

DANMARKS
NATIONALBANK

Annual Report 2022



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NATIONALBANK

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This report is based on information
available up to 8 March 2023

See also www.nationalbanken.dk

Explanation of symbols:

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Per Callesen
Governor



Christian Kettel Thomsen
Governor
by Royal Appointment,
Chairman



Signe Krogstrup
Governor

Foreword

Danmarks Nationalbank was established for the specific purpose of restoring the monetary system in Denmark following the Danish state bankruptcy in 1813. In 1936, Danmarks Nationalbank became an independent, self-governing institution, laying down monetary policy independently of the Danish Government and the Danish Parliament (the Folketing).

The overall mandate of Danmarks Nationalbank is to help ensure stable prices, secure payments and the stability of the financial system.

The fixed krone exchange rate against the euro contributes to creating the framework for stable prices and thus also low inflation. Danmarks Nationalbank ensures secure payments by issuing high-quality banknotes and coins and contributes to the secure settlement of electronic payments. Danmarks Nationalbank contributes to financial system stability by overseeing it and making recommendations to the relevant authorities on the basis of this oversight.

On 31 October, Danmarks Nationalbank held a conference to mark the 40th anniversary of the Danish

fixed exchange rate regime. During the 40 years, the fixed exchange rate policy has withstood several crises and contributed to the transformation of the Danish economy from a fragile economy in the early 1980s to the strong economy we know today.

A more detailed description of Danmarks Nationalbank's activities can be found on Danmarks Nationalbank's website. The website also contains all publications published during the year.

Copenhagen, 8 March 2023

Christian Kettel Thomsen
Chairman

Signe Krogstrup

Per Callesen



Report of the Board of Governors



Report of the Board of Governors on the activities of Danmarks Nationalbank

Monetary policy, financial markets and real economy

The objective of Denmark's monetary policy is to ensure a fixed exchange rate against the euro. The formal basis for the Danish fixed exchange rate policy is the European Exchange Rate Mechanism II. The fixed exchange rate policy has been a cornerstone of the Danish economy for 40 years and contributes to ensuring stable prices. The central rate of the krone against the euro – and previously the German D-mark – has been unchanged since 1987.

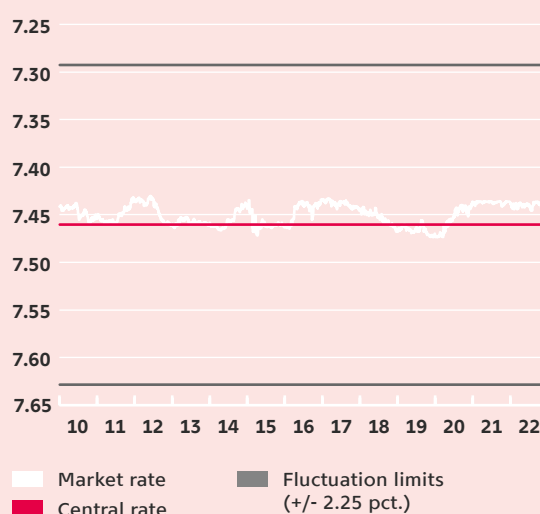
The rate of the krone against the euro was stable in 2022 on the strong side of the central rate, see chart 1. Danmarks Nationalbank increased the benchmark monetary policy interest rates four times in 2022 with a total of 2.35 percentage points to 1.75 per cent for the current account rate and the interest rate on certificates of deposit (CD rate) and 1.9 per cent for the interest rate on the lending facility, see chart 2. The interest rate increases followed in immediate continuation of the European Central Bank's (ECB) increase of its benchmark monetary policy interest rate, the interest rate on its deposit facility, by a total of 2.5 percentage points to 2 per cent on the basis of heavy price increases in the euro area. In July, September and December, Danmarks Nationalbank raised the monetary policy interest rates at the same rate as the ECB and by 0.15 percentage points less than the ECB in October on the basis of prior interventions. Danmarks Na-

tionalbank thus followed its usual response pattern. This meant that the monetary policy interest rate spread to the euro area was expanded from -0.1 to -0.25 percentage points.

Chart 1

Stable krone close to the central rate

Kroner per euro



Note: An increase in the chart means that the krone's value has strengthened against the euro

Source: Danmarks Nationalbank.

During 2022, Danmarks Nationalbank bought foreign currency totalling kr. 54.8 billion in connection with foreign exchange market interventions. This contributed to increasing the foreign exchange reserve by kr. 43 billion to kr. 578.1 billion at year-end.

A new Danish overnight reference rate, Denmark Short-Term Rate (DESTR), was launched on 1 April 2022. Unlike its predecessor (the T/N rate), DESTR is a reference rate based solely on actual transactions. DESTR provides a more accurate money market rate, which supports the pass-through from Danmarks Nationalbank's interest rates to the money market interest rates and thus to the exchange rate of the krone against the euro. DESTR followed the monetary policy interest rate increases and remained at a stable level slightly below the current account rate.

High inflation and significant uncertainty about the economic outlook in 2022 led to large fluctuations in the financial markets. This applied particularly to the bond markets, see chart 3. For the year as a whole, the yield on the 10-year Danish government bond increased by 2.7 percentage points, which was in line with the increase in the 10-year German government yield. Until October, however, Danish government yields rose by more than German yields, with a consequent widening of the 10-year government yield

spread to 0.4 percentage points. One reason for the widening was that increased volatility and uncertainty in the markets caused investors to seek towards core markets such as the market for German government bonds. This resulted in relatively poorer liquidity in Danish government bonds relative to German bonds. The government yield spread narrowed in the last months of the year, as Danish government yields decreased by more than German government yields.

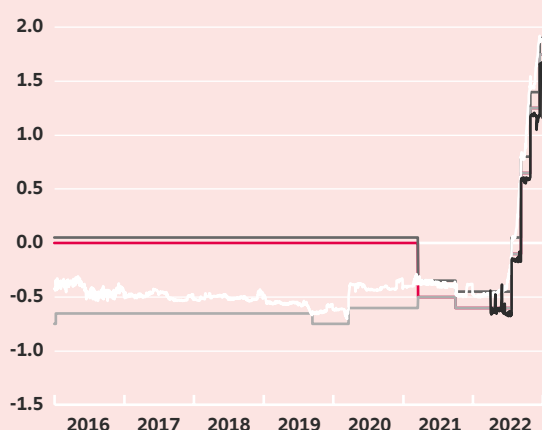
Danish mortgage bond yields also rose sharply in 2022. The yield on 30-year, fixed-rate, callable mortgage bonds increased from approx. 1.8 per cent in early January to approx. 4.8 per cent at the end of December, and a similar increase was seen in short-term mortgage bonds. This reflected a number of factors, including the increase in government bond yields and rising risk premiums. Price falls on long-term mortgage bonds offered homeowners with fixed-rate loans the opportunity to convert their mortgage loans and realise capital gains. Overall, financing conditions for Danish households and companies have become significantly tighter during 2022, both in nominal and real terms.

Danish equity prices (OMX C25) fell 13.5 per cent in 2022 and saw large fluctuations, including as a result of Russia's invasion of Ukraine, high inflation and ris-

Chart 2

Monetary policy interest rates increased significantly in 2022

Per cent



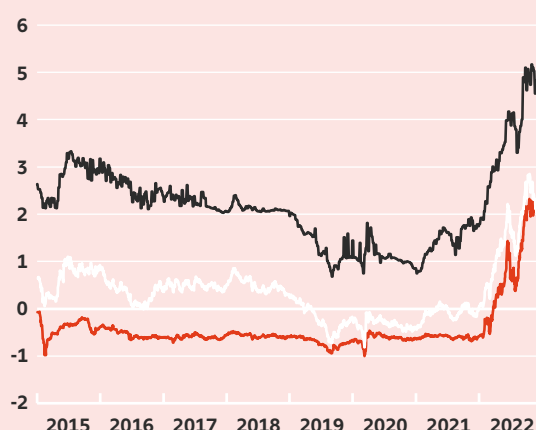
Legend:
 Cita swap rate
 DESTR
 Current account rate
 CD rate
 Lending rate

Note: 1-month Cita swap rate.
 Source: Refinitiv Eikon and Danmarks Nationalbank.

Chart 3

Government bond and mortgage bond yields increased sharply in 2022

Per cent



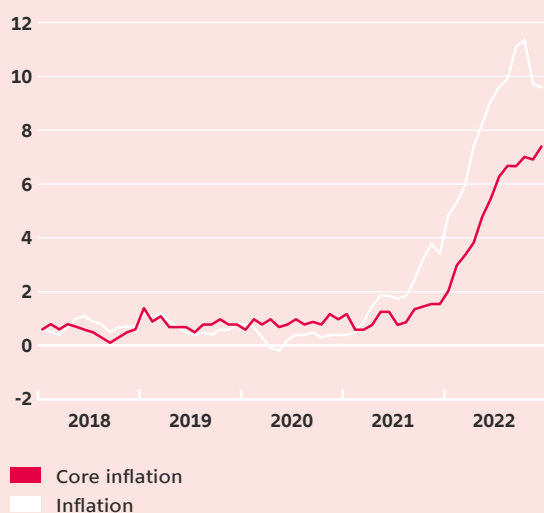
Legend:
 2-year government bond yield
 10-year government bond yield
 30-year mortgage bond yield
 10-year mortgage bond yield

Note: Government bonds are based on par yields. The mortgage bond yield is based on benchmark bonds.
 Source: Refinitiv Eikon and Danmarks Nationalbank.

Chart 4

Inflation rose to its highest level in 40 years in 2022

Per cent, year-on-year



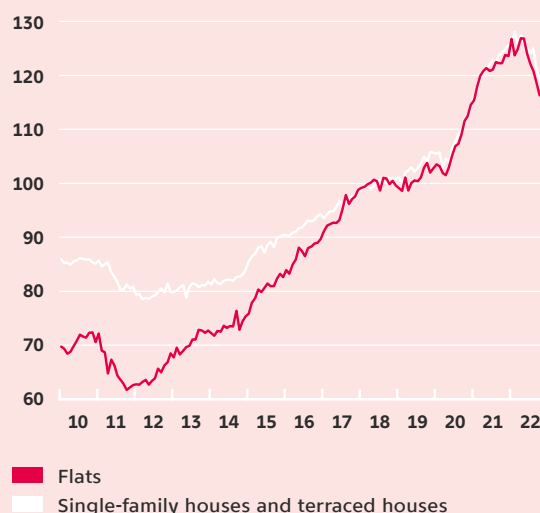
Note: Inflation has been calculated using the EU Harmonised Index of Consumer Prices (HICP). Core inflation is HICP excluding energy and unprocessed foods.

Source: Statistics Denmark.

Chart 5

House prices fell significantly in 2022

Nominal house prices, index 2018 = 100



Source: Boligsiden and Danmarks Nationalbank.

ing interest rates. However, the fall in equity prices in 2022 should be seen in the context of large increases in 2020-2021, which were characterised by economic recovery after the coronavirus pandemic. Seen over the past three years, equity prices have increased by approx. 35 per cent.

Going into 2022, the world economy was characterised by significant disruptions in production and consumption patterns. The strong recovery in economic activity after the pandemic, together with accommodative economic policies, generated strong demand, while supply in parts of the economy was hampered by logistics and production constraints stemming from the pandemic. Russia's invasion of Ukraine in late February exacerbated these imbalances. This particularly manifested itself in global commodity markets, where, for example, supply difficulties resulted in very high increases in energy and food prices. The war thus accelerated global inflation, which was already on the rise in the wake of the pandemic.

Danish consumer prices rose by 11.4 per cent in October compared to the same month a year earlier, the highest rates of increase in 40 years, see chart 4. The price increases slowed down towards the end of the year, but core inflation, i.e. consumer prices

excluding energy and unprocessed foods, continued to rise to 7.4 per cent in December. For the year as a whole, inflation and core inflation were 8.5 per cent and 5.3 per cent, respectively.

During the year, the large global shifts between supply and demand gradually diminished. This led to a decrease in a number of commodity and freight prices. Energy prices also fell after August. This should be seen in the context of the build-up of large gas stocks as well as mild autumn weather. Although price increases early in production chains began to fall, it typically takes time for the price fall to pass all the way through the production chains to consumers.

The large price increases and higher interest costs took a toll on the purchasing power of Danish households in terms of real disposable income. Consumer confidence fell during the autumn to its lowest level in 48 years, and consumption plummeted.

The sharp increases in mortgage rates during 2022 made home purchases considerably more expensive, and, together with generally weakened purchasing power, this contributed to a significant slowdown in trading activity after two years with a record number of housing transactions. House prices also began to

fall. Nationally, prices for single-family homes were 10.7 per cent lower in December compared to February, when they were at their highest, see chart 5. House prices fell in all parts of Denmark, but with the highest falls being in the Capital Region of Denmark.

In 2022, Danish exports benefited from the growth in export markets and buoyed growth in Denmark, while the economic slowdown began to set in domestically. The development in industrial output, which is closely linked to exports, also performed well. The increase in exports of goods was mainly supported by exports of medicines, which are less cyclically sensitive, while high freight rates resulted in high earnings on shipping exports. The value of exports increased by a total of 28.7 per cent and imports by 24.3 per cent. The current account surplus increased to kr. 358 billion corresponding to 12.8 per cent of GDP.

Despite the slowdown in private consumption, the Danish economy was still in a boom in 2022. For the year as a whole, GDP grew by 3.6 per cent, which was higher than in the years leading up to the pandemic. However, the high growth rate was especially due to a very strong recovery following the pandemic, and the growth rate during the year (from 4th quarter 2021 to 4th quarter 2022) was 1.5 per cent, see chart 6.

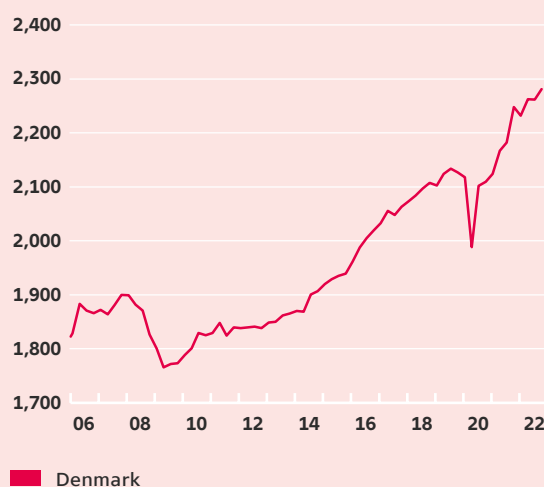
The increase in output meant that the labour market continued to grow in 2022, with employment increased by slightly more than 5,000 persons per month on average. This was significantly faster than in the years leading up to the pandemic, while at the same time employment was approx. 176,000 people higher than at the end of 2019. Despite signs of a slowdown in employment growth at the end of the year, labour market pressures remained significant. Unemployment remained very low, and many companies continued to report labour shortages, although the share fell slightly during the year. Pressure on the labour markets gave rise to slightly higher wage increases during 2022, which was moderate compared to the development abroad.

