

Global uncertainty affects the financial sector

Financial markets have shown considerable fluctuations as a result of higher US tariffs and uncertainty associated with the global economic outlook. A downturn in global trade and economic growth will also affect Danish businesses and households. The banks are in a good position to deal with potential losses associated with the trade conflict's effects on the Danish economy. This is partly due to the current high profits and to financial regulation since the financial crisis which has strengthened the resilience of banks. The geopolitical situation continues to affect the cyberthreat and emphasises the importance of continuing to work on strengthening cyberresilience in the financial sector.

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📄 **54 pages**



Geopolitics and uncertainty from the trade conflict affect the risk outlook

The increase in tariffs on world trade has worsened the global growth outlook and led to major fluctuations in the financial markets. Shifting announcements related to the direction of economic policy in the US also contribute to high global uncertainty, with the risk of further shocks to the financial markets.



Continued high profits support the banks' resilience against losses

Current high profits put banks in a good position to handle potential losses. The resilience of banks' customers, especially export-sensitive companies, is affected by global uncertainty and will be weakened in the event of a global growth slowdown. A robust liquidity position and adequate capitalisation in banks are crucial to withstand severe stress in the Danish economy.



Simplifying financial regulation must not weaken financial stability

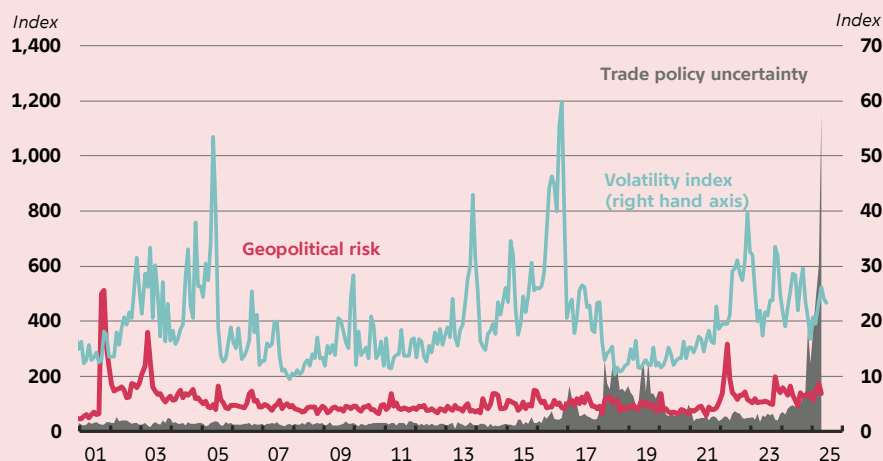
Regulation introduced after the financial crisis has contributed to strengthen financial stability. Due to a high degree of complexity of the regulatory framework, it may be beneficial to consider whether the rules can be simplified without compromising the core of financial regulation. In particular, the requirements for liquidity, capital and crisis management of failing institutions play a crucial role in ensuring a robust financial sector.

Why is it important?

Financial stability is a prerequisite for the financial sector to fulfil its socially critical tasks. Even during a crisis, customers should still be able to borrow money for sound and creditworthy projects and be able to make and receive payments. This requires the financial sector to be resilient enough to withstand economic and financial crises, helping to ensure Denmark has a resilient economy.

Danmarks Nationalbank publishes its *Financial stability* analysis biannually, which summarises the bank's assessments of and recommendations for financial stability in Denmark. The analysis sheds light on whether vulnerabilities in the financial system can arise due to the lending, liquidity management or capital planning of credit institutions. It also presents the results of Danmarks Nationalbank's biannual stress test, which helps to assess whether the largest credit institutions have sufficient capital to handle a sharp economic downturn. The analysis can also cover other issues relevant to financial stability. Examples include pension and life insurance companies, working with cyber risks, digitalisation or the impact of climate change on the financial sector.

Main chart: Geopolitical tensions and trade conflict characterise the risk outlook



Note: Index of geopolitical risk and trade policy uncertainty. The index is based on automated text searches and is calculated by the number of articles on the topic as a proportion of the total number of articles from a range of US newspapers. The volatility index is indicated by the VIX index, which measures expected price fluctuations in the US Standard & Poor's 500 stock index. Latest observation is 30 April 2025 for trade policy uncertainty and geopolitical risk, and 23 May 2025 for volatility index.

Source: Dario Caldara and Matteo Iacoviello, Measuring Geopolitical Risk, *American Economic Review*, April, 112(4), 2022, pages 1194-1225. Dario Caldara, Matteo Iacoviello, Patrick Molligo, Andrea Prestipino and Andrea Raffo, The economic effects of trade policy uncertainty, *Journal of Monetary Economics*, no. 109, 2020, pages 38-59. Macrobond.



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Financial Sector Forum for Operational Resilience (FSOR)

Climate

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01

Summary and assessment

FINANCIAL MARKETS

Trade conflict weakens the global growth outlook and the market expects additional interest rate cuts during 2025

The US administration's announcement of higher tariffs in early April caused considerable uncertainty in the global growth outlook. The International Monetary Fund, IMF, downgraded its expectations for global growth as a result of the trade conflict. As a small, open economy, Denmark is particularly exposed to geo-economic fragmentation and further escalation of trade conflicts. The worsening growth outlook has led to a decline in market participants' expectations for monetary policy rates in the US and euro area. There is also a risk that increased tariffs could lead to renewed inflationary pressure in the US.

Global uncertainty has led to large fluctuations in equity and bond markets

The high uncertainty related to international trade policy has led to significant fluctuations in the financial markets. Among other things, the announcement of higher US tariffs led to large price fluctuations on global equity markets. US and euro area government bonds have also been sensitive to the uncertainty in light of the increase in global debt levels. In addition, the US dollar has also weakened, which indicates a general decrease in risk appetite for US assets. Since the US presidential election in November 2024, the market for crypto-assets has also experienced large fluctuations, in part due to actions from the US administration in order to promote the use of crypto-assets in the US and changes in risk appetite.

CYBER

The cyberthreat is a fundamental condition for financial companies and requires continued work to strengthen resilience

The cyberthreat is high and constantly changing. A higher proportion of European banks are experiencing cyberattacks that have led to serious operational incidents. With advanced cyberattacks potentially threatening financial stability, it's important that financial companies continue their work to increase cyberresilience. The financial sector is highly interconnected, making it also important to collaborate across the sector to strengthen overall resilience.

Preparedness is a key focus area in the financial sector

The geopolitical situation has highlighted the need for further crisis management planning in society. The financial sector is working on measures to strengthen the ability of financial companies to continue operating even in extreme but plausible scenarios such as a destructive cyberattack. In the area of payments, the Danish Payments Council is working to establish a society-wide contingency plan for card payments to ensure access to basic necessities for the public in the event of a breakdown in the internet or payments infrastructure.

FIRM CREDIT

Companies are in a good position, but banks risk losses on lending to export-sensitive industries

Quarterly accounting data indicates that companies' earnings have increased throughout 2024, partly due to higher revenue. The increase in the share of non-performing loans across industries has also been limited, and the number of bankruptcies is also at a low level. However, export-sensitive industries may be affected by the global uncertainty associated with the ongoing trade conflict. This is especially true for manufacturing companies, where a significant proportion of exports go to the US. Danish credit institutions have significant exposures to export-sensitive industries. However, the direct credit risk on such exposures is limited by the fact that a large part of Danish goods exports to the US are produced in the US and thus not immediately affected by higher tariffs. Nevertheless, a major shock to Danish exports and a general global slowdown could spill over to the Danish economy as a whole and lead to losses on the corporate lending made by credit institutions.

Signs of increasing commercial real estate trading activity, but lending to property companies remains a risk

Credit institutions' lending to commercial real estate remains significant, and the business model of real estate companies makes them particularly sensitive to changes in interest rates and economic fluctuations. The interest rate hikes in 2022 and 2023 significantly reduced property companies' earnings due to higher interest expenses and lower property values. Following the sharp slowdown in the commercial real estate market over the past couple of years, transaction activity in the first four months of 2025 has increased compared to the same period in 2023 and

2024. The fall in interest rates is also helping to ease the pressure on real estate companies' interest expenses. Despite increasing vacancies in several property types, credit institutions' impairment for property companies remain low.

CREDIT FOR HOUSEHOLDS

House prices are at a high level and are rising particularly fast in Copenhagen

House price growth has been high in 2025 for both single-family houses and owner-occupied apartments. Price increases have been especially pronounced for Copenhagen owner-occupied apartments. However, recent developments in house prices have not yet been reflected in overall household indebtedness, which – based on past experience - happens with a certain time lag.

Homeowner debt-to-income ratio has declined, but a large share of income is still allocated to servicing housing debt

Housing loans account a smaller share of homeowners' disposable income, reflecting both rising incomes and the fact that many homeowners have reduced their housing debt by refinancing fixed-rate mortgages. At the same time, homebuyers continue to allocate a significant share of their income to debt servicing. This is particularly the case in Copenhagen, where home buyers in the third quarter of 2024 spent nearly twice as much on debt servicing as homebuyers did in 2020. The increase primarily reflects the sharp increase in house prices in the capital area and higher interest rates. All else being equal, higher debt-service-to-income ratios leave less room in the budget for unexpected expenses.

EARNINGS

The net interest income earned by credit institutions is expected to have peaked and lower interest rates reduce profits

The systemic credit institution profit before tax increased to kr. 66 billion in 2024. The high profits are primarily driven by an increase in core earnings. The higher interest rates since mid-2022 have boosted net interest income, especially in 2023 and 2024, and the deposit margin has been a significant factor in the banks' higher net interest income. Net interest income is expected to have peaked as monetary policy rates have been lowered during 2024, narrowing the deposit margin for banks. However, the deposit margin remains at a higher level than in the years before the interest rate increases in 2022 and contributes significantly to profits.

Impairment charges remain low but may increase in light of global uncertainty

Credit institution impairment charges remained low in 2024. In Danmarks Nationalbank's projection for the Danish

economy from March 2024, a balanced growth path is expected. However, the risk of higher impairment charges is increased by the significant global uncertainty caused by the increase in tariffs, among other things. Continued high bank profits are a first defence against the potential losses that may come.

LIQUIDITY

Banks have a robust liquidity position, but increased liquidity needs can arise suddenly for their customers

Systemic banks have good excess capital adequacy relative to the liquidity requirements and are able to handle severe liquidity stress. All systemic banks have a survival horizon of at least four months in Danmarks Nationalbank's liquidity stress test. The risk of an escalating trade conflict and the impact on the financial markets can lead to increased liquidity needs for bank customers. This emphasises the importance of a robust liquidity position.

Leverage in Danish mortgage bonds has increased the interconnectedness between the mortgage and repo markets

Investment funds, insurance and pension companies have increased their borrowing in the repo market. As Danish mortgage bonds are widely used as collateral in repo transactions, the interconnectedness between the repo and mortgage markets has increased. Therefore, shocks to mortgage bond prices due to turmoil in the financial markets or less liquidity in the repo market can lead to selling pressure on Danish mortgage bonds. This can lead to potentially lower prices and thus higher interest rates on mortgage bonds.

CAPITAL AND STRESS TESTS

Simplifying financial regulation must not be at the expense of financial stability

The regulation of the financial sector introduced after the financial crisis has strengthened financial stability. However, the regulatory framework has become complex, and it is therefore relevant to review the regulation to simplify or remove rules that are unnecessarily complex and administratively burdensome. When working to simplify financial regulations, it is crucial that the core of the regulation is maintained. These include capital and liquidity requirements, as well as crisis management to ensure a robust financial sector – even under stress. It is of great importance to society and is a prerequisite for a healthy and competitive economy. It is also important that regulatory simplification supports a level playing field for financial companies across the EU. i.

All institutions fulfil the capital requirements in a severe stress scenario

Every six months, Danmarks Nationalbank stress tests the financial sector to assess whether institutions hold sufficient capital to meet the authorities' capital requirements. All institutes can handle a severe recession scenario. However, some institutions may find it difficult to meet the requirement for eligible liabilities, the MREL requirement, if there is an extended period of limited ability to issue new debt instruments. A stress test based on credit institutions' capital targets also shows that some institutions should consider raising their capital targets.

CLIMATE

Energy market imbalances can have major economic and financial consequences

It is important that banks and mortgage credit institutions continuously analyse and assess risks from climate change and the green transition that are material to their business model. Periods with high energy prices and large fluctuations, as seen at the time of Russia's invasion of Ukraine in early 2022 particularly affected the energy-intensive corporate customers.

The financial sector must prepare for more extreme weather affecting their customers

The Danish insurance market generally has good coverage for the consequences of natural disasters in the form of the storm surge scheme, but with climate change, storm surge events in Denmark will occur more frequently and become more severe. If buildings and infrastructure are not adapted to climate change, homeowners and businesses may find themselves bearing more of the costs of rebuilding. It is also important that credit institutions take into account the increasing risk of natural disasters.

02

Financial markets: Markets showing high uncertainty

The financial markets and global economy are affected by geopolitical tensions and high uncertainty about global trade conflicts. Equity prices fell sharply following the US administration's announcement of tariffs on a wide range of countries in early April. During May, prices rose again and by the end of the month, were close to pre-announcement levels. As a small, open economy, Denmark is particularly exposed to geo-economic fragmentation, and further escalation of trade conflicts could have significant effects on the real economy and the value of financial assets held by households, banks, pension and insurance companies and others.

Trade conflict causes turmoil in the global economy

Shifting political statements in the trade conflict have led to considerable uncertainty in global growth forecasts. Overall, growth expectations for the global economy have been revised downwards. In the main scenario of its latest forecast from April 2025,¹ the International Monetary Fund, IMF, estimates that the global economy will grow by 2.8 per cent in 2025 and 3 per cent in 2026. This is a downward revision of 0.5 and 0.3 percentage points from the January forecast, see chart 1. Uncertainty about the US administration's policy goals is reflected in large increases in indices measuring trade policy uncertainty, see chart 2.

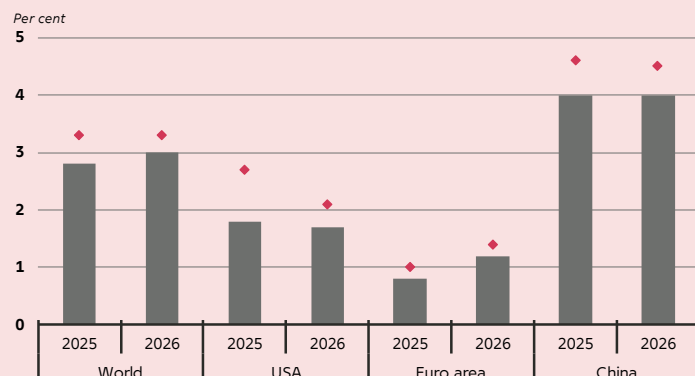
The trade conflict is expected to have negative effects on the entire global economy. The US economy is expected to be hit particularly hard in the short term. The significant uncertainty over tariffs and potential retaliatory tariffs from US trading partners is expected to reduce demand, and consumer confidence has dropped significantly since March 2025. The high uncertainty about tariffs and the effects on consumption has complicated investment decisions, especially for US companies. Data from the US Bureau of Economic Analysis, BEA, shows that US imports rose sharply in the first quarter of 2025, indicating that companies have brought forward purchases of foreign goods to circumvent upcoming tariffs.

In the euro area, the growth outlook has also been downgraded. However, the downward adjustments have been smaller, partly because trade policy uncertainty is related to one trading partner and because the prospect of real wage increases and increased public spending, especially in Germany, supports growth in the euro area.

¹ Due to the high uncertainty surrounding tariffs, the IMF has made several forecasts with a number of different assumptions about US tariffs. The main scenario includes tariffs announced between 1 February and 4 April 2025.

CHART 1

Prospects for slower growth in US economy after the announcement of tariffs



Note: IMF estimates for world GDP growth. The bars show estimates from the IMF's main scenario in April 2025. The dots show estimates from the IMF January forecast.

Source: IMF.

CHART 2

High level of global uncertainty is mainly driven by developments in US trade policy



Note: Index of geopolitical risk and trade policy uncertainty. The index is based on automated text searches and is calculated by the number of articles on the topic as a proportion of the total number of articles from a range of US newspapers. Latest observation is 30 April 2025.

Source: Dario Caldara and Matteo Iacoviello, Measuring Geopolitical Risk, *American Economic Review*, April, 112(4), 2022, pages 1194-1225. Dario Caldara, Matteo Iacoviello, Patrick Molligo, Andrea Prestipino and Andrea Raffo, The economic effects of trade policy uncertainty, *Journal of Monetary Economics*, no. 109, 2020, pages 38-59.

The market expects lower monetary policy rates, but tariffs have changed short-term inflation expectations

Following the US administration's announcement of increased tariffs on 2 April 2025, market expectations for the level of monetary policy rates in the US fell, but rose again following preliminary agreement between China and the US to lower tariffs on 12 May, see chart 3. Overall, expectations to the monetary policy rates have been adjusted downwards by approximately 0.50 percentage points by mid-2026 since the beginning of 2025. In the euro area, expectations have similarly been adjusted downwards, but to a lesser extent, which is partly related to expectations for the real economy.

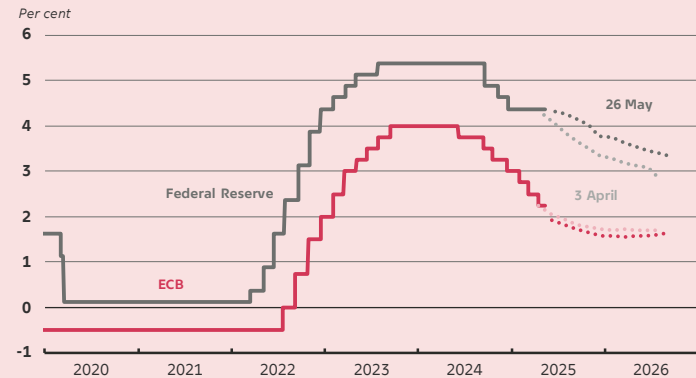
Inflation in the US and euro area has been stable over the past year, with euro area inflation close to the ECB's target, see chart 4. In the short term, market prices for hedging inflation risks indicate a further increase in inflation in the US and a decrease in the euro area.² The trend in inflation hedging shows that markets expect tariffs to affect inflation differently in countries that impose tariffs, like the US, and in the euro area, which imposes tariffs. In the short term, the imposition of tariffs across virtually all trading partners that the US introduced in April can be seen as a negative supply shock in the US that increases inflation. Conversely, in the longer term, there may be a demand shock as consumer purchasing power is reduced. By contrast, the euro area is only subject to tariffs by one trading partner, which is perceived by the market as a negative demand shock in the form of lower exports, putting a downward pressure on prices. In the US, the dollar has also fallen sharply against a number of currencies, see more in the section *Decline in the dollar exchange rate indicates reduced risk appetite for US assets* below. The fall in the dollar will further increase import costs in the US.

² The price of the inflation contracts is not adjusted for risk premium.

