally A3/A-). Whether it is an advantage for the central government to terminate swaps depends on the credit exposure, the swaps' remaining term to maturity, the costs of termination, and how losses can otherwise be avoided, e.g. by increasing the collateral pledged.

The central government's swap portfolio in 2007

At the end of 2007, the principal of the central government's swap portfolio totalled DKK 143.7 billion, cf. Table 8.3.1. New swaps were entered into for a total principal value of DKK 10.8 billion in 2007.

The transfer of the liabilities of the Mortgage Bank of the Kingdom of Denmark to Government Debt Management included four swap contracts with a total principal of DKK 0.5 billion. These swaps are managed separately since they were concluded on other terms than other central-government swaps. For example, they are not covered by collateral agreements (Credit Support Annexes to the ISDA Master Agreements, CSAs).

Market value of the swap portfolio

The development in the market value of the central government's swaps reflects fluctuations in interest and exchange rates. The market value of the central government's portfolio of interest-rate swaps increases when

CENTRAL-GOVERNMENT SWAP PORTFOLIO, 2005-07, YEAR-END Table 8.3.1

	2005	2006	2007[1]
Number of counterparties	25	24	21
Number of swaps	351	396	354
	Principal, DKK billion		
Interest-rate swaps, Danish kroner	61.5	75.1	65.4
Interest-rate swaps, other currencies	58.6	61.6	57.2
Currency swaps, DKK-EUR, EUR-DKK	16.9	14.2	13.3
Currency swaps, DKK-USD[2]	2.7	4.9	7.9
Currency swaps, other	8.8	1.8	-
Structured swaps	0.2	0.2	-
Principal, total	148.7	157.8	143.7

[1] Excluding the principal value of the swap portfolio transferred from the Mortgage Bank of the Kingdom of Denmark, which was DKK 0.5 billion at end-2007.
[2] In connection with re-lending to Danish Ship Finance.

interest rates fall, as the central government pays a floating rate on the interest-rate swaps transacted. The market value of the central government's portfolio of currency swaps is primarily affected by currency swaps between kroner and US dollars transacted in connection with re-lending to Danish Ship Finance. The market value increases when the US dollar depreciates since the central government pays US dollars in the currency swaps transacted. The central government has a larger portfolio of currency swaps between kroner and euro. As a consequence of Denmark's fixed-exchange-rate policy vis-à-vis the euro, the fluctuation in the market value of these swaps is modest.

The market value of the central government's swap portfolio fell by DKK 3 billion in 2007 due to rising interest rates. By the end of 2007, it was virtually zero, cf. Table 8.3.2. The market value can fluctuate strongly, and especially reflects the development in interest rates. Following the fall in interest rates in January 2008, the market value increased again.

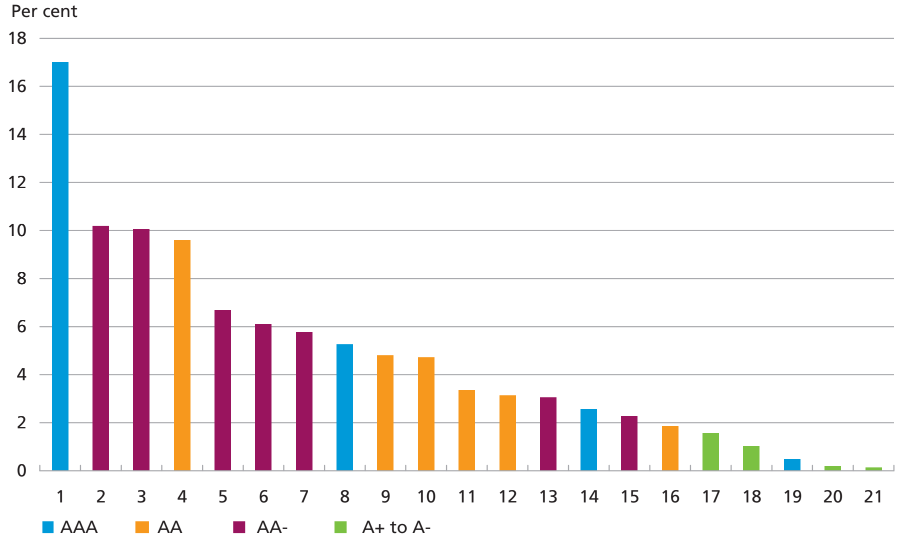
NET MARKET VALUE OF THE SWAP PORTFOLIO Table 8.3.2

DKK billion	End-2005	End-2006	End-2007[1]
Interest-rate swaps	9.8	3.5	0.1
Currency swaps	-2.1	0.2	0.4
Structured swaps	0	0	-
Total	7.7	3.7	0.5

[1] Excluding the net market value of the swap portfolio transferred from the Mortgage Bank of the Kingdom of Denmark, which was DKK -37 million at end-2007.

SWAP PORTFOLIO BROKEN DOWN BY THE CENTRAL GOVERNMENT'S SWAP COUNTERPARTIES

Chart 8.3.1



Note: Excluding the swap portfolio transferred from the Mortgage Bank of the Kingdom of Denmark.

Dispersion and rating of the central government's swap counterparties

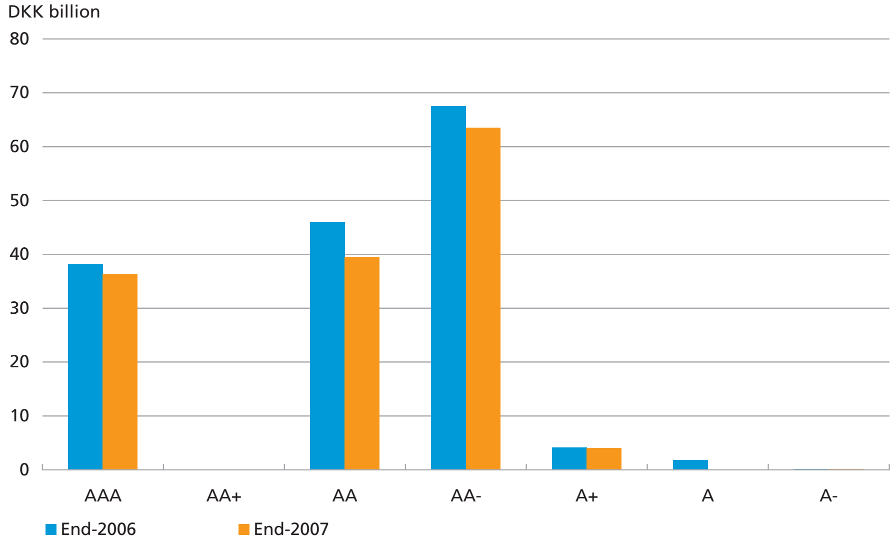
The central government reduces the risk of losses by using a large number of swap counterparties. Furthermore, a large number of swap counterparties contributes to ensuring price competition. At end-2007, the central government had outstanding swaps with 21 counterparties, cf. Chart 8.3.1. The 16 most used counterparties are rated AA- or higher.

The first half of 2007 was generally characterised by upgrading of the central government's counterparties by Fitch, Moody's and Standard & Poor's. In the 2nd half of the year, some of the counterparties were downgraded, reflecting losses by a number of banks in connection with the US subprime crisis. Overall, the credit quality of the central government's swap portfolio is deemed to have remained more or less unchanged in 2007, cf. Chart 8.3.2.

At the beginning of 2007, Moody's upgraded a large number of banks following the implementation of a new methodology for rating banks (Joint Default Analysis methodology)[1], which, to a larger extent than previously, includes external support. This new methodology has not significantly affected the credit exposure of the central government since it is the lowest rating within the group of selected rating agencies that determines the collateral requirements.

[1] The Joint Default Analysis methodology is decribed in more detail at www.moodys.com.

PRINCIPAL OUTSTANDINGS OF THE SWAP PORTFOLIO BY COUNTERPARTY RATING
Chart 8.3.2



Note: The lowest rating is applied if a counterparty is given different ratings by the three rating agencies used. Excluding the swap portfolio transferred from the Mortgage Bank.

Development in the central government's credit-risk management in 2008

The central government's collateral agreements were concluded in the late 1990s. As the field of credit-risk management has developed, Government Debt Management will review the collateral agreements in 2008 with a view to reducing the credit exposure on central-government debt and updating the agreements.

The credit exposure can be reduced by concluding new collateral agreements with lower threshold values, cf. Box 8.3. Lower threshold values mean that the central government's counterparties must pledge more collateral in connection with interest-rate and currency swaps.

CREDIT-MANAGEMENT TERMS
Box 8.3

Threshold value: The upper limit for uncollateralised credit risk on a counterparty. If the market value of the swap portfolio exceeds the threshold, the counterparty is requested to pledge collateral.

Potential credit exposure: A margin added to the credit exposure factoring in potential increases in the market value of a counterparty's swap portfolio as a result of market developments.

Credit exposure line: The upper limit for the total credit exposure permitted (threshold value + potential credit exposure).

From early 2008, the intention is to adjust collateral on a daily basis and not on a monthly basis, as was the previous norm. This will reduce the central government's credit exposure. Daily collateralisation will enable simplification of the operating structure for the central government's credit-risk management:

- Calculation of the potential credit exposure will be abolished. Potential credit exposure takes into account that the market value of a counterparty's swap portfolio may increase further due to market developments. This is no longer relevant when collateral is adjusted on a daily basis.
- Credit exposure lines are abolished. When the potential exposure no longer applies, credit exposure lines are identical to the threshold values, cf. Box 8.3.

OPERATIONAL RISK 8.4

Government Debt Management is divided into front, middle and back offices with separate functions. A clear division of functions reduces operational risk and facilitates internal control. Moreover, only standardised, generally accepted financial instruments are used, and legal risk is minimised by exclusively using standardised contracts.

Procedures have been defined for the individual tasks, and all procedures are maintained on an ongoing basis and approved by the manager in charge.

Danmarks Nationalbank

Government Debt Policy in the Light of Falling Debt

Summary and Conclusion

Against the background of falling debt, Government Debt Management has analysed the future perspectives of the market for Danish government securities. The aim is to determine how to structure this market in the coming years, given the objectives of:

- covering the central-government financing requirement at the lowest possible long-term borrowing costs, while taking the degree of risk into account
- facilitating the central government's access to the financial markets in the longer term and supporting a well-functioning domestic financial market.

In connection with the preparation of the report, key participants in the market for Danish government securities have been consulted, including primary dealers and other market participants.

IMPLICATION OF FALLING DEBT FOR THE GOVERNMENT-SECURITIES MARKET

The report comprises three parts, analysing the following questions:

- To which extent is the central government expected to have a borrowing requirement in the future?
- What are the costs of suspending central-government borrowing and subsequently re-establishing a domestic market for government bonds?
- Which role do Danish government securities play in the domestic financial market?

Borrowing requirement and strategy

The first part of the analysis is based on the Danish government's report *Towards New Goals – Denmark 2015* (the 2015 plan)[1]. This plan envisages central-government surpluses in the coming years, although they are expected to fall towards 2015. There will still be a need to issue government bonds due to maturing government securities. The annual borrowing requirement is expected to average around DKK 30 billion in the period 2008-15.

[1] *Mod nye mål – Danmark 2015*, the Danish government, August 2007. In Danish only.

In the longer term, particularly the ageing of the population will lead to an increase in the borrowing requirement. According to the long-term projections by the Danish government and the Danish Economic Council, the central-government surpluses will cease and the central government will have a substantial borrowing requirement. Consequently, there are no indications that the issuance of government bonds can be suspended. Closing the market for government bonds is only an option in the event of a prolonged period with considerably higher surpluses than those envisaged in the 2015 plan.

If the debt is redeemed and the surplus continues, there will be a need to invest in assets. In a number of countries with sustained surpluses, central-government assets are accumulated in special funds with defined objectives, investment policies and rules for transfers and disbursement. At the same time, these countries have chosen to maintain issuance programmes for government bonds in order to ensure a well-functioning domestic financial market.

Costs of re-establishing a market for government securities

The second part of the analysis investigates the potential costs of temporarily suspending government issuance and subsequently re-establishing the market. Closing the market for government securities is only possible in the event of a sustained period of surpluses that significantly exceed the projection in the 2015 plan. The analysis shows that re-establishment entails costs, primarily relating to a period with less favourable borrowing terms. The costs are analysed from three perspectives:

- Comparison of the borrowing terms under the central government's current borrowing programme with those of other highly rated domestic issuers. The analysis shows that under an established borrowing programme the central government issues loans at a yield that is approximately 25-35 basis points lower than other highly rated domestic issuers. This conclusion is comparable to that of an equivalent review performed by the Australian Department of the Treasury.
- In connection with the start-up of the market for government bonds in the mid-1970s, the yield on government securities was up to 60 basis points higher than the yield on equivalent bonds issued by mortgage-credit institutes.
- Experience from the establishment of the euro-loan programme indicates additional start-up costs of around 10 basis points compared with a well-established programme.

Overall, the analysis shows less favourable borrowing terms for the central government in a start-up phase of a few years. However, the magnitude of the costs and the duration of the start-up phase are subject to considerable uncertainty.

The alternative to closure and subsequent re-establishment is to continue to issue government bonds, even at a time when the central government has no borrowing requirement. It is estimated that loan revenue can be invested at a yield which at least equals the central-government borrowing terms without taking significant financial risks. For example, New Zealand issues domestic bonds despite a period with non-existing borrowing requirement. The revenue is invested in highly rated foreign bonds and the currency risk is hedged via currency swaps.

The role of government securities in Denmark

The final part of the analysis investigates whether government securities play a special role in supporting the financial market in Denmark.

In a number of contexts, the market for government securities functions as a benchmark and reference for other financial instruments in the fixed-income markets. The market for government securities thus contributes to efficient pricing and capital allocation. The reason is that government securities are standardised instruments with low credit risk and high liquidity. The low credit risk on government securities also makes them suitable as safe assets in a diversified investment portfolio.

The analysis focuses on the role of government securities as price references and investment objects. The analysis shows that other types of financial instruments, e.g. mortgage-credit bonds, the swap market or foreign government securities can normally ensure efficient pricing. However, under unusual market conditions differences between government securities and other securities become more apparent. In such situations, the absence of government securities could mean that the financial markets function less efficiently.