Through 2022, fiscal policy propped up economic activity. This was done through a number of measures, including compensation schemes aimed at helping households and companies with the consequences of the sharp price increases. Danmarks Nationalbank pointed out that the compensation schemes as a whole should not increase activity and thus the pressure in the economy. Danmarks Nationalbank also pointed out that the measures should not be price-distorting as consumers' incentive to reduce

Chart 6

Danish economy continued to grow in 2022

Kr. billion, 2010-chained values



Source: Statistics Denmark.

their energy consumption was to be maintained. Otherwise, there is a risk that energy prices will be pushed up further. Danmarks Nationalbank recommended that fiscal policy should let air out of the economy elsewhere if the compensation schemes resulted in higher demand and increased capacity pressure in the economy.

Several times during the year, Danmarks Nationalbank pointed out the importance of dampening capacity pressures in the economy, because the combination of high inflation and a very tight labour market could, over an extended period, act as a catalyst for de-anchoring inflation expectations and wage growth, often referred to as a wage-price spiral. Danmarks Nationalbank also recommended in July and again in September that fiscal policy should contribute to dampening capacity pressure by just under 1 per cent of GDP in 2023 in addition to what was contained in the Finance Bill in order to contain the risk of an independent wage-price spiral gaining momentum in Denmark.

First climate-related disclosure from the foreign exchange reserve

For the first time, Danmarks Nationalbank discloses the climate footprint from parts of the foreign



FIRST CLIMATE-RELATED DISCLOSURE
FROM THE FOREIGN EXCHANGE RESERVE

For the first time, Danmarks Nationalbank discloses the climate footprint from parts of the foreign exchange reserve



Table 1

Climate footprint for Danmarks Nationalbank's foreign exchange reserve

	Bonds issued by central governments and regional authorities		Equities and corporate bonds (ETFs)	
	2022	2021	2022	2021
Allocation of emissions	Production-based		Scope 1-2	
Weighted average carbon intensity (tonnes of CO ₂ e per million euro in GDP or revenue)	198	216	56	106
CO₂e footprint (tonnes of CO ₂ e per million euro invested)	175	248	19	53
Absolute financed emissions (tonnes of CO ₂ e)	965,691	2,107,460	26,806	98,176
Share of market value of foreign exchange reserve in 2022 (per cent)	7.9		2.0	

Note: Danmarks Nationalbank's holdings of bonds issued by central governments and regional authorities as well as ETFs are stated as of 30 December 2021 and 30 December 2022. The foreign exchange reserve is stated excluding gold and IMF loans. CO₂e emissions, GDP, revenue, EVIC as well as total bond issuances by central governments and regional authorities for 2021 have been used in 2022, as data for 2022 were not available at the time of disclosure.

Source: UNFCCC, World Bank, Bloomberg, MSCI and own calculations.

exchange reserve.¹ With the disclosure, Danmarks Nationalbank aims to contribute to greater transparency on the climate footprint of financial portfolios, in line with other central banks in Europe.

The disclosure covers approx. 10 per cent of the foreign exchange reserve (excluding gold and IMF loans), equal to approximately kr. 50 billion. This is the part invested in bonds issued by central governments and regional authorities as well as exchange-traded funds (ETFs), see table 1. For these asset classes, there exist widely recognised calculation methods and sufficient data to disclose. Danmarks Nationalbank will eventually cover a larger part of the foreign exchange reserve, as calculation standards and data are developed and improved.

Table 1 reports the climate footprint of the foreign exchange reserve, calculated using three methods. The calculations indicate a lower climate footprint in 2022 than in 2021. The decrease reflects both changes in the composition of the portfolio as well as a smaller holding of bonds issued by central governments and regional authorities. In 2022, Danmarks Nationalbank chose to restructure its holdings of ETFs so that investments are exclusively made in ETFs that meet EU requirements for benchmarks that comply with the Paris Agreement.

Climate-related disclosure of financial portfolios is an area in evolution. One should be careful with interpreting year-on-year fluctuations. The calculations do not express the effect on actual greenhouse gas emissions when individual investors restructure their portfolios. Nor can the calculations be used as a guideline for whether the issuers comply with the Paris Agreement's climate objectives for 2050. Danmarks Nationalbank does not use the calculations in its active liquidity management.

Financial system stability

Danmarks Nationalbank contributes to ensuring the stability of the financial system by analysing the financial sector, overseeing and assessing systemic risks and making recommendations in this area. In addition, Danmarks Nationalbank oversees the payments infrastructure, produces financial statistics and acts as secretariat for the Systemic Risk Council.

After a long period of low interest rates and global economic growth, there were signs of a slowdown in growth, both globally and in Denmark, in 2022. Financial markets have seen increased stress levels in 2022, and interest rate hikes and highly increased volatility caused extensive losses in the bond markets and increased collateral requirements in derivatives markets. In 2022, the banks had adequate liquidity buffers, but raising liquidity via the market became more expensive. The situation in the financial markets and the real economy showed that the demand for liquidity from the banks' customers can change rapidly and that the banks need to be more prepared for increasing liquidity needs and higher demand for loans than previously.

As a result of rising interest rates, more homeowners have taken out variable-rate mortgage loans, and an increasing proportion of those are with deferred amortisation. Highly mortgaged homeowners with this type of loan are particularly vulnerable to house price falls and higher interest rates. In the financial stability report from December 2022, Danmarks Nationalbank stressed that a solid financial position is essential for these homeowners in order to withstand sharp interest rates increases.

Bank lending to corporate customers has risen markedly in 2022. The increase is broadly distributed across industries and reflects, among other factors, that corporate customers have needed additional financing on an ongoing basis, including due to challenges in supply chains and high commodity and energy prices.

Low impairment charges continue to support bank earnings. Higher interest rates, high inflation and the prospect of a slowdown in growth are expected to worsen some customers' debt service capacity, which entails a risk of the institutions having to make further impairment charges. Conversely, higher interest rates

1 The methodological background and the calculations on which the disclosure is based can be found in Danmarks Nationalbank, Disclosure of climate footprint of the foreign exchange reserve: Background and methodology, *Danmarks Nationalbank Report*, No. 3, March 2023.

are expected to further increase net interest income, thus contributing to safeguard against credit losses.

Capital buffers are an important tool for limiting financial losses during any crisis period. Capital buffers help mitigate the real economic downturn that would otherwise follow if households' and companies' access to credit was tightened inexpediently. It is important that capital buffers are able to act as a cushion and absorb losses during an economic downturn, so that banks can continue to extend credit. In 2022, Danmarks Nationalbank published an analysis on capital buffers. The analysis pointed out among other things that the interaction between the different requirements for the banks limits the effective use of capital buffers. The regulation in this area should therefore be adjusted so that capital used to meet the capital buffer requirements is not concurrently used to meet other requirements.

Danmarks Nationalbank's stress test of the Danish banking sector showed from the second half of 2022 that all institutions in the analysis can cope with a recession scenario with significant excess capital adequacy relative to the risk-based capital buffer requirements if the countercyclical capital buffer is released. However, some systemically important credit institutions will come close to breaching the capital buffer requirements in a severe recession. These institutions therefore need their current excess capital adequacy to absorb losses and withstand stress.

Danmarks Nationalbank and the green transition

Climate change and the consequences of the green transition have the potential to upset financial stability. In 2022, Danmarks Nationalbank has initiated work to identify the climate-related financial risks that may be significant for the financial system in Denmark. An example of a risk could be companies'

The Systemic Risk Council

Danmarks Nationalbank chairs and provides secretariat services for the Systemic Risk Council. The task of the Systemic Risk Council is to oversee, identify and limit systemic risks. The Systemic Risk Council may comment on financial matters, including the development in systemic risks and financial regulation, which the Council finds to be significant in relation to financial stability.

Every quarter, the Systemic Risk Council assesses the adequate countercyclical capital buffer level. In March 2022, the Council assessed that high risk appetite, low interest rates, accommodative financing terms and high economic growth created a fertile ground for build-up of risks. Therefore, the Council chose to recommend to the Minister for Industry, Business and Financial Affairs that the buffer rate be raised to 2.5 per cent from 31 March 2023. The Minister for Industry, Business and Financial Affairs has followed the Council's recommendation, and the countercyclical capital buffer was thus increased accordingly to 1 per cent from the end of September 2022, to 2 per cent from the end of December 2022 and to 2.5 per cent from the end of March 2023.

In 2022, the Systemic Risk Council stressed the importance of ensuring that the buffer is built up when the economy is doing well and risks are building up, thereby cushioning the institutions for when the economic trends reverse and the risks and losses materialise. The war in Ukraine has resulted in increased uncertainty about the future development of the economy and financial conditions. The Council is ready to recommend a reduction of the buffer rate with immediate effect if stress occurs in the financial system and there is a risk of severe tightening of credit granting to households and companies.

In September, the Systemic Risk Council published an observation that more widespread use of variable-rate loans and deferred amortisation contributes to risk build-up and may increase losses in the financial institutions in the event of a cyclical downturn. Homeowners who take out variable-rate loans with deferred amortisation risk markedly higher debt service in the event of rising interest rates, which may entail significantly reduced disposable income and increased risk of loan default. In September, the council discussed the use of deferred amortisation and assessed that it is still important for highly indebted homeowners to build up resilience against potential declines in house prices. During the financial crisis deferred amortisation contributed to increased debt defaults as well as greater losses for credit institutions. For homeowners with a low loan-to-value ratio, deferred amortization can, however, be a reasonable tool to smooth consumption and increase savings

The Systemic Risk Council is also the macroprudential authority for the Faroe Islands and Greenland. This means that the Council is also monitoring systemic risks there and recommending macroprudential policy measures for the Faroe Islands and Greenland. In March 2022, the Minister for Industry, Business and Financial Affairs activated the countercyclical capital buffer for the Faroe Islands of 1 per cent for 1st quarter 2022 with effect from 31 March 2023. The decision to increase the countercyclical capital buffer was based on a recommendation from the Systemic Risk Council in December 2021 and must be seen in the context of high house price growth and credit growth.

Financial Sector Forum for Operational Resilience

Danmarks Nationalbank chairs and provides secretariat services for the Financial Sector Forum for Operational Resilience (FSOR) which is a public-private partnership between 25 key private financial sector participants and authorities in the financial sector. Operational resilience covers a number of risks, including the risk of disruption from cyberattacks.

FSOR addresses operational risks that could threaten the stability of the financial sector. Every six months, FSOR revisits its risk analysis for the financial sector, assesses risks and makes decisions about mitigating actions.

Changes in security policy conditions may quickly change the threat outlook, and the war in Ukraine has contributed to a changed threat outlook in 2022. In 2022, FSOR has focused on risks related to, for example, the ability to restore critical functions after a serious cyberattack, use of cloud services, cyber activism and controlled shutdowns in the electricity system.

FSOR has established a crisis management plan aimed at ensuring coordination between organisations in a crisis situation in which the vital parts of the sector are affected. Biannual tests are conducted to provide a better foundation in the event that the financial sector is hit by a major operational incident. FSOR's annual reports and risk analysis method can be found on Danmarks Nationalbank's website.

The Danish Payments Council

Danmarks Nationalbank chairs and provides secretariat services for the Danish Payments Council. In 2022, two meetings of the Danish Payments Council were held as usual. The object of the Danish Payments Council is to promote the efficiency and security of payments for citizens, companies and banks. The Payments Council consists of 13 members, all of whom have a broad interest in retail payments.

The Danish Payments Council continuously monitors the development in the retail payments area, including the implementation of new legislation, and in 2022 the Council discussed topics such as the implementation of the EU's revised Payment Services Directive. The Council's agendas in 2022 also included a status on the development in the citizens' payment habits in Denmark, including the development in the use of cash and digital payment solutions, as well as decreasing unauthorised use of and fraud with payment cards.

higher costs of emitting greenhouse gases. The Danish economy depends on foreign countries which also increases its vulnerability towards climate-related risks in other countries. Thereby, consequences of global climate changes may have an impact on the financial sector in Denmark. In addition, the agricultural sector may, for example, risk declining earnings as a result of materialisation of physical climate risks such as extreme rain or drought.

Danmarks Nationalbank also published an analysis of the effects of energy renovations on the sales price of single-family houses. Despite geographical variation, the overall trend is that energy efficiency improvements typically cost more than they increase the sales price. Homeowners' incentive to make energy renovations is therefore primarily supported by reductions in their energy bill.

Secure payments

Danmarks Nationalbank contributes to the secure and effective settlement of electronic payments in Denmark, including by ensuring that the banks can settle their transactions between them, and by overseeing systemically important payment and settlement systems. In addition, Danmarks Nationalbank chairs the Danish Payments Council and the Financial Sector Forum for Operational Resilience.

In 2022, Danmarks Nationalbank continued to gather the settlement of the banks' payments and securities transactions in Danish kroner on the pan-European infrastructure TARGET Services. This will provide economies of scale, and cooperation with the other central banks will strengthen a number of areas such as cybersecurity. Cooperation with both the financial sector in Denmark and the European Central Bank (ECB) on the migration to TARGET Services went according to plan during the year. In 2022, the project has concluded the clarification phase and has come far with design and implementation aimed at initiating a test between Danmarks Nationalbank and the ECB from mid-2023, followed by a sector test from the beginning of 2024. The migration will take place in April 2025.

Danmarks Nationalbank oversees that payments and financial transactions in Denmark can be completed securely and efficiently. The oversight covers the central payment and settlement systems as well as



SECURE PAYMENTS

**Ensuring safe and
efficient payments
is one of Danmarks
Nationalbank's
core tasks**

the main payment solutions and is based on international standards and guidelines. The oversight is reported in the annual publication on oversight of financial infrastructure. In 2022, Danmarks Nationalbank's oversight has continued to focus on cybersecurity in the overseen systems. In 2022, Danmarks Nationalbank has concluded an assessment of the Danish retail clearings' compliance with international guidelines for good handling of cybersecurity risks. In the ongoing oversight, there is follow-up on how those responsible for the overseen systems work with and comply with Danmarks Nationalbank's recommendations in this area.