CHART 3

The market expects monetary policy rates to fall further in the US and euro area during 2025

The development of monetary policy rates and expectations for development



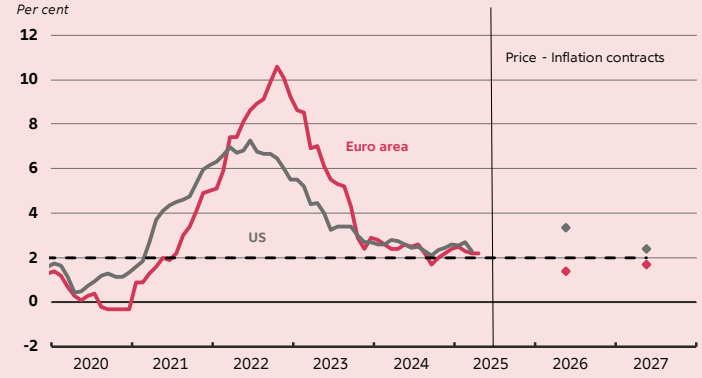
Note: The chart shows the current ECB deposit rate and the midpoint of the Federal Reserve's federal funds target range and market expectations for them at the end of 2025 derived from ESTR swaps and Fed funds futures. The expectation for interest rates at the end of 2025 is a five-day moving average. Last observation is 26 May 2025.

Source: Refinitiv Eikon.

CHART 4

Market expectations for inflation are higher in the US than in the euro area

Inflation trends and the price of inflation contracts



Note: The chart shows annual inflation rates for the US and euro area from the PCE and HICP indexes, respectively. The price of inflation contracts indicates the market prices (not adjusted for risk premium) to hedge inflation risk. For 2026 and 2027, the price for inflation is measured by a 1-year inflation swap and a 1-year inflation swap starting in one year, respectively. Last observation for the inflation swap is 23 May 2025.

Source: Macrobond, Refinitiv Datastream.

Global uncertainty has led to fluctuations in bond markets

Changing policy announcements have continuously increased and decreased government bond yields across maturities in the US and euro area significantly in the first half of 2025, see chart 5. This should be seen in light of already high levels of government debt and an expectation of increasing government debt to finance increased public spending. The International Monetary Fund, IMF, has called for most of the world, including the US, to reduce government debt in the medium term.³

Increased government debt may have made interest rates more sensitive to political announcements. As the debt incurred by countries increases, so does uncertainty about their debt servicing capacity and ability to implement fiscal easing in the event of an economic downturn. High uncertainty about the growth outlook may therefore have helped drive the changes in government bond yields.

The prospect of the easing of the German debt brake in early March has led to expectations of increased government debt in Germany, resulting in the highest one-day rise in 10-year German government bond yields since reunification in 1990. However, following the announcement of the US tariffs, German government bond yields equivalently fell, indicating that investors still consider German government bonds to be a safe asset.⁴

By contrast, the announcement resulted in an increase in yields on 10-year US government bonds, despite their normal safe-haven status during periods of increasing equity volatility and decreasing risk appetite across asset classes.

³ See IMF, Fiscal policy under uncertainty, *Fiscal Monitor*, April 2025 ([link](#)).

⁴ The price of hedging credit risk against the German state also remained stable during the interest rate increases, indicating that markets continued to have confidence in German government finances.

Federal Reserve points out that reduced positions from leveraged hedge funds have also contributed to increased sell-offs, especially in longer maturity government bonds.⁵ The IMF also points out that market makers have less capacity than before to counteract selling pressure on US government bonds.^{6,7} Overall, this may have contributed to upward pressure on interest rates. After the Republican tax and spending bill passed the House of Representatives in May 2025, yields increased on the 20-year and 30-year US government bonds.

High uncertainty about the outcome of the trade conflict and the growth of the economy also caused bond market volatility to increase during April, but it has since fallen back, see chart 6. However, at no point was volatility higher than during the March 2023 banking turmoil in both the euro area and the US.⁸

CHART 5

Trends in government bond yields are influenced by fluctuations in political announcements



Note: The interest rate on 10-year government bonds for the US and Germany, respectively. Latest observation is 23 May 2025.
Source: Refinitiv Eikon and own calculations.

CHART 6

Bond volatility has increased since April but remains at lower levels compared to 2022-23



Note: The chart shows implied volatility in the US by the MOVE index (left axis) and implied volatility in Germany derived from options on German 10-year government bonds. Latest observation is 23 May 2025.
Source: Macrobond and Bloomberg.

Drop in dollar exchange rate indicates reduced risk appetite for US assets

Since the start of 2025, the US dollar has depreciated against the euro, but also against a number of other currencies, see chart 7. The fall in the value of the dollar has occurred in parallel with the market's downward revision of expectations for monetary policy interest rates. This should therefore be seen in light of expectations of lower monetary policy rates, which make it less attractive to invest in dollars.

The fall in the dollar – especially after the announcement of tariffs – was accompanied by declines in US stock indices, government bonds and corporate bonds. This is in contrast to previous periods of financial turmoil, when demand for dollars has usually increased. By contrast, other traditional 'safe havens' such as gold and German government bonds rose.

⁵ See Federal Reserve, *Financial Stability Report*, April 2025 ([link](#)).

⁶ The capacity of market makers to buy bonds under stress is not directly observable. It is approximated instead as the outstanding amount of bonds on bank balance sheets relative to historical maxima.

⁷ See IMF, *Enhancing resilience amid uncertainty*, *Global Financial Stability Report*, April 2025 ([link](#)).

⁸ During the banking turmoil, Silicon Valley Bank and other US banks got into trouble, partly due to rising interest rates, while Credit Suisse was acquired by UBS after years of scandals and profit problems.

The movements of the dollar have attracted a lot of attention widely, as the dollar plays an important role in trade, financial markets and as a global reserve currency, see chart 8.

CHART 7

The US dollar has depreciated against a number of currencies since the start of 2025

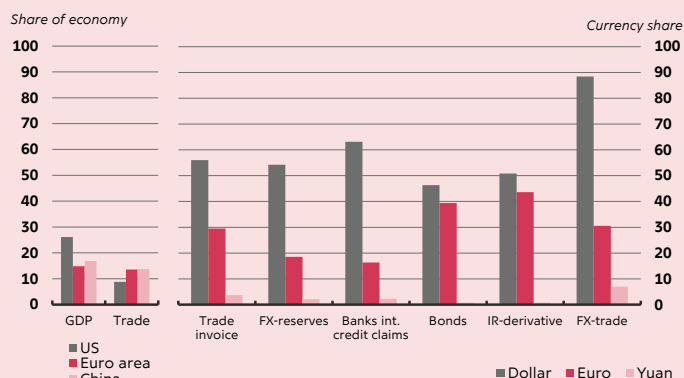


Note: Development in US dollars based on the DXY index. The DXY index is a weighted index tracking movement of the dollar against the euro, British pound, Japanese yen, Swedish krona, Canadian dollar and Swiss franc. Latest observation is 23 May 2025.

Source: LSEG Workspace.

CHART 8

The dollar is the central currency in international trade and finance



Note: The chart shows the share of total value in each category, on the left for the US, euro area and China, on the right for the dollar, euro and yuan. Currency trading for the world adds up to 200, as two currencies are included in each trade. Figures are latest available from the BIS quarterly review, June 2024.

Source: Bank for International Settlements, International finance through the lens of BIS statistics, *Quarterly Review*, June 2024.

High global uncertainty has led to price volatility on several equity markets

High economic policy uncertainty has also caused volatility in global equity markets during 2025, with volatility rising to the highest levels since covid-19, and the Russian invasion of Ukraine in 2022 for the US and euro area respectively, see chart 10. The US S&P 500 index in particular fell during February and again after the announcement of the US tariff. However, prices have reversed since the end of April and are close to pre-tariff announcement levels, see chart 9. Euro area indices fell to a lesser extent during February, mainly due to increases in the German DAX 40 index following the prospect of significant public investment in Germany. Prices on euro area stock indices, like the US indices, have subsequently reversed.

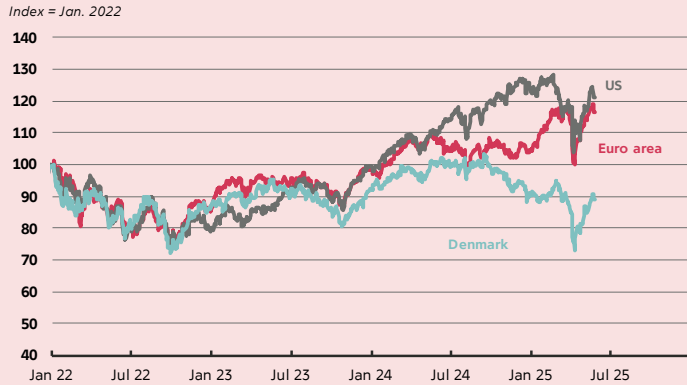
The major changes in the outlook for the US economy also caused credit spreads on the riskiest corporate bonds to increase in March and April by around 200 basis points. However, the increase came from a low level and credit spreads fell again by 100 basis points during May 2025.

Despite the price declines in recent months, the IMF assess that the valuation of some assets remains at a relatively high level, given the high level of uncertainty. Significant leverage has also been built up globally in recent years, increasing vulnerability to future shocks to the financial markets.⁹

⁹ See IMF, Enhancing resilience amid uncertainty, *Global Financial Stability Report*, April 2025 ([link](#)).

CHART 9

Wide fluctuations in US and European stock indices in 2025

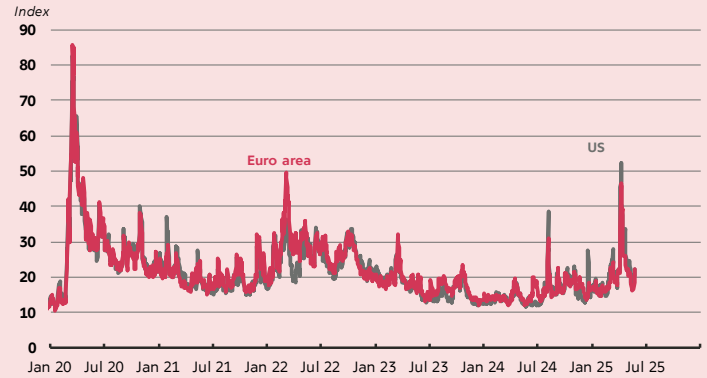


Note: Movements in stock indices in local currency for the US (S&P 500), euro area (EUROSTOXX 600) and Denmark (C25). Indexed to 1 January 2022. The VIX index measures expected price fluctuations in the Standard and Poor 500 US stock index. Latest observation is 23 May 2025.

Source: LSEG Workspace.

CHART 10

Stock index volatility reached the highest levels since the 2022 interest rate hikes and covid-19



Note: Movements in volatility indices for the US (VIX index) and the euro area (VSTOXX index). The indices measure expected price fluctuations in the Standard and Poor 500 and EUROSTOXX 600 stock indices for the US and euro area, respectively. Latest observation is 23 May 2025.

Source: Macrobond.

Market turmoil is also reflected in the crypto-asset market

The crypto-asset market, which is generally characterised by high volatility, has been particularly volatile since the US election in November 2024, see chart 11. The US administration has taken several actions to promote the use of crypto-assets in the US. The crypto-asset market peaked in December 2024 with a market capitalisation of more than USD 3,700 billion, the highest level ever recorded. However, the market size is still very limited compared to the total assets in the global financial system.¹⁰ Recently, geopolitical uncertainties have led to rapidly shifting risk appetite among global crypto investors, which has been reflected in significant price fluctuations on the crypto-asset market.

In Denmark, the adoption of crypto-assets among households and financial institutions remains relatively limited. In 2023, Danmarks Nationalbank estimated that nearly 4 per cent of Danish households owned one or more crypto-assets¹¹. Additionally, indirect exposures through holdings of crypto-linked securities appears limited. By the end of March 2025, the market capitalisation of securities linked to the crypto market held by Danish investors was below kr. 3 billion, see chart 12.¹² Consequently, Danmarks Nationalbank assesses that crypto-assets do not currently pose a risk to financial stability in Denmark. However, the positive policy stance on crypto asset activities in the US may increase the risk that the crypto market could eventually impact the Danish financial sector indirectly through the US financial system. Financial institutions in the US are expected to increasingly engage in and offer services with crypto-assets, thereby strengthening the interconnectedness between the crypto-asset market and the US financial sector. In such case, shocks to the crypto market could increasingly affect financial institutions in Denmark through the US financial sector.

¹⁰ See Financial Stability Board, *Global Monitoring Report on Non-Bank Financial Intermediation, 2024* ([link](#)).

¹¹ See also Christiansen and Søndergaard, *Crypto-assets: Risks, regulation and usage in Denmark, Danmarks Nationalbank Analysis, no. 16, November 2023* ([link](#)).

¹² Indirect exposures in crypto-assets cover securities that fully or partially follow the development of a crypto-asset or companies that provide services with crypto-assets. See also Christiansen and Søndergaard, *Crypto-assets: Risks, regulation and usage in Denmark, Danmarks Nationalbank Analysis, no. 16, November 2023* ([link](#)).

CHART 11

Wide fluctuations in the price of crypto-assets since the US presidential election in November 2024

Market price



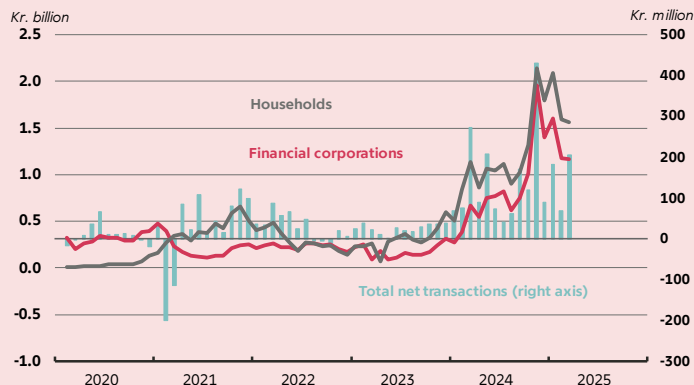
Note: Last observation is 25 May 2025.

Source: Macrobond.

CHART 12

Low but increasing exposure to crypto-assets among Danish households and financial companies

Market capitalisation and net transactions



Note: The lines indicate the market value of investments by Danish households and financial companies in registered securities linked to crypto-assets. *Financial companies* include credit institutions, investment funds, insurance companies and pension companies. The columns indicate the total net transactions for households and financial companies in the securities identified. Latest observation is from the end of March 2025.

Source: Danmarks Nationalbank.

03

Cyber: The cyberthreat is affected by geopolitical tensions and can threaten financial stability

Advanced cyberattacks against a financial company or payment system have the potential to threaten financial stability. This can happen if the critical functions of the financial sector are affected, for example, in the form of a widespread and prolonged breakdown in the payments infrastructure that affects the ability of the public and companies to make payments. Financial stability can also be threatened if a cyberattack weakens confidence in the financial sector. Over the years, companies in the financial sector have been working hard to increase cyberresilience on the individual and sector level. Crisis management planning is an important focus area in the sector's work to increase cyberresilience.

The geopolitical situation affects the threat landscape

The cyberthreat is high and is constantly changing in line with changes in the geopolitical situation, among other things. This is reflected in cyberthreat assessments by the Danish authority *Styrelsen for Samfundssikkerhed*, SAMSIK,¹³ where the cyberthreat from both cyberactivism and destructive cyberattacks has increased from low to high and medium, respectively, since 2022, see chart 13.

The cyberthreat is a fundamental condition for financial companies and requires continued work to strengthen cyberresilience

The biannual risk survey from the European Banking Authority, EBA, shows that since 2017, European banks have rated *cyber risk*¹⁴ and *data security* as the main sources of operational risk.¹⁵ The latest survey shows that since 2022, there has been an increase in the proportion of European banks that have experienced a cyberattack leading to an actual serious operational incident. In the first half of 2024, around a quarter of banks experienced one or more cyberattacks with operational consequences, which is at the same level as in the second half of 2023, see chart 14. The results of the survey emphasise that the cyberthreat is a fundamental condition and requires a continuous focus. It is therefore important that financial companies continue their targeted efforts to increase cyberresilience.

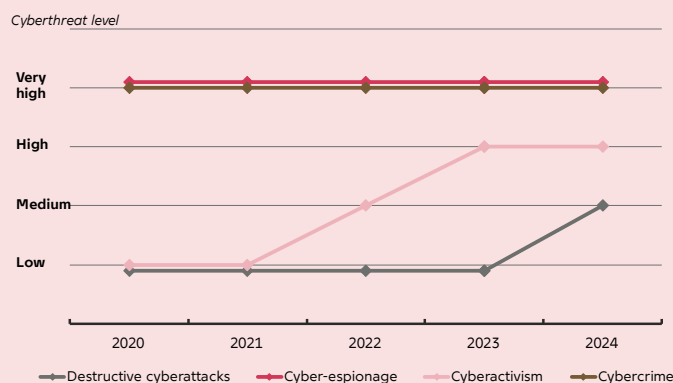
¹³ From the beginning of 2025 Centre for Cyber Security, CFCS, is a part of Styrelsen for Samfundssikkerhed, SAMSIK. See SAMSIK (Styrelsen for Samfundssikkerhed), *The Cyber Threat Against Denmark*, September 2024 ([link](#)). For more observations, see SAMSIK's threat assessment against Denmark. SAMSIK also conducts separate assessments of the cyberthreat against the financial sector.

¹⁴ Cyberthreats are also the primary source of concern among financial companies in the Danish Financial Supervisory Authority's survey, see *Finanstilsynet.dk, Finansielle virksomheders opfattelse af centrale risici* (In Danish only), March 2025 ([link](#)).

¹⁵ See the EBA's biannual risk surveys on the EBA website ([link](#)).

CHART 13

Cyberthreat levels have changed since 2020



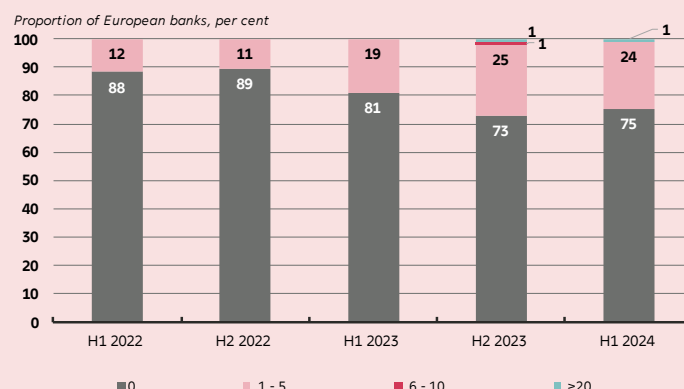
Note: SAMSIK monitors the cyberthreat and divides it into categories according to the type of threat, including destructive cyberattacks, cyber-espionage, cyberactivism and cybercrime. The different threat types are rated on a scale from none to very high. The observations are based on the release date of the assessments.

Source: SAMSIK's assessments of the cyberthreat in Denmark ([link](#)).

