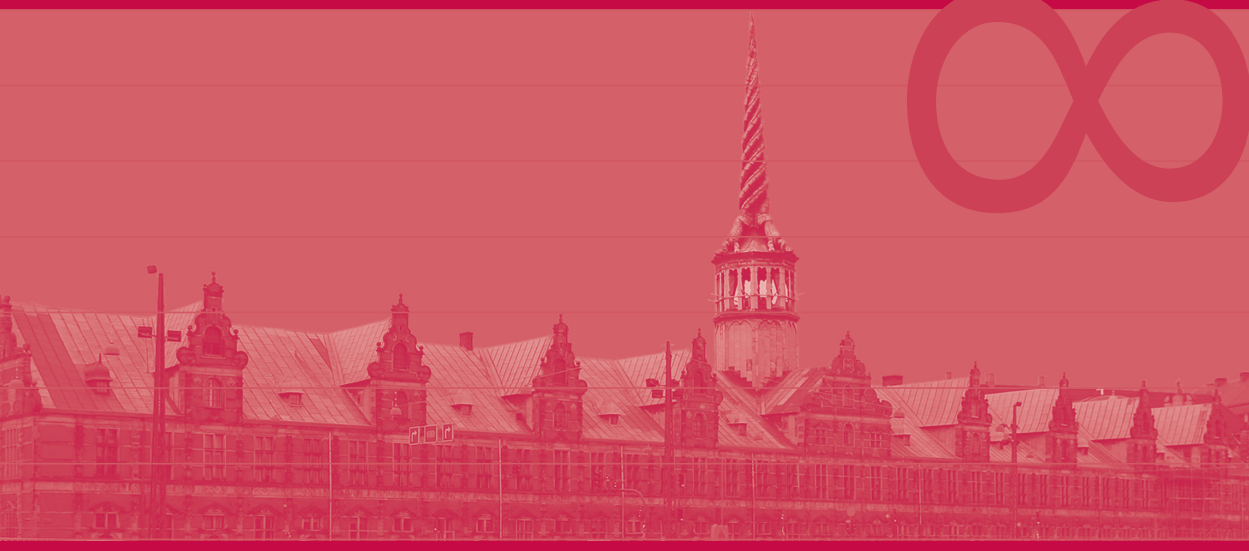
Danmarks Nationalbank

Danish Government Borrowing and Debt

2008



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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 2009.

This publication is a translation of "Statens låntagning og gæld 2008".

Contents

APPENDICES

Highlights

The international financial crisis was the predominant theme in 2008 and affected government debt management in a number of areas. Highlights of *Danish Government Borrowing and Debt 2008* include:

- Prospects of a large global increase in the supply of government and government-guaranteed issuances as a result of lower economic growth and financial rescue packages
- Due to its low government debt, Denmark is in a favourable position compared with other countries
- The Danish financial rescue packages are to be financed by drawing on the central government's account rather than by issuing more government bonds
- In view of the financial crisis, the target for the central government's foreign borrowing has been increased in order to ensure a sufficiently large foreign-exchange reserve
- The crisis has emphasised the importance of having a well-functioning market for government securities as this facilitates access to the financial market and contributes to financial stability.

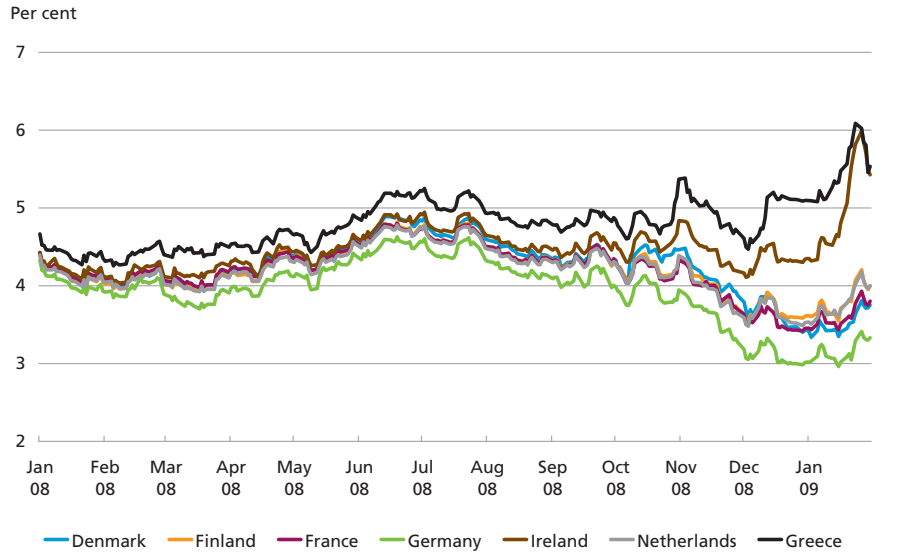
GOVERNMENT DEBT POLICY IN THE LIGHT OF THE FINANCIAL CRISIS

The turmoil in the financial markets continued in 2008. Large losses in the financial sector gave rise to uncertainty about the soundness of this sector, leading to a liquidity shortage among financial institutions.

In September, the financial turmoil escalated into a financial crisis. The international money markets froze, and banks began to exercise great restraint on lending. Subsequently, public authorities in most countries launched financial rescue packages with a view to kick-starting the extension of credit by financial institutions so as to avoid a credit crunch.

Developments in the international financial markets had a major impact on the market for government securities. The mounting uncertainty in the financial markets, coupled with growing risk aversion among investors, led to rising demand for risk-free assets, including government securities, which in turn caused government yields to fall strongly in most euro area member states in the last few months of 2008, cf. Chart 1.

10-YEAR GOVERNMENT BOND YIELDS Chart 1



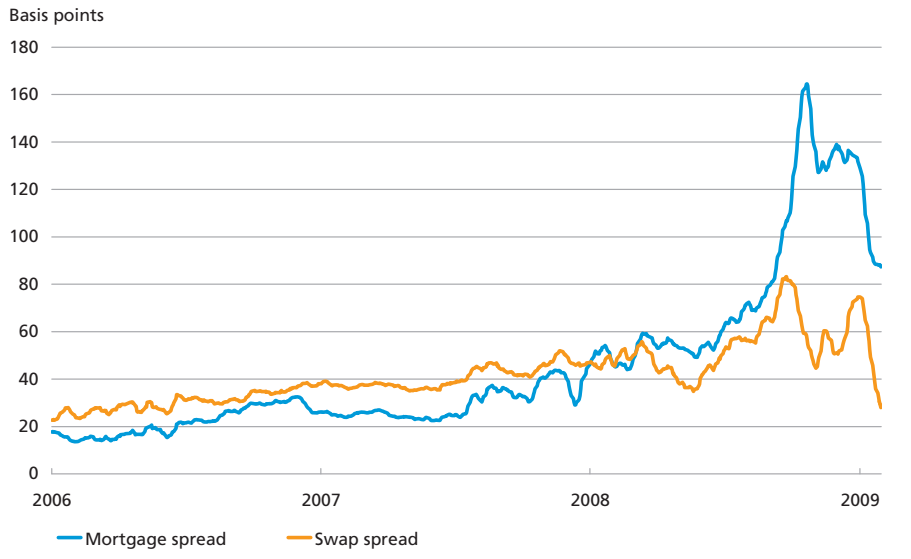
However, in some euro area member states greater risk aversion among investors caused 10-year yields to rise sharply towards the end of the year. The underlying factors included concerns about the public finances of these countries, which also led to downgrading by the rating agencies in some cases.

Moreover, developments were driven by prospects of a massive increase in the supply of government securities and government-guaranteed issuances, which made investors more selective. Against this background several government debt management offices paid a concession premium in order to attract investors. In addition, several countries applied more flexible issuance strategies, issuing in other series than the key on-the-run issues and introducing new borrowing programmes.

LOW GOVERNMENT DEBT PLACES DENMARK IN A FAVOURABLE POSITION

The financial crisis has had a significant impact on government debt policy in Denmark. The low level of government debt and the decision to continue to issue government securities place Denmark in a favourable position compared with several other countries. The financial crisis has demonstrated that the costs of re-establishing a market for government securities are higher than previously anticipated. Because Denmark continued to issue government securities in a period with a

5-YEAR DANISH SWAP AND MORTGAGE SPREADS Chart 2



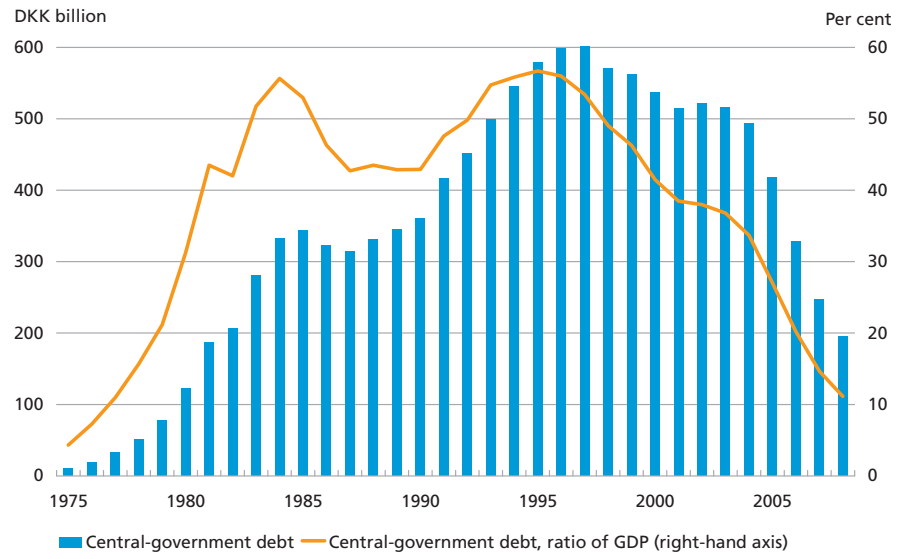
low borrowing requirement there is still demand for Danish government securities among international investors. Consequently, Denmark has been able to issue government securities during the financial crisis without incurring significant additional costs.

The financial crisis has also shown that government securities play a special role in the financial system. Government securities serve as a primary benchmark for the rest of the fixed-income market and for financial derivatives, thus contributing to price formation in the entire financial market. The reason is that the credit risk on government securities is low and liquidity high compared with other instruments. The period of financial turmoil saw a considerable widening of the spreads between government bonds and interest-rate swaps and mortgage bonds, cf. Chart 2. Without government bonds, it would be difficult to assess price developments in the individual markets. Government securities have the unique status of a stable benchmark over a longer horizon.

CONTINUED REDUCTION OF GOVERNMENT DEBT IN 2008

In 2008, the government surplus was DKK 52 billion, corresponding to 3 per cent of GDP. Recent years have witnessed a pronounced reduction of the central-government debt, to DKK 195 billion at end-2008, equivalent

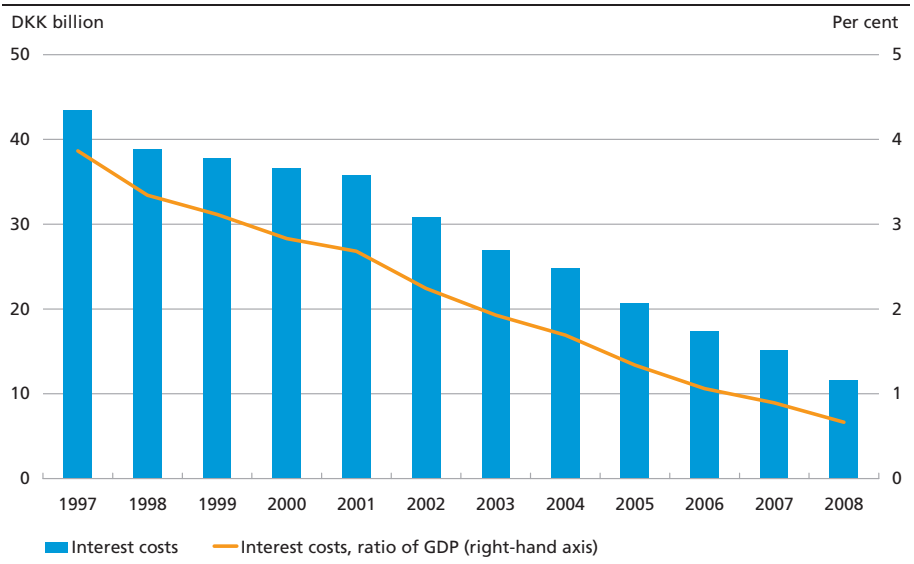
CENTRAL-GOVERNMENT DEBT Chart 3



to 11 per cent of GDP, cf. Chart 3. Government debt per capita has been reduced from approximately DKK 115,000 in 1997 to approximately DKK 35,000 in 2008.

On account of the falling debt and lower market interest rates, the central government's annual interest costs have declined from DKK 44 billion in 1997 to DKK 12 billion in 2008, cf. Chart 4.

THE CENTRAL GOVERNMENT'S INTEREST COSTS Chart 4



CENTRAL-GOVERNMENT DEBT — Table 1

DKK billion	End-2008
Domestic debt	430
Foreign debt	133
Government funds	-108
Central government's account at Danmarks Nationalbank	-260
Central-government debt	195
Re-lending	-51
Central-government debt adjusted for re-lending	144

Note: A positive figure indicates a liability, a negative figure an asset.

The central government's borrowing requirement was low in 2008, which provided room for flexibility in the issuance policy. Due to the financial crisis, borrowing was limited in the first three quarters. In the 4th quarter, a new 30-year bond was opened in response to strong demand from the pension sector.

The financial turmoil called attention to the central government's foreign borrowing. Against that background, three foreign loans were raised with final exposure in euro. Moreover, in the 4th quarter short-term foreign loans were raised via the government's Commercial Paper programmes.

Due to the extraordinary issuances, the central government held substantial liquid reserves in its account at Danmarks Nationalbank at end-2008, cf. Table 1.

The insurance and pension sector increased its ownership share of Danish government securities in 2008, mainly because this sector was the principal investor in the 30-year bond series. Non-residents' ownership of Danish government bonds remained at around DKK 125 billion. External demand for Danish government securities supports the demand for Danish kroner and contributes to lowering the interest costs on the government debt. Both the domestic and foreign debt have been given the highest credit rating, triple-A, by Fitch Ratings, Moody's and Standard & Poor's.

A FLEXIBLE ISSUANCE STRATEGY FOR 2009

Government finances are expected to balance in 2009, cf. *Budget Outlook 4*, December 2008. Because of the financial and economic development, the estimate of the central government's domestic borrowing requirement in 2009 is subject to more uncertainty than usual. In 2009, the domestic issuance is expected to be DKK 40 billion,

ISSUANCE STRATEGY, 2009 Box 1

- Domestic issuance for approximately DKK 40 billion
- 4 per cent bullet loans 2019 to be built up to a final outstanding volume of around DKK 50 billion
- Issuance in 4 per cent bullet loans 2010 continues
- 4.5 per cent bullet loans 2039 to be built up to a final outstanding volume of around DKK 90 billion
- Issuance in the other bullet loans is possible
- Foreign borrowing in 2009 to be carried out by raising foreign loans with final exposure in euro
- All government securities can be bought back, although key on-the-run issues are as a general rule excepted.

most of which will be in the newly opened 10-year on-the-run issue, cf. Box 1.

The foreign debt is issued in order to maintain an adequate foreign-exchange reserve. As a general rule, the central government raises foreign loans equivalent to the redemptions on the foreign debt. In the context of the financial turmoil, the central government's contribution to the foreign-exchange reserve is increased.

Low government debt and a large balance of the central government's account place Denmark in a favourable position compared with other countries since this provides the basis for a more flexible issuance policy. For example, the government intends to finance its financial rescue packages by drawing on its account rather than by issuing more government bonds.

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 financial crisis has implied that the aims of supporting the domestic financial market and facilitating the central government's access to the financial markets in the longer term have become more prominent in government debt policy.

RESPONSIBILITIES OF GOVERNMENT DEBT MANAGEMENT 1.1

Government Debt Management manages 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 three government funds[1] included in the central-government debt
- Calculation of the central government's financing requirement on the basis of the government budget forecast from the Ministry of Finance and sales of government securities to ensure that the central government's account at Danmarks Nationalbank is not overdrawn[2]
- Management of risk on the central-government debt portfolio. The risk on central-government financial assets and liabilities is managed on a consolidated basis
- Management of access to re-lending and government guarantees for a number of companies
- Settlement and bookkeeping of transactions

[1] The Social Pension Fund, the Preventive Measures Fund and the Advanced Technology Foundation.
[2] According to Article 101 of the EU Treaty, the central government's account with Danmarks Nationalbank cannot show a deficit.

- 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
- Information to investors on the government debt policy and financial and economic conditions
- Advising the Ministry of Finance on issues concerning the central government's 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 Sub-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 financial crisis has implied that the aims of supporting the domestic financial market and facilitating the central government's access to the financial markets in the longer term have become more prominent in government debt policy, cf. Chapter 10.

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, including the government's issuance strategy and risk management, cf. Box 1.1.

STRATEGY FOR ISSUANCE AND RISK MANAGEMENT Box 1.1

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

The strategy for risk management relates to the management of interest-rate risk on the overall government debt portfolio. The strategy for the year is inter alia determined on the basis of quantitative analyses of interest-rate risk in the CaR model.

In December, the overall strategy for the following year is agreed upon, and at the subsequent three quarterly meetings any further 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 at the quarterly meetings. In addition, Government Debt Management is regularly in contact with the Ministry of Finance.

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 strategy is 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 World Bank and the OECD.

GOVERNMENT DEBT MANAGEMENT PORTFOLIOS 1.3

The central-government debt comprises domestic and foreign debt, the assets of three 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 three government funds administered by Government Debt Management are invested in Danish government securities and other listed bonds
- The balance of the central government's account with Danmarks Nationalbank accrues interest at the discount rate.

At end-2008, the central-government debt amounted to DKK 195 billion, equivalent to 11 per cent of GDP, cf. Table 1.3.1. Re-lending is part of

GOVERNMENT DEBT — Table 1.3.1

DKK billion	End-2008
Domestic debt	430
Foreign debt	133
Government funds	-108
Central government's account at Danmarks Nationalbank	-260
Central-government debt	195
Central-government re-lending	-51
Central-government debt, adjusted for re-lending	144

Note: A positive figure indicates a liability; a negative figure indicates an asset.

the 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 144 billion, or 8 per cent of GDP, at the end of 2008.

The risk on central-government assets and liabilities is managed according to the Asset Liability Management (ALM) principle, which means that the assets and liabilities of a portfolio are managed on a consolidated basis, cf. Chapter 11.

Government Debt Management uses standardised, well-known financial instruments in relation to issuance, investment of the assets of the government funds and risk management. 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 government 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.

Under the domestic funding rule, the central government issues debt denominated in kroner to cover its current deficit and redemptions on 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 policies is supported.

As a result of the special situation in the financial markets in 2008, the government's domestic borrowing, primarily due to issuance in 4.5 per cent bullet loans 2039, was considerably higher than the domestic borrowing requirement, cf. Chapter 3.

The foreign debt is issued in order to maintain an adequate foreign-exchange reserve. The foreign funding rule determines that, as a general rule, the central government issues debt denominated in foreign currency equivalent to the redemptions on the foreign debt. Borrowing in foreign currency does not influence domestic liquidity, but is included directly in the foreign-exchange reserve.

The central government may raise short-term foreign loans via its Commercial Paper programmes, which allows rapid build-up of the

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

Under the Danish Constitution, debt can be issued by the central government on a statutory basis only. 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*"[1] of 1993, 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 issuance and buy-backs, must be appropriated under the annual finance acts.

[1] Act no. 1079 of 22/12/1993 as subsequently amended. The Act (in Danish only) can be found at www.governmentdebt.dk.

foreign-exchange reserve or the balance of the central government's account.

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 so as to ensure an appropriate balance on the central government's account which can absorb fluctuations in central-government receipts and payments.

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. Day-to-day management of the central-government debt is conducted by Government Debt Management on behalf of the Ministry of Finance, 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 specified in the "*Agreement on the division of work in the area of government debt between Danmarks Nationalbank and the Ministry of Finance*"[1], 13 November 2006. 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]. Tasks undertaken by

[1] See www.governmentdebt.dk under Key Figures.
[2] The regulations can be found at www.governmentdebt.dk under Government Funds.

Government Debt Management in relation to the management of the assets of the two 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 debt management offices 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 separate functions. A division of functions and explicit 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.

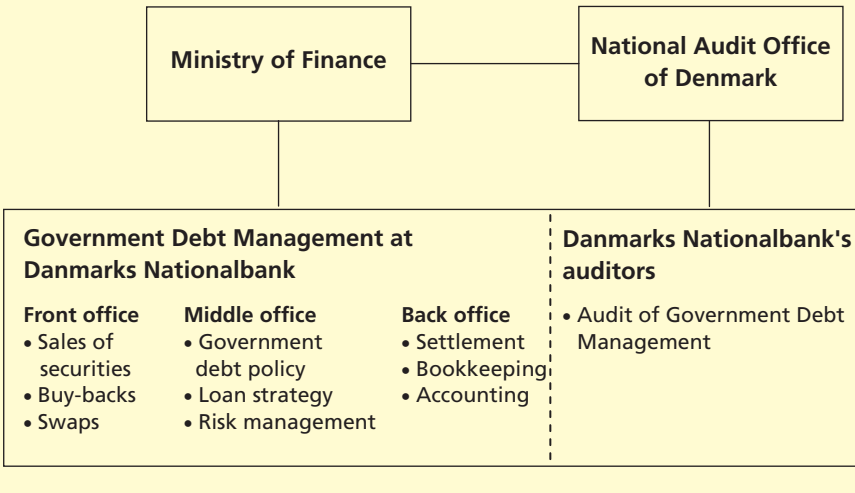
The middle office formulates the general principles concerning government debt policy and prepares proposals for borrowing strategies and risk management prior to the quarterly government debt meetings. With due consideration of current market conditions, the middle office also lays down monthly guidelines for the front office with regard to sales, 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 sales 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 settles payments concerning central-government debt, 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 Rigsrevisionen (the National Audit Office of Denmark). Danmarks Nationalbank's auditors ascertain that the accounts of Government Debt Management give a true and fair view, i.e. that they are without significant errors and omissions. Rigsrevisionen

STRUCTURE OF GOVERNMENT DEBT MANAGEMENT Box 1.3



may assess whether the funds received by Government Debt Management 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 the 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. Government Debt Management aims to be clear and unambiguous in its communication of the government debt policy strategy to market participants. The prevailing financial and economic uncertainty may entail a greater need for flexibility in government debt policy, thereby accentuating the need for clear and unambiguous communication.

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.

Information about government debt and Government Debt Management is available at www.governmentdebt.dk. In addition, information is

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, ICAP/BrokerTec, MTS, NASDAQ OMX, 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.

published via other sources on an ongoing basis, cf. Box 1.4. An overview of the information regularly published on central-government borrowing and debt is presented in the Appendices.

Report Section

CHAPTER 2

Developments in the Financial Markets

Developments in the international financial markets had a major impact on the market for government securities in 2008. The turmoil in the financial markets began in August 2007, when uncertainty arose concerning the ability of borrowers to service their loans in the subprime segment of the US mortgage market. A wide range of investors suffered losses on structured products that included subprime mortgages. Owing to the uncertainty as to which banks were exposed to the risk of losses, it became more difficult and more expensive to obtain liquidity in the money markets.

Over the summer of 2008, the financial markets stabilised, but considerable uncertainty still prevailed. Following the collapse of Lehman Brothers in September 2008, the financial turmoil escalated into a financial crisis. The money market froze, and banks began to exercise great restraint on lending.

The uncertainty in the financial markets, coupled with growing risk aversion among investors, led to rising demand for risk-free assets, including government bonds, which in turn caused government yields to fall strongly, particularly towards the end of the year.

THE LIQUIDITY CRISIS 2.1

The turmoil in the financial markets began in August 2007, when uncertainty arose concerning the quality of loans in the subprime segment of the US mortgage market. US subprime mortgages constituted a large, but clearly delimited financial market. However, subprime mortgages were included in structured financial products, so that the risk of subprime losses was spread on a wide range of investors, cf. Box 2.1. This was positive in terms of financial diversification, but it also meant that the actual exposure to subprime mortgages was not clear to the market participants.

At the same time, the credit standings of large US financial corporations were called into doubt, and several rating agencies placed these corporations under "negative outlook". This led the US market for asset-backed Commercial Paper to fall strongly since money-market

STRUCTURED PRODUCTS Box 2.1

Use of structured products was on the increase in the period up to the summer of 2007.[1] One reason for the popularity of these products was that banks could reduce their capital requirements by buying structured products that bundled risky assets. Diversification reduced the overall risk compared with the risk on the individual product elements. Consequently, the credit rating of the structured product was higher than that of its components. Subsequently it has become evident that the risk on structured products was underestimated by the rating agencies and investors.

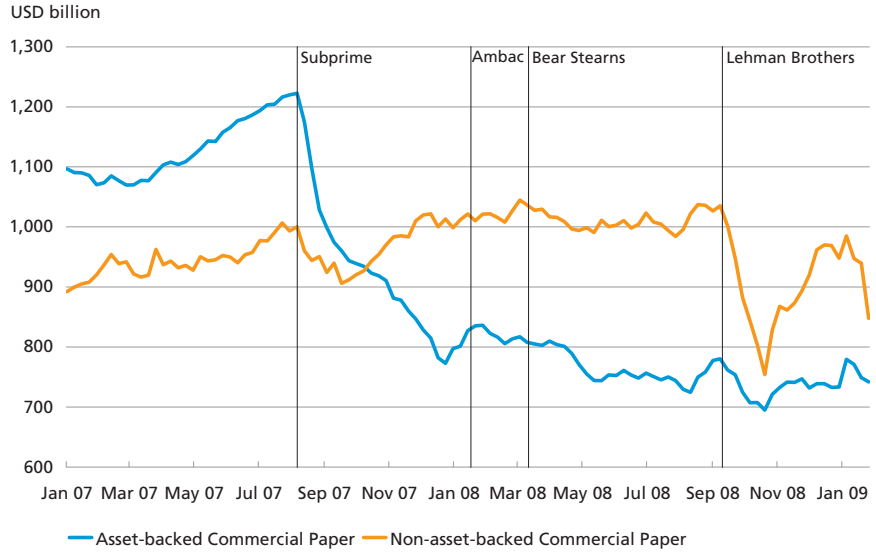
Typically the structured products were credit rated on the margin. For subprime mortgages, this meant that they were classified according to credit priority and the individual classes were then sold separately. The breakdown by priority classes was typically performed in cooperation with a rating agency so that each individual class just made it into a given rating category. This meant that even small negative changes in the underlying assets would lead to downgrading of the structured product. In addition, the structure of the product entailed that the class with the highest priority was given the highest credit rating (AAA), i.e. the same rating as countries like the USA, Germany and Denmark.

[1] Danmarks Nationalbank, *Monetary Review,* 3rd Quarter 2007.

funds only trade assets with the highest credit rating (AAA), cf. Chart 2.1.1.

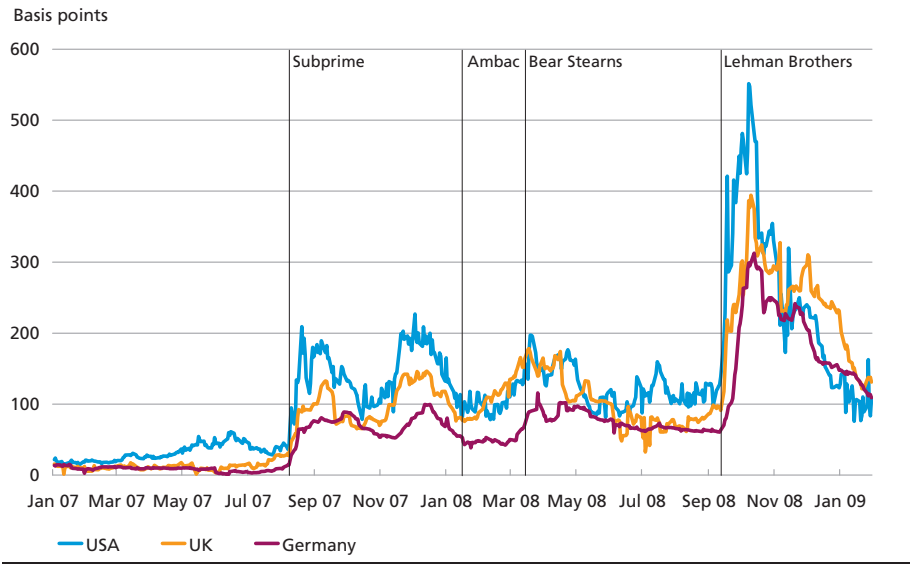
Money-market funds were important to the financial system as they provided short-term liquidity for companies and financial institutions. Over the last few years, money-market funds have also acted as key

OUTSTANDING VOLUMES IN USD COMMERCIAL PAPER Chart 2.1.1



Source: Bloomberg.

