De Nederlandsche Bank

DeNederlandscheBank
EUROSYSTEEM

Working on trust

We seek to safeguard financial stability and thus contribute to sustainable prosperity in the Netherlands. As an independent central bank, supervisory authority and resolution authority, we work in tandem with our European partners to achieve:

- price stability and a balanced macroeconomic development in Europe;
- a shock-resilient financial system and a secure, reliable and efficient payment system; and
- sound, ethical, resolvable financial institutions that fulfil their obligations and commitments.

By issuing independent economic advice, we strengthen policies aimed at our primary targets.

De Nederlandsche Bank N.V.
2018 Annual Report

Central bank, prudential supervisor of financial institutions and resolution authority

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Note
Gross domestic product (GDP), used to express quantities in some tables and charts, is GDP at market price unless stated otherwise.

Legend
0 (0.0) = the figure is less than half of the rounding used or nil
blank = a figure cannot logically occur or the data are not reported (to DNB)
- = no data available.

Rounding
Figures may not add up due to automatic rounding per series; rounding per table means that there is not always a smooth transition between tables.

Contents

Organisation and governance

From left to right: Frank Elderson, Else Bos, Klaas Knot, Job Swank, Nicole Stolk

As of the date of adoption of the 2018 financial statements, the Governing Board, Supervisory Board, Bank Council and Employees Council were composed as follows:

6 Governing Board

President:
Klaas Knot (1967, Dutch, economics,
end of second term: 2025)

Executive Director and Chair for Prudential Supervision:
Else Bos (1959, Dutch, econometrics,
end of first term: 2025)

Executive Director of Banking Supervision:
Frank Elderson (1970, Dutch, Dutch law,
end of second term: 2025)

Executive Director of Monetary Affairs:
Job Swank (1955, Dutch, economics,
end of second term: 2025)

Executive Director for Resolution and Internal Operations:
Nicole Stolk (1969, Dutch, history and Dutch law,
end of first term: 2025)

Company Secretary:
Gert-Jan Duitman (1981, Dutch, business administration)

The allocation of responsibilities among the members of the Governing Board is represented in the organisation chart on DNB's website.

Supervisory Board

Chair:
Wim Kuijken (1952, Dutch, economics, end of first term: 2019)
Member of the Remuneration and Appointments Committee.

Vice-Chair:
Margot Scheltema (1954, Dutch, international law, end of first term: 2019)
Chair of the Audit Committee.
Member of the Supervision Committee.

Other members:
Feike Sijbesma (1959, Dutch, medical biology and business administration, end of second term: 2020)
Chair of the Remuneration and Appointments Committee.

Kees Goudswaard (1955, Dutch, economics, end of second term: 2020)
Chair of the Supervision Committee.
Member of the Bank Council on behalf of the Supervisory Board since 2016.

Marry de Gaay Fortman (1965, Dutch, Dutch law, end of first term: 2020)
Member of the Remuneration and Appointments Committee.
Member of the Supervision Committee.

Roger Dassen (1965, Dutch, business economics and accountancy, end of first term: 2022)
Member of the Audit Committee.

Government-appointed member:
Annemieke Nijhof (1966, Dutch, chemical technology, end of first term: 2019)
Member of the Audit Committee.
Member of the Bank Council since 2015.

Remuneration and Appointments Committee:
Feike Sijbesma, Chair
Wim Kuijken
Marry de Gaay Fortman

Audit Committee:
Margot Scheltema, Chair
Annemieke Nijhof
Roger Dassen

Supervision Committee:
Kees Goudswaard, Chair
Margot Scheltema
Marry de Gaay Fortman

The other positions held by the Governing Board and Supervisory Board members are posted on DNB's website.

Bank Council

Chair:
Arnoud Boot
Professor of Corporate Finance and Financial Markets at the University of Amsterdam.

Other members:
Kees Goudswaard
Member on behalf of the Supervisory Board.

Annemieke Nijhof
Member of the Bank Council on behalf of the Supervisory Board as a government-appointed member.

Hans de Boer
Chair of VNO-NCW.

Chris Buijink
Chair of the Dutch Banking Association.

Han Busker
Chair of FNV.

Marc Calon
Chair of LTO Nederland.

Harry Garretsen
Professor of Economics at the University of Groningen.

Nic van Holstein
Chair of the Trade union federation for Professionals.

Willem van Duin
Chair of the Dutch Association of Insurers.

Vacancy with effect from 1 December 2018
Chair of CNV.

Shaktie Rambaran Mishre
Chair of the Federation of the Dutch Pension Funds.

Jacco Vonhof
Chair of the Royal Association MKB-Nederland.

Representative of the Ministry of Finance:
Christiaan Rebergen, Treasurer-General.

Maurice Limmen was reappointed as member of the Bank Council in his capacity as Chair of CNV as of 1 January 2018. He stepped down as member of the Bank Council as of 1 December 2018. Arnoud Boot was reappointed as member and Chair of the Bank Council as of 1 May 2018. Christiaan Rebergen, Treasurer-General, has attended the Bank Council's meetings as the representative of the Ministry of Finance since 1 July 2018. Willem van Duin was appointed member of the Bank Council in his capacity of Chair of the Dutch Association of Insurers as of 1 July 2018. David Knibbe stepped down as member of the Bank Council as of the same date. Jacco Vonhof was reappointed as member of the Bank Council in his capacity as Chair of the Royal Association MKB-Nederland as of 1 November 2018. He succeeded Michael van Straalen, who stepped down as member of the Bank Council as of 1 February 2018. Shaktie Rambaran Mishre was appointed member of the Bank Council in her capacity of Chair of the Federation of the Dutch Pension Funds as of 1 January 2019. Kick van der Pol stepped down as member of the Bank Council as of the same date.

Employees Council

Jos Westerweele (Chair)
Jerry Rijmers (Deputy Chair)
John van de Meent
Stephan Raspoort
Carel van den Berg
Paul Suilen
Jacqueline van Breugel
Aaldert van Verseveld
Joost van der Burgt
Ingrid Voorn
Lineke Galama
Edwin Weerdenburg
Bernard de Groes
Saideh Hashemi
Marjon Linger-Reingoud
Sandra Koentjes (Professional Secretary)

Governance

De Nederlandsche Bank (DNB) is a public limited company incorporated under Dutch law. In its capacity as the central bank of the Netherlands, DNB forms part of the European System of Central Banks (ESCB). In its capacities of supervisory authority and resolution authority, it forms part of the the Single Supervisory Mechanism (SSM) and the Single Resolution Mechanism (SRM), respectively. As the supervisory authority and resolution authority, DNB is an independent public body.

DNB is led by a Governing Board consisting of a President and at least three and at most five Executive Directors.

The President of DNB is also a member of the Governing Council and the General Council of the European Central Bank (ECB).

The Executive Director of Monetary Affairs is responsible for financial stability, financial markets, economic policy and research, and payment systems. The Executive Director of Monetary Affairs is also responsible for DNB's statistics function and he is a Crown-appointed member of the Social and Economic Council of the Netherlands (SER).

The Executive Director and Chair for Prudential Supervision is responsible for supervision policy and supervision of insurers and pension funds. She represents DNB on the Board of Supervisors of EIOPA, the European Insurance and Occupational Pensions Authority. DNB has a Prudential Supervision Council for Financial Institutions, chaired by the Chair for Prudential Supervision, to support the internal deliberations and decision-making by the Executive Director of Supervision concerning supervisory matters.

The Executive Director of Banking Supervision is responsible for supervision of banks, supervision of horizontal functions and integrity, and legal affairs. He also represents DNB on the ECB's Supervisory Board. The ECB's Supervisory Board is responsible for decision-making on the supervision of significant banks within the euro area within the framework of the Single Supervisory Mechanism (SSM).

The Executive Director for Resolution and Internal Operations is responsible for resolution tasks concerning Dutch banks, investment firms and, as of 1 January 2019, insurers. She also represents DNB on the Single Resolution Board (SRB). DNB has a Resolution Council, chaired by the Executive Director for Resolution and Internal Operations, to support the Governing Board's internal deliberations and decision-making concerning resolution matters. The Executive Director for Resolution and Internal Operations is also responsible for managing DNB's internal operations.

The Supervisory Board supervises the general course of business at DNB and the Governing Board's policy regarding the implementation of Section 4 of the Bank Act 1998. It is also responsible for adopting the financial statements. The Supervisory Board has several other significant powers, including approval of the budget and of certain Governing Board decisions. It consists of at least seven and at most ten members, one of whom is appointed by the Minister of Finance.

DNB has one single shareholder: the Dutch State, which is represented by the Minister of Finance, also in the General Meeting. The Governing Board renders account to the General Meeting by presenting its annual report and financial statements over the past financial year. The General Meeting's main powers include approving the annual financial statements, discharging Governing Board and Supervisory Board members, appointing Supervisory Board members and appointing the external auditor.

The Bank Council functions as a sounding board for the Governing Board. It consists of at least eleven and at most thirteen members. Two members of the Supervisory Board, including the government-appointed member, sit on the

Bank Council. With regard to the other members, DNB aims to ensure that the various sectors of society are represented.

DNB's website provides more information on the governance structure, as also laid down in the Bank Act 1998 and in DNB's Articles of Association and Rules of Procedure. Although the Dutch Corporate Governance Code (the Code) applies only to listed companies, DNB strives to implement the principles and best practices from the Code as much as possible. DNB explains its implementation of the Code on its website.

Introduction by the President

Sustained global growth in an uncertain climate

The global economy is still expanding, but at a slower rate. After several years of growth above long-term potential, capacity utilisation rates have risen and are nearing their limits in various countries. Scope for catch-up growth has largely disappeared, which means growth is easing towards potential.

Leading indicators suggest growth will cool off somewhat further. Sentiment among consumers and purchasing managers about the economic outlook has become less positive in many regions. The flattening out of growth is reflected in lower export figures for Asian economies, while equity markets are less buoyant than they were a year ago. Nonetheless, the outlook remains positive. The ECB expects global growth in GDP to decelerate slightly in 2019, to 3.5%.

The global economy's vulnerability to shocks has increased. Market indicators of financial instability point to considerably heightened uncertainty in the last year. For example, a Brexit in which the UK leaves the EU with no clear agreements in place to smooth the transition could trigger a shock wave whose effects will be felt far beyond Europe. A potentially sharp slowdown in the Chinese economy, ongoing trade tensions and renewed protectionism also pose dangers. Emerging economies are sensitive to financial market instability and political uncertainty, and countries that have fragile institutions and weak economic fundamentals like Argentina and Turkey are particularly vulnerable. There are also geopolitical and climate-related uncertainties. The latter are mainly long term, although their impact is in certain cases already perceptible: the transition towards less-polluting motor vehicles has tangible consequences for the German economy, and some scientists attribute rising migration to climate change.

The possibility of disruptive trade shocks raises the question of how resistant the global economy is to them. Compared to other parts of the world, the euro area is more sensitive to the costs of a Brexit, and certainly if it is disorderly. An escalating trade war between the United States and China will primarily have an impact on economic activity in these two countries, but will also have indirect effects on the euro area. The threat of rising protectionism will for example lead to uncertainty for businesses, which will in response scale back their investments. In the longer term, international trade disputes and protection pose a substantial threat to the European economy.
The liberalisation of trade has in recent decades achieved higher productivity, lower prices and on average higher standards of living. These achievements are, however, vulnerable to the effects of reduced world trade, with the least favourable outcomes for small, open economies such as the Netherlands.

Lower growth in the euro area

Euro area economic growth is muted. After a phase of growth above long-term potential, the European economy is experiencing the effects of increasing capacity constraints. Growth in 2018 was still almost 2% of GDP. The euro area is in a far less advanced stage of the economic cycle than the United States, although the euro area generally faces a similar lack of spare capacity. A factor in the slowdown of growth is that exchange-rate developments no longer drive growth, and that Europe receives less of a tailwind from the rest of the world economy.

The euro has risen in value, which has moderated growth. Since the beginning of 2017, the euro has appreciated against the currencies of the EU's most important trading partners. This moderated economic growth, while in the years immediately after the European sovereign debt crisis exchange rate developments served to stimulate growth. The easing of monetary policy was an important factor in exchange rate developments during these years.

The first signs of cooling off in China and in other emerging economies have an effect on the euro area. The growth outlook for the euro area is sensitive to global developments, particularly regarding the influence of China. Although China's economy still achieved strong growth of approximately 6.5% in 2018, there are clear signs of a slowdown. A slowdown in the Chinese economy's growth to a more sustainable rate is inevitable in view of the unsustainable level of credit growth. Higher US tariffs on imported Chinese goods can also exert downwards pressure on growth.

A recession is not envisaged. Ongoing uncertainty in the external environment weighs on the short-term economic outlook. As a result, the ECB forecasts that growth in the euro area will slow down from almost 2% in 2018 to just over 1% in 2019. In 2020 growth is expected to pick up to above 1.5%. Tightness in certain sections of the labour market presents barriers to growth, but equally, the strong labour market provides a robust foundation for the demand side of the economy.

Monetary policy normalisation is slowly gaining traction in the euro area

Inflation in the euro area has been low and stable for some time. In the last months of 2018 inflation hovered around 2%. Core inflation, which excludes volatile components such as energy and food prices, is around 1%. Core inflation has remained very subdued for several years now. The outlook for economic growth does however put the dynamics of inflation in another light than compared to several years ago. Then, there was still considerable spare capacity, while the economy is now pushing against its capacity limits. The low level of inflation is partly due to a downward trend in services inflation. Price developments in the services sector are currently strongly influenced by structural factors such as greater international specialisation, the impact of globalisation on competition and technological progress. These supply factors behind low inflation cannot be addressed by stimulating demand. Driving demand past capacity constraints to spur inflation leads to imbalances, while monetary policy is precisely intended to create a balanced basis for sustained growth.

Inflation has become less sensitive to capacity constraints. Driven by increasing labour market tightness in the euro area, in 2018 wage growth was over 2%, the highest increase in ten years. This increase was half a percentage point lower, when corrected for labour productivity growth. It is however still modest, and the pass-through to inflation is barely perceptible. Studies confirm that the price level is less sensitive to wage movements, or to capacity constraints in general. This is a complicating factor in the shaping of monetary policy.

Monetary policy is still accommodative. Although the Eurosystem ceased net bond purchases at the beginning of 2019, the monetary policy interest rate is still negative and thus at a level that is highly stimulatory. Given the level of the key policy rate, the direction of monetary policy is clear. However, the pace of the interest rate moves is dependent on circumstances, and although market expectations are informative, they do not exert an influence. Although central banks can obtain valuable information from movements in financial markets, they must not become captive to market expectations. The ECB has indicated that it expects the key policy interest rates to remain at their present levels at least through the summer of 2019.

The effects of adjustments to monetary policy are first visible on the financial markets. Over the last four years the Eurosystem has been a driver on the markets for government bonds and corporate bonds, and for bank financing. This is unusual, as traditionally the Eurosystem has been active only on the very short end of the interbank market. Ceasing net purchases marks the beginning of the Eurosystem reducing its footprint on the longer-term segment of the interbank loans market. This can be accompanied by a rise in risk premiums and greater volatility on markets. These are the side effects of a welcome return to more normal market conditions.

Normalisation of monetary policy is also desirable in view of the adverse ancillary effects of ongoing accommodative monetary policy. The experience of southern European countries before the financial crisis shows that the combination of persistently low interest rates with an economy at full employment leads to vulnerability. For example, imbalances can arise which can then precipitate and amplify a subsequent economic downturn. This stimulates debt formation, producing bubbles in the equity and housing markets. A re-pricing of risk premiums can then result in considerable adjustment costs. It is also important to take side effects into account for the deployment or extended application of specific instruments, such as targeted longer term refinancing operations (TLTROs). Although these transactions play a crucial role in maintaining bank lending, they reduce funding costs more for weaker banks than they do for stronger banks. As such, they inhibit the necessary restructuring of the banking industry.

The search for yield in the climate of highly accommodative monetary policy has resulted in the origination of private loans with a very low level of creditworthiness exceeding pre-crisis levels. This primarily concerns loans to companies with a high-risk capital structure (leveraged funding), which following a post-crisis drop have again sharply increased. Although there is no comprehensive quantitative view of this form of financing, it is clear that this phenomenon primarily affects non-bank parties. Approximately 10% of fixed-income securities held by Dutch pension funds have a credit rating of BB+ or below. In the event of an economic downturn, repayments on such debt instruments will relatively quickly become uncertain for all parties with these exposures. The debt holder will then suddenly be subject to claims of uncertain value on the underlying asset, leading to market unrest. Another danger of leveraged funding is that it pushes up debt owed to businesses, particularly those which already have a very vulnerable financing structure. As the risks can affect the financial system, leveraged financing emphasises the importance of macro-prudential policy instruments in the non-banking sector.

European integration

Brexit is a watershed moment for Europe. Never before has a Member State left the EU. In terms of the economic costs and benefits, the result of the referendum is difficult to comprehend. In all scenarios, the UK pays a heavy price in terms of the potential loss of prosperity from leaving the EU. The costs could rise sharply if the UK crashes out of the EU with no deal or transition period in place. This would lead to the highest costs for the EU. In all cases, the EU stands to lose a powerful Member State, and will become smaller, with fewer Member States and a lower GDP. The EU also stands to lose a powerful player on the world stage and a connecting link with the United States. One potentially positive aspect of the UK's withdrawal is that it could foster greater cooperation among Member States, so they speak with a more unified voice on the world stage.

The financial sector is itself responsible for making the proper preparations for Brexit. Financial institutions in the UK have started submitting applications for licences to operate in the Netherlands. Dutch financial institutions have also made preparations and have drawn up emergency plans for various scenarios. Through our cooperation with the Netherlands Authority for the Financial Markets (AFM) and European supervisory authorities, we seek to ensure that financial institutions and market infrastructures make adequate preparations, and if possible take mitigating measures. Public intervention is only necessary when market parties themselves are unable to arrive at a solution, or when there is the threat of disruption to financial services. One such risk relates to the dependence of European parties on UK central counterparties (CCPs) for the settlement of derivatives contracts. The overwhelming majority of euro-denominated interest rate derivatives and credit default swap contracts are cleared by UK-based CCPs, The imminent inability to settle these contracts in the UK could have resulted in major disruption. The European Commission has however temporarily averted this threat by granting the UK equivalence with the EU supervisory regime in this area for one year following its withdrawal.

Brexit is part of a broader trend reflecting a reduction in support for closer European integration. European integration has for a long time clearly generated greater prosperity. In the 1950s, the integration of trade contributed to economic recovery following the destruction wrought by the Second World War. In 1992 the single market was welcomed, and 1999 saw the introduction of the euro. A large group of former East Bloc countries acceded to the EU in 2004 and since then have benefited greatly from membership. The years that followed saw important institutional improvements such as the creation of the banking union. Although there will still be advantages, they will be less perceptible. The lack of exchange rate uncertainty – even during the financial crisis – is a major achievement, although it is taken for granted. In this context, there is limited support for taking greater steps towards closer European integration. This does not however mean excluding further improvements to the institutional framework. A pragmatic approach involving smaller steps offers the most promising way forward. This also applies to the opportunities to strengthen the Economic and Monetary Union (EMU). There is every reason to make the EMU more resilient and future-proof along three lines.

Firstly, the link between banks and sovereigns must still be reduced much further. In this respect, it is a positive development that steps have been taken to further strengthen the Single Resolution Fund. It is also positive that political agreement has been reached concerning the amendment to the Bank Recovery and Resolution Directive (BRRD 2), which will impose a clear requirement on major European banks to maintain loss absorption buffers with subordinated debt that can be called on in resolution. It is now a question of quickly building up these subordinated debt buffers. In contrast, less progress has been made with the European deposit guarantee system. There is a difference of opinion concerning the question of whether banks have already sufficiently reduced existing balance sheet risks. Sufficient support for risk sharing can be generated only after alleviating concerns about the extent of the reduction in risk. It is also a concern that some Member States give low priority to reducing banks' considerable sovereign exposures. Little headway has been made in policy discussions in this area, while the crisis has shown that this interdependency has increased problems for both banks and their sovereigns.

European banks, which are still heavily intertwined with their sovereigns, generally have low profitability and would benefit from consolidation. Although there has been a strong improvement in the capital position of the euro area banking sector, profitability still leaves much to be desired, with a return on equity of just 4%. Non-performing loans weigh on average twice as heavily on the sector's balance as they do in the Netherlands, with particularly high levels of NPLs in certain countries. This does not present a favourable picture. There are too many banks in the euro area that may appear to be well capitalised on paper, but which are not profitable and therefore not healthy. A sustainable sector is a sector that generates sustainable, healthy returns. Doubts in this regard have also arisen due to market valuations of banks that are far below book value. The market value of banks in the euro area is on average 60% lower than their book value. Particularly in those countries with a fragmented banking sector, consolidation among small and medium-sized banks – which often struggle to limit costs and digitalise processes – could shore up the solidity of the banking industry.

Private risk-sharing is a second area that requires strengthening. In the last year, progress has been made to improve how public risk-sharing is structured by initiating reforms to the European Stability Mechanism (ESM), which will become a permanent fund for granting loans to EU Member States in financial difficulties under strict conditions. It will also serve as a backstop for the resolution fund for banks. The development of private risk sharing through an effectively functioning capital market union is however still some way off. More cross-border securities and shareholdings would help in this respect. When investors make cross-border investments, the impact of economic downturns or upturns in a particular Member State is shared by investors across all Member States. There is still much to be gained in this respect compared to the United States. It would also help if financial intermediation in the euro area was dominated far less by the banking industry. This would result in risk absorbing capital gaining ground over debt capital financing. It would also reduce systemic risks, as compared to bank funding, market funding is coupled to a lesser extent with maturity transformation, high leverage and linkage with the payment infrastructure.

Thirdly, structural reforms should be more oriented towards increasing growth potential and better absorption of shocks. A healthy structure strengthens growth potential. In view of the full production capacity utilisation, it is clear that higher growth can only be achieved through stronger productivity growth, and policy can be focused to stimulate this. According to the Organisation for Economic Cooperation and Development (OECD), GDP can grow to a total of 4% to 7% if Member States more closely align their policy for labour and product markets to European best practices. More flexibility in labour and product markets will also allow the economy to benefit from greater adaptability during a subsequent downturn. However, this model can only function if a suitable level of social protection is guaranteed. The Rhineland model with its social safety nets is in this respect helpful, whereby preference is given to providing people who lose their jobs with new work, rather than unemployment benefits. Safety nets are for that matter also important to ensure publicly acceptable distribution of the benefits of free trade and globalisation.

A reduction in private debt can further improve the adaptability of the euro area. The debt crisis in the euro area has not resulted in lower levels of debt. Public debt in the euro area stabilised in 2018 at around 85% of GDP, which is far above the ceiling of 60% of GDP under the Stability and Growth Pact. According to the latest figures, household debt amounted to almost 60% of GDP and non-financial corporation debt stood at over 80% of GDP. Analysis shows that sudden spikes in interest rates could quickly lead to corporate repayment capacity – the ratio between interest and principal payments and profits – returning to the crisis levels of 2012. This is not only due to limited debt reduction following the crisis, but also because of relatively short loan maturity periods. Households are less vulnerable to interest rate rises provided their loans have longer maturity periods and fixed interest rates. Private sector debt reduction would make the euro area more robust and tax measures to reduce the appeal of debt capital financing could contribute to this.

Sustained growth in the Dutch economy lays the basis for structural adjustments

The economy of the Netherlands continues to grow at a sustained rate. Economic growth has fallen from almost 3% in 2017 to 2.5% in 2018, with actual output still above long-term potential and tensions in the economy increasing. Public and consumer spending support this picture. In 2018 economic growth was coupled with robust growth in employment, and at the end of the year unemployment stood at just 3.5% of the labour force, indicating tightness on the labour market. Across all sectors, businesses experienced a sharp rise in constraints due to staff shortages throughout the year. Against this backdrop, it is likely that economic growth will flatten in the coming years.

Despite tightness in the labour market, there is only limited wage growth. In 2018 compensation per employee was estimated to have risen by less than 2.5%. Wage growth has increased slightly, although it is interesting to note that unemployment in 2007 was as low as it is now, while real wage growth at that time was considerably higher. Labour market flexibilisation is one factor behind the modest wage growth. Supply factors such as globalisation and the reduced influence of trade unions play a more general role. In terms of labour market competition, there is now greater emphasis than before on employment contract duration instead of salaries.

The increase in the low VAT rate will temporarily push up inflation. Similarly to growth in wages, 2018 saw modest growth in inflation. In 2018 HICP inflation stood at just above 1.5%. In 2019, inflation may rise past 2%, partly owing to the increase in the low VAT rate from 6% to 9% and higher energy taxes, although this effect will have dropped out of the figures by 2020.

The Dutch economy is more volatile than that of neighbouring countries. The business cycle in the Netherlands has high peaks and low troughs, and Dutch domestic expenditure is particularly subject to outliers. The last high peak was in 2007, while there was a deep trough in 2012. The volatile nature of the Dutch economy implies heightened uncertainty and adjustment costs. This volatility is due to sharp swings in private consumption and the relatively long and illiquid balance sheets of households. A large proportion of households scarcely has any liquid assets, and as consumer credit is expensive or unavailable, expenditure is largely tied to income development. Private individuals have relatively low available surplus capital. Most employees are enrolled in compulsory collective pension schemes, and many are home-owners, although both of these financial assets are largely illiquid in nature, while there is considerable mortgage debt attached to these housing assets.

Pension system reform in the first place presents an opportunity to strengthen household balance sheets. As of 2010, there have been various missed opportunities to modernise the pension system, resulting again in failure to reach an agreement in 2018. In Europe, the Netherlands continues to press for structural reform, though this proactive stance is not reciprocated on the domestic front. Reform is desirable to ensure greater harmonisation of the pension system with the labour market, and to ease tensions between generations. Abolishing the uniform system would put an end to the current redistribution from young to old and from lower to higher-educated people. A more tailored approach to investment policy could ensure that young and old people share the risks and receive the returns that reflect their preferences.

A more effectively functioning housing market, with a greater supply, would make private consumption more stable. House prices in the Netherlands are subject to stronger fluctuations than in surrounding countries, as the housing supply has little sensitivity to house prices. During periods of housing scarcity there is relatively little new construction of homes due to stringent spatial planning policy and labour market tightness. The most acute housing shortages are in the middle segment of the rental market. A properly functioning rental market can ease pressure on the owner-occupied sector. A more level playing field in the owner occupied sector could give an impulse to the private rented sector. A more neutral tax treatment of home ownership would reduce problems. In the short-term, housing associations could boost supply by selling off their more expensive properties to the middle segment of the rental market.

There are opportunities on the mortgage lending market for a further reduction in procyclicity. Policy has already been tightened. Households are still currently permitted to borrow a maximum of 100% of the value of the property, compared to 106% in 2012. For new mortgage loans, tax-deductibility of interest payments is only possible for full repayment of the mortgage loan over a minimum 30 year annuity period. The maximum rate against which mortgage interest payments can be deducted from tax will be gradually reduced to 37%. We consider it imperative that shock resilience is further bolstered by tightening lending conditions. The maximum loan-to-value ratio in the Netherlands should be brought down to 90%, which is in any case still high from an international perspective. This would allow households to be able to maintain a buffer to absorb shocks. Moreover, DNB supports further cuts to mortgage interest tax relief to ensure a more balanced tax treatment of household assets and liabilities. The current level of mortgage interest tax relief still fosters financing with debt instead of equity. Mortgage interest tax relief also stimulates home ownership less than is commonly assumed, as due to housing supply shortages, the tax subsidy pushes up house prices and mortgage interest rates in the Netherlands are clearly above the euro area average. Part of this tax subsidy therefore ends up in the hands of lenders, rather than households with mortgage loans.