Since the beginning of 2019, a special unit of Danmarks Nationalbank has coordinated testing of cyber resilience in the financial sector via so-called threat-based red team testing (TIBER-DK). The test participants are the largest financial institutions and critical infrastructure. In this test, an ethical hacker team tries to gain access to pre-specified functions and data that are critical to society in the test participants' IT systems by simulating real cyberattacks. The goal is that the test participants are themselves to pinpoint weaknesses in the cyber defence, after which they can be addressed in order to increase cyber resilience. In 2022, the tests have had special focus on data protection and attacks via critical suppliers in the supply chain. EU legislation is in the pipeline in relation to threat-based red team tests (DORA, Digital Operational Resilience Act), and Danmarks Nationalbank continues to incorporate the Danish test experiences in the work with the detailed guidelines for the tests.

Trends in payment habits

In 2022, Danmarks Nationalbank published two analyses on citizens' payment habits and the use of cash in Denmark. The analyses showed that cash is used less and less for payments in physical trade and between private individuals, while digital behaviour is widely rooted in the population. Consequently, the vast majority of payments are made either with payment cards or mobile phones in physical trade. Especially the digital behaviour of senior citizens is a vital element in making Denmark one of the most digitalised countries when it comes to payments. Danmarks Nationalbank will continue to analyse retail payments to contribute to insight and transparency in the payments market and thereby support secure and efficient payments in Denmark.

New types of digital money

In 2022, Danmarks Nationalbank published an analysis on new types of digital money, including cryp-

to-assets and central bank digital currency (CBDC). The analysis pointed out that crypto-assets are still not suitable as money, and several incidents in 2022 have highlighted that the crypto-asset market is subject to great uncertainty and risk.

Several central banks are exploring the possibilities of retail central bank digital currency, but the motivations vary widely from country to country, ranging from financial inclusion to geopolitical concerns. Danmarks Nationalbank continuously assesses the various motivations and their relevance in relation to the financial system in Denmark. At present, and with the associated costs and possible risks, it is not clear how a retail CBDC will add significant value relative to the existing solutions in Denmark.

Danmarks Nationalbank follows the development in crypto-assets and central bank digital currency closely. For Danmarks Nationalbank, it is essential at any given time that the money and payment methods that are available are secure and effective for citizens and society.

Banknotes and coins in circulation

Danmarks Nationalbank is the banknote and coin issuing authority in Denmark.

The value of banknotes and coins in circulation was kr. 75.1 billion at the end of 2022. This is kr. 2.5 billion down on the previous year and is equal to a decrease of 3.2 per cent, see chart 7. The value of banknotes in circulation was kr. 68.9 billion, of which the value of Faroese banknotes in circulation constituted kr. 0.5 billion. The total value of coins in circulation increased by 0.5 per cent to kr. 6.3 billion.

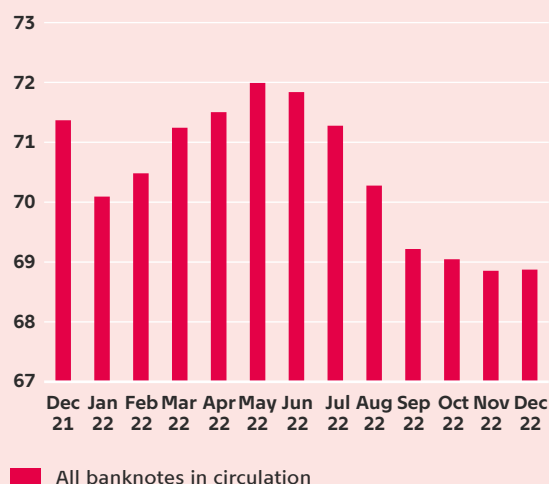
The decrease in banknotes in circulation can be a derived effect of the increase in interest rates in the second half of 2022 which have reduced the demand. Likewise, the Danes' primary payment solutions are still digital solutions such as payment cards, Betalingsservice payments (direct debit payment method), online banking and services such as mobile payments.

During the first half of 2022, banknotes in circulation increased by kr. 0.5 billion to kr. 71.8 billion. This is a minor increase of 0.7 per cent. There was still higher

Chart 7

Volume of banknotes in circulation

Kr. billion

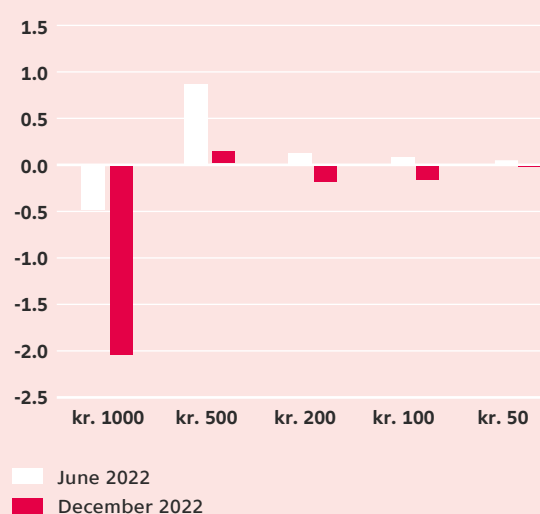


Source: Danmarks Nationalbank.

Chart 8

Change in circulation of all banknotes

Kr. billion



Note: Change in circulating banknote types in relation to circulation at the end of 2021.

Source: Danmarks Nationalbank..

demand for 500-krone banknotes, whereas 1000-krone banknotes in circulation fell by 1.7 per cent.

After the increase in the first half of 2022, banknotes in circulation fell in the second half of 2022, where especially 1000-krone banknotes in circulation fell by 7.5 per cent to kr. 25.2 billion, see chart 8.

The value of 500-krone banknotes in circulation, which increased rapidly in 2021, exceeded the value of 1000-krone banknotes in circulation during 2022. At the end of 2022, the value of 500-krone banknotes in circulation amounted to kr. 27.4 billion.

Counterfeiting of Danish banknotes remained very limited. The number of registered counterfeit banknotes rose from 795 in 2021 to 1,452 in 2022. Of these, 985 were found in circulation.

The counterfeit banknotes registered were mainly 1000-krone banknotes. Registered counterfeit banknotes account for approximately eight banknotes per million in circulation, based on a total number of banknotes in circulation of 190.7 million. This is a very limited number in an international context.

Inspection of gold

In September 2022, an inspection was carried out of Danmarks Nationalbank's gold holdings in the Bank

of England. The inspection visit was based on a random inspection of Danmarks Nationalbank's gold bars, where, among other things, degree of purity and weight were checked. There was agreement between the recorded data and the controls carried out, and the inspection visit therefore did not give rise to any comments.

Restoration and renovation of Havnegade 5

Danmarks Nationalbank's listed building at Havnegade in Copenhagen is undergoing major and necessary restoration and renovation work.

The building was designed by Danish architect Arne Jacobsen and is regarded as one of Denmark's most significant expressions of modernist architecture. The building is listed, and it is being restored in a close dialogue with the Danish Agency for Culture and Palaces. The construction period will run over several years, and the majority of Danmarks Nationalbank's employees have moved to a temporary domicile at Langelinie Allé in Copenhagen.





New strategy

Danmarks Nationalbank continuously adjusts its objectives, organisation and performance of tasks to be able to meet its objects in response to a changing world.

Danmarks Nationalbank implemented a new strategy in 2022. The strategy contains three strategic objectives aimed at supporting Danmarks Nationalbank in meeting its objects. The three strategic focus areas are:



Visionary and responsive

We oversee economic and financial developments and analyse the consequences of the fixed exchange rate policy.

We keep abreast of developments in the financial sector and assess new trends and technologies with a focus on maintaining financial stability as well as a secure and efficient payments infrastructure.

We engage in national and international collaboration to analyse the economy and ensure appropriate regulation of new actors and products in the financial sector.

Relevant agendas and cutting-edge analyses

We prepare timely and cutting-edge analyses of topics of relevance to the Danish economy and the financial sector, in both the short term and the long term.

We are at the forefront of economic and financial analyses and use of new technology, new data sources and research methods.

We set new agendas and qualify the public debate, and we adapt to developments in communication forms and channels.

Excellent professionalism and high credibility

Strategic vision is an integral part of the performance of our tasks, supported by up-to-date, cyber-resilient and efficient IT tools and infrastructure.

We achieve better results by bringing diversity into play. We focus on diversity and inclusion.

We have a strong learning culture that helps us develop excellent professionalism and attract the best employees.



The launch of the strategy in May was accompanied by an implementation in the organisation as well as several internal and external initiatives. This includes a new policy for diversity, inclusion and equal opportunities as well as a new employer branding strategy.

The strategy has been prepared to support Danmarks Nationalbank's three main objectives, which are to help ensure stable prices, secure payments and the stability of the financial system.

The restoration and renovation project includes protection against rising sea water and cloudbursts, replacement of marble and glass façades, environmental remediation and improvement of fire safety and indoor climate. In accordance with Danmarks Nationalbank's sustainability strategy, it has been decided to strive towards sustainability certification (DGNB Gold). At the same time, the interiors must be updated to meet the requirements of a modern and flexible workplace.

In 2022, a number of pilot projects were performed on façade and interior works. The results from these projects are included as a central knowledge base in the design.

Open and targeted communication

Danmarks Nationalbank sees it as an important task to be in continuous dialogue with decision-makers, the financial sector, opinion-formers and the wider public.

Danmarks Nationalbank communicates about its analytical work, its role and its tasks through various communication platforms. Almost 41 publications were published and four press conferences were held on the outlook for the Danish economy and monetary financial trends, as well as financial stability and stress tests of the banks. In addition, financial statistics are produced.

Danmarks Nationalbank's employees and Board of Governors have given a large number of virtual and physical presentations in Denmark and abroad, as well as a large number of interviews.

Danmarks Nationalbank also contributes to increasing children's and young people's understanding of society's economy and, in particular, the financial sector. This is done through a number of activities such as lectures for upper secondary school classes, and Danmarks Nationalbank again worked with Finance Denmark on the annual Money Week, where the oldest school classes can learn more about, among other things, money and personal finances and the role of the financial sector in society. Danmarks Nationalbank also offers a teaching website for upper secondary school classes, where they can learn more about monetary policy and the role of banks in the Danish economy.

Net profit/loss for 2022

Danmarks Nationalbank posted a loss of kr. 8,464 million in 2022, against a profit of kr. 194 million in 2021.

The net profit/loss for the year was driven by the factors presented in chart 9.

The loss was primarily due to capital losses on the bond portfolio as a result of the higher interest rate level. Interest-bearing foreign instruments resulted in a total loss of kr. 5.5 billion, while the loss on domestic bonds was kr. 1.3 billion. Equity prices also fell and contributed with a loss of kr. 1.7 billion. In previous years, price developments in equities and bonds contributed positively to the net profit/loss for the year.

Interest on deposits resulted in an expense of kr. 0.1 billion, while losses on exchange rate adjustments were kr. 0.1 billion.

Value adjustment of the gold stock contributed positively to the net profit/loss for the year with kr. 1.5 billion. The financial deficit of kr. 7.2 billion in 2022 corresponds to approx. 1.2 per cent of the amount of the financial portfolios.

Danmarks Nationalbank's earnings have been structurally low over the past many years with negative interest rates. The higher interest rate level will result in higher earnings in the coming years. This is due to an expected increase in the part of the earnings which comes from seigniorage and the return on the counterpart of the net capital. When interest rates are positive, the earnings contribution from this is positive, and it is conversely negative when interest rates are negative.

Danmarks Nationalbank therefore expects higher earnings in the future if interest rates remain at a higher level.

Costs, depreciation and amortisation amounted to kr. 1.3 billion. The increase in costs and depreciation and amortisation relative to the previous year is mainly due to transition costs in connection with the switch to new IT service providers as well as rising energy prices. Added to this is a minor increase in the number of employees as a result of large-scale strategic projects. The projects concerning the migration of Danish kroner to TARGET Services and the

renovation of Danmarks Nationalbank's building in Havnegade will require significant resources in Danmarks Nationalbank also in the coming years.

Allocation of profit/cover of loss for the year

The results basis for the transfer to the central government is calculated as the average of the financial results of the last five years, excluding gold price adjustments. If the results basis is negative, Danmarks Nationalbank's net capital absorbs the loss.

If the results basis is positive, a decision is made on any transfer based on the development in net capital. The determination of the transfer rate

takes into account that, over time, Danmarks Nationalbank's net capital should increase at the same rate as nominal GDP – unless there is an extraordinary need for consolidation. This is based on a projection of Danmarks Nationalbank's earnings.

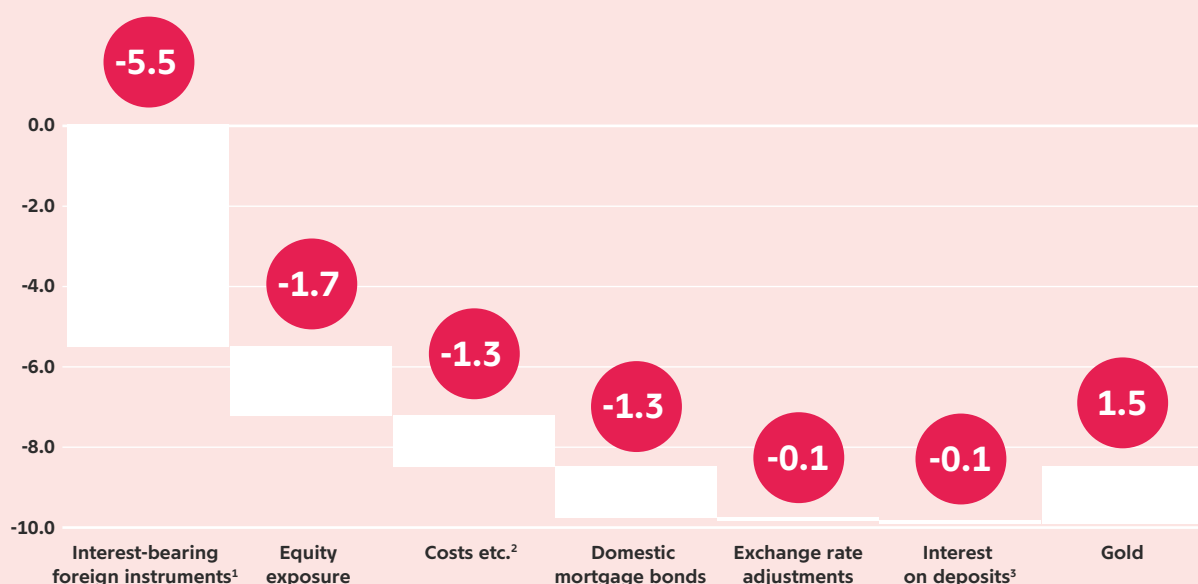
As the results basis is negative, no amount is transferred to the central government for the 2022 financial year.

The loss of kr. 8,464 million for the year is covered by a transfer from Danmarks Nationalbank's General Reserves. The net capital subsequently amounts to kr. 73,132 million.

Chart 9

Net profit/loss for 2022

Kr. billion



Source: Danmarks Nationalbank.