MONEY-MARKET SPREADS Chart 2.1.2



Note: USA: 3-month USD deposit vis-à-vis T-bills. UK: 3-month LIBOR vis-à-vis T-bills. Germany: 3-month EURIBOR vis-à-vis T-bills.
Source: Bloomberg.

providers of day-to-day liquidity to the global banks. As the banks' losses mounted, the money-market funds became less willing to lend.

This contributed to raising the banks' financing costs. Investors also became more hesitant to invest in money-market funds as such investments were deemed to be less safe than previously.

Uncertainty about the distribution and size of subprime losses meant that banks were reluctant to make liquidity available to other banks. As a consequence, the spread between uncollateralised and collateralised money-market interest rates tripled, cf. Chart 2.1.2.

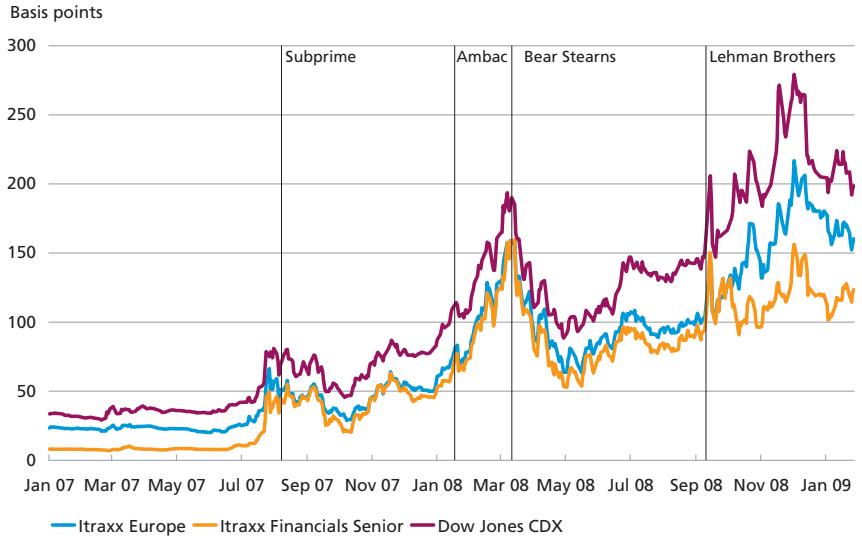
In early 2008, concerns were expressed about the possible downgrading of issuers of credit default swaps (CDS), cf. Box 2.2. This

CREDIT DEFAULT SWAPS[1] Box 2.2

A credit default swap (CDS) can be viewed as an insurance that protects the buyer against a counterparty's default or failure to meet its payment obligations on a reference asset, e.g. corporate or mortgage bonds. The seller of the CDS receives regular payments (the premium) from the buyer throughout the term of the contract or until a credit event occurs at which point the seller must cover the buyer's loss. The annual premium is known as the CDS spread and depends on the credit rating of the underlying reference asset.

[1] Danmarks Nationalbank, *Monetary Review,* 3rd Quarter 2007.

CDS SPREADS Chart 2.1.3



Note: Itraxx Europe, Itraxx Financials Senior and Dow Jones CDX are indices of CDS contracts for the most liquid European CDS contracts rated minimum BBB-/Baa3, the most liquid CDS contracts on European financial institutions and the most liquid CDS contracts on US companies, respectively.
Source: Bloomberg.

increased uncertainty among investors considerably as doubt arose as to whether the CDS insurance would apply if a credit event occurred. The downgrading of one of the large CDS issuers (Ambac) led to soaring premiums for insurance against counterparty risk, cf. Chart 2.1.3.

Increased volatility in connection with Bear Stearns

During March 2008, uncertainty arose concerning Bear Stearns' losses on subprime mortgages, which meant that Bear Stearns experienced liquidity problems and could no longer obtain the necessary funding in the money market. The US authorities assessed that the activities of Bear Stearns were so closely linked to those of other financial institutions that its failure would have negative implications for financial stability. Consequently, the Federal Reserve together with JPMorgan Chase & Co. made liquidity available in mid-March, and later Bear Stearns was acquired by JPMorgan Chase & Co.

In the period until September 2008, the crisis was primarily a liquidity crisis, and money-market losses were avoided. The financial crisis was limited to certain banks, mainly in the USA, with only a few tentacles reaching Europe.

THE CREDIT CRISIS 2.2

In September 2008, the financial turmoil escalated into a credit crisis. The crisis was triggered by further losses in the financial sector, primarily on mortgages. Against that background, the US authorities decided to take control of the mortgage giants, Fannie Mae and Freddie Mac, in order to limit the financial market repercussions. This called attention to other banks and investment banks, such as Lehman Brothers, with high exposures in non-performing assets, including subprime mortgages.

In mid-September the US authorities attempted to save Lehman Brothers in the same way as it had previously saved Bear Stearns. However, no investors were interested in taking over Lehman Brothers without the backing of a government guarantee. Since no guarantee was issued, Lehman Brothers filed for protection under Chapter 11, sending shockwaves through the financial markets, which had expected the crisis-stricken investment bank to be rescued.

On the other hand, the US authorities assessed the insurance company AIG to be highly integrated with other financial institutions as it had been very active in the CDS market. AIG was a party to a large number of contracts and its failure would be devastating for the financial market. The US authorities therefore chose to rescue AIG by injecting a total of USD 85 billion into the company, acquiring 80 per cent of the share capital.

The bankruptcy of Lehman Brothers caused aversion in the market against entering into contracts with others, as it was feared that they, too, might fail. The bankruptcy thus had serious negative implications for the financial markets. As market participants sought to protect themselves against counterparty risk, the prices of CDS contracts rose further, cf. Chart 2.1.3. The activities of Lehman Brothers proved to be more wide-ranging than initially assumed, and in hindsight it has been debated whether a rescue of Lehman Brothers could have mitigated the subsequent credit crisis.

After the bankruptcy of Lehman Brothers, several European banks were in acute need of capital injections, following major losses, cf. Chapter 10. In late September, it was evident that this was not merely a liquidity crisis that the central banks could resolve by making further liquidity available; the solvency of the banks was increasingly being questioned. As a result of the heightened uncertainty, the spread between uncollateralised and collateralised money-market interest rates widened by several hundred basis points, cf. Chart 2.1.2. The nature of the crisis had changed, and now it was a credit crisis.

THE MARKET FOR GOVERNMENT SECURITIES 2.3

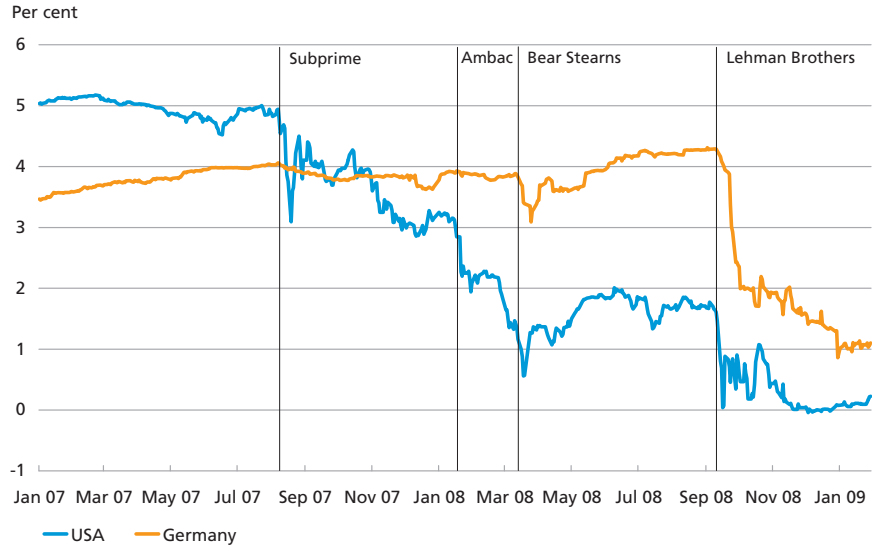
At first, the international financial crisis primarily affected the US markets, where government yields dropped considerably from August 2007 to March 2008, cf. Chart 2.3.1, as investors turned to risk-free assets such as government bonds (flight to quality). As the escalating crisis in September dragged on, it became clear that the crisis would have real economic repercussions. Against the backdrop of a weaker economic outlook and easing of monetary policy, short-term US government yields fell to zero at the end of 2008.

European short-term government yields were only to a lesser extent affected by the financial crisis up to September 2008. After the bankruptcy of Lehman Brothers, the investors' flight to quality became more pronounced, and short-term government yields fell by several percentage points in Europe. As was the case in the USA, several countries saw yields drop to zero.

Until September 2008, long-term government yields were not affected by the financial turmoil to the same extent. However, when the crisis turned into a credit crisis, with concerns about a general slowdown of the global economy as well as lower inflation expectations, 10-year yields began to fall considerably in both the USA and Europe, cf. Chart 2.3.2.

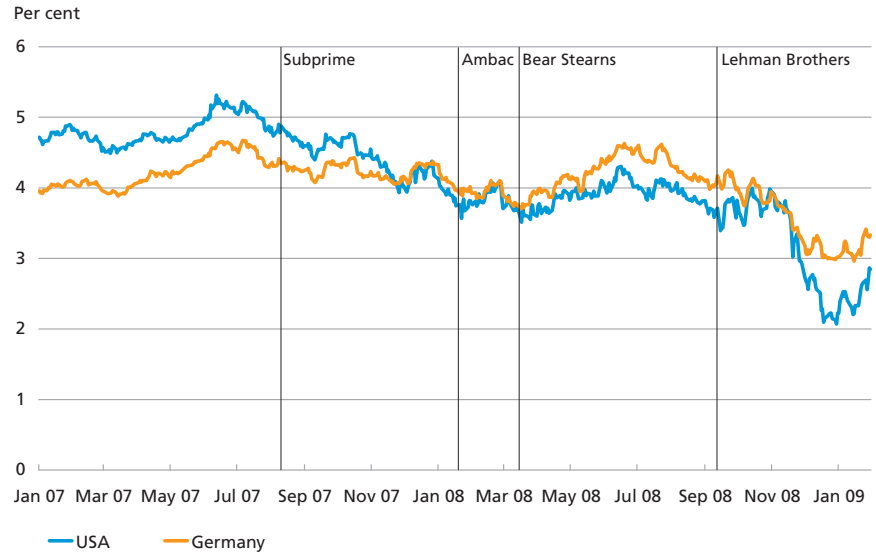
The lower level of interest rates improved the borrowing conditions of most government issuers at the beginning of 2009. However, the global economic crisis has increased the government borrowing requirement,

3-MONTH GOVERNMENT YIELDS Chart 2.3.1



Note: USA: 3-month T-bills. Germany: 3-month T-bills.
Source: Bloomberg.

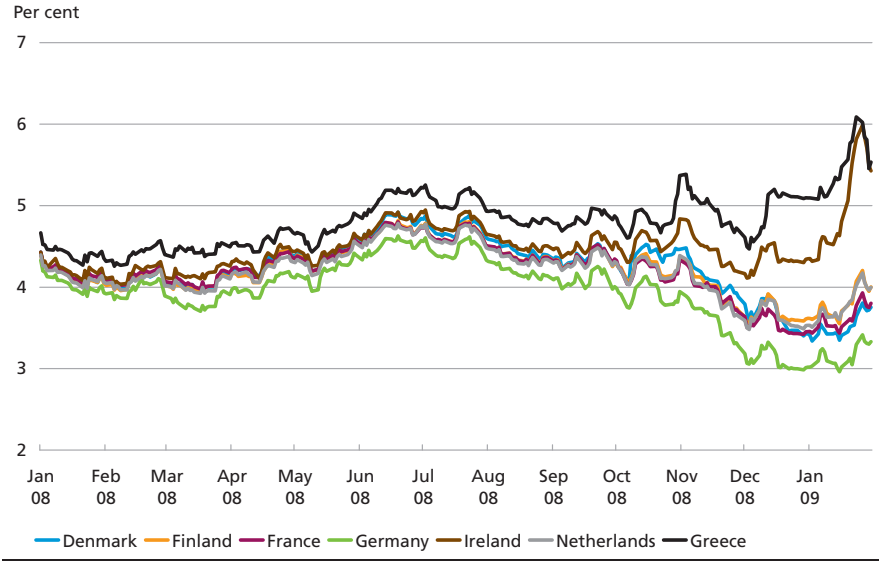
10-YEAR GOVERNMENT YIELDS IN THE USA AND GERMANY Chart 2.3.2



Note: Yields adjusted for maturity differences.
Source: Bloomberg.

cf. Chapter 10. There is a risk that the rapidly increasing supply of government bonds will have a negative impact on borrowing conditions for government issuers. Moreover, investors have reassessed the price of credit risk, so that the borrowing conditions of countries with low credit standings have deteriorated substantially, cf. Chart 2.3.3.

10-YEAR GOVERNMENT YIELDS IN VARIOUS EU MEMBER STATES Chart 2.3.3



Note: Yields adjusted for maturity differences.
Source: Bloomberg.

CHAPTER 3

Borrowing in 2008

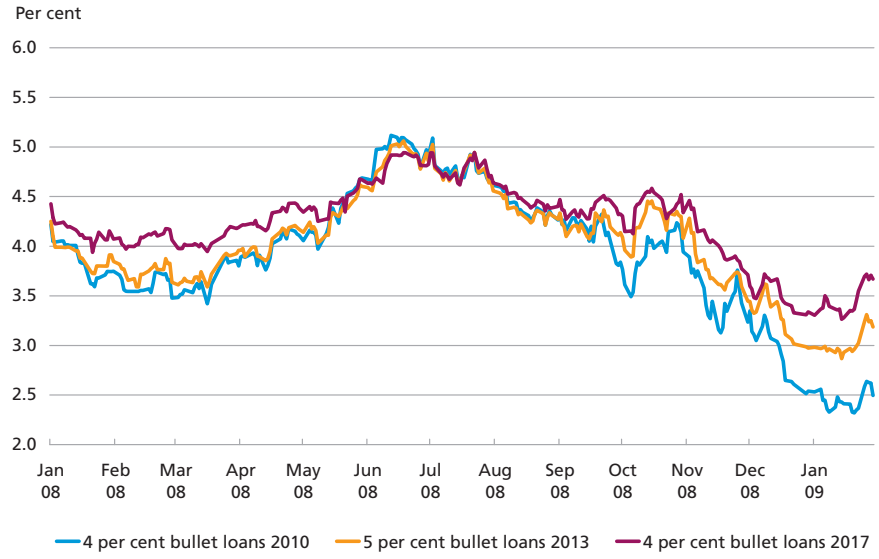
In 2008, the government surplus was DKK 52 billion corresponding to 3 per cent of GDP. The central government's borrowing requirement was low in 2008, which provided room for flexibility in the issuance policy.

The market for Danish government securities was affected by the international financial crisis in 2008. Consequently, borrowing was limited in the first three quarters and the planned opening of a new 10-year government bond was postponed to 2009. The fourth quarter was characterised by new government debt policy initiatives, including the opening of 4.5 per cent bullet loans 2039 in response to strong demand from the pension sector. Due to illiquid currency swap markets, the central government's foreign redemptions were financed by foreign loans.

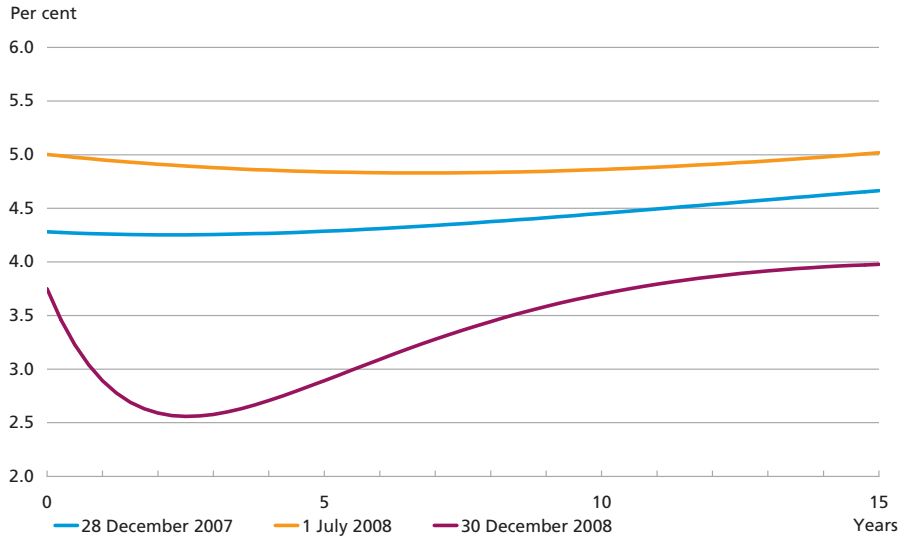
DEVELOPMENT IN INTEREST RATES 3.1

In 2008, the international bond markets were significantly affected by the financial turmoil, which also influenced the Danish market for government bonds, cf. Chart 3.1.1. In the 1st quarter, interest rates

YIELDS TO MATURITY OF BENCHMARK SECURITIES, 2008 Chart 3.1.1



ZERO-COUPON YIELD CURVES Chart 3.1.2



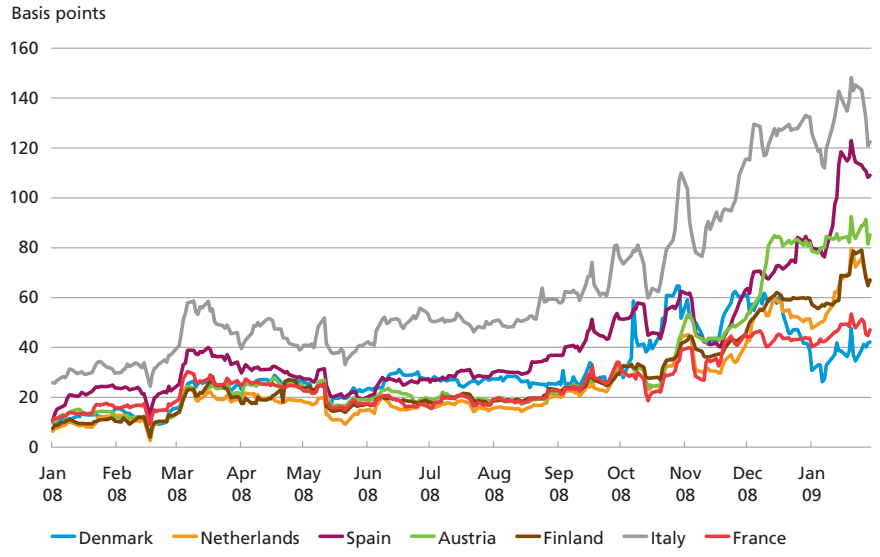
declined as a result of a weaker global economic outlook. In the 2nd quarter, rising commodity and food prices led to fear of inflation and increasing interest rates. In the 2nd half of 2008, deteriorated economic prospects, diminishing inflationary pressures and investors' flight to government securities caused yields to drop to below the level at the beginning of the year.

The Danish yield curve was flat during most of 2008. At the end of 2008, the yield curve was inverted until the 2-year maturity segment, reflecting a wide monetary-policy spread to the euro area, cf. Chart 3.1.2. The 2-year maturity segment accounted for the strongest fall due to a weaker economic outlook and expectations of lower monetary-policy interest rates. This resulted in a steeper yield curve.

Yield spreads to Germany

The uncertainty in the financial markets led to increasing volatility and flight to the safest asset classes, and resulted in considerable demand for government securities in general. Demand was particularly strong for German government securities that have a special status due to high liquidity and high credit standing. The Danish yield spread to Germany widened, as did those of other countries. The widening was most pronounced in October, reflecting, inter alia, great international uncertainty concerning the rescue packages for the banking sector and the implications for public finances. At the end of the year, the Danish 10-year yield spread narrowed to a lower level than in most countries in the euro area, cf. Chart 3.1.3.

10-YEAR YIELD SPREADS TO GERMANY Chart 3.1.3



Note: Yield spreads adjusted for maturity differences.
Source: Bloomberg.

DOMESTIC BORROWING 3.2

In 2008, the government surplus was DKK 52 billion corresponding to 3 per cent of GDP. On the basis of the low borrowing requirement in 2008, the overall strategy was to focus issuance in the domestic 10-year maturity segment. The discontinuation of the T-bill programme was an element of this strategy, cf. Box 3.1.

STRATEGY FOR 2008[1] Box 3.1

Issuance and liquidity

- Issuance in government bonds of DKK 30 billion[2]
- 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 is managed within a duration band of 3.25 years ± 0.5 year.

[1] *Danish Government Debt Policy 2008,* 18 December 2007.
[2] Reduced to DKK 20 billion in August, cf. *Budget Outlook 3,* August 2008.

SALES OF GOVERNMENT BONDS TO THE MARKET IN 2008 — Table 3.2.1

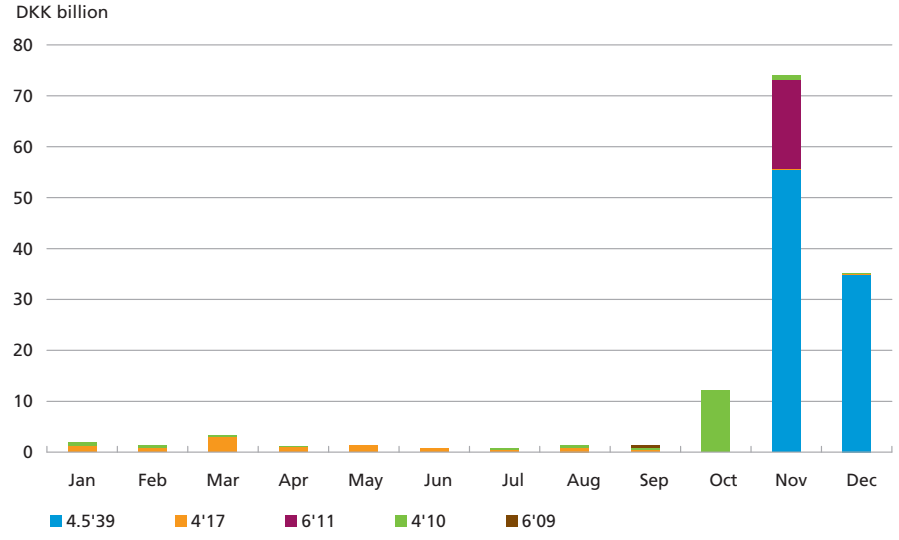
DKK million	Sales 2008, market value	Nominal outstanding end-2008
Central government:		
6 per cent bullet loans 2009	439	43,610
4 per cent bullet loans 2010	15,624	51,180
4 per cent bullet loans 2017	10,703	52,570
4.5 per cent bullet loans 2039	90,322	87,600
SPF:		
6 per cent bullet loans 2011	17,416	60,500
Total issuance	134,504	

Sales of domestic government bonds

The expected issuance requirement in 2008 amounted to DKK 30 billion. The borrowing requirement was later reduced to DKK 20 billion, cf. *Budget Outlook 3*, August 2008. In 2008, sales of government bonds totalled DKK 135 billion at market value, cf. Table 3.2.1. The extraordinarily high sales can be attributed to a number of debt-policy measures in the 4th quarter, when most of the issuance in 2008 took place, cf. Chart 3.2.1.

The intention was to open a new 10-year government bond 2019 during 2008. On the basis of indications from primary dealers, Government Debt Management concluded that there was limited investor interest in a 10-year government bond. The low borrowing requirement, combined with a large balance of the central government's account, provided flexibility in the strategy, so the opening of this bond was postponed to the beginning of 2009.

SALES OF GOVERNMENT BONDS TO THE MARKET IN 2008 — Chart 3.2.1



In response to strong investor interest from the insurance and pension sector, a new 30-year government bond was opened on 11 November with a coupon of 4.5 per cent and maturity on 15 November 2039.

As Danish pension companies have long-term nominal commitments in Danish kroner, they have a natural interest in long-term issuance denominated in Danish kroner. Previously, the pension companies invested in foreign long-term bonds and hedged risk by means of derivatives. The financial turmoil increased demand for a long-term Danish government security.

The long-term government bond supports a well-functioning domestic financial market and facilitates the central government's access to the financial markets in the longer term, in view of the structural demand for Danish government bonds on account of the pension sector's commitments in Danish kroner. Moreover, in the short term, issuance in the 30-year segment contributed to supporting the demand for krone-denominated assets to the extent that pension companies sold other European bonds to buy the Danish series.

At the opening auction, securities for a nominal amount of DKK 29 billion were allocated, while the bids totalled DKK 43 billion. Indications from market participants pointed to continued strong demand for this segment. As a result of the great demand, most of the subsequent sales took place via auctions, cf. Table 3.2.2.

At the opening, it was announced that the series would be built up to an outstanding volume of around DKK 60 billion. This had been achieved by the end of November. Against the background of continued strong demand, it was decided to raise the target for the outstanding volume to around DKK 90 billion. The total outstanding was DKK 88 billion at end-2008. The 30-year government bond was priced with a yield spread to Germany that was in line with those of comparable European countries.

ISSUANCE IN 4.5 PER CENT BULLET LOANS 2039 IN 2008 Table 3.2.2

Date	Nominal value, DKK million	Method	Yield, per cent	Yield spread to Germany, bp	Bid-to-cover
11 November	29,180	Auction	4.62	32	1.5
13 November	30	Tap	4.53	20	
18 November	10,440	Auction	4.46	29	5.3
19 November	7,000	Auction	4.51	29	4.3
20 November	5,000	Tap	4.42	32	
21 November	4,455	Tap	4.35	32	
28 November	5,205	Tap	4.04	33	
2 December	26,100	Auction	3.89	32	1.1
2 December	40	Tap	3.89	32	
3 December	150	Tap	3.69	28	
Total	87,600				

OWNERSHIP DISTRIBUTION OF 4.5 PER CENT BULLET LOANS 2039 Table 3.2.3

Per cent	End-2008
Insurance and pension	89.3
Non-residents	4.0
MFIs	0.9
Other	5.8

Source: Danmarks Nationalbank, Securities Statistics.

The insurance and pension sector was the main investor in the 30-year series and by end-2008 the ownership share of the insurance and pension sector was around 90 per cent, cf. Table 3.2.3.

The Treasury bill programme

The T-bill programme has been reduced over the last three years, and issuance stopped at the end of 2008. During the year, issuance of T-bills at market value amounted to DKK 13 billion, while redemptions totalled DKK 33 billion. The net financing contribution from the T-bill programme was thus DKK -20 billion in 2008.

In September, market participants indicated a shortage of dollar liquidity and thus of safe short-term money-market instruments eligible as collateral for borrowing from the Federal Reserve. This prompted an extraordinary auction of T-bill 2008-II. Sales at the auction amounted to DKK 300 million. The limited issuance should be viewed in the light of the establishment of a swap facility with the Federal Reserve after the publication of the extraordinary T-bill auction, but before it took place. The swap facility enabled Danish banks to raise dollar-denominated loans directly via Danmarks Nationalbank.

Extraordinary issuance

As a consequence of the mounting financial turmoil and in order to accommodate specific demand in the market, extraordinary issuance took place for a nominal amount of DKK 430 million in 6 per cent bullet loans 2009 in September and a nominal amount of DKK 12 billion in 4 per cent bullet loans 2010 in October. For the same reason, in November a nominal amount of DKK 16.5 billion in 6 per cent bullet loans 2011 was sold from the Social Pension Fund's portfolio.

BUY-BACKS 3.3

Buy-backs of government securities from the market are primarily motivated by the investment of the government funds and to smooth the domestic redemption profile.

In March 2008, the liquidity crisis prompted a market participant to approach Government Debt Management with a view to selling a large

BUY-BACKS BY THE CENTRAL GOVERNMENT AND NET BUY-BACKS BY THE GOVERNMENT FUNDS IN 2008 Table 3.3.1

DKK million, market value	Central govern-ment	SPF	Financing Fund	Preventive Measures Fund	Advanced Technology Foundation	Total buy-backs from the market
4 per cent bullet loans 2008 ...	5,435	-2,523	-	-111	629	3,431
Maturing in 2008	5,435	-2,523	-	-111	629	3,431
6 per cent bullet loans 2009....	19,199	-18,549	-676	25	-1	-1
6 per cent bullet loans 2011 ..	-	-977[1]	-97	26	1,132	85
5 per cent bullet loans 2013 ...	-	993	-565	26	493	947
4 per cent bullet loans 2015....	303	2,701	-99	24	1,057	3,987
4 per cent serial loans 2017.....	1	-	-	-	-	1
7 per cent bullet loans 2024 ...	-	7,177	-	-	-	7,177
Maturing after 2008	19,503	-8,654	-1,437	102	2,681	12,195
Government securities, total...	24,937	-11,177	-1,437	-9	3,311	15,626

Note: A negative sign indicates net sales.
[1] Excluding sales of 6 per cent bullet loans 2011 for DKK 17,416 million at market value from the SPF portfolio.

position in 7 per cent bullet loans 2024. Government Debt Management decided to buy back the securities as they would otherwise have been sold in the market, with a considerable impact on the pricing of Danish government securities.

In 2008, the central government and the government funds bought back domestic government securities maturing after 2008 at market value for a total amount of DKK 12 billion, cf. Table 3.3.1.