Budgetary policy has an important role to play in reducing cyclical volatility. Discretionary policy has in the past frequently exacerbated procyclicity. Extensive austerity measures were for example taken during the recessions of 2008-2009 and 2011-2012. Automatic stabilisers, such as social security provisions which co-move with the business cycle, tend to have a moderating effect on the cycle. In order for them to function optimally during a recession, it is important to have sufficient buffers. Experience over the last four decades has shown that when the economy is in upswing, a surplus is required, as the public deficit deteriorates by an average of 3.5% of GDP between the peak and the trough in the business cycle. In the coming years it will be tempting to spend the entire budget surplus. However, it would be preferable to retain this surplus, and to maintain trend-based fiscal policy oriented towards achieving a level of surplus, while economically favourable times persist. Public finances are currently well positioned for this.

Reducing differences in tax treatment and labour rights between employees and the self-employed will also curb volatility. The increased proportion of self-employed people in the total workforce has reduced the strength of automatic stabilisers. The self-employed are less well-insured against unemployment and incapacity for work. As a result, fluctuations in income pass through to consumption relatively quickly and strongly, which is exacerbated by the limited liquidity buffers of self-employed persons. Reducing differences in tax treatment and labour rights will attenuate the effect of income fluctuations on the self-employed, particularly those with low incomes and limited buffers. It is also important to remove uncertainties surrounding the tax treatment of self-employed people under the Assessment of Employment Relationships (Deregulation) Act. In terms of the differences between employees and the self-employed, the bill for the Balanced Labour Market Act also warrants attention. The proposed Act reduces cost differences between employees on permanent and flexible contracts. There is however also a flip side: raising the costs of employees on flexible contracts without intervening in the self-employed market increases the relative appeal of self-employment compared to salaried employment. The unintended outcome of this could be that a reduction in the number of employees on flexible contracts drives up the number of self-employed people rather than the number of employees on permanent contracts.

By implementing timely and effective climate policy, governments can prevent any volatility that may be associated with subsequent abrupt policy measures. As it now stands, global warming and the transition to a climate neutral economy constitutes a source of macroeconomic uncertainty. To address the problem at its source higher taxes on carbon emissions and other greenhouse gases are virtually inevitable. This should strengthen the incentive for businesses to substantially reduce their emissions. A European approach is preferable, although neither must we exclude the possibility that this tax is introduced on a more limited scale. DNB research studies indicate that the impact on the Dutch economy of a carbon tax is expected to be manageable. Several emissions-intensive industries will see a sharp fall in domestic and international sales as a result. To ameliorate the negative impact on these industries, some of the proceeds from the tax can be ploughed back into the affected businesses, provided they use the funds to develop cleaner technology. Another possibility is to channel the proceeds back to households.

Financial sector

Ten years after the crisis, the Dutch banking sector is in prudential terms better positioned than before the crisis. Substantial buffers have been built up in recent years. Since the beginning of the crisis, the average Common Equity Tier 1 (CET1) key capital ratio has more or less trebled at the three largest banks. At the other banks, these ratios were already higher and have generally doubled. The leverage ratio – own funds as a percentage of the balance sheet total – has also increased, and stands at an average of 4.5% for the three largest banks which is still relatively low compared to European peers, due to the relatively high amount of mortgage loans on the balance sheet, which have a lower risk weighting and as a result require less capital to be held than for other assets. At the same time, banks have built up additional capital instruments (AT1) which can be used for potential recapitalisation by converting these instruments into own funds. Major banks have also made good progress in building up subordinated instruments (MREL), which can be called on for recapitalisation in the event of a failure. In the years ahead banks will further increase their buffers in order to comply with stricter requirements for capital and resolution introduced in the wake of the crisis. In this respect we are committed to the consistent, full and timely implementation of the Basel 3.5 capital accord in European regulations. In order to comply with the requirements of Basel 3.5 by 2027, the three largest Dutch banks face an additional capital requirement of EUR 8.8 billion in CET1 core capital and EUR 5.7 billion in AT1 capital instruments.

In addition to improving capitalisation, the Dutch banking sector generated considerable returns. In 2018 the sector's return on equity amounted to approximately 9%. This is considerable in view of the very low risk-free interest rate, and therefore comprises a substantial risk premium. This result can partly be explained by the fact that in the current economic climate banks only have to set aside low provisions for credit loss. Based on the average level of provisions in the period 1998-2017, returns would still amount to above 7%. The sector's favourable profitability is also supported by cost savings.

Dutch insurers are capitalising on changes, despite a headwind from the low inflationary environment. Insurers face a saturated market and strong competition. Certainly in the current interest rate climate, it is difficult to introduce new, profitable life insurance products. Nonetheless, the sector as a whole has for several years already been characterised by reasonably stable buffers to absorb shocks and to innovate. Many insurers see the chance to benefit from new opportunities, such as offering insurance products against cyber risks.

On 1 January 2019 a law entered into force intended to prevent the disorderly failure of insurers. As has been in place for banks at European level since 2015, a framework will be developed at national level to limit the impact on the economy and society of an insurer that is no longer viable. If an insurer's bankruptcy is considered to incur excessive social costs, the insurer qualifies for resolution. DNB can then transfer the failing insurer's business or part of its activities to another party. DNB can also write down an insurer's assets and liabilities and convert them into new capital. Losses must initially always be borne by the insurer's shareholders and creditors, although if these measures fall short, part of the value of policyholders' claims can also be written down. However, policyholders must always be better off after resolution than they would be if the firm had gone bankrupt.

The financial position of the pension sector deteriorated significantly after the crisis, and is still a concern. This can primarily be attributed to the sector's underestimation of the impact of the persistently low interest rate environment, but also of the rising life expectancy. At the end of 2018, the funding ratio, which expresses a pension fund's assets as a percentage of its liabilities, had deteriorated to such an extent that almost 60% of members received a pension from a fund with a funding ratio below the statutory minimum. If the situation is not corrected, then these pensions may be curtailed in the coming years.

Preventing financial crime remains a concern for the sector. There are tens of billions of euros in illicit funds circulating through the Dutch economy. To make these funds appear legitimate, criminals make use of banks, but also for example trust offices and money transfer offices. The public expects the financial sector to take a leading role in combating financial crime. Fortunately, the sector is taking initiatives aimed at preventing involvement with money laundering or terrorist financing. However, more attention for the financial institutions' gatekeeper's role remains essential. This is one of our priority areas for supervision, with institution-specific interventions of course kept out of the public domain.

These primarily cross-border problems are of course not restricted to the Netherlands. It is regrettable that certain Member States are still behind in implementing European directives. Against this backdrop, we support the European Commission's proposals for heightened European cooperation in the area of preventing and combating financial crime. Over the longer term, the creation of a European-wide system of anti-money laundering supervision appears inevitable.

Risks of crime associated with cryptos deserve specific attention. The high level of anonymity involved in cryptos means they pose a substantial risk of financial crime. Regulation and supervision can best be developed at international level, as these services are after all cross-border in nature. Fortunately, the approach is increasingly coordinated at European and international level, as seen for example in the new EU anti-money laundering directive (AMLD5), and the Financial Action Task Force (FATF). We recommend, in consultation with the Ministry of Finance, introducing a licence requirement for crypto service providers.

Recent insights indicate that global warming and the transition to a climate-neutral economy pose prudential risks. Climate risks and other relevant social and ecological uncertainties translate into financial risks for the institutions we supervise. These may for example include the effects of strongly changing climactic conditions. The energy transition, however desirable it may be, comes with prudential risks attached. DNB has conducted a stress test to quantify the effects of an abrupt energy transition. The results revealed potentially high losses for the Dutch financial sector, including in the form of a potentially sudden sharp drop in the value of assets in a world with low emissions. Financial institutions can curb such risks by comprehensively including them in their risk management.

DNB is increasingly focused on sustainability. As a central bank, supervisor and resolution authority we seek to safeguard financial stability, together with our European partners. Our mission contributes to sustainable prosperity in the Netherlands. Sustainable prosperity means sustainable economic growth that is achieved without harmful effects on the environment and without systematically disadvantaging certain individuals, groups or generations. Promoting a financial and economic system in which financial services are accessible for all strata of society, including the most vulnerable groups of the population with low levels of financial and digital literacy. Sustainability considerations are an increasingly important factor in the performance of our core tasks. Through the Central Banks and Supervisors Network for Greening the Financial System (NGFS), DNB and other central banks and supervisors are better able to manage the financial risks associated with climate risks. As the energy transition is one of the most important processes of structural change that our economy will have to undergo, DNB is participating in the public debate on this issue. We also apply principles of socially responsible investment to our own reserve management to mitigate the environmental, social and governance (ESG) risks of our investments over the long term.

Technological innovation creates new opportunities and risks for the financial sector. New technology presents opportunities such as cost savings from digitalisation and artificial intelligence, as well as threats in the shape of greater competition and heightened cyber risks. We engage the sector in dialogue on how to effectively and proportionally apply existing laws and regulations in the context of technological innovation. The aim is to ensure innovation is not unnecessarily obstructed by laws and regulations that do not take it into consideration. Technological developments can also lead to adjustments to the statutory framework. An example of this is the implementation of the revised Payment Services Directive (PSD2), which opens up the payments markets to new entrants. It is also our ambition to ensure our activities are more data-driven. This involves gathering more detailed data and applying new data science techniques to more rapidly identify financial risks and the connections between them.

Payment systems

The entry into force of PSD2 in 2019 lays a new foundation for non-cash payments. PSD2 is intended to nurture competition, innovation and security in the payments market, and to better protect consumers. Banks are obliged to grant new service providers access to payment accounts, on condition that account holders give their explicit consent. PSD2 offers new players the opportunity to enter the payment market, alongside banks. The entry into the market of US or Chinese bigtech firms could substantially alter the playing field.

Instant payments introduced in the Netherlands. Instant payments means payments are processed without delay, so that the recipients of payments receive their money almost immediately. The Netherlands is the first country to introduce instant payments for all payment services. Instant payments will be rolled out gradually. In 2019 banks will start to facilitate instant payments for mobile and internet payments. Instant payments will facilitate peer-to-peer payments and payments that must be settled by a specific date, as well as enhancing the efficiency of debt management.

There is still considerable support in society for maintaining cash payments. Recourse to cash is important for protecting personal privacy, as it is a means of payment that offers the highest degree of anonymity. Cash also provides a valuable alternative for vulnerable groups with limited or no access to electronic payments due to low financial or digital literacy. Cash is also the most reliable payment alternative in the event of disruption to payment terminals or internet banking services. Against this backdrop, it is important to ensure the cash infrastructure remains accessible and affordable. The partnership between the three largest Dutch banks to jointly operate ATMs is helpful in this respect, as it will ensure the preservation of a network for withdrawing and depositing cash, to meet the demand for cash even in the event of a crisis.

Banknotes are becoming increasingly sustainable. We are committed to extending the life of banknotes, which saves energy and raw materials. Banknotes with a protective coating can remain in circulation for 50% longer. The Eurosystem has therefore decided to apply this protective coating to the most commonly-used banknotes in the new series – the €5, €10 and from 2020 also the €20 banknote. Furthermore, in a new joint tender with seven other central banks, DNB has proposed using sustainable cotton to produce the new banknotes. As far as we know, these will be the first banknotes in the world to fully consist of sustainable cotton.

Concluding remarks

Continued economic growth provides an opportunity to strengthen the Dutch economy's resilience to shocks. This applies to a wide range of policy areas. A timely energy transition will preclude the need for abrupt and costly policy measures. Gradual normalisation of monetary policy, the reduction of corporate debt and the consolidation of the European banking industry will make the financial system more robust. A series of phased reforms will make Europe a more stable partner in times of geopolitical and trade tensions. Modernising the pension system and reducing incentives for accumulating high levels of mortgage debt will reinforce the solidity of the Dutch economy. In short, a more balanced economy will enable the public sector, businesses and households to enhance their resilience to adverse conditions.

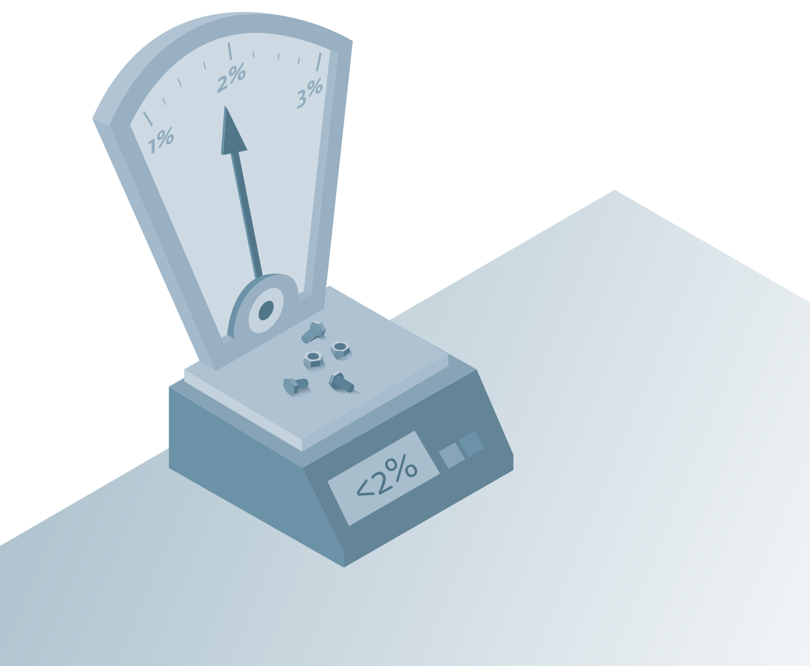
1 Monetary policy enters a new phase

Challenges related to the new phase of monetary policy call for a strategy that takes into account uncertainties and complexities in the economy.

The year 2018 saw economic growth in the euro area slow down to more sustainable levels and marked a turning point in monetary policy. On balance, the ECB will no longer add any bonds to its asset purchase programme in 2019. However, the downside risks for the current growth outlook could lead to postponement of the expected first policy rate increase. And monetary policy is facing other challenges besides normalisation. Post-crisis experiences have shown that monetary policy has only a limited impact on the economy and on inflation in particular. This calls for a strategy that takes the uncertainties and complexities in the economy into account. Central banks have added new instruments to their monetary policy toolbox in response to the crisis, but it is not to say that these will have to be implemented in a next downturn.

1.1 Normalisation of monetary policy

After five years of expansion, economic growth in the euro area has now slowed down to more sustainable levels. Since the end of the recession in the second quarter of 2013, average economic growth has been markedly above the potential growth rate (Figure 1.1).

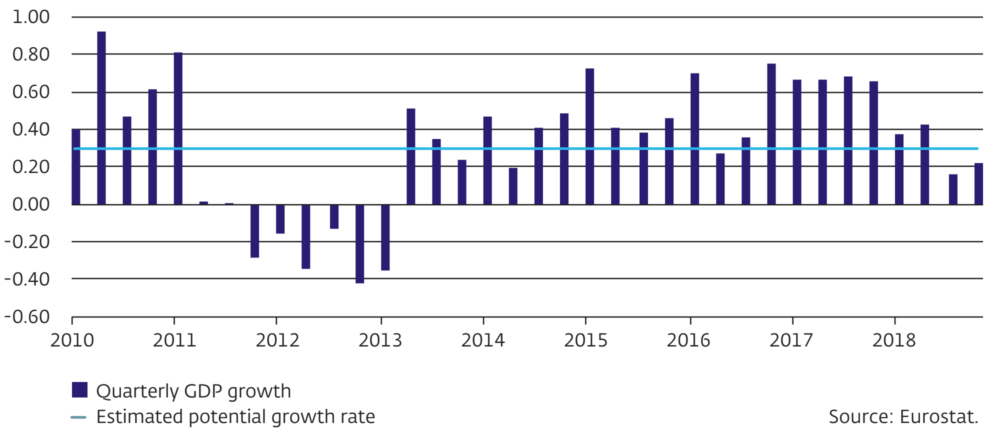


This means the slack in available production factors is gradually decreasing, which is expressed in falling unemployment, rising capacity utilisation rates and increasing capacity constraints. This robust economic growth is limited by the maximum production capacity trend, which in turn is dependent on deeper, underlying factors such as technological advances, labour supply changes and the pace of new energy sources becoming available. Expansionary growth is no longer possible under full production capacity utilisation, which means economic growth will slow down to its underlying potential.
The outlook for the economy has become increasingly subject to external risks in recent years, as could already be seen from the final quarters of 2018 and the first of 2019. This has been incorporated in the ECB's most recent growth projections for the euro area.

When capacity utilisation rates are on the rise, the need for monetary stimulus to safeguard price stability will fall. Based on the economic expansion, the ECB expects the inflation rate to show a sustained adjustment towards the aim of below, but close to, 2% in the medium term. In an economy that is facing capacity constraints, as is currently the case in the euro area, increasing upward pressure on wages and prices is usually a given. The current situation is marked by unusual uncertainties, however. Although wage growth has recently been accelerating, its pace is more moderate than is to be expected given the current status of the economic cycle. This may be due to employees preferring to see the improved labour market conditions reflected in more jobs and hours worked instead of higher wages. As companies have until now mainly let the higher wages come at the expense of their profit margins, the translation of higher wages into higher prices is happening more slowly than before.

Despite the phasing out of net asset purchases from early 2019 onwards, monetary and financial conditions in the euro area are still highly accommodative. Policy rates are

Figure 1.1 Euro area gross domestic product
Quarterly figures; percentages



Source: Eurostat.

expected to remain at their current low levels at least throughout 2019. Downside risks for the current growth outlook could lead to postponement of an expected first policy rates increase. In addition, the ECB announced that the asset portfolio that has been built up will be maintained at the current level for a considerable time after a first increase of the policy rates. At almost EUR 2,600 billion, approximately 22% of the euro area GDP, this is a very large portfolio. The fact that the Eurosystem keeps these bonds off the market long-term has a permanent dampening effect on interest rates. This effect is reinforced by the Eurosystem's remaining activity on markets to reinvest maturing bonds. Moreover, by means of the targeted longer-term refinancing operations (TLTROs), the Eurosystem provides liquidity to banks at favourable rates until early 2021, provided that they expand their lending to the private sector other than through mortgage lending. All this implies that monetary policy will continue to support growth and inflation well into the future. This means that the ECB is in a different policy phase than the US central bank, which has already commenced raising policy rates and reducing asset portfolios.

Normalisation requires a delicate balancing act from policymakers. On the one hand, normalisation should match the inflationary environment and prevent any adverse effects of maintaining accommodative monetary policy too long. Especially in an economy that is reaching its capacity limits there is a risk of the low interest rates contributing to new vulnerabilities. On the other hand, the current economic outlook is subject to downside risks, and normalisation must not involve huge shocks in the financial markets. Partly for these reasons, it is important to prepare financial market expectations for normalisation of monetary policy in a timely fashion, especially if the path desired by policymakers deviates from those expectations.

1.2 Policy analysis challenges

There are other important challenges facing monetary policy besides normalisation. Analysis of the risks to price stability is hampered because economic relations are susceptible to change and subject to uncertainty. This makes translating analysis into an appropriate monetary policy response less straightforward. In addition, there is the question of choice of instruments: which use of instruments will most effectively achieve the aim of monetary policy without causing undesirable side effects? All these issues

Box 1.1 Monetary policy and the energy transition

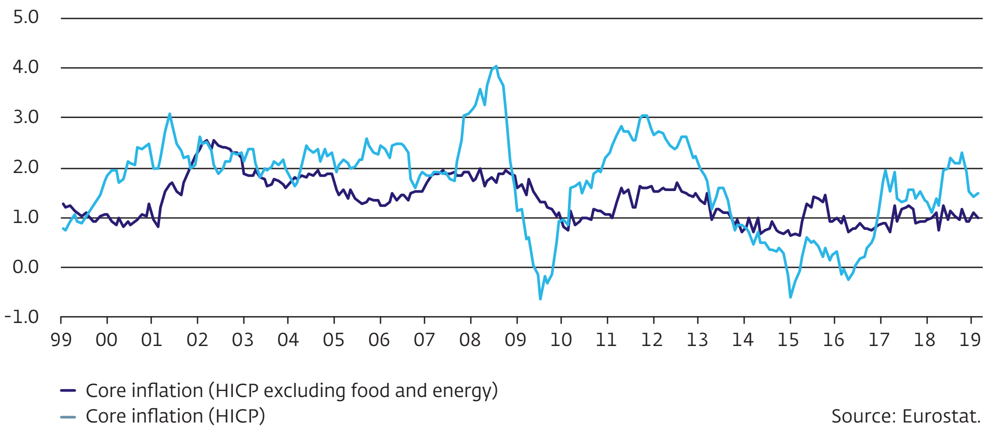
From a macroeconomic perspective, the energy transition is one of the main challenges of the coming decade and is therefore increasingly featured in the policy analysis of central banks. Failure to make sufficient progress towards achieving a climate neutral economy increases the likelihood of extreme events that may disrupt the macroeconomy. Extreme weather shocks may cause increasing volatility in economic growth and inflation. A disruptive energy transition may trigger similar effects. But a successful transition also impacts the workings of the economy through investments, spending patterns and flows of financing. Monetary authorities seek to understand how these developments translate into risks affecting price stability in the medium term and what they mean for the effectiveness and the side effects of the available set of instruments. The energy transition signifies a structural change in the economy, while monetary policy is an instrument for managing the economic cycle. This makes securing a smooth energy transition mainly the responsibility of governments. At the same time, central banks may not hinder a successful transition as they implement their instruments. At present, very accommodative monetary conditions are creating particularly favourable circumstances for bringing forward investment in a climate neutral economy.

involve new challenges (see Box 1.1) and existing analytical frameworks are critically examined.

For monetary policymakers, obtaining a complete understanding of inflation dynamics has become a bigger challenge than before. Traditionally, economists have assumed that there is a relationship between economic activity and inflation. Over the past decade, the path of inflation has raised doubts concerning the robustness of this relationship in two respects. Firstly, the sharp decline in GDP and the increase in unemployment between 2008 and 2010 did not go hand in hand with a strong moderation of inflation dynamics. While euro-area unemployment increased by 2.6 percentage points, core inflation declined by a mere 0.8 percentage points. Economic literature refers to the puzzling fact of "missing disinflation". Secondly, the upswing in the economy, which emerged over the course of 2013, was not followed by a sharp rise in inflation – a puzzling fact referred to as "missing inflation". Euro area unemployment declined between 2014 and 2018 by 3.3 percentage points, while core inflation increased by 0.2 percentage points only. The fact that total inflation still showed large fluctuations was mainly due to trends in energy prices (see Figure 1.2).

Although a certain degree of uncertainty remains, DNB research indicates that it is taking longer for the relationship between economic activity and inflation to make itself felt nowadays. Moreover, this research shows that there is a trend-based decrease in services inflation. The fact that the share of services in the consumption basket has increased has an additional dampening effect on

Figure 1.2 Euro area inflation
Year-on-year percentage changes



Source: Eurostat.

headline inflation. When a trend-based decline in services inflation and longer lags are taken into account, there is still a cyclical relationship between capacity utilisation and inflation. However, any upward adjustment will be delayed more than before.

Another monetary policy challenge is the fact that macroeconomic key variables are only measurable with a degree of uncertainty. An example of this would be inflation expectations. Central banks monitor inflation expectations as these can play an important role in households' and companies' spending decisions. Applying inflation expectations for policy purposes is complex, however, as these are not observed with exactness. Various indicators do not always provide the same information. Indicators based on market expectations show much more volatility than survey-based indicators. In addition, it is unclear which inflation expectations have the most relevance in households' and companies' actual spending decisions. There are recent indications that households and companies pay particular attention to actual inflation, possibly as an approximation of the expected future inflation.

1.3 Policy-making challenges

Monetary policy must not contribute to a structurally lower interest rate. Long-term accommodative monetary policy may result in non-viable banks and non-productive companies being kept alive for an unduly long time. This may adversely affect the economy's maximum growth potential. During a crisis the reverse risk exists. If monetary stimulus is insufficient to counter the recession, it could lead to permanent losses in growth, for example because discouraged job seekers leave the labour market, or essentially healthy companies are forced to close their doors. This scenario is less likely at the moment, as the economy is facing capacity constraints. Apart from a potential role played by monetary policy it is likely that demographic developments and reduced productivity growth since the 1980s contributed especially to structurally lower rates.

Structurally lower rates have two consequences for monetary policy. Firstly, they mean that neutral monetary policy involves lower interest rates than before. Secondly, the central bank has less scope to stimulate the economy with a conventional interest rate policy, because the policy rates have effective lower bounds. One consequence is that in a recession, policy rates more often reach their effective lower bounds and stay there for a longer period of time. This could increase the likelihood that unconventional instruments may have to be used again in the future.

To offset the effects of a structural decline in interest rates, there are factors that may prevent policy rates from more frequently reaching their lower bounds. After all, the need to lower policy rates depends on specific risks that threaten price stability, such as swings in the economic cycle. In this context, it is doubtful that the most recent recession is indicative of future cyclical fluctuations. The most recent recession was deeper than an average economic downturn, due to the fact that it was a global recession that coincided with a financial crisis. In the event that future economic cycles show smaller swings, monetary policy will require fewer adjustments to ensure price stability.

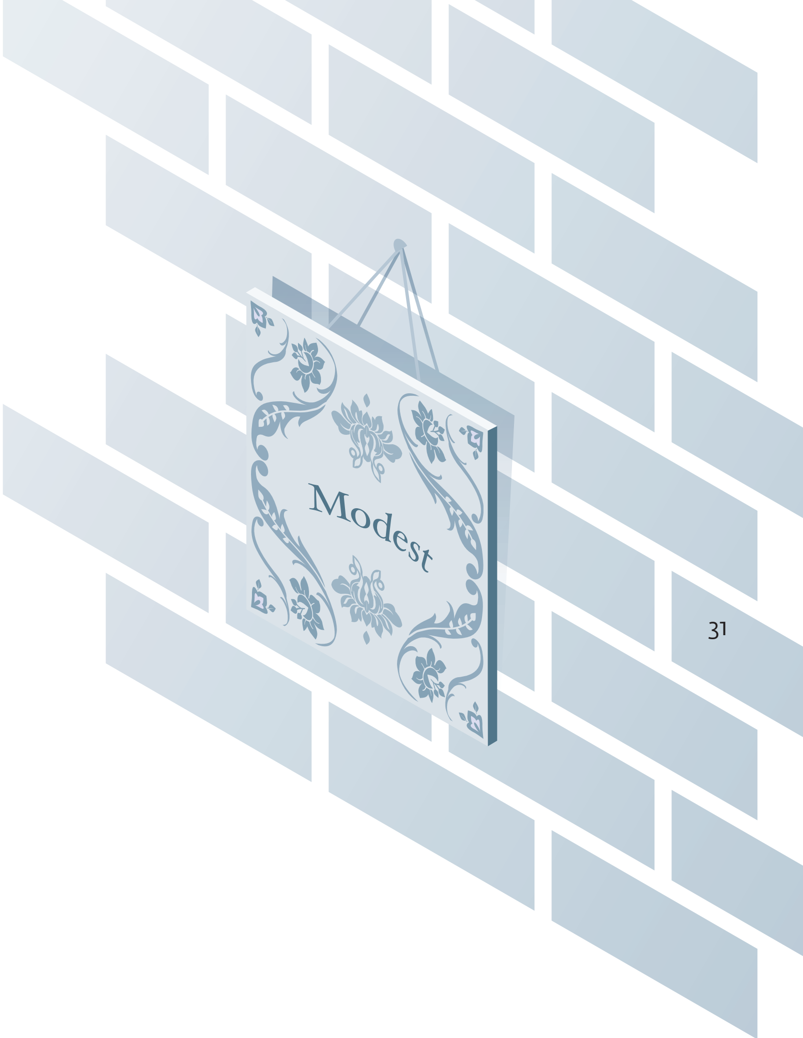
> "Reforms can help ensure that in future downturns, monetary policy will not have to be used as forcefully."