CHART 14

Multiple cyberattacks lead to an actual serious operational incident

Percentage of European banks that have experienced a certain number of actual serious operational incidents



Note: The numbers indicate whether the banks participating in the survey have experienced 0, 1-5, 6-10 or more than 20 cyberattacks leading to an actual serious operational incident. Data is based on a survey from the EBA. From the first half of 2021 to the first half of 2024, the population covers 85 European banks. In the first half of 2022, the population covers 60 European banks. Three Danish groups are included in the population. A major ICT-related incident is an incident that has a major negative impact on networks and information systems that support critical or important functions of the financial company.

Source: EBA semi-annual risk survey from the second half of 2024.

Each financial company is responsible for its own cyberresilience. However, in the financial sector, there is a high degree of interconnectedness, which means that an incident in one place can lead to consequences elsewhere in the sector. That's why it is important that financial companies work to increase their own cyberresilience and collaborate across the sector to increase overall resilience. In addition to the public-private collaboration Financial Sector Forum for Operational Resilience, FSOR,¹⁶ run by Danmarks Nationalbank, the authorities also facilitate a number of initiatives that strengthen cyberresilience at an individual and sector level. An example of a measure that strengthens resilience at the individual company level is threat-based testing under the TIBER-DK programme, while an example of a measure that strengthens resilience at the sector level is the ongoing collaboration between Danmarks Nationalbank and the Danish Financial Supervisory Authority to conduct a stress test of operational resilience.¹⁷

Preparedness is a key focus area in the financial sector

Contingency management, planning and coordination are key to operational resilience. In 2016, FSOR established a sector-level crisis response organisation to ensure communication and coordination across the sector in the event of a large-scale operational incident to supplement the contingency management of individual players. The geopolitical situation has highlighted the need for further

¹⁶ FSOR, Operational resilience collaboration, is a voluntary but binding public-private collaboration between key players in the sector. See nationalbanken.dk for more information about FSOR ([link](#)).

¹⁷ For more examples of measures and actions taken by the authorities, see Danmarks Nationalbank, Geopolitical uncertainty impacts the risk outlook for the financial sector, *Danmarks Nationalbank Analysis (Financial stability)*, no. 18, November 2024 ([link](#)).

crisis management planning in society. The financial sector is working on measures to strengthen the ability of individual companies to continue business even in extreme but plausible scenarios, such as a large-scale, destructive cyberattack. Crisis management planning is also a focus area in Danmarks Nationalbank's oversight of the central payment systems and solutions¹⁸ and in the work with joint initiatives across the financial sector to secure the most critical activities.

One example of a joint initiative is the Danish Payments Council's work to establish a society-wide contingency plan for card payments in Denmark. Digital payment solutions – especially payment cards – are essential for citizens to buy basic necessities like food and medicine. 82 per cent of Danes over the age of 18 already have at least one payment card that can make offline payments if the Internet or payments infrastructure is down. The card payment contingency programme will ensure that all adults with a Dankort, Visa or Mastercard payment card can pay offline in nationwide grocery chains and pharmacies with physical cards and mobile wallets such as Apple Pay and Google Pay.¹⁹

Cross-sector and cross-border collaboration is essential to increase operational resilience

The operational resilience of the financial sector also depends on other critical sectors, such as the power and telecoms sectors. This cross-sector interconnectedness was evident when Spain and Portugal suffered a widespread power outage in April 2025, affecting critical societal functions. According to Spanish media, one of the things the outage affected was the ability of the public to make electronic payments and withdraw cash from ATMs.²⁰ The incident in April emphasises the importance of close cooperation between the financial, power and telecom sectors.

The financial sector is also closely connected across the Nordic-Baltic countries. The NFCERT collaboration was established in 2017²¹, in which companies in the Nordic financial sector share knowledge about incidents and threat assessments. At government level, there is also a focus on collaboration on operational resilience across borders. In 2025, Danmarks Nationalbank and the other Nordic-Baltic financial authorities set up a working group under the Nordic Baltic Stability Group²² focusing on increasing knowledge sharing on operational resilience and coordination of crisis response for cross-border incidents.

¹⁸ Danmarks Nationalbank monitors that the central systems and solutions in the Danish payments infrastructure are well-functioning, secure and efficient. As part of this task, the bank assesses whether the monitored systems and solutions comply with the high requirements of international standards for security and efficiency, including requirements for cyberresilience, see Danmarks Nationalbank, Oversight of the financial infrastructure 2024, *Danmarks Nationalbank Report*, no. 3, May 2025 ([link](#)).

¹⁹ The Danish Payments Council is a collaborative forum on retail payments set up by Danmarks Nationalbank, which brings together authorities, interest organisations and businesses to promote efficient and secure payments in Denmark, see nationalbanken.dk ([link](#)).

²⁰ For more on media reporting on the widespread blackout, see politico.eu, April 2025 ([link](#)).

²¹ NFCERT is a non-profit organisation governed and funded by members in the Nordic financial sector, see nfcert.org ([link](#)).

²² The Nordic Baltic Stability Group, NBSG, is a formalised collaboration between Nordic and Baltic authorities on financial stability and crisis management. See nationalbanken.dk, *Memorandum of Understanding on Cooperation and Coordination on cross-border financial stability between relevant Ministries, Central Banks, Financial Supervisory Authorities and Resolution Authorities of Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, Norway and Sweden*, January 2018 ([link](#)).

04

Firm credit: Risk of losses on export-sensitive industries

As a small, open economy, Denmark is vulnerable to global economic trends, and Danish companies will inevitably be affected by a global economic slowdown. However, Danish companies have a reasonable starting point, and the direct credit risk on credit institutions' lending to export-sensitive industries is considered to be limited. Structural factors in the commercial real estate market continue to pose a risk.

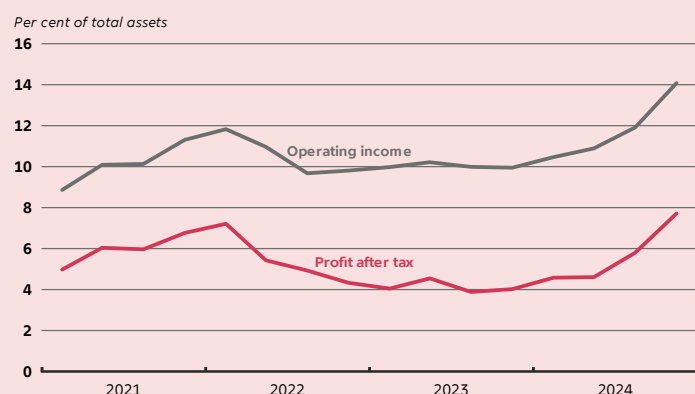
Danish companies are in a good position despite uncertain times

Although the high inflation and the interest rate increases in 2022 and 2023 led to both weaker demand and higher costs for many companies, most were able to manage. There is still no significant increase in the share of non-performing loans across industries, and the number of bankruptcies is also relatively limited. Companies' earnings have increased throughout 2024, and by the fourth quarter of 2024, earnings were around the same level as before the inflation crisis and interest rate rises, see chart 15.

CHART 15

Quarterly company data points to increasing earnings through 2024

Development in companies' earnings



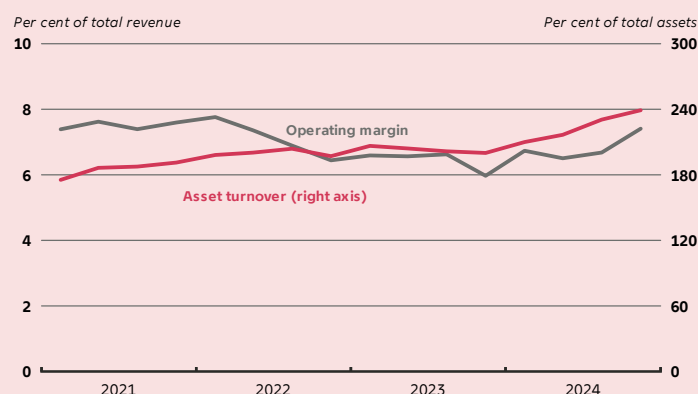
Note: Four-quarter moving average for the median value of companies' earnings. Both series are calculated as a percentage of total assets. Operating income is defined as EBITDA. Based on quarterly bookkeeping data for a small group of Danish companies. The companies are weighted by size so that they are representative of the total population of Danish non-financial companies.

Source: Crediwire.

CHART 16

Growth in earnings is due to higher revenue and improved operating margins

Development in companies' asset turnover and operating margin



Note: Four-quarter moving average for the median value of companies' asset turnover and operating margin. Operating margin is defined as EBITDA over revenue. Asset turnover is defined as revenue over total assets. Based on quarterly bookkeeping data for a small group of Danish companies. Companies are weighted by size so that they are representative of the total population of Danish non-financial companies.

Source: Crediwire.

The increase in companies' earnings is driven by both increasing revenue and higher productivity, see chart 16. Higher productivity is reflected in an increasing operating margin, which expresses the proportion of revenue that companies

are able to convert into profit. This is primarily due to a decrease in material costs and other expenses relative to revenue. In contrast, personnel costs are exerting upward pressure, as they now account for a larger share of revenue than before, in line with the wage developments of recent years.

Credit institutions have significant exposures to export-sensitive industries

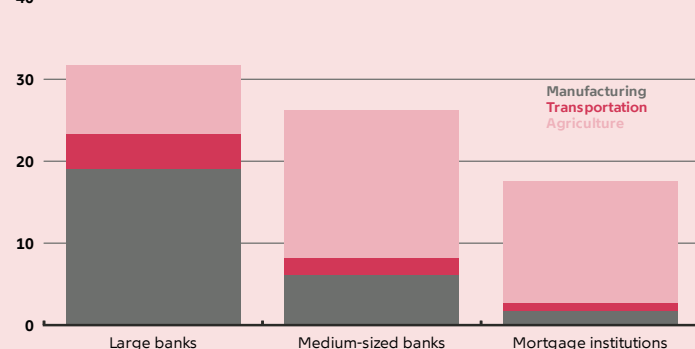
It is particularly companies within agriculture, manufacturing, and transportation that are directly dependent on export and will initially be affected by trade conflicts and the resulting economic slowdown.²³ Of these three industries, it is mainly manufacturing and agricultural companies that also have significant loans from Danish credit institutions. In the first quarter of 2025, manufacturing companies accounted for approximately 18 per cent of large banks' corporate lending, see chart 17. For medium-sized banks and mortgage credit institutions, agricultural companies are more dominant. For medium-sized banks, agricultural companies account for approximately 18 per cent of business lending, while for mortgage credit institutions it is just under 15 per cent, see chart 17.

CHART 17

It is especially the large banks that are exposed to manufacturing companies

Loan share by industry

Share of total corporate lending, per cent



Note: Loans to the manufacturing, transportation and agricultural sectors as a share of total loans to non-financial companies and self-employed, calculated in the first quarter of 2025. *Manufacturing* includes mining and quarrying..

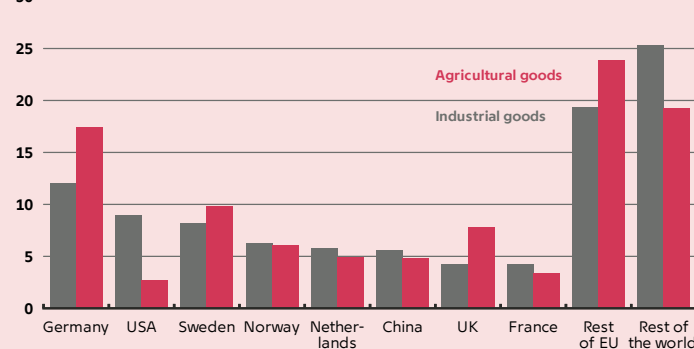
Source: Danmarks Nationalbank.

CHART 18

The US is an important market for industrial exports

Exports of industrial and agricultural goods by destination country

Per cent



Note: Exports of goods crossing the Danish border in 2024, by destination country. *Industrial goods* include the product groups *chemicals and related products*, *manufactured goods classified chiefly by Material*, *machinery, excl. transport equipment*, *miscellaneous manufactured articles*. *Agricultural goods* include the product group *live animals*, *food*, *beverages and tobacco*..

Source: Statistics Denmark.

The exposures to manufacturing and agricultural companies are considered significant enough to pose a substantial risk of losses for Danish credit institutions in the event of a major shock to the Danish export markets. It is primarily the manufacturing exposures that are vulnerable to a further escalation of the ongoing trade conflicts. This should be seen in light of the fact that a significant proportion of Danish industrial exports go to the US either directly or

²³ One way to measure the export sensitivity of a given industry is to calculate the proportion of final use of the industry's production that is exported, cf. Statistics Denmark's input-output tables. For the manufacturing, transportation, and agricultural sectors, more than 75 per cent of the final use is exported.

indirectly,²⁴ see chart 18. Danish agricultural companies are less dependent on the US market and export more to the European market, see chart 18. Agricultural exposures are therefore not as directly vulnerable to increased tariffs, for example, but will be affected to the extent that trade conflicts lead to a general global economic slowdown.

The direct credit risk related to export developments is estimated to be limited, but there is a risk of secondary effects from a global slowdown

A number of factors are expected to help mitigate the impact of higher US tariffs on the Danish economy. Firstly, the European market is the primary recipient of Danish exports, although the US is also an important export market for Danish companies, see chart 18. Secondly, a significant proportion of Danish exports to the US consists of goods produced in the US, which are therefore not necessarily affected by the higher tariffs. Both factors help support exports, even in the event of an escalating trade conflict.

For Danish manufacturing companies, there is generally a correlation between company size and resilience. This means that the companies with the largest loan portfolios are usually the most solid in terms of credit quality and equity ratio. This also helps to limit the risk of major losses on the institutions' manufacturing exposures. Overall, the direct credit risks related to export developments are therefore considered to be limited, although not insignificant.

However, a number of risk scenarios could lead to a different assessment. For instance, the situation for Danish export companies could quickly deteriorate and lead to losses for Danish credit institutions if the US tariffs lead to a significant demand shock and hit Denmark's trading partners in the EU. A major shock to Danish exports and a general global slowdown will not only have a direct effect on export-affected companies. It will also affect subcontractors, employees and ultimately the Danish economy as a whole. Increasing uncertainty in itself would also contribute to limiting investment activity, which will eventually lead to a decline in economic activity. In connection with the financial crisis, industrial exports also fell significantly, but this did not result in substantial losses on credit institutions' manufacturing exposures. It was the economic downturn in the construction and property industry that caused the credit institutions to incur losses. This emphasises that it's not necessarily the sectors that are hit first that are hit hardest. It is therefore important to also assess the effect of, for example, higher tariffs from a macro perspective, and we refer to the stress test in chapter 7 for more on this.

Signs of increasing trade activity in commercial real estate, but increased uncertainty may dampen future activity

Interest rate rises in 2022 and 2023 led to a significant slowdown in commercial real estate activity. Since mid-2024, interest rates have fallen and transaction volume in 2024 shows a level similar to activity in 2023, see chart 19. At the end of 2024, several major trades were completed. The transaction volume during the first four months of 2025 has also increased compared to the same period in 2023 and 2024, and the number of trades was also higher. Market participants also report increasing investment appetite, especially from foreign investors. However, the increased risk of an economic recession leads to increased uncertainty that may limit future trade activity.

Vacancy rates have increased in several segments of the commercial real estate market, see chart 20. Since the end of 2022, the vacancy rate for office and

²⁴ A significant portion of Danish industrial exports to countries other than the US are used as input in the production of goods that are ultimately exported to the US and can therefore be affected by higher US tariffs. An example of this is exports by Danish industrial companies to the German automotive industry. For an analysis of the importance of global value chains for Danish exports, see Nellemann and Nissen, Global value chains, *Danmarks Nationalbank Quarterly Review*, Q1 2016 ([link](#)).

industrial properties increased by approximately 1.5 percentage points, while the vacancy rate for retail space increased by 0.6 percentage points. The increased vacancy rate may reduce real estate companies' earnings due to less rental income. However, vacancies remain low compared to pre-pandemic levels.

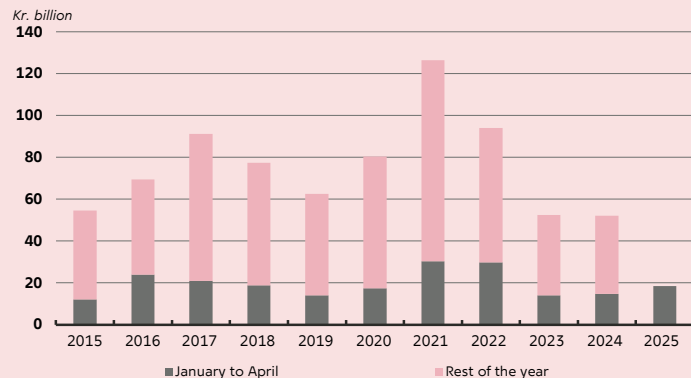
If the trade conflict leads to an economic downturn, there is a risk that it will lead to more vacant properties, increasing the risk of losses on credit institutions' lending to the affected commercial real estate companies. Despite the increasing vacancy rate, credit institutions' impairment charges for real estate companies have remained roughly unchanged over the past year. The in interest rate cuts also eases pressure on real estate companies' interest expenses after the sharp interest rate rises in 2022 and 2023.

For residential rental properties, on the other hand, vacancies have decreased over the past two years. This should be seen in light of developments in the owner-occupied housing market, where interest rate increases meant that the cost of owning a home in major cities exceeded the cost of renting.²⁵ In addition, the higher population growth relative to new construction, especially in Copenhagen, is helping to support the demand for rental housing in the major cities, see chapter 4, *Household credit*.

CHART 19

Limited trading activity, but signs of increased activity

Transaction volume for commercial real estate in Denmark

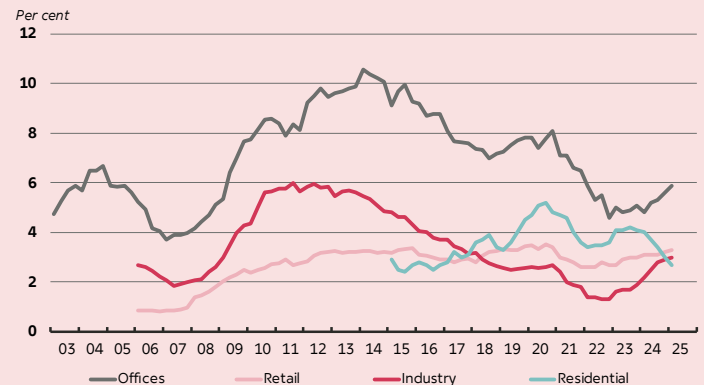


Note: Transaction volume for commercial real estate in Denmark.
Source: ReData and Erhvervsmæglerens Branchedata.

CHART 20

Rising vacancy rates for office, industrial and retail properties and decreasing vacancy rates for residential properties

Vacant floor area in per cent of estimated building stock



Note: Vacancy rates for office, retail and industry are from Ejendomstorvet.
Vacancy for residential is from EjendomDanmark.
Source: Ejendomstorvet and EjendomDanmark.