1. Contributions from foreign bonds, money market deposits and hedging (e.g. FX swaps).

2. Costs, dividend and profit margins from financial fixed assets, etc.

3. Interest from banks and central government, etc.

Organisation

1 March 2023



Board of Directors

Committee of Directors

Audit

Helle Munk Miltoft

Board of Governors

Governor

Signe Krogstrup

**Governor by
Royal Appointment,
Chairman**

Christian Kettel Thomsen

Governor

Per Callesen

**Banking
and Markets**

Martin Wagner Toftdahl

**Economics and
Monetary Policy**

Thomas Harr

Research

Steffen Andersen

**Secretariat and
Communications**

Interim

Mathies

Lau Friis Laursen

Financial Stability

Peter Ejler Storgaard

Financial Statistics

Bent Allan Christiansen

Corporate Services

Lone Mortensen

Organisation

Danmarks Nationalbank focuses on being a well-functioning, efficient and attractive workplace with a strong learning culture that develops excellent professionalism and attracts the best employees.

Danmarks Nationalbank had 461 full-time employees at the end of 2022, of whom 240 were employed in the economic departments. This is 11 employees more than the previous year, which is mainly due to the addition of resources to the project of migrating Danish kroner to the pan-European infrastructure TARGET Services. Staff turnover fell in 2022 to 14.5 per cent from 15.5 per cent in 2021. A total of 72 employees left Danmarks Nationalbank during 2022, and 85 new employees were appointed.

In 2022, total absence due to illness increased to 7.4 days per employee compared to 6.3 days per employee in 2021. Excluding long-term illness, absence increased to 4.3 days per employee, compared to 3.2 days per employee in 2021.

Posting

In 2022, 20 employees were posted to national and international organisations, such as the European Central Bank, the EU representation and the Bank for International Settlements. Such postings are part of Danmarks Nationalbank's objective to increase its knowledge levels, develop the bank's employees and exert influence on the work of international organisations. The pandemic has lowered the travel activity over the past few years. This year, when it has again become possible to travel, several employees have

been posted and have thus had a central role in the cooperation with international organisations.

Diversity, inclusion and equity policy

Danmarks Nationalbank wants to be a diverse and inclusive workplace offering equity for all its employees. Diversity and inclusion are a focal point in the strategy, and a new policy has been drawn up in this area in 2022 with a goal that Danmarks Nationalbank will have a more diverse composition of employees by 2025. In order to focus these actions, four areas (gender, age, education/experience, as well as nationality, ethnicity and cultural background) have initially been selected where special action will be taken to achieve diversity, inclusion and equity. To achieve a gender-balanced composition of managers and employees, target figures have been set for 2025.

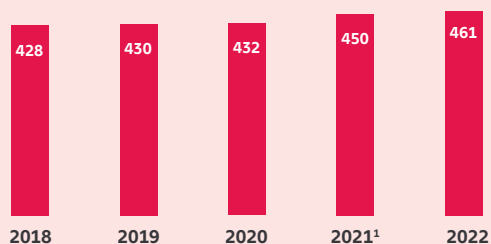
At the end of 2022, the gender distribution in the group management was 2 women and 7 men, i.e. 22 per cent and 78 per cent, respectively. Among the heads of section, the gender distribution at the end of 2022 was 7 women and 16 men, corresponding to 30 per cent and 70 per cent, respectively.

Whistleblower scheme

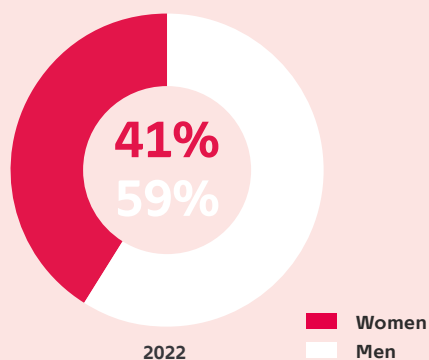
Danmarks Nationalbank has a whistleblower scheme where, among other measures, it is possible for the bank's employees and members of the Committee of Directors and Board of Directors as well as suppliers and business partners to report violations of EU law in areas provided for in the Whistleblowing Directive, serious offences and other serious matters. No reports were received in 2022.

Danmarks Nationalbank has an external and independent law firm that is responsible for receiving and following up on any reports submitted under the whistleblower scheme. All reports must be made through Danmarks Nationalbank's whistleblower portal, which ensures confidentiality. Reporting can also be done anonymously.

Development in full-time employees

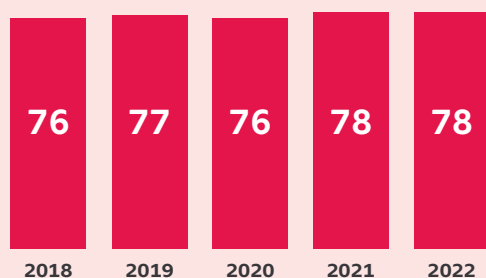


¹ From 2021, PhD students will be included based on their agreed working hours in the bank, and therefore counts as 0.15 FTE instead of 1.0 FTE. The number of employees is as at the end of the year.



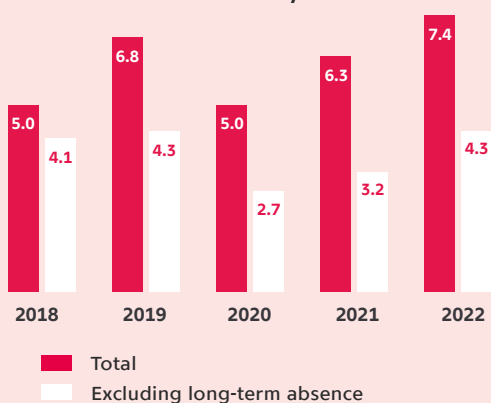
Work satisfaction

In 2022, work satisfaction was unchanged compared to previous year



Absence due to illness

Unit = days



Danmarks Nationalbank's Board of Directors as at 1 March 2023

Chairman: Professor Christian Schultz

Deputy Chairman: Anne Hedensted Steffensen, Managing Director

Elected by the Folketing for the period ending 31 March 2026:

Alex Ahrendtsen, MP

Hans Andersen, MP

Lisbeth Bech-Nielsen, MP

Morten Dahlin, MP

Jens Joel, MP

Martin Lidegaard, MP

Anne Paulin, MP

Torsten Schack Pedersen, MP

Appointed by the Minister for Industry, Business and Financial
Affairs for the period ending 31 March 2026:

Michael Dithmer,

Permanent Secretary of State for Industry,
Business and Financial Affairs

Johan Legarth, Permanent Secretary of State for Justice

Elected by the Board of Directors for the period
ending 31 March:

Jens Bjørn Andersen

2023

Christian Schultz

2023

Anne Hedensted Steffensen

2023

Connie Astrup-Larsen

2024

Philipp Schröder

2024

Gitte Pugholm Aabo

2024

Per Bank

2025

Kathrine Forsberg

2025

Grete Christensen

2025

Claus Jensen

2026

Lizette Risgaard

2026

Christian Woller

2026

Asger Enggaard

2027

Kristian Hundebøll

2027

Anja Philip

2027

Danmarks Nationalbank's Committee of Directors as at 1 March 2022

Chairman: Professor Christian Schultz

Deputy Chairman: Michael Dithmer, Permanent Secretary
of State for Industry, Business and Financial Affairs

Elected by the Board of Directors for the period
ending 31 March 2023:

Per Bank, CEO

Grete Christensen, President

Morten Dahlin, MP

Anne Paulin, MP

Professor Christian Schultz

Appointed by the Minister for Industry, Business and Financial
Affairs for the period ending 31 March 2026:

Michael Dithmer, Permanent Secretary of State for Industry,
Business and Financial Affairs

Johan Legarth, Permanent Secretary of State for Justice





Danmarks Nationalbank's representation on committees, in international organisations etc.

As at 1 March 2023, Danmarks Nationalbank is represented in the following committees, international organisations etc.:

The European Union (EU)

The European Systemic Risk Board (ESRB)

Governor Christian Kettel Thomsen is a member.

The Economic and Financial Committee

Governor Signe Krogstrup is a member.

The European Central Bank (ECB)

The General Council

Governor Christian Kettel Thomsen is a member.

The International Monetary Fund (IMF)

Board of Governors

Governor Christian Kettel Thomsen is the Danish member.

The Nordic/Baltic Monetary and Financial Committee

Governor Signe Krogstrup is a member.

Bank for International Settlements (BIS)

Meeting of Governors, Global Economy Meeting,

Small Open Economies Meeting

Governor Christian Kettel Thomsen represents Danmarks Nationalbank.

The Organisation for Economic Cooperation and Development (OECD)

The Economic Policy Committee

Assistant Governor Thomas Harr is a member.

Nordic-Baltic Macprudential Forum

Governor Christian Kettel Thomsen is a member.

The Danish Payments Council

Governor Per Callesen is the Chairman.

The Systemic Risk Council

Governor Christian Kettel Thomsen is the Chairman.

Governor Per Callesen is a member.

The Economic Council

Governor Signe Krogstrup is a member.

The Governing Board of the Danish Financial Supervisory Authority

Head of Financial Stability Peter Ejler Storgaard is a member.

The Coordination Committee on Financial Stability

Governor Per Callesen is a member.

Risk management

Financial portfolios

Danmarks Nationalbank's financial portfolios comprise its foreign exchange reserve of kr. 578 billion and its holding of domestic bonds of kr. 32 billion.

The primary purpose of the foreign exchange reserve is to ensure that Danmarks Nationalbank will be able to intervene in the foreign exchange markets at short notice to support the fixed exchange rate policy. Moreover, the foreign exchange reserve must be able to support financial stability and finance loans to the International Monetary Fund (IMF).

In 2022, the foreign exchange reserve increased by kr. 43 billion. The increase was driven by Danmarks Nationalbank's intervention purchases of kr. 55 billion. Conversely, the central government has reduced the short-term foreign currency loans included in the foreign exchange reserve by kr. 6 billion. In addition, the foreign exchange reserve decreased by a further kr. 6 billion as a result of market value adjustments and interest additions.

The primary purpose of the foreign exchange reserve requires deposits and investments with high liquidity and credit standings. Most of the foreign exchange reserve is placed in accounts at central banks, reverse repos (short-term loans against collateral) and in government bonds that can be sold or pledged as collateral at short notice.

In addition, the objective is to achieve the best possible return for the given risk level. Consequently, Danmarks Nationalbank also has, for example, equities and corporate bonds, which contributes to increasing projected earnings and diversifying risk. The exposure to equities and corporate bonds is via exchange-traded funds (ETFs). In 2022, Danmarks Nationalbank completed a conversion from ESG-screened ETFs to ETFs that follow the EU's minimum requirements for benchmarks that comply with the Paris Agreement (PAB). The equity exposure was kr. 8 billion at the end of 2022, distributed between the USA (46 per cent), Europe (43 per cent) and Japan (10 per cent). At the same time, corporate bonds amounted to kr. 3 billion.

Under the National Bank of Denmark Act (*Nationalbankloven*), Danmarks Nationalbank must hold a gold stock. The gold stock is 66.5 tonnes and has been virtually constant in size since 1970. The value increased by kr. 1.5 billion to kr. 27 billion at the end of 2022.

The claim on the IMF is included in the foreign exchange reserve. Danmarks Nationalbank's total claim was kr. 57 billion at the end of 2022. The IMF lends money to countries in economic difficulties and finances these loans via the member countries' quotas and loan commitments, including via Danmarks Nationalbank. Danmarks Nationalbank has made additional commitments totalling kr. 164 billion to the IMF. Even though the commitments are significant, the draw is expected to be low.

Table 2

Danmarks Nationalbank's financial portfolios

Kr. billion	2022	2021
Foreign bonds¹	96	103
Government bonds with a credit rating of AA- or higher	26	41
Government bonds with credit ratings of BBB- to A+	13	22
Other bonds with a credit rating of A- or higher ²	57	40
Domestic mortgage bonds	32	31
Money market products (central bank deposits, reverse repo transactions etc.)	396	342
Other holdings and exposures		
Gold	27	26
Exposure to equities	8	11
Exposure to corporate bonds	3	3
IMF ³	57	54
Selected risk measures/financial ratios		
95 per cent expected shortfall ⁴ as a percentage of net capital	5	10
Krone duration	2.1	2.4
Combined average rating of the portfolio ⁵	AA+	AA+
Foreign exchange exposure (before FX hedge in brackets)		
EUR	524(419)	465(382)
USD	0(59)	0(44)
Other	0(43)	0(40)

Note: The table shows the middle credit ratings given by Fitch, Moody's and Standard & Poor's, respectively. Rounded figures.

Source: Danmarks Nationalbank, Fitch, Moody's and Standard & Poor's.

1. The market value of bonds is calculated including accrued interest.

2. Including securities issued by the Bank for International Settlements (BIS) which are not subject to credit rating.

3. Debt to the IMF as a consequence of the allocation of Special Drawing Rights totals kr. 45 billion.

4. The 95 per cent expected shortfall has been calculated for a one-year horizon. The underlying risk factors are estimated on the basis of observations from 1999 onwards.

5. The average credit rating is weighted by the market values of the holdings. Holdings without credit ratings (primarily BIS) are not included.

The aggregate risk is 5 per cent of the net capital², see table 2.

Risks on loans to banks and mortgage credit institutions

Danmarks Nationalbank provides monetary policy loans with a term of one week to monetary policy counterparties based on traditional pledging of securities, while intraday credit is also provided to facilitate the settlement of payments.³

No ceiling has been imposed on the amounts that the counterparties may borrow from Danmarks Nationalbank, but it is a mandatory requirement that adequate collateral must be pledged. Only if two events occur simultaneously will Danmarks Nationalbank suffer credit losses on lending: the default on a loan by a counterparty combined with the realisation value of the collateral pledged being lower than the credit provided. A deduction, a so-called haircut, is used in the calculation of the collateral value. The risk of bad debts is very low.

Collateral basis and lending

In 2022, the banks have had a limited need to take out monetary policy loans in connection with the start of a new quarter and the turbulence in the financial markets following Russia's invasion of Ukraine, see chart 10. No monetary policy loans had been granted at the end of 2022.

The collateral basis for traditional pledging of collateral consists primarily of Danish mortgage bonds or Danish government securities and to a minor extent of bonds issued by KommuneKredit and Føroya Landsstýri (the Faroese government) as well as bonds guaranteed by the Danish central government. The collateral value was approx. kr. 92 billion at the end of 2022, see chart 11. The collateral value

is the market value of the securities pledged by the counterparties less the haircut.