Reforms can help ensure that in future downturns, monetary policy will not have to be used as forcefully. Firstly, reforms reduce the probability of future macro-economic and financial imbalances such as the ones that materialised during the crisis. These imbalances played a major role in the unprecedented depth of the recession and the slow recovery over the past decade. Although the likelihood of repetition has been reduced through the introduction of the reforms since the crisis, the euro area's economy still shows significant vulnerabilities. Although the supervisory framework for the banking sector has been strengthened, there is a risk that vulnerabilities have shifted to non-bank financial institutions. At the same time, public and private sector indebtedness remain high. Addressing these issues will increase the economy's resilience to shocks going forward. As a result, there will be a smaller need for public interventions – including by central banks – to restore macroeconomic stability. Finally, structural reforms contribute to a higher growth potential, which could mitigate a structural decline in interest rates.

1.4 New monetary instruments

When unconventional instruments become necessary again to safeguard price stability, central banks will first rely on the instruments that are an extension of conventional instruments. In recent years, experience has shown that negative policy rates are a welcome addition to existing instruments. We see that the effective lower bound for policy rates is not zero, but slightly below zero. Potential side effects such as a negative impact on banks' profitability remain limited in the current negative interest rate environment. Monetary policy can also be eased by communicating about the time that policy rates are expected to be held at the lower bound. More radical measures such as a further large-scale purchase programme for government bonds as a monetary stimulus are only considered appropriate under exceptional circumstances. A purchase programme represents an even deeper intervention in pricing in financial markets than other instruments, which is why this type of programme is proportionate only where risks of a deflationary spiral exist, meaning self-reinforcing declines in price levels that can lead to postponed spending. In average economic downturns this does is not the case.

Instruments used to promote transmission of the accommodative monetary policy to households and companies are only needed in malfunctioning markets, which were frequently seen during the crisis. The ECB's solution was to make ample liquidity available against collateral, and durations were increasingly extended.



Before the decision for quantitative easing was made, the ECB designed two programmes for interventions in government bonds to reduce market disruptions resulting from the sovereign debt crisis. They are the securities markets programme (SMP) from 2010 and the conditional outright monetary transactions (OMT) programme from 2012. In the future, these types of instruments will only be needed in the event of market disruptions similar to those witnessed during the sovereign debt crisis.

In the past decade, the crisis instruments' design was updated, contributing to increased effectiveness in future. Firstly, the ECB practices more transparency in terms of willingness to act in the event of significant market disruptions. "Constructive ambiguity" was considered proper practice before the crisis, which meant that central banks made a point not to discuss their willingness to intervene in order not to create moral hazard. Since the crisis, ambiguity is no longer used and specific instruments including loan programmes to banks and the OMT programme have become more explicitly available in the toolbox. It has meanwhile become apparent, however, that the time bought with central bank interventions must be used to tackle underlying problems. This is reflected in the difference between the previously mentioned SMP and OMT. The latter is still available, but will only be used in combination with a macroeconomic adjustment programme of the European Stability Mechanism (ESM). A similar situation applies with respect to the deployment of loan programmes to banks, whereby experiences gained with the 2014 and 2016 TLTROs were more positive than with the non-targeted operations in 2012 (LTROs). This is due to the fact that, as a side effect, the latter resulted in banks adding more government bonds to the balance sheet, which increases the interconnectedness between banks and governments. During the debt crisis, this turned out to be very dangerous. The TLTROs created less of an incentive to do so.

Deploying crisis management tools subject to the condition that underlying problems must be resolved contributes to a reduced duration of the need for these instruments.

1.5 A strategy acknowledging the need for modesty

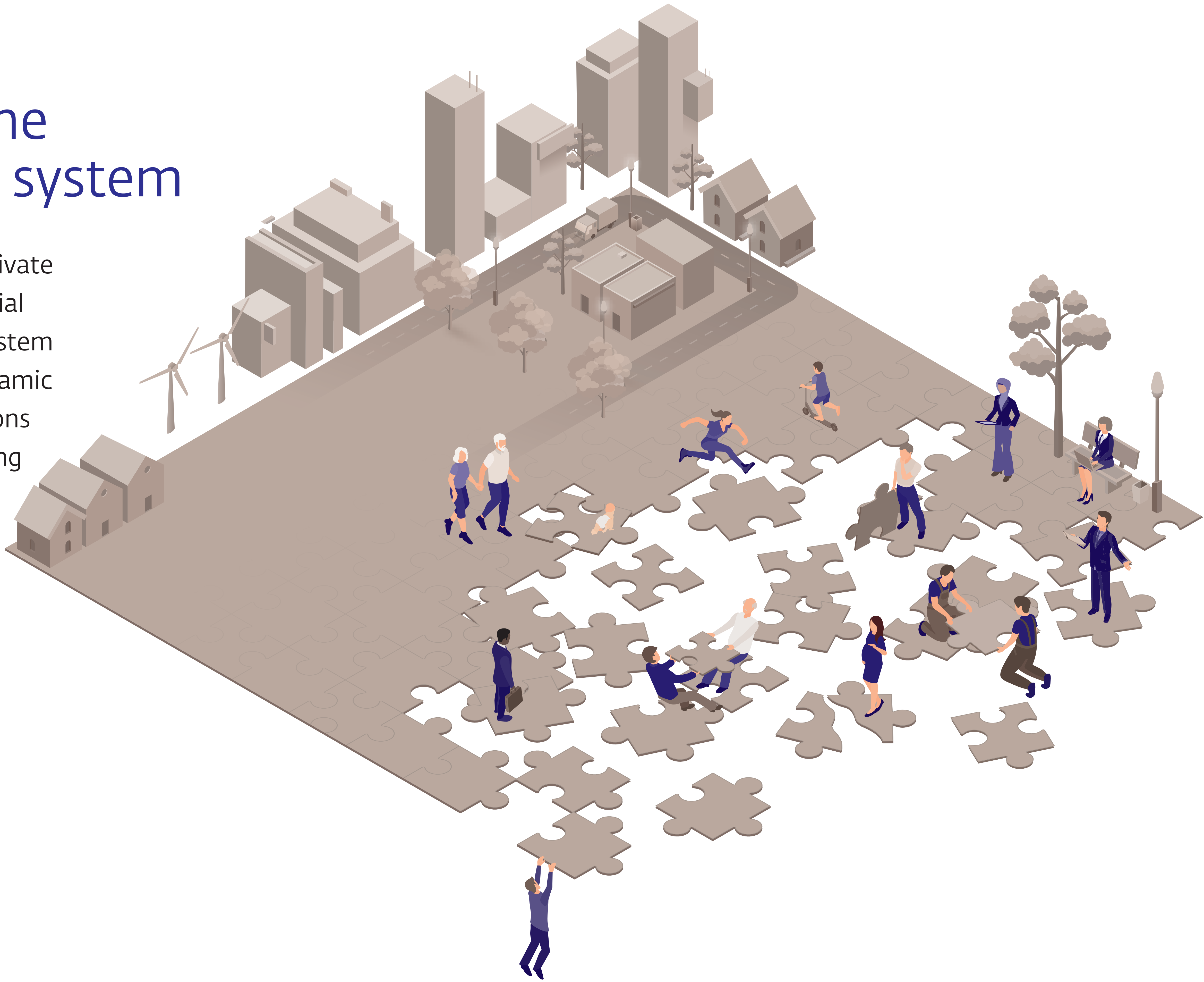
Pre-crisis strategies assumed that monetary policy could fine-tune the economy; an idea that is in sharp contrast with the uncertainties that have become manifest since the global financial crisis. From the 1990s onwards, central banks have applied increasingly specific inflation targets. However, since the crisis it has become clear that it is difficult to achieve a very strictly defined target. Inflation cannot be fine-tuned. In practice, central banks lack full control due to uncertainty about the inflationary process and the transmission of monetary policy. If, despite very accommodative monetary policy, inflation consistently remains well below central bank projections, this could undermine the credibility of the monetary authority, in turn diminishing the effectiveness of its policy.

> "Pre-crisis strategies assumed that monetary policy could manipulate the economy; an idea that is in sharp contrast with the uncertainties that have become manifest since the global financial crisis."

In light of prevailing uncertainties, a modest attitude with regard to the possible achievements of monetary policy is appropriate. Specifically, this may include benefiting from the room for manoeuvre provided by the ECB's current definition of price stability. This definition is focused on an inflation rate in the euro area of below, but close to, 2% in the medium term. The room for manoeuvre has two dimensions. The first is that "close to" 2% has never been quantified specifically. It can be argued that a deviation of more than 2% may be tolerated in the event that an economy is reaching its capacity limits. This is because the risk of a fall in inflation is much more limited than in the event of significant underspending. A timely policy adjustment can be used to prevent sudden tightening of monetary policy as soon as the economic boom results in unforeseen acceleration of wage and price dynamics, while also limiting the negative side effects of a protracted accommodative monetary policy. The medium-term horizon that monetary policy focuses on also provides room for flexibility. This horizon is not based on a fixed date in the future, but depends on the scope and duration of the shock affecting the economy. This also reflects the fact that policy decisions affect inflation with a significant and variable delay. In specific circumstances, therefore, the medium-term could signify a longer time horizon than generally assumed. These circumstances can occur after major economic shocks and sluggish monetary policy transmission, as we have seen in recent years. Using the room for manoeuvre described above should ensure that the central bank does not respond overly proactively to factors beyond its control. This includes factors that temporarily force inflation below or above the aim while not posing a threat to price stability in the medium term. To foster transparency, it is also important to have room for manoeuvre in monetary policy, as this clearly shows that the central bank acknowledges that the world is fundamentally uncertain.

2 Reforming the Dutch pension system

Reforming the occupational private pension system remains a crucial necessity to ensure that the system is better aligned to today's dynamic labour market and eases tensions between generations. Abolishing the system of uniform accrual and uniform contribution rates and pursuing life cycle investment policies will be vital elements.



The Dutch pension system has consistently ranked highly internationally, but its long-term viability is under threat. Negotiations between the government, employers' organisations and trade unions have reached a deadlock, but reform remains a crucial necessity to ensure that the system is better aligned to today's dynamic labour market and eases tensions between generations. Abolishing the system of uniform accrual and uniform contribution rates and pursuing life cycle investment policies will be vital elements.

2.1 The pension system is vulnerable in spite of international acclaim

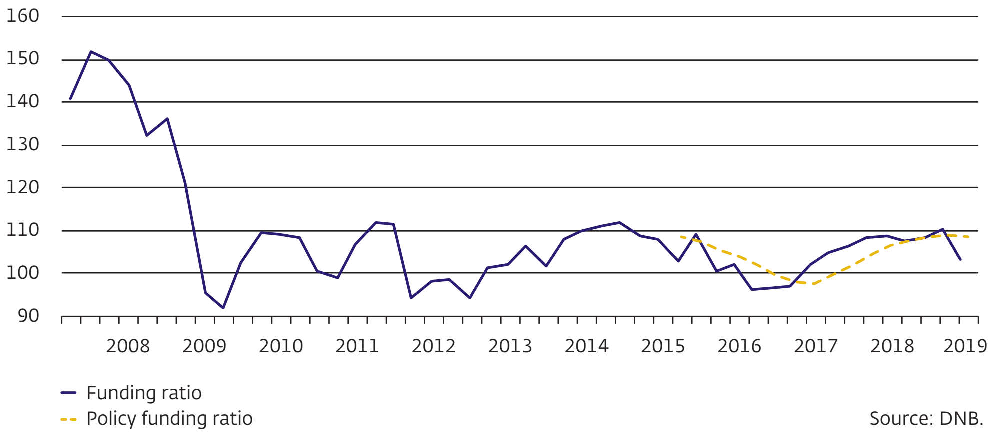
The Dutch occupational private pension system is widely acclaimed internationally, and a large proportion of the working population accumulate an old-age provision on top of their state pension. This means they generally do not experience a major income decline upon retirement. Poverty among pensioners is low, both in relation to other countries and compared with other age categories.

In spite of international acclaim, the pension system has proved to be vulnerable over the past few years. The financial position of pension funds deteriorated significantly during the crisis, and it has hardly improved since. Major drivers include lower interest rates and increased life expectancy, which have pushed up the price of pension accrual. As can be seen from Figure 2.1, this has weighed on funding ratios, which express a pension fund's assets as a percentage of its liabilities. Box 2.1 discusses in more detail why funding ratios have hardly recovered over the past few years.

Over the past decade, 87 pension funds have had to apply benefit curtailments due to their financial vulnerability. Furthermore, benefits have failed to keep up with prices of goods and services, with the loss in purchasing power having reached some 16% since 2008 across all sectors of industry.

Figure 2.1 Funding ratio plunged during the crisis, having hardly recovered since then

Percentages



Source: DNB.

Note: The policy funding ratio, introduced in 2015, is the twelve-month average funding ratio..

Box 2.1 Why have funding ratios hardly recovered over the past few years?

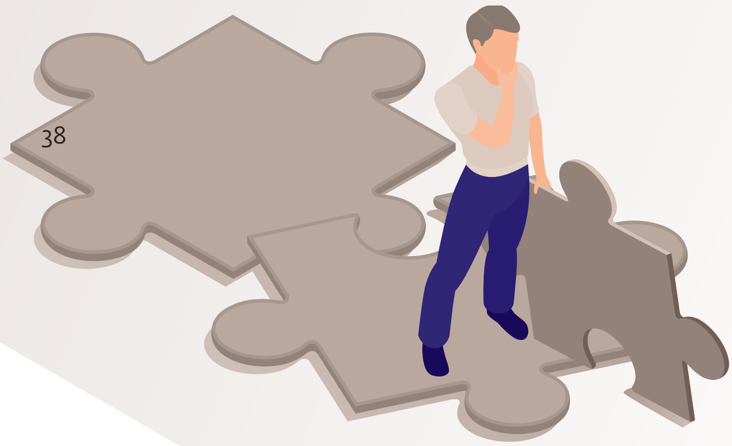
Figure 2.2 analyses how four components have contributed to the development of funding ratios seen since the new Financial Assessment Framework (*nieuw Financieel Toezichtskader – nFTK*) was introduced in 2015. During this period, members' contributions negatively impacted the financial recovery of pension funds. This is due to the fact that members are allowed to contribute less than the cost of new pension accrual. Indexation of pension entitlements and rights had a moderately negative effect on the recovery of funding ratios, given that, on average, very few pension funds applied indexation in the past few years.

By contrast, excess returns have been the most decisive factor. They are returns on investments achieved on top of the returns needed to fund pension commitments. As Figure 2.2 illustrates for the past four years, they can have significant positive and negative impacts on funding ratios. Lastly, life expectancy trends are among the other factors that affect developments in funding ratios. Unforeseen increases in life expectancy depress funding ratios, and vice versa.

Figure 2.2 Excess returns have been decisive for extent of recovery

Funding ratio changes as percentages (2015-2018)

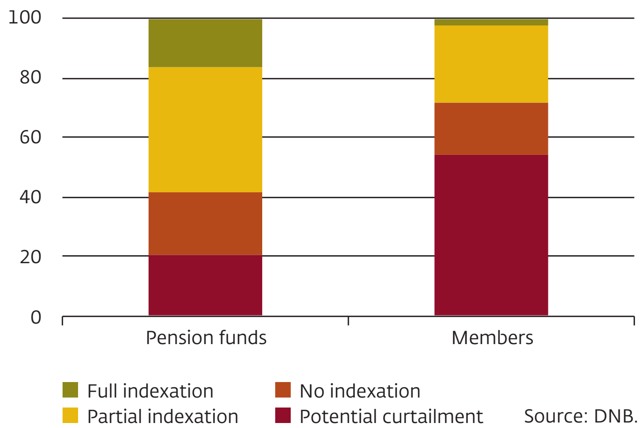
Source: DNB.



In the years ahead, the prospect of full or partial compensation for price increases will still be limited for many pension scheme members (see Figure 2.3). The larger pension funds, in particular, still failed to meet the minimum own funds requirement at year-end 2018, which for most pension funds represents a 104% funding ratio. If funding ratios remain unchanged, they will be forced to apply curtailments to the benefits of active members, deferred members and pensioners. In 2020 and 2021, this could affect a total of roughly 2 million and 7.7 million members, respectively. These curtailments are prescribed under the current statutory regime, and we monitor its compliance.

Figure 2.3 Limited prospects of indexation; curtailment looms

Percentages of total number of pension funds and total number of members



Source: DNB.

Note: Data are as at year-end 2018.

2.2 Vulnerabilities pose a threat to the pension system's long-term viability

Over the past years, the ageing population, increasing labour market dynamics and low interest rates have exposed some of the pension system's most important vulnerabilities.

Firstly, members have high expectations of their future pension benefits, in spite of the weakened financial position of pension funds. They still count on receiving income equalling around 70% of their last earned wages, including state pension. At year-end 2018, however, the pension funds fell more than EUR 250 billion short of meeting their pension commitments in nominal terms with the intended high degree of certainty. Not to mention the hundreds of billions of euros needed to guarantee index-linked benefits.

Many pension funds are therefore unable to live up to their members' high expectations, which erodes confidence in pension funds. Despite having rebounded recently, public confidence in pension funds is still below pre-crisis levels.

The present supervisory regime provides insufficient tools to enforce compliance with the intended and expected degree of income to be provided, which carries the risks of a lasting expectation gap. For example, members are allowed to contribute less than the cost of new pension accrual, as pension funds can set contribution amounts using favourable assumptions about expected returns on those contributions. This causes new pension accrual to erode a pension fund's financial position, which is inconsistent with the intended and expected degree of certainty to be provided.

Furthermore, pension fund boards are allowed to use relatively long recovery periods and favourable assumptions about expected returns as a basis for their recovery plans. This means their resources are insufficient to deliver on their commitments as regards future pension entitlements and rights, while they can still pay out current pension benefits. The latter makes it impossible to force them to restore their statutorily required funding ratio known as the minimum own funds. In this way, they are allowed to defer their losses. In addition, experience has shown that there is a strong tendency to change the rules to prevent curtailment in times of adversity.

The possibilities which the present supervisory regime offers for making insufficient contributions and paying out too much in benefits therefore results in opaque redistribution between different groups of members, which represents the second vulnerability of the current pension system. Active members are at a disadvantage if current pension benefits are excessive, while pensioners are, if contributions paid to accrue pension rights are too low. Similarly, the system of uniform accrual and uniform contribution rates, which means that young people contribute too much and older people contribute too little for their pension accrual, results in redistribution between member groups. The volume of this redistribution from young to old members is between EUR 35 and 55 billion. This system also results in redistribution from high-skilled to low-skilled workers, for the following reason. Earning profiles of high-skilled workers tend to increase more sharply over their careers than those of lower-skilled workers, which means the former benefit more strongly from the relatively favourable pension accrual during the second half of their careers. This unintended redistribution effect represents around one quarter of the total redistribution caused by the system of uniform accrual and uniform contribution rates.

The third vulnerability of the present pension system is that it is not very well aligned to today's dynamic labour market. Members switch jobs more often, increasingly become self-employed or choose to work fewer hours during a predetermined period. Due to the system of uniform accrual and uniform contribution rates, such job switches may cause members to accrue excessive or insufficient pension rights in exchange for their contributions. Such hidden taxes or subsidies on career choices hamper the smooth functioning of the labour market.

> “Over the past years, the ageing population, increasing labour market dynamics and low interest rates have exposed some of the pension system's most important vulnerabilities”

Labour market dynamics also impact the scope of the second pillar and the extent to which the working population is obliged to accrue their old-age provision. A substantial group of employees do not accrue any pension through an employer-sponsored pension scheme. This category comprises a relatively large number of employees working on flexible contracts. In addition, many self-employed persons, whose number has now swelled to almost 1.1 million, do not accrue any pension in the second pillar. These trends also depress future contribution inflows, which makes it even less likely that the system of uniform accrual and uniform contribution rates is viable going forward.

Lastly, the present pension system lacks life cycle investment policies. Young persons are generally more able to bear investment risks than older people, because they will receive substantial income from employment in the future. By contrast, older people need certainty, given that they generally have fewer options for absorbing setbacks. In today's pension system, however, pension funds pursue investment policies that are uniform across all age groups.

2.3 A future-proof pension system requires a fundamental overhaul

While negotiations between the government, employers' organisations and trade unions have reached a deadlock, the need to reform the pension system remains. Abolishing the system of uniform accrual and uniform contribution rates and pursuing life cycle investment policies will be vital elements.

> "Abolishing the system of uniform accrual and uniform contribution rates and pursuing life cycle investment policies will be vital reform elements"

Abolishing this system will remove a significant source of undesirable redistribution between member groups. In addition, it will make the pension system less sensitive to changes in future contribution inflows, because new inflows will no longer be needed to fund pension commitments already made.

However, abolishing the system of uniform accrual and uniform contribution rates will require a complex transition process. Future generations will benefit from abolition, given that they will no longer need to surrender part of their investment returns to fund the pension entitlements of older members. Conversely, active members will be adversely affected, because at a young age they contributed to the funding of the retirement income of older workers, without themselves having progressed enough towards retirement age yet to benefit from the contributions made by younger workers. Pensioners would not be affected if the system of uniform accrual and uniform contribution rates were to be abolished.

Box 2.2 A balanced transition requires a clear statutory framework

A pension fund may face various types of transition, for example due to the abolition of the system of uniform accrual and uniform contribution rates or an amendment to the prevailing tax regime. A transition also occurs if employers' organisations and trade unions should decide to switch to a different type of pension contract.

In the event of such a switch, a pension fund will want to combine pension entitlements and rights accrued before the switch with pension entitlements accrued under the new pension contract. This requires that all surpluses and deficits under the previous contract are attributed to all members individually. Current legislation does not provide unambiguous calculation rules for such individual attribution, however. Likewise, it does not specify which calculation rules can be used to determine the impact of abolishing the system of uniform accrual and uniform contribution rates.

Developing a harmonised, objective and consistent set of calculation rules will help determine the impact of abolishing the uniform system and a possible switch to another type of pension contract, both individually and collectively. Such a set of rules must take into account the prospects of benefit increases and curtailments that exist under the rules of the present supervisory framework. In addition, the legislature could specify the instruments, such as a temporary contributions increase, and the conditions subject to which they can be used to compensate disadvantaged groups.

Once it has been determined how a transition works out for the various active members, deferred members and pensioners, it is a pension fund board's responsibility to balance interests in a careful and transparent manner. The related decision-making process by the board and the other pension fund bodies must therefore be detailed in a statutory framework, which should also allocate a clear role and sufficient instruments to the supervisory authority.

Transitioning towards a pension system without the uniform approach means that specific groups must be protected from being disproportionately affected. Decision-making in this regard will require a balanced and transparent consideration of the interests at stake. It is of crucial importance that a statutory framework is designed to enable this. Box 2.2 discusses this in detail.

Life cycle investment policies are a further vital element of a pension system that is more viable in the long run. This ensures that the investment risks which pension funds assume on behalf of young and old members are in line with the risks which members wish to bear. This will offer older members better protection from benefit curtailments than under uniform investment policies, while permitting pension funds to take higher investment risks for younger members in order to offer them the prospect of higher – but more insecure – pension benefits.

Pension contracts with personal pension assets could provide customisation. Life cycle investment policies can be provided by life cycles, in which investment risks are gradually reduced as a member's pensionable age draws nearer. Economies of scale can be achieved by pursuing such life cycle policies collectively. The pension fund's investment mix will then reflect all of its members' life cycles combined.

Collective pension contracts could provide customisation by operating two separate asset pools in a pension fund. As members progress through their life cycles, they gradually transition between the pools. The collective investment policy for the first asset pool aims to generate returns predominantly by making variable-yield investments, such as in equities and real estate. This asset pool should ensure that the intended pension result is achieved. The second asset pool aims to achieve stable pension benefits by investing in fixed-income securities that exactly mimic pension benefit cash flows. The fact that all pension fund members gradually transition from the returns-generating asset pool to the benefits asset pool as they progress through their life cycles prevents one generation from being dependent on financial market developments at one specific point in time. Such life cycle policies require amendments to laws and regulations, however.

> “ Reforming the Dutch pension system will not make the pension funds' current financial position less vulnerable ”

Nonetheless, pension funds, employers' organisations and trade unions can also make important progress under the prevailing statutory regime towards making the pension system more sustainable in the long term. They could for example bring contributions more into line with the actual cost of pension accrual by increasing contributions or lowering pension commitments, thereby improving the funding of pension accrual.

In addition, it remains of the utmost importance that pension fund boards foster more realistic expectations by members about their future pension benefits. Especially with benefit curtailments looming in the years ahead, members must be informed completely and transparently of the amounts in benefits they may expect to receive and the uncertainties surrounding them. This is why the obligation to provide members with a pessimistic, a neutral and an optimistic outlook of their income following retirement effective from 1 January 2019 is an important step in the right direction.

Lastly, it must be stressed that reforming the Dutch pension system will not make the pension funds' current financial position less vulnerable. Abolishing the system of uniform accrual and uniform contribution rates and introducing life cycle investment policies will make the pension system more future-proof. While improving alignment to today's dynamic labour market and easing tensions between generations, it will not boost pension funds' resources. A lasting improvement of the prospect of indexation will only be achieved if more resources are set aside to accrue retirement income. Reforming the pension system will not change this reality.

3 Combating financial and economic crime

Financial and economic crime affects the integrity of the economy and public safety. This is why an effective approach to this issue is of the utmost importance.

In 2018, a considerable number of financial institutions attracted public and political attention due to the fact that they were giving insufficient expression to their gatekeeper role in combating financial and economic crime. This is an international problem with examples in Europe and beyond. The facts that have emerged demonstrate that financial institutions are involved in serious malpractices, including the transfer of billions in proceeds from corruption and drug trafficking through the financial system, circumvention of international sanctions and facilitating organised crime. As these cases came to light, they testified not only to the severity of the situation but also to the global nature of financial and economic crime.

> "EUR 16 billion is laundered in the Netherlands every year, or around 2.5% of our gross domestic product"

Unfortunately, the Netherlands is not exempted from this issue, as demonstrated in 2018 by ING and Rabobank settlements in the Netherlands and the United States. At the end of 2018, the Ministry of Justice and Security's Research and Documentation Centre (WODC) announced that EUR 16 billion is laundered in the Netherlands every year, or around 2.5% of our gross domestic product. The Netherlands is relatively appealing to money launderers, partly due to its sophisticated financial markets and stable economy.

Financial and economic crime constitutes the use and misuse of the financial system for criminal purposes. Examples include money laundering, corruption, terrorist financing, insider trading and non-compliance with sanctions regulations. Financial and economic crime affects the integrity of the entire regular economy and public safety.

Key role for financial institutions

Access to the financial system is crucial in financial and economic crime. The success of financial and economic crime therefore depends to a large degree on the

involvement of financial institutions such as banks, trust offices, payment institutions, insurers and pension funds. This is why financial institutions have a key role in combating this form of crime: the gatekeeper's role. Financial institutions are expected to stop criminals from using the financial system. Crucially, their tasks include preventing money laundering and keeping terrorists from gaining access to the financial resources they needed to launch their attacks.