Structural factors make real estate companies sensitive to interest rate changes and economic fluctuations

Credit institutions' lending to real estate companies is significant and amounts to 40 per cent of credit institutions' total lending to non-financial companies. There are significant differences in exposure across the institutions. The overall growth in credit institutions' lending to real estate companies has been relatively moderate over the past year at around 6 per cent.

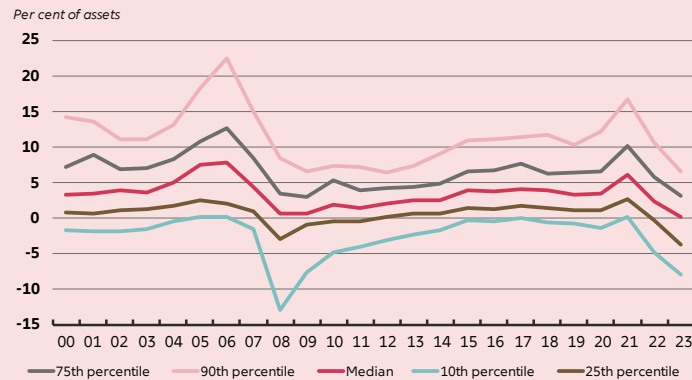
²⁵ See Finance Denmark, *I flere og flere kommuner er det blevet dyrere at eje end at leje en bolig* (in Danish only), February 2024 ([link](#)).

The business model of real estate companies makes them sensitive to changes in interest rates and economic fluctuations. Their earnings, measured as profit after tax as a percentage of assets, declined in 2022 and 2023, see chart 21, due to the sharp rise in interest rates that increased interest expenses and pushed down property values. Danmarks Nationalbank has calculated an indicator for property values of commercial real estate that indicates that the value of primary office and residential rental properties in Copenhagen has decreased by approximately 20 per cent since the peak in early 2022.²⁶ Changes in property values are reflected in the income statement of real estate companies and therefore impact their annual results. The results for 2023 were thus lower than the previous ten years. The equity ratio of real estate companies decreased slightly from 2022 to 2023, see chart 22. The vast majority of real estate companies' assets are properties, so changes in property values have significant effects on the equity ratio. The distribution of equity ratios across real estate companies is on par with the distribution in 2020, and the distribution is also comparable to the period leading up to the financial crisis. However, the weakest capitalised companies in 2023 are slightly better capitalised compared to 2006 and 2007.

CHART 21

Real estate companies' earnings fell significantly in 2022 and 2023...

Return on assets for real estate companies

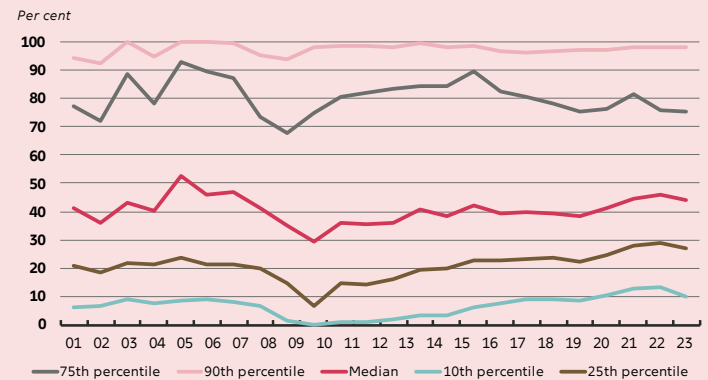


Note: Distribution of return on assets, weighted by balance sheet size. *Return on assets* is calculated as profit after tax over total assets.
Source: Experian, Bisnode and own calculations.

CHART 22

... and the equity ratio fell slightly in 2023

Equity ratios for real estate companies



Note: Distribution of equity ratios, weighted by balance sheet size. *Equity ratio* is calculated as total equity over total assets.
Source: Experian, Bisnode and own calculations.

²⁶ The indicator for property values is stated as net rental income over the required rate of return, see Mikkelsen and Vestergaard, Commercial real estate in Denmark, *Danmarks Nationalbank Economic Memo*, no. 10, November 2024 ([link](#)). The indicator for property values is based on aggregate data series from Colliers on aggregate statistics of yields and rents for prime Copenhagen properties. The rental levels are not adjusted by operational costs etc. The value of commercial real estate will rise when investors' expectations of future net rent levels increase and their required rate of return falls and vice versa.

05

Credit for households: Homebuyers continue to allocate a large share of their income to servicing debt

Since 2022, mortgage lending has accounted for a smaller share of household disposable income, which can be attributed to factors such as loan refinancing and rising incomes. However, a large share of home buyers' income is spent on servicing housing debt, especially in major cities where house prices have grown particularly fast. All else being equal, this leaves less room in their budgets to absorb unexpected expenses. Should a financial incentive arise to refinance at lower funding costs due to a decline in interest rates, more homeowners would, in isolation, be able to strengthen their financial resilience.

Homeowner resilience is supported by a lower debt-to-income ratio

Growth in total bank and mortgage lending to Danish homeowners remains moderate, with lending 2.0 per cent higher in April 2025 compared to the same month the previous year, see chart 23. Credit growth has been supported by declining lending rates throughout 2024. By the end of the year, the average interest rate on new housing loans was 1.2 percentage points lower than a year earlier.²⁷ At the same time, housing market activity increased, particularly in the second half of 2024.

Despite increasing mortgage lending, lending continues to represent a declining share of household disposable income, see chart 23. This reflects both that household incomes have grown faster than debt in recent years and that many homeowners have reduced their housing debt by refinancing fixed-rate mortgages.²⁸ In an international context, however, Danish households remain among the most indebted in relation to their disposable income.²⁹ The high debt level of Danish households is offset by a large asset base in the form of real estate, pension savings and bank deposits.

The decline in homeowners' debt-to-income ratio is evident across all age groups, but is particularly pronounced among the youngest homeowners. If mortgage rates continue to fall, the cost of servicing new housing debt will decrease, which, all else being equal, will contribute to lower debt-service-to-income ratios. Conversely, lower interest rates may increase the incentive for home buyers to take on more debt relative to their income. It is therefore important that credit institutions do not become too optimistic in their credit assessments for home buyers.

²⁷ See Danmarks Nationalbank, The Danes' housing debt grew in 2024, *Danmarks Nationalbank Statistical news*, January 2025 ([link](#)).

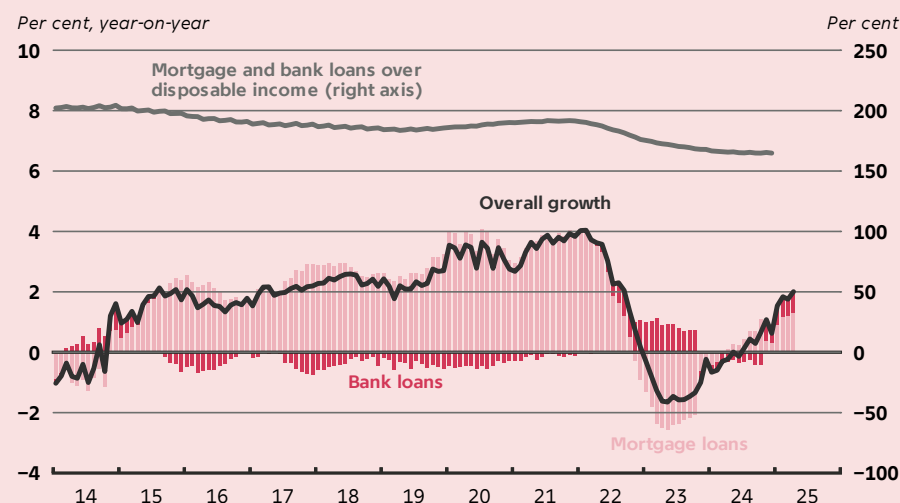
²⁸ 40 per cent of homeowners who converted their mortgages in the first three quarters of 2022 switched to adjustable-rate mortgages, while the remainder took out new fixed-rate mortgages, see Andersen, Grenestam, Læssøe, Otte and Steffensen, Refinancing behaviour by homeowners in Denmark when mortgage rates rise, *Danmarks Nationalbank Economic Memo*, no. 2, February 2023 ([link](#)).

²⁹ See chart 21 in Danmarks Nationalbank, Geopolitical uncertainty impacts the risk outlook for the financial sector, *Danmarks Nationalbank Analysis (Financial stability)*, no. 18, November 2024 ([link](#)).

CHART 23

Housing loans continue to account for a smaller share of household disposable income

Housing loans as a share of household disposable income and growth in total housing loans



Note: Total bank and mortgage lending is to households (including self-employed). Bank lending is for housing purposes. Nominal values are used for bank and mortgage lending, so lower prices on mortgage bonds due higher interest rates only affect growth contributions to the extent that the loans are repaid. The disposable income for households and NPISH is given in nominal terms. The latest observation for disposable income is December 2024.

Source: Own calculations based on Danmarks Nationalbank and Statistics Denmark.

House prices are at a high level and are rising particularly fast in Copenhagen

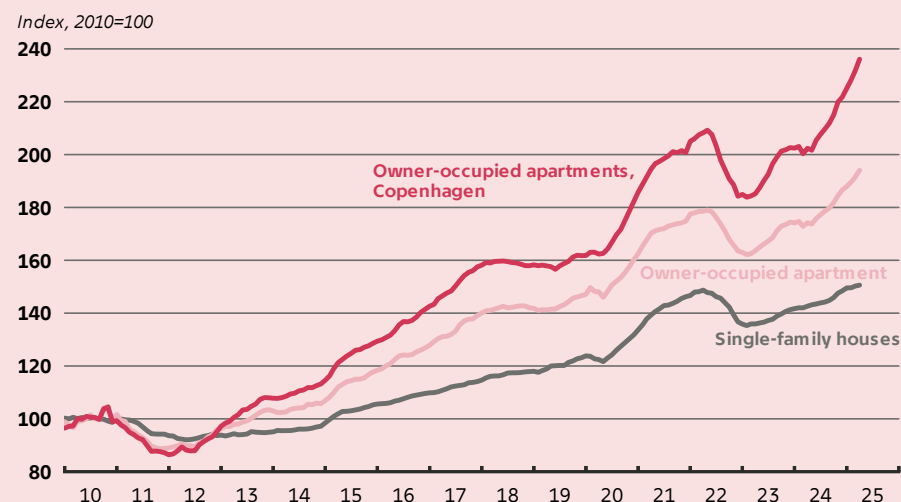
House price growth has been strong in 2025 for both single-family houses and owner-occupied apartments, see chart 24. Price increases have been especially pronounced for owner-occupied apartments in Copenhagen, which are now 17 per cent more expensive than in the same month last year. So far, recent house price developments have not had a noticeable impact on overall household indebtedness, see chart 23. However, past experience shows that sharp increases in house prices can lead to credit growth with a certain time lag.³⁰

³⁰ See De Stefani and Hviid, Housing Collateral and Home-Equity Extraction, *Danmarks Nationalbank Working Paper*, no. 135, February 2018 ([link](#)).

CHART 24

House prices are at a high and are rising particularly fast in Copenhagen

Indexed rise in house prices



Note: *Copenhagen* refers to the City of Copenhagen, i.e. the municipalities of Copenhagen, Dragør, Frederiksberg, and Tårnby. In this area, the indexed price development for single-family houses closely mirrors that of owner-occupied apartments. The data are seasonally adjusted and calculated as a three-month moving average. The latest observation is April 2025.

Source: Own calculations based on Boligsiden

Homebuyers continue to allocate a large share of their income to servicing debt, with levels particularly high in Copenhagen

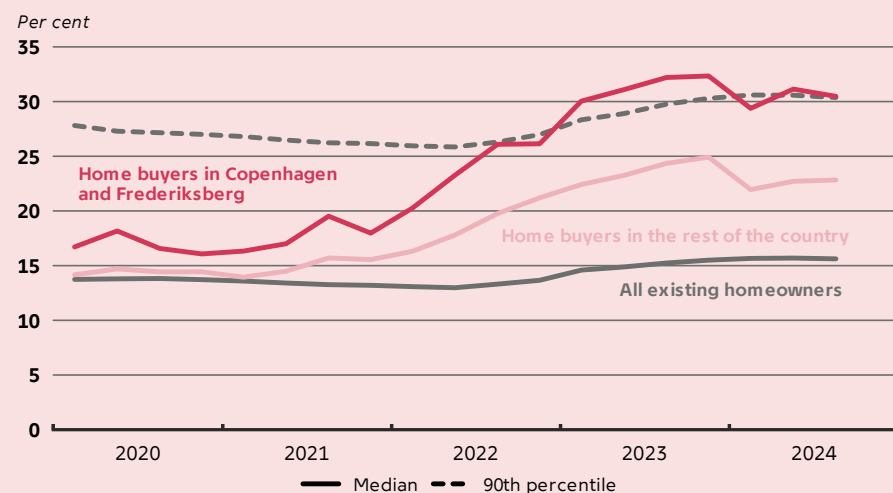
The debt-service-to-income level has stabilised following a couple of years during which homebuyers allocated an increasing share of their after-tax income to servicing debt, see chart 26. However, in the third quarter of 2024, homebuyers in Copenhagen and Frederiksberg spent nearly twice as much of their income on servicing debt as in 2020 – corresponding to the debt-service-to-income ratio for existing homeowners in the upper end of the distribution, see the dashed grey line in the chart. The increase in debt-service-to-income ratios has been less significant for homebuyers in the rest of the country. This development primarily reflects the sharp rise in house prices in Copenhagen since 2023, see chart 24, which can be attributed to falling interest rates and continued population growth, which is not fully matched by new housing supply, see chart 27. Higher debt-service-to-income ratios, all else being equal, reduce disposable income and leave less room in household budgets to absorb unexpected expenses. The outlook for the Danish economy is subject to considerable risks. Should higher tariffs and reduced global trade result in a slowdown in growth and an increase in price pressure, this would, all else being equal place additional pressure on household finances.³¹

³¹ See Danmarks Nationalbank, The outlook is for lower wage increases and stable inflation despite uncertain times, *Danmarks Nationalbank Analysis (Outlook for the Danish economy)*, no. 9, March 2025 ([link](#)).

CHART 25

Homebuyers continue to spend a large share of their income on servicing debt

Debt-service-to-income ratio for homebuyers and existing homeowners



Note: The debt-service-to-income, DSTI, ratio is defined as the total debt service payments relative to after-tax income. The dashed grey line indicates the 90th percentile for existing homeowners. Existing homeowners indicate all existing homeowners nationwide. DSTI ratios are calculated based on income estimates derived from Statistics Denmark's quarterly registers for wage and transfer incomes, including disbursements from private pensions.

Source: Own calculations based on the Credit Register and Statistics Denmark.

House prices have risen most in the capital municipalities, where housing construction has not kept pace with population growth

Since 2013, house prices have increased more rapidly than the average income of homeowners in major cities, partly due to the low interest rate environment up until 2022, see chart 26. However, current house prices relative to disposable incomes remain somewhat below the levels observed in the years leading up to the financial crisis. In the rest of the country, house prices and incomes have remained broadly aligned since the financial crisis.

All else being equal, a surge in house prices increase the potential for additional household leverage. If many homeowners take advantage of this opportunity - as was the case in the years preceding the financial crisis³² - both credit growth and homeowner indebtedness will increase. This has not been seen in the last 11 years, see chart 23, despite a general upward trend in house prices. The tendency for house prices to grow faster than incomes is expected to moderate in 2025.³³

House prices developments are determined by a range of factors, including interest rate movements and real wages growth. In addition, housing supply

³² See Ministry of Industry, Business and Financial Affairs, The financial crisis in Denmark – causes, consequences and lessons, section 6.1.4, 2013 (in Danish only) ([link](#)).

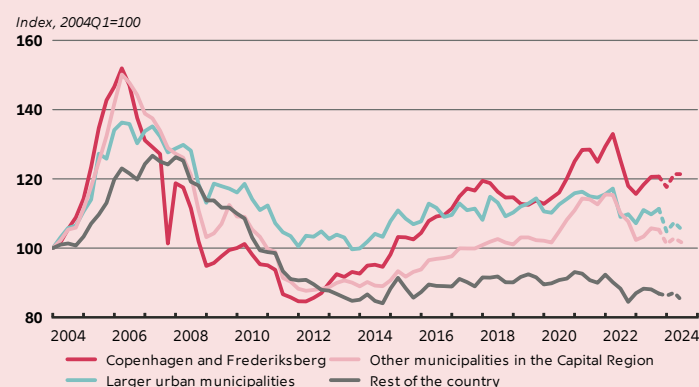
³³ For the whole of 2025, house prices are expected to increase by 3.5 per cent year-on-year, which is in line with the expected hourly wage growth of 3.6 per cent year-on-year, see Danmarks Nationalbank, The outlook is for lower wage increases and stable inflation despite uncertain times, *Danmarks Nationalbank analysis (Outlook for the Danish economy)*, no. 9, March 2025 ([link](#)).

plays a key role in shaping long-term price trends.³⁴ Especially in the capital municipalities, housing construction has not kept pace with population growth since 2009, see chart 27. However, this imbalance has been more contained over the past two years. In the rest of the country, housing construction and population growth have been more closely aligned over the past 15 years. When population growth outpaces housing construction, the upward pressure on house prices – and consequently on household indebtedness – tends to increase. Conversely, an oversupply of owner-occupied housing may exert downward pressure on house prices.

CHART 26

House prices have increased faster than incomes in the largest cities

Indexed development in sales prices relative to the average disposable income of homeowners



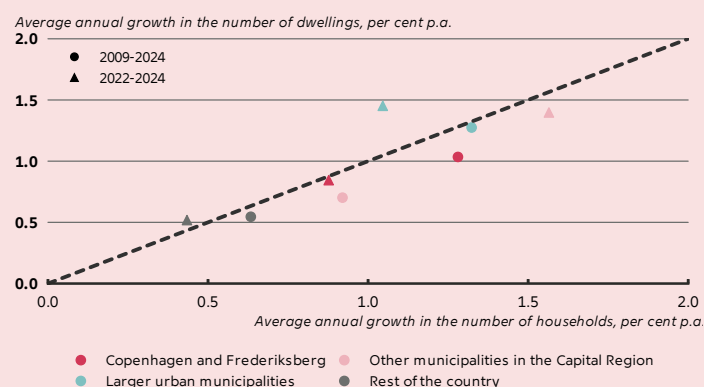
Note: *Large urban municipalities* refers to Odense, Aarhus and Aalborg Municipality, while *Copenhagen and Frederiksberg* refers to Copenhagen and Frederiksberg Municipality. Sales prices for owner-occupied apartments, detached and terraced houses are included and weighted according to the number of transactions in the municipality group. Note that there may be a difference between the average income of all homeowners and the income of actual homebuyers. The dashed lines indicate a projection of average 2023 incomes with hourly wage growth for 2024 of 5.4 per cent, see Danmarks Nationalbank, The outlook is for lower wage increases and stable inflation despite uncertain times, *Danmarks Nationalbank Analysis (Outlook for the Danish economy)*, no. 9, March 2025 ([link](#)). Latest observation is third quarter of 2024.