Within each monetary policy day, the institutions can use a drawing right in connection with the settlement of payments, securities and currencies as well as interbank payments. The size of the drawing right is determined by the institutions' traditional pledging of securities to Danmarks Nationalbank as collateral, their account deposits with Danmarks Nationalbank (Kronos2), their holdings of certificates of deposit issued by Danmarks Nationalbank as well as the facilities of the automatic collateralisation arrangement with Euronext Securities and auto-collateralisation with TARGET2-Securities (T2S).⁴ The credit must be redeemed before the end of the monetary policy day.

Operational risk

Operational risk is the risk of direct or indirect losses due to inadequate or failed internal processes, human errors and actions, system errors or losses due to external events. Operational risk also comprises business, compliance and reputational risks.

Maintaining and developing a high risk-based security level is considered to be a precondition for maintaining Danmarks Nationalbank's credibility, and a robust Danish economy. Therefore, the work on risk management and security is a high priority in the ongoing operations processes and in the development of major projects.

The risk management is based on Danmarks Nationalbank's risk policy and strategy, which are decided by the group management and implemented by a Risk Committee. The Risk Committee is responsible for considering and submitting recommendations for identified risks and measures to the group man-

2 Compiled on the basis of an expected shortfall of 95 per cent, which is the average loss in the 5 per cent worst-case scenarios in Danmarks Nationalbank's risk model.

3 Intraday credit is used by the institutions in connection with interbank payments as well as securities, retail and foreign exchange settlements, where Danmarks Nationalbank guarantees the institutions' payment obligations on a secured basis. Danmarks Nationalbank also provides loans to cash centres.

4 The collateral basis under the automatic collateralisation arrangement and the T2S auto-collateralisation is the same as that used by Danmarks Nationalbank in traditional pledging of collateral in connection with monetary policy lending.

agement. The recommendations are based on risk appetite, which determines the overall requirements and risk handling tolerance levels.

As a consequence of Danmarks Nationalbank's activities, the organisation is exposed to a broad range of different risks. The risk management work focuses on the following areas, in particular:

- Cyberattacks
- IT operational stability
- Business operation errors
- Data and personal data security
- Reputation
- Physical security

Systematic work is being done to identify, assess, manage and follow up on significant operational risks to ensure that the level of risk is acceptable.

Strengthening crisis response plans and business continuity plans in the event of critical situations remains a key part of the ongoing work with risk management. The systematic work also involves continuous development of and participation in

the financial sector's crisis response under the Financial Sector Forum for Operational Resilience (FSOR).

Insurance strategy

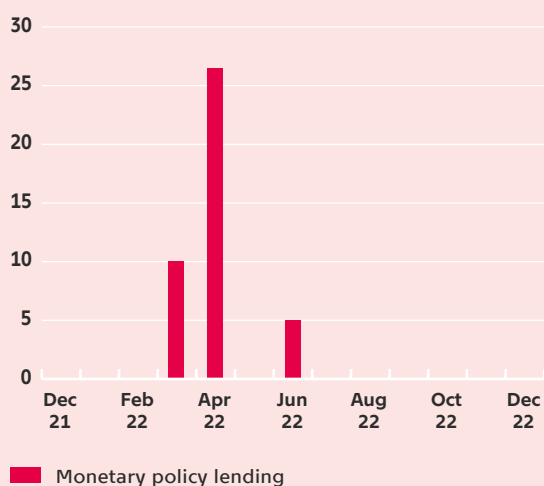
Danmarks Nationalbank's insurance policies and insurance strategy are reviewed annually in collaboration with an external insurance broker. The composition of Danmarks Nationalbank's insurance portfolio is anchored in a risk-based assessment of possible losses, and thus the continuous evaluation of areas to be insured and the extent to which they are to be covered.

During 2022, Danmarks Nationalbank conducted an EU public procurement procedure for the bank's insurance portfolio in collaboration with an external insurance broker. The procurement procedure was conducted in accordance with the bank's insurance strategy and has resulted in an updated insurance portfolio with some adjustments.

Chart 10

Loans to monetary policy counterparties

Kr. billion, end of month

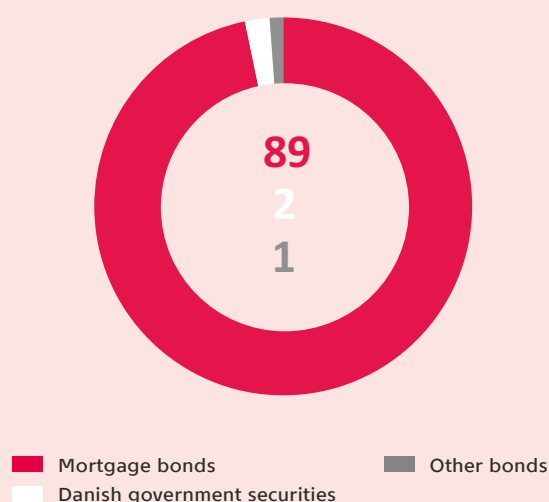


Note: The chart shows lending at the end of the month.
Source: Danmarks Nationalbank.

Chart 11

Collateral value of pledged securities

Kr. billion, end of 2022



Note: Mortgage bonds comprise both specially covered bonds (SDOs), specially covered mortgage bonds (SDROs) and mortgage bonds (ROs). Other bonds consist of bonds issued by KommuneKredit and Føroya Landsstýri or guaranteed by the Danish central government. Rounded figures.
Source: Danmarks Nationalbank.





Accounts of the Year 2022

Key figures and financial ratios 2018-22

Income statement (kr. million)	2022	2021	2020	2019	2018
Net income from interest, etc.	-731	-1,048	-628	-22	-315
Value adjustment of gold	1,467	1,034	2,863	3,832	621
Other value adjustments	-7,931	1,334	236	3,178	520
Income from financial fixed assets, etc.	22	40	213	19	18
Other income	42	1	2	2	1
Expenses, incl. depreciation and amortisation	-1,314	-1,167	-1,051	-913	-869
Other expenses	-19	-	-19	-	-
Net profit/loss for the year	-8,464	194	1,616	6,096	-24
Allocated as follows:					
Allocation to/from net capital	-8,464	194	1,616	6,096	-24
Payable to the central government	-	-	-	-	-
	-8,464	194	1,616	6,096	-24

Balance sheet (kr. million)	2022	2021	2020	2019	2018
Assets					
Foreign exchange reserve assets	586,035	538,160	440,328	444,317	461,314
Monetary policy lending	-	-	-	-	-
Other lending	1,903	1,874	3,900	2,091	1,185
Domestic bonds	31,802	31,359	32,906	32,099	32,579
Other assets, etc.	5,685	1,696	4,235	2,429	1,963
Total assets	625,425	573,089	481,369	480,936	497,041
Liabilities					
Banknotes and coins in circulation	75,125	77,587	74,524	70,552	70,793
Monetary policy deposits	247,879	202,527	164,003	230,566	210,849
Central government	161,779	151,533	136,875	70,411	111,674
Foreign exchange reserve debt	7,960	3,059	1,342	3,101	2,279
Other liabilities	59,550	56,787	23,223	26,521	27,757
Total creditors	552,293	491,493	399,967	401,151	423,352
Total net capital	73,132	81,596	81,402	79,785	73,689
Total liabilities	625,425	573,089	481,369	480,936	497,041

Key figures and financial ratios	2022	2021	2020	2019	2018
Foreign exchange reserve (kr. million)	578,075	535,101	438,986	441,216	459,035
Net position of banks and mortgage credit institutions vis-à-vis Danmarks Nationalbank (kr. million)	247,879	202,527	164,003	230,566	210,849
Change in banknotes and coins in circulation (per cent)	-3.2	4.1	5.6	-0.3	-0.3
Change in net capital (per cent)	-10.4	0.2	2.0	8.3	-0.0
Average no. of staff (full-time equivalents)	452	444	424	425	420

Board of Governors' report on Danmarks Nationalbank's financial statements

The result for the year was a loss of kr. 8,464 million, against a profit of kr. 194 million in 2021.

The development in the result for the year relative to last year is ascribable, in particular, to a generally rising interest rate level and lower equity prices. This affects earnings from Danmarks Nationalbank's securities portfolios as well as deposits and loans. The result of financial portfolios has thus decreased from net income kr. 1,320 million in 2021 to a net expense of kr. 7,195 million in 2022.

Interest on net foreign assets yielded additional income of kr. 1,756 million relative to last year as a result of the rising interest rate level. In total, however, the item amounted to a net expense of kr. 681 million in 2022.

The current account rate and the interest rate on certificates of deposit were increased four times during the year. Together with an increase in average deposits from banks and mortgage credit institutions of kr. 55 billion to kr. 213 billion, this meant that Danmarks Nationalbank had a net interest expense of kr. 195 million against income of kr. 849 million in 2021, when interest rates were negative.

The average deposit in the central government's current account was kr. 149 billion, which was virtually unchanged relative to last year. The interest accrual on the central government's account was negative at the beginning of 2022 and increased (and turned positive) at the end of the year. The interest accrual on the central government's deposits yielded total net interest income of kr. 100 million

to Danmarks Nationalbank in 2022, which is kr. 434 million down on 2021.

Danmarks Nationalbank incurred significant price losses on its holdings of bonds and equities in 2022. In total, the market price loss on foreign holdings amounted to kr. 6,585 million against a gain of kr. 1,700 million in 2021. Added to this is a total loss on exchange rate adjustments of kr. 94 million.

The total profit/loss contribution from the domestic securities portfolio amounted to an expense of kr. 1,258 million, which is an additional expense of kr. 1,060 million relative to last year. The development of market value adjustments can also be attributed to the rising interest rate level.

Value adjustment of gold amounted to a gain of kr. 1,467 million in 2022, which is an increase of kr. 433 million against 2021. The reason was that the price of gold converted into Danish kroner increased by 5.7 per cent during 2022.

No credit losses were registered on Danmarks Nationalbank's commitments in 2022, and it is not deemed to be necessary to make provisions for such losses at year-end.

Expenses

Danmarks Nationalbank's total operating expenses increased by kr. 141 million to kr. 1,172 million in 2022.

Staff expenses increased by kr. 11 million to kr. 405 million, primarily due to the recruitment of employees for the tasks with the portfolio and central bank

systems as well as the task of migrating the settlement of Danish kroner to the European payment platform TARGET Services. Danmarks Nationalbank thus had an average of 452 full-time employees during 2022 against 444 in the previous year.

Other expenses increased from kr. 600 million in 2021 to kr. 731 million in 2022. The increase of kr. 131 million is essentially attributable to Danmarks Nationalbank's incurrence of transition expenses in 2022 in connection with the switch to new IT service providers. Added to this was an increase in current expenses for running the real properties as a result of increased energy prices.

Depreciation, amortisation and impairment charges totalled kr. 142 million, which is an increase of kr. 6 million relative to 2021. Also, in 2022, this item was affected by the value of a number of assets having been written down or written off during the year, as it has been assessed that they will not be used on relocation to Havnegade. In addition, a number of assets have been transferred to Danmarks Nationalbank's new IT service providers, and they have consequently been written off.

In 2022, Danmarks Nationalbank had other expenses of kr. 19 million for the payment of proceeds on the commemorative coin 'Queen Margrethe's 50th Jubilee'.

Balance sheet

In 2022, the balance sheet total increased by kr. 52 billion to kr. 625 billion. The foreign exchange reserve contributed a total of kr. 43 billion, primarily driven by Danmarks Nationalbank's purchases of foreign currency through intervention transactions. The development is a result of a change in the banks' net position, which has increased by kr. 45 billion, as well as an increase of kr. 10 billion in the central government's deposits with Danmarks Nationalbank. Cash in circulation decreased by kr. 2.5 billion during 2022.

Allocation of profit/cover of loss for the year

The loss of kr. 8,464 million for the year is covered by a transfer from Danmarks Nationalbank's General Reserves. No transfer is made to the central government for the 2022 financial year. The net capital subsequently amounts to kr. 73,132 million.

Statement by the Board of Governors

The Board of Governors has today considered and approved the financial statements of Danmarks Nationalbank for the financial year 1 January - 31 December 2022.

The annual report has been prepared in accordance with the National Bank of Denmark Act.

In our opinion, the financial statements give a true and fair view of Danmarks Nationalbank's assets, liabilities and financial position as at 31 December 2022 and of the result of Danmarks Nationalbank's activities for the financial year 1 January - 31 December 2022.

In our opinion, the Board of Governors' report provides a true and fair view of the matters described in the report.

Copenhagen, 21 February 2023

Board of Governors

Christian Kettel Thomsen
Chairman

Per Callesen

Signe Krogstrup

Internal Audit's report

To the Board of Directors

Opinion

In our opinion, the financial statements give a true and fair view of Danmarks Nationalbank's assets, liabilities and financial position as at 31 December 2022 and of the result of Danmarks Nationalbank's activities for the financial year 1 January - 31 December 2022 in accordance with the National Bank of Denmark Act.

We have audited the financial statements of Danmarks Nationalbank for the financial year 1 January - 31 December 2022, comprising the income statement, balance sheet, notes and accounting policies (the 'financial statements').

Statement on the Board of Governors' report on the activities of Danmarks Nationalbank

The Board of Governors is responsible for the Board of Governors' report on the activities of Danmarks Nationalbank.

Our opinion on the financial statements does not include the Board of Governors' report on the activities of Danmarks Nationalbank, and we do not express any opinion with certainty about the report.

In connection with our audit of the financial statements, it is our responsibility to read the Board of Governors' report on the activities of Danmarks Nationalbank and in that connection to consider whether the report is materially inconsistent with the financial statements or with the knowledge we

have gained during the audit, or otherwise seems to contain any material misstatement.

In our opinion and based on the work performed, the Board of Governors' report on the activities of Danmarks Nationalbank is in accordance with the financial statements and has been prepared in accordance with the requirements laid down in the National Bank of Denmark Act. We have not found any material misstatements in the Board of Governors' report.

Danmarks Nationalbank's Committee of Directors and Board of Directors' responsibility for the financial statements

The Committee of Directors and the Board of Directors are responsible for the preparation and fair presentation of financial statements in accordance with the National Bank of Denmark Act. The Committee of Directors and the Board of Directors are also responsible for internal controls considered necessary by the Committee of Directors and the Board of Directors for preparing financial statements that are free of material misstatement, whether due to fraud or error.

Basis of opinion

We have conducted our audit in accordance with International Standards on Auditing. Those standards require that we plan and perform the audit with a view to obtaining reasonable assurance that the financial statements are free of material misstatement.