FOREIGN BORROWING 3.4

The central government raises foreign loans in order to maintain the foreign-exchange reserve. Under the foreign funding rules, the central government, as a general rule, raises foreign loans corresponding to the redemptions on the foreign debt, whereby the foreign-exchange reserve is maintained. In 2008, foreign borrowing (excluding Commercial Paper) amounted to DKK 23 billion, largely corresponding to the redemptions on the foreign debt, i.e. DKK 22 billion.

In recent years, the strategy for foreign borrowing has been to transact currency swaps between Danish kroner and euro, cf. *Danish Government Borrowing and Debt 2007*. However, Government Debt Management could not follow this strategy due to insufficient liquidity in the currency swap market as a result of the financial crisis. The strategy was therefore adjusted in September to the effect that redemptions on foreign loans were financed through issuance of foreign debt with final exposure in euro. In this connection, the central government's EMTN programme was revised.

FOREIGN LOANS EXCLUDING COMMERCIAL PAPER IN 2008 Table 3.4.1

DKK billion	Sales	Trading day	Maturity	Spread to 6-month Euribor
3-year USD loan	8.2	7 Oct.	15 Nov. 2011	-78 basis points
Extra USD issuance	5.9	19 Nov.	15 Nov. 2011	-38 basis points
3-year euro loan	9.3	20 Nov.	28 Nov. 2011	-15 basis points
Total	23.4			

In October, the central government raised a syndicated 3-year loan of USD 1.5 billion (DKK 8.2 billion), which was subsequently swapped to euro, cf. Table 3.4.1. The loan was issued in US dollars combined with currency swaps as this structure was considerably more advantageous than direct issuance in euro. The central government's final exposure is a fixed 3-year euro yield of 3.46 per cent.

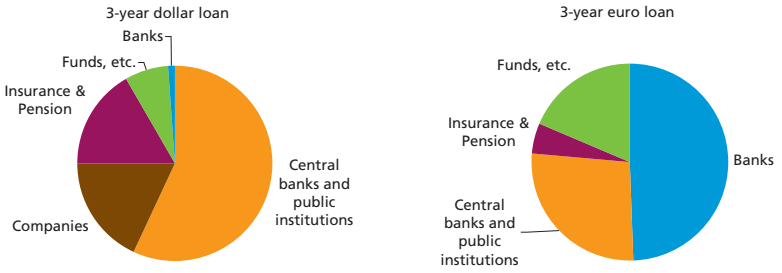
Subsequently, a private placement with one investor resulted in issuance of an additional amount of USD 1 billion (DKK 5.9 billion) in the existing dollar loan at a floating interest rate equivalent to 6-month Euribor minus 38 basis points. In November, the central government issued a 3-year syndicated euro-denominated loan of EUR 1.25 billion (DKK 9.3 billion) at a fixed interest rate of 3.20 per cent.

The issuance of several foreign loans in 2008 reflects changing market conditions. Syndicated loans were generally smaller as a result of the financial turmoil. In addition, the number of investors was considerably lower than issuance in previous years. However, it was still possible to achieve good investor diversification for the foreign issuance, although the investors were mainly banks and central banks, cf. Chart 3.4.1.

The Commercial Paper programmes

The Danish government has two Commercial Paper (CP) programmes for short-term borrowing in the international money markets. The two programmes are aimed at the European market (ECP programme) and the US market (USCP programme), respectively. Under the USCP programme, all issuances are in dollars, while it is possible to issue in a

INVESTOR DISTRIBUTION OF USD LOANS AND EURO LOANS RAISED IN 2008 Chart 3.4.1



number of currencies, including dollars and euro, under the ECP programme. The maximum outstanding volume of the USCP programme is USD 6 billion, while the maximum outstanding volume of the ECP programme was raised in November, from USD 6 billion to USD 12 billion.

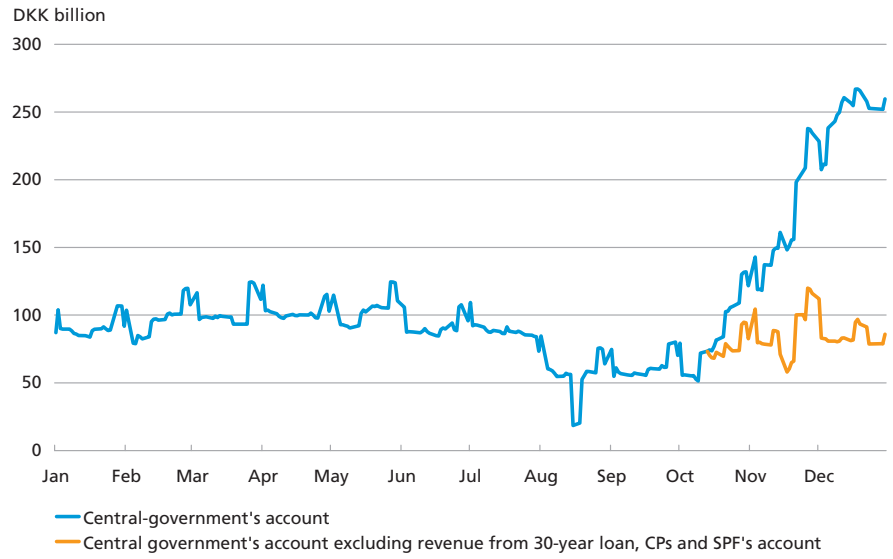
The objective of the CP programmes is to ensure a liquidity contingency for rapid adjustment of the level of the foreign-exchange reserve or the central government's account at Danmarks Nationalbank. When issuing CP in USD, the central government simultaneously carries out forward agreements between dollar and euro with Danmarks Nationalbank.

From October, the central government's two CP programmes were used as elements of foreign borrowing. Issuance took place mainly under the ECP programme, where investor interest was highest. The market value of the total outstanding under the central government's two CP programmes was DKK 56 billion at end-2008.

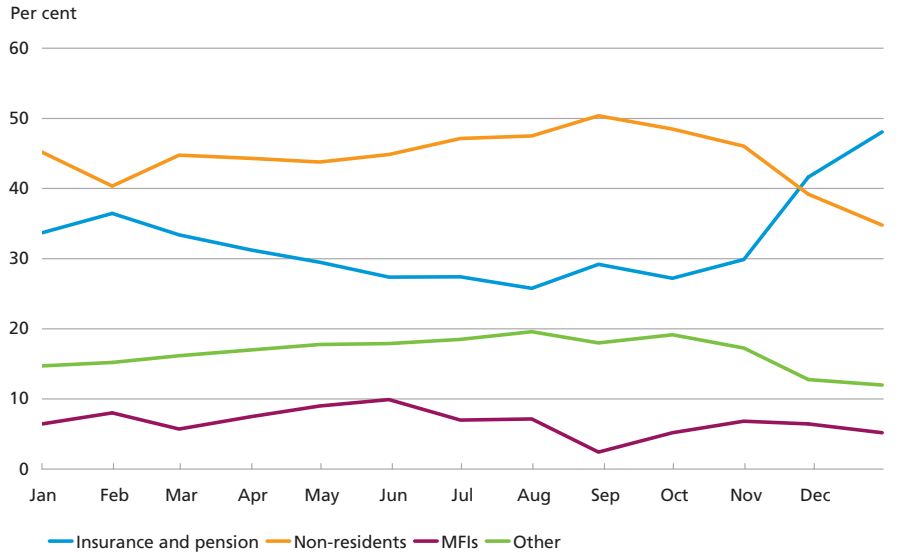
THE CENTRAL GOVERNMENT'S ACCOUNT 3.5

The central government holds liquid funds on its account at Danmarks Nationalbank. The balance of the central government's account has increased in recent years, primarily because the central government's issuance has exceeded the borrowing requirement. This should be viewed in the context of Government Debt Management's strategy of maintaining a liquid market for government securities in a period with low borrowing requirements. The balance of the central government's account increased significantly at the end of 2008, cf. Chart 3.5.1. This is

THE CENTRAL GOVERNMENT'S ACCOUNT, 2008 Chart 3.5.1



OWNERSHIP SHARES OF DOMESTIC SECURITIES, 2008 Chart 3.6.1



Note: Adjusted for the government bond portfolios of the government funds.
Source: Danmarks Nationalbank, *Securities Statistics*.

primarily attributable to issuance in the 30-year government bond and foreign borrowing. In addition, SPF's purchase of fixed-rate bullet bonds, amounting to DKK 26 billion, was not settled until the beginning of 2009.

OWNERSHIP DISTRIBUTION OF DANISH GOVERNMENT SECURITIES 3.6

Non-residents' ownership share of Danish government securities diminished at the end of 2008, cf. Chart 3.6.1. This is mainly due to the phasing out of the T-bill programme and the opening of a new 30-year government bond. Non-residents accounted for a large ownership share of T-bills, and 4.5 per cent bullet loans 2039 were predominantly owned by the Danish pension sector, cf. Table 3.2.3. Against this background, the ownership share of the pension sector rose towards the end of the year to approximately 50 per cent, while non-residents' ownership share of Danish government bonds remained at around DKK 125 billion in absolute terms.

EVALUATION OF GOVERNMENT TRANSACTIONS 3.7

In 2006, a systematic framework was introduced for quantitative evaluation of government transactions, cf. *Danish Government Borrowing and Debt 2006*. The purpose is to assess the timing of the central government's transactions within the year. The transactions are

EVALUATION OF ISSUANCE AND BUY-BACKS[1] Table 3.7.1

DKK million	Volume	Average spread to benchmark (basis points)	Value of spread
Tap issuance	10,165	-5.1	27.8
Buy-backs	11,444	4.7	31.9
Switch auction, issuance	4,582	6.1	-6.0
Switch auction, buy-backs	4,156	4.5	
Total			53.7

[1] Excluding 4.5 per cent bullet loans 2039 and extraordinary issuances, cf. section 3.2.

compared with a reference whereby the transactions within each month are distributed evenly on all trading days.

By comparing the actual transactions with the reference, it is possible to assess whether the central government has conducted issuance and buy-back transactions on appropriate days. The evaluation for 2008 shows that the value of the actual transactions compared to the reference was approximately DKK 54 million, cf. Table 3.7.1. The evaluation does not include issuance in the 30-year government bond or the extraordinary issuance in the 4th quarter, cf. section 3.2.

CHAPTER 4

Strategy 2009

In 2009, the domestic issuance is expected to be DKK 40 billion, most of which will be in the 10-year on-the-run issue, 4 per cent bullet loans 2019, which was opened in January. This series will be built up over a two-year period to a final outstanding volume of around DKK 50 billion.

The foreign debt is issued in order to maintain an adequate foreign-exchange reserve. As a general rule, the central government raises foreign loans equivalent to the redemptions on the foreign debt. As an element of the central government's foreign borrowing, a syndicated 3-year loan of USD 3 billion (DKK 16 billion) was raised in January 2009 and subsequently swapped to euro. In the context of the financial turmoil, the central government's contribution to the foreign-exchange reserve is increased.

Government Debt Management emphasises the importance of clear and transparent communication on issues related to the government debt policy. In view of the continued financial and economic uncertainty, a more flexible issuance policy may, however, be required.

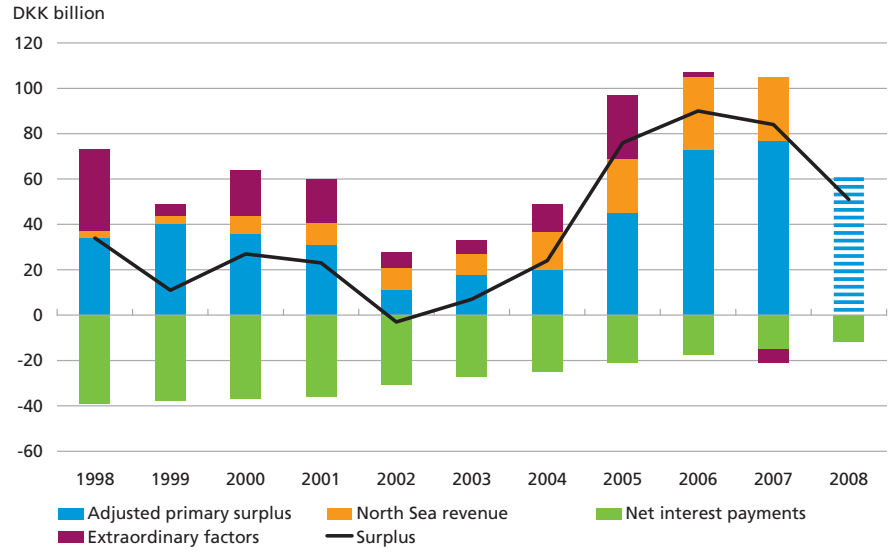
ISSUANCE STRATEGY IN THE COMING YEARS 4.1

Recent years have witnessed a significant reduction of the central-government debt, from DKK 600 billion at end-1997 to DKK 195 billion at end-2008, corresponding to a decline from 53 per cent of GDP to 11 per cent of GDP.

The debt reduction reflects government surpluses almost every year since 1997. Especially the last four years have seen extraordinarily large surpluses which, among other factors, reflect strong economic conditions and substantial revenue from energy extraction in the North Sea, cf. Chart 4.1.1.

Government finances are expected to balance in 2009, while a small deficit is expected in 2010, cf. *Budget Outlook 4*, December 2008. The development in public finances should be viewed in the context of an economic slowdown and lower-than-expected income from capital gains and energy extraction from the North Sea. In line with the normalisation of the economy, the government budget is expected to almost balance towards 2015, cf. *Denmark's Convergence Programme 2008*, December 2008.

BREAKDOWN OF THE CENTRAL-GOVERNMENT SURPLUS Chart 4.1.1



Note: Surplus calculated as the central government's net cash balance. The adjusted primary surplus is adjusted for North Sea revenue, extraordinary factors and net interest payments. Only surplus and net interest payments have been compiled for 2008.

Source: *Budget Outlook 4*, December 2008 and the *Central-government accounts*.

Continued focus on issuance in the 10-year maturity segment

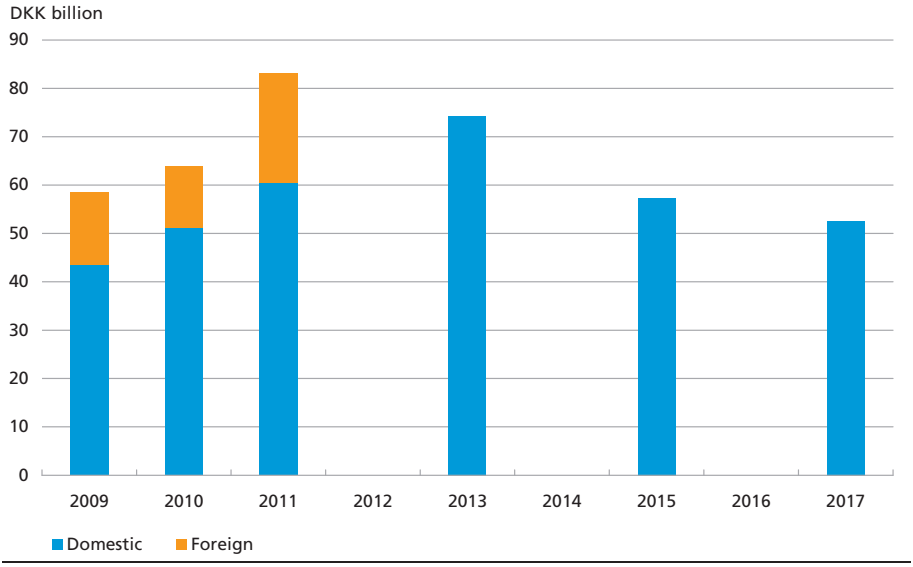
In recent years, the strategy of government debt policy has been to build up liquid securities in the 10-year maturity segment. In a period with large government surpluses and a low borrowing requirement, concentration of issuance has contributed to ensuring liquidity in the key on-the-run issues.

The intention is that most of the domestic issuance in the coming years will be concentrated in 10-year government bonds. The issuance strategy is 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, cf. *Danish Government Borrowing and Debt 2007*. The 10-year maturity segment has been selected as it is regarded internationally as the most important segment. In addition, market participants have expressed a strong preference for a liquid 10-year point on the government yield curve.

Possibility of building up shorter government securities

Weaker-than-expected development in government finances may require adjustment of the issuance strategy of building up the 10-year maturity segment, so as to match a higher borrowing requirement. If the borrowing requirement is sufficiently large, a security with shorter

CENTRAL GOVERNMENT REDEMPTION PROFILE, 2009-2017 Chart 4.1.2



Note: Redemption profile at end-2008 excluding currency swaps, domestic redemptions of DKK 24 billion in 2024 and DKK 88 billion in 2039. Furthermore, a foreign loan of DKK 16 billion was raised in January 2009, maturing in 2012 and domestic redemptions in 2019 due to issuance in the new 10-year government bond.

maturity will be built up in order to fill out the gaps in the central government's redemption profile. For instance, government securities maturing in 2012, 2014 and 2016 might be issued, cf. Chart 4.1.2.

Issuance in shorter maturity segments can contribute to smoothing the central government's redemption profile. This supports a stable issuance policy and reduces the central government's refinancing risk. In addition, issuance in a shorter maturity segment contributes to enhancing liquidity and to efficient pricing at the short end of the yield curve. The financial turbulence has emphasised the importance for the financial markets of a risk-free short-term asset, cf. Chapter 10.

30-year bonds as a risk-management instrument for pension funds

In 2008, Government Debt Management opened a 30-year government bond, cf. Chapter 3. This enabled pension funds in particular to hedge their long-term commitments in a krone-denominated asset.

There is considerable market interest in a long-term Danish government security, as evidenced by demand in 2008. As the maturity of the bond is reduced, switching to a new 30-year government bond may be offered in the future. The series will thus still serve the purpose of being useful in the pension funds' risk management. Switches will be used to the extent that market prices are deemed to be fair on the basis of an overall government debt policy assessment.

The central government's account

The balance of the central government's account has risen considerably, primarily due to the proceeds from 30-year issuance. A large balance of the central government's account places the government in a favourable position since it provides the basis for a more flexible issuance policy. For example, the government intends to finance the credit package for Danish banks and mortgage-credit institutes by drawing on its account rather than by issuing more government bonds. The credit package is described more thoroughly in Chapter 10.

ISSUANCE STRATEGY IN 2009 4.2

Government Debt Management emphasises the importance of clear and transparent communication on issues related to the government debt policy. The continued high degree of uncertainty in the financial markets may, however, give rise to situations that would require a flexible issuance strategy in 2009. The strategy presented for 2009 should therefore be viewed in the light of the uncertain market conditions.

Domestic borrowing

Because of the financial and economic development, the estimate of the central government's domestic borrowing requirement in 2009 is subject to more uncertainty than usual. One underlying factor is Denmark's strong automatic stabilisers, cf. *IMF Country Report*, December 2008. During an economic slowdown, higher unemployment causes social benefit costs to increase and tax revenue to decrease. In addition, certain major items of public revenue are very sensitive to oil-price fluctuations and movements in the financial markets.

Domestic issuance in 2009 is expected to be DKK 40 billion. In 2009, key on-the-run issues are securities in the 2-year, 10-year and 30-year maturity segments, cf. Table 4.2.1. In addition, the central government may issue for small amounts in the other bullet loans. The targets for key on-the-run issues in 2009 are:

- Most of the domestic issuance will be covered by issuance in the new 10-year on-the-run issue, 4 per cent bullet loans 2019, which was opened on 20 January 2009. The series will be built up over a two-year period to a final outstanding volume of around DKK 50 billion
- Issuance in 4 per cent bullet loans 2010 will continue
- 4.5 per cent bullet loans 2039 will be built up to a final outstanding volume of approximately DKK 90 billion.

KEY ON-THE-RUN ISSUES, 2009 Table 4.2.1

Loan	Maturity segment	Maturity
4 per cent bullet loans 2010	2 years	15 November
4 per cent bullet loans 2019	10 years	15 November
4.5 per cent bullet loans 2039	30 years	15 November

Foreign borrowing

The foreign debt is issued in order to maintain an adequate foreign-exchange reserve. In 2009, the initial strategy was to raise foreign loans of DKK 20 billion, equivalent to redemptions on the foreign debt, cf. *Danish Government Debt Management Strategy 2009*, December 2008. In the context of the financial turmoil, it is found to be appropriate to increase the central government's contribution to the foreign-exchange reserve, and consequently Government Debt Management has raised the target for foreign borrowing in 2009.

Foreign borrowing in 2009 will be carried out by raising foreign loans with final exposure in euro. The central government's issuance of foreign debt involves comparison of the borrowing costs with e.g. equivalent German issuance and issuance by a peer group of other countries with high ratings, e.g. Austria, Finland and the Netherlands. The issuance may be conducted in another currency than euro if the market conditions for such issuance, combined with swaps to euro, are considerably more attractive than for direct issuance in euro.

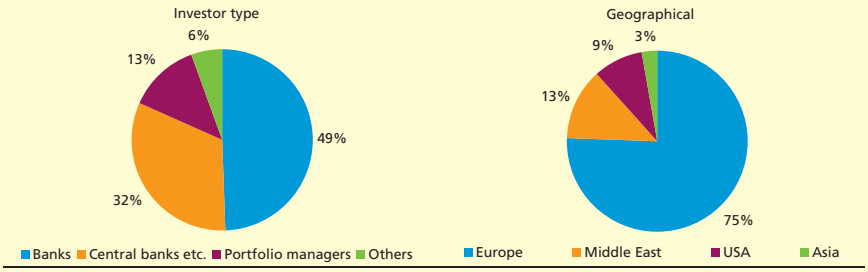
In addition, the central government's two foreign Commercial Paper programmes will be used in order to ensure access for the central government to short-term foreign borrowing. Furthermore, currency swaps can be used as an element of the central government's foreign borrowing, provided the liquidity in the currency swap market between kroner and euro improves.

On 8 January 2009, the central government raised a syndicated 3-year loan of USD 3 billion (DKK 16 billion), which was subsequently swapped to euro, cf. Box 4.1. The final exposure for the central government was a fixed interest rate of 2.85 per cent, which was flat to the euro swap curve and at the same level as the peer group. There was participation from a broad group of investors.

KINGDOM OF DENMARK, DOLLAR LOAN 1.875 PER CENT 2012 Box 4.1

- Date of issuance: 8 January 2009
- Maturity date: 16 March 2012
- Size: USD 3 billion (bids received: USD 3.8 billion)
- Rating: AAA/Aaa
- Fee: 0.10 per cent
- Lead managers: Barclays, JP Morgan and Morgan Stanley.

INVESTOR AND GEOGRAHICAL DISTRIBUTION



Buy-backs

Buy-backs from the market can be conducted in all government securities, although key on-the-run issues are as a general rule excepted. Government Debt Management will buy back securities to the extent that market prices are deemed to be fair compared, inter alia, to market prices in the key on-the-run issues. Buy-backs can support the build-up of the new 10-year on-the-run issue and contribute to concentrating liquidity in fewer series of government securities, e.g. via buy-backs in 7 per cent bullet loans 2024, which were shifted to voluntary market making in 2008.

Box 4.2 summarises the overall issuance and liquidity strategy in 2009.

ISSUANCE AND LIQUIDITY IN 2009 Box 4.2

- Domestic issuance for approximately DKK 40 billion
- 4 per cent bullet loans 2019 to be built up to a final outstanding volume of around DKK 50 billion
- Issuance in 4 per cent bullet loans 2010 continues
- 4.5 per cent bullet loans 2039 to be built up to a final outstanding volume of around DKK 90 billion
- Issuance in the other bullet loans is possible
- Foreign borrowing in 2009 to be carried out by raising foreign loans with final exposure in euro
- All government securities can be bought back, although key on-the-run issues are as a general rule excepted.

CHAPTER 5

Government Debt and Interest Costs

In 2008, the central-government debt was reduced by DKK 52 billion as a result of the government surplus. The last 10 years have witnessed a pronounced reduction of the central-government debt, to DKK 195 billion at end-2008, equivalent to 11 per cent of GDP. The reduction of debt has been particularly strong in the last few years.

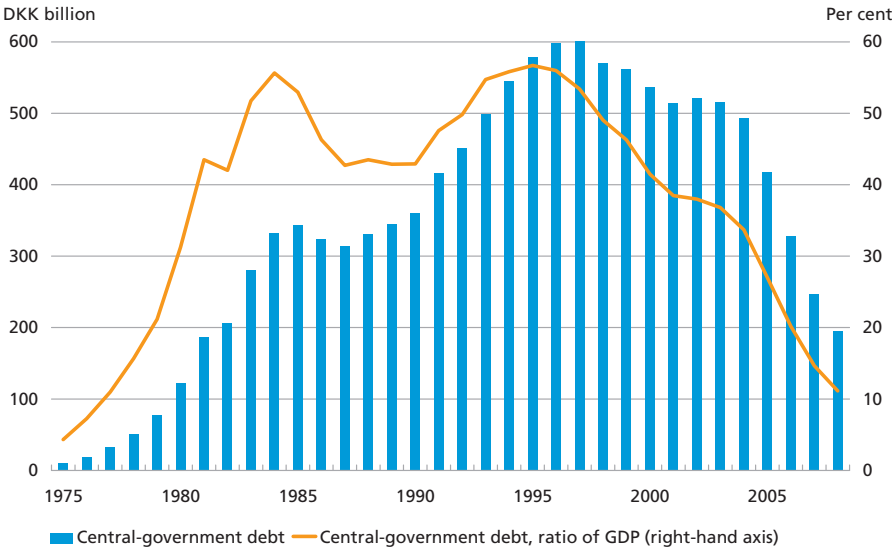
On account of the falling debt and lower market interest rates, the central government's annual interest costs have declined from DKK 44 billion in 1997 to DKK 12 billion in 2008.

PRONOUNCED DECLINE IN GOVERNMENT DEBT IN RECENT YEARS 5.1

The central-government debt is compiled as the nominal value of domestic and foreign debt less the balance of the central government's account at Danmarks Nationalbank and the assets of 3 government funds.

Recent years have witnessed a significant reduction of the central-government debt, from DKK 600 billion in 1997 to DKK 195 billion in 2008, corresponding to a decline from 53 per cent of GDP to 11 per cent of GDP, cf. Chart 5.1.1. At end-2008, the central-government debt was approximately DKK 35,000 per capita, compared with approximately DKK 115,000 per capita in 1997.

DEVELOPMENT IN THE CENTRAL-GOVERNMENT DEBT Chart 5.1.1



CENTRAL-GOVERNMENT DEBT AT NOMINAL VALUE, 2006-08 Table 5.1.1

DKK billion	2006	2007	2008
Domestic debt	454.4	402.0	429.5
Foreign debt	79.8	68.6	133.1
Central government's account[1]	-71.0	-86.3	-259.6
Social Pension Fund[2]	-128.9	-126.9	-97.4
Advanced Technology Foundation	-4.3	-6.2	-8.3
Financing Fund	-1.4	-1.4	•
Preventive Measures Fund	•	-2.7	-2.5
Central-government debt at nominal value	328.6	247.1	194.7
Outstanding re-lending	-34.0	-37.6	-50.5
Central-government debt incl. re-lending	294.7	209.5	144.2

Note: For 2008, the account is compiled in accordance with Danmarks Nationalbank's monthly balance sheet.
Source: *Central-government accounts* 2006 and 2007. For 2008, figures are provisional.
[1] At end-2008, the balance of the account with Danmarks Nationalbank included DKK 26 billion related to the SPF's purchases of mortgage bonds in December 2008 which were not settled until the beginning of January 2009.
[2] The value of the SPF's portfolio, including mortgage bonds for settlement January 2009, was DKK 124 billion.

As a result of the government surplus in 2008, the central-government debt was reduced by DKK 52 billion to DKK 195 billion, cf. Table 5.1.1.

The central-government debt at market value was DKK 227 billion at end-2008, cf. Table 5.1.2. Compilation at market value implies that the value of the debt depends primarily on market interest rates. In a situation with falling market interest rates, as was the case in 2008, central-government debt will decline less when compiled at market value than when compiled at nominal value since the market value of the outstanding bonds increases. Compilation at market value is especially relevant if asset portfolios are being built up on a large scale, debt is bought back before maturity, or derivatives are used in government debt management.

CENTRAL-GOVERNMENT DEBT AT MARKET VALUE, 2006-08 Table 5.1.2

DKK billion	2006	2007	2008
Domestic debt	480.2	416.4	473.9
Foreign debt	78.5	68.6	132.4
Central government's account[1]	-71.0	-86.3	-259.6
Social Pension Fund[2]	-139.2	-133.5	-107.7
Advanced Technology Foundation	-4.5	-6.4	-8.9
Financing Fund	-1.5	-1.5	•
Preventive Measures Fund	•	-2.8	-2.7
Central-government debt at market value	342.5	254.5	227.4
Outstanding re-lending	-36.0	-38.8	-55.2
Central-government debt incl. re-lending	306.5	215.7	172.2

Note: 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] At end-2008, the balance of the account with Danmarks Nationalbank included DKK 26 billion related to the SPF's purchases of mortgage bonds in December 2008, which were not settled until the beginning of January 2009.
[2] The market value of the SPFs portfolio, including mortgage bonds for settlement January 2009, was DKK 134 billion.