GOVERNMENT DEBT POLICY IN THE COMING YEARS

On the basis of the analysis and the perspectives for the future structure of the market for Danish government securities, Government Debt Management and the Ministry of Finance have decided to continue to issue government bonds. In this connection, it has been emphasised that the central government will have a borrowing requirement in the coming years, and that there are costs related to re-establishment of a borrowing programme after it has been closed. In order to ensure a liquid market for government securities, the issuance strategy is as follows:

- To open a new 10-year government bond approximately every second year and build it up to a final outstanding volume of around DKK 50 billion.

To the extent that the government funds invest in domestic government bonds, further issuance will be required in order to maintain a liquid market for government securities.

The intention is still to ensure that the framework of the market for government securities supports a well-functioning market for Danish and international market participants and investors. Agreements between Government Debt Management and a number of banks (primary dealers) concerning issuance of and trading in government securities will remain a core element of the market for government securities in the coming years.

The strategy will be reviewed after 3-4 years.

I. Borrowing Requirement and Issuance Strategy

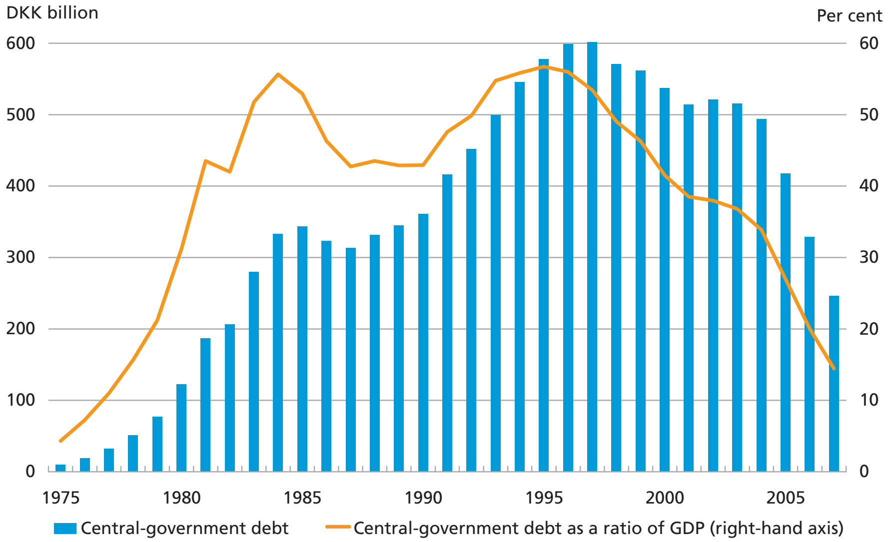
DEVELOPMENT IN THE CENTRAL-GOVERNMENT BORROWING REQUIREMENT I.1

The last 10 years have witnessed a significant reduction of the central-government debt, from approximately DKK 600 billion at end-1997, to approximately DKK 250 billion at end-2007, corresponding to a decline from 53 per cent of GDP to 14 per cent of GDP, cf. Chart I.1.1.

The debt reduction reflects central-government surpluses virtually every year since 1997, particularly in the last three years. The surplus was around DKK 35 billion on average in the period.

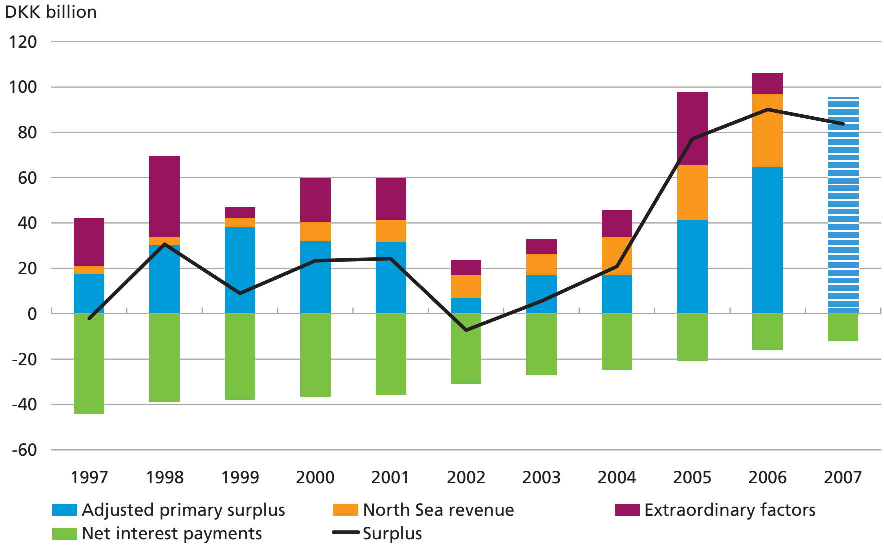
A considerable part of the debt reduction can be attributed to revenue from North Sea activities and extraordinary factors (e.g. from the central government's sale of shares in Tele Danmark A/S and extraordinarily high revenue from the pension-fund tax), cf. Chart I.1.2. The decline in the central-government debt and a lower level of interest rates have contributed to a significant reduction of the central government's interest costs from DKK 44 billion in 1997 to DKK 15 billion in 2007.

CENTRAL-GOVERNMENT DEBT, 1975-2007 Chart I.1.1



Note: The central-government debt includes the assets of SPF as from 1 January 1982.

BREAKDOWN OF CENTRAL-GOVERNMENT SURPLUS Chart I.1.2



Note: Surplus compiled as the central government's net cash balance. The adjusted primary surplus excludes North Sea revenue, extraordinary factors and net interest payments. Only surplus and net interest payments have been compiled for 2007.
Source: *Budget Outlook 1*, February 2008 and the *Central-Government Accounts*.

Borrowing requirement up until 2015

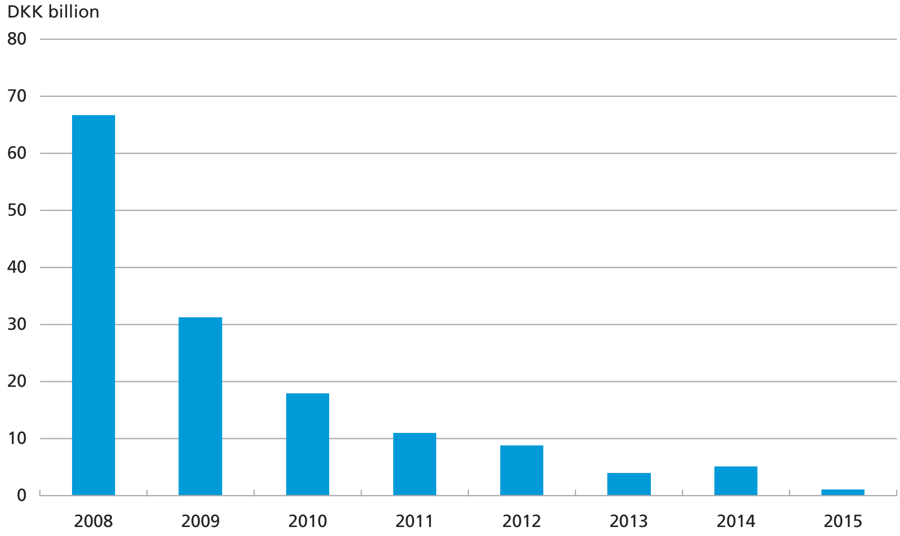
The central government has shown extraordinarily large surpluses in recent years, reflecting a combination of temporary factors, all working in the same direction, such as the strong economic condition, high oil prices and capital gains in the financial markets. The Danish government's projection, *Towards New Goals – Denmark 2015* (the 2015 plan)[1], envisages lower surpluses until 2015, cf. Chart I.1.3. Four main factors point to lower surpluses in the 2015 plan:

- A gradual normalisation of recent years' strong economic condition is expected. This explains more than half of the expected decrease in the surplus
- A gradual decline in revenue from North Sea production from the current high level
- Increasing expenditure for state retirement pensions in step with the growing number of old-age pensioners
- The priorities in expenditure and tax policies until 2015 imply lower surpluses.

The central government's annual borrowing requirement depends on the government surplus and refinancing of maturing government

[1] *Mod nye mål – Danmark 2015*, the Danish government, August 2007. In Danish only.

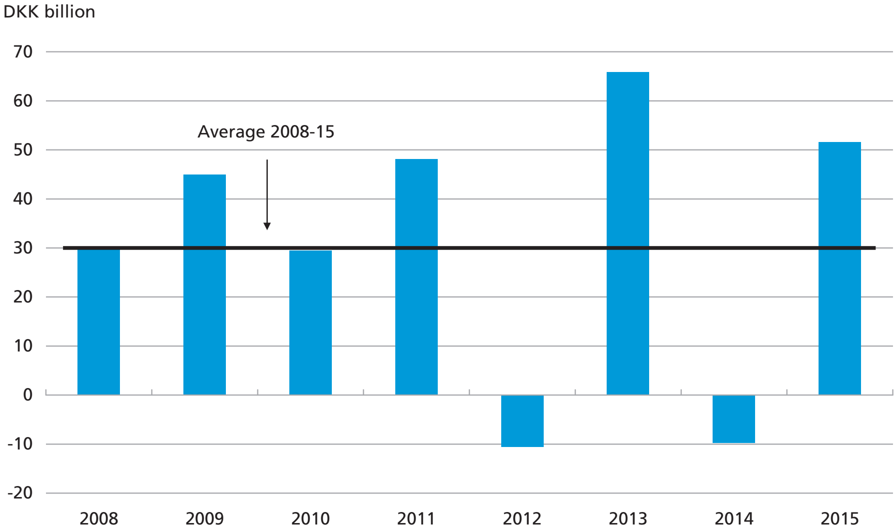
PROJECTION OF CENTRAL-GOVERNMENT SURPLUS Chart I.1.3



Note: The surplus measure applied is the central government's net cash balance.
Source: *Towards New Goals – Denmark 2015* and *Budget Outlook 1*, February 2008.

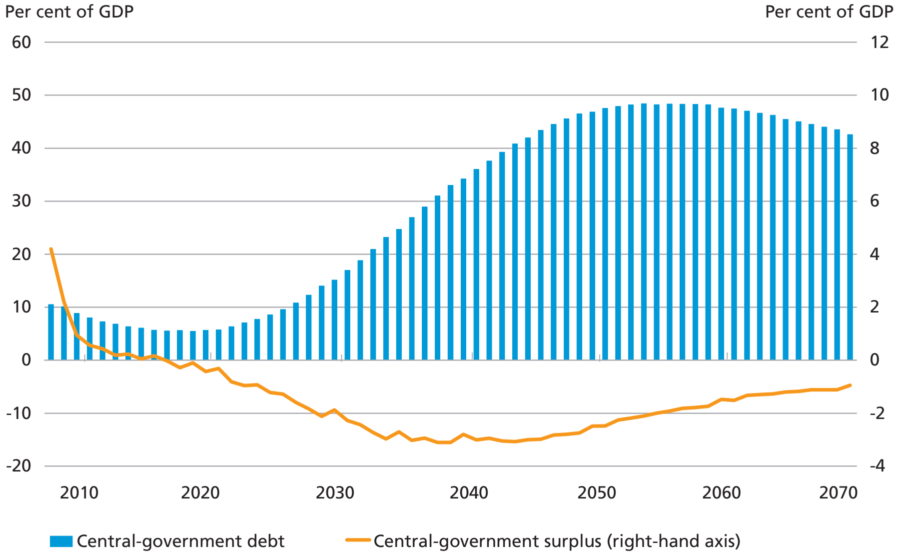
securities. The central government's annual borrowing requirement is expected to average around DKK 30 billion in the period 2008-15, cf. Chart I.1.4.

EXPECTED CENTRAL-GOVERNMENT BORROWING REQUIREMENT IN GOVERNMENT BONDS Chart I.1.4



Source: *Towards New Goals – Denmark 2015* and *Budget Outlook 1*, February 2008.

CENTRAL-GOVERNMENT DEBT AND SURPLUS, 2008-70 Chart I.1.5



Source: *Towards New Goals – Denmark 2015.*

The projection in the 2015 plan indicates the central government's expected borrowing requirement in the coming years. The actual borrowing requirement may deviate from this if, for example, the cyclical development of the economy deviates from the projection.

Borrowing requirement in the years after 2015

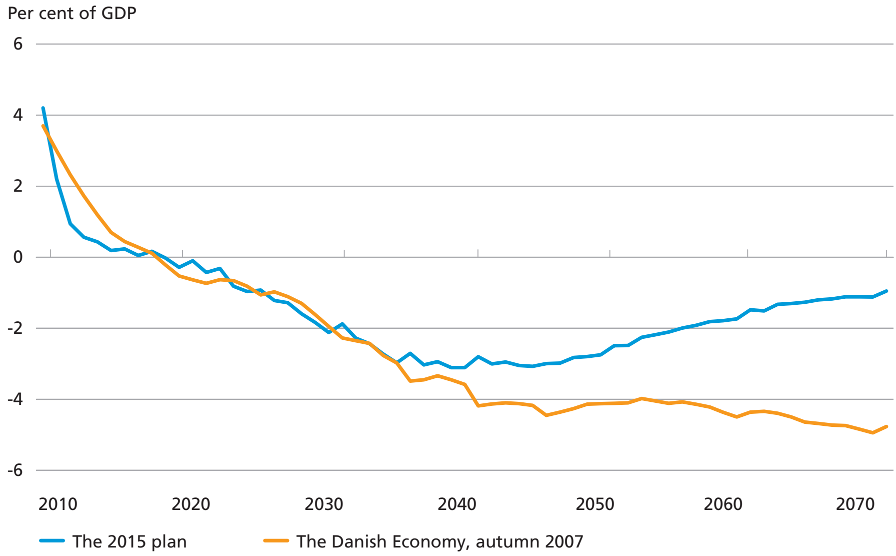
The 2015 plan projects the central-government balance after 2015 subject to neutral, technical assumptions concerning e.g. life expectancy and its implications for expenditure policy. The projection is subject to high uncertainty.

According to the technical projection, the central-government balance will show a deficit after 2015, gradually increasing to around 3 per cent of GDP by 2035, cf. Chart I.1.5.

There are two principal factors explaining the development in the projection:

- From 2020 to 2040 relatively large generations will retire from the labour market, and the ratio of employed to non-employed will decline. This points to a deficit since, inter alia, larger generations in retirement entail increased expenditure for care and healthcare in relation to the elderly.
- Revenue from the North Sea production is expected to decline to the extent that annual proceeds from oil and gas production will fall by approximately 0.5 per cent of GDP from 2015 to 2040.