Our audit included an assessment of the Committee of Directors' and the Board of Directors' established procedures and internal controls that are relevant

to Danmarks Nationalbank's preparation and fair presentation of the financial statements, including an assessment of the risk of material misstatement. The audit also included evaluating the appropriateness of the accounting policies applied and the reasonableness of accounting estimates made by the Committee of Directors and the Board of Directors, as well as evaluating the overall presentation of the financial statements. The audit comprised the most significant areas and risk areas, and we believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Copenhagen, 21 February 2023

Helle Munk Miltoft
Chief Internal Auditor

Independent auditors' report

To the Board of Directors

Opinion

In our opinion, the financial statements give a true and fair view of Danmarks Nationalbank's assets, liabilities and financial position as at 31 December 2022 and of the result of Danmarks Nationalbank's activities for the financial year 1 January - 31 December 2022 in accordance with the National Bank of Denmark Act.

We have audited the financial statements of Danmarks Nationalbank for the financial year 1 January - 31 December 2022, comprising the income statement, balance sheet, notes and accounting policies (the 'financial statements').

Basis of opinion

We have conducted our audit in accordance with International Standards on Auditing and additional requirements applying in Denmark. Our responsibility according to these standards and requirements is described in more detail in the section *Auditors' responsibility for audit of the financial statements* in this Auditors' opinion. We are independent of Danmarks Nationalbank in accordance with the International Ethics Standards Board for Accountants' international guidelines for the code of ethics for professional accountants (the IESBA Code) and the additional ethical requirements applying in Denmark, and we have also complied with our other ethical obligations in accordance with these requirements and the IESBA Code. We believe that the audit evidence we have obtained is sufficient

and appropriate to provide a basis for our audit opinion.

Statement on the Board of Governors' report on the activities of Danmarks Nationalbank

The Board of Governors is responsible for the Board of Governors' report on the activities of Danmarks Nationalbank.

Our opinion on the financial statements does not include the Board of Governors' report on the activities of Danmarks Nationalbank, and we do not express any opinion with certainty about the report.

In connection with our audit of the financial statements, it is our responsibility to read the Board of Governors' report on the activities of Danmarks Nationalbank and in that connection to consider whether the report is materially inconsistent with the financial statements or with the knowledge we have gained during the audit, or otherwise seems to contain any material misstatement.

In addition, it is our responsibility to consider whether the Board of Governors' report on Danmarks Nationalbank's financial statements includes the information required pursuant to the National Bank of Denmark Act.

In our opinion and based on the work performed, the Board of Governors' report on the activities of Danmarks Nationalbank is in accordance with the financial statements and has been prepared in accordance with the requirements laid down in the National Bank of Denmark Act. We have not found any material misstatements in the Board of Governors' report.

Danmarks Nationalbank's Committee of Directors and Board of Directors' responsibility for the financial statements

The Committee of Directors and the Board of Directors are responsible for the preparation and fair presentation of financial statements in accordance with the National Bank of Denmark Act. The Committee of Directors and the Board of Directors are also responsible for internal controls considered necessary by the Committee of Directors and the Board of Directors for preparing financial statements that are free of material misstatement, whether due to fraud or error.

When preparing the financial statements, the Committee of Directors and the Board of Directors are responsible for assessing Danmarks Nationalbank's ability to continue as a going concern, for providing information about going concern issues where this is relevant and for preparing the financial statements on the basis of the going concern accounting principle, unless the Committee of Directors and the Board of Directors plan either to liquidate Danmarks Nationalbank or to discontinue operations, or have no other realistic alternative to doing so.

Auditors' responsibility for audit of the financial statements

Our objective is to obtain a high degree of certainty that the financial statements as a whole are free of material misstatement, whether due to fraud or error, and to present an auditors' report with an opinion. A high degree of certainty is a high level of certainty, but is not a guarantee that an audit conducted in accordance with international standards on auditing and the additional requirements applying in Denmark will always detect a material misstatement if it exists. Misstatements may occur as a result of fraud or error and can be deemed to be material if it can reasonably be expected that they will, individually or jointly, have an impact on the financial decisions made by users on the basis of the financial statements.

As part of an audit in accordance with international standards on auditing and the additional requirements applying in Denmark, we exercise professional judgment and maintain professional scepticism throughout the audit. We also perform the following procedures:

- We identify and assess the risk of material misstatement in the financial statements, whether due to fraud or error, plan and perform audit activities in response to such risk and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinion. The risk of not discovering material misstatements is higher for material misstatements resulting from fraud than for material misstatements resulting from error as fraud may include conspiracy, forgery, wilful omissions, misrepresentation or non-observance of internal controls.
- We gain insight into the internal controls of relevance to the audit in order to design audit activities that are appropriate in the circumstances, but not to express an opinion on the effectiveness of Danmarks Nationalbank's internal controls.
- We consider whether the accounting policies applied are appropriate and whether the accounting estimates made and related information prepared by the Committee of Directors and Board of Directors are reasonable.
- We express an opinion as to whether the preparation of the financial statements by the Committee of Directors and Board of Directors on the basis of the going concern accounting principle is appropriate and whether, on the basis of the audit evidence obtained, there is material uncertainty linked to events or circumstances that may cause substantial doubt as to Danmarks Nationalbank's ability to continue as a going concern. If we reach the conclusion that there is material uncertainty, we must in our auditors' report draw attention to information about this in the financial statements or, if such information is not sufficient, qualify our opinion. Our opinions are based on the audit evidence obtained until the date of our auditors' report. However, future events or circumstances could mean that Danmarks Nationalbank is no longer able to continue as a going concern.
- We consider the overall presentation, structure and content of the financial statements, including information in the notes, and whether the financial statements reflect the underlying transactions and events in such a way that they provide a true and fair view thereof.

We communicate with the top management on, inter alia, the planned scope and timing of the audit, as well as material audit observations, including any material shortcomings in the internal controls identified by us during our audit.

Copenhagen, 21 February 2023

PricewaterhouseCoopers

Statsautoriseret Revisionspartnerselskab
CVR number 3377 1231

Christian F. Jakobsen
State-Authorised Public Accountant
mne16539

Claus Christensen
State-Authorised Public Accountant
mne33687

Signatures

These financial statements, audited in the manner prescribed by the by-laws of Danmarks Nationalbank, are hereby adopted by the Board of Directors at the meeting on 14 March 2023.

As at 1 March 2023, the members of the Board of Directors are

Christian Schultz, Chairman	Anne Hedensted Steffensen, Deputy Chairman	
Alex Ahrendtsen	Hans Andersen	Jens Bjørn Andersen
Connie Astrup-Larsen	Per Bank	Lisbeth Bech-Nielsen
Grete Christensen	Morten Dahlin	Michael Dithmer
Asger Enggaard	Kathrine Forsberg	Kristian Hundebøll
Claus Jensen	Jens Joel	Johan Legarth
Martin Lidegaard	Anne Paulin	Torsten Schack Pedersen
Anja Philip	Lizette Risgaard	Philipp Schröder
Christian Woller	Gitte Pugholm Aabo	

Accounting policies

General requirements

Danmarks Nationalbank's financial statements for 2022 are presented in accordance with the National Bank of Denmark Act. In all significant respects, these accounting policies are in accordance with the sound policies of European central banks in the euro area. The main differences relate to unrealised gains on foreign exchange and securities, which are recognised in the income statement in Danmarks Nationalbank's financial statements.

The basic principle is that the financial reporting should reflect economic reality. The effects of transactions and events are recognised when they occur and are stated and presented in the financial statements for the year which they concern. The financial statements include all material and relevant circumstances. Revaluations are shown irrespective of their impact on profits and net capital, and calculation and valuation methods are applied consistently within each category of information. When initially recognised, assets and liabilities are stated at cost price. Subsequently, assets and liabilities are valued as described under each accounting item.

Transactions in foreign currency are converted to Danish kroner at the exchange rate applying on the transaction date. On the balance sheet date, financial assets and liabilities in foreign currencies are converted at the exchange rates most recently published by Danmarks Nationalbank. Both realised and unrealised gains and losses are recognised in the income statement.

The principles for and the classification of the individual items in the financial statements remain unchanged from the previous year.

Income statement

Net interest, etc.

Besides interest on interest-bearing assets and liabilities, interest income and expenses comprise maturity reductions of the bond portfolios, fees, premiums and discounts on Treasury bills and certificates of deposit, and income from Exchange Traded Funds, as well as premiums on forward securities and forward exchange contracts.

Value adjustments, etc.

Value adjustments comprise market value adjustments and exchange rate adjustments concerning financial assets and liabilities and gold. Both realised and unrealised gains and losses are recognised in the income statement.

Income from financial fixed assets, etc.

Dividends and gains from financial fixed assets, etc. comprise share dividend received, net gains from the sale of financial fixed assets, etc., as well as revaluations and write-downs. Dividends are recognised in the year in which they are announced.

Other income

Other income comprises income from Danmarks Nationalbank's sales of coins, etc., as well as other

income not related to Danmarks Nationalbank's primary activities or not annually recurring.

Expenses

Staff expenses comprise salaries and remuneration, including pension contributions, etc., training costs and other staff expenses. Expenses concerning banknote and coin production services comprise the costs of purchase of banknotes and coins produced by external suppliers. Other expenses concern the operation of Danmarks Nationalbank's properties, IT operations and other expenses.

Other expenses

Other expenses comprise expenses that are not related to Danmarks Nationalbank's primary activities or that are not annually recurring.

Balance sheet

Gold

Gold is stated at the gold price on the balance sheet date in US dollars, converted into Danish kroner.

Financial assets and liabilities

Financial assets and liabilities traded in active markets are stated at the fair value on the balance sheet date. Holdings of Exchange Traded Funds and stock futures which are included in 'Foreign assets' are traded on an active market, so that the fair value is based on quoted prices. For bond portfolios in less active or inactive markets which are included in 'Foreign assets' and 'Domestic bonds', the fair value on the balance sheet date has been calculated using a model based on estimation and assessment techniques which take account of recent transactions in similar instruments, the discounted payment flows for the portfolios and the relevant term structure based on the market conditions existing on the balance sheet date. Monetary policy accounts, including certificates of deposit and other lending and deposits, are stated at nominal value.

Repurchase agreements and securities lending, etc.

Securities sold in connection with simultaneous repurchase agreements and securities made available

for lending are included in Danmarks Nationalbank's respective holdings.

Financial fixed assets, etc.

Financial fixed assets and similar investments are valued at the lower of acquisition value and fair value.

Tangible and intangible fixed assets

Tangible and intangible fixed assets comprise Danmarks Nationalbank's properties (land, buildings and building renovations), leasehold improvements, technical building facilities (lifts, special cooling in server rooms, etc.), technical production facilities (for banknote and coin sorting), office equipment and vehicles, hardware and software, and fixed assets in the course of construction.

Danmarks Nationalbank's properties are the fixed asset groups comprising bank properties, other properties and building renovations. Building renovations include capitalised replacement of entire building components in order to extend their lifetime, major renovation projects to improve buildings, cost-saving building renovations and costs defrayed in order to expand the use of the properties. Leasehold improvements are entered under the relevant fixed asset group.

Fixed assets are stated in the balance sheet at acquisition prices less accumulated depreciation, amortisation and impairment charges. Assets with an acquisition value of less than kr. 100,000 per unit are carried as expenditure in the year of acquisition. Depreciation and amortisation on a linear per-annum basis take place over the expected useful lives of the fixed assets. The useful lives are assessed as follows:

- Bank properties 100 years
- Other properties 25-50 years
- Building renovations 10-25 years
- Technical building facilities 10-25 years
- Technical production facilities 5-10 years
- Hardware and software 3-5 years
- Other machinery and equipment 3-5 years

Leasehold improvements are written down over the expected lease term unless another useful life is stated. Fixed assets under construction comprise expenses incurred for tangible fixed assets and intan-

gible development projects in the course of construction. Expenses are transferred to the relevant fixed asset groups when the assets are ready for use. Under section 17 of the National Bank of Denmark Act, the value booked, including building improvements and related assets under construction, must not exceed the public property valuation. In such case, any excess amount will be recognised as an expense.

Profit/loss on the sale of fixed assets is recognised in the income statement under depreciation, amortisation and write-downs and is stated as the difference between the selling price and the book value at the time of sale.

Other assets

The item includes assets not covered by other asset items. The item includes positive net value of hedging instruments in the form of unsettled foreign exchange transactions and other financial derivatives. Also included is income falling due after the end of the financial year, including interest receivable.

Financial derivatives such as forward securities and forward exchange contracts, interest rate and currency swaps, etc. are measured at fair value on the balance sheet date. Other items are measured at cost.

Accruals

Accruals recognised under assets include prepaid expenses relating to subsequent financial years. Accruals are measured at cost.

Banknotes and coins in circulation

Banknotes and coins in circulation are measured at their nominal value.

Other liabilities

The item includes liabilities not covered by other liability items. The item includes negative net value of hedging instruments in the form of unsettled foreign exchange transactions and other financial derivatives, as well as uncovered pension commitments, commitments by way of support and severance payments and other provisions for guarantees provided. Also included are expenses falling due after the end of the financial year, including interest payable and holiday pay.

Financial derivatives such as forward securities and forward exchange contracts, interest rate and currency swaps, etc. are measured at fair value on the balance sheet date. Other items are measured at cost.

Contingent liabilities and other financial commitments

Other liabilities concerning guarantees provided are stated at the estimated value of the payment obligation. Contractual obligations relating to rented premises, including any re-establishment obligation, have been stated as the total contractual obligation during the period of non-terminability per lease that extends beyond normal contractual terms.

Pension commitments

For defined-contribution pension plans, the current premium payments to the pension companies are carried as expenditure in the income statement, and the pension commitment hereafter passes to the pension companies. For defined-benefit pension plans, provisions are made in the financial statements of Danmarks Nationalbank for uncovered pension undertakings compiled according to actuarial principles.