Source: Own calculations based on Statistics Denmark and Finance Denmark.

CHART 27

Population growth exceeds housing stock growth in the capital municipalities

Average annual growth in housing stock relative to population growth by municipality group



Note: *The number of dwellings* (y-axis) covers owner-occupied, co-operative and rental homes. *A household* (x-axis) can consist of one or more individuals with the same address. When the growth in the number of households is below (above) the dotted line, the number of dwellings is growing less (more) than the number of households. See note to Chart 26 for definition of the municipality groups.

Source: Own calculations based on Statistics Denmark.

The financial resilience of homeowners could be strengthened if more people respond to a potential financial gain from refinancing

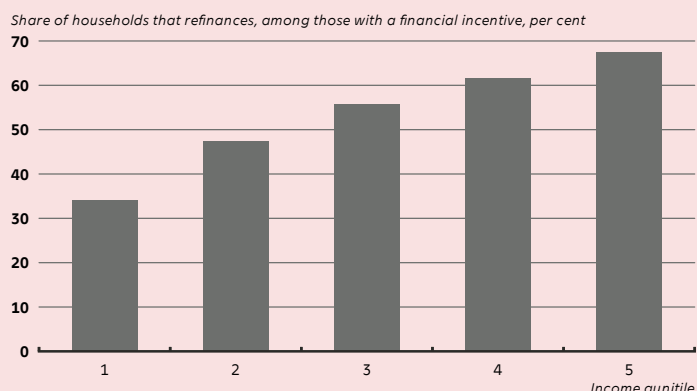
When interest rates fall, homeowners with fixed-rate mortgages can refinance to a fixed-rate loan with a lower interest rate and thus reduce their debt servicing ratio. However, individual circumstances affect when refinancing is optimal for the borrower. The incentive to refinance reflects among other things that the

³⁴ House prices are fundamentally determined by supply and demand, of which supply is fixed in the short term because it takes time to plan and build new homes. Therefore, in the short term, house prices are mainly determined by demand. Factors that influence household demand for housing can be divided into cyclical and structural factors. Cyclical factors include interest rates, inflation and income, while structural factors include changes in demographics, regulation and taxes, see Abildgren et al., Big shocks to the economy have fuelled house prices, *Danmarks Nationalbank Analysis*, no. 14, September 2024 ([link](#)).

financial gain in the form of lower interest payments exceeds the costs associated with restructuring the loan.³⁵

CHART 28

Only one in three homeowners respond to a financial incentive to refinance in the lowest income bracket...

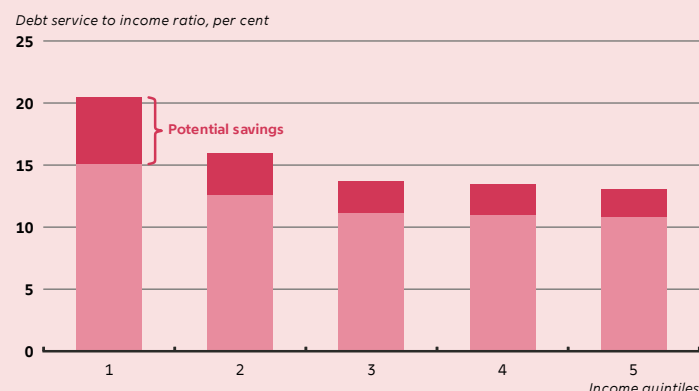


Note: The chart shows observed conversion rates in 2019-20, broken down by income quintile. For a more detailed description, see Nissen, Grenestam and Andersen, Refinancing fixed-rate mortgages and homeowners' financial resilience, *Danmarks Nationalbank Economic Memo*, no. 2, May 2025.

Source: Danmarks Nationalbank.

CHART 29

... and among those who did not refinance, homeowners in the lowest income bracket could have reduced their debt servicing ratio the most



Note: The chart shows actual and counterfactual debt-service-to-income (DSTI) for homeowners who had an incentive to refinance during 2019 but did not refinance in 2019-20 despite financial incentives. For a more detailed description, see Nissen, Grenestam and Andersen, Refinancing fixed-rate mortgages and homeowners' financial resilience, *Danmarks Nationalbank Economic Memo*, no. 2, May 2025.

Source: Danmarks Nationalbank.

As interest rates fell in 2019, it led to a high level of refinancing activity. Calculations suggest that only around half of the homeowners with refinancing incentives actually refinanced. Beyond financial incentives, data shows a correlation between income and propensity to refinance. Homeowners in the lowest fifth of the income distribution were over 30 percentage points less likely to refinance than homeowners in the highest fifth, see chart 28. Calculations also show that homeowners with the lowest incomes could have reduced their debt servicing ratio the most by refinancing. In isolation, this could have helped to strengthen their financial resilience and reduce the credit institutions' risk of losses, for example in the event of unemployment. Homeowners in the lowest fifth of the income distribution could have reduced their debt servicing ratio by 5.2 percentage points, see chart 29. On average, this means that these homeowners could have reduced their annual interest costs (before tax) by kr. 12,600 if they had refinanced.

³⁵ The calculation also takes into account other key factors such as the likelihood of the homeowner vacating the property in the near future and the value of waiting for interest rates to fall further. For a more detailed description, see Nissen, Grenestam and Andersen, Refinancing fixed-rate mortgages and homeowners' financial resilience, *Danmarks Nationalbank Economic Memo*, no. 2, May 2025 ([link](#)).

06

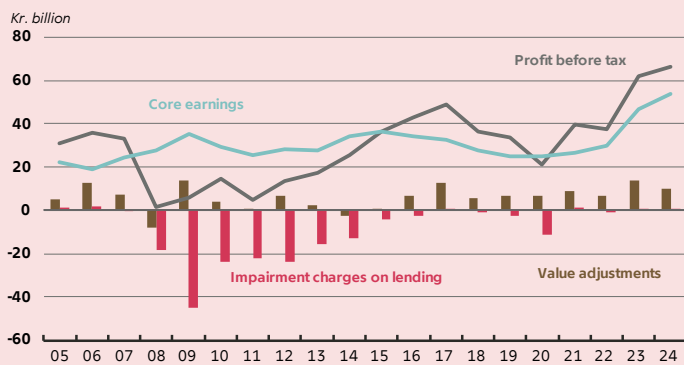
Earnings: Lower interest rates reduce the net interest income of institutions

Systemic credit institutions' profit increased in 2024 to a profit before tax of kr. 66 billion, which corresponds to an annual return on equity of approximately 12 per cent after tax. Profit growth is mainly driven by increased core earnings and is also supported by continued low loan impairment charges and positive value adjustments, see chart 30.

The increase in core earnings was primarily driven by an increase in both net interest income and net fee income. The higher interest rates since mid-2022 have boosted net interest income, especially in 2023 and 2024. But net interest income earned by the institutions has remained approximately unchanged through 2024, see chart 31. The increase in net fee income was mainly driven by higher investment activity and higher income from asset management.

CHART 30

Results continue to be supported by increased core earnings, positive value adjustments and low impairment charges



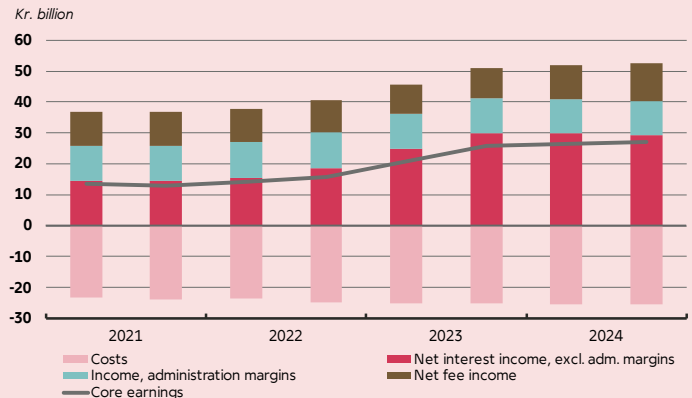
Note: Annual data for systemic credit institutions. Profit before tax is adjusted for impairment charges on goodwill and the fine relating to Danske Bank's Estonia case. Core earnings are net interest and fee income less costs for personnel and administration and other operating expenses. Value adjustments are net value adjustments on, e.g. securities, issued bonds and loans at fair value.

Source: Danmarks Nationalbank.

CHART 31

Net interest income has levelled out in 2024

Contribution of the components of core profit for systemic credit institutions



Note: Half-yearly data for systemic credit institutions. Costs cover personnel and administrative costs, as well as other operating expenses. Operating expenses are adjusted for the fine related to the Danske Bank Estonia case.

Source: Danmarks Nationalbank.

Net interest income is expected to have peaked

Monetary policy rates have been continuously reduced since mid-2024, and markets expect them to fall further in 2025, see chapter 2, *Financial markets*. The

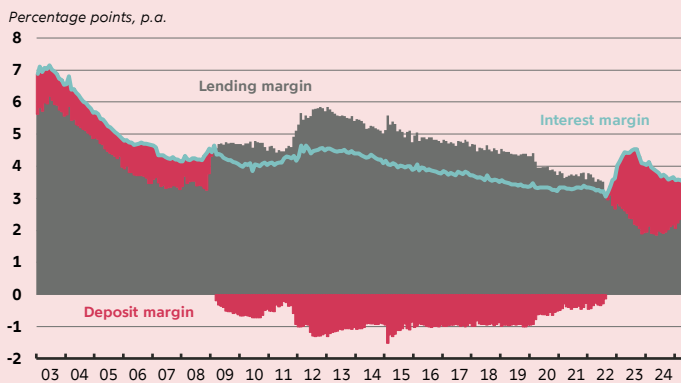
lower interest rates are expected to reduce net interest income for the institutions over the coming years. However, net interest income is expected to be at a higher level than during the low-interest-rate environment. Net interest income contributes to the institutions' core earnings, which is the first line of defence against losses and supports the sector's resilience. However, there is a risk of higher impairment charges due to trade conflict, which, in combination with lower net interest income, will result in lower profits.

In recent years, a strengthened deposit margin has been a key driver behind banks' higher net interest income. The deposit margin is the difference between money market interest rates and bank deposit rates. Since mid-2022, the deposit margin has increased significantly, see chart 32 and chart 33. As money market interest rates rose sharply in 2022 and 2023, bank deposit rates only partially followed suit, see box 1. Conversely, banks have not reduced deposit rates to the same extent as the drop in money market interest rates since mid-2024, narrowing the deposit margin again. However, the deposit margin remains at a higher level than in the years before the interest rate increases in 2022, given that the general interest rate level today is higher. Deposit margins for households and non-financial corporations were relatively stable from 2003 until the financial crisis, with average margins over the period being 0.9 and 0.4 percentage points, respectively. In April 2025, deposit margins were 1.2 percentage points for households and non-financial corporations, which is also higher than in the years leading up to the financial crisis.

CHART 32

The lending margin for households is low but offset by a relatively high deposit margin

Systemic banks' interest margin for households



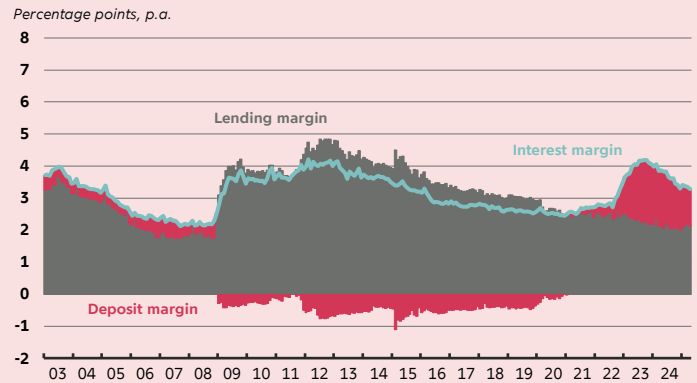
Note: Data for the systemic banks. The total interest margin is the sum of the deposit and lending margin. The deposit margin is calculated as the money market interest rate less the deposit rate, while the lending margin is the lending rate less the money market interest rate. The money market interest rate is given by DESTRA, however, the T/N rate less 19 basis points is used before April 2022. Latest observation is April 2025.

Source: Danmarks Nationalbank.

CHART 33

Interest margin for non-financial corporations is decreasing

Systemic banks' interest margin for non-financial corporations



The lending margin has been decreasing over a longer period of time for households and non-financial corporations, see chart 32 and chart 33. Since 2022, the decline has accelerated for households and the lending margin is now

at a low level. The lower lending margin can partly be explained by a low term premium in Denmark, reflecting a flatter yield curve.³⁶ For households, the decrease has also been driven by a lower lending premium, which, among other things, covers the risk of loss on lending and the competitive situation. However, as short-term interest rates have fallen in 2024 and 2025, the lending margin has increased slightly.

Overall, the interest margin for households and non-financial corporations is at a higher level than before interest rates started to rise in 2022, see chart 32 and chart 33. The higher interest rates have meant that the deposit margin is positive again. Banks currently have a significant deposit surplus, which means that the deposit margin contributes significantly to their profits.

BOX 1

Interest rate pass-through to deposit rates has been weak since the financial crisis

When Danmarks Nationalbank changes interest rates, it usually leads to changes in the retail interest rates charged by banks.¹ The effect from monetary policy rates to the interest rates charged to households and businesses is called interest rate pass-through. With Danmarks Nationalbank's interest rate changes since 2022, banks have mainly changed the interest rates on their customers' savings accounts, while interest rates on salary accounts have been close to zero for most banks.²

In general, the pass-through from monetary policy rates to deposit rates has been relatively weak since the financial crisis.³ Differences in interest rate pass-through over time should be seen in light of the fact that banks have gone from having a deposit deficit in the years leading up to the financial crisis to now having a significant deposit surplus. Seen in isolation, the current high deposit surplus has reduced the incentive for banks to attract additional deposits through higher deposit rates. But during the financial crisis, there were liquidity problems in the banking sector that intensified competition for deposits. This contributed to the fact that there was no full pass-through from falling money market interest rates to bank deposit rates after the financial crisis, see the chart.

Even when interest rates fell during the sovereign debt crisis in 2011-12 and pressure on the Danish krone in 2015, bank deposit rates did not follow suit. During the period of low and negative interest rates, banks were also generally reluctant to introduce negative deposit rates, especially for households. As a result, the deposit margin was negative for an extended period of time.

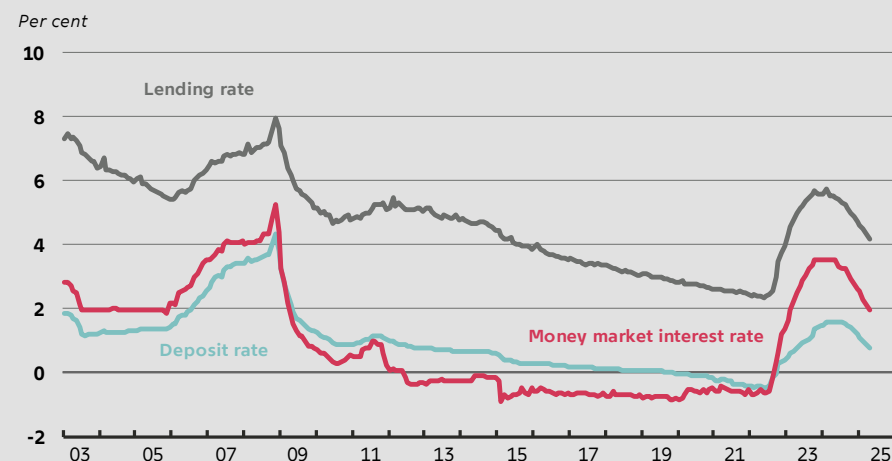
Continues ...

³⁶ See Danmarks Nationalbank, Geopolitical uncertainty impacts the risk outlook for the financial sector, *Danmarks Nationalbank Analysis (Financial stability)*, no. 18, November 2024 ([link](#)).

... continued

CHART

Interest rate pass-through to deposit rates has been weak since the financial crisis



Note: Average deposit and lending rates for households and non-financial corporations. The money market interest rate is given by DEST, however, the T/N rate less 19 basis points is used before April 2022. Latest observation is April 2025.

Source: Danmarks Nationalbank.

¹ Monetary policy rates are alternative interest rates to interest rates on loans and investments in the money market and are thus crucial for money market interest rates. Monetary policy rates therefore determine the price of bank liquidity and thus their funding costs.

² A savings account can be a current account with a higher interest rate than a regular salary account. The higher interest rate will typically be conditional on special conditions, for example, that it is a dedicated savings account, that there is a limited number of fee-free withdrawals within a given period, or that the customer only gets access to the account type if they belong to a certain customer group.

³ See Danmarks Nationalbank, Pass-through from Danmarks Nationalbank's interest rates to the banks' interest rates, *Danmarks Nationalbank Quarterly Review*, Q2 2016 ([link](#)), and Danmarks Nationalbank, The household cash-flow effects of monetary policy in Denmark and the euro area, *Danmarks Nationalbank Economic Memo*, no. 1, January 2024 ([link](#)).

Impairment charges for credit institutions remain low, but the outlook for the Danish economy is uncertain

Loan impairment charges made by systemic credit institutions remained low in 2024. Danmarks Nationalbank's latest projection for the Danish economy predicts a period of balanced growth.³⁷ However, the outlook for the Danish economy is subject to considerable uncertainty given the current trade conflicts and geopolitical unrest. If global growth weakens and the economic outlook for the Danish economy deteriorates, it could lead to higher impairment charges.

Institutions can supplement their impairment requirements with management estimates if expected credit losses are not arrested by the impairment models, for example, due to increased macroeconomic risks. Unlike regular impairment charges, management estimates are not allocated to specific customers but cover the risk of losses across the bank's loans. In recent years, there has been a limited decrease in management estimates. Given the current uncertainty due to

³⁷ See Danmarks Nationalbank, The outlook is for lower wage increases and stable inflation despite uncertain times, *Danmarks Nationalbank Analysis (Outlook for the Danish economy)*, no. 9, March 2025 ([link](#)).

geopolitical tensions and the introduction of tariff walls, several institutions have maintained or increased their management estimates in the first quarter of 2025.

Mortgage credit institution profits have been supported by higher returns on bond portfolios

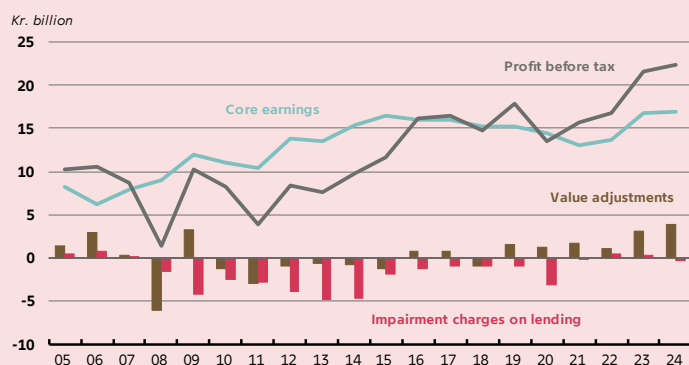
Systemic credit institutions include banks and mortgage credit institutions. The profits of mortgage credit institutions are generally lower and more stable compared to those for banks. In 2024, mortgage credit institution's profit before tax was approximately kr. 22 billion, see chart 34. Profits have been supported by an increase in value adjustments and continued low impairment charges.