LONG-TERM PROJECTIONS OF THE GENERAL GOVERNMENT BALANCE Chart I.1.6



Source: *Towards New Goals – Denmark 2015* and *The Danish Economy, autumn 2007,* the Danish Economic Council.

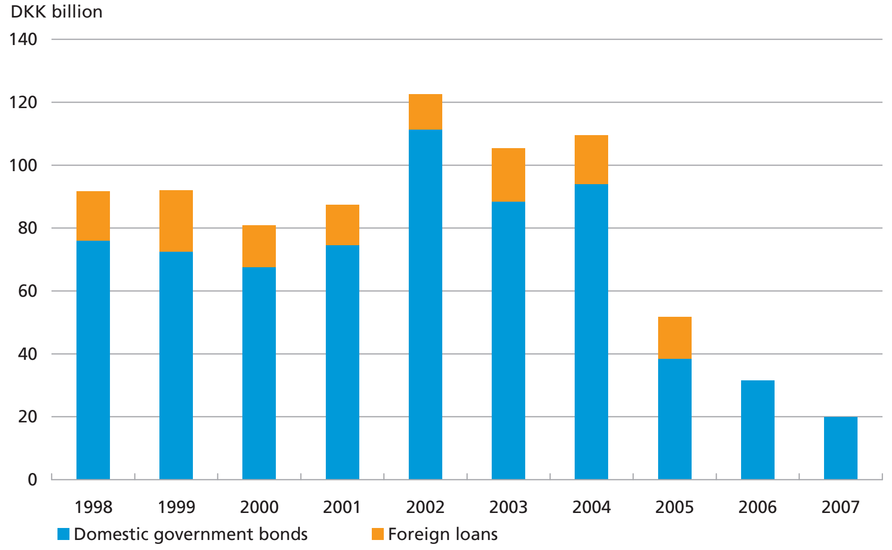
The latest report from the Danish Economic Council, *The Danish Economy, autumn 2007*, contains a long-term projection of the Danish economy that envisages larger deficits than the 2015 plan, cf. Chart I.1.6. The differences clearly stand out only after 2035 and can be attributed to other assumptions about e.g. developments in the labour force and the impact of higher life expectancy on healthcare expenditure. Both projections point to a considerable central-government borrowing requirement in the longer term.

ADJUSTMENT OF THE ISSUANCE STRATEGY I.2

In the light of considerable surpluses for several years, the aim of the central government's issuance strategy has been to maintain a liquid market for domestic government securities. A few years ago, the central government issued T-bills, 2-, 5- and 10-year domestic government bonds, and 5-year euro loans. Annual issuance totalled approximately DKK 100 billion, cf. Chart I.2.1.

Over the last three years, average annual issuance has been approximately DKK 30 billion. As a result, the strategy has been amended, and government bond issuance is now concentrated in the 10-year maturity segment, while the central government's euro-loan programme has been suspended, and the T-bill programme will be phased out in 2008.

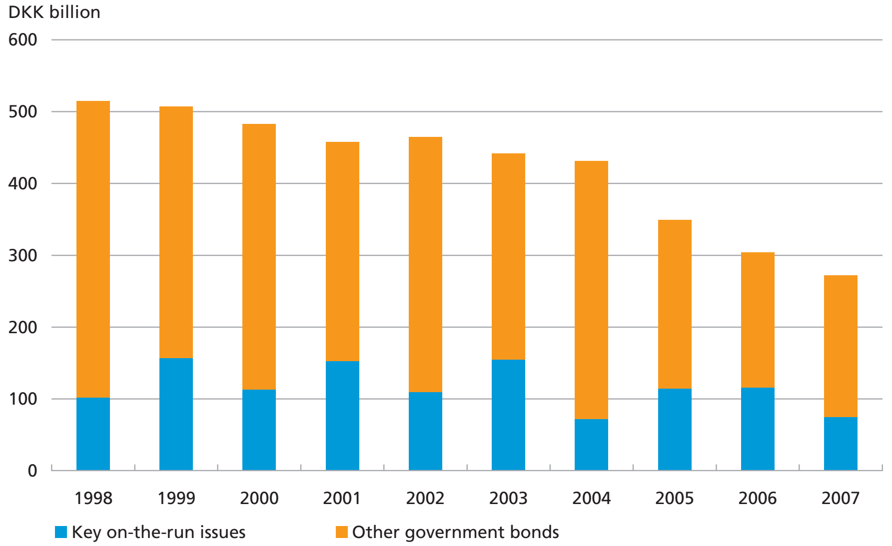
ANNUAL ISSUANCE OF GOVERNMENT BONDS Chart I.2.1



The choice of maturity segment reflects that the central government normally has a comparative advantage in the long maturity segment in view of its high credit standing, and that the 10-year segment is internationally considered to be the most important.

The concentration of issuance in fewer series has contributed to maintaining liquidity in the key on-the-run issues, despite the decrease

GOVERNMENT BONDS, EXCLUDING THE GOVERNMENT FUNDS' PORTFOLIOS Chart I.2.2



in the total outstanding volume. In the period 1998-2007, outstanding key on-the-run issues totalled around DKK 100 billion, while the total outstanding of other government bonds, excluding government funds, fell from DKK 400 billion to DKK 200 billion, cf. Chart I.2.2.

Adjustment of issuance strategies in Finland and Sweden

Finland and Sweden have reduced their central-government debt in recent years and, like Denmark, concentrated their issuance on a few series.

Finland's central-government debt fell from approximately 65 per cent of GDP in 1997 to approximately 30 per cent of GDP at end-2007. Finland's government debt management office still expects to refinance maturing loans via the financial markets, while preparing for future challenges, including in particular the implications for the central-government balance of the ageing population. Finland does not intend to change its issuance policy.[1]

Sweden's central-government debt declined from 75 per cent of GDP in 1997 to approximately 40 per cent of GDP at end-2007. It is expected to be reduced further to around 30 per cent of GDP by the end of 2009 as a result of e.g. high growth and privatisation of state-owned enterprises. The primary objective of the issuance policy is to maintain a liquid market for government bonds. Consequently, Sweden downscaled its T-bill programme in 2007, while issuance of Swedish index-linked bonds and foreign-currency-denominated bonds is being retained. The intention is to ensure a stable issuance policy and well-functioning capital markets.[2]

CONDITIONS FOR A LIQUID MARKET FOR GOVERNMENT SECURITIES I.3

The issuance strategy is based on the assumption that investors are willing to pay a premium for liquid government bonds. Building up large liquid series in the government-bond market enables the central government to obtain a liquidity premium and thus meet its borrowing requirement at a lower interest rate.

Government Debt Management has previously analysed liquidity in the Danish market for government securities, cf. *Danish Government Borrowing and Debt 2002*, Chapter 8. The analysis showed the existence of a liquidity premium in the Danish market for government securities.

1 *Debt Management Annual Review 2006*, Finland. See www.treasuryfinland.fi.
2 *Central Government Borrowing – Forecast and Analysis 2007:3,* Sweden. See www.rgk.se.

Maintaining a liquid market for government securities requires a large outstanding volume of government bonds. The international standard is to build up series of government securities to at least EUR 5 billion in order to enable trading on international electronic platforms. In the 10-year segment, the series are often somewhat larger, typically around EUR 10 billion. The central government's primary dealers have indicated that the outstanding volume in 10-year government bonds should be at least DKK 50 billion.

In addition, it is important to have a framework for the government-securities market that supports a well-functioning market for Danish and international market participants and investors. This implies continuing trading on electronic platforms and maintaining the central government's agreements with primary dealers.

ISSUANCE STRATEGY IN THE COMING YEARS I.4

With a view to obtain liquid issuance and on the basis of the expected future borrowing requirement, the issuance strategy is as follows:

- To open a new 10-year government bond series approximately every second year and build it up to a final outstanding volume of around DKK 50 billion.

In the longer term, this strategy will lead to distribution of the central-government loans on five bond series, each amounting to approximately DKK 50 billion, bringing the total outstanding volume of government bonds to approximately DKK 250 billion. The annual issuance under this strategy is consistent with the central government's expected annual borrowing requirement of around DKK 30 billion until 2015. Investment by government funds in domestic government bonds will result in a higher issuance requirement to ensure a liquid market for government securities.

In the event of a larger than expected borrowing requirement over a prolonged period, the issuance strategy may be adjusted, e.g. by building up the securities to a higher outstanding volume or opening additional series of government securities.

Smoothing out the annual borrowing requirements

The intention is to smooth out the redemption profile via buy-backs and by using the central government's account. Flexible use of the account means that the central government does not have to buy back at unfavourable prices. In years when the borrowing requirement is smaller than the issuance, the balance of the central government's account can increase, whereas it can be reduced in years with a higher borrowing requirement.

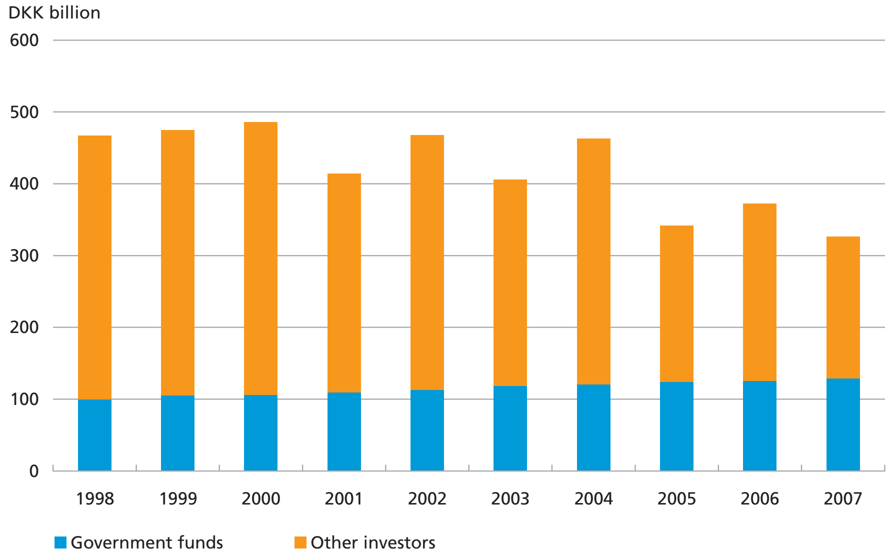
GOVERNMENT FUNDS I.5

Government Debt Management manages the assets of the Social Pension Fund (SPF), the Danish National Advanced Technology Foundation, the Financing Fund for increased distributions from the Danish National Research Foundation, and the Preventive Measures Foundation. The total assets of the government funds are expected to remain at approximately DKK 135 billion in the coming years.

For a number of years, the funds have primarily invested in government bonds, excluding key on-the-run issues. As the government debt decreases, the funds' portfolios constitute a larger share of the outstanding volume of government bonds, cf. Chart I.5.1.

As a result of the decreasing debt, the outstanding volume and the number of government bonds is lower than previously. This makes it more difficult for the funds to invest in government bonds without pushing up prices. Investment at higher prices reduces the returns on the funds' assets.

OWNERSHIP DISTRIBUTION OF GOVERNMENT BONDS, EXCLUDING KEY ON-THE-RUN ISSUES Chart I.5.1



In addition, the funds' investments in government bonds can contribute to reducing liquidity in the market for government securities in a situation where the decreasing debt is already exerting pressure on liquidity. This increases the risk of shortages and unusual market conditions for government securities.

Against this background, SPF may have to make increased use of the opportunity to buy other listed bonds than government bonds. SPF's investments will observe the regulations of the fund.

ACCUMULATION AND MANAGEMENT OF CENTRAL-GOVERNMENT ASSETS I.6

The strategy for the coming years is consistent with the projection in the 2015 plan, i.e. a declining surplus until 2015. Should the government surplus significantly exceed the projection in the 2015 plan, the strategy will be reviewed.

Experience with falling debt and accumulation of assets in Australia, Ireland, New Zealand and Norway is reviewed below. Should a similar situation arise in Denmark, this will call for an analysis of how the central-government assets should be managed.

Accumulation and management of central-government assets in countries with declining debt

If the debt is redeemed and a surplus continues, there will be a need to invest in assets. In a number of countries with sustained surpluses, central-government assets are accumulated in special funds. The funds' objectives have been determined politically, often with a long-term approach. Examples are:

- To contribute to financing higher central-government expenditure related to the ageing of the population
- To contribute to financing specific items of public expenditure in the long term, e.g. education or research
- To strengthen fiscal discipline and smooth out public spending from generation to generation by removing part of the surplus from the annual budget.

There is typically a fixed framework for the transfer of capital to the funds, cf. Table I.6.1. Ireland aims to transfer a fixed percentage of GNP each year, Australia's transfer depends on the size of the government surplus, and Norway transfers the central government's net revenue from oil activities.

GOVERNMENT FUNDS IN AUSTRALIA, IRELAND, NEW ZEALAND AND NORWAY

Tabel I.6.1

Fund	Transfers	Disbursement	Management	Objective
Australia: Future Fund	The government determines the proportion of the government surplus and proceeds from privatisation to be transferred.	Disbursement may take place when the fund's assets are equivalent to pension obligations (expected around 2020).	An independent unit manages the assets on a day-to-day basis. A board appointed by the Minister of Finance undertakes supervision and plans the investment strategy.	To finance future pension obligations.
Ireland: National Pensions Reserve Fund	Annual transfer: 1 per cent of GNP.	Disbursement may take place as from 2025 in accordance with rules set out by the Minister of Finance.	Irish government debt management office manages the assets on a day-to-day basis under a 10-year mandate. A commission plans the investment strategy and undertakes supervision.	To provide for increasing public expenditure for welfare and pensions as from 2025.
New Zealand: Super-annuation Fund	Approximately NZD 2 billion is expected to be transferred every year in 20 years.	Disbursement may take place as from 2020.	An independent unit manages the assets on a day-to-day basis. Supervision is undertaken by a board, which plans the investment strategy.	To partially finance future pension obligations.
Norway: Government Pension Fund (Statens Pensjonsfond)	Central government's oil revenue is transferred.	The intention is to disburse the fund's real yield.	The Ministry of Finance determines the fund's guidelines. The fund's foreign portfolio is managed by Norges Bank, while the domestic portfolio is managed by Folketrygdfondet.	To smooth out oil revenue over generations and counter increases in pension obligations.