Laws and regulations based on global standards impose important obligations on financial institutions in view of their gatekeeper's role. The EU has adopted a fifth Anti-Money Laundering Directive while the fourth EU Anti-Money Laundering Directive was implemented in the Netherlands in 2018 – through the Anti-Money Laundering and Anti-Terrorist Financing Act (Wet ter voorkoming van witwassen en financieren van terrorisme – Wwft). It is vital that financial institutions comply with the applicable rules and regulations on integrity laid down in the Financial Supervision Act (Wet op het financieel toezicht – Wft), the Pensions Act (Pensioenwet – Pw), the Wwft, the Act on the Supervision of Trust Offices (Wet toezicht trustkantoren – Wtt), and the Sanctions Act (Sanctiewet – Sw).

Financial institutions must have ethical operational management and actively work to prevent involvement with financial and economic crime such as money laundering and terrorist financing. DNB supervises this. AML/CFT supervision is an important part of our supervisory work. In our supervisory role, we conduct institution-specific and thematic examinations to determine whether institutions comply with the applicable standards. We take enforcement action in the event of non-compliance with laws and regulations.

Chain partnerships

There are several other authorities in the Netherlands with a role in combating financial and economic crime. This requires a partnership approach across the length of the chain between parties such as the Financial Intelligence Unit (FIU-NL), the Fiscal Intelligence and Investigation Service (FIOD), the police, the Tax and Customs Administration, and the Public Prosecution Service. These parties join forces through the Financial Expertise Centre (FEC) to boost integrity in the financial sector. The FEC facilitates information exchange, knowledge sharing and completion of joint projects. The terrorist financing task force is a great example of a successful joint project and consists of public and private partners, working closely together to fight terrorist financing by sharing information about individuals and legal entities associated with terrorism or terrorist financing.

3.1 Retrospective

In recent years we have repeatedly found that the performance of the gatekeeper function of financial institutions was inadequate. We have not only reported this to the general public, but have also held institutions to account and have taken enforcement action by holding compliance briefings, issuing instructions and orders subject to penalty, and imposing fines. Unfortunately we have been forced to note that although there are improvements, the desired situation has not yet been achieved.

> “We urge the institutions involved, through formal enforcement and otherwise, to take remedial action to achieve compliance”

The supervisory practice has shown that some institutions still have shortcomings or are seriously negligible in complying with statutory requirements. This results in illicit financial flows in the financial system, giving criminals access to their proceeds. We urge the institutions involved, through formal enforcement and otherwise, to take remedial action to achieve compliance. Our examinations

have also shown that financial institutions tend to apply the bare minimum of legal requirements and apply them mechanically. This makes them ineffective in contributing to lasting ethical operational management and successfully combating financial and economic crime.

Taking ownership

For money laundering and terrorist financing prevention policies to be effective, ownership must be vested in the management boards, and their members must be fully aware of their responsibilities in this regard. The conviction at the top determines the degree to which operational departments make an effort to prevent becoming involved in financial and economic crime. With the 2018 amendments to the Wwft, legislature decided to reinforce this principle: one of the persons in charge of determining day-to-day policy is explicitly responsible for Wwft compliance.

Promoting awareness

The EUR 775 million settlement agreed between ING and the Public Prosecution Service drives home the importance of preventing involvement in financial and economic crime in the financial sector. Several cases including the ING affair seem to be leading to a shift in awareness and attitudes in the financial sector. Whereas the necessity of the responsibilities associated with the gatekeeper's role were previously questioned and the role itself was sometimes referred to as 'unpaid investigating officer', institutions are now keenly aware of the importance of the gatekeeper's function and the need for improving the performance of this role.

> "We support initiatives aimed at the lasting improvement of the gatekeeper's role"

Although awareness appears to be developing across the board, we have identified a risk this effect may ebb off in institutions in the longer term, when the focus shifts to other subjects. A pattern we have observed is that, in the long run, as financial institutions adapt their investment agenda, investment in customer due diligence and the compliance function tends to fall behind. In practice, this means that after they have acted on previous supervisory examinations, we must once more enforce restoration of ethical and operational management. The efforts to prevent involvement with financial and economic crime are part of financial institutions' licence to operate and require significant investment.

Initiatives for enduring improvement

We support initiatives aimed at the lasting improvement of the gatekeeper's role. Examples include the round-table talks with FEC partners, banks and external advisers we hosted in 2018. Topics of discussion included sector-wide opportunities for improved prevention and combating of financial and economic crime. Based on these round-table talks, banks are exploring possibilities for the joint implementation of customer acceptance and transaction monitoring processes. These initiatives are an important addition to the necessary investments that institutions are increasingly required to make in order to boost their own risk management. We view these investments in putting one's own house in order as an important precondition for effective cooperation.

It also remains crucially important that financial institutions and their top executives work hard to ensure that their ethical and operational management is and remains in order, just as their management of the risk of involvement in financial and economic crime. Institutions must ensure that they provide the right climate for controlling integrity risks. It is of fundamental importance that top executives personally commit themselves to this goal and to its implementation in practice and as part of their institution's procedures. In this context we have held sector meetings in the past year to discuss the subject of social propriety, and more specifically the way financial institutions comply with this ethical standard in the law.

Stricter Dutch law and regulations
On 25 July 2018, the fourth anti-money laundering directive was implemented in the Wwft. This places stricter requirements on anti-money laundering policies and has led to higher maximum fines. Also, supervisors are now required to publish administrative sanctions. The Wtt was also revised in the previous year. The Wtt 2018 entered into force on 1 January 2019 and places stricter demands on trust offices. One example is that trust offices need a second policymaker. This new act will allow us to impose higher sanctions, and administrative sanctions must be published in the same way as required by the Wwft and the Wft.

We welcome the stricter laws and attach great importance to the obligation to publish sanctions, as this boosts the transparency of our work. In conjunction with tightened sanctions, it is also expected to have a generic preventative effect on the financial sector.

> "Financial and economic crime is a cross-border phenomenon, which is why it requires an internationally coordinated approach"

Reinforcement of European integrity supervision
Financial and economic crime is a cross-border phenomenon, which is why it requires an internationally-coordinated approach. We therefore believe supervision of the prevention of money laundering and terrorist financing in Europe must be more closely harmonised. In September 2018, the European Commission (EC) proposed ways to boost cooperation in efforts in the prevention of financial and economic crime in Europe by providing the European Banking Authority (EBA) with additional powers. In our opinion the EC's proposals represent a useful first step towards a more harmonised European approach to supervision, contributing to enhanced prevention of involvement by financial institutions in financial and economic crime.

3.2 Outlook

Responsibilities of top executives
Management board members, other senior officers and supervisory board members have a duty to embed the gatekeeper function and promote the correct attitude to compliance within their institutions. However, supervisory practice shows that ownership is often limited or delegated to the compliance function or, less commonly, the audit function. The amendments made to the Wwft in 2018 show how important it is that we keep holding policymakers to account with to regard to their responsibility for Wwft compliance.

We will urge them to strengthen and professionalise their compliance and audit functions. Our examinations have shown that, at present, compliance officers still have insufficient time to monitor the operational departments' risk management (which is their statutory core task) or to promote enduring awareness of integrity risks within the organisation. Furthermore, for audit functions, preventing and combating financial and economic crime often is not among the topics in their audit planning.

Social propriety

Institutions are expected to comply with the law, which includes countering any acts by employees that conflict with commonly accepted social practices. This is relevant to trust in the financial sector.

In the first half of 2019, we will submit the policy rule on social propriety policy for trust offices for public consultation. It discusses how our supervision evaluates the extent to which institutions are working to prevent involvement with acts that conflict with commonly accepted social practices. In January 2019, we also submitted the good practice for tax integrity risks for customers of banks and trust offices to the financial sector for consultation. It provides guidance to institutions on how to design their management of the risk of tax avoidance to ensure it is aligned with their own risk appetites and commonly accepted social practices.

Undermining crime

In line with this is the focus we will place, in cooperation with FEC partners, on the manner in which financial institutions prevent their involvement with socially undermining crime and organised crime in the Netherlands. This involvement concerns both knowingly and unknowingly facilitating money laundering and the processing of revenues obtained from criminal offences (including corruption, and drug and human trafficking).

Risk-based and data-driven supervision

In our integrity supervision, we take a risk-based approach. Risk detection based on data sources has played an important role in integrity supervision for some time. In 2019, the importance of data analysis will further increase. We will focus more sharply on integrity risks by making increased use of the results of sector-wide surveys and data analyses from other sources, such as the Criminal and Unexplained Assets info box (iCOV). Likewise, we will be using digital resources such as machine learning and eDiscovery to boost the effectiveness and efficiency of assessments of compliance with integrity laws and regulations.

Expansion and strengthening of supervision

In 2019, the foundations of integrity supervision will be further strengthened. This year, the most recent amendment to the European anti-money laundering and anti-terrorist financing legislation (AMLD5) will be transposed into Dutch law. AMLD5 reflects the risks of cryptos in connection with financial and economic crime. Crypto exchange platforms and providers of crypto wallets will become subject to anti-money laundering legislation. DNB will likely be appointed Wwft supervisor for these two types of crypto institutions, and we are currently preparing for this supervisory role.

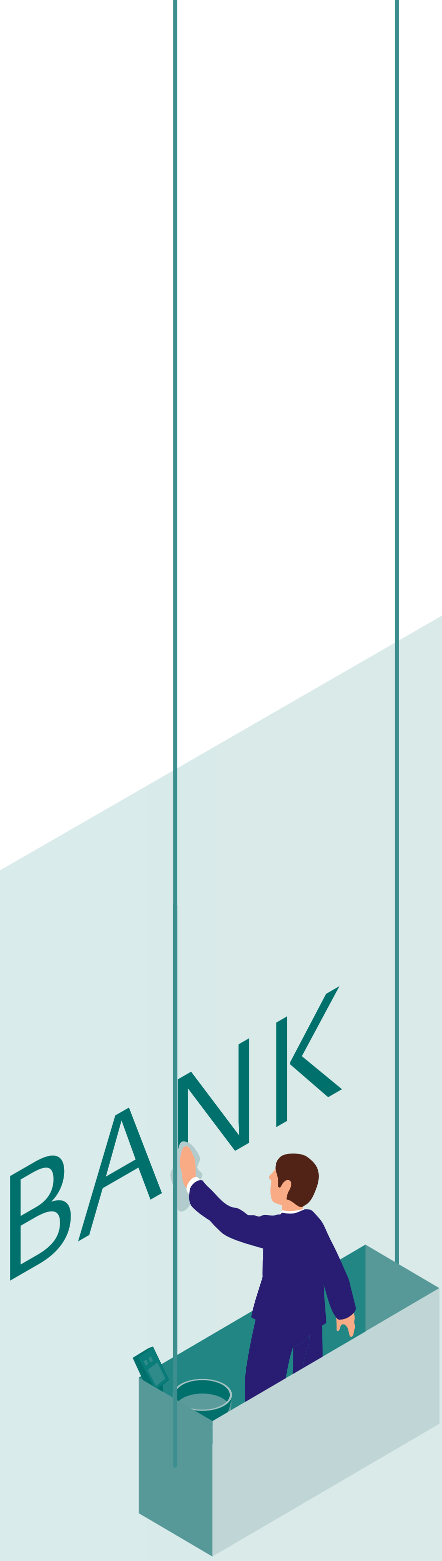
The arrival of AMLD5 regulates the exchange of Wwft information between DNB and the ECB, and the EC's proposals will strengthen integrity supervision in Europe. These proposals are important because they intensify cooperation and information exchange between integrity supervisors and prudential supervision.

Compliance of our integrity supervision with the internationally accepted standards of the Financial Action Task Force (FATF) is assessed periodically. The first upcoming assessment is expected to be performed by a team of FATF assessors in 2021.

3.3 The task for the financial sector

Considering the size of the Dutch financial sector and its international scope, we realise that safeguarding ethical operational management and thus effectively preventing involvement in financial and economic crime is a formidable task. This can only be done with the right conviction at the top. Top executives therefore need to take responsibility and fulfil their gatekeeper obligations, consistently walking the talk in their decision and actions. We will hold them to account and support improvement initiatives from within the sector that aim to make the financial system more secure and ethical in the long term.

We will continue to assess the quality of institutions' compliance with the applicable laws and regulations such as the Wwft, the Wtt 2018 and the Sw, and we will take enforcement action where we find shortcomings. In addition, we are working on the further development of our integrity supervision in a variety of ways. With the introduction of AMLD5 and the EC's proposals, integrity supervision will receive a further boost, both at home and internationally.



4 Accountability

In this chapter we report on our main achievements in 2018.

4.1 Introduction

In this chapter, we report on our main achievements in 2018. Below, you will find the results for each of our core tasks. We also discuss how our internal operational management processes contributed to realising these. DNB's mission is the very foundation of everything we do:

Working on trust

We seek to safeguard financial stability and thus contribute to sustainable prosperity in the Netherlands. As an independent central bank, supervisory authority and resolution authority, we work in tandem with our European partners to achieve:

- price stability and a balanced macroeconomic development in Europe;
- a shock-resilient financial system and a secure, reliable and efficient payment system; and
- strong and sound financial institutions that meet their obligations and commitments and can be orderly resolved if needed.

By issuing independent economic advice, we strengthen policies aimed at our primary targets. Corporate social responsibility (CSR) is an integral part of our mission and strategy.

4.2 Core tasks and DNB's mission

This section describes the key results achieved as part of DNB's core tasks. In addition, we achieved other specific objectives, which also contributed to the fulfilment of our mission in 2018. You can read more about these in the Annex.

4.2.1 Monetary tasks: price stability and balanced macroeconomic development in Europe

As a member of the Eurosystem, we contribute to decision-making regarding monetary policy and its implementation. Monetary policy is aimed at price stability, which is defined as an inflation rate of below, but close to, 2% over the medium term.

In keeping with the goal of price stability, it was first decided in 2018 to reduce monthly net purchases in the framework of the ECB's purchase programme, and then to end purchases altogether. Actual and expected inflation trends prompted the Eurosystem to continue its programme of large-scale bond purchases in 2018. The ECB expressed confidence in June 2018 that the inflation rate would show a sustained adjustment in line with medium-term objectives, even as net purchases were gradually phased out. Against this backdrop, it was expected that monthly net purchases could be reduced to EUR 15 billion starting in September 2018, and that purchases could be ceased completely starting in December. It was decided to act in accordance with this expectation and on schedule in the months of September and December. Furthermore, the ECB did not change any of the key policy rates in 2018. The ECB did indicate in June 2018 that key policy rates would likely remain at their present level at least through the summer of 2019. Chapter 1 of this Annual Report discusses future challenges for monetary policy.

You can read more about DNB's activities and results in the area of monetary policy here.

4.2.2 Advice and research on economic policy: a fact-based approach in the social debate

DNB plays an advisory role in key economic debates. We did so in 2018 by using our publications to draw attention to our priorities. These include robust government finances, scaling back mortgage interest tax relief, wage movements and reforming the pension system and the labour market. We carry out research into topics that are of relevance to our core tasks. Climate change is one such topic. Through our research activities, we contribute to high-quality policy advice and decision-making on economic and monetary policy. In addition, we present our Economic Developments and Outlook twice a year.

DNB conducted research into climate change and we published the results of this work as part of our contribution to the public debate on this current and pressing topic. We actively participated in the debate on climate change in the Netherlands and on achieving the Paris climate agreement goals. We conducted research into sector-specific effects of carbon taxation on the Dutch economy, emphasising the potential consequences for competitiveness. The findings of our research provide insight into the likely results of a more ambitious climate policy for the economy and the economic risks involved. We also participated in a round-table meeting of the Dutch House of Representatives on the costs and benefits of the proposed Climate Act, where we presented the results of our study. Moreover, we organised a Policy Round Table for the International Association for Energy Economics (IAEE) International Conference 2018. At this conference, held in the city of Groningen, various experts discussed the expected impact of a more aggressive climate policy on the country's competitive position. We are also an advisory member of the Sustainable Development Committee of the Social and Economic Council of the Netherlands. In this capacity, we provide advice and recommendations on using financial instruments to stimulate the development of the circular economy.

In 2018, DNB raised the issue of the sustainability of the economic system in the long term. We engaged relevant stakeholders on a variety of topics, including the importance of a future-proof pension system. On 20 November 2018, it was announced that the Cabinet and the two sides of industry were unable to reach an agreement on this objective. We also participated in a public hearing in the House of Representatives devoted to wage movements. The hearing was called partly in response to a DNBulletin published in 2018 on the relationship between the labour income ratio (LIR) and labour market flexibilisation. In 2018 we worked on an analysis of the consequences that an inequitable distribution of income and wealth can have on the economic performance of the Netherlands. A report on this analysis is scheduled to be published in the spring of 2019.

You can read more about our research and advisory activities here.

4.2.3 Payment system: secure, reliable and efficient

A secure, accessible and reliable payment system is at the very core of an inclusive financial and economic system. DNB is engaged in three types of activities that are aimed at promoting the proper operation of the payment system:

1. Circulating euro banknotes and coins in the Netherlands and administering high-grade and robust payment systems;
2. Oversight of institutions and systems that process payments with the aim of mitigating infrastructural systemic risks and preventing serious disruptions to payment and securities systems;
3. Engaging with other parties to ensure accessible, reliable and efficient payment systems. DNB is the initiator of the National Forum on the Payment System (NFPS), whose objective is to ensure that these activities lead to the intended results.

The payment infrastructure and the cash payment chain were reinforced in 2018. DNB's Payments Strategy 2018-2021 was published in 2018. It contains three key priorities: promoting a robust infrastructure, working on a well-functioning cash payment chain and encouraging innovations that enhance security, reliability and efficiency. With regard to the first priority, DNB was compelled to activate the crisis management structure for the financial core infrastructure due to multiple DDoS attacks on large banks. Despite the severity of the attacks, we were able to prevent extended disruptions to the payment system, although some disruptions were registered. We therefore decided to launch a thematic examination into DDoS attacks. The attacks underscored the importance of cyber resilience and the need to test systems thoroughly for their defensive capabilities. TIBER-NL, a DNB initiative, can be used to carry out such tests. The ECB adopted the system in 2018 (TIBER-EU). Moreover, we are making preparations in advance of a possible no-deal Brexit to prevent potential payment-system disruptions.

DNB has called for cash to remain available as a means of payment for the general public. We specifically called on municipalities to continue to accept cash payment for their services at city hall. The Association of Netherlands Municipalities (Vereniging Nederlandse Gemeenten - VNG) subsequently repeated our appeal in a letter to all municipal authorities. At the end of 2018, it was clear that cash transit company Securcash would soon go bankrupt. We activated the crisis management mechanism, bringing together the relevant actors to limit the impact of this bankruptcy on retailers and to mitigate disruptions to cash payment systems.

DNB worked to prepare the sector for two major changes in 2019: instant payments and PSD2. PSD2 offers a range of new possibilities, but it also entails risks. The National Forum on the Payment System therefore decided to develop an information campaign for the general public in the Netherlands. It is our intention to make room for innovation, while also safeguarding accessibility to the payment system for everyone in the Netherlands. Mitigating risks is yet another objective, as formulated in the advisory report entitled Crypto, published jointly by DNB and the Dutch Authority for the Financial Markets (AFM) in 2018. The report discusses the potential of the technology, while also devoting attention to the risks of money laundering and the financing of criminal or terrorist activities.

You can find further information on the activities and results in the area of payment systems here.

4.2.4 Financial stability: a shock-resistant financial system

DNB promotes financial stability, aiming for a shock-resistant financial system that contributes to achieving sustainable prosperity.

DNB endeavoured in 2018 to anticipate the potential consequences of the UK's withdrawal from the European Union and to limit fallout in case of a disorderly Brexit. We repeatedly reminded actors in the financial sector of their responsibility to be thoroughly prepared for any eventuality. Furthermore, we sent out a cross-sectoral survey to a group of supervised institutions. We then incorporated the findings in our supervisory activities. We worked in both the national and European context to prepare measures for the derivatives market to limit stability risks and/or trading disruptions in case of a no-deal Brexit.

DNB conducted a climate stress test in 2018. This is a brand-new approach to mapping the potential effects of climate change and the transition to a climate-neutral economy on financial institutions. Our stress test revealed that a disruptive energy transition may lead to substantial losses for the Dutch financial sector. Financial institutions should therefore integrate these risks into their risk management processes.

The President of DNB was appointed to the post of Vice Chair of the Financial Stability Board (FSB) in December 2018. International factors form the key risks for financial stability in the Netherlands. The President's appointment gives DNB a strong voice in this important international body. The FSB plays a key role in analysing vulnerabilities in the global financial system, preparing legislation and regulations, and monitoring implementation.

You will find further information on our activities and results in the area of financial stability here.

4.2.5 Reserve management: prudent and socially responsible own investments

DNB's risk exposure decreased in 2018 as a result of adjustments to monetary policy and the improved economic conditions in Greece. Profits in 2018 were also higher than in the previous year, partly due to improved revenues from monetary operations. As in previous years, EUR 500 million was added to the provision for credit and interest rate risks.

Unconventional monetary policy measures resulted in a further increase in DNB's balance sheet in 2018. As in previous years, we increased the provision for credit and interest rate risks in order to absorb any losses. At year-end 2018, the provision amounted to EUR 2.0 billion, set off against estimated risks of EUR 2.3 billion stemming from the ECB's unconventional monetary policy. Our total exposure at year-end 2018 was EUR 209 billion, of which EUR 189.6 billion could be ascribed to monetary exposures and EUR 19.4 billion to our own-account and other investment portfolios. Our own-account investments consist primarily of very high-grade and short-dated bonds issued by governments of countries such as Germany, France and the United States. Alongside our internally managed portfolios, we also hold external equity funds and corporate bond funds.

We have taken further steps in our own investment portfolio towards achieving our ambition to implement responsible investment (RI) practices. We have integrated environmental, social and governance (ESG) criteria into our investment policy, for example by investing part of our internal portfolio in bonds with a sustainable purpose. At year-end 2018, for example, our fixed-interest portfolio contained approximately 6% (approximately EUR 0.9 billion) worth of bonds issued by development banks and green government bonds. Moreover, we select, monitor and evaluate external managers based on their ESG policy. We expect our external managers to be signatory to the Principles for Responsible Investment (PRI) and to incorporate ESG criteria into their investment decisions. We also expect them to proactively apply the principle of voting and engagement with regard to ESG themes, and to take a reactive approach to company-specific controversial situations such as violations of UN Global Compact principles. Finally, we make a conscious choice to exclude controversial weapons from our investment strategies.

In 2018, DNB announced the intention to become a signatory to the UN Principles for Responsible Investment (PRI). This involves a commitment to six principles of responsible investing, including the obligation to publish on our RI activities annually. We are the first central bank to announce the intention to sign the PRI, doing so in our role as an asset manager. Asset purchases made in the context of monetary policy will therefore fall outside the scope of PRI. Our reports will thus cover our internally and externally managed own-account investments.

Read more about DNB's financial position here.

4.2.6 Supervision: sound and ethical financial institutions that fulfil their obligations

The purpose of our supervision is to ensure sound and ethical financial institutions that meet their obligations. DNB's Supervisory Strategy 2018-2022 identifies three key priorities for supervision:

1. responding to technological innovation
2. emphasising an orientation on the future and sustainability
3. taking a hard stance against financial crime

DNB promoted stability throughout the financial sector in 2018.

Banks

The large Dutch banks that fall under direct ECB supervision were subject to the biennial European stress test in 2018. The stress test helps us as the supervisory authority to conduct a more thorough assessment of the institutions' risk profiles. Our assessment of small and medium-sized banks focused specifically on their business model. In some cases, we imposed a higher capital requirement on individual banks. We also made recommendations for improving the institutions' own analysis of their business model risk. In addition, we took steps to refine the method used within the SSM when assessing large banks.

Insurers

We believe it is important that risks remain insurable, and that insurers continue to provide economic and social added value in this regard. We feel that the insurance landscape should remain broad and heterogeneous in view of the structural challenges insurers are facing as a result of low interest rates, technological developments, markets in flux, changing customer needs and the uncertainties posed by Brexit. With these factors in mind, many insurers have opted for a strategy of rationalisation or consolidation. In 2018, as in previous years, this led to various applications for a declaration of no-objection for an acquisition of an insurance company or portfolio transfer. Life insurers in particular hope to lower costs on their back book and to reduce the capital charge, for example by combining portfolios, selling them or reinsuring them. This means they are more and more developing into comprehensive financial service providers.

Pension funds

The second European Directive for Institutions for Occupational Retirement Provision entered into force on 13 January 2019. This means more regulatory, legislative and other requirements for pension funds and premium pension institutions regarding risk management systems, the structure of key functions and ESG risks. We informed the sector through a variety of channels with a view to encouraging prompt implementation of the Directive. We also published a guide on structuring key functions. The Directive takes explicit account of the size and complexity of the pension institutions with regard to implementation, thus addressing one of the recommendations of the working group on indirect costs.

Payment institutions, investment firms and investment fund managers

It is expected that Brexit will result in an overall increase in the number of investment firms and investment fund managers operating in the Netherlands, as evidenced by the large number of licence applications and declarations of no objection processed in 2018. DNB provided the AFM with prudential licence recommendations for five investment firms and investment fund managers in 2018. In addition, 28 declarations of no objection were processed. Brexit application processing will continue in 2019.

DNB took a number of steps (including formal measures) in 2018 to encourage institutions to refine and strengthen their role as gatekeepers when it comes to combating criminal activities. The institutions targeted had not integrated the gatekeeper role sufficiently in their operational processes. Our aim is to provide an impetus to financial institutions to take responsibility themselves in avoiding becoming involved in financial and economic crime. 2018 also saw sweeping amendments to laws and regulations in the area of integrity. In view of these changes, we assessed the degree to which the sector had implemented the amended Anti-Money Laundering and Terrorist Financing Act (Wet ter voorkoming van witwassen en financieren van terrorisme - Wwft). We also encouraged the trust sector to waste no time preparing for the Act on the Supervision of Trust Offices 2018 (Wet toezicht trustkantoren 2018 - Wtt 2018), which entered into force on 1 January 2019.

ING's EUR 775 million settlement with the Public Prosecution Service underscores the importance of compliance with the Wwft. We discovered non-compliance with the Wwft (or the Wtt) at multiple financial institutions, resulting in measures, in some cases of a formal nature, to enforce compliance. Licences were revoked in some cases in the trust sector, while a number of trust offices voluntarily relinquished their licences. We also found that institutions we examined had launched extensive programmes aimed at recovery and structural improvements, partly in response to formal supervisory measures.
We organised round table meetings with FEC partners and banks in 2018 with a view to enhancing the gatekeeper role of financial institutions. Discussions focused on sector-wide opportunities for preventing and combating financial and economic crime.
Furthermore, we prepared more thorough integrity risk profiles for the supervised institutions, which serve as the basis for our supervisory activities.

Chapter 3 provides a more detailed explanation of DNB's integrity supervision.

DNB endeavoured in 2018 to ensure that the payments sector is prepared for the new European Directive PSD2. One method was to offer institutions the opportunity to submit draft applications for a licence to operate under the new legislation. One aim of PSD2 is to promote innovation. Implementation in the Netherlands was delayed, however, due to parliamentary inquiries. Because of the delay, we started accepting draft applications in 2018, giving interested parties the possibility of applying for a licence as soon as possible after the Directive enters into force. Twenty parties expressed interest in applying for a licence. Six of them submitted a draft licence application, and fourteen others informed us they were planning to do so in the near future. In addition, we ensured that payment institutions and electronic money institutions currently active on the market are prepared for PSD2, and we assessed whether they meet licence requirements. We provided them with our provisional assessment in July 2018, in order to allay any uncertainties caused by the delay in implementation. At the time, nearly all institutions operating on the market met PSD2 requirements. We also organised informational seminars for parties active in the sector, we created a dedicated PSD2 website and we fielded PSD2-related questions.