INTEREST COSTS ON THE CENTRAL-GOVERNMENT DEBT, 2006-08 Table 5.2.1

DKK billion	2006	2007	2008
Interest costs concerning			
Domestic debt	23.0	21.0	19.1
Foreign debt	2.3	2.6	2.9
Interest income concerning			
Central government's account with Danmarks Nationalbank	-1.2	-2.3	-4.2
Social Pension Fund	-6.6	-5.8	-5.8
Advanced Technology Foundation	-0.1	-0.2	-0.3
Financing Fund	0.0	-0.1	0.0
Preventive Measures Fund	•	-0.1	-0.1
Interest costs on the central-government debt	17.4	15.2	11.6
Interest income from re-lending	-1.2	-1.6	-1.8
Interest costs on the government debt incl. re-lending	16.2	13.6	9.8

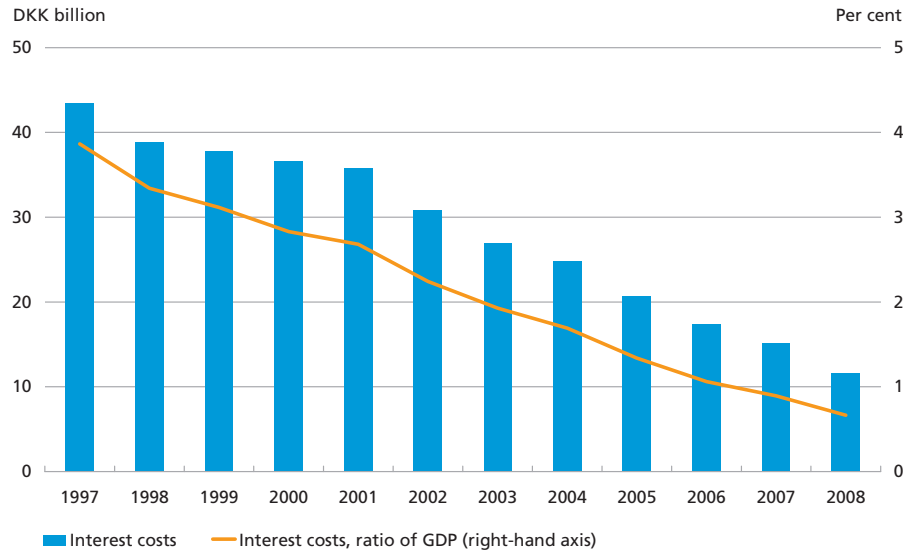
Note: A positive figure indicates interest costs, a negative figure interest income.
Source: *Central-government accounts* 2006 and 2007. For 2008, figures are provisional.

FALLING GOVERNMENT DEBT HAS REDUCED INTEREST COSTS 5.2

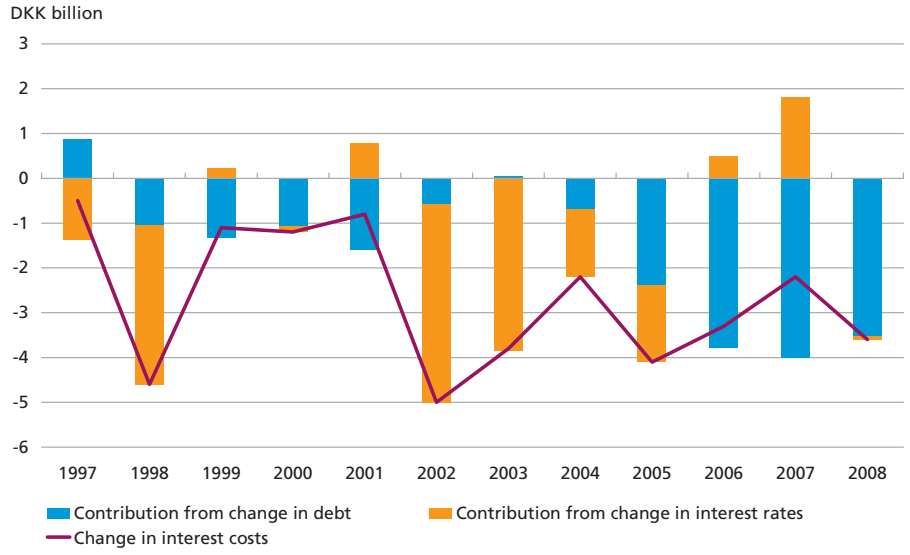
In 2008, the interest costs on the central-government debt totalled DKK 11.6 billion, which is a decline of DKK 3.6 billion from 2007, cf. Table 5.2.1.

On account of the pronounced debt reduction since 1997 and lower market interest rates, the central government's interest costs have declined from DKK 43.5 billion to DKK 11.6 billion over the same period, equivalent to a fall from 3.9 to 0.7 per cent of GDP, cf. Chart 5.2.1.

DEVELOPMENT IN INTEREST COSTS Chart 5.2.1



BREAKDOWN OF ANNUAL CHANGE IN INTEREST COSTS Chart 5.2.2



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

A breakdown of the development in interest costs shows that following a period in which the fall was predominantly driven by lower interest rates, the main underlying factor in recent years has been the reduction of the central-government debt, cf. Chart 5.2.2.

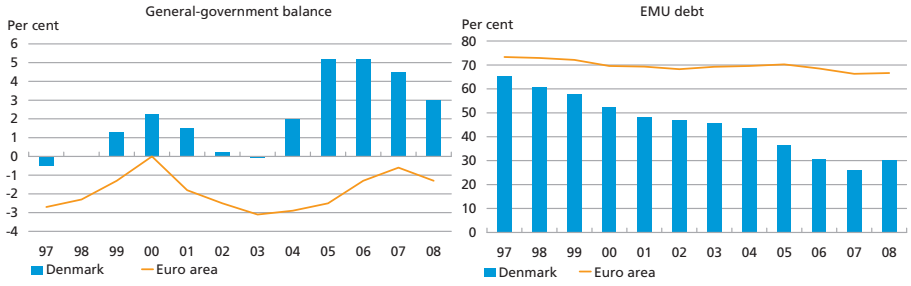
OTHER PUBLIC DEBT MEASURES 5.3

EMU debt increased in 2008 in spite of a government surplus

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

EMU debt is a gross debt measure solely comprising major debt items for general government compiled on a consolidated basis, cf. Box 5.1. In spite of a government surplus of 3 per cent of GDP in 2008, the EMU debt increased, cf. Chart 5.3.1. This can be attributed to the build-up of the central government's account, primarily due to issuance of 30-year government bonds, and restructuring of the assets of the Social Pension Fund from government bonds to mortgage bonds.

GENERAL-GOVERNMENT BALANCE AND EMU DEBT AS A RATIO OF GDP Chart 5.3.1



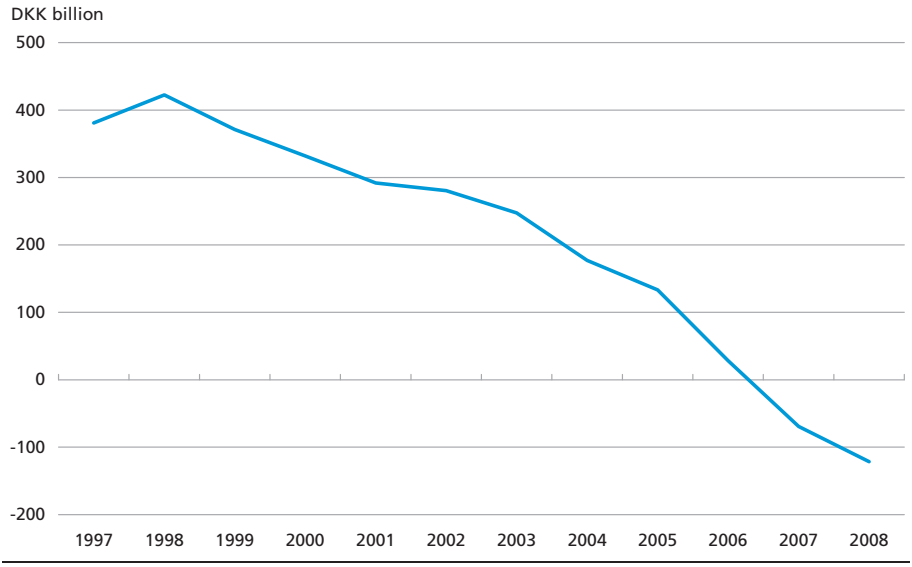
Note: For 2008, estimates from *Budget Outlook 4*, December 2008 (Denmark) and the European Commission's autumn forecast 2008 (euro area) have been applied.
Source: Statistics Denmark, Ministry of Finance and European Commission.

EMU debt is expected to be approximately DKK 530 billion at end-2008, equivalent to 30 per cent of GDP. Average euro area EMU debt is expected to be around 70 per cent.

Net general-government debt

At end-2007, net general-government debt was replaced by a net claim, cf. Chart 5.3.2. At end-2008, this net claim is expected to have increased further as a result of the general-government surplus. The net general-government debt is used in the Ministry of Finance analyses of fiscal sustainability, cf. *Denmarks Convergence Programme 2008*, December 2008.

NET GENERAL-GOVERNMENT DEBT Chart 5.3.2



Note: Year-end observations. The 2008 figure is an estimate from *Budget Outlook 4*, December 2008.
Source: Statistics Denmark and Ministry of Finance.

PUBLIC DEBT MEASURES Box 5.1

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 Danish National Advanced Technology Foundation and the Preventive Measures Fund. The breakdown by domestic and foreign debt is based on currency denomination. In relation to re-lending, the compilation of central-government debt includes liabilities only, 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 the debt with claims on itself. This means that the government securities portfolios of the government funds are deducted from the debt. On the other hand, SPF's portfolio of mortgage and index-linked bonds and the balance of the central government’s account at 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 value adjustments of general-government assets and liabilities. The central government's asset side includes the account at Danmarks Nationalbank, all assets in government funds, lending to government-guaranteed companies and the central government's equity portfolio, e.g. shareholdings in DONG Energy, Copenhagen Airports, Post Danmark (the Danish postal service) and Scandinavian Airlines (SAS).

CHAPTER 6

Issuance and Trading in Danish Government Securities

In 2008, the financial crisis led to lower liquidity and turnover in the market for Danish government securities. In spite of the crisis, there has been access to tradeable prices for Danish government securities, and the spread between bid and ask prices has been similar to or lower than the level in comparable countries.

Every year, the primary dealers evaluate the infrastructure of the market-maker system and decide which trading platform(s) will be used for market making in the following year. The primary dealers have chosen to continue with market making on MTSDenmark in 2009.

Two of the central government's international primary dealers opted out of the market-maker system during 2008, bringing the number of participants down to nine. With a view to increasing the number of participants in the Danish market, Government Debt Management has focus on making access to the market as simple as possible.

PRIMARY DEALER SYSTEM FOR DANISH GOVERNMENT SECURITIES 6.1

It is the objective of Government Debt Management to support a well-functioning domestic capital market. This is e.g. achieved by establishing a framework that supports transparent and efficient price formation in the market for Danish government securities.

Government Debt Management has concluded primary dealer contracts with a number of banks. Primary dealer contracts are concluded with market participants that intend to enter into long-term cooperation to trade and resell Danish government bonds to a broad range of investors. Banks that have concluded primary dealer contracts can act as counterparties in the central government's issuance and buy-back transactions. The key obligation of the primary dealers is to ensure efficient market making, i.e. they must quote current bid and ask prices within fixed maximum spreads and for minimum amounts, cf. Box 6.1.

A broad group of primary dealers enhances interest in Danish government securities and supports competition in connection with issuance and buy-backs by the central government. A high level of

PRIMARY DEALER CONTRACTS Box 6.1

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
- 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.

competition helps to ensure low borrowing costs for the government and strengthens liquidity in the market for government securities.

Market making in Danish government bonds implies that both the issuer and market participants have access to real-time pricing information via electronic trading platforms. This pre-trade information increases transparency in the market for government securities by enabling market participants to observe developments and execute transactions at prices and for volumes known in advance.

In addition, efficient pricing in government securities can also boost liquidity in other parts of the financial market. On the basis of the prices for government securities with different maturities, it is possible to estimate a government yield curve that can be used for pricing other types of securities or financial instruments, cf. Chapter 10.

The primary dealer group

The first primary dealer agreements were concluded in 2003 with seven international and seven regional banks. This group of banks was responsible for setting up the current market-maker system for Danish government securities. One regional and four international banks have subsequently opted out due to factors such as the falling government

PRIMARY DEALERS AND MARKET TAKERS, JANUARY 2009 Table 6.1.1

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

debt and the recent consolidation of the financial sector. At the beginning of 2009, nine of the original 14 banks remained, cf. Table 6.1.1.

With a view to increasing participation in the Danish market, Government Debt Management has focused on making access to the market-maker system as simple as possible. Market participants can become primary dealers, provided that they meet the requirements listed in the primary dealer contract. So far, Government Debt Management has not rejected banks that have expressed an interest in becoming primary dealers.

Besides the primary dealers, market takers are able to trade in the interdealer market for Danish government securities. A market taker can trade at prices quoted by primary dealers, but cannot itself quote prices. At the turn of the year, 11 banks were market takers.

Market infrastructure

Every year, the primary dealers evaluate the market-maker infrastructure for Danish government bonds in connection with the autumn meeting of the primary dealer group. At the meeting they decide which specific platform(s) they wish to use for market making in the next year. The conclusions of the November 2008 meeting were as follows:

- At present the Danish interdealer market is neither large nor liquid enough for market making on more than one trading platform at a time. Furthermore, in the assessment of the primary dealers, the expected costs for increasing the number of platforms would exceed any gains achieved.
- The primary dealers were satisfied with the market making on MTSDenmark in 2008.
- On the basis of the above, the primary dealers decided to continue with market making on MTSDenmark in 2009.

SECURITIES LENDING, 2006-2008 Table 6.1.2

DKK billion	2006	2007	2008[1]
Central government	83.9	34.2	25.0
SPF	49.8	89.8	142.5
Securities lending, total	133.7	124.0	167.6

[1] The average lending term, weighted by market value, has been more or less constant at around 1.7 days throughout the period.

Several clearing and settlement options

In the interdealer market for Danish government bonds, trades are settled via an automated settlement facility based on a central clearing instruction and straight-through processing (STP). STP means that when a transaction is concluded, the trading system automatically notifies the relevant clearing house(s). This set-up ensures a low level of operational risk related to settlement. Market participants have a choice of several clearing houses for settlement of their orders, which is in accordance with the recommendations of the Giovannini Group. At present the options are VP Securities Services, Euroclear and Clearstream for settlement of transactions in the interdealer market for Danish government securities.

Primary dealers can borrow government securities

Primary dealers have access to the securities lending facilities of the central government and the Social Pension Fund. These 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. Lending of securities is collateralised by other Danish government securities. The terms and conditions for use of the facilities are presented in the Appendices.

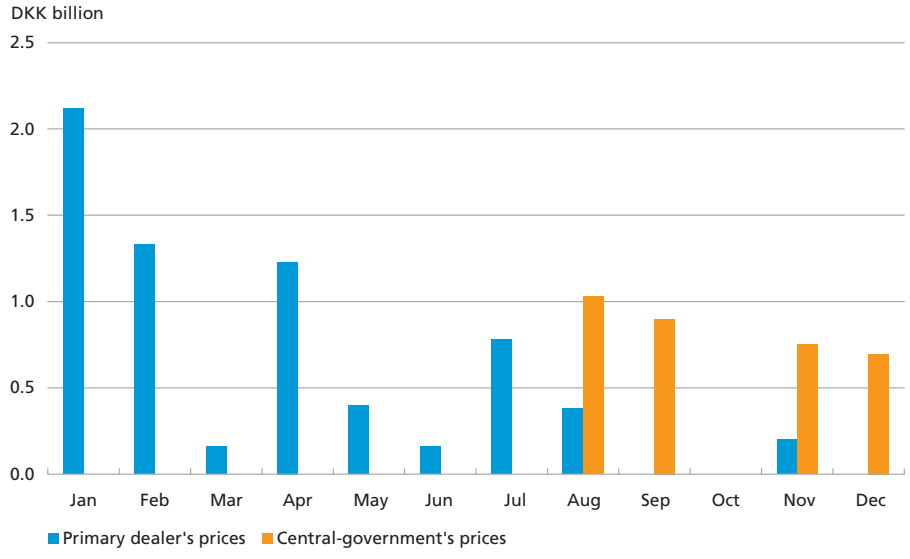
The financial crisis has led to a reduction of the banks' balance sheets, including their bond portfolios, which has increased the use of these lending facilities. In 2008, total securities lending rose by 35 per cent compared with the preceding year, cf. Table 6.1.2.

ISSUANCE AND BUY-BACK OF DOMESTIC GOVERNMENT SECURITIES IN 2008 6.2

Issuance of government bonds

Opening of new government bonds takes places via an auction at which it is sought to ensure a sufficient outstanding volume to allow current quotation of prices. Subsequent issuance primarily takes place by tap

DECOMPOSITION OF THE CENTRAL GOVERNMENT'S SALES ON TAP, 2008 Chart 6.2.1



Source: MTSDenmark.

sale, whereby issuances are dispersed over the year and sales take place at market prices in the electronic trading system.

The special market conditions prevailing in 2008 made it necessary to supplement the traditional method of issuance. Firstly, demand for the new 30-year government bond meant that a large volume had to be issued within a short period of time; in such situations auctions are more efficient than tap sales.

Secondly, there were periods of 2008 when liquidity in the interdealer market was low, which makes tap issuance difficult. To counter this, the central government, by agreement with the primary dealers, has temporarily been enabled to quote one-way prices in the trading system. This facility means that the central government's buy-back and sales of government securities can be initiated by market participants trading at prices quoted by Government Debt Management. The central government's buy-back and sales prices are interspaced between the existing bid and ask prices.

In August, Government Debt Management used the facility for the first time. In the subsequent months, which saw extraordinarily wide bid/ask spreads, the central government primarily sold by letting market participants trade at prices quoted by the government, cf. Chart 6.2.1.

Compared with recent years, the central government's issuance on tap has been concentrated on slightly fewer primary dealers, partly because

ISSUANCE ON TAP AND BUY-BACKS BY PRIMARY DEALER, 2008 Chart 6.2.2

Note: Primary dealers have been anonymised.
Source: MTSDenmark.

their number fell from 11 to nine during the year. In 2008, three banks accounted for just over 60 per cent of the tap-issuances, cf. Chart 6.2.2. This is a small increase from 2007.

Issuance in the new 30-year bond made up almost 80 per cent of total issuances in 2008. Compared with other Danish government bonds, issuance in the new 30-year bond was more concentrated. One reason could be that interest among investors mainly came from the domestic pension sector, which by and large used domestic primary dealers at the auctions.

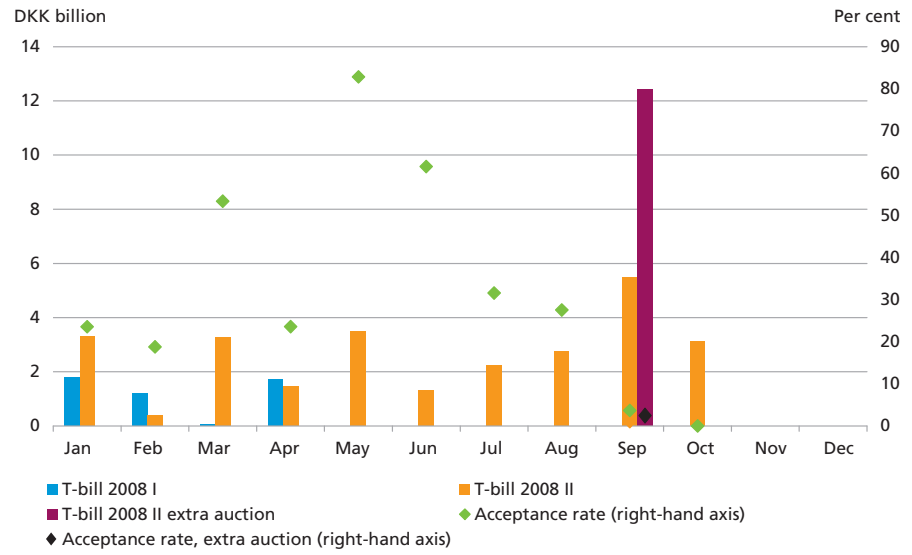
Buy-back of government bonds

Buy-backs are used in connection with purchase of government securities for the government funds and to smooth the redemption profile for government debt. In addition, Government Debt Management may support liquidity in the market for government securities by offering to buy back less liquid securities. It is useful to have several buy-back instruments as this increases flexibility in connection with buy-backs. The central government mainly buys back securities from primary dealers using three facilities:

- *Buy-back on tap* takes place at market prices in the secondary market
- *Buy-back auctions* are used to buy back larger volumes of government bonds in one transaction
- *Switch auctions* allow Government Debt Management to buy back government bonds in one series while at the same time issuing in the key on-the-run issues.

Compared with previous years, buy-backs in 2008 were concentrated on fewer market participants. One primary dealer was the counterparty in 40 per cent of the buy-backs, cf. Chart 6.2.2.

BID VOLUME AND ACCEPTANCE RATE IN T-BILL AUCTIONS, 2008 Chart 6.2.3



Source: Danmarks Nationalbank and MTSDenmark.

The T-bill programme was discontinued in 2008

The T-bill programme has gradually been reduced since 2006 and was phased out completely in 2008. The last T-bill auction was held at the end of October with a November value date.

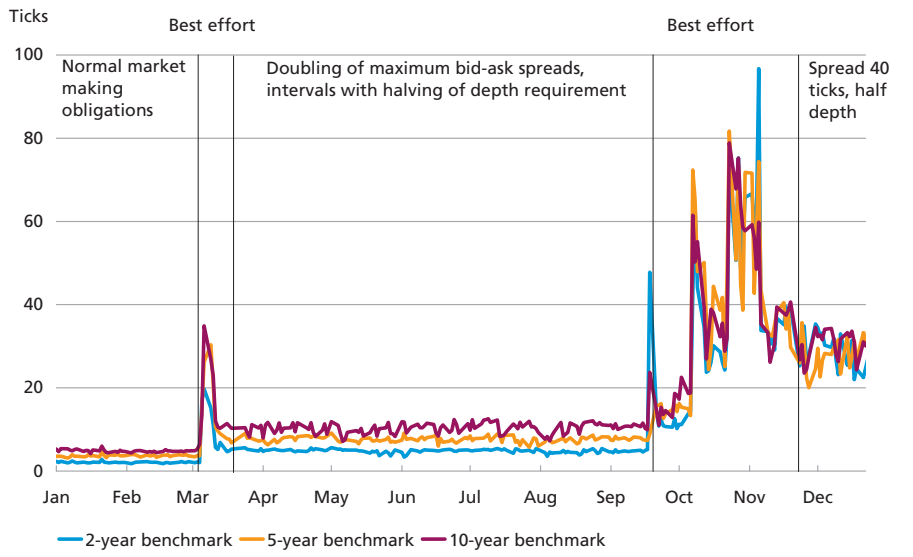
In most comparable countries increased demand for T-bills has been observed as a result of the financial turmoil. This has not been the case in Denmark, where demand was relatively low in most auctions and the average acceptance rate was 30 per cent, which was in line with the previous year, cf. Chart 6.2.3.

MARKET MAKING IN 2008 6.3

The international financial crisis has made it more difficult for primary dealers to undertake market making. The reduction of the banks' balance sheets has diminished their ability to incur risk. Moreover, in 2008 volatility at times increased markedly, while liquidity was low. This was particularly pronounced in the 4th quarter.

With liquidity and, not least, investors in mind, the primary dealers and the central government have a shared interest in continued quotation of prices in the Danish interdealer market. Under difficult

BID/ASK SPREADS FOR THE 2-, 5- AND 10-YEAR BENCHMARK SECURITIES, 2008 Chart 6.3.1

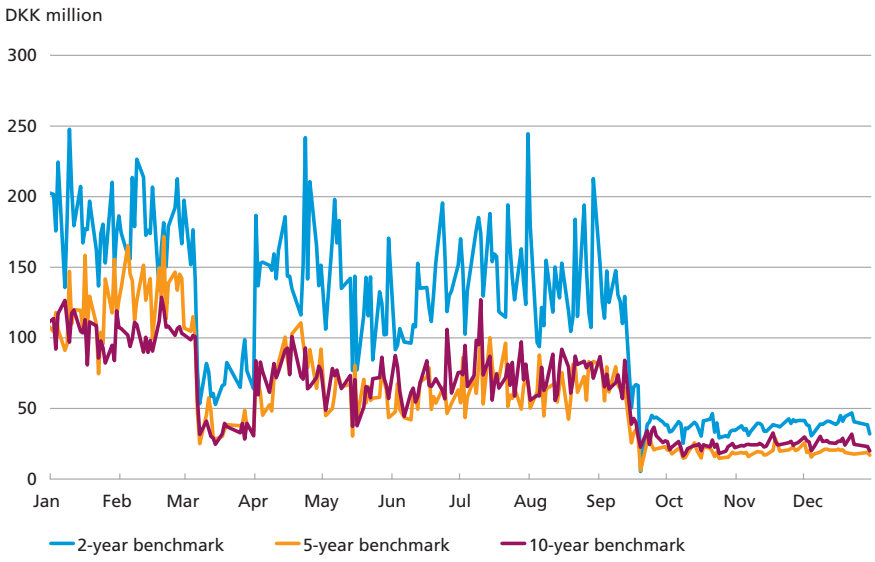


Note: Bid/ask spreads are stated as averages of the best bid and ask prices. Normal market-making conditions are: 2-year segment: spread max. 3 ticks and depth min. DKK 80 million; 5-year segment: spread max. 5 ticks and depth min. DKK 40 million; 10-year segment: spread max. 7 ticks and depth min. DKK 50 million.
Source: MTSDenmark.

market conditions, quotation of prices is supported by temporarily adjusting the market-making requirements. In 2008, Government Debt Management, in consultation with the primary dealers, made such adjustments. This was reflected in e.g. the periodic widening of the spread between bid and ask prices in the 2-, 5- and 10-year benchmark securities, cf. Chart 6.3.1. The difference between the best bid and ask prices is the cost of buying a government bond and selling it at the same time. The narrower the spread, the more efficient the market. When market conditions normalise, Government Debt Management in cooperation with the primary dealers, will adjust the market-making requirements on an ongoing basis.

The adjustments were also reflected in the market depth, i.e. the volume that can be traded at the best price, and thereby the volume of Danish government securities that can be traded without affecting the price. At end-2008, the average depth of the respective benchmark securities had been reduced to approximately DKK 30 million, which is less than one third of the level at the beginning of the year, cf. Chart 6.3.2.

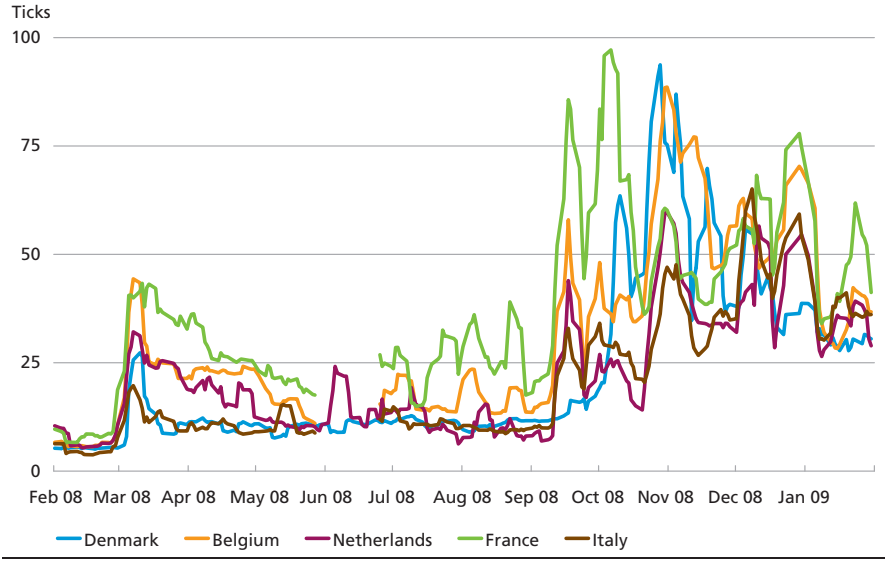
DEPTH IN 2-, 5- AND 10-YEAR BENCHMARK SECURITIES, 2008 Chart 6.3.2



Note: The depth is calculated as the daily average of the volume entered at the best bid and ask prices.
Source: MTSDenmark.

The development in the spread between the best bid and ask prices has been similar to or better than in comparable markets for European government securities, cf. Chart 6.3.3.

BID/ASK SPREADS FOR 10-YEAR BENCHMARK GOVERNMENT BONDS IN SELECTED MARKETS Chart 6.3.3



Note: 5-day moving averages.
Source: Bloomberg.