Source: Australia's Future Fond: www.futurefond.gov.au, Ireland's National Pensions Reserve Fund: www.nprf.ie, New Zealand's Superannuation Fund: www.nzsuperfond.co.nz, Norway's Folketrygdfondet: www.ftf.no and Norges Bank: www.norgesbank.no.

These assets are managed under a mandate from the respective ministries of finance. Day-to-day management is undertaken by the government debt management office, the central bank or special units.

In addition, the funds are subject to clear investment rules, and their assets include both bonds and shares. Placements are to a large extent made in foreign shares and bonds, inter alia because the countries' domestic financial markets are not large enough.

Issuance of government bonds in countries with net assets

In the event of a government surplus for a sustained period, the central government may consider discontinuing issuance of government securities. In Australia, New Zealand and Norway the central-government assets exceed the debt. These countries have chosen to maintain an issuance programme for government securities, primarily motivated by the special role of government securities in the domestic financial system, e.g. in maintaining a futures market based on government securities, cf. Chapter III. Furthermore, continued issuance of government bonds will ensure that the central government has access to low-cost borrowing at a later stage, should a borrowing requirement arise again, cf. Chapter II.

II. Costs of Re-Establishing the Market for Danish Government Securities

CLOSING AND RE-ESTABLISHING THE MARKET FOR GOVERNMENT SECURITIES II.1

In the coming years, the central government will still need to issue government securities, cf. Chapter I. Consequently, there are no indications that the issuance of government securities can be suspended. Closing the market for government securities is only an option in the event of a prolonged period with considerably higher surpluses than those envisaged in the 2015 plan.

If the borrowing programme is closed, it will have to be re-established when a new borrowing requirement arises. In the event of a large and sustained borrowing requirement, the strategy will be to build up a domestic market for government bonds. That would be in accordance with the debt-management recommendations of the IMF, the OECD and the World Bank.

Re-establishing a domestic market for government bonds

Re-establishment of a domestic market for government bonds involves two types of costs:

- Administrative costs
- Costs related to a period with less favourable borrowing terms than under an established borrowing programme.

The build-up of a borrowing programme entails various administrative costs, e.g. for establishing the required expertise within Government Debt Management, IT systems for portfolio and risk management, agreements concerning trading on electronic platforms, market-making agreements and contractual aspects. There are, however, also administrative costs connected with continued issuance that do not apply while the programme is closed. Overall, the administrative costs are deemed to be of little significance to the decision to maintain or close a borrowing programme.

The costs of closing and re-establishing a borrowing programme primarily depend on whether the borrowing terms will temporarily be less favourable than under an established borrowing programme. Less

FACTORS BEHIND LESS FAVOURABLE BORROWING TERMS IN THE START-UP PHASE OF A BORROWING PROGRAMME Box II.1

A number of factors may contribute to less favourable borrowing terms for the central government:

- A new borrowing programme is not liquid from the outset. In order to ensure liquidity, it is necessary to have large outstanding volumes in the individual series, and the market must be confident that issuance will continue under the programme.
- It takes time to rebuild the framework in the market for government securities that currently supports a well-functioning market with efficient competition among investors in government bonds, including a primary-dealer system and trading on electronic platforms.
- Market participants will incur one-off costs to re-familiarise themselves with Danish government securities and adapt their IT systems. Consequently, market participants will pay a lower price for Danish government bonds in the start-up phase.
- Structural demand for Danish government bonds will be lower in the start-up phase. For example, Danish government bonds will not initially be included in global bond indices or be eligible for use as collateral. Moreover, knowledge of Danish government bonds among international market participants will be lower.

favourable borrowing terms can be expected in a start-up phase. The primary reasons are that a new borrowing programme will not be liquid from the outset, and that it takes time to build up the framework to support a well-functioning market, cf. Box II.1.

The alternative to closure and subsequent re-establishment is to continue to issue government bonds, even at a time when the central government has no borrowing requirement. It is estimated that the loan revenue can be invested at a yield which at least equals the central-government borrowing terms without taking significant financial risks. For example, New Zealand issues domestic bonds despite a non-existing borrowing requirement. The revenue is invested in highly rated foreign bonds and the currency risk is hedged via currency swaps.

QUANTIFICATION OF BORROWING COSTS ON RE-ESTABLISHMENT II.2

The following analysis of the costs of re-establishment in terms of less favourable borrowing terms in the start-up phase, and of the duration of the start-up phase, is based on three approaches:

- The central government's current borrowing terms are compared with those of other issuers in the domestic market with the same rating as the central government.
- Historical experience from the establishment of the existing market for government securities in Denmark.
- Experience from the establishment of the euro-loan programme.

COMPARISON OF BORROWING COSTS IN 2007 Table II.2.1

Basis points	Central government's borrowing advantage (10-year yield spread)	Additional annual costs of a 10-year issue of DKK 40 billion[1]
Same borrowing terms as mortgage-credit institutes	-25	DKK 100 million
Same borrowing terms as KommuneKredit	-34	DKK 135 million

Note: Yied spreads are the difference between the government yields and the yields on bonds from mortgage-credit institutes and KommuneKredit. Yield spreads are adjusted for differences in maturity and the prepayment option.

1 Additional annual costs are incurred for 10 years since the loan is financed via a 10-year issue.

The costs and duration of the start-up phase are subject to considerable uncertainty.

Yield spreads to domestic issuers with the same rating as the central government

Loans issued by KommuneKredit[1] and the mortgage-credit institutes have the same rating by the international credit rating agencies as those issued by the central government. However, these loans are typically less liquid than government bonds. For this reason, among others, the central government issues loans at a yield that is approximately 25-35 basis points lower than the equivalent yields on loans issued by KommuneKredit and the mortgage-credit institutes, cf. Table II.2.1.

In the following it is assumed that when the central government re-establishes a borrowing programme, it is able to borrow on the same terms as KommuneKredit and the mortgage-credit institutes. In the case of re-establishment, if the central government issues 10-year government bonds for DKK 40 billion (equivalent to approximately 2 per cent of GDP), the start-up costs may amount to DKK 100-135 million p.a. for 10 years. The total start-up costs for first-year issuance may thus be in the range of DKK 1-1.3 billion over the life of the loan (10 years).

In 2002, the Australian Department of the Treasury reviewed the costs of potentially re-establishing the market for Australian government securities.[2] The review showed that the central government was able to borrow at a yield approximately 30 basis points lower than that of Australian states with the same rating as the central government. It was assessed that this advantage would temporarily disappear if the market for Australian government bonds was closed and later reopened.

1 The Credit Institution for Local and Regional Authorities in Denmark.

2 See www.debtreview.treasury.gov.au.

Establishment of the market for Danish government securities in the 1970s

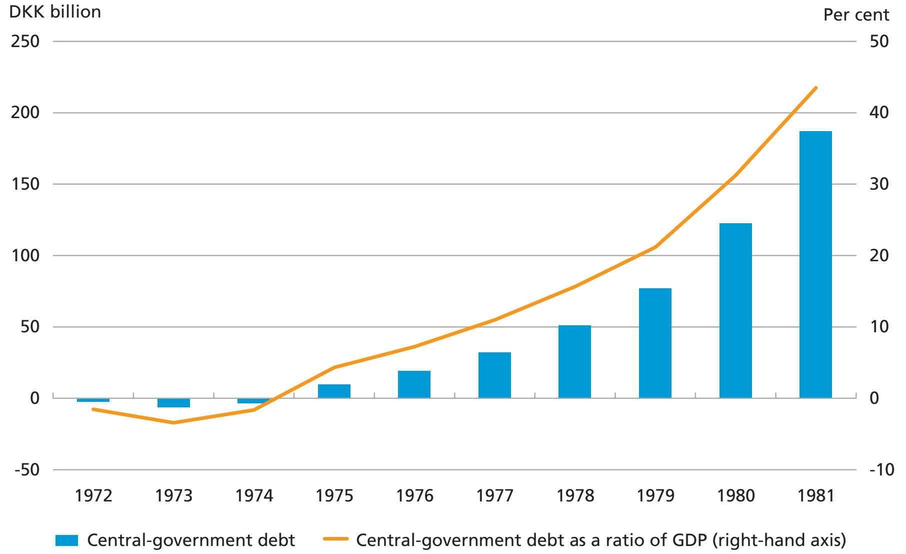
Issuance of Danish government bonds took off in the mid-1970s in line with the mounting central-government deficit, cf. Chart II.2.1.

The Danish market for mortgage-credit bonds was well-functioning at that time. The volume of domestic government securities in circulation was DKK 8.4 billion at the beginning of 1976, while the corresponding volume of mortgage-credit bonds was DKK 176 billion. A comparison of the yields on government bonds and mortgage-credit bonds at the time may give an indication of the additional costs in the start-up phase and the duration of the start-up phase.

In connection with the start-up of the market for government bonds, the yield on government securities was higher than on equivalent bonds issued by mortgage-credit institutes, i.e. the yield spread was positive, cf. Table II.2.2. As the market for government bonds was built up, the central government was able to borrow at a lower yield than the mortgage-credit institutes (negative yield spread). By the early 1980s the spread was approximately -30 basis points, corresponding to the central government's current borrowing advantage.

The narrowing of the spread coincided with two factors that, viewed in isolation, could point to widening spreads. Firstly, there was a higher credit risk as the government debt increased from 7 to 44 per cent of GDP from 1976 to 1981, and secondly demand was low due to the ban in

CENTRAL-GOVERNMENT DEBT, 1972-81 Chart II.2.1



YIELDS ON 10-YEAR GOVERNMENT AND MORTGAGE-CREDIT BONDS, 1976-81 Table II.2.2

Per cent	Government bonds	Mortgage-credit bonds	Yield spread (basis points)	Additional annual costs of a 10-year issue of DKK 40 billion[1]
1976	17.25	16.67	58	DKK 232 million
1977	17.85	17.61	24	DKK 96 million
1978	18.12	18.39	-27	
1979	19.12	19.04	8	
1980	19.62	19.79	-17	
1981	19.63	19.96	-33	

Note: The government bonds issued were serial loans, while the mortgage-credit bonds were bullet loans or annuity loans. For the same maturity, the duration was thus longer for mortgage-credit than for government bonds.
Source: Danmarks Nationalbank, *Monetary Review*, February 1983.
[1] Additional annual costs are incurred for 10 years since the loan is financed via a 10-year issue.

1979 on sale of government bonds to non-residents. It should be noted that the level of interest rates was considerably higher in those years, which makes comparison difficult.

The following calculations are based on the assumption that in 1976-77 the central government would have been able to borrow on the same terms as mortgage-credit institutes if a well-functioning central-government securities market had existed. Consequently, in the first two years after start-up, the central government borrows at respective yields that are approximately 60 and approximately 25 basis points higher than those of the mortgage-credit institutes. If the central government issues for DKK 40 billion in 10-year government bonds in the first year, the start-up costs will be approximately DKK 230 million p.a. for 10 years, cf. Table II.2.2. Equivalent issuance in the second year will correspond to further start-up costs of around DKK 100 million p.a. for 10 years.

The start-up costs are even higher if, alternatively, it is assumed that the central government can borrow at a lower yield than the mortgage-credit institutes, as is the case today.

Historical experience from the establishment of a market for government securities in Denmark points to considerable start-up costs for a few years.

Establishment of the euro-loan programme

In the period 2002-05, the central government issued an annual euro loan via syndication. A total of four euro loans were issued before the programme was suspended in 2006.

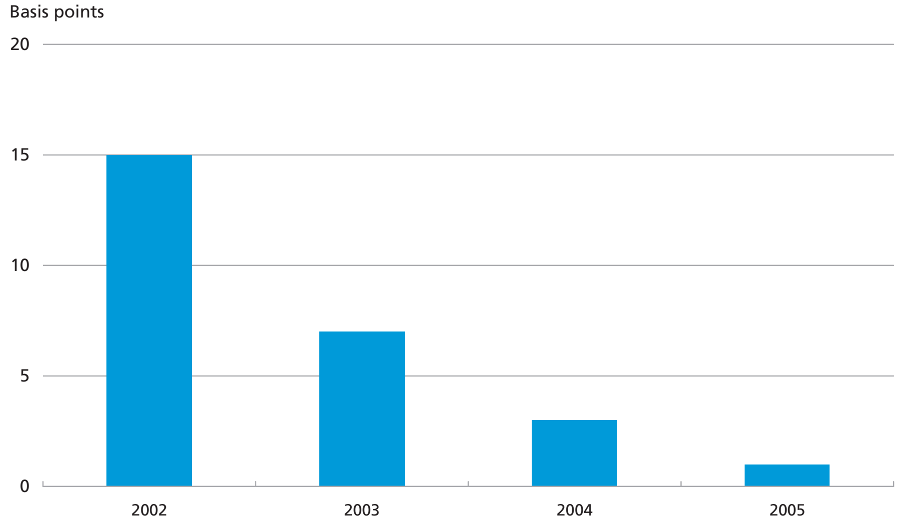
The start-up costs for the euro-loan programme may be indicative of the start-up costs for a new borrowing programme after closure, although the two situations are not fully comparable. When the euro-loan programme was established, it was thus an advantage that Danish government securities were already known in the market, and non-resident investors were interested in Danish government securities denominated in euro. If other borrowing programmes had not already existed, the start-up costs would presumably have been higher and the start-up phase longer.

The start-up costs for the euro-loan programme can be assessed by looking at the yields on the issues in relation to the yield curve for German government bonds, which are comparable over time since the securities were issued in euro.

The first syndicated euro loan in 2002 was priced approximately 15 basis points higher than the German government yield curve, cf. Chart II.2.2. In the subsequent years, the yield on the euro loans gradually approached the German government yield curve. This indicates that the euro loans were more and more attractively priced relative to German government securities as the market became more familiar with them.

If it is assumed that the difference in the attractiveness of euro loans in 2002 and 2003, respectively, is purely a result of start-up costs, the additional costs of issuing under a programme that is not yet fully established can be estimated at 15 basis points in the first year, and 6 basis points in the second year.

YIELD SPREAD VIS-À-VIS GERMANY FOR EURO LOANS ON ISSUANCE Chart II.2.2



Note: Yield spread is adjusted for differences in maturities.
Source: Bloomberg.

If the experience from the establishment of the euro-loan programme is applied to re-establishment of a market for government bonds in the 10-year segment, and DKK 40 billion is borrowed in the first year after re-establishment, the additional costs will be equivalent to approximately DKK 60 million p.a. for 10 years, when compared with issuance under a fully established programme.