In 2018, DNB identified factors that can help financial institutions boost sustainability in their activities and ensure a forward-looking strategy. Financial institutions are expected to be capable of anticipating developments that may be of relevance to them. We conducted six studies in 2018 into a broad spectrum of change-related aspects that may affect the sector. For example, we looked into whether organisational leadership is closely involved in change processes. The results of our studies underscore just how important it is that financial institutions focus on their adaptability when faced with forces of change. We also embedded climate and environmental risks in our supervision. Moreover, we studied the extent to which financial institutions might be exposed to financial risks associated with the UN Sustainable Development Goals. Our studies show that there are financial risks associated with water scarcity, loss of biodiversity, raw material scarcity and human rights controversies. We also found that most Dutch financial institutions have not yet fully integrated their sustainability aspirations into their operational management.

In 2018, DNB took the first steps towards becoming a 'smart supervisor.' The financial sector is facing rapid technological developments that offer opportunities while also posing risks. As a supervisory authority, we must be prepared to deal effectively with both. To this end, we drafted a Digital Strategy in 2018, consisting of three pillars. Firstly, we intend to make smarter use of our data to improve the effectiveness of our supervision. In addition, we intend to monitor developments in the financial sector more closely, both to identify potential risks and to pursue more effective avenues of collaboration with FinTechs. Finally, we intend to make greater use of technological advances to boost the efficiency of our supervision. We established a Chief Innovation Office for Supervision in early 2019. This office is in charge of the Digital Strategy and will build on earlier work in this area. For example, we implemented a number of technological innovations in 2018, including an expansion of the Digital Supervision Portal to accept notifications of outsourcing, along with artificial intelligence (AI) applications for assessing internal prudential reports. We work together with the AFM in the InnovationHub and 'Maatwerk voor Innovatie,' our joint regulatory sandbox for innovation. These platforms are in close contact with the financial sector to provide answers to questions about our supervision of innovative products and services. Last year, the questions posed primarily related to themes such as the introduction of PSD2, blockchain technology and cryptos.

You will find further information on our sector-specific activities in 2018 here.

4.2.7 Resolution: Deposit Guarantee Scheme and a controlled approach to bank failure

If a financial institution faces difficulties, it is essential that an effective solution is found. As the Dutch resolution authority, we seek to ensure that the critical functions of banks are safeguarded to the greatest possible extent, while non-viable institutions or parts of institutions are resolved in an orderly manner. Part of this approach is the deposit guarantee scheme (DGS), which guarantees savings deposits up to EUR 100,000 per account holder per bank. We administer the scheme together with the Deposit Guarantee Fund.

DNB worked in 2018 to make the necessary preparations for the new resolution task for insurers. DNB is now the resolution authority for insurers pursuant to the Act on the recovery and resolution of insurers (Wet herstel en afwikkeling van verzekeraars), which entered into force on 1 January 2019. The Netherlands is one of the European pioneers in this area. We created an internal decision-making process in 2018 and we established the mechanism for collaboration between the resolution task and the supervisory task for the sector. Reports for insurers have also been developed and assessed as part of the preparations for this new task. We also made progress in developing a framework that will serve as a basis for determining whether the resolution tools available are suitable for the resolution of an insurer, which is termed the public interest test.

You will find further information on our activities and results in the area of resolution here.

4.2.8 Statistics: robust statistics that support our core tasks

Our Statistics division produces a wide range of statistics on the financial sector using state-of-the-art information technology, leveraging the data which we collect in the performance of our core tasks to the largest extent possible. Consequently, it acts as a vital link in the performance of our national and European tasks in the areas of monetary policy, financial stability, supervision and payments.

In 2018, DNB aligned its macroeconomic statistics with those of Statistics Netherlands (CBS) to ensure mutual consistency. We did so at the express wish of policymakers, making the Netherlands a pioneer in Europe in this regard. We also intensified our cooperation with CBS by trading certain tasks between the two organisations and by integrating the production processes for statistics. Thanks to these efforts, both organisations now benefit optimally from each other's expertise: DNB is responsible for monitoring the financial sectors, and CBS for the non-financial sectors.

Starting in 2018, DNB has access to detailed information on corporate lending in the Netherlands that paves the way for conducting new analyses. These data, which contain specifics on individual loans, can be used to chart monetary policy, to support supervision and financial stability, and for conducting sustainability analyses. The collection of these data takes place pursuant to the ESBC's AnaCredit Regulation. We have devised a new method of data processing to deal with the associated amounts and complexity of the information that is now available.

DNB's Statistics site, launched in early 2018, offers greater possibilities for finding, viewing and using data. The site uses dashboards and other means to make the relevant information available in a highly visual way. A large number of time series are also available on the website. Breaks in the series, caused for example by revisions to statistical definitions or populations, have been removed. We are pleased to provide this website in response to the wishes and needs of those who rely on this kind of data.

You will find more information on our activities and results in the area of Statistics here.

4.2.9 CSR: working on sustainable prosperity in all core tasks

Corporate social responsibility (CSR) is an integral part of DNB's mission. As a central bank, supervisor and resolution authority, we are committed to safeguarding a stable financial system that contributes to sustainable prosperity. As an independent organisation with a long-term horizon, we are well-positioned to promote CSR initiatives.

We formulated a CSR strategy in 2018, thereby embedding CSR more firmly in our core tasks. Our CSR strategy focuses on two themes which match our mandate, mission and core tasks:

1. Sustainable economic growth that has no harmful effects on the environment;
2. An inclusive financial and economic system.

These two themes have been further specified in key priorities. They are also in line with the UN Sustainable

Development Goals. Our CSR strategy is described in greater detail in the Annex.

4.3 Operational management and DNB's mission

This section discusses the key results of our operational management. Our departments work in partnership to ensure that our services are modern, high-quality and efficient. To this end, we have developed a strategic plan. This will lead to improved services and a lasting reduction in the costs of internal operations by 20% by 2020 (compared to 2015 levels). You can read more detailed information on the results achieved in 2018 in the Annex.

4.3.1 HR policy

Our HR policy is aimed at employing the best people for the job, regardless of their position. Sustainable employability and diversity are key topics. With regard to the former, we aim to keep our employees healthy and motivated while they refine their competencies as their careers progress. The trade unions join us in emphasising the benefits of this approach. Regarding the latter topic, we aim to ensure that our entire organisation is both inclusive and diverse.

Our HR policy contains measures to keep our employees healthy and motivated while they refine their competencies as their careers progress. We reached agreements with the unions in 2018 on new policies as part of our terms and conditions of employment such as partner leave, career switches and the extension of wage payment during periods of family care leave. We also introduced personal development leave, which is aimed at encouraging our employees to focus on their professional development and social involvement.

Staff diversity improved in 2018. We adopted a diversity strategy in 2017 and we appointed a Diversity Board. The aim of the strategy, which has been elaborated in a long-term diversity agenda, is to promote a diverse workforce that reflects society. The Diversity Board has been charged with promoting the objectives as formulated in the agenda and with monitoring progress. Diversity agenda efforts are starting to bear fruit. For example, the proportion of women in management positions rose from 31.5% in 2017 to 33.0% in 2018. Furthermore, two women are now members of DNB's Governing Board. We also examined potential salary discrepancies between men and women, and we found that women and men working at DNB receive the same remuneration for the same work.

You can read more about our activities in the area of HR here.

4.3.2 Compliance and integrity

We attach great value to compliance and integrity. Given our special position and function in society, we must hold ourselves to the highest standards in this area. We actively pursue policies that promote compliance and integrity internally, and we ensure that our employees are fully aware of this crucial theme, all in the service of our mission: working on trust.

We conducted a survey in 2018 to gauge our employees' perception of the integrity culture at DNB and we implemented measures aimed at GDPR compliance. The European General Data Protection Regulation (GDPR) imposes strict requirements in terms of personal data processing. The accountability requirements and the requirement of being demonstrably in control are particularly significant. To ensure compliance with the regulation, we worked on building a culture of awareness among our employees, emphasising the importance of privacy protection along with recognising and mitigating the risks associated with the processing of personal data. You can read more about our activities in the area of compliance and integrity here.

4.3.3 Environmental awareness and sustainable procurement

When it comes to our operational management, we see sustainability - alongside user satisfaction and cost - as a barometer of quality. We have moreover fully integrated these factors into our decision-making process. Sustainability is thus one of the key themes in our operational management. We apply principles of sustainability as we work on achieving our aspirations in the areas of accommodation, procurement, official travel and ICT.

Thanks to the purchase of green electricity and the compensation of the remaining CO_2 emissions, DNB was climate-neutral in 2018. We also included CSR as a substantial award criterion in tender procedures. In such procedures we emphasised environmental and climate aspects, circular procurement and the participation of people at a distance from the labour market. We also became a signatory to the Circular Procurement Green Deal last year, in which public and private organisations enter into mutual agreements to boost the circular economy through their procurement policies. We have already completed the first tender procedure (for gifts) as part of the Green Deal. Our travel policy ensures CO_2 emissions compensation for all official travel.

Our ICT policy was also made more sustainable in 2018. In two sourcing projects, we required suppliers to abide by our sustainability requirements, including social return and the lowest possible environmental impact. We also introduced modern technologies for digital working and collaboration, such as giving our employees the option to work anywhere and anytime, and teleconferencing rather than foreign travel where feasible. The Digital Supervision Portal also resulted in a further reduction in the volume of paper reports that institutions submit to us.

Further information on the activities and results in the areas of environmental awareness and sustainable procurement can be found here.

4.3.4 Risk management

DNB acknowledges various risks that may hamper us as we work towards achieving our goals. We have instituted an integrated risk management model aimed at systematically identifying, assessing and, where needed, mitigating these risks. We thereby apply the same standards to ourselves as our supervision divisions impose on the institutions they supervise.

In 2018, DNB improved risk management by adopting and implementing a revised version of the risk framework. The revised risk framework answers to the latest insights in the field of operational risk management (ORM) and the policy framework for operational risk management of the Eurosystem, the European System of Central Banks (ESCB) and the Single Supervisory Mechanism (SSM). The framework serves as the basis for more stringent governance at DNB. It also provides for a more structured identification of risks. Furthermore, the ORM department has drafted a plan to centralise and improve our incident management process.

You can read more about our activities and results in the area of risk management here.

4.3.5 Social commitment

In addition to achieving social impact through our core tasks, we also strive for social commitment through our internal operations. This takes the form of contributions and donations, an extramural educational programme in the field of finance, and technical cooperation with other parties.

As part of our international technical cooperation, we share our expertise and experience with fellow central banks and supervisors in countries seeking to transition towards sustainable market economies in accordance with European standards. We share our expertise in the areas of modern analysis techniques, instruments and recent economic and financial insights. This may take place bilaterally or in seminars with an international scope. We dedicated roughly 5.5 FTEs to technical cooperation activities in 2018, which is similar to previous years. Our international cooperation focuses in particular on the fifteen countries that are members of the IMF Constituency representing the Netherlands and Belgium in the IMF: Armenia, Bosnia-Herzegovina, Bulgaria, Cyprus, Georgia, Israel, Croatia, Macedonia, Moldavia, Montenegro, Romania, Ukraine, Belgium, Luxembourg and the Netherlands. We engage in these technical cooperation activities to support and strengthen this constituency which is of great importance to the Netherlands.

We engaged young people in various ways in 2018 through our financial education programme. First, we adopted a recommendation from the Youth Council on financial education. We participate in the Youth Council project every year. As part of the project, primary school pupils tackle a societal issue that we suggest. The Council recommended having us engage children in an interactive way on dealing responsibly with money. The idea was to break down taboos about debt, making it easier for young people to seek assistance when faced with money problems. Second, we were a participant in Money Wise Platform activities, during which we again propagated the Youth Council's recommendations. Third, we engaged young people at our Visitor Centre, where visitor numbers totalled 27,500 in 2018, primarily secondary school pupils in their final years.

You will find further information on our activities and results in the area of social commitment here.

CSR strategy

DNB seeks to safeguard financial stability and thus contributes to sustainable prosperity in the Netherlands. We base our decision-making and activities on more than just economic considerations. We have adopted a two-themed CSR strategy for 2019-2025 in accordance with our mandate and core tasks. The themes are:

1. Sustainable economic growth that has no harmful effects on the environment
2. An inclusive financial and economic system

We address these themes through our core tasks as a central bank, supervisory authority and resolution authority. We are an independent organisation with an orientation on the long term, meaning we are eminently positioned to promote CSR initiatives. We do so through the performance of our core tasks and by setting an example for the financial sector. We are able to connect parties and create platforms for collaboration. For instance, the Sustainable Finance Platform was set up on our initiative in order to promote and increase awareness regarding sustainable finance in the Dutch financial sector. We were one of the founding members of the Central Banks and Supervisors Network for Greening the Financial System (NGFS), and we currently chair this network.

Six key priorities

We have defined six key priorities to direct and shape our efforts on the two central themes. Five of these priorities relate to our core tasks and one of them relates to our operational management.

Sustainable economic growth that has no harmful effects on the environment:

1. We identify climate and environmental risks for the financial sector and encourage financial institutions to manage these risks appropriately.
2. We put sustainability issues, such as the transition to a climate-neutral economy, on the agenda.
3. We invest our reserves in a sustainable manner.

Our operational management:

4. We reduce our environmental impact.

An inclusive financial and economic system:

5. We conduct research and advise on the inclusiveness of economic systems.
6. We promote the accessibility of the payment systems.

Our CSR strategy elaborates on these themes and associated focus areas in greater detail. Decisions at all levels of the organisation, including the Governing Board, are assessed based on our CSR strategy.

The two themes are in line with the UN Sustainable Development Goals, which are seventeen objectives that organisations, companies and governments all over the world commit themselves to with the aim of making the world a better place by 2030. Our commitment to the SDGs is a clear signal to society and other organisations that we are serious about our CSR strategy. Our specific aim is to work on achieving the following four SDGs:

8. Decent work and economic growth
12. Responsible consumption and production
13. Climate action
17. Partnerships for the goals

Stakeholder dialogue on CSR

We consulted with our stakeholders though a variety of channels when drafting our CSR strategy. We conducted a new materiality analysis, which provided valuable input for defining the priority themes and focal points in our CSR strategy. This analysis was based on a DNB-wide stakeholder survey. We also engaged our stakeholders in individual dialogues meant to assess and refine our CSR strategy. You can read more about these stakeholder dialogues here.

At DNB, the CSR Committee acts as a driving force in the area of sustainability. The Committee's task is to promote the CSR strategy at DNB, to update its short-term objectives annually and to oversee its implementation. To this end, the CSR Committee reports on progress to the Governing Board and the Supervisory Board. Finally, our Internal Audit Department (IAD) and external auditor assess our CSR reports.

Monetary tasks

Within the scope of their possibilities, DNB and the ECB seek to practice maximum transparency about the way in which they fulfil their monetary policy mandate, vis-à-vis both direct stakeholders and the general public. For this reason, the ECB publishes the minutes of all of its monetary meetings, and the President of the ECB clarifies monetary decisions in press conferences. In 2018, we elucidated the monetary measures and the considerations that underlie them in various ways, such as through publications, interviews and speeches. Last but not least, we updated the government regularly on monetary policy, for example in the regular meetings between the President of DNB's Board of Governors and the Minister of Finance.

Over the course of the past year, we emphasised the significance of moderate inflation in the euro area as part of our monetary policy stance. We highlighted not only the correlation between inflation and tension in the economy, but also inflationary trends. We shared our insights with the ECB, where they were welcomed and incorporated into consultations on monetary policy. We also published a study on the natural interest rate, which economists and policy-makers often consider to be a potential benchmark for policy rates. The study is available on the website. It indicates that the natural interest rate has only limited use for monetary policy-makers due to the high uncertainty with which it is measured. In addition, we published a study containing an evaluation of the Eurosystem's liquidity support provided to banks during the recent global financial crisis. The objective of the liquidity support was to ensure transmission of monetary policy. It was needed because liquidity markets were drying up, threatening lending operations and the economy. The study also touches on unintentional side effects of liquidity support, and it contains recommendations to limit such side effects. Introducing incentives that discourage long-term use by banks promotes market-induced discipline in restoring order to bank balance sheets.

Advice and research

In June and December 2018, we presented current macroeconomic forecasts for the Dutch economy in our Economic Developments and Outlook. This publication contains not only forecasts, but also analyses of key risk factors. The December edition, for instance, presented a discussion of how global financial unrest influences the Dutch economy. The June edition discussed the potential effects of increasing protectionism and escalating trade disputes between China, the United States and the EU. We also discussed the winners and losers of a potential trade war in other publications.

May saw the publication of "Structural Reforms: Moving the economy forward", a book edited by DNB, which calls attention to the need for structural measures to strengthen the economies in the Economic and Monetary Union. These include measures to increase the labour participation rate and to improve the effectiveness of the labour and housing markets. We initiated a study in 2018 into the supply side of the Dutch housing market. We also organised a seminar on this theme with national and international experts.

In this context, we published a study into the role of supply limitations for house-price dynamics in the Netherlands, and we analysed how house prices and home ownership influence household spending in an international context. We are using microdata from Dutch business to study how investments and productivity correlate with financial factors. We are also looking at the degree to which differences in productivity between companies might be an indication of a misallocation of production factors that limit sustainable growth. We organised a workshop together with the Netherlands Bureau for Economic Policy Analysis (CPB) in 2018 and presented and published initial findings. This study continues in 2019.

We analysed the effectiveness in the period from 1999-2017 of the excessive deficit procedure (part of the Stability Pact), which resulted in a Working Paper that was published in September and presented at the Netherlands Economists Day on 2 November 2018. Our analysis shows that the Stability Pact's corrective arm was effective in reducing major deficits.

Our 2018 research programme was based on the research agenda themes for the years to come. These are:
1. the effects of an unconventional monetary policy
2. the new normal of monetary policy
3. inflation dynamics
4. credit supply
5. financial stability and regulation
6. sustainable development
7. payment systems and infrastructure

The topic of DNB's Annual Research Conference was lending. The aim of the conference was to discuss research into the relationship between monetary policy, bank lending and the real economy. Simon Gilchrist and Atif Mian gave the keynote speeches.

A new version of our macroeconomic DELFI model was published in 2018. We use DELFI to make forecasts and perform scenario analyses relating to the Dutch economy. The new model features a module for describing the behaviour of the banking sector. The pension sector module has also been adjusted, and the influence of confidence on consumption has been factored into the model. This allows us to leverage the model to analyse the interaction between the financial sector and the real economy, notably the special role that the banking sector plays in transmitting financial shocks and regulatory change to the wider economy. In addition, DNB maintains and develops smaller econometric models for short-term economic cycle and inflation forecasts.

Actual costs in 2018 for the monetary core task and advice and Research were EUR 62.5 million, which is EUR 0.8 million higher than budgeted. Additional ICT support was the reason for this cost overrun.
Click here for a complete overview of costs.

Payment systems

In the year under review, the National Forum on the Payment System (NFPS, the Forum) contributed in various ways to ensuring accessible and efficient payment systems, both in the Netherlands and throughout Europe. DNB holds the chair and acts as the Forum's secretariat. Other forum participants include representatives of various payment system suppliers and users. In an international context, we used our NFPS involvement to provide support to the European Pay-Able platform in that organisation's efforts to amend the European Accessibility Act to include payment terminals. The European Parliament and the European Council ratified the amended Act on 8 November 2018. Moreover, the Euro Retail Payments Board (ERPB), of which we are a member, issued a report that provides an overview of accessibility issues in retail payment systems in the euro area. The report also contains recommendations for addressing these problems. The NFPS commissioned a study into vulnerable groups of consumers to ascertain whether they can make independent use of payment systems. The study results show that people without internet access, the blind and the visually impaired, and wheelchair users encounter difficulties when it comes to making independent use of everyday banking and payment services such as withdrawing cash and issuing payment orders. The Forum will engage banks in bilateral talks in 2019 on the outcome of the study. Finally, the NFPS surveyed more than 1,000 shop owners in late 2017 on the means of payment that they accept. Cash is the best accepted means of payment with an acceptance rate of 96%, followed by the debit card (82%). Most individuals in the Netherlands prefer to use a debit card for making payments, although some still prefer to use cash. This includes vulnerable people. It is important to them that cash remains available as a means of payment. The NFPS discussed these results with the Ministry of Finance, thus contributing to the preservation of cash as a means of payment and safeguarding the accessibility and stability of the payment system. The Minister of Finance shared his views on cash with the House of Representatives on 7 December 2018. On 15 January 2019, the House of Representatives decided that it must remain possible to make payments in cash, in accordance with the Minister's views.

We conducted research in 2018 into the importance of financial inclusion and shared our views on this topic in both a national and international context. For instance, we conducted qualitative research among young people in the Netherlands on dealing with money and means of payment. Young people tend to make payments electronically and use their smartphones to access banking services. They go to their parents first if they need advice on complex financial matters, followed by the internet. We shared the results of this research with the National Institute for Family Finance Information (Nibud). We also participate in the World Bank's Financial Inclusion Global Initiative, whose aim is to ensure that consumers have access to payment accounts and to encourage more widespread use of electronic payment instruments.

We worked on boosting the sustainability of the payment system in 2018. For example, we conducted research into the environmental impact of cash payments (DNB Working Paper). The results show a considerable environmental impact due to fossil fuel use (cash transport), energy consumption (ATMs) and mining (ore for minting coins). We discussed these findings with other central banks and market participants that are active in the cash payment chain with a view to identifying environmental impact reduction measures. One such measure that we implemented involves trading, purchasing and selling euro coins between the Netherlands and other countries to remediate surpluses. As an example, we sold 10.5 million coins of 1 and 2 eurocent denominations to the central bank of Luxembourg. We also committed ourselves to an efficient banknote sorting process. Improvements to sorting technology are now resulting in fewer rejected banknotes. These can then be taken back into circulation, reducing the need to print currency. Finally, we conducted analyses of vast amounts of data from the sorting process to gain more insight into the life cycle of banknotes and ways to improve their longevity. These efforts will lead to sustainability and efficiency gains in the cash payment chain. We have shared our expertise in this area with other central banks.

Actual costs for the payment systems core task in 2018 were EUR 109.5 million, which is EUR 11.6 million higher than budgeted. This overrun was primarily due to a larger portion of the costs relating to banknote production being allocated to 2018 than budgeted. Click here for a complete overview of costs.

Financial stability

Twice a year we publish the Financial Stability Report (FSR). We use this publication to report on the most important developments and vulnerabilities that may affect the Dutch financial system. We also provide recommendations to prevent or mitigate these systemic risks. In 2018 we called attention to the effects of the accommodating monetary policy on the risk-taking behaviour of financial parties. We also indicated that various European countries are still facing high debt levels in both the private and public sector. Furthermore, we analysed the implications of economic vulnerabilities in emerging markets for the Dutch financial sector, along with the risks of a shock to the financial markets, the potential consequences of an international trade war and weaknesses in the commercial real estate market. We take a structured approach to addressing identified risks, incorporating them directly into our supervisory practices. We also call attention to our FSR analyses in the media and in consultation with the financial sector and other organisations, including the ECB. The FSR was also the basis for the annual debate between the President of DNB and the House of Representatives on the state of affairs in the financial sector.

The main risks to financial stability are also discussed in the Financial Stability Committee (FSC). The FSC is the macroprudential consultative body in the Netherlands. It is chaired by the President of DNB. Its members are the Dutch Authority for the Financial Markets (AFM), the Ministry of Finance, the Netherlands Bureau for Economic Policy Analysis (CPB) and DNB. Representatives of these organisations come together to discuss relevant developments and to issue recommendations and warnings as needed. Alongside current developments on the financial markets and Brexit, in 2018 the FSC also specifically discussed the risks related to cyberthreats, crypto assets, repo markets and asset managers. Additionally, the FSC explored policy options for cooling off an overheated housing market. The members of the Financial Stability Committee are pleased with their cooperation. It has been decided to provide a legal framework for embedding the FSC's work more firmly in macroprudential policy in accordance with international recommendations made by the IMF and the Financial Stability Board (FSB).

DNB is able to deploy a variety of macroprudential instruments to tackle systemic risks. In 2018, we decided to maintain the systemic buffers for ING Bank, Rabobank and ABN AMRO Bank at 3% of their risk-weighted assets, and at 1% for Volksbank and BNG Bank. Maintaining additional capital reserves improves the resilience of the financial sector. We maintained the countercyclical buffer at 0%, in part because current lending has continued to lag behind the trend. In addition, we worked closely with the ECB to develop a joint risk-monitoring framework for alternative investment funds. These include hedge funds, private equity funds and real estate funds that have grown significantly in recent years and that may be prone to risks.

Stress tests are an important tool for bringing into focus the shock resilience of financial institutions and their interaction with the macroeconomy. In 2018 we were actively involved in the European Banking Authority's stress test. The stress test shows that the Dutch banks prove to be well placed to absorb losses and to maintain a robust capital position in times of sluggish growth, higher unemployment, rising interest rates and falling real estate prices. The European Insurance and Occupational Pensions Authority (EIOPA) conducted a stress test on insurers. The test results indicated that Dutch insurance groups are relatively vulnerable to falling interest rates. On the other hand, they are less sensitive to a sudden rise in interest rates combined with falling asset prices. Also, they are resilient to scenarios involving natural disasters.

The housing market plays an essential role in ensuring the financial stability of the Netherlands and promoting sustainable economic development. For this reason we monitor developments closely, and we have detected increased tension on the housing market. Indicators point to reduced affordability of housing, particularly in the major cities, accompanied by riskier lending practices. Mortgage lending as a whole did not increase in 2018, however. In 2018 we organised a seminar on the housing market in the major cities, where representatives from the worlds of politics, science and policy spoke on the main causes of the rapid price increases. The dwindling supply of homes in the rental market's middle segment is the main culprit. In addition, last year we studied the role of appraisals in the home pricing mechanism.

We boosted the Netherlands' strong position in international consultations last year thanks to our active commitment and constructive contributions. As an example, the President of DNB was appointed to the post of Vice-Chair of the FSB. Moreover, the Netherlands was invited last year once again to join in the meetings of the G20. Our IMF involvement focused on strengthening the surveillance task, clarifying the guidelines for programme design for countries in a currency union and improving the analysis of debt sustainability. In addition, we advocated using the current quota formula as a basis for increasing countries' IMF contributions. We will continue to invest in positive collaboration with other countries in our IMF constituency by providing technical assistance and through other means (see Social commitment. The IMF has noted that the Netherlands has taken the recommendations in the Financial Sector Assessment Program report to heart. Furthermore, we advocated strongly in the Basel Committee for a timely and complete implementation of the agreements made in late 2017 and for continued efforts to sever the interconnectedness between governments and banks.

Actual costs for the financial stability core task were EUR 11.5 million in 2018, which was EUR 0.5 million below budget as a result of lower expenses for legal advice. Click here for a complete overview of costs.

Supervision

Banks

Although the economic conditions were favourable in the year under review, Dutch banks faced challenging circumstances. They nevertheless maintained their profitability. Low interest rates and technological innovation all have an impact on banks' business models. In addition, societal developments and geopolitical shifts such as Brexit and tensions in Turkey result in additional uncertainty. Still, banks remained profitable in 2018; they managed to keep the interest margin stable and kept low reserves for credit risk.

The European Banking Authority, together with the ECB and other institutions, conducted a stress test on banks in 2018. The results revealed that the participating banks had improved their resilience to financial shocks. The stress test also shed light on the vulnerabilities that Dutch and European banks face during economic slowdowns. This also applies to the four Dutch banks that participated in the stress test (also see Financial Stability). In 2018 we also conducted six reviews in the context of the targeted review of internal models, which is a multi-year SSM review of the quality of the internal models banks use for gauging Pillar I risks. We also conducted theme-based credit-risk assessments of the SME portfolios of the largest banks. These assessments took place in the context of the SSM. Small and medium-sized banks are also the subject of DNB assessments and examinations, of course. In 2018 we conducted reviews of governance, behaviour and culture, measures to fight cybercrime and data quality management. We took measures aimed at remediating detected shortcomings and shared our findings with the sector during round tables and at seminars. In addition, we issued a number of declarations of no-objection for IPOs or for the return of a banking licence.