In recent years, the profits of mortgage credit institutions have been sustained by a higher return on their bond portfolios, while administration margin income has remained stable, see chart 35. In a historical context, profits – also measured in relation to the balance sheet – are at a high level and on par with other good years.³⁸ However, a lower interest rate level in 2025 could lead to a decrease in interest income for mortgage credit institutions on their bond portfolio.

Administration margin income depends on the administration margins and the size of the mortgage credit institutions' loans. The administration margin is a rate that basically covers losses, capital charge and administration. Mortgage credit institutions continuously increased their rates between 2009 and 2016, partly due to the need to increase their capital base, which led to an increase in administration margin income, see chart 35.³⁹

CHART 34

Mortgage credit institution's profits have also been driven by higher core earnings and positive value adjustments

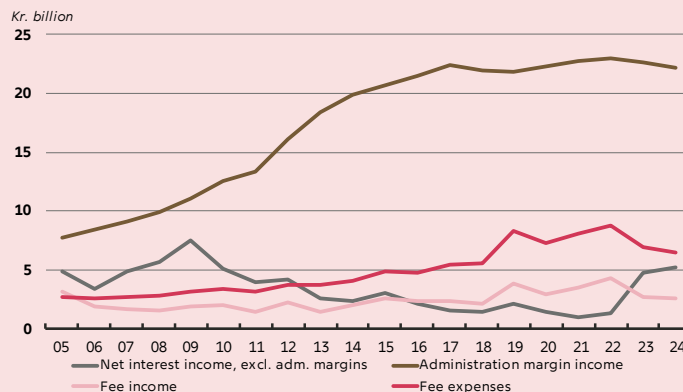


Note: Annual data for the Danish mortgage credit institutions. Adjustments have been made for profits from affiliated mortgage credit institutions, as several mortgage credit institutions are part of the same group. *Core earnings* are net interest and fee income less costs for personnel and administration and other operating expenses. *Value adjustments* are net value adjustments on, e.g. securities, issued bonds and loans at fair value.

Source: Danmarks Nationalbank.

CHART 35

Higher net interest income has driven the core earnings of mortgage credit institutions



Note: Annual data for the Danish mortgage credit institutions. Adjustments have been made for profits from affiliated mortgage credit institutions, as several mortgage credit institutions are part of the same group. Net fee income for mortgage credit institutions is negative due to the fact that banks receive a commission for brokering mortgage loans, which is recognised as a fee expense at the mortgage credit institution.

Source: Danmarks Nationalbank.

³⁸ See chapter 6 on profit in Danmarks Nationalbank, Higher interest rates have strengthened the resilience of banks, but also pose a risk, *Danmarks Nationalbank Analysis (Financial stability)*, no. 11, May 2024 ([link](#)).

³⁹ See Konkurrence- og Forbrugerstyrelsen, *Realkredit- og prioritetslån – Priser og markedsudvikling* (In Danish only), juni 2024 ([link](#)).

From the end of 2016, average administration margins for households have decreased as borrowers opted for safer loan types and the average loan-to-value ratio decreased, see chart 36. In the same period, several institutions have reduced the administration margins for households or introduced discounts on the administration margin payment that correspond to a reduction in administration margins.⁴⁰

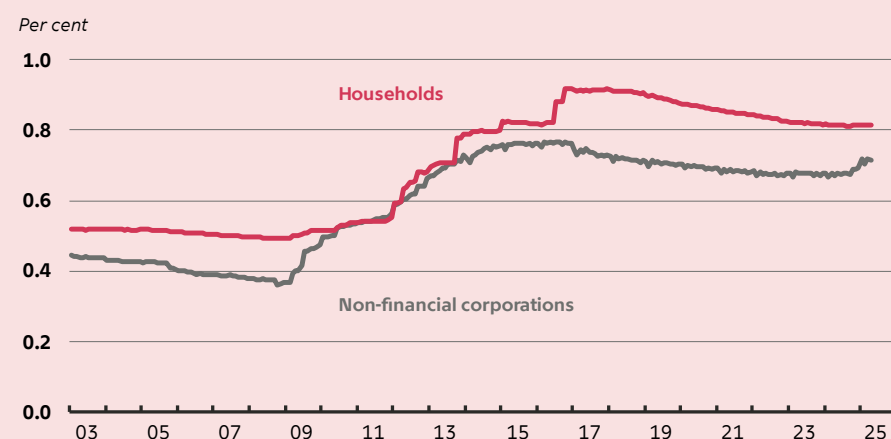
For non-financial corporations, average administration margins have also been decreasing in recent years. However, since the beginning of 2025 there have been small increases, which can be attributed to the introduction of the sector-specific buffer for commercial real estate.

Mortgage credit institutions' impairment charges have historically been closely linked to developments in unemployment and house prices. In particular, rising unemployment combined with falling house prices has led to higher impairment charge ratios for mortgage credit institutions.⁴¹ The current global uncertainty increases the risk of higher impairment charges, albeit from a low level.

CHART 36

Administration margins for non-financial corporations have increased after a long period of a general downward trend

Average weighted administration margins



Note: The average weighted administration margins on mortgage debt in Danish kroner for households and non-financial corporations, respectively. The administration margins shown do not include discounts on administration margin payments. Latest observation is April 2025.

Source: Danmarks Nationalbank.

⁴⁰ The discount on the administration margin payment was announced for a temporary period, but has been in effect since its introduction in 2017.

⁴¹ Read more about the relationship between unemployment, house prices and mortgage credit institution impairment charges in Danmarks Nationalbank, Interest rate hikes affect the banks and their customers, *Danmarks Nationalbank Analysis (Financial stability)*, no. 6, June 2023 ([link](#)).

07

Liquidity and funding: Banks have a robust liquidity position

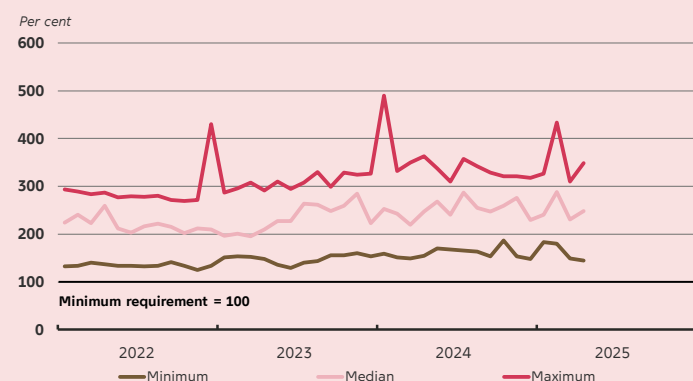
Banks must continuously monitor their liquidity and funding position to ensure they can withstand stress. Liquidity risks rarely materialise, but when they do, it can have a big impact and can happen suddenly. Banks that finance themselves in currencies other than Danish kroner must also be aware of the potential risks involved and currency mismatches⁴². In periods of uncertainty, increased focus on currency risks may be needed.

The systemic banks have good excess liquidity to the regulatory requirements Liquidity Coverage Ratio, LCR, and Net Stable Funding Ratio, NSFR, see chart 37 and chart 38. The same applies for non-systemic banks.

CHART 37

The systemic banks have good excess liquidity adequacy relative to the regulatory requirement LCR...

LCR



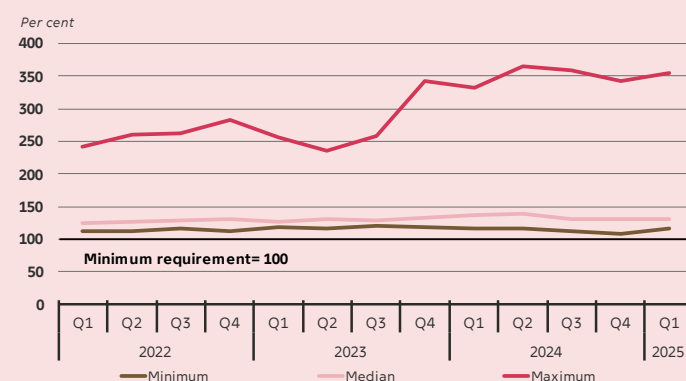
Note: The LCR is calculated as the bank's liquid assets divided by outgoing net cash flows over a 30-day stress period. Arbejdernes Landsbank and Saxo Bank are included at group level. Latest observation is the end of April 2025.

Source: Danmarks Nationalbank.

CHART 38

... and NSFR

NSFR



Note: The NSFR is calculated as the banks' stable financing divided by the need for stable financing. Arbejdernes Landsbank and Saxo Bank are included at group level. Latest observation is the end of the first quarter of 2025.

Source: Danmarks Nationalbank.

The systemic banks continue to have a robust liquidity position and are able to handle severe liquidity stress. In Danmarks Nationalbank's liquidity stress test, all systemic banks in Denmark have a survival horizon of at least four months. This means that they have sufficient liquid assets to withstand a period of at least four

⁴² Currency mismatch means that banks do not have a sufficient amount of liquid assets or inflows via foreign exchange or repo transactions to cover outflows in a given currency.

months of heavy deposit withdrawals and lack of access to funding markets. Most systemic banks have a survival horizon of at least six months.⁴³

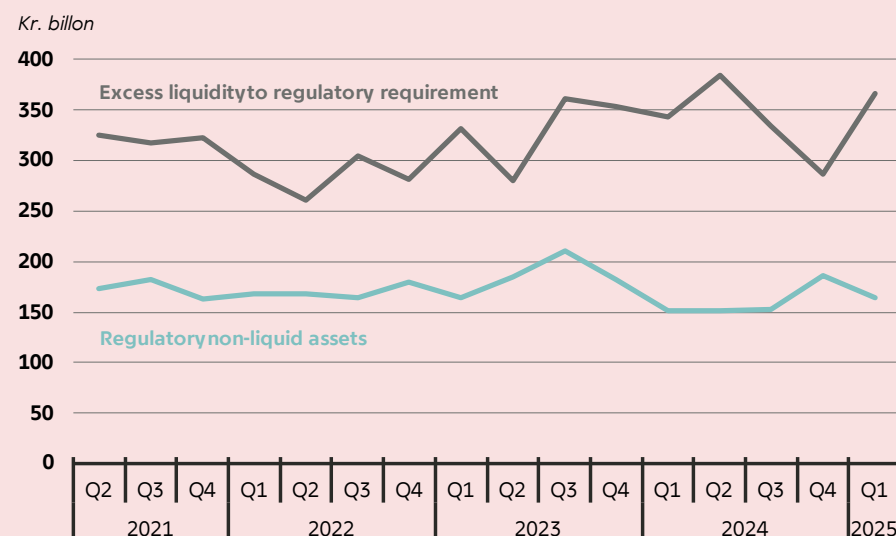
Liquidity needs can arise suddenly for bank customers

In the period 2021-2022, a number of bank customers were hit by the consequences of supply challenges, inflation and the energy crisis. This resulted in increased liquidity needs, partly due to variation margin calls⁴⁴ in connection with interest rate, currency and energy derivative transactions. Liquidity outflow from the banks' corporate customers increased by around kr. 75 billion on their existing and new credit facilities during the period. The episode emphasises that bank customers can experience high liquidity needs that potentially increase very quickly. The high uncertainty surrounding the trade conflict increases the risk of large movements in the financial, energy and commodity markets, which could lead to high liquidity needs for bank customers, as in previous periods.

Banks can use their excess liquidity to support the liquidity needs of their customers. Overall, the systemic banks have around kr. 365 billion in excess liquidity to the regulatory requirements, see chart 39.⁴⁵ To ensure excess liquidity

CHART 39

Systemic banks have excess liquidity that can be lent to their customers



Note: The chart shows the Danish systemic banks excess liquidity adequacy to the regulatory requirements and their holdings of regulatory non-liquid assets. Whether LCR or NSFR is the binding requirement differs between banks. Latest observation is the end of March 2025.

Source: Danmarks Nationalbank.

⁴³ For more information on Danmarks Nationalbank's liquidity stress test model, see box 3, page 28, in Danmarks Nationalbank, Higher interest rates have strengthened the resilience of banks, but also pose a risk, *Danmarks Nationalbank Analysis (Financial stability)*, no. 11, May 2024 ([link](#)).

⁴⁴ Variation margin call, VM, is a requirement to cover negative market value in derivative transactions. This means a direct loss of the transaction that the counterparty must be compensated for, so that the transaction breaks even if it were to close today. Therefore, daily VM is required to ensure this balance, which requires daily liquidity. High volatility and large fluctuations in the markets can lead to high liquidity needs for VM.

⁴⁵ Banks' LCR and NSFR are affected differently depending on how they service their customers' liquidity needs.

adequacy to meet the LCR and NSFR regulatory requirements, banks have set internal limits that are higher than the regulatory requirement of 100 per cent. The amount of excess liquidity adequacy for the regulatory requirements depends on the individual bank's risk management and appetite. In addition to the LCR-classified liquid assets, systemic banks hold assets for around kr. 165 billion that are considered non-liquid in regulatory context⁴⁶, see chart 39. This increases the ability of banks to support customer liquidity needs, as these assets can be used to raise liquidity by selling them or as collateral in repo agreements or collateralisation in central bank facilities.

Even though banks have excess liquidity available, other considerations may influence whether they will lend liquidity to their customers. Examples are internal requirements for how much business they can do with a single counterparty or sector, as well as capacity restrictions on repo agreements.

Leverage in Danish mortgage bonds has increased the interconnectedness between the mortgage bond and repo markets

Almost 90 per cent of the collateral in repo agreements is Danish mortgage bonds. The mortgage bond and repo markets are thus closely linked. Repo lending by banks⁴⁷ to investment funds and insurance and pension companies has increased, see chart 40. As borrowing in the repo market increases, the interconnectedness between the mortgage bond and repo markets increases.

A shock to the prices of Danish mortgage bonds as a result of turmoil in the financial markets may thus force some investors to sell mortgage bonds. This is because a price drop could mean that investors do not have enough collateral to refinance their repo loans.⁴⁸ Similarly, less liquidity in the repo market may force some investors to sell mortgage bonds to repay the repo loans, which there cannot be refinanced or only can be refinanced at a very high interest rate. Both can cause a selling pressure on the mortgage bond market. This can lead to potentially lower prices and thus higher interest rates on mortgage bonds to rebalance supply and demand.

A large proportion of loans in the repo market are continuously refinanced, indicating that the repo market is widely used by investors in the Danish mortgage bond market to leverage their investments.⁴⁹ Leveraged investments in safe securities are particularly attractive during periods of low volatility, as the strategy relies on an investor being able to continuously finance their repo agreement cheaper than the expected return on the mortgage bond. However, the increased turmoil in the bond markets, especially since April, has only had a limited impact on leverage. This may be partly due to the fact that leveraged positions are built up over longer periods and that the yields on Danish mortgage bonds have been relatively stable, see chart 41. Nevertheless the risk of selling pressure on Danish mortgage bonds has increased as a result of the increased leverage.

⁴⁶ The regulatory non-liquid assets typically consist of Danish mortgage bonds with series sizes below EUR 250 million and/or mortgage bonds issued by the affiliated mortgage credit institution.

⁴⁷ A repo agreement involves the counterparty borrowing liquidity against a security (typically a bond) as collateral for the loan.

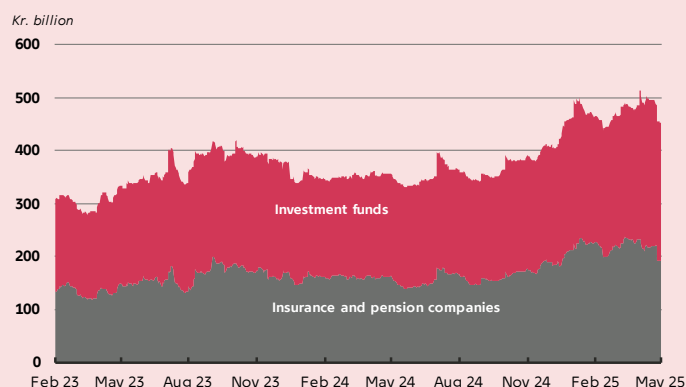
⁴⁸ Loans in the repo market are short-term, typically less than 20 days, and thus pose a refinancing risk for investors if they are unable to extend their loans.

⁴⁹ See Nouri and Madsen, The secured money market is an integral part of financial markets, *Danmarks Nationalbank Analysis*, no. 12, May 2025 ([link](#))

CHART 40

Insurance and pension companies and investment funds have increased their borrowing in the Danish secured money market

Net loans outstanding to Danish banks in the secured money market



Note: The chart shows Danish banks' outstanding net loans in the secured money market to insurance and pension companies and investment funds, respectively. Net lending is calculated by subtracting total deposits from total loans from each sector. *Investment funds* include Danish investment funds and foreign investment funds with a Danish connection. Latest observation is the end of April 2025.

Source: Danmarks Nationalbank, own calculations.

CHART 41

Yields on Danish mortgage bonds have remained stable after the announcement of tariffs

Yields on mortgage bonds



Note: The chart shows the development in yields on 30-year callable mortgage bonds and 1-year bonds behind adjustable rate mortgages. Latest observation is 18 May 2025.

Source: Nordea Analytics, Finance Danmark and LSEG Workspace.

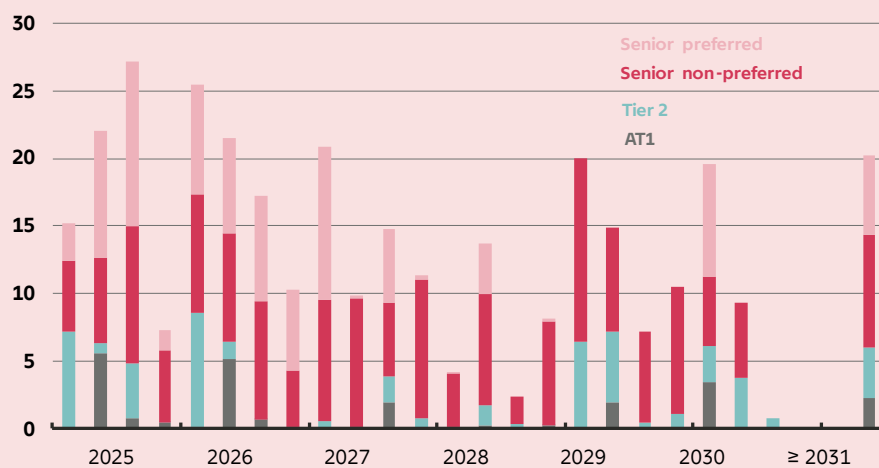
Danish credit institutions must continue to issue market financing in the second half of 2025 to ensure adequate excess capital adequacy relative to MREL requirements

Market financing can be used to fulfil NSFR and MREL requirements. It is currently mainly used for the fulfilment of MREL requirements. Danish credit institutions have issued debt instruments for almost kr. 40 billion in AT1, non-preferred and preferred senior debt from January to mid-May 2025. However, kr. 37 billion fell due in the same period. For the rest of the year, a further kr. 34 billion is due, see chart 42. This means that credit institutions will have to issue around kr. 31 billion more in 2025 if they want to meet this year's total maturities.