III. The Role of Government Securities in the Danish Financial Market

GOVERNMENT SECURITIES AS A BENCHMARK III.1

Pricing of financial instruments plays an important part in well-functioning financial markets. Good pricing contributes to efficient capital allocation.

Most models for pricing of financial instruments are based on a valuation of the subcomponents of the financial instrument. The price of a bond may, for example, be divided into the risk-free interest rate and the price of risk.[1]

With AAA ratings, Danish government securities have a high credit standing and can thus be applied as an estimate of the risk-free interest rate. Furthermore, government securities are liquid, standardised instruments. Were the yield curve to be based on illiquid securities or more complex instrument types there would be a risk that pricing would be disturbed.

If no government securities are available, pricing will have to be based on other financial instruments. The three closest substitutes will be considered in the following: the swap market, the mortgage-credit market and highly rated euro-denominated government securities.

The swap market as a benchmark

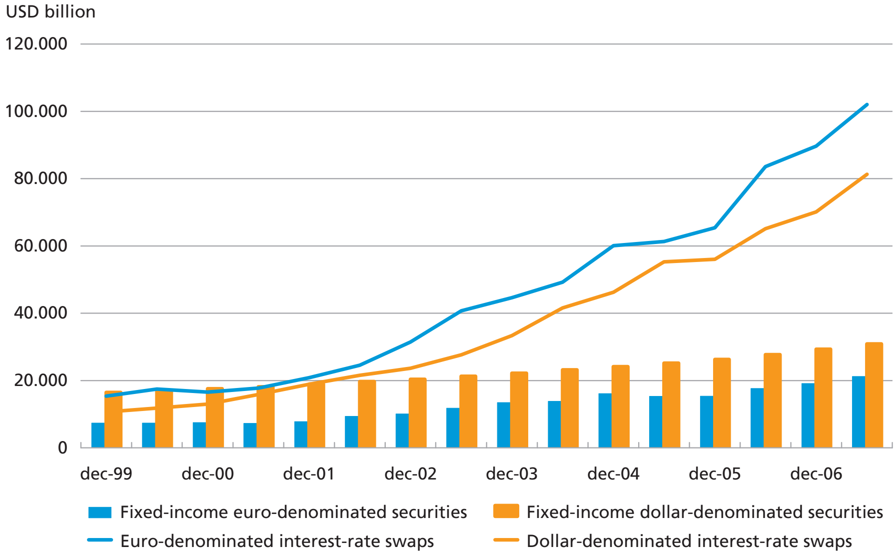
The swap market has increasingly been used as a reference in the pricing of instruments in recent years. The primary reasons are that liquidity in the swap market has increased considerably and that the total outstanding in the swap market (notional value) by far exceeds the total outstanding volume of fixed-income securities in Europe, cf. Chart III.1.1. Besides, interest-rate swaps are standardised instruments that cover the most important points on the curve. The euro-swap market contributes to providing a reference curve across the European countries and thus makes comparison possible.

It may, however, be a challenge to use the swap curve instead of the government yield curve. As swap rates include counterparty risk, the

[1] For example, the Capital Asset Pricing Model (CAPM) is based on the expected return E(r) of a given asset being: $E(r) = r_f + \beta*(E(r_M) - r_f)$, where r_f is the risk-free interest rate, $E(r_M)$ is the expected market return and β is the level of risk.

OUTSTANDING VOLUMES IN THE SWAP MARKET AND IN FIXED-INCOME SECURITIES

Chart III.1.1



Note: Issuance converted to USD.
Source: BIS.

swap curve depends on the credit standing of the underlying banks. When uncertainty and risk aversion increase in the market, the spread between the government yield curve and the swap curve – the swap spread – will typically widen. It may be inexpedient to use the swap curve for price comparison over time due to its higher vulnerability to uncertainty and risk aversion.

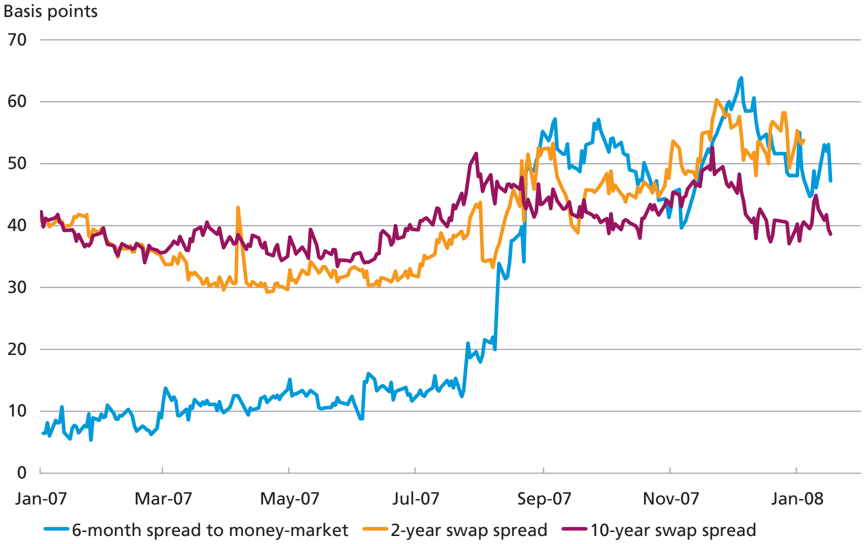
Especially in periods of financial turmoil there is a tendency for differences between government securities and other securities to become more apparent. For example, the turmoil in the financial markets in the 2nd half of 2007 resulted in a widening of the swap spread, cf. Chart III.1.2. Since 1999, the 10-year swap spread has fluctuated between 10 and 70 basis points.

Mortgage-credit bonds as a benchmark

The mortgage-credit market has previously been a benchmark in the Danish bond market. The Danish mortgage-credit market is characterised by a large outstanding volume and low credit risk. Furthermore, there is typically a concentration of liquidity in the short and very long securities.[1] Liquidity in each maturity segment is dispersed among several issuers.

[1] At the short end, uncallable bullet loans and callable loans with various caps are issued. The short-term uncallable bullet loans are immediately comparable to government bonds. Issuance at the long end typically takes place in callable annuity loans that are not immediately comparable to government securities as investors must incorporate the risk of prepayment.

GOVERNMENT SPREADS TO THE MONEY MARKET AND THE SWAP MARKET
Chart III.1.2



Note: The 6-month spread to the money market is the spread between the uncollateralised money-market rate and the T-bill rate. The swap spread is the spread between the swap interest rate and the yield on government securities.
Source: Bloomberg.

The yield spread between government bonds and mortgage-credit bonds is normally limited. In connection with the market turmoil in the 2nd half of 2007, the yield spread between government and mortgage-credit bonds widened in line with the development in the swap market, cf. Chart III.1.3. In these situations it is more difficult to use mortgage-credit bonds as an estimate of the risk-free interest rate.

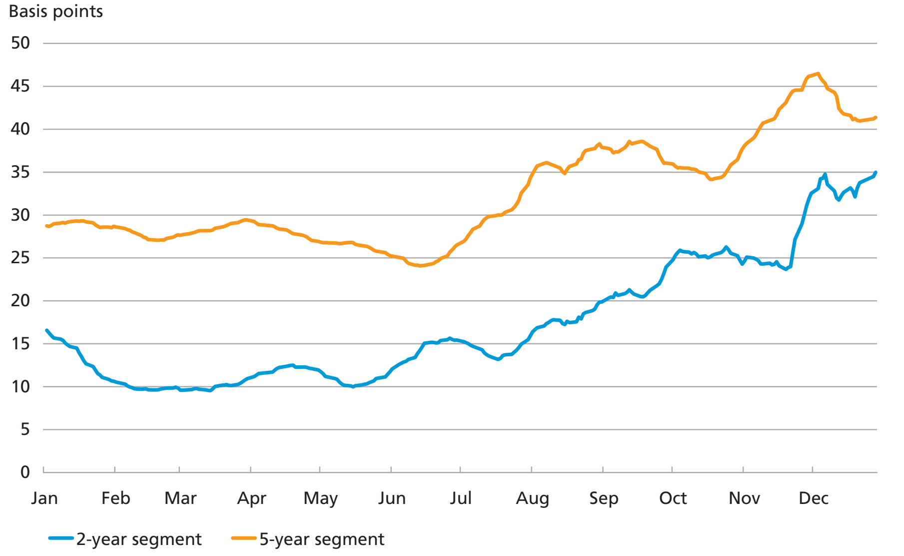
Euro-denominated government securities as a benchmark

Denmark's fixed-exchange-rate policy vis-à-vis the euro implies that euro-denominated government securities may largely be comparable to Danish government securities in kroner. Investors may therefore, as an alternative to the Danish yield curve, use government securities from euro area member states with a high rating as an estimate of the risk-free interest rate in connection with pricing in the Danish fixed-income markets. The euro-denominated government security market is very liquid, cover the most important points on the yield curve and is largely free of credit risk.

Structure and support of efficient markets

Markets for government securities are often said to be a prerequisite for building up a well-functioning domestic financial market. Government securities may also play a part in well-developed markets, e.g. as an

YIELD SPREADS BETWEEN GOVERNMENT AND MORTGAGE-CREDIT BONDS, 2007 Chart III.1.3



Note: The mortgage-credit curve estimated on the basis of uncallable bonds and yield spreads adjusted for differences in maturities. 10-days moving average.

underlying asset for other types of financial instruments. In 2002 Australia decided to maintain a market for government bonds with reference to its futures market.[1] Government bonds are the underlying assets in interest-rate futures contracts and therefore necessary for maintaining a futures market.

In Europe, there is a large and liquid market for futures on German government bonds that plays a considerable part in respect of pricing in the European fixed-income markets. This market is dependent on continued issuance of German government bonds.

GOVERNMENT SECURITIES AS INVESTMENT OBJECTS III.2

Traditionally, government bonds have made up a large part of the portfolios of the Danish pension funds, e.g. due to regulatory conditions. The pension funds have obligations with long duration. The interest-rate risk can be hedged by investments in government securities with long duration.

In recent years, the pension funds have extended their investment universe to comprise a wider range of instruments. Especially the derivatives market has attracted more investors since the end of the

[1] See www.debtreview.treasury.gov.au.

1990s. Today, the pension funds undertake a large part of their risk management via the Danish and European interest-rate swap markets.

Danish government securities are still an investment object in the pension funds' asset portfolios. The interest-rate swap market cannot be used to cover the pension funds' need for placements in assets as such.[1] The overall compilation from the pension funds shows that Danish government securities make up a relatively large part of the total bond portfolio. Approximately 15 per cent of the bond portfolio was placed in Danish government securities in 2006.[2]

According to several pension funds, the interest for Danish government securities reflects that they from time to time yield returns at the same level or slightly higher than other European highly rated government securities. For a number of years, the pension funds have restructured their portfolios on the basis of fluctuations in the yield spread. High tradeability in the Danish government-securities market underpins the opportunity for extensive portfolio restructuring. Since the pension funds' obligations are denominated in kroner, there is thus an incentive to invest in Danish securities (home bias).

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1 As opposed to bonds, no placement takes place in connection with the use of interest-rate swaps.
2 *Life insurance companies.Statistical material 2006*, Danish Financial Supervisory Authority.

Appendices

Information on Government Borrowing and Debt

Government Debt Management focuses on transparency in government borrowing and debt and currently publishes information on the government debt policy. The information is published on Government Debt Management's website, www.governmentdebt.dk, which is also accessible via Danmarks Nationalbank's website, www.nationalbanken.dk under Government Debt.

A wide range of information concerning government borrowing and debt is published via DN News[1]. Several news agencies transmit the information from DN News, e.g. Bloomberg and Reuters. The information is also available at Government Debt Management's website. It is possible to be notified directly of new information and updates concerning government borrowing and debt by subscribing to Danmarks Nationalbank's electronic news service (see www.nationalbanken.dk under News service).

Enquiries concerning government borrowing and debt should be directed to Government Debt Management at the e-mail address governmentdebt@nationalbanken.dk.

The following table presents the information on government borrowing and debt that is published on an ongoing basis.

[1] Danmarks Nationalbank's system for dispersing information to connected news agencies.

INFORMATION ON GOVERNMENT BORROWING AND DEBT

	Overall contents	Information at	Frequency
Danish Government Borrowing and Debt, usually in February	• Development the previous year • Detailed debt and transaction statements • Report section, evaluation and strategy	• www.governmentdebt.dk	Annually
Government debt policy, June and December	• Borrowing strategy • On-the-run issues • Buy-back issues • Duration band	• DN News • www.governmentdebt.dk	Semi-annually
Opening of new securities	• Coupon • Maturity date • Opening date	• DN News • www.governmentdebt.dk	Irregularly
Budget Outlook, normally in May, August and December	• Net financing and borrowing requirement, current and coming years	• Publication from the Ministry of Finance • www.fm.dk	Normally 3 times a year
T-bill auction	• Convening of auction • Result of auction	• DN News • www.governmentdebt.dk	Monthly
Monthly buy-backs and sales, 1st banking day	• Monthly sales by series • Monthly buy-backs by series • Monthly currency swaps	• www.governmentdebt.dk	Monthly
Government funds' holding of government securities, 1st banking day	• Government funds' holding of Danish government securities as of end of previous month	• www.governmentdebt.dk	Monthly
Foreign Exchange and Liquidity, 2nd banking day	• Government net financing requirement	• Press release from Danmarks Nationalbank • www.nationalbanken.dk	Monthly
Day-to-day distribution of government payments, penultimate banking day	• Day-to-day distribution for liquidity impact of central government payments in coming months	• Announcement from Danmarks Nationalbank • www.nationalbanken.dk	Monthly
Government borrowing requirement	• Borrowing requirement based on *Budget Outlook* • Government issues	• DN News • www.governmentdebt.dk	Daily
Daily buy-backs and sales	• Daily sales by series • Daily buy-backs by series	• DN News • www.governmentdebt.dk	Daily

Principles for Management of Credit Risk on Central-Government Swaps

Counterparty credit standing (rating): To limit the credit risk on swap counterparties, swaps are only transacted with counterparties with high credit standing. A counterparty must normally be rated minimum Aa3/AA- by at least two well-reputed rating agencies (Fitch, Moody's or Standard & Poor's). If a counterparty is rated by three rating agencies, the minimum requirement is based on the lowest rating. For interest-rate swaps in kroner and currency swaps between kroner and euro, however, counterparties with a rating of minimum A3/A- are permitted.