Financial institutions must be ever-vigilant about the risk of involvement in financial and economic crime. With this enduring problem in mind, we held various round tables in 2018 with banks and FEC partners to devise initiatives for exploring improved compliance with the Anti-Money Laundering and Anti-Terrorist Financing Act (Wet ter voorkoming van witwassen en financieren van terrorisme – Wwft). These initiatives will be fleshed out further in 2019. Chapter 3 provides a more detailed explanation of DNB's integrity supervision. Cost-consciousness is a recurring theme in our supervision. The working group on indirect costs issued a number of conclusions in 2018. In response to this, we have informed all banks about the reviews, themes and incidental data requests that they can expect in 2019.

Insurers

We focused specifically on rationalisation and consolidation in the insurance industry in 2018. These processes often take a considerable amount of time to complete. We have a formal role at the end of the process when it comes time to apply for a declaration of no-objection for the acquisition of one insurer by another, and for portfolio transfer between insurers.

Solvency II was introduced three years ago, and we can now say that the insurance industry has adjusted well to the new supervisory framework. We have noted an improvement in the quality of insurers' own reports and their own risk and solvency assessments (ORSA). We prioritised assessing insurers' internal risk models in 2018, not only because the impact of these models on insurers' holding capital is significant, but also because these insurance companies are large and systemically important. Solvency II represents the next step in supervisory convergence in the European Union. Although there is no "insurance union" in the EU as is the case with banks, we are intensifying our activities in the EU in the area of insurance supervision, specifically in the context of EIOPA.

We placed much emphasis on compliance with sanctions legislation among insurers in 2018, and we looked specifically at the operation of the compliance function at a number of insurers. We discovered various shortcomings during our assessments. The insurers generally rectified these shortcomings expeditiously.

We feel it is essential to engage in constructive dialogue with our stakeholders, also in our supervision of the insurance industry. We therefore intensified our communication with external parties. We organised a record number of seminars, round tables and similar gatherings in 2018. We intend to continue these activities, incorporating new channels of communication such as webinars. Our dialogue with the insurance industry has resulted in improved proportionality in our supervision within the confines of the Solvency II framework.

Pension funds

The Dutch pensions sector has been undergoing waves of consolidation for many years now, as evidenced by a reduction in the number of pension funds and premium pension institutions. As the absolute number of institutions and funds is declining, the average size and complexity of pension institutions is increasing. We have recently intensified our supervision of medium-sized pension funds somewhat, and the number of planned contact opportunities has been increased. The bulk of the pension assets of pension funds in liquidation are deposited with general pension funds (algemeen pensioenfondsen – APFs).

In 2018 we assessed APFs that are ready to accept new clients. The objective of our assessments was to gain timely insight into how APFs operate in practice and to identify the associated risks.

Due to potential amendments to the pension contract, in 2018 we also called attention to the need for diligent management of strategic risks and adaptability among pension funds. All pension funds are fully aware of how important it is to be adaptable with a view to preparedness for future developments.

We continue to monitor the financial position of pension funds and potential benefit curtailments that may be necessary down the road. Most pension funds have once again indexed their benefits disbursements, either in part or in full. Some pension funds have not managed to meet the minimum own funds requirement, however, and this includes the country's largest pension fund. If these pension funds fail to regain a healthy financial position in time, they will be forced to curtail pensions in 2020 or 2021.

Working together with the sector, the information security assessment framework has been updated to better address the risks associated with the provision of information by pension institutions. We conducted various cross-sectoral examinations of outsourcing, data quality and the regular supervision of transitions of both institutions and systems in order to address cyber risks.

We incorporated many of the recommendations issued by the working group on indirect costs of supervision in our working methods and communication with the sector in 2018. This included the individual supervision agendas sent to all pension institutions. Moreover, far more of our communication with institutions now takes place electronically, and since 2018 they have had the option of submitting notifications of group transfer of accrued benefits, liquidation and outsourcing through our digital portal. Some pension institutions can now also update their organisation details in the digital portal.

Payment Institutions, investment firms and investment fund managers

MIFID II entered into force in early 2018, imposing a licence requirement on more investment activities than was the case previously. In this context, we provided AFM with prudential recommendations regarding licence applications in 14 cases, and we completed 125 related applications for declarations of no-objection. We amended the supervisory regime for proprietary traders in early 2018. These institutions must now meet CRR and CRD requirements. The institutions made the transition expeditiously, and all now meet the relevant requirements. We devoted additional attention to the resolution plans of large asset managers and the potential implications of Brexit for them. In 2018 we also switched to a new reporting system for the financial reporting of investment firms and investment funds with a view to greater clarity and to prevent duplication. We also emphasised the quality of financial reporting in our discussions with individual institutions and in a reporting manual that we published.

Actual costs for Supervision were EUR 157.1 million in 2018, which is EUR 0.2 million below budget. Own costs for the supervision divisions were EUR 1.6 million lower than budgeted, and allocated costs were EUR 1.3 million higher than budgeted. Regarding the allocated costs, the effects of the temporary accommodations and the provision for IT were largely offset by savings on other support. Click here for a complete overview of costs.

Resolution

Banks

We perform our resolution task as part of the Single Resolution Mechanism (SRM). As part of the internal resolution teams (IRTs) of the Single Resolution Board (SRB) in 2018, we worked on the next phase on the resolution plans for the seven Dutch banks that fall under the direct authority of the SRB. A new resolution plan was drafted for five of the seven banks in accordance with the cycle. The SRB imposed a consolidated minimum requirement for own funds and eligible liabilities (MREL requirement) on four banks, and we were responsible for communicating this to these banks.

Bail-in is the preferred resolution strategy for banks that fall under the immediate responsibility of the SRB. Under this strategy, the bank's shareholders and creditors are jointly responsible for salvaging the bank. The actual execution of the strategy is largely DNB's responsibility. For this reason, we refined the bail-in tool in 2018, and we took steps toward making it operational. It is essential that banks are actually able to absorb the identified losses effectively. We therefore worked with the SRB to establish guidelines, based on which the relevant major banks will develop 'bail-in scenarios' in consultation with us.

With regard to banks that fall under DNB's responsibility, two plans were drafted for institutions where resolution is the preferred strategy, and fifteen plans were drafted for those cases where bankruptcy is the planned course of action in the case of failure. A provisional preferred resolution strategy was also adopted for two additional institutions. Nearly the entire sector (30 out of 31 banks) thus has a plan or strategy in place.

We made progress in 2018 toward making our resolution instruments operational. For example, a bridging foundation is now in place as part of the establishment of a bridge bank instrument. We published an operations manual and established the legal framework in 2018 in order to ensure that the instrument for selling off an institution would be ready for effective implementation. We prepared a DNB-wide strategy on the provision of liquidity to banks in resolution. This strategy makes our position clear in the international context. We also worked on improving the use of data in our preparatory activities and during actual resolutions in accordance with our aspiration to engage in more data-driven supervision.

The SRB and the national resolution authorities signed the cooperation agreement on the Single Resolution Mechanism in late 2018. The agreement provides clarity on the division of roles, collaboration and distribution of authority in the SRM. In accordance with our wishes, the SRB emphasised the accrual of a credible capital layer for bail-in purposes when adopting the MREL policy for 2018. To this end, we were actively involved in the SRM's MREL task force. The policy provides for a range of clear requirements, including for subordination and internal MREL. The policy will be enforced among a larger group of banks to promote bank resolvability in the SRM. Further policy improvements are still needed that take into account potential exemptions of instruments and subordination requirements pursuant to the revised Bank Recovery and Resolution Directive (BRRD 2).

Deposit guarantee scheme

In 2018 we worked with banks on implementing the single customer view (SCV) concept into their systems in accordance with all requirements. The pay-out system at DNB meets the SCV standard, which means that disbursements will be technically possible within seven business days starting in 2019.

The new DGS Directive obliges national deposit guarantee schemes in Europe to work together. DNB and the Deposit

Guarantee Fund signed the multilateral agreement of the European Forum of Deposit Insurers (EFDI) in 2017. In 2018, additional bilateral agreements were signed with authorities in Belgium, Germany and Malta on putting the terms of the agreement into actual practice.

Synergy between our resolution task and other tasks as a central bank is leveraged in various ways, including through our activities in the area of crisis management. In 2018, we conducted a DGS operational capability test for the first time. This involved simulating a full-on DGS disbursement from beginning to end. We can incorporate the lessons learned in our crisis management approach for our resolution task. Some of these lessons relate to organising, executing and evaluating stress tests.

International

We launched a public information campaign in 2018 to make the residents of Bonaire, St Eustatius and Saba aware of the protections provided by the deposit guarantee scheme for the Caribbean Netherlands (DGS CN) since its introduction in 2017. The administrative agency was established in the Caribbean Netherlands. In Europe, we provided technical expertise to the policy discussions on a European Deposit Insurance Scheme (EDIS.) We are involved in a new DGS task force at the European Banking Authority (EBA) that will evaluate the DGS directive to be published by the European Commission in mid-2019.

The actual costs for our resolution core task amounted to a total of EUR 7.3 million in 2018, which was EUR 1.4 million under budget. This was due to an underspend of EUR 0.7 million on the resolution of banks (less insourcing was required than budgeted) and EUR 0.6 million on the resolution of insurers (start-up costs were lower than budgeted.) The actual costs of the DGS core task were EUR 10.3 million in 2019, which is EUR 0.2 million below budget. This underspend was primarily due to lower insourcing expenses than budgeted. Click here for a complete overview of costs.

Statistics

Technical infrastructure, working processes and the ground rules for handling data responsibly form the very foundation of our bank-wide data policy. We solidified this foundation in 2018 by enhancing our data governance and by creating a processing environment for granular data (i.e. highly detailed data) on our data platform. This foundation means that not only can we provide high-quality statistics to in-house and external users , but also high-quality supervision data and streamlined reporting processes for authoritative supervision that sets the standard. The Statistics division makes use of cross-divisional data chains to make relevant information available to other DNB divisions. The division of tasks is clear with regard to data access, control, management and use. Improved data access, including new central data storage, is an important aspect of our priority to make better use of the large amounts of data and the new technologies that are available. New sources of data became accessible in the chains in 2018. This data was made available in novel ways, such as in dashboard-style visualisations.

We made data accessibility for external users more professional, for example by launching our new statistics site in 2018. The new site offers greater opportunities for viewing and using data. Users can now find the data they need with greater ease, and visualisations play a more significant role than previously, for instance in dashboards. We are committed to the principle of open data. We make data available to the public, subject to statutory limitations. Many statistical publications are characterised by breaks in statistical time series. These arise due to changes in statistical frameworks or changes in the population of reporting institutions, for example. The new website offers a large number of time series without breaks in response to the wishes and needs of those who rely on this kind of data.

We implemented various new and amended reporting requirements in 2018. This applies to the European System of Central Banks (ESCB)'s AnaCredit Regulation, for example, which stipulates the collection of detailed information on bank lending at European banks.
Our Statistics division works to foster the greatest possible harmonisation of data reporting and submission processes in an international context, thus boosting overall efficiency. For example, the division contributed to the formulation of best practices in this area together with European partners. The division opted for a joint platform set up by the ECB for a new reporting requirement (SHS-G) aimed at major banks, eliminating the need for us to implement the submission process at a national level. Finally, we migrated report submission to the new Digital Reporting Portal. This includes supervision statements for pension funds and investment firms. The portal allows us to receive and process reports more uniformly. It also provides for more efficient communications with reporting entities about their submissions.

In 2018 we achieved full consistency between our balance of payments and the rest-of-the-world account of Statistics Netherlands (CBS), thus fulfilling an express wish of Dutch policymakers and making the Netherlands a leader in Europe in this respect. Alongside these activities, DNB and CBS collaborated in other ways too, benefiting from each other's expertise. DNB is responsible for monitoring the financial sectors, compiling statistics on securities, and the national balance of payments. CBS is responsible for the national accounts and for monitoring the non-financial sectors. Financial institutions benefit from this new form of cooperation, as CBS and DNB reports are now more closely aligned than previously and the institutions therefore now only have to report to one of the authorities for the collection of macro-economic statistics.

Spending on the Statistics core task was EUR 5.5 million above budget, owing to higher divisional personnel costs than budgeted, a stricter capitalisation policy and higher than budgeted insourced IT support. The Statistics core task is highly IT-dependent, meaning a significant proportion of spending on IT facilities was for the account of this division in 2018 (EUR 2.6 million). Click here for a complete overview of costs.

HR policy

Key figures on workforce

Table 4.1 shows comparative figures for DNB's workforce in 2017 and 2018. The increase in FTEs can primarily be ascribed to Supervision due to greater emphasis on innovation and FinTech, and greater supervisory scrutiny of information security risks.

Table 4.1 Key HR figures

	2018	2017	
Workforce (regular employment and Governing Board)	1953	1920[1]	
Average number of FTEs	1815.6	1761.5	
DNB % women	38.5%	38.5%	
Workforce % women (excl. management)	38.9%	39.1%	
Governing Board % women	40.0%	0.0%	
Secretary-Director* % women[2]	0.0%	100.0%[2]	
Division Directors % women	23.5%	23.1%	
Heads of department % women	34.4%	32.6%	
Heads of section % women	33.3%	39.1%	
Actual training costs (EUR)	5,991,408	6,010,208	
Budgeted training costs (EUR)	6,636,295	6,364,462	
Employees in 2018 by contract type and gender		Female	Male
Fixed	1713	654	1059
Temporary	240	98	142
Total	**1953**	**752**	**1201**
Employees in 2018 by full-time or part-time and by gender		Female	Male
Full-time (36 hours p/w or more)	1657	534	1123
Part-time (less than 36 hours p/w)	296	218	78
Total	**1953**	**752**	**1201**
Aantal medewerkers in 2018 met een dienstverband en externen naar vrouw/man		Female	Male
Governing Board	5	2	3
Regular (employment contract[3])	1948	750	1198
Insourced	603[4]	132	471
Total	**2556**	**884**	**1672**

1 Does not include trainees, insourced personnel or Supervisory Board members.
2 This position was eliminated in mid-2018.
3 Employees covered by the collective labour agreement.
4 Of all DNB employees, 23.6% are insourced. These are generally facilities services workers, those with operational duties and IT specialists.

Table 4.2 Inflow, outflow and internal transfers of employees

Total 2018	Female	Male	**Total 2017**	Female	Male
Inflow 213	81	132	Inflow 198	87	111
	38.03%	61.97%		43.9%	56.1%
Outflow 180	69	111	Outflow 127	54	73
	38.33%	61.67%		42.5%	57.5%

Labour market position and sustainable employability

We defined a new labour market position for ourselves in 2018 that specifies what kind of employer we strive to be. We accordingly began revising and modernising our terms and conditions of employment and staff relations, and we reached new agreements with the trade unions on various terms and conditions of employment.

Inflow, internal transfers and outflow, recruitment

A total of 279 vacancies were filled in 2018. External candidates filled 213 (76%) of these positions (see Table 4.2), including 11 trainees and 7 managers. The other 66 vacancies were filled through internal transfers, including 12 management positions.

The tight labour market has made it increasingly difficult to fill positions at the intermediate and senior levels. We are fortunately seen as a beneficial employer, meaning we are still able to attract excellent employees who are looking for challenging and fulfilling employment. More and more vacancies require candidates who possess data skills, and so our recruitment procedures emphasise this competence. For example, we developed the two-year Data & Technology Talent Programme to train new hires. The HR department expanded its campus recruitment activities in 2018 to promote greater diversity among applicants and to appeal to more applicants for a DNB-wide traineeship. These efforts resulted in an increase in the number of applicants.

Diversity

We adopted a diversity strategy in 2018: "We strive for a diverse workforce that reflects society. We wish to be recognised as an organisation that makes optimal use of the diverse potential on the labour market. We are also convinced that greater diversity helps us to analyse complex issues from a variety of angles, and to do our work better. We devote special attention to a number of specific aspects, namely cultural background, gender and occupational disability. We participate in the Netherlands Inclusivity Monitor, developed by Utrecht University, to more clearly define our objectives with respect to diversity.

Table 4.3 Reasons for leaving in 2018

	2018	2017
Own request	101	77
Termination of contract	23	20
End of temporary employment contract	18	10
Retirement and early retirement	30	15
Restructuring	5	4
Occupational disability	1	0
Death	2	1
Total	**180**	**127**

Staff mobility

We make active use of internal staff mobility as an instrument to promote the development of broad experience and flexibility among our employees. This also enhances career potential, synergy and collaboration at DNB.

International cooperation in our core tasks is intensifying, leading to greater international mobility among our staff. A total of 72 DNB employees were seconded to international institutions in 2018, while we provided a secondment to 16 international colleagues.

Staff survey 2018

We conducted a staff survey in 2018 to gauge how our people experience their workplace. The survey focused on whether they feel at ease, whether they can engage in personal and professional development and whether they are empowered to achieve the best results. Compared to the benchmark, DNB scored average or better on all themes. Staff were generally satisfied with the content of their work and the working conditions, and they were appreciative of the development opportunities available and of our inspired leadership. Most employees indicated satisfaction with their workload and did not report undue amounts of stress. Scores for psychological security, bureaucracy and feedback on performance were more disparate, depending on the team. We put a great deal of effort in 2018 into encouraging discussion of the survey results in the various teams in order to devise joint measures for improvement.

Development

In designing training activities in 2018, DNB Academy emphasised developments in data-driven working and technological innovation, and the implications of these aspects for our core tasks.

Occupational health and safety

We initiated a preventive medical screening for all DNB staff in 2018. The screening is aimed at promoting vitality and sustainable employability. More than 1,000 employees completed the on-line questionnaire, which included questions on general health, lifestyle habits, stress and work engagement. Many also visited our internal occupational health unit for a variety of tests and examinations. All screening participants received personal recommendations for improving their health.

The average number of times employees reported ill was slightly higher in 2018 compared to 2017, which was largely due to the lengthy flu epidemic in the spring. The sick leave percentage (3.10%) was below the national average, but up slightly compared to 2017 (2.99%). Significantly more employees were out on sick leave lasting longer than a year in 2018, both for physical and psychological reasons, compared to a year earlier.

Compliance & Integrity

Compliance & Integrity (C&I) monitors compliance with our code of conduct and integrity regulations. The division received 448 reports and 626 requests for advice in 2018 (see Table 4.4) No whistle-blower reports were received in 2018. The Complaints Committee received four internal and four external complaints in 2018. Two of the external complaints were declared inadmissible due to ongoing legal proceedings, and two others were withdrawn. Three of the internal complaints were also withdrawn. One internal complaint was declared inadmissible due to an ongoing procedure (see Table 4.5).

Table 4.4 Reports and requests for advice relating to integrity regulations

	2018	2017
Impartiality (gifts and invitations, subsidiary activities, transfer)	448	509
Requests for advice	626	744

Table 4.5 Integrity incidents, investigations and complaints

	2018	2017
Integrity incidents (total)	**18**	**40**
of which:		
– improper use of information	13	28
– regulation on private investment transactions	4	6
– other	1	6
Complaints		
– internal	4	1
– external	4	9
Whistle-blower reports	0	0

Environmental awareness and sustainable procurement

Environmental protection

Our environmental management system for the Facilities Management, Cash Operations and Security departments was certified in accordance with the ISO 14001:2015 standard in 2018. This demonstrates that we have effectively embedded environmental protection in our operations for these departments.

CO_2 emissions

Thanks to the purchase of green electricity and the offsetting of the remaining CO_2 emissions, DNB was climate-neutral in 2018. The number of carbon credits to be purchased is determined on the basis of the actual CO_2 emissions during the reporting period, which runs from the fourth quarter of one calendar year to the end of the third quarter of the next.

Our CO_2 emissions and the amount of CO_2 emissions to be offset declined in absolute terms in the year under review compared to 2017. The decline took place across the board and is the result of fewer journeys by air, a warmer than usual winter and an adjustment to the conversion factors due to the use of renewable electricity in public transport. See table 4.6 for more details

Table 4.6 Measured environmental data and explanation of policy and activities

Measured data[1, 4]	2018[2] CO_2 (tonne)	2017[3] CO_2 (tonne)	2018[2] Absolute consumption	Unit
Energy	**1527**	**1762**		
Purchased green electricity	0	0	12,311,543	kWh
Natural gas	1500	1723	793,743	m^3
Diesel for energy supply	27	39	8,377	litres
Commuting traffic	**1753**	**2068**		
Public transport	500	824	13,886,470	km
Petrol for lease vehicles	135	120	49,436	litres of petrol
Diesel for lease vehicles	89	130	27,613	litres of diesel
Electric lease vehicles	7	-	10,060	kWh
Passenger vehicles (private)	1.022	994	4,645,744	Km
Business travel	**1976**	**2230**		
Private cars (corporate mileage)	124	131	563,089	km
Passenger vehicles (lease cars, petrol)	113	100	41,419	litres of petrol
Passenger vehicles (lease cars, diesel)	75	109	23,135	litres of diesel
Passenger vehicles (lease cars, electric)	5	9	8,429	kWh
Air travel	1608	1813	8,910,456	km
International train travel	51	67	1,956,876	km
Goods and passenger transport	**25**	**23**		
Passenger vehicles for passenger transport	5	9	1,908	litres of petrol
Passenger vehicles for passenger transport	8	7	2,564	litres of diesel
Trucks for goods transport	11	7	3,269	litres of diesel
Total CO_2	**5281**	**6083**		
Offset through purchase of carbon credits	5281	6083		
Total CO_2 emissions	**0**	**0**		

1 We use the emission conversion factors published online at www.co2emissiefactoren.nl (in Dutch) and the Milieubarometer calculation method to determine our material CO_2 emissions.
2 The 2018 reporting period runs from 1 October 2017 to 30 September 2018.
3 The 2017 reporting period runs from 1 October 2016 to 30 September 2017.
4 Figures subject to minor rounding differences.

Sustainable procurement

We placed various calls for tenders in 2018. In all cases, we emphasised environmental and climate aspects, circular procurement and the participation of people with a labour market disadvantage. These efforts help us to contribute to the changeover to a CO_2-neutral and circular society.

We came to initial agreements in 2018 with suppliers (specifically suppliers of gifts and application developers and administrators) on earmarking a percentage of the contract value or wage sum for sustainability aspects, circularity or social return. After awarding the contract, we work with the supplier on specific provisions.

We procured sustainable taxi services in 2018 by contracting with a company that uses electric vehicles and employs drivers with a labour market disadvantage (specifically people aged 50 and older).

In 2018, we carried out 33 European procurement projects and multiple private tenders (valued at more than EUR 50,000). Netherlands Enterprise Agency criteria were available for seven tender procedures. These were implemented. The criteria related to networks, data-centre hardware and telephone services and contracted transportation services.

Being at the end of the chain, we mainly procure expertise, labour and resources that we use to create new knowledge, advice and policy. Our main categories of suppliers and markets are:

- banknotes and coins
- insourcing and consultancy
- IT software and hardware
- real estate management and maintenance

Our suppliers fall into the following categories:

- printing firms
- insourcing and consultancy firms
- resellers
- management and maintenance companies

Value creation in the banknote and coin production process is the joint responsibility of the ECB, the European central banks, the AFM and DNB. Our chain partners operate primarily in the Netherlands and the European Union. We do not have a market where we sell goods and services, nor do we have customers.

Our primary tasks are of a special nature: our ‘production’ consists of policy, payment systems, advice and research. This means that our chain is different from that of other organisations. As a result, procurement is the only chain at DNB, and the procurement chain specifically for banknotes and coins is the most extensive. Chain responsibility and preventing wrongdoing within the procurement chain are being more firmly embedded in the policy and management systems of the various product categories. In 2018, the statement of requirements in tender procedures in the banknote and coin category emphasised sustainably sourced paper and the integrity of the mint. The statement of requirements also obliges suppliers to have implemented a code of conduct for ethical business practices.

Facilities and real estate

We established our sustainability ambition for our long-term facilities and real estate policy in 2018. This calls for incorporating sustainability in all developments and decision-making processes, always taking account of the CSR aspects people, planet and profit where the themes of health, the environment, future value, quality of use and energy consumption are concerned. It is our intention to use the facilities and real estate policy to promote the development of a climate-neutral and circular society by applying sustainability measures to the renovation of our current building, selling surplus real estate and constructing sustainable new facilities for the storage and distribution of gold and cash. During the renovation of our main building (2020-2014) we will be making temporary use of an existing building.

ICT

We are including sustainability requirements as we transition to a new ICT service structure. In two major sourcing projects, we asked suppliers to abide by our sustainability requirements. We also consistently endeavour for the lowest possible environmental impact and we underscore the importance of social return.

We introduced Skype for Business (chat and video calling) and WebEx (video conferencing) with the ECB, among other institutions. Very few workstations now feature a fixed telephone. SharePoint applications are now available on mobile devices, which fosters digital working methods and collaboration. New functions have been added to the Digital Supervision Portal (DLT), resulting in less paperwork.

Social commitment

Contributions and donations

We support various activities that touch upon our core tasks, and we support charities active in the areas of health, society and culture by making donations. The combined contributions and donations budget stood at EUR 800,000 in 2018. A total of EUR 505,509 of this amount was spent. All applications for support are assessed in accordance with the policy approved by the Governing Board, and donations are monitored centrally throughout the year. Most contributions went to organisations in which we play a supervisory or advisory role, such as the Money Wise platform (Wijzer in Geldzaken). One DNB employee was also released for several days during the year to devote time to the Inspire2Live organisation.

Financial education

We use target specific groups to explain our core tasks, how we perform them and what we aim to achieve. We use channels such as our Visitor Centre, Information Desk, website and social media to reach the pupils and the general public as efficiently as possible.

Education

Some 27,500 people came to our Visitor Centre in 2018, mostly groups of secondary school pupils. Visitor numbers have been growing steadily since 2016, the first full year at the current location, when visitors totalled 19,000. Visitors take tours that give them a thorough introduction to our work. The centre's 2018 informational programmes covered the themes of FinTech en Supervision.

We also offered interactive educational programmes on our website, which attracted 16,000 visitors. The number of actual visitors is many times higher, since most of these visits took place in a classroom setting. Our range of educational programmes was expanded in 2018. For example, we added an abbreviated version of "Scoren met beleid" (Scoring through policy), a monetary and budgetary game, which now offers additional scenarios. We also made new, theme-based lessons on current topics available, such as the dangers inherent to protectionism, and the economic value of innovation.

The public

We received 24,700 requests for information from the public in 2018. Of these, 11,300 were submitted by telephone and 13,400 by email. Many of these requests were related to banknotes and coins, legal successors and the deposit guarantee scheme. The "Information for Consumers" section of our website attracted more than 45,000 visitors in 2018. We posted clips and animations to our YouTube channel and published them on our website to communicate about our work in a light-hearted way.

We also made use of our social media presence, particularly on Facebook. In addition, we published the first two editions of DNBelicht in 2018, a digital magazine for the general public.

We participated in the Science Weekend (Weekend van de Wetenschap) as an additional means of communicating with the public about the societal relevance of our activities. The aim of the weekend is to provide interested individuals with an opportunity to get acquainted with the participating organisations. We literally gave visitors a first-hand look at how we inspect and distribute banknotes. We also organised two lectures: one on the preparations necessary for monetary policy, and the other on the history of money and the treasures held by the National Numismatic Collection (NNC). The annual numismatic lecture was also held in the Visitor Centre in 2018. We make active use of a wide range of channels to ensure that the general public has access to the NNC. This includes online access to the collection. We also have an active loan policy. In 2018, we loaned parts of the collection to three museums on a short-term basis, while 17 other museums have samples from our numismatic collection on permanent loan.