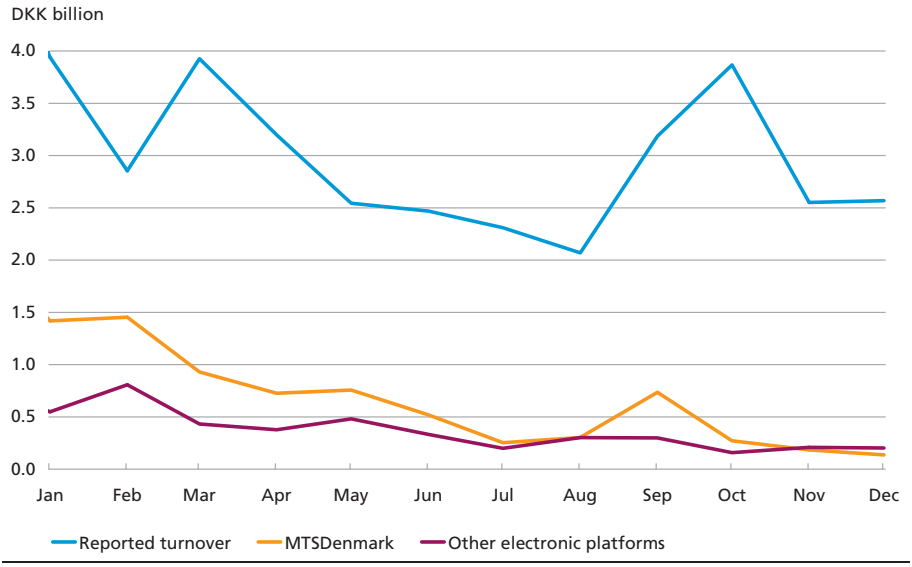
TURNOVER IN DANISH GOVERNMENT SECURITIES 6.4

The market-maker system is based on primary dealers acting as a link between the central government and the end-investor. By quoting firm prices, the primary dealers give the investors access to good price discovery, which supports the demand for Danish government bonds. In periods with greater turmoil and wider spreads, the quality of the price discovery deteriorates, which is one of the reasons why turnover on MTSDenmark and the other electronic trading platforms fell in 2008, cf. Chart 6.4.1.

In periods when the electronic trading platforms are characterised by low liquidity, trading typically moves to the OTC market, including the telephone market. Under normal market conditions, telephone trading is primarily used when investors wish to conduct large-volume transactions.

In the interdealer market on MTSDenmark, average daily turnover in 2008 was just over DKK 0.5 billion, equivalent to one third of the 2007 level. Turnover was concentrated in the primary on-the-run issues 4'10 and 4'17, which accounted for a good half of the turnover, cf. Chart 6.4.2. Turnover was more or less equally distributed on primary dealers in Danish government securities.

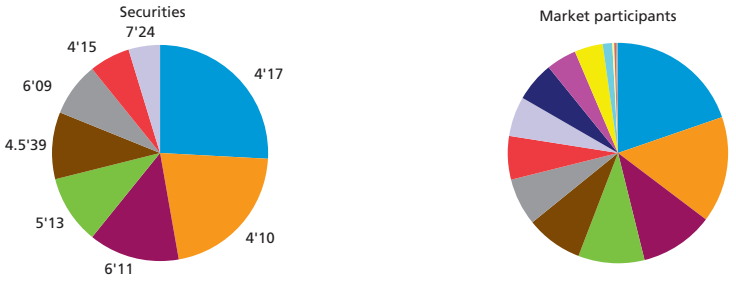
TURNOVER IN DANISH GOVERNMENT SECURITIES, 2008 Chart 6.4.1



Note: Reported turnover includes turnover data for all transactions reported on either NASDAQ OMX or the OTC market. Turnover on MTSDenmark includes issuance on tap. Other electronic trading platforms are BondVision, ICAP/BrokerTec, NASDAQ OMX and Tradeweb.

Source: BondVision, ICAP/BrokerTec, MTSDenmark, NASDAQ OMX and Tradeweb.

TURNOVER IN GOVERNMENT BONDS ON MTSDENMARK, 2008 Chart 6.4.2



Note: Primary dealers and market takers have been anonymised.
Source: MTSDenmark.

Other trading in Danish government bonds

In the interdealer market, Danish government securities are traded on MTSDenmark and ICAP/BrokerTec, among other platforms. In addition to the interdealer market, they are traded on electronic trading platforms such as BloombergBondtrader, BondVision and Tradeweb, which tend to focus on sale between banks and end-investors. Considerable volumes of Danish government securities are also traded on electronic single-dealer platforms[1]. Finally, Government Debt Management has established a price-quoting system aimed at the retail market at NASDAQ OMX.

Price-quoting system aimed at the retail market

Government Debt Management has established a price-quoting system on NASDAQ OMX with six banks that must quote bid and ask prices within maximum spreads and for minimum amounts during 90 per cent of the trading day from 9.00 a.m. to 4.30 p.m. In view of the financial crisis, the price-quoting requirements have been adjusted on an ongoing basis, as have the initiatives in the interdealer market.

Members of the fixed income segment have access to trade directly with market makers or enter their own orders into the system. Moreover, other investors may – via their banks – enter their orders directly in the trading system.

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

[1] Single-dealer platforms are established as bank-to-customer trading systems.

CHAPTER 7

Management of the Government Funds

Government Debt Management at Danmarks Nationalbank manages the assets of the Social Pension Fund (SPF), the Danish National Advanced Technology Foundation and the Preventive Measures Fund. The assets of the government funds are included in the total central-government debt and are managed together with other financial assets and liabilities of the central government within Government Debt Management. The Financing Fund was discontinued in connection with the 2008 Finance Act agreement.

The decline in central-government debt in recent years has made it more difficult for the funds to invest in government bonds without affecting market prices. Against that background it was decided that SPF should to a greater extent exercise the option to invest in other listed bonds than government bonds. In 2008, SPF's regulations were amended, to the effect that SPF assets need no longer be invested primarily in government securities.

SPF invested DKK 27 billion in non-callable mortgage bonds in December 2008. This purchase covers the central government's interest-rate risk in connection with the annual refinancing of subsidised housing in December 2008.

THE SOCIAL PENSION FUND 7.1

The Social Pension Fund (SPF) was established by law 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 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 risk on SPF's assets is assessed separately, but is included in the consolidated risk management of the total central-government debt. The assets of SPF are managed in accordance with the overall government debt policy, cf. Box 7.1.

For a number of years, SPF has invested primarily in government bonds. As the central-government debt has been reduced in recent years, SPF has accounted for an increasing share of the total outstanding volume of government bonds. This has made it more difficult for SPF to invest in government bonds without influencing market prices. In 2007,

MANAGEMENT OF SPF'S ASSETS — Box 7.1

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 set of regulations[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"
- "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-yield tax is used to finance pension improvement measures or is allocated to SPF. SPF's core 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 regulations can be found at the website of Government Debt Management, www.governmentdebt.dk.

it was therefore decided that SPF should to a greater extent exercise the option to invest in other listed bonds than government bonds. In 2008, SPF's regulations were amended so that it is no longer a requirement that SPF's assets are invested primarily in government bonds.

In December 2008, SPF invested DKK 27 billion in 1-year non-callable mortgage bonds. This purchase covers the central government's interest-rate risk in connection with the annual refinancing of subsidised housing in the December 2008 auctions.

In 2008, SPF's interest income was DKK 5.8 billion, cf. Table 7.1.1. DKK 9.8 billion was transferred from SPF to the Ministry of Social Welfare, while pension-yield tax amounted to DKK 1.6 billion.

SPF'S REVENUE AND EXPENDITURE — Table 7.1.1

DKK billion	2008
Revenue	
Interest, etc.[1]	5.8
Expenditure	
Transfer to the Ministry of Social Welfare	9.8
Pension-yield tax	1.6
Net	-5.6

Source: Provisional figures from the central-government accounts.
[1] Net statement of interest received, interest receivable and distributed capital losses on buy-backs.

THE GOVERNMENT FUNDS' BALANCE SHEETS, END-2008 Table 7.1.2

Nominal value, DKK billion	SPF	Advanced Technology Foundation	Preventive Measures Fund	Share of total outstanding (per cent)
6 per cent bullet loans 2009	12.2	2.2	0.6	34
6 per cent bullet loans 2011	21.6	2.0	0.6	40
5 per cent bullet loans 2013	35.7	2.1	0.6	52
4 per cent bullet loans 2015	9.0	2.1	0.6	21
7 per cent bullet loans 2024	9.4	-	-	38
Government bonds, total	87.8	8.3	2.5	
Mortgage bonds, etc.[1]	3.2	•	•	
Index-linked bonds[2]	6.4	•	•	
Balance of account	27.3	0.1	0.1	
Total	124.7	8.4	2.6	

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

At end-2008, SPF's assets totalled DKK 125 billion, cf. Table 7.1.2. The distribution of SPF assets with a high balance of the account and a small portfolio of mortgage bonds reflects the fact that SPF's purchases of non-callable mortgage bonds in December were not settled until the beginning of January 2009. At end-2008 the duration of the SPF portfolio was 4.0 years, cf. Table 7.1.3.

THE ADVANCED TECHNOLOGY FOUNDATION AND THE PREVENTIVE MEASURES FUND 7.2

The objective of the Advanced Technology Foundation is to strengthen growth and employment by supporting Denmark's further development as an advanced technological society[1]. 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 accordance with the 2009 Finance Act, a contribution of DKK 2 billion was made to the Advanced Technology Foundation in 2009.

DURATION OF SPF'S PORTFOLIO, 2006-2008 Table 7.1.3

Years	End-2006	End-2007	End-2008
Government bonds	4.1	3.9	4.6
Mortgage bonds, etc.	1.2	2.0	1.2
Index-linked bonds	10.7	9.9	9.8
Total portfolio	4.3	4.1	4.0

Note: For callable mortgage 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.

[1] Act no. 1459, Advanced Technology Foundation Act of 22 December 2004 (www.hoejteknologifonden.dk).

The Advanced Technology Foundation's assets are invested so as to achieve an equal distribution on short-, medium- and long-term bonds. At end-2008, the bond portfolios of the Advanced Technology Foundation amounted to DKK 8 billion. Its interest income was DKK 295 million. In 2008, the Foundation, on the basis of the Finance Act, transferred DKK 280 million to the Ministry of Science, Technology and Innovation.

The purpose of the Preventive Measures Fund is to support projects to forestall and prevent physical and mental impairment.[1] At end-2008, the bond portfolio of the Fund amounted to DKK 2.5 billion. Its interest income was DKK 114 million. Every year, DKK 350 million is transferred from the Fund 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.

The assets of the Advanced Technology Foundation and the Preventive Measures Fund may be invested in government bonds only.

Discontinuation of the Financing Fund

The Financing Fund for increased distributions from the Danish National Research Foundation (the Financing Fund) was established under the 2005 Finance Act.[2] In connection with the 2008 Finance Act negotiations, the Fund was discontinued and its assets were transferred to the Danish National Research Foundation.

1 Act no. 87, Preventive Measures Fund Act of 30 January 2007 (www.forebyggelsesfonden.dk).
2 www.dg.dk.

CHAPTER 8

Re-lending and Government Loan Guarantees

Government Debt Management is responsible for re-lending and government loan guarantees to a number of companies. Re-lending and government loan guarantees enable the companies to achieve favourable borrowing terms since they can benefit from the central government's high credit rating. At the end of 2008, re-lending amounted to DKK 51 billion, of which DKK 10 billion to Danish Ship Finance. Loan guarantees amounted to DKK 56 billion.

The guidelines for borrowing by companies with access to government loan guarantees or re-lending were revised in 2008 in order to strengthen the companies' risk management. Consolidated risk management of assets and liabilities is a key element. In addition, access to re-lending combined with a forward-rate agreement was granted in 2008.

PURPOSE AND FRAMEWORK 8.1

A number of companies may raise loans directly from the central government (re-lending) or raise government-guaranteed loans. Re-lending and government loan guarantees derive from the political intention 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.

12 government-owned companies have access to re-lending or government-guaranteed loans, cf. Table 8.1.1. Furthermore, Danish Ship Finance has access to a special re-lending facility.

Re-lending means that loans are raised directly from the central government. Government Debt Management specifies a list of eligible loan types (the re-lending list), cf. section 8.2. By issuing a loan guarantee, the central government assures that the loans raised by the company in the private market will be repaid, thus reducing the borrowing costs.

COMPANIES WITH ACCESS TO RE-LENDING OR LOAN GUARANTEES Table 8.1.1

	Re-lending	Guaranteed loans
The Danish Broadcasting Corporation	X	X
The Danish North Sea Fund	X	-
The Danish State Railways	-	X
Energinet.dk	X	-
The Great Belt Bridge	X	X
The Metro Company	X	-
Port and City Development Corporation	X	-
Statens Serum Institut	X	-
Sund & Bælt Holding A/S	-	X
Øresund Landworks	X	X
The Øresund Bridge	-	X
The Winding-Up Company	X	-

Note: (X) indicates that the company has access, while (-) indicates that the company does not have access.

Guidelines for borrowing by companies

Government Debt Management formulates the general guidelines for borrowing by the companies that have access to loan guarantees or re-lending. The aim is to ensure that the companies do not assume financial risks that the central government itself would not assume.

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

- An agreement between the ministry in question, the Ministry of Finance, Danmarks Nationalbank and the individual company
- A list of eligible loan types, which is specified and updated by Government Debt Management, cf. Box 8.1.

The list of eligible loan types was revised in 2008. The new guidelines are based on the companies' consolidated approach to risk management of their assets and liabilities, cf. Chapter 11. Besides the guidelines for the companies' access to government-guaranteed loans and re-lending, recommendations have been issued for e.g. the management of credit risk on investments, borrowing by affiliated companies and consolidation of credit risk across instruments. It is the responsibility of the companies and their boards to lay down a financing strategy that contains the company's rules for all financial transactions in relation to borrowing.

Access to re-lending combined with a forward-rate agreement was granted in 2008. The intention is to enable the companies to simplify their risk management. Previously, the companies spread their borrowing over the year to reduce the risk of unfavourable market

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

LIST OF ELIGIBLE LOAN TYPES — Box 8.1

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

- Loan types must be customary, i.e. known and used in the market by reputed borrowers
- Loans must be built up from simple elements that make them transparent
- The counterparties are subject to minimum rating requirements
- Swaps are only transacted with counterparties that have concluded collateral agreements (CSA)
- 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)
- The company is to prepare and maintain a financing strategy. The financing strategy must contain the company's rules for all financial transactions.

conditions on specific days. Since the companies' redemptions primarily fall due at the end of the year, this has entailed periods with considerable investments at banks, imposing a credit risk on the company. Re-lending combined with a forward-rate agreement enables the companies to lock the interest rate on re-lending during the year and at the same time avoid the credit risk on investments.

Re-lending combined with a forward-rate agreement is based on securities on the re-lending list and granted on the basis of market yields. The forward-rate agreement period is between 1 and 12 months. For a number of years, the re-lending facility available to Danish Ship Finance has included re-lending combined with forward-rate agreements.

RE-LENDING 8.2

Re-lending operations

The re-lending list comprises all fixed-income government bonds 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 8.2.1. Besides the loan types on the re-lending list, other types of

RE-LENDING LIST — Table 8.2.1

	Last due date
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
4 per cent bullet loans 2019	15 November 2019

RE-LENDING TO GOVERNMENT-OWNED COMPANIES Table 8.2.2

DKK billion, nominal value	Re-lending in 2008	Portfolio end-2008
The Danish Broadcasting Corporation	0.9	2.7
The Danish North Sea Fund	0.1	0.1
Energinet.dk	2.6	5.0
The Great Belt Bridge	2.3	11.0
The Metro Company	-	-
The Port and City Development Corporation	1.9	10.8
Statens Serum Institut	-	-
Øresund Landworks	0.7	6.7
The Winding-Up Company	4.4	4.4
Total	12.8	40.6

re-lending, including forward-rate agreements, may be granted, subject to a motivated request.

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 from the central government's account. The resulting borrowing requirement is financed via current 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 9.

Re-lending to government-owned companies in 2008

In 2008, new re-lending to government-owned companies amounted to DKK 13 billion, cf. Table 8.2.2. The stock of re-lending to government-owned companies totalled DKK 41 billion at end-2008.

Three synthetic loans were granted for a total amount of DKK 1.4 billion. The purpose was to smooth the redemption profile of the companies' loans under the re-lending facility. Furthermore, forward-rate agreements of DKK 700 million were granted in 2008.

In 2008, the Winding-Up Company (Afviklingsselskabet til sikring af finansiel stabilitet A/S) was granted access to borrow under the re-lending facility, cf. Box. 8.2. In addition, Statens Serum Institut intends to use the re-lending facility for the first time in 2009.

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, cf. *Danish Government Borrowing and Debt 2003*, Chapter 10. This facility is

THE WINDING-UP COMPANY Box 8.2

Under the *Agreement on financial stability*, the Winding-Up Company (Afviklingsselskabet til sikring af finansiel stabilitet A/S) was established on 13 October 2008. The objective of the company is to ensure that all claims of unsecured creditors in banks and branches comprised by the guarantee scheme (the Private Contingency Association) are fully covered.

Where a private-sector solution is not possible, the Winding-Up Company will inject capital into a subsidiary in the event of a bank's non-compliance with the capital adequacy requirements. The Winding-Up Company's possible financing requirement will be covered by re-lending from the central government.

The Private Contingency Association pays guarantee commission to the Winding-Up Company of DKK 7.5 billion annually for two years, i.e. DKK 15 billion in total. In addition, the Private Contingency Association will pay own risk to cover the first DKK 10 billion of a government loss under the scheme. If the estimated losses, including the return on contributed capital in the Winding-Up Company, exceed the guarantee commission of DKK 15 billion plus the DKK 10 billion in own risk, the Private Contingency Association must cover losses in the Winding-Up Company up to a further DKK 10 billion. Overall, the central government is thus only exposed to losses exceeding DKK 35 billion in total.

Source: www.finansielstabilitet.dk.

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

In 2008, borrowing by Danish Ship Finance under the re-lending facility totalled around USD 700 million, or DKK 3.4 billion. The portfolio of re-lending to Danish Ship Finance was DKK 10 billion at end-2008.

In 2008, the re-lending facility to Danish Ship Finance was extended to include annuity loans as a supplement to the existing serial loan facility. The loans are structured as 12-year loans with semi-annual payments in kroner or dollars. Re-lending can be granted to Danish Ship Finance until the end of 2015. The maximum re-lending amount is DKK 18 billion.

The central government transacts currency swaps between kroner and dollars in connection with the re-lending in dollars, hence the central government does not assume any exchange-rate risk. The pricing of the loan is fixed on the basis of the central government's borrowing terms. In 2008, the situation in the financial markets made it more difficult to conclude swaps between kroner and dollars on re-lending to Danish Ship Finance. In addition, the number of possible counterparties in these transactions has decreased.

GOVERNMENT LOAN GUARANTEES Table 8.3.1

DKK billion	Loan guarantees in 2008	Portfolio end-2008
The Danish Broadcasting Corporation	-	2.1
The Danish State Railways	1.8	9.2
The Great Belt Bridge	-	21.8
Sund & Bælt Holding A/S	0,0	0,0
Øresund Landworks	-	3.3
The Øresund Bridge	1.8	20.1
Total	3.6	56.4

Note: Government guarantees managed by Government Debt Management.

LOAN GUARANTEES 8.3

At the end of 2008, government-owned companies had issued government-guaranteed debt totalling DKK 56 billion, cf. Table 8.3.1. In addition to the government guarantees managed by Government Debt Management, the central government has provided further guarantees for approximately DKK 100 billion, e.g. in connection with subsidised housing, export credits and international institutions, cf. the *Government Accounts*.

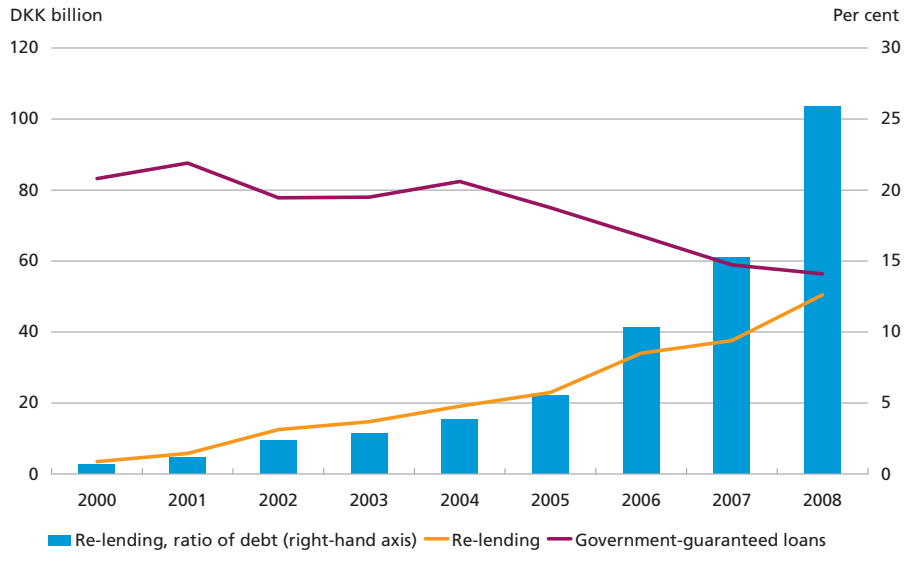
DEVELOPMENT OF RE-LENDING AND LOAN GUARANTEES 8.4

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

Since 2000, the volume of re-lending and loan guarantees has been stable at around DKK 100 billion. In recent years, the government-owned companies have tended to prefer re-lending over government-guaranteed borrowing in the private market, cf. Chart 8.4.1. This development reflects that re-lending has been a low-cost source of financing for the companies and that re-lending has been the only option available to new government-owned companies.

In a period of large government surpluses, the preference for re-lending over loan guarantees has facilitated the build-up of liquid series of government securities. By ensuring liquid bond series the central government achieves a liquidity premium, which contributes to reducing the borrowing costs of the central government and the government-owned companies. As a result of the declining government debt combined with the higher volume of re-lending, re-lending now

RE-LENDING AND GOVERNMENT LOAN GUARANTEES Chart 8.4.1



accounts for a considerably larger share of the central-government debt, cf. Chart 8.4.1.

CHAPTER 9

Risk Management in 2009

Management of the central government's interest-rate risk in 2009 should be viewed in the context of the new borrowing initiatives at the end of 2008, the crisis in the financial markets and greater uncertainty concerning the government finances. The point of departure for management of interest-rate risk in 2009 is to conclude interest-rate swaps for up to DKK 20 billion. It should, however, be taken into consideration that the swap markets have not been functioning well for some time.

The central government raises foreign debt with the size of the foreign-exchange reserve in mind. To minimise the exchange-rate risk, the central government's foreign debt portfolio is exposed solely in euro.

In 2008, the financial crisis and downgradings of some of the central government's swap counterparties highlighted the management of credit risk. Regular monitoring of credit risk has been intensified, and counterparty ratings are supplemented with e.g. developments in stock prices and CDS spreads. In 2009, Government Debt Management plans to conclude new collateral agreements with a view to reducing the government's credit exposure further.

INTEREST-RATE RISK 9.1

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.

Management of interest-rate risk in 2008

Risk analysis in 2008 showed that it was possible to reduce the interest-rate risk on the government debt portfolio without any significant increase in the expected interest costs. Consequently, the duration target band for the government debt portfolio was increased by 0.25 year to 3.25 years ± 0.5 year. Use of interest-rate swaps in risk management was conditional upon normalisation of the swap markets.

Growing financial turmoil meant that the swap market deteriorated and therefore Government Debt Management did not conclude any interest-rate swaps in 2008. The central government's issuance strategy

DURATION, 2008 Chart 9.1.1

resulted in an average duration until mid-November of 3.0 years without transaction of interest-rate swaps, cf. Chart 9.1.1.

Towards the end of the year, Government Debt Management opened a 30-year bond in response to indications of large investor interest from the insurance and pension sector, cf. Chapter 3. The proceeds of approximately DKK 90 billion were deposited in the central government's account at Danmarks Nationalbank. This led to build-up of the government's gross portfolios and a mismatch between the durations of assets and liabilities so that the duration of the government debt portfolio increased substantially, cf. Table 9.1.1.

In consultation with the Ministry of Finance it was decided that Government Debt Management should not counter the increase in duration as the costs of concluding interest-rate swaps were extraordinarily high. The short-term swap spread was 100-200 basis points higher than the long-term swap spread, cf. Chart 9.1.2.

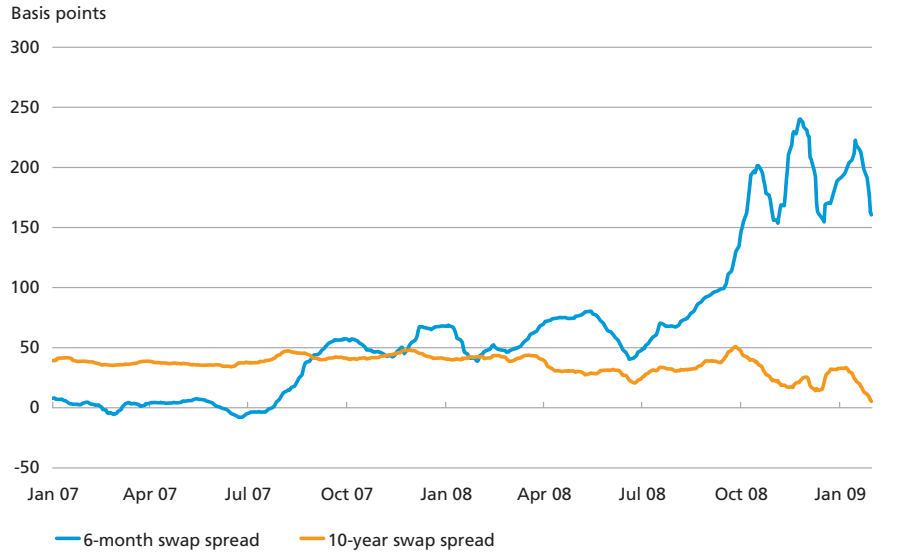
Management of interest-rate risk in 2009

Management of the central government's interest-rate risk in 2009 should be viewed in the context of the new borrowing initiatives at the end of 2008, the crisis in the financial markets and greater uncertainty

DURATION Table 9.1.1

Years	Liabilities	Assets	Government debt portfolio
End-2007	3.2	3.0	3.3
End-2008	5.6	1.9	14.8

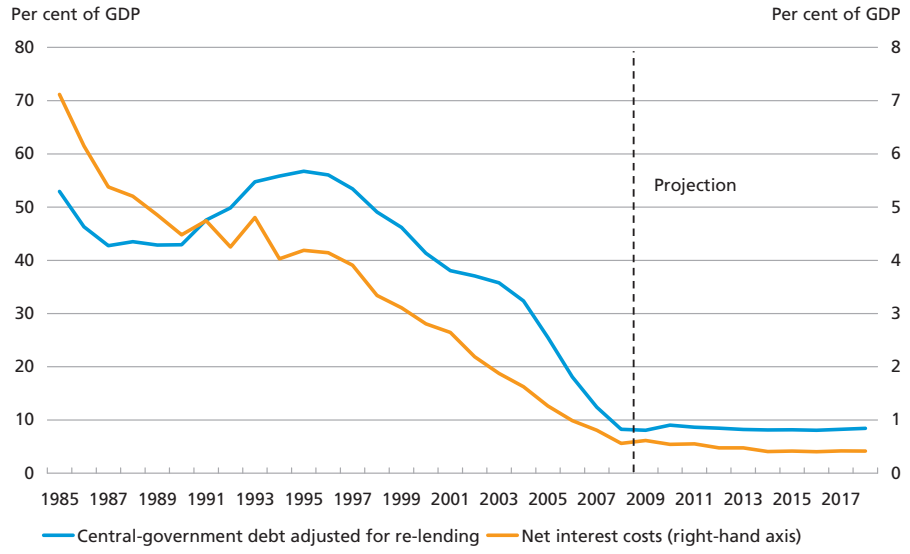
6-MONTH AND 10-YEAR DANISH SWAP SPREADS Chart 9.1.2



Note: Swap spreads calculated as 10-day moving averages.

concerning the government finances. The point of departure for government risk management is that the absolute interest-rate risk of the central government is low as a result of the pronounced decline in government debt in recent years. On the basis of Ministry of Finance projections of government finances, low interest costs are expected in the coming years, cf. Chart 9.1.3.

GOVERNMENT DEBT PORTFOLIO AND NET INTEREST COSTS Chart 9.1.3



Source: *Denmark's Convergence Programme 2008*, Ministry of Finance and own calculations.

INTEREST-RATE FIXING Boks 9.1

Interest-rate fixing is the amount in kroner on which a new, unknown rate of interest must be fixed within one year. Interest-rate fixing is calculated as interest-rate fixing for liabilities less interest-rate fixing for assets.

- Interest-rate fixing for liabilities comprises issuance of government securities during the year and the portfolio of interest-rate swaps at the beginning of the year.
- Interest-rate fixing for assets comprises buy-backs from the market during the year, re-lending during the year and the average balance of the central government's account.

A general increase in the level of interest rates by 1 percentage point will increase the interest costs by approximately 1 per cent of the interest-rate fixing.