Legal basis of agreement: Swaps are only transacted with counterparties that have signed an ISDA Master Agreement, which governs the business relationship between the central government and the counterparty, and a collateral agreement.

Collateralisation: To limit any losses in the event of counterparty default, swaps may only be transacted with counterparties that have signed collateral agreements (ISDA Credit Support Annex) to the ISDA Master Agreements. The key elements of the agreements are:

- The agreements are unilateral, so that only the central government's counterparties pledge collateral.
- Collateral is not pledged until the market value in the central government's favour exceeds an agreed amount (the threshold value). This threshold value depends on the counterparty's rating, cf. Table 1.

THRESHOLD VALUES — Table 1

Counterparty rating		Threshold value (maximum uncollateralised market value)
Moody's	Standard & Poor's, Fitch	DKK million
Aaa	AAA	500
Aa1	AA+	400
Aa2	AA	300
Aa3	AA-	200
A1	A+	150
A2	A	100
A3	A-	50

Note: In the event of different ratings, the lowest rating is the basis for the determination of the threshold value for the maximum uncollateralised market value in the favour of the central government. Ratings below the broken line allow only domestic interest-rate swaps, currency swaps from kroner to euro and currency swaps from euro to kroner.

- Only collateral of DKK 10 million or more is transferred (reversed).
- Permitted collateral will normally be government bonds with a rating of minimum Aa3/AA-. Other bonds can also be accepted, subject to individual assessment, e.g. Danish mortgage-credit bonds. The collateral value of the bonds is calculated as the market value after a haircut. Haircuts will depend on the remaining maturity of the bonds and take into account that the value of the bonds can decrease.
- The administration of bonds pledged as collateral to the central government is transferred to the custodian bank with which the securities are deposited. On behalf of the central government, the custodian bank will request the counterparty to provide additional collateral, should the collateral value of the deposited bonds decrease and become insufficient to cover the market value of the transacted swaps after deduction of the threshold. In the event of surplus cover, the custodian bank is equivalently authorised to release bonds to the counterparty.

Eligible swaps: Only plain-vanilla interest-rate swaps and plain-vanilla currency swaps may be transacted. The maturity will normally be 10 years or lower. Dual-currency swaps and zero-coupon swaps are considered to be plain-vanilla swaps. Structured swaps are no longer transacted. The same applies to transactions that include option elements, including swaptions, interest-rate caps, etc.

Netting: ISDA Master Agreements contain netting provisions whereby gains and losses on transacted swaps are set off if a counterparty defaults on its payment obligations.

Master Agreements are signed only with counterparties domiciled in countries whose legislation is expected to provide for netting.

Early termination of swaps: It must be possible to terminate all swaps with a counterparty should the counterparty's rating fall to an unsatisfactory level. All new ISDA Master Agreements therefore contain rating triggers. A rating trigger entails that swaps can be terminated should a counterparty's rating fall to a given level. In most of the central government's ISDA Master Agreements, the rating trigger is Baa1/BBB+.[1]

As a further safeguard against credit losses, cross-default clauses are also applied. These allow swaps to be terminated if the counterparty defaults on its payment obligations to a third party.

[1] Some Master Agreements, dating from before the rating trigger requirement was formalised, have none or a lower trigger.

Terms for the Securities Lending Facilities of the Central Government and the Social Pension Fund

Primary Dealers in Danish government bonds and banks with access to the auction system for T-bills can borrow government securities in the lending facilities to which they have access. The purpose of the securities lending facilities is to supplement and strengthen market efficiency. Considering the functioning of the repo market, Primary Dealers shall make every effort to support a well-functioning market, and to prevent occurrences of intended market failures. Information on the terms for the Central Government's and the Social Pension Fund's Securities Lending Facilities is given below.

The central government's securities lending facility

1. The lending facility applies to on-the-run government securities and government securities with benchmark status.
2. The specific terms for lending in the individual government series are published in the central government's announcements concerning on-the-run issues.
3. For government bonds the lending facility is available for Primary Dealers in Danish government bonds.
4. For T-bills, the lending facility is available for banks with access to the T-bills auction system.
5. In normal circumstances, the maximum lending in each of the government-bond series is DKK 4 billion, and the maximum lending in all T-bill series is DKK 10 billion. These limits may be raised in the event of abnormal price formation on the private market for securities lending.
6. The fee is 0.2 per cent per year for securities lending of government bonds. The fee is 0.15 per cent per year for securities lending of T-bills.
7. The lending facility is available as buy-/sell-back transactions. Participants borrow in one buy-/sell-back transaction and lend (provide collateral) in another buy-/sell-back transaction.
8. The securities may be borrowed for a period from 1 to 5 trading days.

9. Transactions can be made between 9.00 a.m. and 3.30 p.m., but should as far as possible be concluded before 2.00 p.m. (CET).
10. Lending in securities is granted in the order that requests to Danmarks Nationalbank are received from securities dealers on the relevant day. The right to make discretionary allocations is reserved if deemed appropriate.
11. Danish government securities (bullet loans) denominated in Danish kroner issued via Danish Securities Services (VP) in series with an outstanding amount of at least DKK 3 billion are accepted as collateral.
12. A haircut of 2.5 per cent is applied to each buy-/sell-back transaction. Hence, the market price of the security lent by the central government is raised by 2.5 per cent and the market price of the security provided as collateral by the borrower is lowered by 2.5 per cent.
13. Settlement takes place on the following trading day.
14. In case settlement only succeeds for one of the buy-/sell-back transactions, be that the lending transaction or the collateral transaction as it may, borrowers are obliged to ensure immediate settlement of the failed transaction.
15. For bond trading members of the OMX The Nordic Exchange (OMX Copenhagen) transactions are reported as two or more separate repurchase agreements to OMX Copenhagen.
16. Government Debt Management may from time to time amend the terms and conditions applicable to the Central Government's Securities Lending Facility to reflect market practice and ensure a well-functioning securities lending facility. Government Debt Management informs Primary Dealers at least one week prior to the implementation of any change to the terms of the lending facility.
17. Any enquiries concerning securities lending transactions should be made to Danmarks Nationalbank, Market Operations, on tel. +45 3363 6747 or +45 3363 6736.

The Social Pension Fund's securities lending facility

1. Lending is in all government bonds with more than 1 month remaining maturity of the type bullet loans in the Social Pension Fund's portfolio.
2. The lending facility is available to Primary Dealers in government bonds.
3. The fee is 0.2 per cent per year.

4. The lending facility is available as buy-/sell-back transactions. Participants borrow in one buy-/sell-back transaction and lend (provide collateral) in another buy-/sell-back transaction.
5. The securities may be borrowed for a period from 1 to 5 trading days.
6. Transactions can be made between 9.00 a.m. and 3.30 p.m., but should as far as possible be concluded before 2.00 p.m.
7. Lending in securities is granted in the order that requests to Danmarks Nationalbank are received from securities dealers on the relevant day. The right to make discretionary allocations is reserved if deemed appropriate.
8. Danish government securities (bullet loans) denominated in Danish kroner issued via Danish Securities Services (VP) in series with an outstanding amount of at least DKK 3 billion are accepted as collateral.
9. A haircut of 2.5 per cent is applied to each buy-/sell-back transaction. Hence, the market price of the security lend by the central government is raised by 2.5 per cent and the market price of the security provided as collateral by the borrower is lowered by 2.5 per cent.
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11. In case settlement only succeeds for one of the buy-/sell-back transactions, be that the lending transaction or the collateral transaction as it may, borrowers are obliged to ensure immediate settlement of the failed transaction.
12. For bond trading members of the OMX Copenhagen, transactions are reported as two or more separate repurchase agreements to OMX Copenhagen.
13. Government Debt Management may from time to time amend the terms and conditions applicable to the Social Pension Fund's Securities Lending Facility to reflect market practice and ensure a well-functioning securities lending facility. Government Debt Management informs Primary Dealers at least one week prior to the implementation of any change to the terms of the lending facility.
14. Any enquiries concerning securities lending transactions should be made to Danmarks Nationalbank, Market Operations, on tel. +45 3363 6747 or +45 3363 6736.

Appendix of Tables

CENTRAL-GOVERNMENT DEBT, YEAR-END 1997-2007 Table 1

DKK million	1997	1998	1999
A. Debt			
Domestic debt denominated in DKK			
- Fixed-rate bonds	556,874	550,989	537,289
- Floating-rate bonds	9,848	4,346	-
- Lottery bonds	1,200	1,000	900
- Treasury notes	49,140	58,830	74,040
- Treasury bills	50,001	41,255	36,350
- Index-linked loans and loan package[1]	-	-	-
- Currency swaps from DKK to EUR (net)[2]	-	-	-
- Currency swaps from DKK to USD	-	-	-
- Government securities held by the central government	-	-	-
Domestic debt denominated in DKK	667,063	656,420	648,579
Domestic debt denominated in EUR[3]			
- Fixed-rate bonds	6,634	-	-
Domestic debt, total	673,697	656,420	648,579
Foreign debt			
- in USD	1,514	1,336	1,187
- in CHF	3,974	1,094	3,616
- in JPY	1,047	562	2,453
- in EUR	90,661	84,982	82,386
- in other currencies and multi-currency	6,418	365	383
Foreign debt, total	103,613	88,338	90,025
Domestic and foreign debt, total	777,310	744,758	738,604
B. Government deposits with the central bank[4]	-29,080	-30,412	-35,237
C. The Social Pension Fund, The Financing Fund, The Preventive Measures Fund and The Advanced Technology Foundation			
- Government securities	-92,453	-100,135	-105,432
- Other securities	-54,368	-43,468	-36,207
The four funds, nominal value, total[5]	-146,821	-143,603	-141,640
Central-government debt, total (A+B+C)	601,409	570,743	561,727
Central-government debt, per cent of GDP	53.4	49.0	46.3

Note: Plus denotes liabilities, minus denotes assets.

1 Loans transferred from the Mortgage Bank of the Kingdom of Denmark.

2 Currency swaps from DKK to EUR less currency swaps from EUR to DKK.

3 In connection with the introduction of new accounting principles for the government debt, the 8.5 per cent EUR bullet loan 2002 has been reclassified as foreign debt instead of domestic debt as of 1998.

4 For 2007, the central government's account is compiled in accordance with the monthly balance sheet of Danmarks Nationalbank.

5 Index-linked bonds are compiled at indexed value.

CENTRAL GOVERNMENT DEBT, YEAR-END 1997-2007 Table 1

2000	2001	2002	2003	2004	2005	2006	2007
506,992	494,875	497,938	480,874	480,590	440,351	428,796	403,039
-	-	-	-	-	-	-	-
900	900	400	400	400	200	200	200
81,257	70,788	79,371	78,532	71,690	33,980	-	-
36,846	49,224	63,404	67,347	68,602	60,092	42,660	19,660
-	-	-	-	-	-	379	277
-	-4,800	-16,200	-16,200	-16,200	-15,456	-12,755	-13,262
-	-	-	-	-524	-2,688	-4,862	-7,873
-2,000	-	-	-	-	-	-	-
623,995	610,987	624,913	610,953	604,558	516,479	454,418	402,040
-	-	-	-	-	-	-	-
623,995	610,987	624,913	610,953	604,558	516,479	454,418	402,040
-	-	-	-	518	2,810	4,583	6,884
3,822	-	-	-	-	-	-	-
1,672	-	-	-	-	-	-	-
79,287	83,753	83,689	83,861	83,370	87,833	75,219	61,738
428	42	42	42	40	38	21	20
85,209	83,795	83,730	83,903	83,929	90,681	79,823	68,642
709,204	694,782	708,644	694,856	688,487	607,160	534,241	470,682
-32,637	-39,627	-45,975	-40,621	-57,559	-53,297	-70,958	-87,061
-106,312	-109,474	-113,132	-118,138	-120,799	-124,635	-125,111	-128,547
-33,244	-31,621	-28,230	-20,576	-16,065	-11,284	-9,535	-8,686
-139,556	-141,095	-141,362	-138,714	-136,864	-135,919	-134,646	-137,233
537,011	514,060	521,308	515,521	494,064	417,944	328,637	246,388
41.5	38.5	38.0	36.8	33.9	26.9	20.1	14.5

SERVICE ON CENTRAL-GOVERNMENT DOMESTIC DEBT[1] AS OF 31 DECEMBER 2007 Table 2.1

DKK billion	Interest	Redemptions	Total
2008	19.1	45.8	64.9
2009	17.3	55.6	72.9
2010	13.7	34.9	48.6
2011	12.5	59.7	72.2
2012	9.2	-6.8	2.5
2013	9.3	73.4	82.7
2014	5.6	-0.8	4.8
2015	5.6	56.8	62.4
2016	3.2	-0.8	2.4
2017	3.3	40.9	44.2
2018	1.7	-0.5	1.2
2019	1.7	-0.3	1.4
2020	1.7	-	1.7
2021	1.7	-	1.7
2022	1.7	-	1.7
2023	1.7	-	1.7
2024	1.7	24.4	26.1
Total	110.9	382.4	493.2

[1] Excluding T-bills. Including net interest payments on domestic interest-rate swaps. Krone payments to and from the central government in currency swaps are included in the redemptions.

SERVICE ON CENTRAL-GOVERNMENT FOREIGN DEBT[1] AS OF 31 DECEMBER 2007 Table 2.2

DKK billion	Interest	Redemptions	Total
2008	2.7	22.3	25.0
2009	1.7	21.4	23.2
2010	1.1	13.4	14.4
2011	0.6	0.7	1.4
2012	0.2	6.7	6.9
2013	0.3	0.7	1.0
2014	0.3	0.7	1.0
2015	0.2	0.7	0.9
2016	0.1	0.7	0.8
2017	0.0	0.6	0.7
2018	0.0	0.4	0.5
2019	0.0	0.2	0.3
Total	7.3	68.6	76.0

[1] Including net interest payments on swaps. Payments in foreign currency to and from the central government in currency swaps are included in the redemptions.