Income statement

Kr. 1,000	Note	2022	2021
Net income from interest, etc.:			
Interest, etc. on net foreign assets	1	-681,028	-2,436,689
Income from Exchange Traded Funds		51,910	72,183
Interest on monetary policy lending and deposits and certificates of deposit	2	-194,550	848,734
Interest on domestic bonds		-6,405	-105,739
Interest on central government deposits	3	100,412	534,143
Interest, etc. on other domestic loans and deposits	4	-937	38,848
Net income from interest, etc., total		-730,598	-1,048,520
Value adjustments, etc.:			
Value adjustment of gold	5	1,466,783	1,034,002
Value adjustment of foreign exchange positions	6	-6,679,517	1,425,999
Value adjustment of domestic bonds		-1,251,589	-91,852
Value adjustments, etc., total		-6,464,323	2,368,149
Profit/loss from financial portfolios		-7,194,921	1,319,629
Income from financial fixed assets, etc.	7	22,169	40,129
Other income	8	42,164	1,349
Expenses:			
Staff expenses	9	405,372	394,065
Expenses for banknote and coin production services	10	35,810	37,319
Other expenses	11	731,066	599,583
Total expenses		1,172,248	1,030,967
Depreciation, amortisation and impairment charges on tangible and intangible fixed assets	12	142,219	136,023
Other expenses	13	19,000	-
Net profit/loss for the year		-8,464,055	194,117
Allocation of profit/cover of loss for the year:			
Allocation to/transfer from the General Reserves		-8,464,055	194,117
Payable to the central government		-	-
		-8,464,055	194,117

Balance sheet

Kr. 1,000	Note	2022	2021
Assets			
Gold	14	27,036,411	25,569,628
Foreign assets	15	501,646,064	458,640,710
Claims on the IMF, etc.	16	57,352,305	53,949,540
Claims regarding banks' and mortgage credit institutions' Target accounts with the ECB		29,077	40,300
Monetary policy lending	17	-	-
Other lending	18	1,902,692	1,874,228
Domestic bonds	19	31,801,956	31,358,970
Financial fixed assets, etc.	20	131,056	131,056
Tangible and intangible fixed assets	21	612,206	665,382
Other assets	22	4,811,818	791,245
Accruals		100,946	67,611
Total assets		625,424,531	573,088,670
Liabilities			
Banknotes in circulation	23	68,872,927	71,368,473
Coins in circulation	23	6,251,635	6,218,037
Monetary policy deposits	24		
Net current accounts and settlement accounts		247,779,329	202,277,063
Certificates of deposit		100,000	250,000
Other deposits	25	13,504,223	11,420,465
Central government	26	161,779,101	151,532,734
Foreign liabilities	27	7,959,627	3,059,314
Counterpart of Special Drawing Rights allocated by the IMF	28	44,941,285	44,343,581
Other liabilities	29	1,104,421	1,022,965
Total creditors		552,292,548	491,492,632
General Capital Fund		50,000	50,000
Statutory Reserves		250,000	250,000
General Reserves		72,831,983	81,296,038
Total net capital	30	73,131,983	81,596,038
Total liabilities		625,424,531	573,088,670
Financial derivatives used for FX hedges	31		
Other financial derivatives	32		
Contingent liabilities and other financial commitments	33		
Loan and purchase commitments to the IMF	34		
Pension commitments	35		

Notes

Note 1 – Interest, etc. on net foreign assets

Kr. 1,000	2022	2021
Interest on foreign bonds	240,067	-339,803
Interest, etc. on demand deposits and other short-term deposits	155,428	-1,574,280
Forward premiums	-1,213,673	-603,589
Interest on outstanding accounts with the IMF	137,151	80,984
	-681,028	-2,436,689

Note 2 – Interest on monetary policy lending and deposits and certificates of deposit

Kr. 1,000	2022	2021
Interest on current accounts and settlement accounts	-189,278	703,981
Interest on certificates of deposit	372	152,981
Interest on monetary policy lending	-5,644	-4,995
Interest on extraordinary lending facility	-	-3,233
	-194,550	848,734

In March 2021, Danmarks Nationalbank suspended the current account and settlement account limits to ensure a more stable development in money market interest rates and thus a more predictable effect on the exchange rate of the Danish krone. Since then, the interest rate on certificates of deposit and the current account rate have been the same. In 2022, the interest rate was raised four times to 1.75 per cent at end of the year. In addition, the lending rate was raised four times to 1.90 per cent at the end of 2022 after the latest increase on 16 December 2022.

The average net deposits from the monetary policy counterparties were kr. 213 billion in 2022, which is kr. 55 billion up on 2021.

Overall, the above factors resulted in a decrease in interest income of kr. 1.043 million relative to 2021 to total net income costs of kr. 195 million.

Note 3 – Interest on central government deposits

Interest on central government deposits decreased by kr. 434 million relative to 2021 to income of kr. 100 million. The decrease is attributable to the interest on average central government deposits having been less negative in 2022 than in 2021.

In 2022, the average balance on the central government's current account with Danmarks Nationalbank amounted to kr. 149 billion (2021: kr. 150 billion).

Note 4 – Interest, etc. on other domestic loans and deposits

Kr. 1,000	2022	2021
Interest on deposits from current account customers	-1,332	37,307
Other minor income, fees, etc.	395	304
Interest on foreign exchange loans to Danish banks	-	1,237
	-937	38,848

Note 5 – Value adjustment of gold

Value adjustment of Danmarks Nationalbank's gold stock resulted in a gain of kr. 1,467 million in 2022 against a gain of kr. 1,034 million last year. The development is attributable to the gold price converted into Danish kroner having increased by a total of 5.7 per cent in 2022, from the

end of 2021 to the end of 2022. Of this percentage, the development in the exchange rate of the US dollar against the Danish krone represents an increase of 6.2 per cent, while the price of gold in US dollar has fallen by 0.4 per cent.

Note 6 – Value adjustment of foreign exchange positions

Kr. 1,000	2022	2021
Market value adjustment of foreign bonds	-4,404,152	-463,764
Market value adjustment of equity and bond futures	-19,915	1,135
Market value adjustment of Exchange Traded Funds, etc.	-2,161,059	2,162,738
	-6,585,126	1,700,109
Exchange rate adjustment	-94,391	-274,110
	-6,679,517	1,425,999

Exchange rate adjustment of foreign exchange positions comprises all of Danmark Nationalbank's receivables in foreign currency. In addition to the foreign exchange

reserve, this also includes items outside the reserve denominated in foreign currency.

Note 7 – Income from financial fixed assets, etc.

Kr. 1,000	2022	2021
Dividend from equities in Bank for International Settlements	22,169	39,843
Net profit on sales of financial fixed assets, etc.	-	286
	22,169	40,129

Note 8 – Other income

Kr. 1,000	2022	2021
Sales of coin sets, etc.	1,494	1,219
Dividend on and gains from sales of equity investments in commercial	40,670	130
	42,164	1,349

In 2022, gains on sales of equity investments in commercial companies comprised a gain of kr. 40 million on the sale of half of Danmarks Nationalbank's holding of commercial equities in Visa Inc. The holding is shown in note 22.

Note 9 – Staff expenses

Kr. 1,000	2022	2021
Salaries and other remuneration	330,252	319,430
Pension contributions, etc.	52,555	54,021
Training and education expenses	6,906	5,929
Other staff expenses	15,659	14,685
	405,372	394,065
Of which remuneration of the management:		
Governors, salaries, etc.	10,905	11,038
Governors, pension contributions	2,120	2,059
Committee of Directors and Board of Directors	1,026	1,013
	14,051	14,110
Salaries and pension, etc. to the Governors are distributed as follows:		
Lars Rohde, Chairman	4,625	4,673
Per Callesen	4,199	4,243
Signe Krogstrup	4,201	4,181
	13,025	13,097
Remuneration of the Committee of Directors and Board of Directors is		
Chairman of the Committee of Directors and the Board of Directors	131	128
Deputy Chairman of the Committee of Directors	98	96
Deputy Chairman of the Board of Directors	38	38
Other members of the Committee of Directors, total (kr. 64	321	315
Other members of the Board of Directors, total (kr. 26 thousand/member/year)	438	436
	1,026	1,013

In 2021, remuneration to the Board of Governors included payment of the value of accrued special holiday entitlements in accordance with the transitional scheme in the collective agreement as a result of the amendments to the Danish Holiday Act (*Feriebogen*).

No bonus schemes or other incentive schemes have been established in Danmarks Nationalbank.

In 2022, the average number of employees was 452 full-time equivalents (2021: 444).

Note 10 – Expenses for banknote and coin production services

Kr. 1,000	2022	2021
Coin procurement	11,059	13,030
Banknote procurement	24,751	24,289
	35,810	37,319

Note 11 – Other expenses

Kr. 1,000	2022	2021
Real property, current expenses	128,197	116,833
IT expenses	528,357	420,614
Other expenses	62,096	53,185
	718,650	590,632
Expenses for renovation of Havnegade 5	12,416	8,951
	731,066	599,583

Note 12 – Depreciation, amortisation and impairment charges on tangible and intangible fixed assets

Kr. 1,000	2022	2021
Properties	59,508	63,887
Machinery and other operating equipment	3,636	4,035
Hardware and software	68,806	68,101
	131,950	136,023
Loss on sales of fixed assets	10,269	-
	142,219	136,023

Depreciation, amortisation and impairment charges increased by kr. 6 million relative to 2021 to a total of kr. 142 million. As in 2021, the item was particularly affected in 2022 by assets in Havnegade having been written off or written down as it has been assessed that they have been taken out of operation and are not expected to be used

when Havnegade becomes a building site or when Danmarks Nationalbank moves back into the premises. In addition, a number of assets relating to IT infrastructure were transferred to Danmarks Nationalbank's new IT service providers, and these assets have therefore also been written off.

Note 13 – Other expenses

In 2022, Danmarks Nationalbank incurred an expense for proceeds in connection with the issue of the commemorative coin to mark HM Queen Margrethe II's 50th Jubilee on 14 January 2022. The amount of kr. 19 million was paid to the Danish Business Authority (kr. 9.5 million) and to the Danish Royal Family's foundations:

Dronning Margrethes og Prins Henriks Fond (Queen Margrethe's and Prince Henrik's Foundation) (kr. 7.5 million) and Den Kongelige Formidlingsfond (The Royal Knowledge Dissemination Foundation) (kr. 2 million), respectively.

Note 14 – Gold

The value of the gold stock was kr. 27.0 billion at year-end, against kr. 25.6 billion at the end of last year. The reason for the increase was that the price of gold converted into Danish kroner increased by 5.7 per cent during 2022.

There have been no movements in 2022, and the gold stock thus remains unchanged at 66,550 kg. A gold ingot list is available on Danmarks Nationalbank's website.

Note 15 – Foreign assets

Kr. 1,000	2022	2021
Foreign bonds	95,469,234	102,694,886
Exchange Traded Funds – Equities	7,730,144	10,805,134
Exchange Traded Funds – Corporate bonds	2,504,408	2,897,573
Repo transactions collateralised against foreign bonds	-	-
Claims on central banks and supranational institutions	395,931,598	341,580,271
Claims on foreign commercial banks	1,211	472
Claims re two-way collateral in cash	6,693	631,061
Margin claims re futures	2,776	31,313
	501,646,064	458,640,710

Foreign bonds mostly include government bonds issued in the euro area, the United States and Japan.

Danmarks Nationalbank's holdings of Exchange Traded Funds (ETFs) include both equities and corporate bonds. All ETFs follow the EU's Paris-Aligned Benchmark requirements.

Claims on central banks, supranational institutions and foreign commercial banks include demand deposits and uncollateralised deposits.

Claims re two-way collateral in cash relate to collateral pledged in euro concerning Danmarks Nationalbank's currency swap agreements and interest swap agreements.

Claims re futures include margin deposits as well as margin outstandings in the underlying assets. Danmarks Nationalbank's exposure to bond futures amounted to kr. 0.2 billion (2021: kr. 0.2 billion), while there was no exposure to equity futures in either 2022 or 2021. Principals converted into market value are shown in Note 32.

Danmarks Nationalbank undertakes ongoing lending against collateral in the form of reverse repo transactions which are collateralised against foreign government and government-guaranteed bonds. At the end of 2022, there were no reverse repo transactions.

The exchange rate risk has been converted so that it is primarily in euro.

Apportionment on credit assessment

2022 (kr. million)	Total	EUR	USD	JPY	Other
- Of which AAA	407,488	371,888	27,385	-	8,215
- Of which AA+ to AA-	21,800	21,405	365	0	30
- Of which A+ to A-	33,716	3,346	-	30,371	0
- Of which BBB+ to BBB-	1,884	1,884	-	-	-
- Of which non-rated assets	36,758	10,102	25,721	798	136
	501,646	408,625	53,471	31,169	8,381

2021 (kr. million)	Total	EUR	USD	JPY	Other
- Of which AAA	342,142	329,356	4,487	-	8,299
- Of which AA+ to AA-	60,586	35,638	18,964	0	5,984
- Of which A+ to A-	25,090	2,922	1,246	19,856	1,066
- Of which BBB+ to BBB-	6,014	6,014	-	-	-
- Of which non-rated assets	24,809	7,524	15,661	999	625
	458,641	381,454	40,358	20,854	15,973

The exposure is ranked according to the middle credit rating from Fitch, Moody's and Standard & Poor's, respectively, converted to the Standard & Poor's scale.

Non-rated assets comprise securities issued by and deposits at the Bank for International Settlements (BIS) and holdings of Exchange Traded Funds.

Note 16 – Claims on the IMF, etc.

	2022 (1,000 SDRs)	2022 (kr. 1,000)	2021 (1,000 SDRs)	2021 (kr. 1,000)
Denmark's IMF quota	3,439,400	32,015,655	3,439,400	31,589,857
The IMF's drawing right with Danmarks Nationalbank	2,581,490	24,029,800	2,658,690	24,419,271
Reserve position with the IMF	857,910	7,985,855	780,710	7,170,586
Holdings of Special Drawing Rights (SDRs) at the IMF	4,924,689	45,841,469	4,684,280	43,023,711
Lending	378,684	3,524,981	408,858	3,755,243
	6,161,283	57,352,305	5,873,848	53,949,540

As at 31 December 2022, claims on the International Monetary Fund (IMF) amounted to kr. 57,352 million against kr. 53,950 million at the end of 2021. The exchange rate for DKK/SDR was 930.85 at year-end (year-end 2021: 918.47). The reserve position with the IMF is the paid-up share of Denmark's quota at the IMF and comprises the difference between the quota and the balance of the IMF's account with Danmarks Nationalbank in Danish kroner.

The IMF's balance at Danmarks Nationalbank represents the IMF's drawing right. As at 31 December 2022, the reserve position amounts to 858 million SDRs, equal to kr. 7,986 million. Denmark's quota of 3,439 million SDRs (kr. 32,016 million) remains unchanged since the IMF's quota

reform from 2010 entered into force in 2016, while the reserve position vis-à-vis the IMF increased by 77 million SDRs in 2022. Like the year before, the IMF utilised the drawing right for the quota to finance loan programmes in 2022.

As at 31 December 2022, Danmarks Nationalbank's holdings of special drawing rights with the IMF (SDRs) amounted to 4,925 million SDRs (kr. 45,841 million), which is 240 million SDRs up on 2021. An amount equivalent to the IMF's accumulated allocation of SDRs to Denmark is included as a liability in the financial statements and is shown in Note 28 'Counterpart of Special Drawing Rights allocated by the IMF'.

Loans under the IMF

	2022 (1,000 SDRs)	2022 (kr. 1,000)	2021 (1,000 SDRs)	2021 (kr. 1,000)
Loans to the Poverty Reduction and Growth Trust	363,088	3,379,809	370,358	3,401,632
Loans under New Arrangements to Borrow	15,596	145,172	38,500	353,611
	378,684	3,524,981	408,858	3,755,243

Loans to the Poverty Reduction and Growth Trust amounted to 363 million SDRs (kr. 3,380 million). In 2022, 7.3 million SDRs were repaid on existing loans. No new loans were granted in 2022.