The starting point for determining the central government's interest-rate risk at the government debt meeting in December 2008 was a high balance of the central government's account. Consequently, a new interest rate will be fixed on more assets than liabilities in 2009, corresponding to higher interest-rate fixing on assets than on liabilities. This results in negative interest-rate fixing, cf. Box 9.1. Negative interest-rate fixing entails that the central government's interest costs fluctuate more than when interest-rate fixing is close to zero. By transacting interest-rate swaps for up to DKK 20 billion annually, the central government achieves interest-rate fixing that is closer to zero.

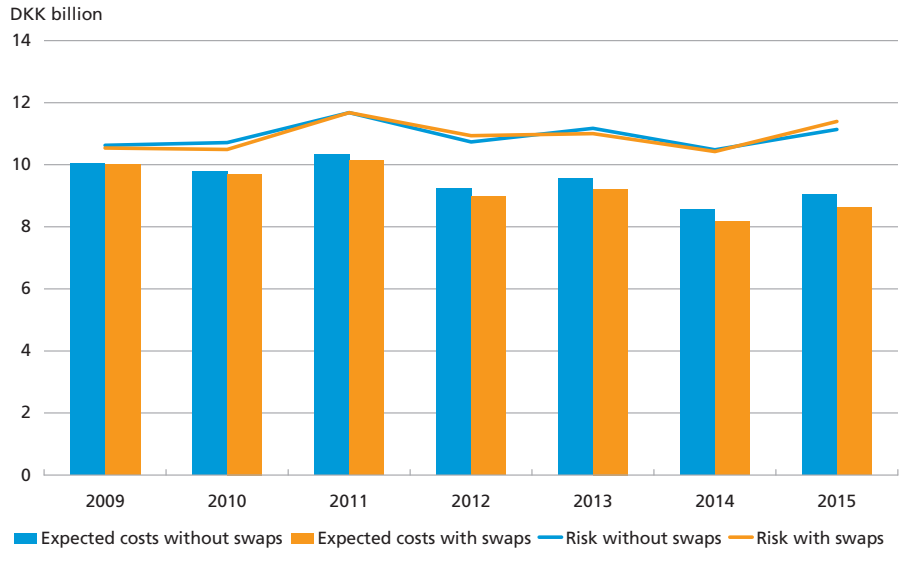
Analyses in the Cost-at-Risk model

The duration and interest-rate fixing of the debt portfolio are measures describing the central government's exposure to changes in interest rates. In order to calculate the central government's interest-rate risk, the probability of interest-rate changes needs to be taken into account.

The interest-rate risk on the overall debt portfolio is analysed using Government Debt Management's Cost-at-Risk model (CaR). Compared with a situation where no interest-rate swaps are concluded, CaR calculations show that conclusion of interest-rate swaps for DKK 20 billion annually reduces the expected interest costs by approximately DKK 275 million without increasing the risk, cf. Chart 9.1.4. The CaR calculations thus support the analysis of interest-rate fixing. Interest-rate swaps contribute to a better match between the central government's assets and liabilities, thereby reducing the interest-rate risk.

A major assumption in connection with the CaR analysis is normalisation of the swap markets. Otherwise, the central government's interest-rate risk will primarily be determined by its issuance strategy and the development in the government budget balance.

COSTS AND RISK WITH AND WITHOUT INTEREST-RATE SWAPS Chart 9.1.4



EXCHANGE-RATE RISK 9.2

The central government raises foreign debt with the foreign-exchange reserve in mind. Exchange-rate risk is the risk that the value of the 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, cf. Chapter 11.

In 2008, the central government raised loans and issued Commercial Paper in euro and dollars. It has concluded currency swaps and forward contracts in connection with its foreign borrowing in dollars, so that its exchange-rate risk is solely in euro.

Re-lending to Danish Ship Finance is normally denominated in dollars, but the exchange-rate risk is hedged by transacting currency swaps from kroner to dollars, whereby the payment flow corresponds to the redemptions on the re-lending, cf. Chapter 8. As a result, the re-lending in dollars does not entail any exchange-rate risk for the central government.

CREDIT RISK 9.3

Credit risk is the risk of a financial loss as a consequence of a counterparty's default on its payment obligations. The central government is exposed to credit risk because interest-rate and currency swaps are included in the management of the risk on the government debt. When a swap is transacted, its market value is zero, but over time the market value may become either positive or negative for the central government, depending on the development 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 outlined in Box 9.2. A more detailed account is included in the Appendices.

CENTRAL-GOVERNMENT CREDIT RISK MANAGEMENT Box 9.2

Key principles of central-government credit risk management:

- Counterparties must have high credit ratings
- In principle, 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)
- Developments in counterparty stock prices and CDS spreads are monitored on an ongoing basis.

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 unilateral collateral agreement (CSA) limits the central government's loss. The collateral agreement with the central government entails that the counterparty must pledge collateral if the market value of the swap portfolio exceeds a given threshold. The threshold is thus the upper limit for credit risk on a counterparty. This threshold value depends on the rating of the counterparty.

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, 2006-08 YEAR-END Table 9.3.1

	2006	2007[1]	2008[2]
Number of counterparties	24	20	21
Number of swaps	396	355	360
	Principal, DKK billion		
Interest-rate swaps, Danish kroner	75.1	65.4	64.6
Interest-rate swaps, other currencies	61.6	57.2	70.0
Currency swaps DKK-EUR, EUR-DKK	14.2	13.3	11.3
Currency swaps DKK-USD[3]	4.9	6.9	10.4
Currency swaps USD-EUR	-	-	13.2
Currency swaps, other	1.8	-	0.0
Structured swaps	0.2	-	-
Principal, total	157.8	142.8	169.5

[1] Excluding swaps from the Mortgage Bank of the Kingdom of Denmark, which amounted to DKK 514 million at end-2007.
[2] Excluding 1 swap from the Mortgage Bank of the Kingdom of Denmark, which amounted to DKK 35 million at end-2008.
[3] In connection with re-lending to Danish Ship Finance.

Intensified monitoring of the central government's credit exposure

The financial turmoil in 2008 highlighted the handling of the central government's credit risk. Uncertainty in relation to the credit rating of its swap counterparties has increased. A bank may now drop from a high to a very low rating – or even go bankrupt – considerably faster. For example, Lehman Brothers' rating was A+/A1 immediately before it filed for protection under Chapter 11.

As a result of the market turmoil, monitoring of the government's credit exposure has been intensified. Among other measures, the long-term ratings of the rating agencies are supplemented with monitoring of developments in counterparty stock prices and CDS spreads[1]. Changes in stock prices and CDS spreads can give a quick indication of the counterparties' abilities to meet their payment obligations.

Counterparties assessed to involve greater risk are monitored more closely on an "observation list". Only in special circumstances are new swaps transacted with counterparties on this list.

The central government's swap portfolio in 2008

In 2008, the central government concluded 13 new swaps with a total principal of DKK 30 billion. Most of them were concluded in connection with foreign borrowing in dollars, which has been swapped to euro. In addition, currency swaps from kroner to dollars have been concluded for small amounts in connection with re-lending to Danish Ship Finance. At

[1] A credit default swap, CDS, is a financial instrument used for hedging the credit risk on e.g. a company. The development in bank CDS spreads therefore reflects market assessments of the probability of the banks in question defaulting within a given period of time.

NET MARKET VALUE OF THE SWAP PORTFOLIO — Table 9.3.2

DKK billion	End-2006	End-2007[1]	End-2008[2]
Interest-rate swaps	3.5	0.1	5.1
Currency swaps	0.2	0.4	-1.4
Structured swaps	0.0	-	-
Total	3.7	0.5	3.8

Note: The net market value of the swap portfolio is the sum of the market values of the individual swaps.

[1] Excluding swaps transferred from the Mortgage Bank of the Kingdom of Denmark (market value DKK -37 million at end-2007).

[2] Excluding 1 swap transferred from the Mortgage Bank of the Kingdom of Denmark (market value DKK 9 million at end-2008).

end-2008, the swap portfolio comprised 360 swaps with 21 counterparties, with a total principal of DKK 170 billion, cf. Table 9.3.1.
The development in the market value of the central government's swaps reflects fluctuations in interest and exchange rates. Interest-rate swaps are typically used to restructure debt from long to short duration, which means that the central government primarily pays interest at a floating rate and receives interest at a fixed rate. The market value of the government's portfolio of interest-rate swaps thus increases when interest rates decline.

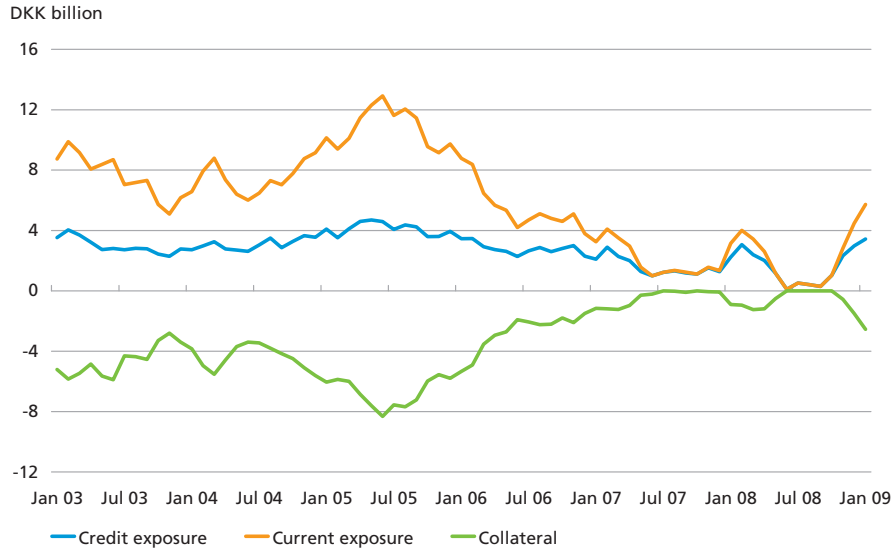
The market value of the government's currency swap portfolio is primarily affected by the exchange rate of the dollar. In 2008, currency swaps were used in connection with foreign borrowing as well as re-lending in dollars to Danish Ship Finance. As a result of the fixed-exchange-rate policy, the central government's portfolio of currency swaps between kroner and euro does not give rise to major fluctuations in market value.

In 2008, the market value of the government's swap portfolio increased by DKK 3.3 billion, cf. Table 9.3.2, mainly as a result of falling interest rates.

Credit exposure of the swap portfolio

The credit exposure of the swap portfolio is calculated on the basis of the current exposure and the value of the collateral pledged. The current exposure is the sum of the positive market values stated on a net basis for the individual swap counterparties. In 2008, the credit exposure increased by DKK 1.7 billion to DKK 3.0 billion, cf. Chart 9.3.1.

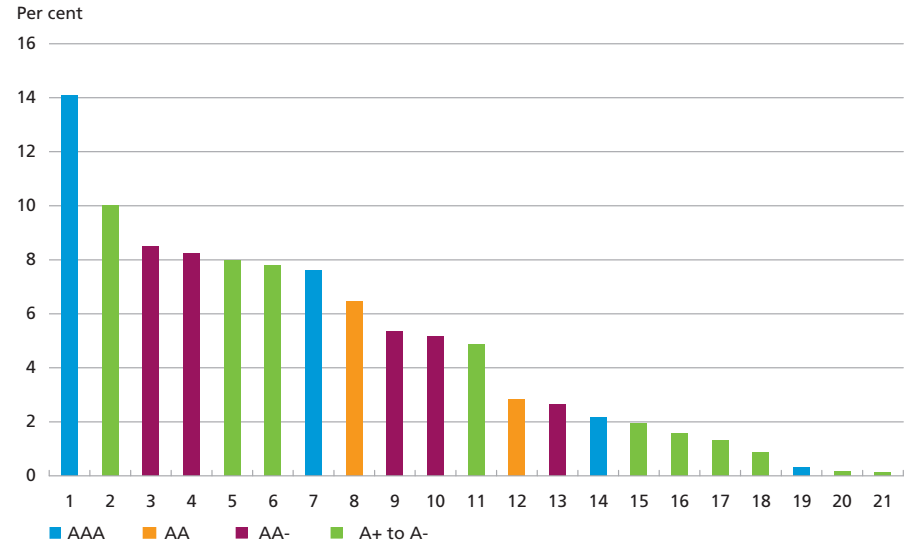
CREDIT EXPOSURE ON THE GOVERNMENT SWAP PORTFOLIO — Chart 9.3.1



Swap counterparty diversification

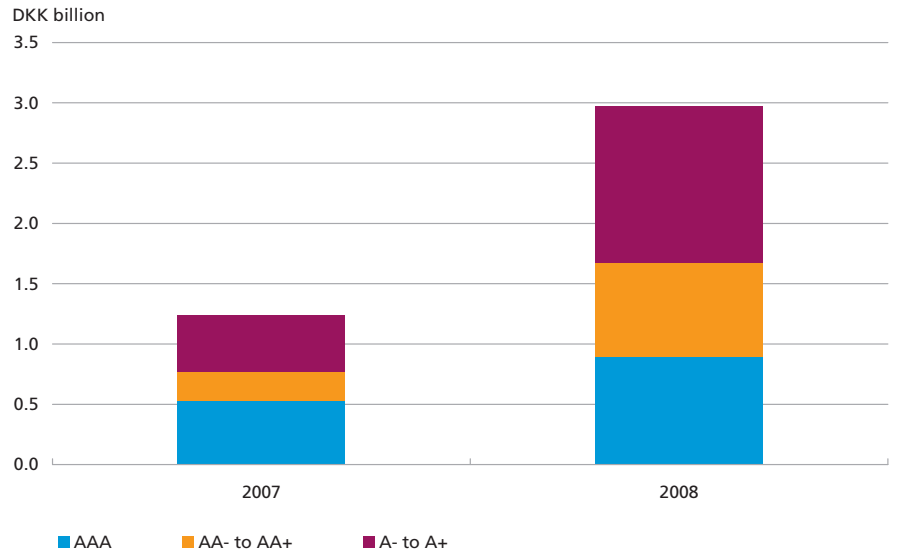
The central government reduces the risk of losses by using a large number of swap counterparties. Furthermore, a large number of swap counterparties contributes to ensuring price competition. At end-2008 the outstanding swaps were distributed on 21 counterparties, of which one counterparty rated AAA had a market share of 14 per cent, cf. Chart 9.3.2.

SWAP PORTFOLIO BROKEN DOWN BY THE CENTRAL GOVERNMENT'S COUNTERPARTIES — Chart 9.3.2



THE CENTRAL GOVERNMENT'S CREDIT EXPOSURE BY COUNTERPARTY RATING

Chart 9.3.3



Note: Where a counterparty has different ratings with the different agencies, the lowest rating is applied.

Credit quality in 2008

The central government's credit exposure in 2008 was distributed on counterparties with lower ratings than in previous years. At end-2008, 30 per cent of the credit exposure was distributed on counterparties rated AAA, a drop by almost 15 percentage points from the previous year, cf. Chart 9.3.3.

During 2008, Fitch Ratings, Moody's and Standard & Poor's performed a total of 38 downgradings of 12 of the central government's counterparties. Of the six most frequently used counterparties at end-2008, with a total market share exceeding 50 per cent, four were downgraded in 2008. Three of them were downgraded two levels from AA to A+, so that the volume of outstanding swaps with counterparties rated A+ has increased considerably.

Updating the central government's credit risk management

Central-government credit-risk management has been adjusted only slightly since the introduction of unilateral collateral agreements in the late 1990s. As this area is subject to constant development, Government Debt Management in 2008 began to update the government's credit-risk management. This is done with a view to reducing the credit exposure on the government debt and introducing simpler, more up-to-date credit-risk handling.

The first updates were implemented in the spring with a switch to daily, rather than monthly, adjustment of the collateral. This limits the credit exposure and simplifies credit-risk management as it is no longer relevant to take into account developments in the potential credit exposure.

Towards the end of 2008, Government Debt Management began to renegotiate all existing collateral agreements (CSA). Under the current agreements, the counterparty must pledge securities as collateral when the market value of the swap portfolio exceeds a threshold value. The threshold value depends on the rating of the counterparty. In the renegotiations, importance is attached to limiting the overall credit exposure by reducing the threshold values to zero. A lower threshold means that the central government's counterparties must pledge more collateral when the market value of the swaps concluded develops in favour of the government.

A lower threshold implies higher administration costs due to more frequent pledging of collateral. This issue can be addressed by raising the minimum amount to be transferred when adjusting the collateral (the minimum transfer amount). The new CSA envisages raising the minimum transfer amount and linking it to the counterparty's rating.

OPERATIONAL RISK 9.4

Government Debt Management is divided into front, middle and back offices. A clear division of functions reduces operational risk and facilitates internal control. Moreover, only standardised, well-known 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.

Special-Topic Section

CHAPTER 10

The Role of Government Debt Management Offices in the Light of the Financial Crisis

The role of government debt management offices (DMOs) has changed as a result of the financial crisis. The special status of government securities as risk-free assets has been highlighted, and DMOs have played a key role in connection with the financing of rescue packages.

The total central-government borrowing requirement is expected to increase due to lower growth prospects and financing requirements related to financial rescue packages. In addition, banks in many countries have gained access to issue government-guaranteed bonds, which has affected the market for government securities. The combination of higher central-government borrowing requirements and banks' access to issue government-guaranteed bonds has intensified competition for investors.

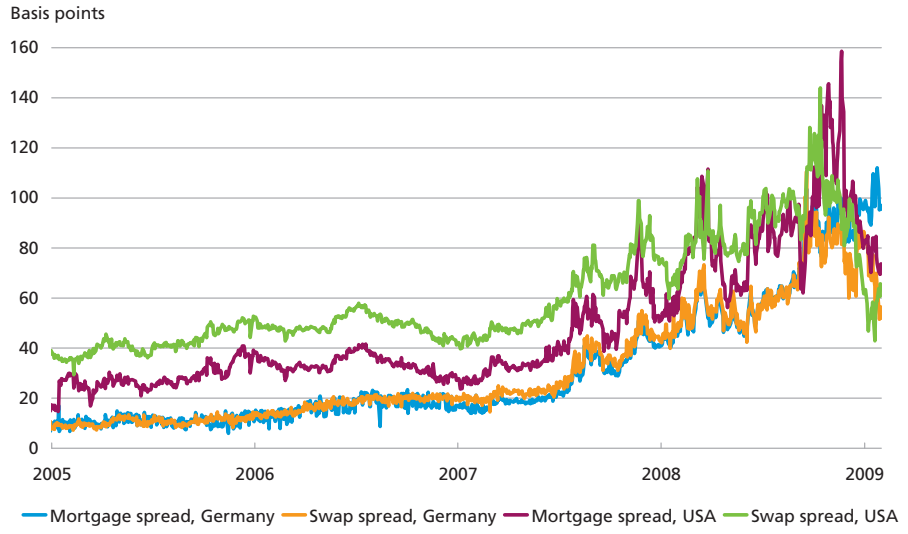
In Denmark, the financial turmoil has underscored a number of the arguments in favour of maintaining a liquid market for government bonds stated in the report "Government Debt Policy in the Light of Falling Debt". Firstly, in 2008 issuers who had not issued securities for a relatively long time had to pay a particularly high concession premium. Secondly, yield spreads to other fixed-income instruments that are, in calm periods, regarded as close substitutes of government securities have widened considerably.

THE CONSEQUENCES OF THE CRISIS FOR THE ROLE OF DMOs 10.1

In most countries, the overall objective of DMOs 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.[1] The mandate of DMOs has typically been more extensive in periods of financial turmoil than in periods of stability.

[1] Guidelines for Public Debt Management: Accompanying Document and Selected Case Studies, IMF and the World Bank (2003).

5-YEAR SWAP AND MORTGAGE SPREADS, GERMANY AND THE USA Chart 10.1.1



Source: Bloomberg.

The special benchmark role of the market for government securities

The financial turmoil has underlined the special status of government securities in the financial market. Government securities serve as a price benchmark for the rest of the fixed-income market and for financial derivatives, thus contributing to price formation in the entire financial market. The reason is that government securities are highly liquid standardised products with low credit risk.

In calm periods, mortgage bonds and swap curves can be alternatives to government securities when pricing other financial products. In periods of financial turmoil, the differences between government securities and other fixed-income instruments become more pronounced, cf. Chart 10.1.1. The widening of the yield spread between government securities and mortgage bonds and swaps can be attributed primarily to credit and liquidity differences. This illustrates the special role of an efficient market for government securities as a price benchmark for other financial products.

The role of DMOs in connection with government guarantees

Since September 2008, when the US authorities took control of Fannie Mae and Freddie Mac, and Lehman Brothers filed for protection under Chapter 11, many countries have adopted government rescue packages comprising e.g. government guarantees and capital injections for banks. In most cases, government guarantees cover both the deposits of

unsecured creditors and bond debt issued by the banks, subject to the conditions laid down in the countries' respective rescue packages. The financial packages thus enable the banks to raise loans on more favourable terms.

Furthermore, banks in several countries have received capital injections from the government in order to ensure a sufficient capital base. The purpose of government guarantees and capital injections is to safeguard confidence in the financial system and to contribute to the banks' continued lending to companies and households, in order to reduce the negative effects of the financial crisis on the real economy.

In Europe, Ireland was the first country to implement a financial rescue package, in September 2008. After the announcement of the Irish package, most other European countries followed suit during October.

Initially, most government guarantees applied for up to three or five years, which implied that the banks' lending was almost entirely within this maturity band. Several countries have since chosen to extend the duration of the government guarantees. The reason is that the redemptions payable by the banks would otherwise accumulate up to the expiry of the government guarantees, which would entail a high refinancing risk.

Under most financial rescue packages, the banks have to pay a fee depending on their utilisation of the guarantee and their credit risk. In some cases, e.g. in Portugal, the UK and Sweden, the fee is calculated on the basis of each bank's credit standing measured in terms of CDS spreads. Other countries have introduced a fixed fee for being covered by the government guarantee. A case in point is the USA, where the banks pay a fixed fee of 75 basis points to the central government for new issuance covered by the guarantee.

France has established a special financing company (SFEF) with the purpose of raising loans to cover the medium-term financing of French banks. While interbank lending is not comprised by the government guarantee, the banks, via the company, have access to government-guaranteed borrowing of up to EUR 320 billion in the maturity segment up to 5 years. When the banks borrow via SFEF, they agree to observe certain lending rules to ensure that they do not use the borrowing facility only to safeguard their own liquidity.

By guaranteeing bank issuance, the central government assumes a contingent liability, which takes effect on failure by an individual bank to honour its payments to either bond holders or depositors. The risk of incurring loss, assumed by the central government, is to some extent offset by charging a fee from the participating banks. Viewed in isolation, the various government guarantee schemes are therefore not

expected to entail a higher financing requirement, but impose a contingent liability on the central government. In several countries, the guarantee schemes are managed by the national DMO.

Capital injections and buy-backs of assets

The financial crisis has reduced the banks' capital bases. Against this background, there is a risk that the banks will reduce lending in order to redress the balance between lending and the capital base. With the aim of giving the banks a lending incentive, the financial rescue packages of several countries comprise direct capital injections from the government and an option to recapitalise by selling assets to the government.

Sweden's DMO, for example, may inject capital into banks. As a general rule, capital injections are subject to delivery of preferred stocks to the central government. An example of recapitalisation is the extension in January 2009 of the UK rescue package. Banks can take out insurance against losses on existing exposures against a fee, and also commit themselves to continued lending to companies and households. Thus, UK banks do not have to save up for writing off "bad loans".

In the USA, the Troubled Asset Relief Program (TARP) was adopted in October 2008. The key element of TARP was the allocation of USD 700 billion for purchase of troubled assets and recapitalisation of financial institutions against delivery of preferred stocks. In addition, a new rescue package was announced at the end of November, comprising purchase of mortgage bonds for up to USD 600 billion from Fannie Mae, Freddie Mac and Ginnie Mae, as well as support for loans to small companies, study loans, car loans and credit-card loans for up to USD 200 billion. The second rescue package was aimed at increasing lending to creditworthy consumers, including homeowners. As expected, US mortgage yields declined after the announcement of the second rescue package. The plan to purchase mortgage bonds to the amount of USD 600 billion has made the US government an asset manager for an unknown period until it is found to be appropriate to divest the assets again.

The option of purchasing bad credits, as provided for by the US rescue package, makes use of the fact that the central government has a considerably longer investment horizon than the banks. In the longer term, when conditions have normalised and the market price of risk has declined, the assets can presumably be sold at higher prices than the prices at which they were acquired.

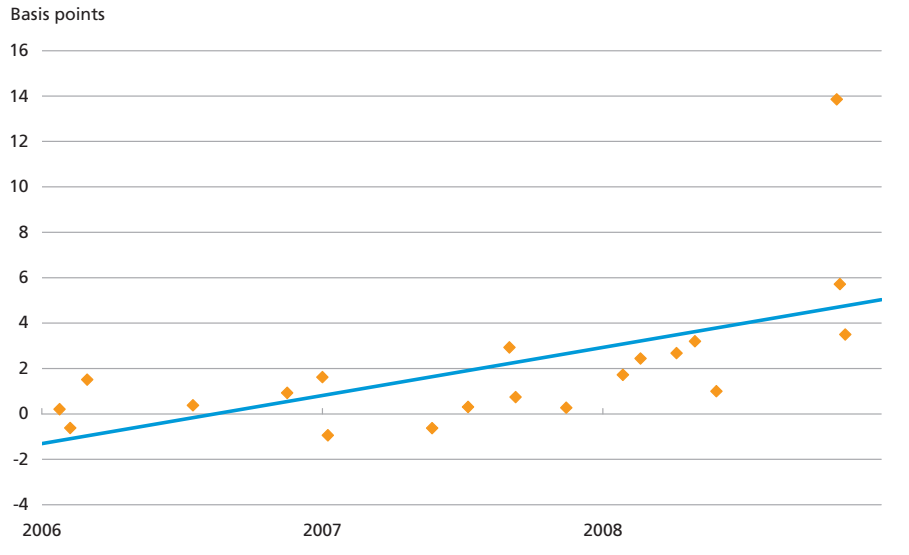
IMPLICATIONS FOR THE MARKET FOR GOVERNMENT SECURITIES 10.2

Increased supply of government securities

Several factors have influenced the supply of government securities as a result of the financial turmoil. Firstly, the general slowdown in the global economy is expected to lead to a higher central-government borrowing requirement in the short term. Secondly, the financial rescue packages will increase the borrowing requirement, and thirdly, substantial growth is expected in the market for government-guaranteed issuances as a result of the banks' access to issue government-guaranteed securities. According to market participants, government issuances in the euro area may exceed EUR 1,000 billion. Issuance in 2008 amounted to approximately EUR 700 billion. In the USA, the market estimates of the government issuance requirement in the fiscal year 2009 vary between USD 1,600 billion and USD 2,500 billion. US issuance in the fiscal year 2008 totalled approximately USD 800 billion.

The greater supply has caused investors to be more selective, and several DMOs have found it difficult to obtain sufficient demand at auctions and when issuing syndicated loans. Especially from the autumn of 2008, DMOs have paid a concession premium in order to attract investors, cf. Chart 10.2.1.

CONCESSION PREMIUMS FOR NEW 10-YEAR GOVERNMENT SECURITIES IN FIVE COUNTRIES, 2006-08 Chart 10.2.1



Note: Concession premiums are calculated as the difference in asset swap spreads between existing and new securities in the same maturity segment. Observations from Belgium, France, Germany, Italy and the Netherlands are included.
Source: Bloomberg.

The unfavourable issuance climate and uncertainty about future borrowing requirements have prompted several DMOs to pursue more flexible issuance strategies. This has included issuance in government securities outside key on-the-run issues, and use of various loan programmes, including CP and EMTN programmes.

Supply of government-guaranteed bank bonds

Market participants expect a volume of government-guaranteed bank issuance in the euro area of around EUR 250 billion in 2009. As central-government borrowing is also expected to increase, significant growth in government and government-guaranteed securities is thus anticipated compared with 2008.

One consequence of the very considerable supply of government-guaranteed bank bonds has been issuance of government bonds at higher yields than usual. Some government bonds have thus been issued at yields above the swap curve. In nearly all countries, such issuance has, nevertheless, been at lower levels than government-guaranteed bank issuance. The difference is primarily attributable to the fact that the high liquidity of government securities has value for investors.

Increased focus on investor relations

Investor relations are increasingly in focus as the central government's issuance requirement and government-guaranteed issuance by the banks increase. In an environment of intensified competition among issuers, investors may disregard an issuer on the basis of incomplete insight into a country's economic situation and into the composition of financial rescue packages. Issuers seek to address this tendency by increasing communication with potential investors.

The stronger focus on investor relations has highlighted the importance of a domestic investor base (home bias). Pronounced interest from domestic investors can ensure a successful issuance process and also sends a strong signal to the market, thus attracting more demand from non-resident investors.

CHANGES IN THE ROLE OF THE DANISH DMO 10.3

In the report *Government Debt Policy in the Light of Falling Debt*, published in *Danish Government Borrowing and Debt 2007*, the Danish DMO analysed the perspectives for the market structure of government securities, based on projections of the borrowing requirement and the market situation for government securities.