We are one of the co-founders of the Money Wise platform (Wijzer in Geldzaken), and we promoted its objectives through sponsoring and the exchange of expertise, e.g. as a member of the steering committee. We participated in annual events such as the "Pensioen3daagse", an event focussing on pensions, and Money Week (Week van het Geld), during which dozens of DNB employees went to primary schools to teach classes as guest teachers.

Risk management

Risk management model

DNB has a comprehensive risk management model built on three lines of defence. The model is based on guidelines and best practices for risk management as defined within the Basel Committee, the EBA, the ESCB and the SSM.

The first line of defence at DNB is formed by the divisions that bear primary responsibility for identifying, assessing and controlling risks when performing their activities. The second line of defence consists of independently operating risk management functions, and it is responsible for preparing policy frameworks and for identifying, monitoring, reporting and challenging the organisation-wide risks. The third line of defence is our Internal Audit department (IAD), which conducts audits into the effectiveness of the overall governance framework and the consistent application of policies and processes.

We distinguish between strategic, financial and operational risks in our risk management model. The strategic risks touch upon DNB's core tasks. Strategic risk management is therefore a comprehensive part of our decision-making and management processes. As every year, in 2018 we identified key trends, as well as the associated opportunities and threats. These trends, opportunities and threats were again used as input in reviewing our strategy and performing our core tasks. The Risk Management Committee (RMC) coordinates our financial risk management. We have set up a dedicated governance structure for dealing with financial risks. We discuss this is in greater detail in the Explanatory notes on our financial position. Operational risk management is coordinated by the Operational Risk Board (ORB), which falls under the responsibility of the Executive Director for Internal Operations and Resolution and comprises representatives from our first and second-line functions.

We improved our risk management processes in 2018 by adopting and implementing a revised version of the risk framework. This revised risk framework answers to the latest insights in the field of operational risk management (ORM) and the policy framework for operational risk management of the Eurosystem, the ESCB and the SSM.

The framework serves as the basis for more stringent governance at DNB. It also provides for more structured identification of risks. Furthermore, the ORM department drafted a plan to centralise and improve our incident management process.

We established an overarching ORM framework that serves as a basis for the systematic control of operational risks. The purpose of the framework is to integrate ORM into our day-to-day management. Operational risk is defined as the probability of an adverse event having a negative impact on DNB's financial position, business objectives or reputation caused by inadequate or failed internal business processes, people and systems, or by external events. The ORM framework distinguishes between eleven categories of operational risks. A risk coordinator has been appointed for each category to provide an organisation-wide perspective on the relevant category. The ORM department coordinates the periodic submission of reports to the ORB that address all relevant operational risks and their management. The ORB discusses these periodic reports and can adjust operational risk management processes where necessary.

Developments in risk management

The ORM framework was used to make a greater distinction between the first and second lines of defence. An Operational Risk Officer was appointed in each division to ensure a thorough overview of the main operational risks, incidents and management procedures in the division. ORM has thus been embedded more firmly in the day-to-day management of the divisions. The ORM Department and the second-line risk-category coordinators monitor, support and challenge the individual divisions' risk management processes.

The ORM Department also took a structured approach to coordinating a risk & control self-assessment (RCSA) for each of the operational risk categories in 2018. Experts from throughout the organisation were involved in the sessions. The RCSAs identified the main organisation-wide operational risks and how they are managed. This resulted in an improved understanding of the operational risks facing our organisation and how best to mitigate them. Moreover, the periodic reports submitted to the ORB are now more complete and relevant. The RCSAs will be repeated on a divisional basis in 2019.

In 2018 we also started recalibrating the risk appetite for each operational risk category. Risk appetite is an expression of the nature and scale of the risks that an organisation, in this case DNB, is prepared to be exposed to in the pursuit of its objectives. We organised workshops for each risk category where experts met to set the relevant category's risk appetite, which was then submitted to the ORB. It is expected that the ORB will officially adopt the risk appetite for each risk category in the course of 2019.

At the behest of the ORB, the ORM department also started centralising and improving our incident management process in 2018. Identifying and reporting operational incidents are key measures for improving the perception of operational risks along with their management. The ORM department put forth a proposal for structuring the operational incident management process to ensure uniformity in identifying and reporting incidents. The ORB approved the proposal, and the ORM department will coordinate its implementation in 2019.

Main operational risks

Our activities in the area of operational risk management in 2018 resulted in an improved understanding of potential risks in divisions, processes and chains. Figure 4.1 shows the eleven operational risk categories at DNB.

Figure 4.1 Operational risk categories at DNB

A	Information security risk	G	Fraud risk
B	Business continuity risk	H	HR risk
C	Compliance & integrity risk	I	Physical security risk
D	ICT risk	J	Reporting risk
E	Sourcing risk	K	Process risk
F	Legal risk		

Explanatory notes on DNB's financial position, risks and results

Unconventional monetary policy measures resulted in a robust increase in DNB's balance sheet in 2018, while also leading to greater risk sensitivity. Estimated total balance sheet risk at DNB decreased from EUR 8.4 billion to EUR 5.2 billion in 2018, primarily due to external effects: adjusted forward guidance on interest rate policy by the Governing Council of the ECB and the discontinuation of net purchases, along with the improved risk profile in Greece. Forward guidance of a more concrete nature resulted in decreased interest rate sensitivity on DNB's balance sheet. Greek banks required less central bank financing in 2018 thanks to a healthier Greek economy.
As in previous years, we added EUR 500 million to the provision for credit and interest rate risks. We can release amounts from the provision to cover any losses arising from the unconventional monetary policy. At year-end the provision had increased from EUR 1.5 billion to EUR 2.0 billion, set off against estimated risks of EUR 2.3 billion (2017: EUR 3.6 billion) stemming from the unconventional monetary policy. The decrease is related to effects discussed elsewhere in this section. In addition, EUR 9 million was charged to the provision in 2018 due to the impairment of a security held by a Eurosystem central bank under the CSPP.
DNB determines its own credit and market risk using risk models and scenarios. The interest rate risk resulting from the unconventional monetary policy is similarly determined. We took additional and important steps in our risk models in 2018 by having experts from our supervision divisions validate them in the context of the model governance guidelines. The risk model developers also adjusted their models as part of their regular monitoring procedures. Adjustments in 2018 related to mutual accounting settlements in the Eurosystem and the estimated dividend DNB expects to receive from the ECB. The risk of impairment of securities in specific portfolios as a result of reduced credit quality has also been factored in since 2018.
Gold occupies a special position in our risk framework. Our gold stocks serve to cover ultimate systemic risks that can materialise under extreme scenarios outside the boundaries of risk calculations. We manage the gold stocks passively.

Table 4.7 Total exposures of DNB

EEUR billion, excluding gold and including intra-system exposures. The exposures where DNB incurs a risk are reported.

	31-12-2018	31-12-2017	Difference
Total exposure	**209.0**	**192.6**	**16.4**
Monetary exposures	189.6	174.1	15.5
Own investments and other portfolios	19.4	18.5	0.9
Total risk	**5.2**	**8.4**	**-3.2**
APP risk (under provision for credit and interest rate risk) [1]	2.3	3.6	-1.3
Other risks [2]	2.9	4.8	-1.9
Risk buffer	**9.9**	**9.4**	**0.5**
Provision for credit and interest rate risks	2.0	1.5	0.5
Capital and reserves	7.9	7.9	0.0

1 The asset purchase programme (APP) risk comprises credit risk on the asset purchases (excluding exposures to the Dutch government) and interest rate risk.
2 Other risks are related to risks in peripheral countries, own account investments and conventional provision of liquidity to banks (open market operations).

Monetary exposures

The ECB's Governing Council adjusted monetary policy in 2018. As of 1 October 2018, the monthly net purchase volume was cut in half from EUR 30 billion to EUR 15 billion, to be discontinued completely as of January 2019. This does not mean that the asset purchase programme has been terminated outright, however. All repayments and bonds are to be reinvested for quite some time to come. This, alongside the lengthy maturities of current monetary portfolios, means that the risks stemming from the unconventional monetary policy will remain on our balance sheet for a considerable period of time. The ECB Governing Council indicated concurrently that key interest rates would remain at their present level at least throughout 2019.

The monetary operations will be carried out in conjunction with the Eurosystem and will in most cases be for shared account and risk. Open market operations (OMOs) cover regular liquidity provision to banks, also involving targeted longer-term refinancing operations (TLTROs). Under the APP, the Eurosystem purchases public sector securities (PSPP), covered bonds (CBPP3), investment grade corporate bonds (CSPP) and asset-backed securities (ABSPP). Of these programmes, the PSPP has the largest volume. The PSPP does not involve an arrangement for sharing risks or returns on government bonds in the Eurosystem. The ABSPP is for the account and risk of the ECB. It is therefore not shown in Table 4.8. The SMP incentive programmes (for securities markets) and CBPP1 & 2 are gradually drawing to a close.

Table 4.8 Monetary exposures by purchase programme and country

EUR billion. The exposures where DNB incurs a risk are reported.

	OMO	SMP	CBPP 1-3	PSPP	CSPP	Totaal
Netherlands	1.6	0.0	1.0	104.1	3.1	109.8
Italy	14.3	2.1	1.7	0.0	1.1	19.1
Spain	9.8	0.8	3.4	0.0	0.7	14.6
France	6.5	0.0	3.8	0.0	3.2	13.5
Germany	5.2	0.0	3.1	0.0	1.2	9.5
Greece	0.6	0.3	0.0	0.0	0.0	0.9
Other	4.9	0.5	1.8	13.5	1.4	22.1
Total [1]	**42.9**	**3.8**	**14.7**	**117.6**	**10.6**	**189.6**
Difference [2]	-0.6	-0.8	1.4	12.4	3.0	15.4

1 The total may differ from the sum of the exposures for each country and each programme due to rounding differences.
2 Difference relative to 31 December 2017.

Own account investments

Our own account investments consist primarily of very high-grade bonds issued by governments and semi-government bodies in countries such as Germany, France and the United States. Such short-dated bonds currently often offer negative interest rates. The bond portfolio's risk profile is kept low, and minimum conditions are set for the creditworthiness and liquidity of the investments. Forward exchange contracts are used to hedge the currency risk. The currency risk on the IMF receivable, which is based on a basket of international currencies (special drawing rights – SDRs), is also hedged. Alongside internally managed portfolios, we also hold external funds containing equities, high-grade corporate bonds and high-yield corporate bonds. The investments in these portfolios are in line with our aspirations in the area of socially responsible investment.

Our exposure to high-grade corporate bonds in 2017 stemmed primarily from exchange-traded funds (ETFs.) In the year under review, we sold some of the ETFs, replacing them with high-grade funds that are more in keeping with our aspirations in the area of responsible investment. We intend to replace the remaining ETFs with similar funds in 2019.

Table 4.9 Composition of own-account investments and other portfolios

in EUR billions

	31-12-2018	31-12-2017	Difference
Euro investments	11.0	11.0	0.0
USD investments	4.0	4.1	-0.1
Equities	1.4	1.5	-0.1
High-grade corporate bonds	0.6	0.5	0.1
High-yield bonds	0.4	0.5	-0.1
IMF receivables	1.8	0.9	0.9
Total [1]	**19.4**	**18.5**	**0.9**

1 The total may differ from the sum of the individual asset class items due to rounding differences.

Result

The result for 2018 stood at EUR 188 million, an increase of EUR 67 million compared to 2017. Profits can primarily be ascribed to results from monetary operations and non-monetary deposits. Our own-account investments were loss-making in 2018.

Income from the monetary operations contributed EUR 805 million to our result for 2018, up EUR 169 million from 2017. This increase was primarily due to revenues from asset purchase programmes (CBPP3, PSPP and CSPP) and monetary deposits. The liquidity created by the monetary

Figure 4.2 Trend in our results (in EUR millions)

Source: DNB

Table 4.10 Breakdown of our results

EUR million

	31-12-2018	31-12-2017	Difference
OMO	-135	-157	22
CBPP1 and 2	9	18	-9
CBPP3	73	58	15
SMP	237	282	-45
CSPP	75	38	37
PSPP	115	26	89
Other	431	371	60
Total monetary transactions	**805**	**636**	**169**
Euro investments	-32	11	-43
USD investments	-15	-19	4
Equity investments	3	37	-34
Corporate bond funds	-46	3	-49
SDR investments	-11	-11	0
Total foreign reserves and euro investments	**-101**	**21**	**-122**
Money market liabilities for non-monetary deposits	125	81	44
Total sundry (including expenses)	-141	-117	-24
Total addition to provision for credit and interest rate risks	-500	-500	0
Total	**188**	**121**	**67**

asset purchase programmes impacted monetary deposits, resulting in increased revenues thanks to the negative interest rate. This compensated for the lower revenues resulting from redemptions in a number of high-yield and expiring monetary portfolios (SMP and CBPP1 and CBPP2). Results in all asset classes of own account investments were negative in 2018. Fixed-rate portfolios were loss-making in 2018 (as they were in 2017) as a result of negative bond yields and short maturities. DNB asset managers were nonetheless able to limit the loss somewhat by surpassing the benchmark. In the first three quarters of the year under review, the loss on fixed-rate portfolios was compensated by a positive yield from equity portfolios. In the final quarter of the year, however, a correction in equity prices on stock markets worldwide impacted the equity portfolio quite severely. These losses were offset by the revaluation reserve, and are therefore not visible in the results.

Income from non-monetary deposits, including from bilateral services provided to non-Eurosystem central banks, rose further, contributing EUR 125 million to our annual result (2017: EUR 81 million), Deposit services like these are carried out by central banks for their own account and risk. Interest rates charged on non-monetary deposits are around the deposit rate, which currently stands at -0.4%. Historically, non-monetary deposits were limited in size. They have grown significantly in recent years because of the lower interest on short-term, high-grade bonds, making it more favourable to keep them on account at DNB.

Report on costs

The costs allocated to our core tasks in 2018 amounted to EUR 409.6 million, representing a budget overrun of EUR 17.6 million caused largely by banknote production expenses that were higher than budgeted in 2018 due to a reallocation in 2017. Moreover, in July 2018 we started making advance rent payments on the temporary location in Amsterdam that we will use while our own headquarters is being renovated. Depreciation charges on tangible fixed assets were higher than budgeted owing to the accelerated depreciation of the Wassenaar building as part of our long-term facilities and real estate programme. Furthermore, we created a provision for staff-related expenses with respect to the planned outsourcing of ICT services.

The costs for each core task are set out in Table 4.11. The material differences for each core task are explained in further detail.

Spending on the Financial Stability core task was EUR 0.5 million below budget in 2018, as a result of lower expenses for legal advice.

The costs for the Monetary core task were EUR 1.1 million higher than budgeted, as this core task required more ICT support that provided for in the budget.

Table 4.11 Expenses per core task

EUR million

	Realisation 2018	Budget 2018	Difference	Realisation 2017	Realisation 2016
Core task					
Financial stability	11.4	11.9	-0.5	10.1	15.6
Monetary tasks	62.8	61.7	1.1	54.8	57.3
Payment systems	109.8	97.9	11.9	89.1	114.7
Supervision	157.1	157.3	-0.2	143.8	145.0
FEC	2.7	1.3	1.4	1.4	1.2
Statistics	48.4	42.9	5.5	39.2	39.1
Resolution	7.3	8.5	-1.3	4.9	4.6
DGS	10.3	10.5	-0.2	8.3	
DGS interest compensation settlement	0.0	0.0	0.0	1.4	
Total	**409.6**	**392.1**	**17.6**	**353.2**	**377.5**

Based on the situation on 7 February 2019.

Spending on the Payment systems core task was EUR 11.9 million above budget. This overrun was primarily due to a greater portion of the costs relating to banknote production being allocated to 2018 than budgeted.

Actual costs for supervision were EUR 157.1 million in 2018, which was EUR 0.2 million below budget. Own costs for the supervision divisions were EUR 1.6 million lower than budgeted, and allocated costs were EUR 1.3 million higher than budgeted. Regarding the allocated costs, the effects of the temporary accommodation and the provision for ICT were largely offset by savings on other support.

Costs for the Financial Expertise Centre (FEC) rose due to expanded duties in the area of terrorist financing starting in 2018. The Dutch Ministry of Finance has provided structural funding for these duties to promote a methodical approach to combating terrorist financing. The fiscal years of DNB and FEC are asynchronous, which explains the overrun of EUR 1.4 million for the FEC partnership as shown in the overview above. These costs are in fact covered.

Spending on the Statistics core task was EUR 5.5 million over budget, owing to higher divisional personnel costs, a stricter capitalisation policy and more insourced ICT support than foreseen. The Statistics core task is highly ICT-dependent, meaning a significant proportion of spending on IT facilities is for the account of this division (EUR 2.6 million).

The underspend on the Resolution core task was EUR 1.3 million. This was due to an underspend of EUR 0.7 million on resolution banks (less insourcing was required than budgeted) and EUR 0.6 million on resolution insurers (start-up costs were lower than budgeted.)

Spending on the Deposit Guarantee Scheme core task was EUR 0.2 million below budget. This underspend was primarily due to lower insourcing expenses than budgeted.

Annex 1 Overview of CSR objectives and results

CSR objectives in 2018	Actions and results achieved	Reference to AR	CSR objectives in 2019
Supervision			
■ DNB will examine the supervisory implications of the Sustainable Development Goals (SDGs).	■ We studied the extent to which financial institutions are exposed to social and ecological risks. Our study identified risks that are related to water stress, biodiversity loss, raw material scarcity and human rights controversies. We also assessed 25 large and medium-sized Dutch financial institutions and found that most have not yet fully integrated their sustainability aspirations into their operational management.	4.2.6 Supervision: sound and ethical financial institutions that meet their obligations Annexes: Financial stability Annexes: Supervision	■ In 2019, we will implement the recommendation ensuing from the study. These recommendations relate to how we can better integrate climate risks into our supervisory methodology. There will be a particular emphasis on the self-assessments that financial institutions must conduct as part of their annual supervisory review and evaluation processes.[1] We also intend to request financial institutions to provide information on their exposure to carbon-intensive sectors and real estate with energy labels that are not in line with the Dutch climate commitments. We will also investigate how to incorporate sustainability in our on-site inspections of banks, insurers and pension funds. ■ Moreover, a stress test that we conducted gave us insight into the potential implications of a disruptive energy transition. We will disseminate the methodology developed for conducting such a stress test among supervisory authorities and financial institutions in order to facilitate them in their efforts to identify the risks associated with the energy transition.
■ We will follow up on our climate risk study by implementing recommendations internally and externally, and we will look into ways to incorporate outcomes into our supervision and risk analysis.	■ Follow-up to recommendations from the climate risk study: - A proposal was put forward for a unified and consistent approach to climate risks, and to integrate this approach in our regular supervisory activities. We will take further steps in 2019 in accordance with proposals as we incorporate climate risks in our supervision of banks, pensions funds and insurers. We have informed the sector that office buildings with a gross floor area of 100m2 or more will be required to have an energy rating label of C or better by 1 January 2023. The requirement to have at least a level C energy rating label impacts financial institutions with investments and loans in the real estate market for office space. We expect institutions to be aware of the energy rating labels of the office buildings that serve as collateral for their corporate loans and investments. We will also address this subject in our supervision and discuss it with those banks, pension funds and insurers for whom office buildings are a relevant part of their business models.		

1 SREP for banks, ORSA for insurers and ORA for pension funds.

CSR objectives in 2018	Actions and results achieved	Reference to AR	CSR objectives in 2019
Supervision			
	■ Building our knowledge base and promoting the international exchange of best practices: 1. On 6 April 2018, we organised an international conference on climate risks for supervisory authorities. 2. We are part of the Network for Greening the Financial System, in which we work with supervisory authorities from other countries to identify best supervisory practices regarding climate risks. 3. Sustainability & climate risk is now part of the Basic Course in Supervision. This topic was also included in training activities organised by various DNB divisions. 4. Governing Board members and senior management ensured that the financial sector (both nationally and internationally) was aware of our activities in the areas of climate risk and sustainability in 2018 by including the topic in various speeches and by participating in a number of panels. ■ We were instrumental in establishing the Financing Task Group as part of the Dutch Climate Agreement negotiations pursuant to our recommendation to define clear transition paths. We are closely involved in the Task Group, as one of the three secretaries is a DNB staff member. The Climate Agreement was published on 21 December 2018. The Financing Task Group achieved a joint commitment to the Climate Agreement from the financial sector. Nearly the entire Dutch financial sector (VvV, NVB, DUFAS and the major pension funds) will start conducting measurements in 2019 of the carbon footprint of their relevant loans and investments. They will disclose their carbon footprint starting in 2020, and they will set carbon reduction targets by 2022 at the latest. They will report on their progress to the Climate Commission, which has yet to be convened. This is a one-of-a-kind step for the sector, and it is unique in Europe. ■ Encourage supplementary legislation and regulations where necessary/possible: Identifying the need for supplementary legislation and regulations is a component of the proposal mentioned above for incorporating climate risk in our supervisory methodology. The European Commission published the action plan for sustainable growth in March 2018. The plan will result in a wide range of amendments to European regulations and directives. The plan is far-reaching, reducing the need for supplementary CSR-related legislation and regulations at the national level. We will continue to monitor developments in Brussels closely, and we will submit recommendations on the proposals.		

CSR objectives in 2018	Actions and results achieved	Reference to AR	CSR objectives in 2019
Supervision			
■ We will conduct a climate stress test and publicise its outcome internationally.	■ We completed the climate stress test as planned, and we published the results in the Financial Stability Report of late 2018 and in a separate Occasional Study. The method we applied is available for consultation on our website. We presented the climate stress test at various international consultations and at a number of institutions.		
■ We will actively draw the IMF's attention to climate issues, based on our focus areas.	■ The IMF is now focusing more intently on climate issues, incorporating them in its activities such as risk analyses, energy reform efforts and promotion of financial stability.		
■ We will emphasise sustainable business models in our supervisory activities and make institutions aware of sustainability agreements.	■ We launched a project aimed at addressing sustainability and climate aspects during on-site inspections.		
■ We will explore the legal possibilities with regard to performing our tasks. If the current legal framework should provide too narrow a basis for our aspirations, we will look into options for supplementary legislation.	■ We identified the legal possibilities for the supervision of sustainability, with a particular focus on climate risks, and we published an article on our findings in the journal Maandblad voor Vermogensrecht. We also worked with Radboud University Nijmegen on preparations for an international conference entitled Sustainability in the Financial Sector, to be held in March 2019. A book featuring the same title will be published on the occasion of the conference. We were involved in the final editing of the book and we contributed a chapter entitled Climate change and fit and proper testing. ■ We inventoried current CSR-related legislation and shared the results internally. We were closely involved in the New Frontier project, advising on a variety of topics, including current and future possibilities for the supervision of CSR activities, in both the national and the European context. The resulting analyses have not yet resulted in proposals for supplementary legislation.		

CSR objectives in 2018	Actions and results achieved	Reference to AR	CSR objectives in 2019
Supervision			
■ In the area of pensions, we will continue to evolve into a competence centre for ESG and sustainable investments.	■ We developed a variety of initiatives to facilitate our continued development into a centre of expertise on the theme of sustainability in the area of pensions, in particular with regard to sustainable investments. To this end, we conducted in-depth research as mentioned above, we exchanged knowledge to encourage policy development, and our staff members attended seminars and took external training courses. The Pension Supervision division devoted a half day during its training week to sustainability issues. Furthermore, we hosted a group of 65 students from Utrecht University, who presented and discussed their papers on sustainability (with an emphasis on climate risks) during an interactive session. We conducted an in-depth examination of six pension funds and pension providers who are pioneering sustainable investment policies. We discussed the results with representatives of the participating pension funds during an expert meeting. We wrote a letter to the sector with the aim of providing other funds with guidelines for structuring their sustainable investment policies. We published this letter on our Open Book on Supervision website.		
■ We will widely publicise the introduction of IORP II, scheduled for 2019, and its implementation to urge pension funds to make sure they are ready. This directive is the first to explicitly include ESG standards in the prudential supervision framework for pension funds.	■ We worked on our own preparations for IORP II, which makes sustainability an explicit component of the prudential supervision framework. We spoke with pension fund directors about sustainable investment in a number of workshops at the Pension Seminar, that was held on 13 September 2018. Prior to the seminar, we organised an expert session on IORP II specifically for pension fund directors. We also focused attention on sustainable investments at DNB seminars for actuaries and asset managers.		
■ DNB will continue to examine investment policies among insurers and incorporate our findings into our regular supervision.	■ We conducted a sector-wide analysis of sustainable investment by insurers based on their 2017 annual statements. The analysis looked at statutory investment bans (i.e. on cluster munition), investments that carry a risk of reputational damage (i.e. tobacco and nuclear weapons) and investments that may be negatively impacted by the energy transition ("stranded assets"). In addition, the macro register of late 2018 (as part of Focus) explicitly emphasised risks associated with climate change and the energy transition. This was scored as part of the Focus risk analysis for each institution.		

CSR objectives in 2018	Actions and results achieved	Reference to AR	CSR objectives in 2019
Supervision			
■ We will formulate a sector-wide strategy setting out the behaviour required to contribute to a future-oriented, adaptive and sustainable financial sector.	■ We created a new framework in the first quarter of 2018 for assessing the adaptability of pension funds. Assessment methods for adaptability are now in place for all sectors. We also shared our vision on cultural change with the sector in FSB reports in the first quarter of 2018. We organised, in tandem with the Sustainable Finance Lab, a round-table with directors of financial institutions on ways for purpose-driven finance to contribute to a sustainable financial sector. Prior to the meeting, we wrote a memorandum together with the Sustainable Finance Lab, highlighting the value of purpose-driven finance. ■ Finally, we prepared a draft memorandum containing the basic elements for a new vision on adaptability. We conducted six examinations in 2018 in which we studied key aspects of change. In addition, we actively monitored change processes at institutions as a follow-up to earlier DNB examinations.		
■ As part of our market access policy, we will encourage each new market entrant to devote attention to sustainability, including by requiring that they have exit plans in place. This will ensure that if they should be forced to wind up their enterprise, the financial impact on society will be kept to a minimum.	■ We required each license applicant to have an exit plan in place that can be activated if necessary to wind up the enterprise. The application form and the associated explanatory notes in the Digital Supervision Portal mention the requirement of submitting an exit plan. The proportionality principle determines the structure and form an exit plan should have on a case-by-case basis. The plan might therefore be quite basic upon initial application. The added value of an exit plan has garnered international attention. Such a plan was activated last year, partly precipitated by results that fell short of prognoses. We were able to revoke the license a few months after the company terminated its activities while avoiding damage to the customer. In such cases an exit plan is beneficial both for the institution as well as for the case managers, for the plan facilitates a smooth exit.		
■ As part of our resolution task, we will express our commitment to a sustainable investment policy of the Single Resolution Fund (SRF), allowing for the highly liquid nature of the fund's assets.	■ The SRF/SRB investment mandate now includes a reference to ESG criteria which are to be applied to investments in the corporate bond portfolio. These represent 5% of the strategic asset allocation in SRF investments, which consists primarily of government bonds.		