CHART 42

Credit institutions' maturity of debt and capital instruments

Kr. billion



Note: The chart shows the maturity profile of Danish credit institutions' issues of AT1 (Additional Tier 1 capital), Tier 2 (Tier 2 capital) and preferred and non-preferred senior debt. For instruments with an embedded call option, the determination of the maturity date is based on the first call date. Latest observation is 26 May 2025.

Source: Danmarks Nationalbank.

08

Capital and stress tests: The institutions can handle a sharp downturn in the Danish economy

Financial regulation introduced after the financial crisis has helped strengthen the resilience of institutions. Most recently, the EU's capital requirements package is being implemented in the member states and includes new requirements for calculating the risk-weighted exposures of institutions. However, the overall framework of financial regulation is complex and it is therefore relevant to look at whether some of the financial regulation can be simplified without compromising financial stability. Danmarks Nationalbank's biannual stress test of the financial sector shows that the institutions will withstand a severe recession scenario.

Implementation of the final part of Basel III has started

The final part of the Basel III standards on revised capital requirements for banks is currently being implemented in the EU in the form of the so-called Banking Package ⁵⁰.

When it comes to calculating risk-weighted exposures, the new rules consist of two parts. The first part is adjusted rules in the calculation of credit risk, market risk, credit value adjustment, CVA and operational risk. These changes aim to adjust the calculation of capital requirements to better reflect the underlying risk. Among other things, there are certain types of exposures where the possibility of using internal methods is limited or cancelled because it is assessed that the calculation is associated with too much uncertainty. For the calculation of market risks, these are more extensive changes, also called FTRB.⁵¹ The second part is the introduction of an additional minimum capital requirement for institutions using internal approaches to calculate risk weights. This is done with a floor requirement, the purpose of which is to ensure that the total risk-weighted exposures for these institutions do not fall below a certain level. The level is set at 72.5 per cent of the risk-weighted exposures calculated using the standardised approach.

The first part of the capital requirements package was scheduled to come into force in early 2025, which was at the same time as the implementation of Basel III standards in the UK and six months before the US. In 2024, it became clear that the implementation of the new rules in the US would be delayed, and shortly after, the UK delayed its implementation. Against this background, the EU decided to postpone the entry into force of the new rules for calculating market risk until the beginning of 2026, but let the other parts of the capital requirements package enter into force at the beginning of 2025 as planned. The postponement was based on a desire for a level playing field for European

⁵⁰ The capital requirements package covers the CRR III regulation and the CRD VI directive. Read more about the capital requirements package in Danmarks Nationalbank, Geopolitical uncertainty characterises the risk outlook for the financial sector, *Danmarks Nationalbank Analysis (Financial stability)*, no. 18, November 2024 ([link](#)).

⁵¹ See Bank for International Settlements, *Minimum capital requirements for market risk*, BCBS 2019 ([link](#)).

banks, which compete with American and British banks, especially in the market area.

In March 2025, the European Commission published a consultation on the EU implementation of the Basel III standards for market risk. The background to the consultation is continued uncertainty about the implementation of Basel III in the US and UK. The Commission has not yet published a decision based on the consultation.

In the consultation proposal, the Commission outlines three options for the implementation of the Basel III standards for measuring market risk:

1. Let the rules come into effect on 1 January 2026,
2. Postpone the entry into force of the new rules by another year, i.e. until 1 January 2027
3. Make targeted and temporary adjustments to the market risk rules that will be valid for up to three years. The consultation document contains ten specific proposals for adjustments to the rules. The proposed adjustments are partly based on deviations from the Basel III standards that other jurisdictions have indicated they plan to implement, and partly on the experience of banks and authorities in implementing the new market risk rules.

The second part of the capital requirements package, the floor requirement, also entered into force at the beginning of 2025, but is covered by a transitional arrangement that gradually phases in the floor requirement from 50 per cent of risk-weighted exposures calculated using the standardised approach in 2025 to 72.5 per cent in 2030. In addition, the calculation of the basis for the floor requirement includes a phasing-in of risk weights for residential properties and exposures to unrated companies up to and including 2032.

In the institutions' reports for the first quarter of 2025, there is limited information on the impact of the new capital rules. This indicates that the new rules for credit risk and operational risk have not had significant effect on the size of their risk-weighted exposures.

Simplifying financial regulation must not be at the expense of financial stability

Recently, there has been greater focus in Europe on improving the EU's competitiveness.⁵² The European Commission has proposed reducing, simplifying, standardising and postponing the EU's sustainability rules, recognising that the reporting rules in use risked hindering the aim of increasing transparency and supporting green investments.⁵³ The Commission has also indicated that it will issue a report in 2026 on the banking system in the single market, including an evaluation of competitiveness.

It has been crucial to tighten regulation of the financial sector in light of the lessons learnt from the financial crisis. Regulation supports financial stability, but the overall regulatory framework has also become large and complex, with many different rules interacting with each other. It is therefore relevant to review financial regulation to simplify or remove rules that are unnecessarily complex or administratively burdensome. However, this is a complex task that requires insight into the effects of and interaction between the rules.

⁵² See, e.g. The European Commission, *The Draghi report on EU competitiveness*, September 2024 ([link](#)), and the European Commission press release, *An EU Compass to regain competitiveness and secure sustainable prosperity*, January 2025 ([link](#)).

⁵³ See the European Commission press release on simplifying EU sustainability rules, *Commission simplifies rules on sustainability and EU investments, delivering over EUR 6 billion in administrative relief*, February 2025 ([link](#)).

As we work to simplify financial regulations, it is important to ensure that the financial sector remains robust, even under stress. It is of great importance to society and is a prerequisite for a healthy and competitive economy. Maintaining the core of financial regulation is crucial. This means that institutions must have sufficient capital in relation to their risks to enable them to lend to creditworthy projects even under stress. At the same time, institutions must always have sufficient liquidity, which requires sound liquidity management and a robust liquidity and funding structure. If an institution does run into major problems, it is necessary that the institution can be resolved or restructured in a way that does not jeopardise financial stability. These requirements are key to financial stability and a robust economy.

If the above assumptions about capital, liquidity and crisis management are met, there may be room to simplify or reduce requirements in other areas. A natural place to start would be to look at the rules that have not yet come into force and assess whether some of them can be dispensed with or simplified. This could save companies the relatively high adjustment burden associated with complying with new regulations. It is also important that regulatory simplification supports a level playing field for financial companies across the EU.

In Danmarks Nationalbank's stress test, all institutions passed severe stress

Danmarks Nationalbank conducts biannual stress tests of the systemically important financial institutions, SIFIs and major non-SIFI banks⁵⁴ to evaluate whether these institutions hold sufficient capital to meet the regulatory capital requirements under three distinct macroeconomic scenarios: a severe recession, a recession and a baseline scenario. The three scenarios are described in box 2 below.

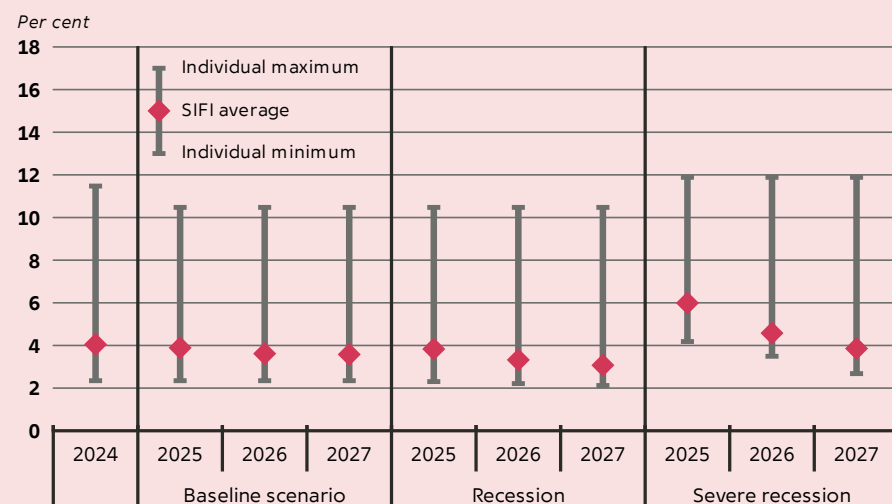
The *severe recession scenario* reflects a significant global economic downturn. Under this scenario, the stress test demonstrates that all institutions meet the total risk-based capital requirements. Chart 43 illustrates the development of excess capital relative to the capital buffer requirement for SIFIs.

⁵⁴ appendix A1 for an overview of all credit institutions and banks included in the stress test.

CHART 43

All systemic institutions pass Danmarks Nationalbank's severe recession scenario

Excess capital adequacy in relation to risk-weighted exposures



Note: The chart shows the excess capital of systemic institutions (SIFIs) as a percentage of their total risk-weighted exposures. *SIFI average* represents the total excess capital of the SIFIs as a percentage of risk-weighted exposures. *Individual minimum (maximum)* indicates the institution with the lowest (highest) excess capital. The stress test assumes that the countercyclical capital buffer (CCyB) is released under the severe recession scenario. It is also assumed that banks will complete already announced share buyback programmes approved in the first quarter of 2025.

Source: Danmarks Nationalbank and own calculations.

In anticipation of Nykredit's acquisition of Spar Nord, Danmarks Nationalbank has made an impact calculation of the merger of the two institutions. As a result of the acquisition, Nykredit's excess capital is set to decline, while risk-weighted assets are initially expected to increase. Consequently, all else being equal, the newly formed institution will exhibit a lower level of capitalisation. This conclusion is also supported by Nykredit's calculations.⁵⁵ Given that the merger has not yet been finalised and a consolidated balance sheet is not available, the stress test has been carried out for each institution individually.

The severe scenario assumes the release of the countercyclical capital buffer. Following the release of the countercyclical capital buffer, which currently stands at 2.5 per cent, the sector as a whole continues to maintain robust excess capital relative to the capital buffer requirement. In the final year of the severe recession scenario, SIFIs exhibit a total excess capital of 3.9 per cent, while non-SIFIs maintains an excess capital of 10.9 per cent during the same period.

For both SIFIs and non-SIFIs, there is a notable disparity in the excess capital in the final year of the stress test. Among SIFIs, the gap between the institution with the highest excess capital and the institution with the lowest is 9 percentage points. For non-SIFI, this difference is 12 percentage points.

⁵⁵ Nykredit's impact calculations of the merger in *Update on Spar Nord tender offer, annual result and funding plans*, Nykredit Investor Update, January 2025 ([link](#)).

BOX 2

Macroeconomic scenarios used in the stress test

The stress test is based on three scenarios for the macroeconomic development in Denmark over the period 2025-27.

A baseline scenario that follows Danmarks Nationalbank's latest projection¹

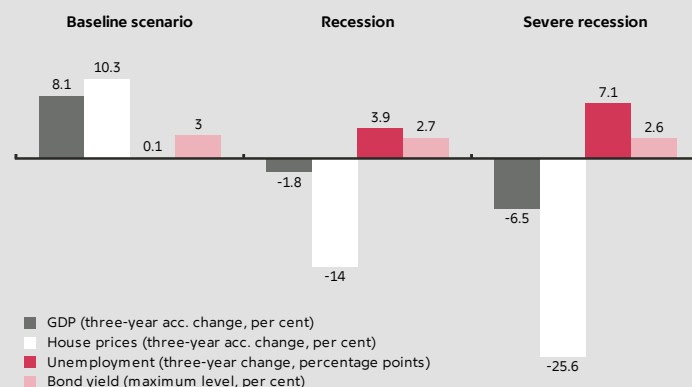
A recession scenario which reflects a situation with a decline in international economic activity that negatively impacts the Danish economy and exports. Concurrently, both the Danish and international economies experience a reduction in consumer and business confidence, leading to adverse shocks to private consumption, private investment, and house prices. Under this scenario, Denmark's GDP is projected to cumulatively fall by 1.8 per cent over the period, while house prices are expected to fall by 14.0 per cent. Unemployment is expected to rise from 2025 to 2027 by 3.9 percentage points. Central banks react in a limited manner by lowering monetary policy rates, resulting in a reduction of 0.25 percentage points compared to market expectations in March.

A severe recession scenario that reflects a situation of severe global downturn, with substantial repercussions for the Danish economy. This scenario includes a three-year cumulative decline in GDP of 6.5 per cent, a three-year cumulative fall in house prices of 25.6 per cent, and an increase in unemployment of 7.1 percentage points from 2025 to 2027. Similar to the recession scenario, consumer and business confidence is deteriorates, leading to negative shocks to private consumption, private investment, and house prices. Additionally, exports decline further compared to both the recession scenario and the baseline scenario. Central banks react in a limited manner by lowering monetary policy rates, resulting in a reduction of 0.5 percentage points compared to market expectations in March.

See Danmarks Nationalbank, The outlook is for lower wage increases and stable inflation despite uncertain times, *Danmarks Nationalbank Analysis (Outlook for the Danish economy)*, no. 9, March 2025 ([link](#)).

CHART

Macroeconomic scenarios
Denmark between 2025-27



Note: The figures have been calculated based on annual averages. The bond yield indicates the average bond yield (per cent p.a.). See also appendix A2 for a detailed description of the stress test scenarios.

Source: MONA, Danmarks Nationalbank's macroeconomic business cycle model, and own calculations.

The stress scenarios and the variables included within them are designed to reflect the macroeconomic outlook. As outlined in box 2, there is a marked distinction between the baseline scenario, which is based on Danmarks Nationalbank's latest projection from March 2024, and the stress scenarios. The divergence supports the significant uncertainty currently facing the Danish and global economies over the coming years.⁵⁶

In parallel with the risk-based capital requirements, all credit institutions are required to meet the leverage ratio mandates a minimum Tier 1 capital level equivalent to 3 per cent of total non-risk-weighted exposures.⁵⁷ All institutions comply with the leverage ratio requirement under both recession scenarios.

In the severe recession scenario, the risk-based capital requirement serves as the binding constraint for all institutions. The leverage ratio requirement is not binding in any of the scenarios.

Impairment charges would need to increase significantly before institutions breach the combined buffer requirement. A sensitivity analysis indicates that over a three-year period, the impairments would need to increase by

⁵⁶ Institutions must ensure sufficient capitalisation to withstand such a scenario while complying with future regulatory requirements. In this regard, Danmarks Nationalbank has included the expected effects of the European Commission's capital requirements package in the stress test. In addition, the expected effects of a sector-specific systemic risk buffer for property companies are included.

⁵⁷ Read more about the leverage requirement in Danmarks Nationalbank, Banks face new requirements in the stress test, *Danmarks Nationalbank Analysis*, no. 10, May 2019 ([link](#)).

approximately 3 percentage points for banks and 0.75 percentage points for mortgage credit institutions before the buffer requirement is breached. These levels are broadly in line with the highest impairment charges historically observed by credit institutions over a three-year period. It is therefore essential that institutions maintain robust capital planning, taking into account uncertainties surrounding future macroeconomic developments and institution-specific factors.

Credit institutions successfully pass the severe recession scenario in the stress test, maintaining a level of surplus coverage comparable to that observed in the stress test conducted in the second half of 2024.⁵⁸ This outcome is achieved despite the current scenario being marginally more severe than the previous stress test, see box 2.⁵⁹ The improved performance is partly attributed to smaller declines in credit institutions' profits, although net interest income continues to decrease under the scenario. Additionally, estimated impairment charges in the baseline scenario are also lower, while impairment charges in the severe recession scenario remain broadly in line with those observed in the stress test from the second half of 2024.

Individual institutions may be challenged in complying with the MREL requirement

In addition to the leverage ratio requirement and the risk-based capital requirement, institutions are also required to meet the Minimum Requirement for Own Funds and Eligible Liabilities (MREL). The MREL requirement is designed to ensure that institutions can be restructured or resolved in a manner that minimises reliance on public funds while safeguarding financial stability by avoiding significant disruptions to the wider financial system.

In the severe recession scenario, meeting the MREL requirement could become challenging, particularly in the event of a prolonged period of limited market access for issuing new debt instruments.⁶⁰ In the severe recession scenario, the systemic credit institutions will not need⁶¹ to raise new MREL funds before the second quarter of 2026, where there is a need for kr. 12 billion. Across the entire stress period, however, the SIFIs are estimated to require a total issuance of approximately kr. 100 billion.

Robustness check of the institutions' capitalisation during a significant downturn in global trade

It is difficult to predict how a materialisation of the risks associated with geopolitical tensions or an escalating trade conflict will affect the financial sector. As an additional robustness check of the capitalisation of banks and mortgage credit institutions, an extraordinary situation is also considered which could reflect a significant decline in global trade compared to the severe recession scenario. In this situation, the Danish GDP declines by close to an additional 1 percentage point compared to the severe recession scenario, and simultaneously, the unemployment rate additionally increases by close to 1 percentage point. The calculation shows that the Danish banks and mortgage credit institutions continue to meet the capital requirements in such a situation.

⁵⁸ See Danmarks Nationalbank, Geopolitical uncertainty impacts the risk outlook for the financial sector, *Danmarks Nationalbank Analysis (Financial stability)*, no. 18, November 2024 ([link](#)).

⁵⁹ Danmarks Nationalbank's projection from March 2025 shows an upward revision of the growth estimate for the Danish economy compared to the forecast from September 2024. Similarly, the expected growth in house prices has initially increased. The unemployment level is roughly unchanged.

⁶⁰ Institutions are assumed to be unable to issue new debt instruments for a period of 12 months from second half of 2025 through the first half of 2026.

⁶¹ The need is measured here in relation to the estimated MREL requirement and combined buffer requirement. Compliance with the institutions' internal targets for excess capital adequacy relative to MREL requirement and the combined buffer requirement is expected to result in an issuance need at an earlier stage.

Stress tests of institutions' capital adequacy targets show that some systemic institutions may be challenged

Stress testing of SIFIs capital adequacy targets indicates that individual institutions may face challenges in maintaining excess capital relative to the total capital requirements in the severe recession scenario, assuming their initial capitalisation is in line with their stated targets.⁶²

Capital adequacy targets are a cornerstone of prudent capital management, ensuring that institutions maintain sufficient capital to withstand both institution-specific shocks and broader macroeconomic disruptions without breaching their combined buffer requirements.⁶³ In autumn 2024, the Danish Financial Supervisory Authority clarified that institutions under severe stress are permitted to utilise their excess capital allocated to their capital adequacy targets to absorb losses, provided the countercyclical capital buffer is released.⁶⁴

Danmarks Nationalbank's stress test of the institutions' capital adequacy targets suggest that some institutions will fall short of the buffer requirements at the end of 2027. This outcome highlights the need for certain institutions to reassess and potentially raise their capital adequacy target to ensure resilience in the face of adverse economic conditions.