This report is still the foundation for the overall central-government borrowing strategy in the coming years. The central government will continue to have a borrowing requirement that will be covered primarily by issuance of 10-year government bonds. The escalating financial crisis in 2008 has made the case for continued government issuance, even in periods without a central-government borrowing requirement, more evident than indicated in the report.

Costs of re-establishing the market for Danish government securities

Analyses in the report showed that re-establishing a market for government securities would, for a period, imply less favourable terms for central-government borrowing, compared with an established market for government securities.

In the past year, experience has shown that the costs may be higher than expected if the re-establishment of an issuance programme coincides with a period of pronounced financial and economic uncertainty. In this situation, most investors turn to well-known, liquid markets for government securities. At the same time, an extraordinarily high premium may apply in order to attract investors to a new market, especially if the reason for re-establishing an issuance programme is significant deterioration of government finances.

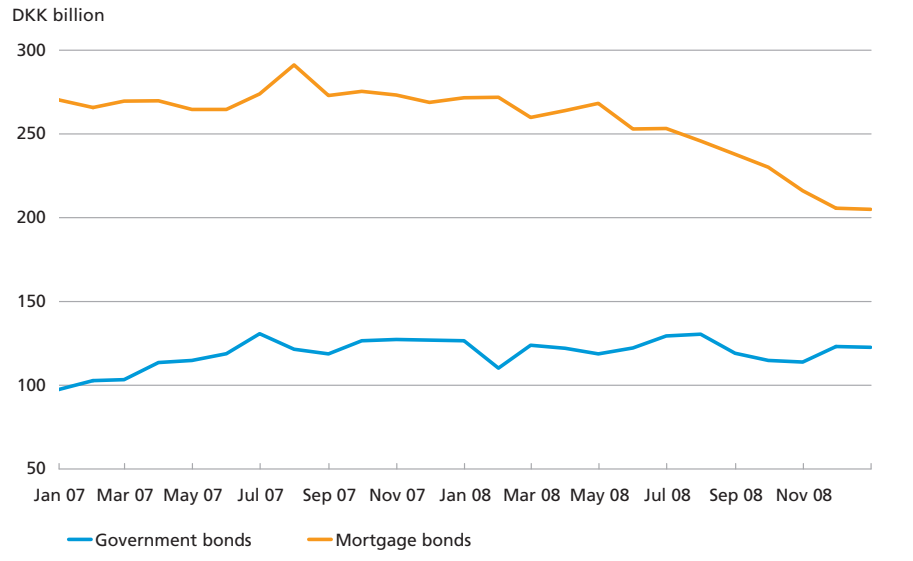
The role of government securities in Denmark

Domestic government securities are primarily held by Danish pension funds and non-residents. The pension funds' commitments in Danish kroner give them an incentive to hold Danish securities (home bias). As a result of Denmark's fixed-exchange-rate policy, increased financial integration and product development, the importance of the Danish government securities market diminished for a period at the beginning of this decade.

The home bias of the Danish pension sector was reduced due to such factors as the development in the swap markets, which offered the pension funds new opportunities to separate investment and management of exchange-rate and interest-rate risk. In addition, the high credit ratings of banks and mortgage-credit institutes, as well as liquid markets for mortgage bonds and swaps reduced the role of Danish government securities in the pricing of financial instruments.

As a consequence of the financial crisis, government securities again play a key role as investment objects and price benchmark. Danish pension funds have increased their holdings of Danish government securities, partly because it is now more difficult for them to segregate investment and risk management.

NON-RESIDENTS' HOLDINGS OF GOVERNMENT AND MORTGAGE BONDS Chart 10.3.1

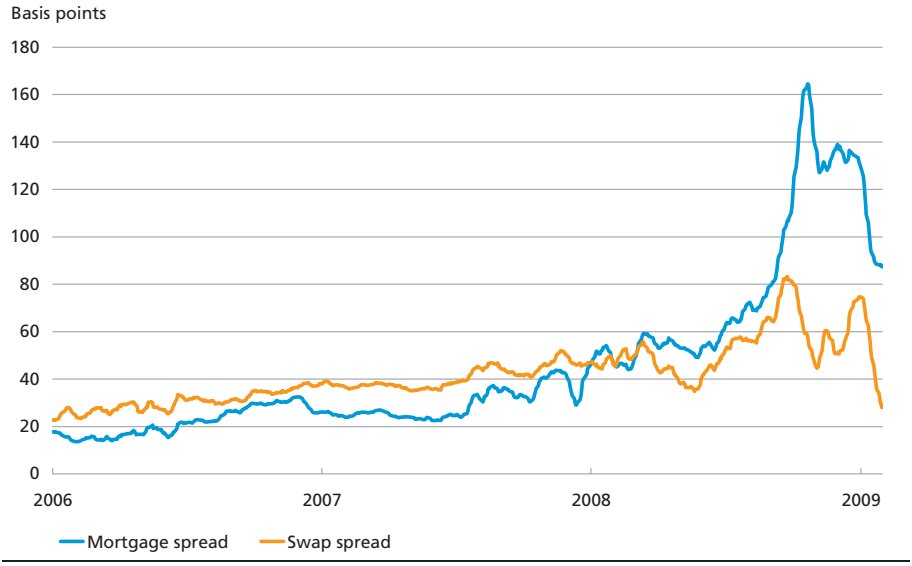


Source: *Securities Statistics*, Danmarks Nationalbank.

Another key role of government securities is to retain non-resident securities investments in periods when the financial markets are characterised by uncertainty. Since the financial turmoil began in August 2007, non-residents have reduced their holdings of mortgage bonds by approximately DKK 75 billion, while their holdings of government bonds has remained unchanged, cf. Chart 10.3.1.

As a consequence of the financial crisis, government bonds are increasingly used as a benchmark for the market development in the risk-free interest rate. The reason is the continued low risk on government bonds and high liquidity compared with other markets. The period of financial turmoil saw a considerable widening of the spreads between government bonds and interest-rate swaps and mortgage bonds, cf. Chart 10.3.2. Without government bonds, it would have been difficult to assess price developments in the individual markets. Government securities have the unique status of stable benchmark over a longer horizon. At the same time, market making in government bonds enhances the price discovery. This supports trading in government bonds and has a positive derived effect on trading in other financial products. Government securities thus contribute to supporting the domestic capital market.

5-YEAR DANISH SWAP AND MORTGAGE SPREADS, 2006-08 Chart 10.3.2



Note: The spreads are calculated as 10-day moving averages.
Source: Bloomberg.

DMO and the Danish rescue packages

A well-functioning market for government securities is particularly important when the central-government's borrowing requirement is larger than expected. As a result of the credit crisis, many countries have chosen to inject capital into the financial sector. Denmark has implemented two financial rescue packages. Under the first rescue package (the bank package), the banks themselves are to finance losses up to DKK 35 billion, while any losses beyond this amount will be financed by the central government, cf. Box 10.1. Under the second rescue package (the credit package), banks and mortgage-credit institutions may apply for loans from the central government of up to DKK 100 billion. The credit package will be financed via drawings on the central government's account at Danmarks Nationalbank, rather than via increased issuance of government bonds. The balance of the central government's account has been built up in recent years because the central government has chosen to maintain its issuance programme in a period with a low borrowing requirement. This enables the central government to pursue a more flexible issuance policy.

FINANCING OF THE DANISH FINANCIAL RESCUE PACKAGES Box 10.1

Denmark has introduced two financial rescue packages. The first one (the bank package) was adopted in October 2008, while the second package (the credit package) was adopted in February 2009.

The first financial rescue package provided a government guarantee of all claims of depositors and other unsecured creditors in banks that are members of the Danish Contingency Association. The Winding-Up Company has been established to administer the possible winding-up of banks. The Winding-Up Company is financed by a contribution of up to DKK 35 billion from the financial sector. In addition, the Winding-Up Company has access to re-lending from the central government, cf. Chapter 8. In principle, the first financial rescue package entails no costs for the central government, unless the total costs exceed the limit of DKK 35 billion.

The credit package enables the central government to inject up to DKK 100 billion of new hybrid core capital into Danish banks and mortgage-credit institutes. The injected capital must be repaid, and the rate of interest reflects the risk assumed by the central government.

CHAPTER 11

Consolidated Risk Management by the Government

Asset Liability Management (ALM) is a risk-management principle comprising management of assets and liabilities on a consolidated basis, i.e. the combined risk on portfolios of assets and liabilities is determined. Strategies for separate risk management of assets and liabilities can entail considerable costs and risk on the overall portfolio. The ALM principle has developed over time and is now used by the private and public sectors to manage both financial and non-financial risks.

Government Debt Management has applied the ALM principle in the management of the financial risk on government debt for some years. As the central government's portfolio structure has changed and more risk-management instruments have become available, Government Debt Management has refined its ALM analyses. The ALM principle is also applied broadly to manage risk on other central-government portfolios, including the risk on assets and liabilities in government-owned companies.

ALM AS A RISK-MANAGEMENT PRINCIPLE 11.1

Under the Asset Liability Management (ALM) principle, the risk on the total balance, i.e. both assets and liabilities, is analysed with a view to calculating the overall exposure. This means that the risk can be mitigated by matching risks on assets and liabilities so that one side of the balance sheet hedges the other side.[1] Strategies for separate risk management of assets and liabilities can entail considerable costs and risk on the overall portfolio.

ALM goes back a long way; for example, more than 200 years ago the Danish mortgage-credit system was built up on the basis of a balance principle between assets and liabilities.[2] ALM for financial portfolios saw strong development in the very unstable period following the oil crises in the 1970s, when a number of financial enterprises suffered losses due to mismatched portfolios of assets and liabilities.

[1] Cf. Lars Risbjerg and Anders Holmlund, *Analytical Framework for Debt and Risk Management*, Advances in Risk Management of Government Debt, OECD 2005.
[2] See www.realkreditraadet.dk under Branchen (in Danish only).

Today, ALM covers not only financial portfolios, but also matching of portfolios without explicit financial characteristics. For example, life insurance and pension companies can reduce their risk by investing in financial products with a payment profile reflecting the expected commitments, determined on the basis of expected mortality.[1]

In recent years, government debt management offices have increasingly focused on ALM. For the central government, ALM in its broadest sense means that risk management comprises all the central government's financial and non-financial assets and liabilities. ALM does not necessarily involve construction of advanced models for all subportfolios. In many cases ALM entails simplification of risk management, e.g. because it is not necessary to manage risk on two portfolios separately if the risk on one portfolio hedges the risk on the other.

Definition of portfolios of assets and liabilities in central-government ALM analyses

A key issue in relation to central-government ALM risk management is which portfolios of assets and liabilities to include in the analyses. Government Debt Management operates with several definitions, typically based on financial portfolios, non-financial portfolios and future central-government receipts and payments (such as tax revenue and transfer payments). ALM can therefore be broken down into three categories:

1. Only financial assets and liabilities on the central government's balance sheet are included in the risk analyses. This means that risk analysis is performed on the central government's net portfolio (e.g. interest-rate or exchange-rate risk on the net portfolio).
2. Besides financial portfolios, non-financial assets and liabilities are included. For example, the financial risk profile on borrowing for an infrastructure project is matched against a risk profile exposed to the real economic development (the real return on, say, a bridge investment depends on the future traffic across the bridge and the bridge toll payable).
3. The broadest ALM definition includes all the central government's assets and liabilities, including future revenue and expenditure. The objective is to limit fluctuations in the overall government balance sheet and establish a debt structure with a reduced probability of high debt costs in situations where the budget is strained.

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[1] Jens Thomsen and Jens Verner Andersen: *Longevity Bonds – a Financial Market Instrument to Manage Longevity Risk*, Danmarks Nationalbank, *Monetary Review*, 4th Quarter 2007.

RISK MANAGEMENT BY GOVERNMENT DEBT MANAGEMENT 11.2

Financial ALM and measures of costs and risks

The starting point for risk management by Government Debt Management in Denmark is a stable macroeconomic framework. For some years, the fiscal policy approach has been to ensure long-term stability in the overall economy, cf. *Denmark's Convergence Programme 2008*. In addition, Denmark has a well-developed domestic financial market and access to the international financial and derivatives markets. With the current low level of debt, the effect from the development in market interest rates on the central government's budget in general is limited. Consequently, risk management by Government Debt Management is limited to financial risk.

Government Debt Management manages financial risk on the government debt portfolio on a consolidated basis, i.e. the combined risk on assets and liabilities is analysed. Government Debt Management defines costs and risks on the basis of nominal accrued interest costs. This reflects the application of the cost concept in the central-government accounts and in the preparation of the annual finance acts. Risk management by Government Debt Management is therefore based on a trade-off between costs and risks, measured by accrued interest costs.

Government Debt Management portfolios

Risk management by Government Debt Management comprises domestic and foreign debt in the liabilities portfolio, while assets include the balance of the central government's account at Danmarks Nationalbank, the assets of the three government funds and claims in connection with re-lending by the central government.

Since 1997, government debt has been reduced substantially and the portfolio structure has changed considerably. Debt no longer consists primarily of liabilities, but is now a portfolio of assets and liabilities, 3-4 times larger than the net government debt portfolio, cf. Table 11.2.1.

ASSETS AND LIABLITIES IN THE GOVERNMENT DEBT PORTFOLIO Table 11.2.1

DKK billion (nominal value)	End-1997	End-2008
Domestic debt	674	430
Foreign debt	103	133
Total liabilities	777	563
Government funds	-147	-108
Central government's account at Danmarks Nationalbank	-29	-260
Re-lending	0	-51
Total assets	-176	-418
Government debt adjusted for re-lending	601	144

Note: A positive sign indicates a liability for the central government; a negative sign indicates an asset.

Separation of issuance strategy and risk management

In the late 1990s, risk management was aimed at achieving an overall duration target for the whole portfolio, and it was decided to expand the central government's range of risk-management instruments to include domestic interest-rate swaps.

This enabled more flexible debt management with greater separation of issuance in liquid government bonds and management of the central government's interest-rate risk. The decision to transact standardised domestic portfolio interest-rate swaps also contributed to building up the interest-rate swap market in Denmark.

Management of Government Debt Management's interest-rate risk

The predominant risk factor in relation to Danish government debt is interest-rate risk, i.e. the risk of higher interest costs as a result of the development in interest rates. Duration is an expression of the portfolio's average remaining time to maturity. In a situation where the central government's debt is primarily composed of liabilities, the duration is a summary measure of the trade-off between costs and risks. Issuance of long-term bonds ensures stable interest costs on the central government's budget and therefore entails low risk. In this situation, stable interest costs are achieved through a long duration, corresponding to low interest-rate risk. On the other hand, financing by way of long-term bonds is usually linked to higher expected interest costs.

The lower central-government debt and the current large gross portfolios of assets and liabilities mean that the duration of the government debt portfolio has become more difficult to interpret. A long duration is no longer necessarily linked to low interest-rate risk. Instead, a long duration may reflect a mismatch between assets and liabilities, cf. Table 11.2.2. In the current situation with a lower duration on assets than on liabilities, falling interest rates may, in the short term, lead to higher interest costs as there is a slower pass-through to the interest costs on liabilities than to interest income on assets. Low interest-rate risk requires a high duration for both assets and liabilities.

The benchmark for management of the central government's interest-rate risk is defined so as to reflect a trade-off between costs and risks, based on analyses in the CaR model, cf. *Danish Government Borrowing*

DURATION AND MARKET VALUE OF THE GOVERNMENT DEBT PORTFOLIO Table 11.2.2

End-2008	Duration (years)	Market value (DKK billion)
Liabilities (domestic and foreign debt)	5.6	606
Assets (account, funds, re-lending)	2.0	-434
Government debt portfolio	14.8	172

and Debt 2006, Chapter 9. In addition, analyses of the central government's interest-rate fixing are applied, i.e. the amount of debt for which a new, unknown interest rate is to be fixed within one year.

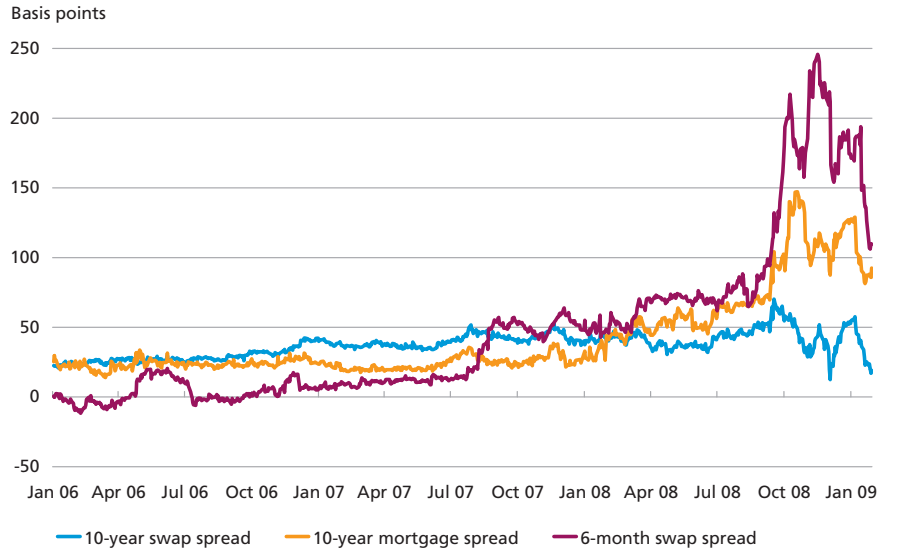
Management of Government Debt Management's instrument risk

The duration of the central-government debt does not take into account instrument risk, i.e. the risk that interest rates within the same maturity segment, but on different instruments, show diverging development patterns. The current portfolio is exposed to the development in both government yields, mortgage yields, swap rates and monetary-policy interest rates. For a long time, the instrument risk has been negligible as developments in the various interest-rate markets have been closely linked.

However, the turbulence in the financial markets in 2008 led to considerable divergence in interest-rate patterns in the markets for government bonds, mortgage bonds and interest-rate swaps, cf. Chart 11.2.3. Consequently, Government Debt Management has extended its risk analyses to include instrument risk to a greater extent.

The aim is still to separate the central government's issuance strategy from risk management through interest-rate swaps. In view of recent developments in the interest-rate swap market, Government Debt Management is considering using new types of interest-rate swaps, under which the variable leg is linked more closely to the development in monetary-policy interest rates.

SPREADS TO THE GOVERNMENT YIELD CURVE — Chart 11.2.3



Source: Bloomberg.

Government-owned companies

A number of government-owned companies may raise government-guaranteed loans or raise loans directly from the central government (re-lending). 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. Government Debt Management has therefore prepared overall guidelines for borrowing by these companies and made a list of eligible loan types so as to ensure that the companies do not assume risks that the central government itself would not assume.

It is the responsibility of the companies to ensure compliance with the guidelines. Their risk management is based on ALM analyses of the assets and liabilities for which they are responsible. The assets include not only financial assets, but typically also real assets, corresponding to ALM category 2, cf. section 11.1. The risks on the companies' debt portfolios are determined with the objective of matching real asset risks. For example, the bridge companies (Øresund Landworks and the Great Belt Bridge) have included income from bridge tolls in their risk analyses. As these tolls are expected to develop in step with prices in general, the bridge companies have chosen to let part of their debts be indexed to inflation.

The exchange-rate risk of the government-owned companies is determined in the guidelines for their risk management, which allow them to have exposures in Danish kroner and euro (and also in Swedish kronor in the case of the Øresund Bridge). In addition, clear principles have been laid down for credit-risk management by government-owned companies, cf. Chapter 8.

Subsidised housing

In 2008, it was decided to hedge the central government's interest-rate risk in connection with the annual refinancing of subsidised housing by letting the Social Pension Fund invest in the corresponding mortgage bonds, cf. Chapter 3. This coordination reduces the central government's interest-rate risk in a simple way. Previously, management of interest-rate risk was not directly coordinated, but was subject to the general principle that the interest-rate risk on subsidised housing should be in line with the interest-rate risk on the government debt. Coordination is organised by a financing group for subsidised housing, with representatives from the Ministry of Finance, the Ministry of Economic

and Business Affairs, the Ministry of Social Welfare and Government Debt Management.

Ministry of Defence

In 2005, an exchange-rate hedging facility was established between the Ministry of Defence and Danmarks Nationalbank with a view to hedging the central government's exchange-rate risk on military procurements in US dollars, as fluctuations in the exchange rate of the dollar had previously had a budget impact. This is an example of how uncertainty regarding the central government's future payments is hedged to stabilise and manage the government's budget expenditure, corresponding to ALM category 3, cf. section 11.1. In practice, the facility is managed by Danmarks Nationalbank concluding forward contracts in dollars with the Danish government. Danmarks Nationalbank hedges the dollar risk via its internal risk management on an ongoing basis. Coordination takes place under an agreement between Danmarks Nationalbank, the Ministry of Finance and the Ministry of Defence.

Local and regional government

Borrowing by local and regional government takes place via KommuneKredit, whose objective is to offer loans and financial leasing subject to the rules laid down by the Minister for Social Welfare. The borrowing rules are specified in executive orders. A fundamental principle in this respect is joint and several liability for both local and regional government. Loans from KommuneKredit are financed via issuance of bonds, and local and regional government may use plain vanilla instruments in their risk management.

CENTRAL-GOVERNMENT ALM IN OTHER COUNTRIES 11.4

In recent years, some countries have focused on smoothing fluctuations in the government budget balance, i.e. ALM in its broadest sense (category 3). This is particularly interesting if it is possible to identify significant shocks to the real economy that can be hedged by applying a specific debt structure. The theoretical argument behind this type of risk management is that increases in the central government's financial costs as a result of market developments affect its tax policies. According to Barro's tax smoothing hypothesis, this involves loss of welfare.[1] The potential gain from budget smoothing is smaller for low-debt countries,

[1] Robert J. Barro, *On the Determination of the Public Debt*, Journal of Political Economy, Vol. 87, October 1979.

as fluctuations in the central government's interest costs play only a minor role in the central government's budget or tax policy planning.

Implementation of broad ALM can be difficult since most of the government budget items (e.g. direct and indirect taxes) have no explicit financial characteristics that can be matched to the financial characteristics of the debt. The most obvious financial instrument for budget smoothing is issuance of inflation-linked bonds. This instrument stabilises the overall budget balance if there is a positive correlation between inflation and the primary budget balance, but increases fluctuations in the budget balance if there is a negative correlation. For example, the Netherlands has chosen not to issue inflation-linked bonds, one reason being a negative correlation between the primary budget surplus and inflation.[1] Another reason for issuing inflation-linked bonds is that some countries have structural demand, especially if commitments by pension companies in that country are linked to inflation.

JOINT RISK MANAGEMENT BY THE CENTRAL GOVERNMENT AND DANMARKS NATIONALBANK 11.5

On account of Denmark's fixed-exchange-rate policy, monetary and exchange-rate policies are aimed at keeping the krone stable vis-à-vis the euro. The principles for management of Danmarks Nationalbank's risk are described in *Financial Management at Danmarks Nationalbank*, cf. www.nationalbanken.dk, which specifies that Danmarks Nationalbank's "choice of risk level is characterised by prudence". The reason is that large losses in connection with risk not related to Danmarks Nationalbank's tasks and objectives are not compatible with a high degree of credibility. Monetary and exchange-rate policy considerations always come before return considerations.

Joint management of exchange-rate risk

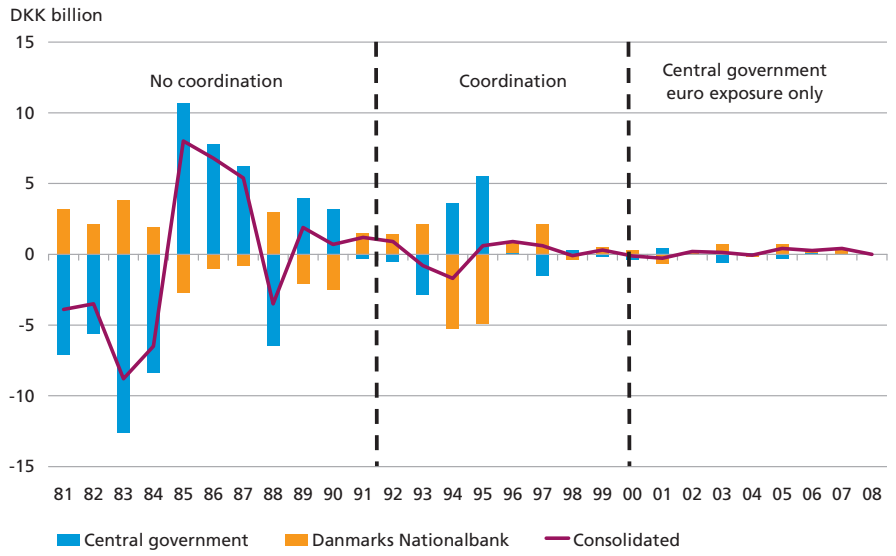
The central government raises foreign loans with the foreign-exchange reserve in mind. Since the proceeds on such loans are transferred to the foreign-exchange reserve, there is a direct connection between the exchange-rate risk for the central government and for Danmarks Nationalbank.

Since 1992, the exchange-rate risk on the government's foreign debt and Danmarks Nationalbank's foreign-exchange reserve has been managed jointly. Experience from the 1980s shows that exchange-rate

[1] Outlook 2009, Dutch State Treasury Agency, www.dutchstate.nl.

EXCHANGE-RATE GAINS FOR THE CENTRAL GOVERNMENT AND DANMARKS NATIONALBANK

Chart 11.5.1



fluctuations can lead to very large losses or gains for the central government or Danmarks Nationalbank viewed in isolation, but also in combination, cf. Chart 11.5.1. Joint management of the exchange-rate risk provided a clearer picture of the aggregate risk exposure of the central government and Danmarks Nationalbank. The aim has been to limit the overall exchange-rate risk by ensuring that the government does not borrow in one currency, while Danmarks Nationalbank invests in another.

Since the introduction of joint management, the gross exchange-rate exposure of the central government and Danmarks Nationalbank has more or less been converted to euro. Since 2001, the government's foreign borrowing has entirely been with final exposure in euro, and the foreign-exchange reserve is mainly exposed to euro. The objective of joint management has thus been met without a need for regularly laying down a framework for the overall exchange-rate exposure.

Joint management of interest-rate risk

Typically, the central government raises foreign loans to increase the foreign-exchange reserve by issuing bonds with a medium-term maturity (3-5 years), while Danmarks Nationalbank invests the proceeds at very short maturities. Although the two maturities differ, this does not change the interest-rate risk of the government or Danmarks Nationalbank, either viewed in isolation or on a consolidated basis.

The reason is that the duration of the government debt portfolio is in principle kept unchanged – if, say, the duration of the foreign debt increases, this increase is offset by adjusting the duration of the other portfolios. From the point of view of Danmarks Nationalbank alone, the central government's foreign borrowing means that the balance of the government's account and the foreign-exchange reserve both increase. Danmarks Nationalbank's risk does not change since the foreign-exchange reserve is invested at short maturities.

Different levels of interest-rate risk

The overall risk levels of the central government and Danmarks Nationalbank are determined separately, reflecting the different tasks and purposes as regards the two portfolios. In addition, accounting principles affect the assessment of risk. Government Debt Management states costs as nominal accrued interest costs, while Danmarks Nationalbank states the result at market value.

The difference in accounting principles affects the assessment of interest-rate risk on the bond portfolio. The market value of bonds with long maturities is more sensitive to changes in interest rates than that of bonds with short maturities. Stated at market value, the value of long-term bonds may thus fluctuate considerably in the financial statements, while the accrued nominal interest payments on bonds with long maturities are stable.

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	• 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
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 cf. *Government debt policy*. • 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 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.
- 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 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 authorised to release bonds to the counterparty.

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.

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].

Cross-default clauses: If the counterparty defaults on its payment obligations to a third party, cross-default clauses allow swaps to be terminated.

Observation list: The ongoing monitoring of the counterparty credit risk entails that counterparties assessed to involve greater risk are monitored more closely on an "observation list". Only in special circumstances are new swaps transacted with counterparties on this list.

[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 can borrow government securities in the lending facilities of the Central Government and the Social Pension Fund. 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 semi-annual announcement concerning the government debt management strategy.
3. The lending facility is available for Primary Dealers in Danish government bonds.
4. In normal circumstances, the maximum lending in each of the government-bond series is DKK 4 billion. These limits may be raised in the event of abnormal price formation on the private market for securities lending.
5. The fee is 0.2 per cent per year.
6. 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.
7. The securities may be borrowed for a period from 1 to 5 trading days.
8. 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).
9. 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.

10. 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.
11. 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.
12. Settlement takes place on the following trading day.
13. 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.
14. For bond trading members of the Nasdaq OMX transactions are reported as two or more separate repurchase agreements to Nasdaq OMX.
15. 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.
16. Any enquiries concerning securities lending transactions should be made to Danmarks Nationalbank, Market Operations, on tel. +45 3363 6750 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.
10. Settlement takes place on the following trading day.
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 Nasdaq OMX, transactions are reported as two or more separate repurchase agreements to Nasdaq OMX.
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 6750 or +45 3363 6736.