THE CENTRAL GOVERNMENT'S CURRENT, INVESTMENT AND LENDING BALANCE, NET CASH BALANCE AND GROSS DEFICIT, 1997-2007 Table 3

DKK billion	1997	1998	1999
Current, investment and lending budget	7.6	31.4	9.1
Net bond purchases[1]	7.4	-	-
Re-lending of government loans	-0.8	0.3	-16
Distributed capital losses on issue and due interest[2] ...	5.1	2.1	3.2
Other capital items[3]	-6.6	0.1	0.2
Net cash balance	12.7	34.0	10.9
Redemptions on domestic government debt	81.4	79.0	75.9
Redemptions on foreign government debt	31.4	37.4	20.0
Gross deficit	-100.1	-82.5	-85.0
Gross domestic financing requirement	73.8	64.4	67.9
Sale of government securities, market value[4]	73.0	68.0	68.8

Source: *Central Government Accounts*. 2007 numbers are based on Danmarks Nationalbank's end-year specification. The numbers can deviate from the accounting figures.

1 As from 1998, net bond purchases by the Social Pension Fund are no longer included in the net cash balance, but are instead included in the redemption on the domestic government debt.

2 Including capital losses on buy-back.

3 Includes e.g. movements in the central government's holdings, cf. *Budget Outlook* from the Ministry of Finance.

4 Includes net sales of T-bills.

THE CENTRAL GOVERNMENT'S CURRENT, INVESTMENT AND
LENDING BALANCE, NET CASH BALANCE AND GROSS DEFICIT, 1997-2007 Table 3

2000	2001	2002	2003	2004	2005	2006	2007
30.7	24.0	25.8	12.4	27.7	80.6	98.6	•
-	-	-	-	-	-	-	•
-2.8	-2.4	-8.9	-0.8	-5.4	-3.2	-12.4	•
1.4	0.4	-0.1	-0.7	0.5	-0.7	-0.9	•
-2.3	0.9	-20.0	-4.1	0.9	-0.9	5.0	•
27.0	22.9	-3.2	6.9	23.6	75.9	90.2	83.6
91.3	101.2	112.4	106.3	100.0	119.5	78.6	60.4
15.7	17.8	22.5	17.1	16.1	9.3	13.0	20.6
-80.0	-96.2	-138.1	-116.6	-92.5	-52.9	-1.3	2.5
62.3	81.1	115.5	99.7	76.4	43.6	-11.7	-26.2
65.7	87.7	121.9	94.1	92.6	30.1	13.2	-3.8

ISSUANCE OF DOMESTIC CENTRAL-GOVERNMENT SECURITIES, 2007 Table 4.1

ISIN code	Coupon, per cent	Name Issue Period	Redemption date	Issued in 2007, DKK million
Government bonds, fixed interest rate				
DK0009921785	4	4 per cent bullet loans 2010 20 Apr 2004-	15 Nov 2010	3,700
DK0009921942	4	4 per cent bullet loans 2017 26 Jan 2006-	15 Nov 2017	16,935
Treasury bills				
DK0009812497	0	T-bill 2007 II 1 May 2006-1 May 2007	1 May 2007	600
DK0009812653	0	T-bill 2007 III 1 Aug 2006-1 Aug 2007	1 Aug 2007	2,320
DK0009812737	0	T-bill 2007 IV 1 Nov 2006-3 Dec 2007	3 Dec 2007	6,600
DK0009813032	0	T-bill 2008 I 1 May 2007-	2 Jun 2008	17,120
DK0009813115	0	T-bill 2008 II 1 Dec 2007-	1 Dec 2008	2,540

ISSUANCE OF FOREIGN CENTRAL-GOVERNMENT SECURITIES, 2007 Table 4.2

Loan no.	Coupon, per cent	Name Issue Period	Redemption date	Issued in 2007, DKK million
US Commercial Paper				
244-58[1]	0	USCP 50 mil.USD 5 Feb 2007	26 Feb 2007	288
EURO Commercial Paper				
298-48[2]	0	ECP 50 mil.USD 7 Feb 2007	28 Feb 2007	288

[1] A Forward Contract in Foreign-Exchange with Danmarks Nationalbank is attached to the Issue. At maturity the Kingdom of Denmark receives USD 50,000,000 and pays EUR 38,650,181.08.
[2] A Forward Contract in Foreign-Exchange with Danmarks Nationalbank is attached to the Issue. At maturity the Kingdom of Denmark receives USD 50,000,000 and pays EUR 38,646,566.33.

CENTRAL-GOVERNMENT INTEREST-RATE SWAP TRANSACTIONS, 2007 Table 5

Loan no.	Start date	Termination date	Amount in DKK million
Domestic interest-rate swaps			
1069	09-01-07	09-01-17	559
1070	29-01-07	29-01-17	745
Domestic interest-rate swaps, total			1,304

Note: The Kingdom of Denmark receives a fixed 10-year interest rate and pays 6-month Euribor on swaps transacted in 2007.

CENTRAL-GOVERNMENT CURRENCY SWAP TRANSACTIONS, 2007 Table 6

Loan no.	Start date	Receiving			Paying			Termination date
		Cur-rency	DKK million	Interest[1]	Cur-rency	DKK million	Interest[2]	
20014[3]	10-01-07	DKK	694.0	3.8628	USD	123.4	4.73875	10-01-19
10035	23-01-07	DKK	745.4	6M CIB -0.016	EUR	100.0	6M EUR	23-01-12
10036	31-01-07	DKK	745.4	6M CIB -0.0175	EUR	100.0	6M EUR	31-01-12
10037	12-02-07	DKK	745.2	6M CIB -0.01375	EUR	100.0	6M EUR	12-02-12
10038	21-02-07	DKK	745.5	6M CIB -0.01125	EUR	100.0	6M EUR	21-02-12
10039	15-03-07	DKK	745.0	6M CIB -0.01125	EUR	100.0	6M EUR	15-03-12
20015[3]	26-03-07	DKK	691.8	3.8842	USD	123.4	4.671	26-03-19
10040	30-03-07	DKK	745.0	6M CIB -0.0125	EUR	100.0	6M EUR	30-03-12
10041	27-04-07	DKK	745.2	6M CIB -0.01125	EUR	100.0	6M EUR	27-04-12
10042	25-05-07	DKK	745.3	6M CIB -0.012	EUR	100.0	6M EUR	25-05-12
20016[3]	15-06-07	DKK	717.2	4.45	USD	129.6	5.1225	15-06-19
20017[3]	05-09-07	DKK	712.0	4.4854	USD	129.6	5.164	05-09-19
20018[3]	14-11-07	DKK	722.0	4.662	USD	129.6	5.3875	14-11-19

[1] 6M CIB is the interest rate on 6-month Cibor.
[2] 6M EUR is the interest rate on 6-month Euribor.
[3] Currency swaps in connection with re-lending to Danish Ship Finance.

CENTRAL-GOVERNMENT DOMESTIC DEBT AS OF 31 DECEMBER 2007 Table 7.1

ISIN code	Coupon, per cent	Name Issue Period[1]	Redemption date	Outstanding amount, DKK million
Government bonds, fixed interes rate				
Bullet loans				
DK0009920704	4	Bullet loans 2008 22 Jan 2002-1 Aug 2005	15 Aug 2008	47,124.0
DK0009919532	6	Bullet loans 2009 14 Jan 1998-3 May 2000	15 Nov 2009	61,950.0
DK0009921785	4	Bullet loans 2010 20 Apr 2004-	15 Nov 2010	35,590.0
DK0009919961	6	Bullet loans 2011 4 May 2000-18 Feb 2002	15 Nov 2011	60,500.0
DK0009920894	5	Bullet loans 2013 19 Feb 2002-11 Feb 2004	15 Nov 2013	74,180.0
DK0009921439	4	Bullet loans 2015 12 Feb 2004-26 Apr 2006	15 Nov 2015	57,560.0
DK0009921942	4	Bullet loans 2017 26 Jan 2006-	15 Nov 2017	41,635.0
DK0009918138	7	Bullet loans 2024 6 Apr 1994-31 Dec 2000	10 Nov 2024	24,431.0
Index-linked loan				
•	2,5	Index-linked loans transferred from the Mortgage Bank of the Kingdom of Denmark	30 Jun 2008	6.4
Loan package				
•	4,8	Loan package from the Mortgage Bank of the Kingdom of Denmark	28 Feb 2008	270.3
Amortised loans				
DK0009902728	4	S 2017 29 Nov 1955-12 Sep 1958	15 Jun 2017[2]	49.6
Perpetuals				
DK0009901597	3,5	Dansk Statslån 11 Dec 1886	Perpetuals[2]	18.1
•	5	Dansk-Islandsk Fond 1918 20 May 1919	Perpetuals	1.0
Government bonds, fixed interest rate, total				403,315.5

CENTRAL-GOVERNMENT DOMESTIC DEBT AS OF 31 DECEMBER 2007 Table 7.1

ISIN code	Coupon, per cent	Name[1]	Redemption date	Outstanding amount, DKK million
T-bills				
Zero-coupon loans				
DK0009813032	0	T-bill 2008 I 1 May 2007-	2 Jun 2008	17,120.0
DK0009813115	0	T-bill 2008 II 1 Dec 2007-	1 Dec 2008	2,540.0
T-bills, total				19,660.0
Lottery bonds[3]				
DK0009900433	7	Lottery bonds of 1965/2010 22 Sep 1965	22 Sep 2010	100.0
DK0009900516	7	Lottery bonds of 1969/2009 1 Oct 1969	31 Dec 2009	100.0
Lottery bonds, total				200.0
Domestic government securities, total				423,175.5
Swap from DKK to EUR (net)[4]				-13,262.1
Swap from DKK to USD				-7,873.2
Central-government domestic debt, total				402,040.1

[1] The issue period refers to the period the series has been open for issue. For T-bills the dates refer to settlement date. Series still open for issue are marked with "-" after the first day of issue. Certain securities are only sold on one single date. For these securities only this date is stated.

[2] May be redeemed by the central government at three months' notice.

[3] In addition, the central government has an outstanding amount on approximately DKK 160 mill. in expired, but outstanding lottery bonds.

[4] Currency swaps from DKK to EUR less currency swaps from EUR to DKK.

CENTRAL-GOVERNMENT FOREIGN DEBT AS OF 31 DECEMBER 2007 Table 7.2

ISIN code/ loan no.[1]	Coupon, per cent	Name	Redemption date	Outstanding amount, DKK milllion[2]
DKK				
DK0009901407	3	1894[3]	Perpetuals	10.6
DK0009901670	3.5	1901[3]	Perpetuals	4.0
DK0009901753	3.5	1909[3]	Perpetuals	5.5
DKK-loans, total				20.1
EUR				
•	4.625	1998/08 EUR-loan	04 Sep 2008	3,541.9
DK0009921199	3.25	2003/08 EUR-loan	14 Nov 2008	17,150.2
DK0009921512	3.125	2004/09 EUR-loan	15 Oct 2009	15,025.0
DK0009921868	3.125	2005/10 EUR-loan	15 Oct 2010	12,676.2
EUR-loans, total				48,393.3
Loans transferred from the Mortgage Bank of the Kingdom of Denmark				
1074		1996/11 JPY-loan	19 Sep 2011	26.9
•		1996/11 swap from JPY		-26.9
•	var.	1996/11 swap to EUR		31.2
1075		1997/12 JPY-loan	13 Mar 2012	22.4
•		1997/12 swap from JPY		-22.4
•	var.	1997/12 swap to EUR		26.2
Transferred loans, total				57.4
Foreign loans, total				48,470.8

[1] ISIN codes are used to the extent they exist. If loans does not have an ISIN code, a loan number is used.
[2] The outstanding amount as of 31 December 2007 is calculated to DKK on the basis of the following exchange rates: EUR = 745.66, JPY = 4.4884, USD = 507.53. The outstanding amount as of 31 December 2007 in the former national currencies in the euro zone is converted into DKK by use of the irrevocable fixed exchange rates vis-à-vis EUR: DEM = 1.95583.
[3] Multi-currency loan. The creditor can choose which currency to make payments in, however, at a fixed rate of exchange. Redeemable by the Kingdom of Denmark at 3 months' notice.

CENTRAL-GOVERNMENT FOREIGN DEBT AS OF 31 DECEMBER 2007 Table 7.2

Loan no.	Coupon, per cent	Name	Redemption date	Outstanding amount, DKK million [2]
Swaps – EUR				
10004	var.	2001/08 swap from DKK	08 Oct 2008	351.1
10005	var.	2001/08 swap from DKK	15 Oct 2008	351.1
10008	var.	2001/08 swap from DKK	12 Nov 2008	400.4
10009	var.	2001/08 swap from DKK	19 Nov 2008	500.6
10011	var.	2002/09 swap from DKK	08 Jan 2009	401.0
10012	var.	2002/09 swap from DKK	15 Jan 2009	501.4
10013	var.	2002/09 swap from DKK	28 Jan 2009	501.8
10015	var.	2002/09 swap from DKK	07 Feb 2009	501.9
10016	var.	2002/09 swap from DKK	19 Mar 2009	501.7
10017	var.	2002/09 swap from DKK	19 Mar 2009	301.0
10018	var.	2002/09 swap from DKK	18 Mar 2009	501.7
10019	var.	2002/09 swap from DKK	18 Mar 2009	501.6
10020	var.	2002/09 swap from DKK	20 Jun 2009	501.5
10021	var.	2002/09 swap from DKK	24 Jun 2009	501.6
10022	var.	2002/09 swap from DKK	02 Jul 2009	1,003.8
10035	var.	2007/12 swap from DKK	23 Jan 2012	745.7
10036	var.	2007/12 swap from DKK	31 Jan 2012	745.7
10037	var.	2007/12 swap from DKK	12 Feb 2012	745.7
10038	var.	2007/12 swap from DKK	21 Feb 2012	745.7
10039	var.	2007/12 swap from DKK	15 Mar 2012	745.7
10040	var.	2007/12 swap from DKK	30 Mar 2012	745.7
10041	var.	2007/12 swap from DKK	27 Apr 2012	745.7
10042	var.	2007/12 swap from DKK	25 May 2012	745.7
EUR, total				13,287.3
Swaps – USD				
20001	4.164	2004/16 swap from DKK	30 Jun 2016	177.7
20002	4.164	2004/16 swap from DKK	30 Jun 2016	177.9
20003	4.355	2005/17 swap from DKK	28 Jan 2017	190.5
20004	4.4875	2005/17 swap from DKK	10 Feb 2017	321.8
20005	4.497	2005/17 swap from DKK	11 Aug 2017	325.0
20006	4.66	2005/17 swap from DKK	20 Oct 2017	325.0
20007	4.7925	2005/17 swap from DKK	15 Dec 2017	346.6
20008	4.855	2006/17 swap from DKK	16 Nov 2017	361.7
20009	5.06	2006/18 swap from DKK	12 Apr 2018	363.9
20012	5.27	2006/18 swap from DKK	28 Aug 2018	574.0
20013	4.755	2006/18 swap from DKK	10 Nov 2018	574.0
20014	4.73875	2007/19 swap from DKK	10 Jan 2019	600.1
20015	4.671	2007/19 swap from DKK	26 Mar 2019	600.1
20016	5.1225	2007/19 swap from DKK	15 Jun 2019	630.4
20017	5.164	2007/19 swap from DKK	05 Sep 2019	657.8
20018	5.3875	2007/19 swap from DKK	14 Nov 2019	657.8
USD, total				6,884.2
Foreign debt, total				68,642.2

CENTRAL-GOVERNMENT INTEREST-RATE SWAPS AS OF 31 DECEMBER 2007 Table 8

Termination year	Krone interest-rate swaps	Euro interest-rate swaps	
	Notional amount in DKK million	Notional amount in EUR million	Notional amount in DKK million[1]
2008	800	50	373
2009	12,550	-	-
2010	14,600	175	1,305
2011	11,950	150	1,118
2012	-	4,235	31,579
2013	4,400	810	6,040
2014	8,500	-	-
2015	1,800	1,500	11,185
2016	10,800	575	4,288
2017	-	175	1,305
Interest-rate swaps, total	65,400	7,670	57,192

Note: The Kingdom of Denmark receives fixed interest rate and pays 6-month Cibor on all domestic interest-rate swaps. The Kingdom of Denmark receives fixed interest and pays 6-month Euribor on all foreign interest-rate swaps.