⁶² Saxo Bank and Nordea Kredit are not included in the calculations as they do not have published capital adequacy targets.

⁶³ The stress test is conducted under the worst-case scenario, where the only change we make is to the credit institutions' excess capital adequacy on commencement of the stress test. If, for example, a credit institution has published a capital adequacy target of 16 per cent, the credit institution's capital ratio will be 16 per cent on commencement of the stress test. For systemic institutions that set a range for their capital adequacy target, the midpoint of the range is used, while for institutions that set a minimum, the minimum is used. All other input is the same as in the regular stress test. This means that it is implicitly assumed that the size of the balance sheet is unchanged, but the composition of liabilities has changed. To isolate the effect of changing capital ratios, it is assumed that the reduced net equity is offset by a corresponding increase in another liability.

⁶⁴ See the Danish FSA's clarification, *Kapitalmålsætninger i stress* (in Danish only), finansstilsynet.dk, December 2024 ([link](#)).

09

Climate: The financial sector must prepare for more extreme weather affecting their customers

Climate change is already impacting society, and these impacts will continue to increase in the future. It is therefore necessary for banks and mortgage credit institutions to analyse and assess the risks from climate change and the green transition that are material to their business model. Prolonged periods of high electricity prices are an example of a transition risk that can affect bank customers. Among the risks from climate change, more severe storm surge events can affect the mortgage value of homes in at-risk areas and homeowners' ability to pay.

A green transition is necessary to maintain a robust Danish economy with both stable prices and financial stability. Globally, the green transition is moving too slowly to reach the Paris Agreement targets. According to the Paris Agreement, the increase in global average temperature by 2100 should be kept below 1.5-2 °C compared to the pre-industrial period. With current and planned climate policy, the temperature increase is estimated to be 2.8 °C by 2100 according to the latest UN report.⁶⁵

Increasing uncertainty about international co-operation and future trade relations is also challenging the ability of companies to make long-term plans to reduce their emissions, for example. In Denmark, some green projects have also been delayed or put on hold. Several Danish and European companies in renewable energy and the development of green technologies have also been hit by financial challenges. In some cases, the companies have gone bankrupt, resulting in losses for Danish pension companies and banks, among others.⁶⁶

Energy market imbalances can have major economic and financial consequences

Climate change and the transition to renewable energy can mean a time of high and fluctuating energy prices. Furthermore, geopolitical tensions can lead to periods of imbalances in the energy markets, which have had a major impact on economic and financial development in the past.⁶⁷ Drought and weak wind conditions in 2021, for example, reduced European electricity production from hydropower and wind turbines which contributed to a period of high electricity prices. When Russia invaded Ukraine in early 2022, gas and electricity prices rose further to very high levels. The price increases particularly affected a number of corporate customers of banks and mortgage credit institutions, see box 3. Banks

⁶⁵ There is considerable uncertainty about the rise in global average temperature. According to the UN, there is a 66 per cent probability that the average temperature will be in the range of 1.9-3.6 °C by 2100. See United Nations Environment Programme, *Emissions Gap Report 2024: No more hot air ... please*, October 2024 ([link](#)).

⁶⁶ For example, Swedish battery manufacturer Northvolt went bankrupt in March 2025. In Denmark, solar cell company Better Energy, fuel cell manufacturer Blue World Technologies and hydrogen company Green Hydrogen Solutions came reconstruction proceedings earlier this year.

⁶⁷ See Niels Framroze Møller and Martin Oksbjerg, The most significant financial risks from climate change and green transition, *Danmarks Nationalbank Analysis*, no. 6, April 2024 ([link](#)), and Victoria Havsteen Branner and Marcus Mølback Ingholt, Denmark risks a period of energy price fluctuations, impacting inflation and monetary policy, *Danmarks Nationalbank Analysis*, no. 15, November 2023 ([link](#)).

and mortgage credit institutions should therefore include the risk of periods of high energy prices in their credit assessment of customers with high energy consumption.

BOX 3

Energy-intensive companies borrowed less as energy prices rose to very high levels with Russia's invasion of Ukraine

In the wake of Russia's invasion of Ukraine in 2022, gas and electricity prices in particular rose sharply on the European market, see chart A. The price of natural gas often determines the development of electricity prices, as the marginal production of electricity on the European electricity market is usually based on the burning of natural gas.

A recent working paper examined how the rise in energy prices in the wake of the invasion affected credit institutions' lending to companies that make use of some or a lot of energy in their production, known as 'energy-intensive companies'.¹ In the analysis, which covers the period 2019-23, quarterly data for the energy consumption of Danish manufacturing companies is linked to data for their loans at Danish credit institutions.

On the one hand, the analysis shows that the growth in lending to energy-intensive companies decreased relative to comparable non-energy-intensive companies as energy prices increased, see chart B. The decline largely reflects lower utilisation of existing credit facilities by these companies. This was especially true for companies that the institutions classified as less risky at the time. On the other hand, the analysis shows no significant effect of the energy price increase on new lending to energy-intensive companies. However, the institutions raised interest rates on new loans to energy-intensive companies, which they classified as relatively risky. Therefore, the authors interpret the lack of response in new lending as a result of a tightening of the supply of new loans that was offset by an increase in demand for new loans.

CHART A

Electricity and gas prices increased considerably during Russia's invasion of Ukraine in 2022

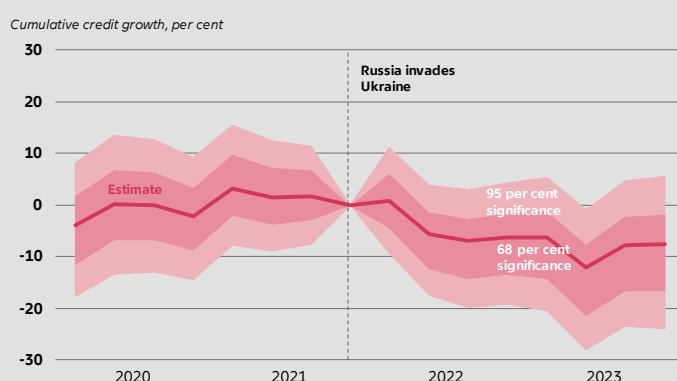


Note: The development of gas and electricity prices in Denmark in 2022. The electricity spot price is measured as a 14-day moving average of spot prices for the East and West Denmark markets. The gas price shows the price of TTF natural gas. Prices are based on monthly spot contracts.

Source: Macrobond and own calculations.

CHART B

Lending to energy-intensive corporate customers in the manufacturing sector decreased compared to similar non-energy-intensive customers



Note: The dark red line shows the difference in credit growth in energy-intensive manufacturing companies compared to other comparable manufacturing companies. The difference in credit growth is estimated in a quantitative model. The uncertainty bands around the estimate reflect the 68 and 95 per cent significance level, respectively. For example, the 95 per cent significance level shows that the difference in credit growth with 95 per cent probability is a value within the specified band. The chart shows the period around Russia's invasion of Ukraine (vertical dashed line).

Source: Niels Framroze Møller and Johannes Pöschl (2025), The effects of a large energy price shock on firm credit, *Danmarks Nationalbank Working Paper*, no. 209, March 2025 ([link](#)).

¹ See Niels Framroze Møller and Johannes Pöschl, The effects of a large energy price shock on firm credit, *Danmarks Nationalbank Working Paper*, no. 209, March 2025 ([link](#)).

Insurance coverage is currently high for storm surges in Denmark, but preparations for worsening climate change are necessary

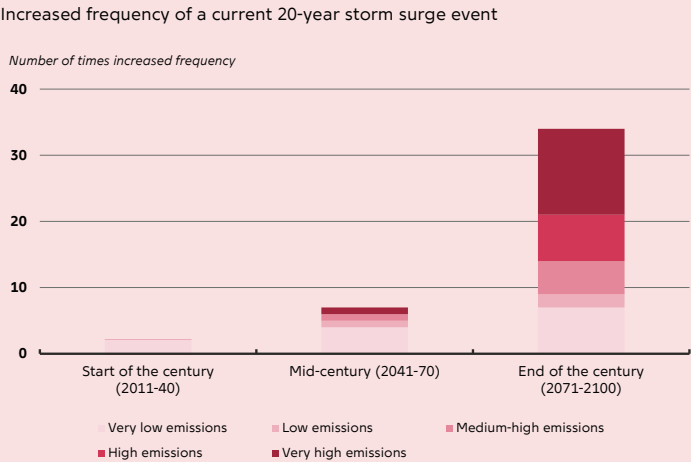
As temperatures rise and polar ice and glaciers melt, sea levels will rise. In Denmark, higher water levels will lead to more frequent storm surges, causing damage to buildings and infrastructure.

The Danish Meteorological Institute, DMI, expects storm surge events, which are currently expected to occur approximately once every 20 years on average, to occur approximately once every two years by the end of this century, see chart 44 (*medium-high emissions scenario*).⁶⁸ DMI also expects cloudbursts and inland flooding to occur more frequently.

In Denmark, households and businesses have good insurance coverage for natural disasters in a European context.⁶⁹ The Danish Natural Hazards Council administers legislation on insurance against storm surge, flooding from rivers and lakes, drought and windfall. These schemes are funded by fees on fire insurance, which is mandatory for all properties that form the collateral behind loans from banks and mortgage credit institutions. Households and companies can also take out private insurance against additional natural damage caused by cloudbursts, for example.

Storm surges and coastal flooding are a major insurance risk in Denmark, but the Danish storm surge scheme administered by the Danish Natural Hazards Council supports high coverage for serious incidents, see chart 45.

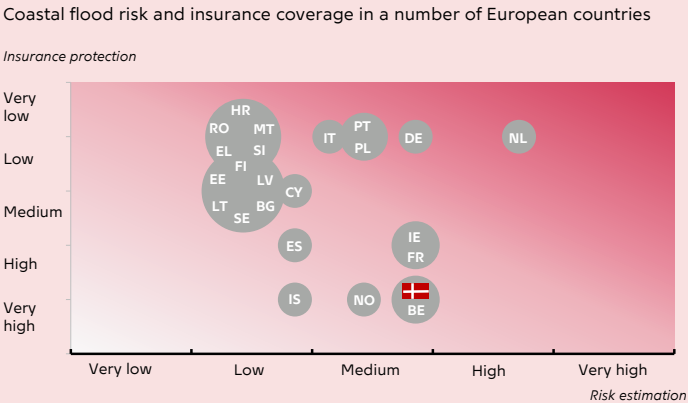
CHART 44
Storm surge events that damage buildings and infrastructure will happen much more frequently in the future



Note: Increased frequency of a current 20-year storm surge event in five different scenarios for future global greenhouse gas emissions. The frequency increases as sea level rise in particular increases during the 21st century. The five scenarios are developed for the sixth main report ([link](#)) from the UN's Intergovernmental Panel on Climate Change, IPCC. The current global climate policy is generally considered to follow the medium-high greenhouse gas emissions scenario, while the very low and low emissions scenarios are necessary to achieve the goals mentioned in the Paris Agreement to keep the global temperature increase to between 1.5 and 2.0 °C by 2100.

Source: DMI's climate atlas and own calculations.

CHART 45
Denmark has good insurance coverage for coastal flooding in a European perspective



Note: Data from the European Insurance and Occupational Pensions Authority's, EIOPA, dashboard on lack of insurance coverage shows an overall assessment of coastal flood risk and the proportion of exposures covered by insurance against such events. Data for 30 European countries in 2024.

Source: European Insurance and Occupational Pensions Authority, Insurance protection gap dashboard ([link](#)).

⁶⁸ Storm surges of the same magnitude as we see today will become more frequent, because in the medium-high greenhouse gas emissions scenario, water levels are expected to have risen by about 40 cm by 2071-2100 (uncertainty range from about 20-75 cm).
⁶⁹ See the dashboard on insurance protection gaps for natural disasters developed by the European Insurance and Occupational Pensions Authority (EIOPA) ([link](#)).

The storm surge scheme covers damage related to 20-year events or worse. However, as 20-year events become more severe, the current scheme will cover an increasingly smaller proportion of the storm surges that hit Danish coasts. There is an ongoing debate about the structure of the scheme in light of rising sea levels.⁷⁰ The Danish Economic Councils has proposed a revision of the storm surge scheme with a long-term phasing-in of more risk-based premiums. Their purpose is to support the climate-proofing of the future building stock and infrastructure.

Banks and mortgage credit institutions must take into account the increasing frequency of storm surges when providing long-term property financing

Banks and mortgage credit institutions finance real estate with up to 30-year loans, and it is important that their credit scoring and risk management take into account the increasing risks of natural disasters and the impact on the value of mortgaged assets.

More frequent flooding due to storm surges could, within the next few decades, reduce the value of some properties that currently provide security against losses for banks and mortgage credit institutions.⁷¹ This can happen due to frequent damage from storm surges that are no longer covered by the storm surge scheme. Property valuations can also be affected by the challenges of repairing damage to properties that are not currently at risk in a 20-year event or worse, but could be within the next few decades – even if the damage costs are covered by the storm surge scheme.

⁷⁰ The Danish Economic Councils has proposed a revised storm surge scheme in 2023 that focuses on introducing risk-based premiums and a slow phase-in for existing buildings ([link](#)). The aim is to reduce distortions in incentivising settlement in at-risk areas. In December 2024, the ECB and EIOPA proposed to improve insurance coverage for natural disasters through a public-private reinsurance scheme and an EU public disaster finance fund ([link](#)).

⁷¹ See Mirone and Poeschl, Flood risk discounts in the Danish housing market, *Danmarks Nationalbank Economic Memo*, no. 7, October 2021 ([link](#)). The memo shows that homes that are currently at risk of flooding are sold at a valuation that is approximately 6 per cent lower than homes that are not at risk of flooding.

10

Appendix A1: Analysis data basis

Analysis data basis

In the analysis, the term *credit institutions* is used when the topic includes the bank and mortgage credit institution part of the business. The term *bank* is used when referring specifically to the financial institution. These institutions are listed in table A1.

The analysis of the profits of Danish credit institutions, liquidity and own funds includes nine systemic credit institutions designated by the Danish Financial Supervisory Authority in 2024. The analysis also includes the non-systemic banks. This group consists of the institutions in Group 2 in the Danish Financial Supervisory Authority's size grouping for 2024 with the exception of Danmarks Skibskredit, which is excluded due to its business model. The grouping applies retrospectively.

In the analysis and assessment of lending activity, focus is on the grouping of large and medium-sized banks in Danmarks Nationalbank's lending survey. Large banks comprise the Danish Financial Supervisory Authority's group 1 and Nordea Denmark, while medium-sized banks comprise the Authority's group 2 and Santander Consumer Bank.

TABLE A1

**Institutions in the analysis with balance sheet totals
as of 31 December 31 December 2024, kr. million**

Systemic credit institutions	Amount
Danske Bank (incl. Danica)	3,716,042
Nykredit Realkredit	1,773,042
Jyske Bank	750,200
Nordea Kredit	436,886
DLR Kredit	206,552
Sydbank	193,669
Spar Nord	143,785
Arbejdernes Landsbank	126,976
Saxo Bank	94,571
Total systemic credit institutions	7,435,723

Continues ...

... continued

Systemic banks

Danske Bank	2,209,855
Jyske Bank	383,928
Nykredit Bank	243,616
Sydbank	193,669
Spar Nord	143,785
Arbejdernes Landsbank	126,976
Saxo Bank	93,263
Total systemic banks	3,151,720

Non-systemic banks

Ringkjøbing Landbobank	78,633
Sparekassen Danmark	76,471
Sparekassen Kronjylland	45,044
Lån & Spar Bank	36,384
Sparekassen Sjælland-Fyn A/S	32,386
Middelfart Sparekasse	21,914
Total non-systemic banks	290,832

Mortgage credit institutions

Nykredit Realkredit	1,686,042
Realkredit Danmark	826,945
Nordea Kredit	436,886
Jyske Realkredit	399,976
DLR Kredit	206,552
Total mortgage credit institutions	3,556,401

Note: The balance sheet total for the systemic credit institutions is stated at group level. The credit institutions have thus been stated inclusive of assets in their subsidiaries in the form of, for example, mortgage credit institutions. The balance sheet total for systemic banks, non-systemic banks and mortgage credit institutions is stated at institution level. Exceptionally, Arbejdernes Landsbank has been included at group level to reflect the consolidation with Vestjysk Bank. The assets in the financial statements of Nykredit Realkredit also reflect the Nykredit Group's funding of its subsidiary Totalkredit.

Source: Danmarks Nationalbank.

11

Appendix A2: Stress test scenarios

TABLE A2

Selected key figures in Danmarks Nationalbank's stress test scenarios

	Baseline scenario	Recession	Severe recession
2025			
GDP, per cent year-on-year	3.6	1.8	0.1
Private consumption, per cent year-on-year	1.4	0.3	-0.6
Export market growth, per cent year-on-year	2.8	0.1	-2.5
House prices, per cent year-on-year	3.5	-1.1	-3.5
Gross unemployment, per cent of labour force	2.6	2.8	2.9
Average bond yield, per cent p.a.	2.7	2.6	2.6
2026			
GDP, per cent year-on-year	2.3	-4.0	-9.3
Private consumption, per cent year-on-year	1.8	-2.3	-6.0
Export market growth, per cent year-on-year	3.1	-4.6	-10.3
House prices, per cent year-on-year	3.2	-12.7	-20.6
Gross unemployment, per cent of labour force	2.7	4.4	6.6
Average bond yield, per cent p.a.	2.9	2.6	2.4
2027			
GDP, per cent year-on-year	2.0	0.4	3.0
Private consumption, per cent year-on-year	2.2	-0.1	-1.2
Export market growth, per cent year-on-year	3.1	1.1	2.4
House prices, per cent year-on-year	3.2	-0.4	-2.9
Gross unemployment, per cent of labour force	2.7	6.6	10.0
Average bond yield, per cent p.a.	3.0	2.7	2.5
Cumulative change			
GDP, three-year cumulative change, per cent	8.1	-1.8	-6.5
House prices, three-year cumulative change, per cent	10.3	-14	-25.6

Note: Annual average. *House prices* indicates the cash price of single-family homes. The baseline scenario follows Danmarks Nationalbank's projection up to 2026, while the development in 2027 is a technical projection. Due to rounding, the cumulative growth shown may not necessarily correspond to the cumulative growth that can be calculated from the figures in the table.

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Working Paper presents research work by both Danmarks Nationalbank's employees and our partners. Working Paper is primarily targeted at professionals and people with an interest in central banking research as well as economics and finance in a broader sense.

The analysis consists of a Danish and an English version. In case of doubt as to the correctness of the translation, the Danish version will prevail.

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