Appendix of Tables

CENTRAL-GOVERNMENT DEBT, YEAR-END 1998-2008 — Table 1

DKK million	1998	1999	2000
A. Debt			
Domestic debt			
- Fixed-rate bonds	550,989	537,289	506,992
- Floating-rate bonds	4,346	-	-
- Lottery bonds	1,000	900	900
- Treasury notes	58,830	74,040	81,257
- Treasury bills	41,255	36,350	36,846
- 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	-	-	-2,000
Domestic debt, total	656,420	648,579	623,995
Foreign debt			
- in USD	1,336	1,187	-
- in CHF	1,094	3,616	3,822
- in JPY	562	2,453	1,672
- in EUR	84,982	82,386	79,287
- in other currencies and multi-currency	365	383	428
Foreign debt, total	88,338	90,025	85,209
Domestic and foreign debt, total	744,758	738,604	709,204
B. Government deposits with the central bank[3]	-30,412	-35,237	-32,637
C. The Social Pension Fund, The Preventive Measures Fund and The Advanced Technology Foundation			
- Government securities	-100,135	-105,432	-106,312
- Other securities	-43,468	-36,207	-33,244
The three funds, nominal value, total[4]	-143,603	-141,640	-139,556
Central-government debt, total (A+B+C)	570,743	561,727	537,011
Central-government debt, per cent of GDP	49.0	46.3	41.5

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] For 2008, the central government's account is compiled in accordance with the monthly balance sheet of Danmarks Nationalbank. At end-2008, the balance of the central government's account included DKK 26 billion related to the Social Pension Fund's purchases of mortgage bonds in December 2008 which were not settled until the beginning of January 2009.

[4] Index-linked bonds are compiled at indexed value. The value of the funds portfolio of bonds, including mortgage bonds for settlement at the beginning of January 2009, was DKK 136 billion.

CENTRAL GOVERNMENT DEBT, YEAR-END 1998-2008 Table 1

2001	2002	2003	2004	2005	2006	2007	2008
494,875	497,938	480,874	480,590	440,351	428,796	403,039	451,394
-	-	-	-	-	-	-	-
900	400	400	400	200	200	200	200
70,788	79,371	78,532	71,690	33,980	-	-	-
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	-11,662
-	-	-	-524	-2,688	-4,862	-7,873	-10,423
-	-	-	-	-	-	-	-
610,987	624,913	610,953	604,558	516,479	454,418	402,040	429,509
-	-	-	518	2,810	4,583	6,884	9,947
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
83,753	83,689	83,861	83,370	87,833	75,219	61,738	123,126
42	42	42	40	38	21	20	19
83,795	83,730	83,903	83,929	90,681	79,823	68,642	133,092
694,782	708,644	694,856	688,487	607,160	534,241	470,682	562,601
-39,627	-45,975	-40,621	-57,559	-53,297	-70,958	-86,333	-259,639
-109,474	-113,132	-118,138	-120,799	-124,635	-125,111	-128,547	-98,604
-31,621	-28,230	-20,576	-16,065	-11,284	-9,535	-8,686	-9,643
-141,095	-141,362	-138,714	-136,864	-135,919	-134,646	-137,233	-108,247
514,060	521,308	515,521	494,064	417,944	328,637	247,116	194,715
38.5	38.0	36.8	33.9	26.9	20.1	14.5	11.1

SERVICE ON CENTRAL-GOVERNMENT DOMESTIC DEBT[1] AS OF 31 DECEMBER 2008 Table 2.1

DKK billion	Interest	Redemptions	Total
2009	21.6	37.0	58.6
2010	19.0	50.3	69.3
2011	17.1	59.5	76.5
2012	13.7	-7.0	6.7
2013	13.9	73.2	87.0
2014	10.1	-1.0	9.1
2015	10.0	56.3	66.3
2016	7.6	-1.0	6.6
2017	7.7	51.6	59.3
2018	5.6	-0.7	4.9
2019	5.6	-0.5	5.1
2020	5.6	-0.2	5.4
2021	5.7	-	5.7
2022	5.7	-	5.7
2023	5.7	-	5.7
2024	5.7	24.4	30.1
2025	3.9	-	3.9
2026	3.9	-	3.9
2027	3.9	-	3.9
2028	3.9	-	3.9
2029	3.9	-	3.9
2030	3.9	-	3.9
2031	3.9	-	3.9
2032	3.9	-	3.9
2033	3.9	-	3.9
2034	3.9	-	3.9
2035	3.9	-	3.9
2036	3.9	-	3.9
2037	3.9	-	3.9
2038	3.9	-	3.9
2039	3.9	87.6	91.5
Total	219.2	429.5	648.7

[1] 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 2008 Table 2.2

DKK billion	Interest	Redemptions	Total
2009	2.9	21.7	24.6
2010	2.2	13.6	15.8
2011	1.7	24.4	26.1
2012	0.5	6.9	7.4
2013	0.4	1.0	1.4
2014	0.4	1.0	1.4
2015	0.3	1.0	1.2
2016	0.2	0.9	1.1
2017	0.1	0.9	1.0
2018	0.1	0.7	0.8
2019	0.0	0.5	0.5
2020	0.0	0.2	0.2
Total	8.6	72.8	81.4

[1] Excluding Commercial Papers. 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 GOVERMENT'S CURRENT, INVESTMENT AND LENDING BALANCE, NET CASH BALANCE AND GROSS DEFICIT, 1998-2008 Table 3

DKK billion	1998	1999	2000
Current, investment and lending budget	31.4	9.1	30.7
Net bond purchases[1]	-	-	-
Re-lending of government loans	0.3	-1.6	-2.8
Distributed capital losses on issue and due interest[2]	2.1	3.2	1.4
Other capital items[3]	0.1	0.2	-2.3
Net cash balance	34.0	10.9	27.0
Redemptions on domestic government debt	79.0	75.9	91.3
Redemptions on foreign government debt	37.4	20.0	15.7
Gross deficit	-82.5	-85.0	-80.0
Gross deficit financing requirement	64.4	67.9	62.3
Sale of government securities, market value[4]	68.0	68.8	65.7

Source: Central Government Accounts. 2008 numbers are based on Danmarks Nationalbank's end-year specification. The numbers can deviate from the accounting figures.

[1] Net bond purchases by the Social Pension Fund are not 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 GOVERMENT'S CURRENT, INVESTMENT AND LENDING BALANCE, NET CASH BALANCE AND GROSS DEFICIT, 1998-2008 Table 3

2001	2002	2003	2004	2005	2006	2007	2008
24.0	25.8	12.4	27.7	80.6	98.6	106.2	•
-	-	-	-	-	-	-	•
-2.4	-8.9	-0.8	-5.4	-3.2	-12.4	-8.5	•
0.4	-0.1	-0.7	0.5	-0.7	-0.9	0.4	•
0.9	-20.0	-4.1	0.9	-0.9	5.0	-8.8	•
22.9	-3.2	6.9	23.6	75.9	90.2	82.8	50.6
101.2	112.4	106.3	100.0	119.5	78.6	58.5	41.2
17.8	22.5	17.1	16.1	9.3	13.0	20.7	23.0
-96.2	-138.1	-116.6	-92.5	-52.9	-1.3	3.6	-13.6
81.1	115.5	99.7	76.4	43.6	-11.7	-24.3	-12.0
87.7	121.9	94.1	92.6	30.1	13.2	-3.8	97.1

ISSUANCE OF DOMESTIC CENTRAL-GOVERNMENT SECURITIES, 2008 Table 4.1

ISIN code	Coupon, per cent	Name	Redemption date	Issued in 2008, DKK million
Government bonds, fixed interest rate				
DK0009919532	6	6 per cent bullet loans 2009 14 Jan 1998-	15 Nov 2009	430
DK0009921785	4	4 per cent bullet loans 2010 20 Apr 2004-	15 Nov 2010	15,590
DK0009921942	4	4 per cent bullet loans 2017 26 Jan 2006-	15 Nov 2017	10,935
DK0009922320	4.5	4,5 per cent bullet loans 2039 11 Nov 2008-	15 Nov 2039	87,600
Treasury bills				
DK0009813032	0	T-bill 2008 I 1 May 2007-	2 Jun 2008	800
DK0009813115	0	T-bill 2008 II 1 Dec 2007-	1 Dec 2008	12,055

Note: In November 2008, the Social Pension Fund sold nominal DKK 16.5 billion of 6 per cent bullet loans 2011 to the market.

ISSUANCE OF FOREIGN CENTRAL-GOVERNMENT SECURITIES, 2009 Table 4.2

ISIN code	Coupon, per cent	Name	Redemption date	Issued in 2008, DKK million
Security				
XS0392597026[1]	2.75	1,500 million USD-loan 10 Oct 2008	15 Nov 2011	8,143
XS0392597026[2]	2.75	1,000 million increase of USD-loan 26 Nov 2008	15 Nov 2011	5,828
XS0401030316	3.125	1,250 million EUR-loan 28 Nov 2008	28 Nov 2011	9,310

[1] The loan was swapped to EUR 1.099.706.744 with a fixed interest rate.
[2] The loan was swapped to EUR 791.765.637 with a floating interest rate.

CENTRAL-GOVERNMENT COMMERCIAL PAPER FOREIGN ISSUANCE, 2008 Table 4.3

Month of issuance	Coupon, per cent	Amount in foreign currency	Amount in Danish kroner
ECP Commercial Paper		EUR million	DKK million
June	0	50	373
October	0	1,528	11,338
November	0	392	2,914
December	0	1,270	9,438
ECP Commercial Paper[1]		USD million	DKK million
October	0	3,335	18,508
November	0	2,084	12,233
December	0	1,110	6,358
USCP Commercial Paper[1]		USD million	DKK million
June	0	50	241
October	0	1,297	7,529
November	0	1,643	9,558
December	0	3,899	22,465

[1] A Forward Contract in Foreign-Exchange with Danmarks Nationalbank is attached to issues in US dollars. At maturity the Kingdom of Denmark receives an amount in US dollars, equivalent to the underlying loan, and pays the agreed amount in euro. The central-government's final exposure is therefore in euro.

FOREIGN-EXCHANGE FORWARD CONTRACTS[1] Table 4.4

Month of conclusion	Amount received at expiry, USD million	Amount paid at expiry, EUR million
June	50	32
October	4,632	3,507
November	3,727	2,935
December	5,010	3,885

[1] Contracts with Danmarks Nationalbank attached to CP issues.

CENTRAL-GOVERNMENT CURRENCY SWAP TRANSACTIONS[1], 2008 Table 5

Loan no.	Start date	Receiving			Paying			Termination date
		Currency	Million	Interest	Currency	Million	Interest	
20020	29-01-08	DKK	667.9	4.6476	USD	129.6	5.315	29-01-20
20021	15-02-08	DKK	656.4	3.9108	USD	129.1	3.745	25-03-20
20022	15-02-08	DKK	657.7	3.9012	USD	129.1	3.780	05-05-20
20023	10-07-08	DKK	665.7	4.6596	USD	140.0	4.180	22-07-20
20024	26-08-08	DKK	718.1	4.3140	USD	140.0	4.144	14-10-20

[1] Currency swaps in connection with re-lending to Danish Ship Finance.

CENTRAL-GOVERNMENT DOMESTIC DEBT AS OF 31 DECEMBER 2008 Table 6.1

ISIN-code	Coupon, per cent	Name[1]	Redemption date	Outstanding amount, DKK million
Government bonds, fixed interest rate				
Bullet loans				
DK0009919532	6	Bullet loans 2009 Issued 14 Jan 1998-	15 Nov 2009	43,610.0
DK0009921785	4	Bullet loans 2010 Issued 20 Apr 2004-	15 Nov 2010	51,180.0
DK0009919961	6	Bullet loans 2011 Issued 4 May 2000-	15 Nov 2011	60,500.0
DK0009920894	5	Bullet loans 2013 Issued 19 Feb 2002-	15 Nov 2013	74,180.0
DK0009921439	4	Bullet loans 2015 Issued 12 Feb 2004-	15 Nov 2015	57,260.0
DK0009921942	4	Bullet loans 2017 Issued 26 Jan 2006-	15 Nov 2017	52,570.0
DK0009918138	7	Bullet loans 2024 Issued 6 Apr 1994-	10 Nov 2024	24,431.0
DK0009922320	4.5	Bullet loans 2039 Issued 11 Nov 2008-	15 Nov 2039	87,600.0
Amortised loans				
DK0009902728	4	S 2017 Issued 29 Nov 1955-12 Sep 1958	15 Jun 2017[2]	44.1
Perpetuals				
DK0009901597	3.5	Dansk Statslån Issued 11 Dec 1886	Perpetuals[2]	17.9
•	5	Dansk-Islandsk Fond 1918 Issued 20 May 1919	Perpetuals	1.0
Government bonds, fixed interest rate, total				451,394.0

CENTRAL-GOVERNMENT DOMESTIC DEBT AS OF 31 DECEMBER 2008 Table 6.1

ISIN-code	Coupon, per cent	Name[1]	Redemption date	Outstanding amount, DKK million
Lottery bonds[3]				
DK0009900433	7	Lottery bonds of 1965/2010 Issued 22 Sep 1965	22 Sep 2010	100.0
DK0009900516	7	Lottery bonds of 1969/2009 Issued 1 Oct 1969	31 Dec 2009	100.0
Lottery bonds, total				200.0
Domestic government securities, total				451,594.0
Swap from DKK to EUR.....				-11,662.1
Swap from DKK to USD.....				-10,423.3
Central government domestic debt, total				429,508.6

[1] The issue period refers to the period the series has been open for issue. 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 129 million in expired, but outstanding lottery bonds.

CENTRAL-GOVERNMENT FOREIGN DEBT AS OF 31 DECEMBER 2008 Table 6.2

ISIN-code/ loan no.[1]	Coupon, per cent	Name	Redemption date	Outstanding amount, DKK million[2]
Euro Commercial Paper - EUR				
298-124	0	2008/09 ECP	21 Jan 2009	2,607.7
298-170	0	2008/09 ECP	21 Jan 2009	74.5
298-196	0	2008/09 ECP	07 Jan 2009	74.5
298-210	0	2008/09 ECP	15 Jan 2009	745.1
298-212	0	2008/09 ECP	16 Jan 2009	745.1
298-214	0	2008/09 ECP	20 Jan 2009	745.1
298-216	0	2008/09 ECP	27 Jan 2009	1,676.4
298-218	0	2008/09 ECP	28 Jan 2009	1,676.4
298-224	0	2008/09 ECP	06 Feb 2009	1,862.7
298-226	0	2008/09 ECP	16 Feb 2009	1,564.6
298-228	0	2008/09 ECP	16 Feb 2009	447.0
ECP issuances in EUR, total				12,219.0
Euro Commercial Paper - USD				
298-58	0	2008/09 ECP	14 Jan 2009	602.2
298-60	0	2008/09 ECP	14 Jan 2009	136.9
298-62	0	2008/09 ECP	16 Jan 2009	1,095.0
298-64	0	2008/09 ECP	20 Jan 2009	821.3
298-66	0	2008/09 ECP	16 Jan 2009	84.0
298-72	0	2008/09 ECP	13 Feb 2009	541.9
298-74	0	2008/09 ECP	20 Jan 2009	108.4
298-80	0	2008/09 ECP	20 Jan 2009	151.3
298-122	0	2008/09 ECP	21 Jan 2009	100.2
298-128	0	2008/09 ECP	23 Jan 2009	603.0
298-146	0	2008/09 ECP	20 Jan 2009	590.0
298-148	0	2008/09 ECP	20 Jan 2009	295.0
298-150	0	2008/09 ECP	21 Jan 2009	118.0
298-154	0	2008/09 ECP	20 Feb 2009	354.1
298-156	0	2008/09 ECP	20 Feb 2009	295.1
298-158	0	2008/09 ECP	23 Feb 2009	295.1
298-160	0	2008/09 ECP	21 Jan 2009	313.1
298-164	0	2008/09 ECP	23 Feb 2009	295.5
298-176	0	2008/09 ECP	09 Jan 2009	590.7
298-178	0	2008/09 ECP	21 Jan 2009	118.2
298-180	0	2008/09 ECP	21 Jan 2009	59.1
298-186	0	2008/09 ECP	15 Jan 2009	178.4
298-188	0	2008/09 ECP	24 Feb 2009	446.2
298-192	0	2008/09 ECP	26 Jan 2009	145.9
298-194	0	2008/09 ECP	23 Jan 2009	291.9
298-198	0	2008/09 ECP	28 Jan 2009	151.3
298-200	0	2008/09 ECP	27 Feb 2009	640.1
298-202	0	2008/09 ECP	07 Jan 2009	58.2
298-204	0	2008/09 ECP	27 Feb 2009	576.4
298-206	0	2008/09 ECP	07 Jan 2009	72.8
298-208	0	2008/09 ECP	08 Jan 2009	626.0
298-220	0	2008/09 ECP	11 Mar 2009	1,770.9
298-222	0	2008/09 ECP	16 Mar 2009	2,438.0
298-230	0	2008/09 ECP	16 Feb 2009	282.4
298-232	0	2008/09 ECP	17 Feb 2009	56.0

CENTRAL-GOVERNMENT FOREIGN DEBT AS OF 31 DECEMBER 2008 Table 6.2

ISIN-code/ loan no.[1]	Coupon, per cent	Name	Redemption date	Outstanding amount, DKK million[2]
Euro Commercial Paper – USD – continued				
298-234	0	2008/09 ECP	16 Mar 2009	168.0
298-236	0	2008/09 ECP	17 Mar 2009	276.4
298-238	0	2008/09 ECP	17 Mar 2009	138.2
298-240	0	2008/09 ECP	17 Feb 2009	552.5
ECP issuances in USD, total				16,437.6
US Commercial Paper - USD				
244-88	0	2008/09 USCP	22 Jan 2009	179.4
244-96	0	2008/09 USCP	26 Jan 2009	297.6
244-98	0	2008/09 USCP	26 Jan 2009	292.2
244-124	0	2008/09 USCP	02 Mar 2009	293.2
244-126	0	2008/09 USCP	05 Mar 2009	293.2
244-128	0	2008/09 USCP	06 Jan 2009	8.8
244-130	0	2008/09 USCP	06 Feb 2009	293.1
244-132	0	2008/09 USCP	12 Mar 2009	596.3
244-134	0	2008/09 USCP	17 Mar 2009	590.4
244-136	0	2008/09 USCP	09 Jan 2009	1,769.9
244-140	0	2008/09 USCP	05 Feb 2009	295.5
244-142	0	2008/09 USCP	21 Jan 2009	519.5
244-144	0	2008/09 USCP	08 Jan 2009	436.5
244-146	0	2008/09 USCP	13 Jan 2009	593.7
244-148	0	2008/09 USCP	02 Mar 2009	291.1
244-150	0	2008/09 USCP	09 Feb 2009	172.9
244-152	0	2008/09 USCP	26 Jan 2009	432.3
244-154	0	2008/09 USCP	07 Jan 2009	1,441.2
244-156	0	2008/09 USCP	07 Jan 2009	230.6
244-158	0	2008/09 USCP	24 Feb 2009	57.6
244-160	0	2008/09 USCP	16 Jan 2009	886.8
244-162	0	2008/09 USCP	12 Jan 2009	293.6
244-164	0	2008/09 USCP	03 Feb 2009	117.5
244-166	0	2008/09 USCP	08 Jan 2009	1,174.3
244-168	0	2008/09 USCP	07 Jan 2009	1,174.2
244-170	0	2008/09 USCP	04 Mar 2009	2,937.0
244-172	0	2008/09 USCP	16 Mar 2009	2,937.0
244-174	0	2008/09 USCP	20 Jan 2009	295.3
244-176	0	2008/09 USCP	10 Feb 2009	870.8
244-178	0	2008/09 USCP	12 Feb 2009	580.6
244-180	0	2008/09 USCP	06 Feb 2009	458.6
244-182	0	2008/09 USCP	06 Feb 2009	145.1
244-184	0	2008/09 USCP	07 Apr 2009	580.8
244-186	0	2008/09 USCP	13 Feb 2009	145.2
244-188	0	2008/09 USCP	18 Feb 2009	43.0
244-190	0	2008/09 USCP	17 Apr 2009	580.8
244-192	0	2008/09 USCP	10 Feb 2009	290.8
244-194	0	2008/09 USCP	07 Apr 2009	873.1
244-196	0	2008/09 USCP	11 Feb 2009	145.4
244-198	0	2008/09 USCP	17 Feb 2009	203.5
244-200	0	2008/09 USCP	09 Mar 2009	581.9
244-202	0	2008/09 USCP	09 Feb 2009	242.6
244-204	0	2008/09 USCP	09 Feb 2009	577.5

CENTRAL-GOVERNMENT FOREIGN DEBT AS OF 31 DECEMBER 2008 Table 6.2

ISIN-code/ loan no.[1]	Coupon, per cent	Name	Redemption date	Outstanding amount, DKK million[2]
US Commercial Paper – USD – continued				
244-206	0	2008/09 USCP	07 Apr 2009	115.6
244-208	0	2008/09 USCP	09 Feb 2009	564.8
244-210	0	2008/09 USCP	12 Feb 2009	259.8
244-212	0	2008/09 USCP	09 Feb 2009	564.8
244-214	0	2008/09 USCP	09 Feb 2009	423.6
244-216	0	2008/09 USCP	30 Apr 2009	848.6
244-218	0	2008/09 USCP	24 Apr 2009	1,414.0
244-220	0	2008/09 USCP	10 Feb 2009	419.7
244-222	0	2008/09 USCP	12 Mar 2009	420.0
244-224	0	2008/09 USCP	22 Apr 2009	1,400.8
US Commercial Paper, total				31,652.2
EUR				
DK0009921512	3.125	2004/09 EUR-loan	15 Oct 2009	15,013.0
DK0009921868	3.125	2005/10 EUR-loan	15 Oct 2010	12,666.0
XS0392597026	2.75	2008/11 USD-loan	15 Nov 2011	7,927.4
1079	2.75	2008/11 swap from USD		-7,927.4
•	var.	2008/11 swap to USD		7,927.4
•	var.	2008/11 swap from USD		-7,927.4
•	3.457	2008/11 swap to EUR		4,096.7
•	3.468	2008/11 swap to EUR		4,096.7
XS0392597026	2.75	2008/11 Increase of USD-loan	15 Nov 2011	5,284.9
1079	2.75	2008/11 swap from USD		-5,284.9
•	var.	2008/11 swap to USD		5,284.9
•	var.	2008/11 swap from USD		-5,284.9
•	var.	2008/11 swap to EUR		5,899.1
XS0401030316	3.125	2008/11 EUR-loan	28 Nov 2011	9,313.3
EUR, total				51,084.8
Swaps – EUR				
10011	var.	2002/09 swap from DKK	08 Jan 2009	400.6
10012	var.	2002/09 swap from DKK	15 Jan 2009	501.0
10013	var.	2002/09 swap from DKK	28 Jan 2009	501.4
10015	var.	2002/09 swap from DKK	07 Feb 2009	501.5
10016	var.	2002/09 swap from DKK	19 Mar 2009	501.3
10017	var.	2002/09 swap from DKK	19 Mar 2009	300.8
10018	var.	2002/09 swap from DKK	18 Mar 2009	501.3
10019	var.	2002/09 swap from DKK	18 Mar 2009	501.2
10020	var.	2002/09 swap from DKK	20 Jun 2009	501.1
10021	var.	2002/09 swap from DKK	24 Jun 2009	501.2
10022	var.	2002/09 swap from DKK	02 Jul 2009	1,003.0
10035	var.	2007/12 swap from DKK	23 Jan 2012	745.1
10036	var.	2007/12 swap from DKK	31 Jan 2012	745.1
10037	var.	2007/12 swap from DKK	12 Feb 2012	745.1
10038	var.	2007/12 swap from DKK	21 Feb 2012	745.1
10039	var.	2007/12 swap from DKK	15 Mar 2012	745.1
10040	var.	2007/12 swap from DKK	30 Mar 2012	745.1
10041	var.	2007/12 swap from DKK	27 Apr 2012	745.1
10042	var.	2007/12 swap from DKK	25 May 2012	745.1
EUR, total				11,674.8

CENTRAL-GOVERNMENT FOREIGN DEBT AS OF 31 DECEMBER 2008 Table 6.2

ISIN-code/ loan no.[1]	Coupon, per cent	Name	Redemption date	Outstanding amount, DKK million[2]
Swaps – USD				
20001	4.164	2004/16 swap from DKK	30 Jun 2016	163.3
20002	4.164	2004/16 swap from DKK	30 Jun 2016	163.4
20003	4.355	2005/17 swap from DKK	28 Jan 2017	177.5
20004	4.4875	2005/17 swap from DKK	10 Feb 2017	299.8
20005	4.497	2005/17 swap from DKK	11 Aug 2017	304.5
20006	4.66	2005/17 swap from DKK	20 Oct 2017	304.5
20007	4.7925	2005/17 swap from DKK	15 Dec 2017	324.8
20008	4.855	2006/17 swap from DKK	16 Nov 2017	338.9
20009	5.06	2006/18 swap from DKK	12 Apr 2018	342.9
20012	5.27	2006/18 swap from DKK	28 Aug 2018	543.4
20013	4.755	2006/18 swap from DKK	10 Nov 2018	543.4
20014	4.73875	2007/19 swap from DKK	10 Jan 2019	570.5
20015	4.671	2007/19 swap from DKK	26 Mar 2019	570.5
20016	5.1225	2007/19 swap from DKK	15 Jun 2019	599.3
20017	5.164	2007/19 swap from DKK	05 Sep 2019	627.9
20018	5.3875	2007/19 swap from DKK	14 Nov 2019	627.9
20020	5.315	2008/20 swap from DKK	29 Jan 2020	656.4
20021	3.745	2008/20 swap from DKK	25 Mar 2020	654.1
20022	3.78	2008/20 swap from DKK	05 May 2020	654.1
20023	4.18	2008/20 swap from DKK	22 Jul 2020	739.9
20024	4.144	2008/20 swap from DKK	14 Oct 2020	739.9
USD, total				9,947.0
Loans transferred from the Mortgage Bank of the Kingdom of Denmark				
XS0069330768		1996/11 JPY-loan	19 Sep 2011	35.1
1074		1996/11 swap to EUR		-35.1
•	var.	1996/11 swap from JPY		31.2
XS0074733543		1997/12 JPY-loan	13 Mar 2012	29.2
1075		1997/12 swap to EUR		-29.2
•	var.	1997/12 swap from JPY		26.1
Transferred loans, total				57.3
DKK				
DK0009901407	3	1894[3]	Perpetuals	10.0
DK0009901670	3.5	1901[3]	Perpetuals	3.8
DK0009901753	3.5	1909[3]	Perpetuals	5.1
DKK-loan, total				18.9
Foreign debt, total				133,091.7

[1] ISIN codes are used to loans and loan number to swaps and CP issuances.

[2] The outstanding amount as of 31 December 2008 is calculated to DKK on the basis of the following exchange rates: EUR = 745.06, JPY = 5.8482, USD = 528.49.

[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 INTEREST-RATE SWAPS AS OF 31 DECEMBER 2008 Table 7

	Krone interest-rate swaps	Euro interest-rate swaps	
Termination year	Notional amount in DKK million	Notional amount in EUR million	Notional amount in DKK million[1]
2009	12,550	-	-
2010	14,600	175	1,304
2011	11,950	150	1,118
2012	-	4,235	31,553
2013	4,400	810	6,035
2014	8,500	-	-
2015	1,800	1,500	11,176
2016	10,800	575	4,284
2017	-	175	1,304
Interest rate swaps, total	64,600	7,620	56,774

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 as of end-2008: EUR = 745.06.

KINGDOM OF DENMARK'S RATING IN DOMESTIC CURRENCY — Table 8.1

	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 8.2

	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 8.1 for ranking of the rating categories.

RATING OF SELECTED COUNTRIES' CENTRAL-GOVERNMENT DEBT, JANUARY 2009 Table 9

	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	Aa3	Aaa	AA	AA
Netherlands	Aaa	Aaa	AAA	AAA
New Zealand	Aaa	Aaa	AAA	AA+
Norway	Aaa	Aaa	AAA	AAA
Portugal	Aa2	Aa2	A+	A+
South Africa	A2	Baa1	A+	BBB+
Spain	Aaa	Aaa	AA+	AA+
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 8.1 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.

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.

Central-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 Preventive Measures Fund and the balance of the central government's account with Danmarks Nationalbank.

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 credit-worthy 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. The central government has two CP programmes, directed to the European market (ECP programme) and American market (USCP programme), respectively. Under the USCP programme the issuance is exclusively in US dollar, while under the ECP programme it is possible to issue in several currencies. The USCP programme has a maximum outstanding of USD 6

billion, while maximum outstanding in the ECP programme is USD 12 billion.

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*.

Derivative
See *financial derivative.*

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 usually 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.

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.

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*.

Private placement
Bond or other loan offered to a small group of buyers and not normally listed.

Rating
Grade of *credit standing* assigned by rating institutes such as Fitch Ratings, 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 specified 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 securities with a high credit rating. 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.

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

Swap rate
The swap 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.

Syndicated bond issue
Bond issue intermediated by a syndicate of banks which carry out the practical part of the sale for a payment. At issuance the syndicate banks obtain bids from investors. When the "book" of bids has been build up, the issuer determines price and allocation together with the syndicate banks.

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.