[1] Converted to DKK on the basis of the following exchange rate: EUR = 745.66.

KINGDOM OF DENMARK'S RATING IN DOMESTIC CURRENCY — Table 9.1

	Moody's	Standard & Poor's
1986, Jul	Aaa	
1992, Jul		AAA
Current rating	Aaa	AAA

Note: Moody's Investors Service and Standard & Poor's use the following ratings:
Moody's: Aaa, Aa, A, Baa, Ba, B, Caa, Ca and C.
For the categories Aa to Caa are used 1, 2 or 3 to indicate a status slightly better or worse within the category.
Standard & Poor's: AAA, AA, A, BBB, BB, B, CCC, CC, C and D.
For the categories AA to CCC are used + or – to indicate a status slightly better or worse within the category.

KINGDOM OF DENMARK'S RATING IN FOREIGN CURRENCY — Table 9.2

	Moody's	Standard & Poor's
1981, Mar		AAA
1983, Jan		AA+
1985, Apr	Aa	
1986, Aug	Aa1	
1987, Mar		AA
1991, Oct		AA+
1999, Aug	Aaa	
2001, Feb		AAA
Current rating	Aaa	AAA

Note: See the note in Table 9.1 for ranking of the rating categories.

RATING OF SELECTED COUNTRIES' CENTRAL-GOVERNMENT DEBT, JANUARY 2008

Table 10

	Moody's		Standard & Poor's	
	Domestic	Foreign	Domestic	Foreign
Australia	Aaa	Aaa	AAA	AAA
Austria	Aaa	Aaa	AAA	AAA
Belgium	Aa1	Aa1	AA+	AA+
Canada	Aaa	Aaa	AAA	AAA
Czech Republic	A1	A1	A+	A
Denmark	Aaa	Aaa	AAA	AAA
Finland	Aaa	Aaa	AAA	AAA
France	Aaa	Aaa	AAA	AAA
Germany	Aaa	Aaa	AAA	AAA
Greece	A1	A1	A	A
Ireland	Aaa	Aaa	AAA	AAA
Italy	Aa2	Aa2	A+	A+
Japan	A1	Aaa	AA	AA
Netherlands	Aaa	Aaa	AAA	AAA
New Zealand	Aaa	Aaa	AAA	AA+
Norway	Aaa	Aaa	AAA	AAA
Portugal	Aa2	Aa2	AA-	AA-
South Africa	A2	Baa1	A+	BBB+
Spain	Aaa	Aaa	AAA	AAA
Sweden	Aaa	Aaa	AAA	AAA
Switzerland	Aaa	Aaa	AAA	AAA
UK	Aaa	Aaa	AAA	AAA
USA	Aaa	Aaa	AAA	AAA

Note: See the note in Table 9.1 for ranking of the rating categories.
Source: Moody's and Standard & Poor's.

Glossary

This glossary presents explanations of a number of key terms and concepts in the area of government debt. Terms in *italics* are included elsewhere in the glossary.

Acceptance rate
Issued government securities as a share of the total bid volume.

Accrued interest
Accrued interest is payment for the interest accruing on a paper since the last interest due date. In the Danish bond market trades are with coupon interest. The buyer of the paper pays a proportion of the coupon to the seller for the period from the last due date to the settlement date. See also *clean price* and *dirty price*.

Auction
At an auction, a bond is offered. A group of market participants may submit bids requesting a certain volume of bonds at a given price or interest rate.

Basis points
1 basis point is 0.01 percentage point.

Benchmark bond
A key issue. Changes in the benchmark status of Danish government bonds are determined by Government Debt Management after discussion by the *Primary Dealer* committee.

Bid-ask price
The bid-ask price is the price at which the market maker is willing to buy/sell. The difference between the ask and bid prices is the bid-ask spread.

Borrowing requirement
The expected issuance of government securities.

Bullet loans
Loans on which only interest is paid during the term of the loans. The loans are repaid on the maturity date. Danish government bonds are bullet loans.

Buy-back issues
The government securities which the central government can buy back before maturity.

Callable bond
A bond which can be prematurely redeemed by the debtor on terms agreed in advance. The debtor has an option to redeem the bond prematurely.

Capital losses/gains on issuance
Capital losses and gains on issuance arise when a loan is issued at prices below and above par, respectively.

Cibor (Copenhagen InterBank Offered Rate)
The interest rate at which a bank in the Copenhagen interbank market is willing to lend Danish kroner without collateral to another creditworthy bank. Cibor is the reference interest rate for a large number of financial contracts. See also *Euribor* and *Libor*.

Clean price
The price of a bond excluding accrued interest. Government bonds are quoted on the trading platforms at a clean price. See also *accrued interest* and *dirty price*.

Clearing and settlement
Clearing is the compilation of each participant's purchase and sale, resulting in the net position of each participant. Settlement is completion of a trade by final settlement of agreed commitments.

Commercial Paper (CP)
Short-term debt instruments with maturities of up to one year.

Cost-at-Risk (CaR) model
Simulation model developed by Government Debt Management to quantify the risk of the central-government debt portfolio to future interest-rate developments.

Credit standing
Assessment of a debtor's willingness and ability to honour its obligations. See also *rating*.

Dirty price
The price of a bond including accrued interest. See also *accrued interest* and *clean price.*

Discount rate
Danmarks Nationalbank's discount rate is a signal rate indicating the overall level of the monetary-policy interest rates.

Duration
The average fixed-interest period for a financial portfolio. Long duration of the government debt implies a low interest-rate risk, since on average smaller proportions of the interest costs are adjusted to changes in the level of interest rates.

Electronic trading
Placement of orders (bid or ask) via electronic facilities to a trading system in which orders are matched and executed automatically.

Emission
Issuance of government securities.

Euribor (Euro InterBank Offered Rate)
The interest rate at which a bank in the euro interbank market is willing to grant money-market loans in euro to another creditworthy bank. Used as a reference interest rate in a large number of financial contracts, e.g. *swaps*. See also *Cibor* and *Libor*.

Exposure
Exposure denotes a financial position that entails a risk of losses or gains if the market conditions change.

Final exposure
Denotes the currency or interest-rate exposure on a loan compiled after *swaps*.

Financial derivative
An instrument of which the value is derived from the price of an underlying asset, e.g. securities, goods or currency.

Floating interest rate
An interest rate that is agreed to float as, or in step with, another interest rate listed on the market at specific shorter intervals than the maturity of the loan, typically every third or sixth month.

Forward contract
Agreement on delivery and payment of goods, securities or currency on a future date at a price fixed at the time of the agreement (forward price).

Funding rules
Framework for the distribution of the central government's domestic and foreign borrowing.

Government debt
Comprises liabilities in the form of domestic and foreign debt as well as assets in the Social Pension Fund, the Danish National Advanced Technology Foundation, the Financing Fund for increased distributions from the Danish National Research Foundation, the Prevention Fund and the balance of the central government's account.

Gross financing requirement
The gross financing requirement is compiled as the *net financing requirement* with the addition of redemptions on the domestic and foreign debts, the net bond purchases of government funds, and the central government's currency swap payments. See also *borrowing requirement*.

Haircut
The deduction made from a paper's market value on determining its collateral value. A haircut takes account of the risk of a lower value of the security from the date of compilation of the collateral value until the possible enforced realisation of the paper.

ISDA Master Agreement
Framework agreement whereby all *swaps* with one and the same counterparty are documented.

Key on-the-run issues
Government series that are being built up and which are issued to cover the current domestic borrowing requirement.

Libor (London InterBank Offered Rate)
The interest rate at which a bank in the London interbank market is willing to undertake money-market lending in various currencies to another creditworthy bank. Used as a reference interest rate in a large number of financial contracts, e.g. *swaps*. See also *Cibor* and *Euribor*.

Liquidity
Liquidity expresses tradability. Liquid bonds are often characterised by a large outstanding amount, high turnover and a narrow spread between *bid and ask prices*. Investors will generally be willing to pay a higher price for a more liquid bond (liquidity premium).

Market maker
A securities dealer that quotes current tradable bid and ask prices (market making) in securities.

Market risk
The risk that fluctuations in market prices (e.g. interest rates, exchange rates, bond prices and equity prices) will result in losses.

MTSDenmark (MTSDk)
A market segment in MTS where wholesale trading in Danish government bonds is conducted at present.

Net financing requirement
The net financing requirement is compiled as the deficit on the central government's current, investment and lending (CIL) account with addition of *re-lending* (net of redemptions) and portfolio movements and accruals.

Option-adjusted duration
The *duration* for *callable bonds* where adjustments have been made for the uncertainty of the maturity structure as a consequence of the borrower's right to early redemption of the bond.

Over-the-Counter (OTC)
Trading in financial instruments outside a stock exchange, e.g. via a dealer network or by telephone.

Par yield
Par yields are adjusted for differences in the remaining maturities of the bonds. For example, the par yield for a 10-year government bond is the

coupon rate which ensures that a synthetic *bullet loan* with a maturity of exactly 10 years has a theoretical value of 100 ("par").

Perpetuals
Loans with infinite maturity, i.e. the only payments are the ongoing coupon payments. The Kingdom of Denmark has a few minor perpetuals from the end of the 19th century and beginning of the 20th century.

Plain vanilla
Term used for standardised and simple products.

Primary dealer
Primary dealers are financial institutions that by agreement with the issuer, against special rights, are obliged to provide *liquidity* in specific government securities.

Primary market
Market for issuance of bonds. See also *secondary market*.

Rating
Credit rating given by rating institutes such as Fitch, Moody's and Standard & Poor's.

Re-lending
Re-lending constitutes central-government loans to government-owned companies and Danish Ship Finance.

Re-lending list
The range of government securities in which *re-lending* can be granted. The re-lending list is determined by Government Debt Management.

Risk-free interest rate
The risk-free interest rate is the interest rate that can be obtained in the market without assuming any risk. The risk-free interest rate is often the yield on short-term, liquid government bonds with a high credit rating, or the T-bill rate. See also *risk premium*.

Risk premium
Additional payment for holding assets that are subject to risk. See also *risk-free interest rate*.

Secondary market
Market for trading of bonds after they are issued in the *primary market.*

Securities lending
Securities lending is a transaction whereby the seller is paid to transfer securities to a buyer. On conclusion of the agreement, the parties simultaneously commit to buy back the securities at an agreed price on expiry of the agreement.

Serial loan
A loan for which the debt is repaid in equal redemptions on each interest due date.

Strategic benchmarks
Guiding points for issuance and liquidity as well as interest-rate exposure used in the implementation of the Danish government debt strategy. For example, strategic benchmarks are set for the outstanding amount in *key on-the-run issues* and for the *duration* of the government debt.

Swap
A swap is an agreement between two parties to exchange payments over a fixed period. A swap is a separate financial transaction.

Swap interest rate
The swap interest rate is the fixed interest rate paid or received in an interest-rate swap.

Swap spread
The swap spread is the difference between the fixed interest rate received by the central government in an interest-rate swap, and the yield to maturity on a government bond with the same maturity.

Synthetic re-lending
Bond loans that are included on the *re-lending list*. The loans are granted on the basis of an estimated zero-coupon yield curve and are introduced to bridge the gaps between existing bullet loans in the maturity segments between 2 and 10 years. Initially, synthetic re-lending has been introduced with maturity in 2012, 2014 and 2016.

Tap sale
Ongoing *issuance* in the same series. In Denmark, the issuance of government bonds is normally via tap sale. See also *auction*.

Uncollateralised yield
The interest rate payable on bonds and lending agreements connected with credit risks. The spread between an uncollateralised and a *risk-free interest rate* for a given maturity determines the risk premium.

Value date
Settlement date, i.e. the date on which e.g. a securities deal is closed by delivery of securities against payment.

VP Securities Services
Securities clearing/settlement and custodian institution. VP also handles electronic issuance of securities and registration of ownership and rights pertaining to electronic securities.

Yield curve
Relationship between the interest rate and maturity of securities. A rising yield curve – i.e. where interest rates for short-term securities are lower than interest rates for long-term securities – is called normal. A falling yield curve is described as inverted.

Yield spread
The spread between the yields on two bonds. On calculating yield spreads, adjustment is often made for differences in the bonds' remaining terms to maturity.

Yield to maturity
The fixed discount rate that makes the present value of payments on the bond equivalent to the actual price of the bond.

Zero-coupon bond
Loan that is not subject to current interest payments, and which is redeemed on maturity. The cost of borrowing is solely a result of a *capital loss* on issuance.

Zero-coupon rate
The *yield to maturity* on a *zero-coupon bond*. The zero-coupon yield structure indicates the relation between remaining maturity and the zero-coupon rate.