Loans under the NAB (New Arrangements to Borrow) agreement amounted to 15.6 million SDRs (kr. 145 million). In 2022, 22.9 million SDRs were repaid and no new loans

were granted, the reason being that the NAB agreement was not activated in 2022.

In 2022, loans were not granted under the bilateral loan agreement for 2020.

Reference is made to Note 34 for an overview of loan and purchase commitments to the IMF.

Note 17 – Monetary policy lending

Monetary policy lending is one element under the monetary policy instruments available. The value of monetary policy

loans averaged kr. 1.2 billion in 2022 (2021: kr. 2.3 billion). There were no loans as at 31 December 2022.

Note 18 – Other lending

Other lending consists solely of loans to the banks' cash custody accounts against collateral.

Note 19 – Domestic bonds

Kr. 1,000	2022	2021
Maturity distribution for domestic bonds		
Maturity in less than 1 year	12,290,575	14,770,482
Maturity after 1 year and less than 5 years	16,514,156	13,688,858
Maturity after 5 years	2,997,225	2,899,630
	31,801,956	31,358,970

Note 20 – Financial fixed assets, etc.

Danmarks Nationalbank's holdings of financial fixed assets, etc., calculated at a total acquisition value of kr. 131 million, had an estimated market value of kr. 2.7 billion as at 31 December 2022.

Danmarks Nationalbank's portfolio of financial fixed assets and similar investments comprises the capital subscription to the European Central Bank (ECB) and shares in the Bank for International Settlements (BIS) and SWIFT, to which the following special conditions apply:

In accordance with Article 28 of the Statute of the European System of Central Banks (ESCB), the national central banks in the ESCB are the sole subscribers to the ECB's capital. The capital subscriptions are determined by the weightings assigned to the national central banks in accordance with Article 29 of the ESCB's Statute. As a non-euro area member of the ESCB, Denmark is subject to the

transitional provisions in Article 47 of the ESCB's Statute. Danmarks Nationalbank is consequently only required to pay 3.75 per cent of its capital subscription to the ECB as its contribution to the ECB's operating costs. As a central bank of a non-euro area member country, Danmarks Nationalbank does not participate in the distribution of profits or the allocation of losses in the ECB.

Danmarks Nationalbank's share of the ECB's capital amounts to 190.4 million euro, of which 7.1 million euro has been paid up, equal to kr. 53.1 million.

The BIS shares have been paid up at 25 per cent of their nominal value. Danmarks Nationalbank has an obligation to pay up the remaining 75 per cent of the nominal value of its holding in the BIS, if requested to do so by the BIS. This payment obligation amounts to 32 million SDRs, equal to kr. 298.9 million.

Note 21 – Tangible and intangible fixed assets

Kr. 1,000	2022	2021
Properties	418,818	465,015
Machinery and other operating equipment	15,224	19,528
Hardware and software	88,745	105,641
	522,787	590,184
Fixed assets in the course of construction re renovation of Havnegade 5	84,588	37,038
Other fixed assets in the course of construction	4,831	38,160
	612,206	665,382

Of the above, the value of leasehold improvements amounts to kr. 21 million (2021: kr. 29 million), which is written down over the term of the individual leases.

At the most recent official assessment, Danmarks Nationalbank's properties were valued at kr. 850 million.

Note 22 – Other assets

Kr. 1,000	2022	2021
Market value of unsettled currency exposures	3,657,112	-
Market value of unsettled domestic securities transactions	-	1,465
Equity investments in commercial companies	19,794	39,589
Interest receivable	1,076,150	717,393
Other receivables	58,762	32,798
	4,811,818	791,245

Equity investments in commercial companies comprise convertible equities in Visa Inc. received in conjunction with the sale of other financial assets. During 2022, Danmarks Nationalbank sold half of the holding and is still seeking to dispose of the remaining equities on conversion, as the

bank does not wish to hold equity interests in companies with commercial objects that are subject to competition.

Net positions converted into market values regarding financial derivatives are stated in Notes 31 and 32.

Note 23 – Banknotes and coins in circulation

Banknotes in circulation (kr. 1,000)	2022	2021
1000-krone	25,236,877	27,292,962
500-krone	27,400,708	27,272,237
200-krone	7,300,804	7,474,627
100-krone	3,784,957	3,935,383
50-krone	1,002,301	997,566
Older series*)	3,610,715	3,859,231
Faroese banknotes	536,565	536,467
	68,872,927	71,368,473

*) Banknotes issued before the most recent series (2009).

Coins in circulation (kr. 1,000)	2022	2021
20-krone	2,642,967	2,632,181
10-krone	1,257,200	1,248,767
5-krone	639,154	634,352
2-krone	561,222	561,771
1-krone	376,830	374,587
50-øre	196,350	195,627
Older series*)	381,374	382,203
Thematic and commemorative coins with other nominal values	196,538	188,549
	6,251,635	6,218,037

*) Coins issued before the current series.

Note 24 – Monetary policy lending

Banks and mortgage credit institutions in Denmark hold accounts with Danmarks Nationalbank. Via these accounts, using the Kronos2 payment system, they settle inter-bank receivables and their receivables vis-à-vis Danmarks Nationalbank. The banks and mortgage credit institutions also use their accounts with Danmarks Nationalbank to settle payments in Danish and international payment and settlement systems. Danmarks Nationalbank grants credit against collateral to the banks and mortgage credit institutions to ensure that there is always sufficient liquidity in the financial system for payments to be settled.

During the monetary policy day, Danmarks Nationalbank covers Finance Denmark for the amounts reserved by participants in connection with the Intraday and *Sumclearing* systems and for the credit line concerning *Straksclearing*. Danmarks Nationalbank also covers VP Securities A/S for the amounts reserved by participants in

connection with the settlement of trades, periodic runs and *straksafvikling*.

At the close of the monetary policy day on 30 December 2022, the banks and mortgage credit institutions had total deposits in current accounts and settlement accounts with Danmarks Nationalbank of kr. 247.8 billion against kr. 202.3 billion at the end of 2021.

The development can largely be attributed to Danmarks Nationalbank's net foreign exchange purchases against Danish kroner, consequently increasing the banks' and mortgage credit institutions' total deposits with Danmarks Nationalbank.

The average balance in current accounts and settlement accounts increased from kr. 135 billion in 2021 to kr. 214 billion in 2022.

Note 25 – Other deposits

Kr. 1,000	2022	2021
Banks' and mortgage credit institutions' deposits in current accounts in euro	29,077	40,300
Two-way collateral in cash, banks	2,681,974	2,367,261
Deposits from current account customers, etc.	10,793,172	9,012,904
	13,504,223	11,420,465

Note 26 – Central government

As of 31 December 2022, central government deposits amounted to kr. 161,779 million. The central government does not receive a share of the profit for 2022.

Note 27 – Foreign liabilities

Kr. 1,000	2022	2021
Deposits from the European Commission.	3,745,266	2,674,385
Deposits from other supranational institutions	97	90
Two-way collateral in cash for FX trades in euro	4,214,264	384,839
	7,959,627	3,059,314

Note 28 – Counterpart of Special Drawing Rights allocated by the IMF

This liability comprises the original allocation of Special Drawing Rights by the International Monetary Fund (IMF) to Denmark. The total allocation amounted to 4,828 million

SDRs as at 31 December 2022. The current holdings of SDRs are specified in Note 16 'Claims on the IMF, etc.'.

Note 29 – Other liabilities

Kr. 1,000	2022	2021
Market value of unsettled currency exposures	-	530,717
Market value of other financial derivatives	11,378	14
Interest payable	749,850	264,096
Payables	240,957	106,915
Salary-related payables	52,341	52,557
Other liabilities	49,895	68,666
	1,104,421	1,022,965

Net positions converted into market values regarding financial derivatives are stated in Notes 31 and 32.

Note 30 – Net capital

Kr. 1,000	General Capital Fund and Statutory Reserves	General Reserves	Total
Net capital as at 1 January 2022	300,000	81,296,038	81,596,038
Retained earnings	-	-8,464,055	-8,464,055
Net capital as at 31 December 2022	300,000	72,831,983	73,131,983

Note 31 – Financial derivatives used for FX hedges

2022 (kr. million)	Total	EUR	USD	JPY	Other
Net positions at market value					
Forward exchange contracts:					
Purchase	171,657	123,292	22,036	6,214	20,115
Sale	-168,000	-13,571	-80,876	-38,477	-35,076
Unsettled spot currency trades:					
Purchase	8,797	8,738	37	-	22
Sale	-8,797	-59	-	-	-8,738
Currency and interest rate swaps:					
Purchase	0	0	-	-	-
Sale	0	0	-	-	-
	3,657	118,400	-58,803	-32,263	-23,677

2021 (kr. million)	Total	EUR	USD	JPY	Other
Net positions at market value					
Forward exchange contracts:					
Purchase	131,906	83,859	25,171	-	22,876
Sale	-132,437	-1,339	-69,243	-21,494	-40,361
Unsettled spot currency trades:					
Purchase	-	-	-	-	-
Sale	-	-	-	-	-
Currency and interest rate swaps:					
Purchase	0	0	-	-	-
Sale	0	0	-	-	-
	-531	82,520	-44,072	-21,494	-17,485

Note 32 – Other financial derivatives

2022 (kr. million)	Total	DKK	EUR	USD
Principals at market value				
Forward contracts, bonds:				
Purchase	1,663	1,663	-	-
Sale	-	-	-	-
Futures, bonds:				
Purchase	161	-	86	75
Sale	-	-	-	-

2021 (kr. million)	Total	DKK	EUR	USD
Principals at market value				
Forward contracts, bonds:				
Purchase	3,375	3,375	-	-
Sale	-	-	-	-
Futures, bonds:				
Purchase	178	-	99	79
Sale	-	-	-	-

Note 33 – Contingent liabilities and other financial commitments

Danmarks Nationalbank's contractual obligations relating to rented premises include rent and other commitments for the rental of a temporary domicile and other rented premises.

The non-terminability period expires between mid-2024 and mid-2025. Added to this is any restoration on vacation of the premises. At the end of 2022, these obligations totalled kr. 147 million, of which an amount of kr. 83 million falls due in 2023.

In addition, Danmarks Nationalbank has entered into swap agreements with central banks, an intervention agreement with the European Central Bank (ECB) and provided confidentiality guarantees to suppliers and the European System of Central Banks (ESCB) regarding cash supply.

Note 34 – Loan and purchase commitments to the IMF

Danmarks Nationalbank's maximum further loan and purchase commitments to the International Monetary Fund

(IMF) are presented in the table below. The current credit exposure is stated in Note 16.

	2022 (1,000 SDRs)	2022 (kr. 1,000)	2021 (1,000 SDRs)	2021 (kr. 1,000)
The IMF's drawing right on the quota	2,581,490	24,029,800	2,658,690	24,419,271
Danmarks Nationalbank's obligation to purchase SDRs	9,559,261	88,982,386	9,799,670	90,007,032
Undrawn PRG Trust loan facility (2010)	107,187	997,746	107,187	984,476
Undrawn PRG Trust loan facility (2021)	300,000	2,792,550	300,000	2,755,410
Undrawn loan facilities for the IMF in connection with New Arrangements to Borrow	3,243,924	30,196,070	3,221,020	29,584,102
Undrawn loan facilities for the IMF in connection with a bilateral loan agreement (2021 agreement) *)	1,823,874	16,977,530	1,848,458	16,977,530
	17,615,736	163,976,082	17,935,025	164,727,821

*) Equivalent to 2,283 million euro.

The IMF makes loans to countries in economic difficulties and finances these loans via the member countries' quotas and loan commitments. Danmarks Nationalbank's total claim against the IMF was kr. 57,352 million at the end of 2022, see Note 16.

The IMF's drawing right is the balance of the IMF's account at Danmarks Nationalbank in Danish kroner. The account is the part of Denmark's quota on which the IMF can still draw, for example to finance new loans. At 31 December 2022, the balance amounts to kr. 24,030 million (2,581 million SDRs), which also appears from Note 16.

As an element of the SDR arrangement, Danmarks Nationalbank may be requested to purchase additional SDRs, until the holdings amount to up to three times Danmarks Nationalbank's accumulated SDR allocation. Danmarks Nationalbank's obligation to purchase additional SDRs thus amounts to kr. 9,559 million at the end of 2022.

The total loan commitment to PRG Trust (Poverty Reduction and Growth Trust) consists of 500 million SDRs under the loan agreement from 2010 and 300 million SDRs under the loan agreement from February 2021. All loans under the PRG Trust loan facility are guaranteed by the Danish central government. As at 31 December 2022, the unused loan commitments amount to 107 million SDRs and 300 million SDRs, respectively.

The total credit commitments under New Arrangements to Borrow (the NAB agreement) amount to 3,260 million SDRs, equal to kr. 30,341 million. The agreement runs until November 2025. Danmarks Nationalbank's unused credit commitment under the NAB agreement amounts to 3,244 million SDRs at the end of 2022.

The undrawn loan facilities for the IMF in connection with bilateral loans were changed with effect from 2021, so that the IMF can draw 2,283 million euro. No amounts had been drawn under the agreement at the end of 2022.

Note 35 – Pension commitments

Present and former employees of Danmarks Nationalbank have either defined-contribution or defined-benefit pension plans.

For defined-contribution pension plans, Danmarks Nationalbank carries the ongoing premium payments to the pension companies as expenditure. Once the pension contributions for these plans have been paid to the pension companies, Danmarks Nationalbank has no further pension commitments to these employees.

With regard to defined-benefit pension plans, Danmarks Nationalbank is obliged to ensure the policyholder a defined pension benefit. For these plans, Danmarks Nationalbank bears the risk concerning the future development in interest rates, wages, inflation, mortality,

etc. Danmarks Nationalbank is thus obliged to make the contributions necessary to ensure the fulfilment of the pension undertakings.

Pension commitments for the defined-benefit pension plans are calculated as the capital value of the future benefits payable under such plans. The pension undertakings are based primarily on the salary on retirement. The capital value is calculated on the basis of assumptions concerning the future development in, for example, wage levels, interest rates, inflation and mortality.

In principle, the defined-benefit pension plans are covered in Danmarks Nationalbank's Pension Fund subject to winding-up. Other defined-benefit pension plans are covered in a pension company.

Key figures for the financial statements of the Pension Fund:

Kr. million	2022	2021
Pension commitments and other liabilities	2,850	3,463
Fair value of the assets of the Pension Fund	4,401	4,754
Net capital of the Pension Fund	1,551	1,291
Solvency requirement of the Pension Fund	114	138

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