CSR objectives in 2018	Actions and results achieved	Reference to AR	CSR objectives in 2019
Economic policy and research			
■ We will devote explicit attention to heterogeneity and allocation issues as part of our macroeconomic analysis of sustainable developments in economic activity, wages and prices and their determinants. Heterogeneity has many dimensions, such as age (young vs elderly), terms of employment (permanent vs flexible), income and wealth levels, access to financing and the housing market, as well as patterns that change over time. We will identify the implications of the energy transition and its funding for the Netherlands, placing a special focus on the macroeconomic consequences of the transition for the industrial sector. We will communicate this by means of innovative analyses and publications, deploying applied research and proprietary modelling tools, while exerting palpable influence on the policy agenda.	■ We played an advisory role during a hearing in the House of Representatives on wage trends. The hearing was called partly in response to a DNBulletin published in 2018 on the relationship between the labour income share (LIS) and labour market flexibilisation. ■ We published the Occasional Study entitled The price of transition: an analysis of the economic implications of carbon taxing, in the fourth quarter of 2018. This presented our research into sector-specific effects of carbon taxation on the Dutch economy, emphasising the potential consequences for competitiveness. ■ We published a DNBulletin entitled "Impact on the Dutch economy from carbon tax expected to be manageable". ■ We also participated in a round-table at the Dutch House of Representatives on the costs and benefits of the proposed Climate Act. ■ We conducted and published innovative analyses.	4.2.2 Advice and research on economic policy: a partner in the public debate based on facts Annexes: Advice and research	■ We will continue to conduct research on the economic impact of the energy transition. This started in 2018 with the publication of an Occasional Study, which showed that a broadening or increase of the tax that corporations pay on their greenhouse gas emissions does not have to exert a major impact on the Dutch economy as a whole. ■ We will take a critical stance on compliance with the Dutch Climate Agreement and advise the government as necessary. We will also remain closely involved in the Financing Task Group (one of the three secretaries is a DNB staff member), which advises the Climate Agreement negotiators on the financial feasibility of the proposals. We will also study the financial implications of the energy transition, in particular the development of green financing. For example, the Cabinet is considering allowing certain forms of building-specific financing to accelerate the transition to sustainable owner-occupied housing stocks in the Netherlands. The market for green bonds is also showing rapid growth. We are giving careful consideration to the desirability of such developments, and we are looking at alternative means to encourage the further development of a sustainable economy. We will continue to publicise our findings in the area of sustainability in speeches and publications. ■ We will conduct in-depth analyses of the labour market, housing market and lending in 2019. The analyses will focus on possibilities for enhancing accessibility and inclusiveness in these markets. We will also continue to devote attention to the sustainability of the pension system and public finances. Moreover, we will call attention to the distribution of prosperity and inclusiveness in the economic system in our recommendations on the labour income share and the socio-financial position of self-employed individuals.

CSR objectives in 2018	Actions and results achieved	Reference to AR	CSR objectives in 2019
Stakeholdermanagement			
■ We will put the outcome of the 2017 stakeholder dialogue about CSR aspects into DNB-specific action. This will be further elaborated by the CSR Committee.	■ The outcome of the 2017 stakeholder dialogue on CSR was discussed with the CSR Committee. This resulted in a decision to embed CSR more firmly throughout the organisation. To this end, a discussion document was submitted to the Governing Board. It was also decided to draft a new CSR strategy, the key points of which were adopted in September 2018 and are now being elaborated.	CSR: working on sustainable prosperity in all core tasks	
■ We will implement the results of the Sustainable Finance Platform's working groups in the sector.	■ In April, the Climate Risks Working Group published its final report, which provides insight into the ways in which financial institutions currently incorporate climate-related risks and opportunities in their investment decisions. ■ The Education and Communication Working Group developed various activities in 2018: the second edition of the Finance in Transition training module took place at Nyenrode University in May. A seminar on the role of executive education in sustainable finance was held on 16 March, and on 10 October we organised a conference for communication professionals in the financial sector. ■ The Platform Carbon Accounting Financials (PCAF) Working Group presented its final report on 29 November: Harmonising and implementing a carbon accounting approach for the financial sector. ■ On 25 September the Constraints and Incentives Working Group (chaired by DNB) published its study into constraints in financial rules and regulations that could potentially hamper sustainable finance.		

CSR objectives in 2018	Actions and results achieved	Reference to AR	CSR objectives in 2019
Payment systems			
■ We will put sustainability on the agendas of meetings with market parties at least once a year.	■ We discussed sustainability with a payment card provider that also processes card payments. This discussion also included the results of the 2017 Life Cycle Analysis of debit card payments, and measures taken by the company itself to enhance sustainability. We saw no reason to engage other companies in discussion in 2018, as the environmental impact of debit card payments is negligible, and because payment card providers and payment processing service providers are already putting effort into making debit card transactions more sustainable.	4.2.3 Payment system: secure, reliable and efficient Annexes: Payment systems	■ The National Forum on the Payments System will act on the outcomes of a market survey into the accessibility and availability of payment services for vulnerable groups. In addition, when looking at payment innovations, structural attention will be paid to the possible consequences for digital inclusion. At the European level, DNB's efforts will include active support for Pay-Able (a platform dedicated to barrier-free access to payment terminals for people with a physical disability) and its co-chairmanship of the ECB's Euro Retail Payments Board working group on Accessibility, which supervises accessibility of payment services in the European context. ■ Finally, DNB will actively propagate its vision on financial inclusion at both the national and international level. Activities in this context include the organisation of the Financial Inclusion Conference in 2019 and participation in the Financial Inclusion Global Initiative of the World Bank.
■ We will take the interests of vulnerable groups into account through the National Forum on the Payment System (NPFS). a. We will continue the Forum's regular activities through participation in the Working Group on Accessibility and Availability and the Working Group on Security. b. We will study the problems which vulnerable groups experience when dealing with payment systems. c. We will assist the Pay-Able platform in calling for pan-European solutions to accessibility issues.	■ The Working Group on Availability and Accessibility met several times in 2018. The Working Group on Security saw no reason to address the topic of accessibility for vulnerable groups last year. ■ The national coverage rate of ATMs is still high. By mid-2018, 99.55% of Dutch households resided within a five-kilometre radius of an ATM. ■ The NFPS produced informational materials for businesses on the potential consequences of Brexit on their payment systems and measures they could take to mitigate disruptions. ■ In 2018, the Forum started a public information campaign on the DNB website about the implications of the revised European Payment Services Directive (PSD2). ■ A market research agency studied the problems that vulnerable groups experience when dealing with payment systems. The Forum decided to share and discuss the study results with banks in 2019. ■ The ECB published the ERPB Informal Working Group on Accessibility's final report on 28 November 2018. We were involved as the Informal Working Group's co-chair and secretary. ■ We provided active support to the European Pay-Able platform in its efforts to promote standardisation of payment terminals throughout Europe and to include payment terminal standardisation in the European Accessibility Act.		

CSR objectives in 2018	Actions and results achieved	Reference to AR	CSR objectives in 2019
Payment systems			
■ We will promote financial inclusion in various areas.	■ The Working Group on Financial Inclusion focuses on this topic. We promoted it at the biennial international seminar on financial inclusion (that we will organise once again in 2019) and during a webinar on 14 June that was presented by the Center of Excellence and Finance (CEF) on the theme of financial inclusion and payment systems. ■ We completed a study into financial inclusion among young people in July and presented our results in-house. We also initiated a study into the influence of financial education, inclusion and financial stability. ■ The activities performed by the Financial Inclusion Global Initiative have suffered a delay due to the appointment of new chairpersons. We took part in the incentives workstream in 2018. The objective is to develop a toolkit that countries can use to encourage a range of stakeholders to embrace electronic payment products and services. We participated in two rounds of telephone consultations on 18 April and 30 May to provide input on the EPA Incentives Deliverable document, which was finalised in September.		
■ We will complete the study into the environmental impact of cash and prepare a DNB Working Paper. We will use these as a basis for engaging in dialogue with stakeholders to assess the feasibility of environmental impact reduction measures.	■ We completed the study into the environmental impact of cash and published it as DNB Working Paper #610. We submitted this publication for inclusion in a scientific journal. We also presented the results at the meeting of various European bodies such as BANCO and EURECA.		
■ We will continue efforts aimed at extending the life cycle of banknotes. - We will reduce the number of banknotes that are rejected unnecessarily by recalibrating our sorting machines for improved classification. - We will set an example for the rest of Europe when it comes to reducing the number of banknotes that are rejected unnecessarily.	■ We co-organised the Banknote Analytics Seminar in Israel that focused on technology for improving the sorting process.		

CSR objectives in 2018	Actions and results achieved	Reference to AR	CSR objectives in 2019
Payment systems			
■ We will promote the exchange or sale of coins.	■ In 2018 as in previous years, we exchanged vast amounts of coins with other European countries. As an example, we sold 10.5 million coins of 1 and 2 eurocent denominations to Luxembourg. We also discussed this topic in the Euro Coin Subcommittee and the Euro Coin Operational Working Group.		
■ We will lend assistance in combating crime in the cash chain by investigating options for rendering banknotes unusable.	■ We are currently studying ways to identify banknotes soiled with ink during ATM robberies. We are also developing improved methods for detecting such banknotes during our mechanical sorting process.		
Financial markets and reserve management			
■ We will integrate CSR policy into in-house and external asset management, based on internationally accepted principles, standards and codes, such as PRI and the UN Global Compact (UNGC). We will endeavour to exert positive influence, preferring ESG integration and engagement over positive selection. We will only opt for negative selection in the event of serious non-compliance with the UNGC. We will monitor or initiate the CSR dialogue with respect to underlying investments.	■ We integrated ESG criteria in both in-house and externally managed investments in the context of our socially responsible investment goals. We invested part of our in-house portfolio in socially responsible bonds (development banks, and green bonds). We also integrated ESG criteria into our externally managed portfolio. Moreover, we selected investment strategies that preclude investments in controversial weapons, pursuant to international treaties and conventions.	4.2.5 Reserve management: prudent and responsible own investments Annexes: Explanatory notes on DNB's financial position, risks and results.	■ We were the world's first central bank to sign the Principles for Responsible Investment (PRI) in 2019. DNB has thereby committed itself to integrating six responsible investment principles. One of these principles outlines the obligation to issue an annual public report on its RI activities.[2] The signing of the PRI coincided with the publication of DNB's Responsible Investment Charter, which outlines its RI policy. As part of this policy DNB integrates ESG criteria into its internally and externally managed assets. Internally, DNB invests where possible in bonds with a sustainable purpose, such as green bonds and bonds of development banks. DNB also wants to factor ESG criteria into the internal investment risk limits that it sets for countries, issuers and counterparties.Exclusion, ESG integration and voting and engagement strategies will be applied to externally managed assets. DNB selects and monitors external managers based on whether they take ESG criteria into account in their investment decisions.

2 We signed the PRI in our role as an asset manager. Asset purchases made in the context of monetary policy therefore fall outside the scope of PRI. The associated reports will therefore only cover internally and externally managed investments.

CSR objectives in 2018	Actions and results achieved	Reference to AR	CSR objectives in 2019
Financial markets and reserve management			
■ We will host a sustainable investment seminar for central banks.	■ We organised a conference on 21 September to promote the external exchange of knowledge. The conference was entitled A New Financial Paradigm: Sustainable & Responsible Investment – A call to action for central banks. It took place under the auspices of the Network for Greening the Financial System (NGFS). The aim of the conference was to share best practices for central banks to integrate sustainability considerations in their reserve management. Around 150 senior policy-makers participated, including governors from the central banks of France, Switzerland and the Netherlands.		
■ We will share expertise on socially responsible investment with influential investors.	■ In 2018 we participated as a panel member in the DNB seminar for asset managers. Influential investors were present, and we promoted principles of sustainable investment.		
■ We will share expertise on socially responsible investment with influential investors.	■ In 2018 we participated as a panel member in the DNB seminar for asset managers. Influential investors were present, and we promoted principles of sustainable investment.		
■ We will conduct CSR market research.	■ We conducted research into the green bond issued by the Dutch government. Moreover, we are currently involved in NGFS Working Group 3 on mainstreaming green finance, which is developing best practices for central banks to promote green finance.		
■ We will look into endorsing principles and codes of conduct, such as PRI and stewardship codes.	■ We are the world's first central bank to sign the UN Principles for Responsible Investment (PRI) in 2019. This involves a commitment to six principles of responsible or ethical investing, including the obligation to publish an annual report on PRI activities.		

CSR objectives in 2018	Actions and results achieved	Reference to AR	CSR objectives in 2019
Operational management			
■ We will develop our diversity policy and monitor its implementation, including progress towards targets in the area of participation policy, permanent employability and the fulfilment of management positions.	■ We adopted a new vision on diversity in 2018 and we developed a diversity strategy with key action points. In the years ahead we will focus on gender diversity, cultural diversity and people with an occupational disability. Women hold 33% of management positions. The Management Committee was closely involved in setting this target percentage. Fifteen additional positions have been created in Internal Operations with a view to employing more individuals with an occupational disability. We have participated in Utrecht University's Inclusivity Monitor, and we will conduct a survey in January 2019 to determine how many of our employees come from a non-western migrant background. We have adopted a new vision on sustainable employability and we have initiated a programme to keep our employees healthy and motivated while they refine their competencies as their careers progress.	4.3 Operational management and the DNB mission Annexes: HR policy Annexes: Environmental awareness and sustainable procurement.	■ In the coming years, DNB's office at Frederiksplein will be renovated and a cash centre will be built. Preparations will be made in 2019 to achieve the ambitious sustainability goals. To objectively measure and assure progress on these goals DNB will use certification. ■ DNB will also take the broader social context into account in all procurement procedures, including arrangements in the fields of climate, environment, circularity and labour participation. ■ Next to that, DNB sets sustainability requirements for the implementation of new ICT services. Suppliers taking part in large sourcing projects are requested to commit to these requirements. The aim is to minimise adverse environmental impacts and maximise social returns. During the procurement procedure, arrangements are made to create extra jobs for people with a disadvantage in the labour market.
■ We will ensure readiness for applying the new GRI Sustainability Reporting Standards (SRS) in the 2018 Annual Report.	■ GRI Standards (SRS) have been applied in the 2018 Annual Report.		
■ We will explicitly consider aspects of sustainability as we elaborate our plans for our buildings and facilities and for outsourcing, making use of the framework provided by our sustainability ambition adopted in late 2017.	■ This ambition serves as the basis for the execution of our buildings and facilities projects. We selected new partners in the tender procedures (both sourcing and co-sourcing) partly based on CSR-specific questions.		
■ We will ensure that our second and third-line functions devote explicit attention to CSR processes at DNB as part of their duties.	■ The second-line functions emphasised CSR processes by incorporating CSR objectives in the planning and control cycle. ■ The internal audit department (IAD - the third-line function) was actively involved in auditing CSR accountability at DNB. The IAD worked with the external auditor to ensure issuance of the external auditor's unqualified assurance report. ■ The IAD also contributed to our CSR objectives by issuing a recommendation following operational audits to review sustainability aspects of DNB's travel policy.		

CSR objectives in 2018	Actions and results achieved	Reference to AR	CSR objectives in 2019
Bedrijfsvoering			
■ We will lower the barriers to in-house collaboration further, including by experimenting with new working methods and greater penetration of IT functionality. We will step up digital collaboration, for example by introducing Skype for Business and reducing paperwork.	■ We introduced Skype for Business (chat and video calling) and WebEx (video conferencing) with the ECB. Very few workstations now feature a telephone set. SharePoint applications are now available on mobile devices, which fosters digital working methods and collaboration. New functions have been added to the Digital Supervision Portal (DLT), resulting in less paperwork.		

Annex 2 Dialogue with our stakeholders

Results of bank-wide stakeholder survey

At DNB, we feel it is very important to engage our stakeholders in dialogue. As an organisation, we are open and receptive to the world around us. Our employees are empowered to engage with relevant stakeholders to give shape and substance to our mission. Effective interaction with stakeholders enhances our own effectiveness and legitimacy.

It is essential for us to be apprised of how our stakeholders see their relationship with us and whether they have suggestions for improving things. This is the best way to ensure smooth and fruitful contact with them through account consultations, round-tables, seminars, scientific conferences, speeches, press conferences and survey panels. To this end, we conduct stakeholder surveys on a regular basis, and we published the results of a bank-wide stakeholder survey in April 2018. This was the very first time that we surveyed stakeholders that are directly affected by our central-bank tasks. Earlier surveys focused on external stakeholders affected by our supervisory function.

The stakeholder survey consisted of a questionnaire that was filled in by 492 respondents. Furthermore, we held 58 interviews with individual stakeholders. Various stakeholders participated in the survey, including representatives of supervised institutions, members of special-interest groups, scientists, politicians and policymakers, and journalists. When selecting stakeholders to participate in the survey, we looked primarily at their degree of involvement with us as a central bank. In general, survey respondents find that we are becoming more and more approachable and transparent, while also indicating that there should be more scope for dialogue and cooperation.

Professional, diligent and dependable

The broad range of stakeholders find DNB and our staff to be professional, diligent and dependable, which makes for high-quality output. The respondents awarded us a rating of "very good" on reputation, and hold a positive opinion on our overall effectiveness. They also indicated that we have become more approachable and transparent over the years. Moreover, they also find that we take a more pragmatic approach to our activities than in years past. Supervised institutions find our supervision to be strict and proactive. They highlight the fact that we have adapted our fit and proper assessments, and consider this a marked improvement, which they welcome.

More dialogue and collaboration

Although DNB has become more approachable, stakeholders have indicated that they would appreciate even more dialogue and cooperation. Stakeholders also say that we would benefit from adjusting our style as an influencer by becoming more sensitive to the political landscape. They also find that there are still too many departmental silos, which sometimes results in mixed messages being conveyed. A less formal and distant stance would further improve the effectiveness of our supervision. Sharing more process-related information, improving feedback given on examination results, and stricter prioritisation and a more tailored approach to supervision are also among the points for improvement mentioned. The survey results show that some of our stakeholders are unfamiliar with our internal and external corporate social responsibility (CSR) policies.

Action points

We used the survey results to compile a list of action points, and we monitor their implementation on a regular basis.

We consider the call for more dialogue as a further stimulus for continuing our round-tables and other interactive sessions. We expect to become more effective and sensitive in terms of our influencing style as we more take a more structured approach to identifying potential opportunities and obstacles by analysing the various factors at play. To ensure consistency in our communications, we will continue improving alignment and coordination between our organisational units.

In order to make our supervision process more transparent, we have launched various initiatives to share more process-related information and improve the feedback on the examination results that we provide to supervised institutions. We are also continuing to monitor the effectiveness of our supervision activities.

We were intrigued to discover that some of our stakeholders were insufficiently aware of our CSR policy. This helped to inform us as we developed our new CSR strategy. We intend to put additional effort into communicating about this strategy, specifically with regard to how we embed our CSR policy in our core tasks. In addition, we will continue emphasising the correlation between our CSR policy and our mandate as a central bank and supervisory authority.

Table 4.12 Dialogue with our stakeholders

Stakeholders	Form of dialogue	Results	Our follow-up
Staff members	Information sessions, discussion meetings, Works Council.	The Governing Board presented and discussed important changes (strategy, reconfiguration of internal operations, pay structure redesign) at DNB-wide sessions.	We will invite our employees and management to provide input and share their thoughts on developments relating to DNB on an ongoing basis.
Public	Reputation measurement among the general public and financial citizens (quarterly Quantitative and qualitative surveys of public respondents' panels conducted by the Kantar market research agency.	In Q1, Q2 and Q3 2018, the average reputation scores were 62 among the general public and 70 among financial citizens. Inventory of public expectations regarding the legal concept of social propriety, and the public's expectations of our take on it. The public respondents' panel was also asked about our activities in the area of sustainability.	We will take the outcome of the reputation measurement on board in our communication and other strategies. We will verify the effectiveness of the information about supervisory topics that we provide on a more permanent basis among external respondents' panels.
	Gathering feedback from the public respondents' panel during a public event that addresses planned policies, or collecting views on themes relevant in the financial sector.		We will continue gathering feedback from the public respondents' panel during public events that address themes relevant in the financial sector.
Media	Press conferences, master classes and one-on-one sessions with DNB Governing Board members or in-house experts.	We have increased journalists' knowledge of themes relevant in the financial sector and our role as a central bank and supervisory authority.	We organise these events at fixed times during the calendar year, coinciding with the release of our Annual Report and independent public body (ZBO) report, and on an ad-hoc basis to mark new publications or relevant developments in the financial sector.
External stakeholders	Biennial stakeholder analysis, in which financial institutions and other external stakeholders are asked about their experiences with DNB. Discussion of report and adoption of follow-up by the Governing Board.	Talks with outside parties provide a basis for identifying the main trends and developments and for determining how we need to adjust our strategy and policy in response.	We will provide feedback to the stakeholder analysis participants, to our employees, during our Annual Report press conference, and through our website.
	We regularly invite actuaries, auditors and analysts to afternoon sessions specifically for these groups where we provide an explanation of our policy.		We will adjust our strategy, policies or working methods where needed.
Providers and users of payment systems	The NFPS meets twice a year. In addition, various working groups have also been convened.	We use our participation in the Forum to ensure that cash remains a means of payment. We have conducted research into cash under PSD2 and we have made information on this topic available to stakeholders.	We will continue to emphasise the availability and accessibility of payment methods and respond to technological developments and their consequences for market participants.

Stakeholders	Dialoogvorm	Uitkomsten	Follow-up DNB
Supervised financial institutions	Biennial stakeholder analysis, in which financial institutions and other external stakeholders are asked about their experiences with DNB. Discussion of report and adoption of follow-up by the Governing Board.	Sector participants feel that we are well-informed about relevant developments, that we engage in dialogue effectively, and that we are decisive. They ask that we work on improving our transparency and that we look more closely at the level of cooperation between supervisors at DNB.	Follow-up will be communicated directly to the participants in the stakeholder talks and on our website.
	Various round-tables and seminars on transaction monitoring, the implementation of PSD2, the revised deposit guarantee scheme, information security and cybercrime, resolution of small and medium-sized banks, social propriety, the proportionality principle and the unintended effects of regulation and operational risks associated with FinTech.	Following the round-tables on transaction monitoring, banks are now working with public parties to develop initiatives for more effective transaction monitoring.	
	Meetings of the Sustainable Finance Platform	Identify and elaborate priorities in the area of sustainability in the financial sector.	We will play a role in promoting sustainability in the financial sector.
Industry associations of supervised financial institutions	Executive consultation with separate industry associations (four times a year), in the presence of the Governing Board members responsible for the relevant sectors. Panel meetings on budget and accountability (twice a year), in the presence of the Governing Board members.	The most important developments were announced and explained, and new regulations were explained. There was a controlled rise in supervision costs.	Feedback from the sector will be taken into consideration when drawing up and interpreting legislation and regulations, and will help ensure that cooperation with the sector is effective and efficient.
Bank Council	The Bank Council meets four times a year in the presence of the Governing Board and a representative of the Dutch Ministry of Finance.	The Governing Board reports on general economic and financial developments and discusses the policies DNB has pursued. The members of the Bank Council may also place items on the agenda.	The Bank Council has acted as a sounding board for the Governing Board. The Bank Council may advise the Governing Board. The discussions provided us with input for strategic decision-making.
Non-governmental organisations	Round-table on CSR dialogue.	Discussion on our new CSR strategy.	Prioritisation of CSR issues. We will play a role in promoting sustainability in the financial sector.
Politics	Hearings and expert meetings on a variety of topics including the pension system and new pension contracts, remuneration policy, capital buffers at banks and the settlement between the Public Prosecution Service and ING Bank. The President of our Governing Board regularly speaks on monetary affairs.	We explained relevant developments in the financial sector, economic developments and our views on these developments.	The ongoing debate will serve as input for our policies.

Results of stakeholder dialogue on CSR

At the request of the Governing Board, we asked seven supervised institutions, three umbrella organisations in the financial sector and seven NGOs to assess our new CSR strategy. We asked these stakeholders to assess the degree to which our CSR strategy aligns with our mission and core tasks, and to indicate on which SDGs we have the greatest impact.

Discussions with the financial sector

We selected dialogue partners from the financial sector based on their membership in the Sustainable Finance Platform. They expressed appreciation during the discussions for the role we have taken on in promoting the topic of sustainability, and they encouraged us to continue. They also understand our selection of SDGs and they are aware that the SDGs chosen are those on which we have the most profound impact. The sector does not expect us to be a leader with regard to impact assessment, as it is difficult to measure our impact (i.e. in our role as an advisor to the government). Some stakeholders suggested that we should conduct research into methods to encourage the development of the circular economy. This will be a recurring theme in the years to come as we continue to study the topic of the carbon-neutral economy.

NGO round-table

We invited NGOs based on their involvement in sustainability issues and their expertise in this area. Their feedback on our CSR strategy was positive. In their view, our strategy touches on all essential themes. However, they did ask us about the links between our strategy and the chosen SDGs, and they wished to know why we had not opted for a comprehensive approach that included all SDGs. They nevertheless appreciate our special position and they understand our choice of SDGs in view of our mandate as a central bank and supervisory authority. The NGOs indicated that it was not always clear which role (i.e. central bank or supervisory authority) applied to which action points. This has now been specified in the strategy.

Annex 3 Materiality analysis

CSR was one of the themes presented in the stakeholder survey discussed in Annex 2 We use the outcome of the stakeholder survey as input for our CSR materiality analysis. This analysis informs the choices we make with regard to the CSR activities we wish to focus on by giving us insight into considerations of relevance, importance and influence. We formulated the following question to gain insight into the impact we can have on CSR in the areas where we are active:

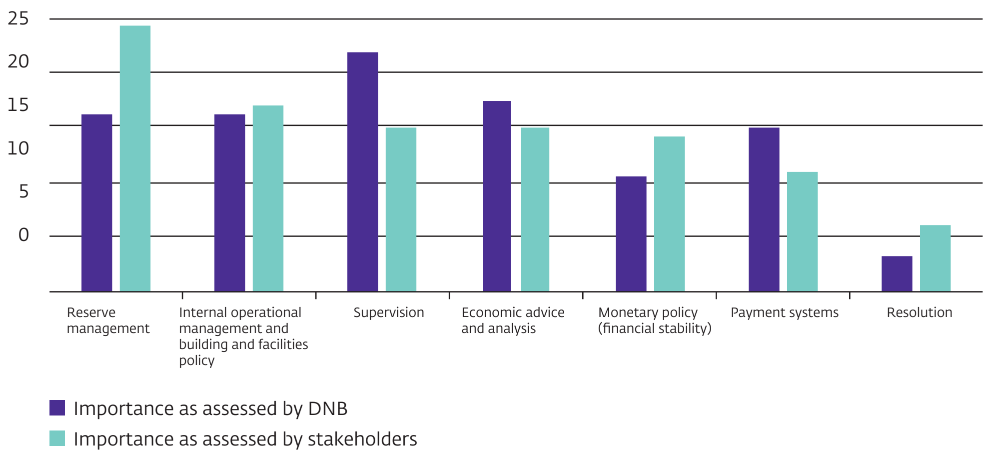
"How do you rate the importance of CSR in the following seven areas?"

We asked stakeholders to score the seven activities by assigning a total of 100 points to them. These activities correspond to our core tasks, our internal operational management and our building and facilities policy. We asked internal stakeholders to do the same. This group included Governing Board members, division directors and staff members directly involved in CSR at DNB. Twenty-seven individuals responded.

Figure 4.3 presents the average weighted points assigned to each activity. Figure 4.4 shows that both external and in-house stakeholders assigned more points to the first four activities, thus indicating the relative importance of CSR in these areas. It is striking that in-house stakeholders expect a greater CSR impact from our supervisory duties. They gave the most weighted points to this activity, whereas external stakeholders placed the emphasis on reserve management. A possible explanation is that external stakeholders are insufficiently aware of the CSR impact we can have in our supervisory duties.

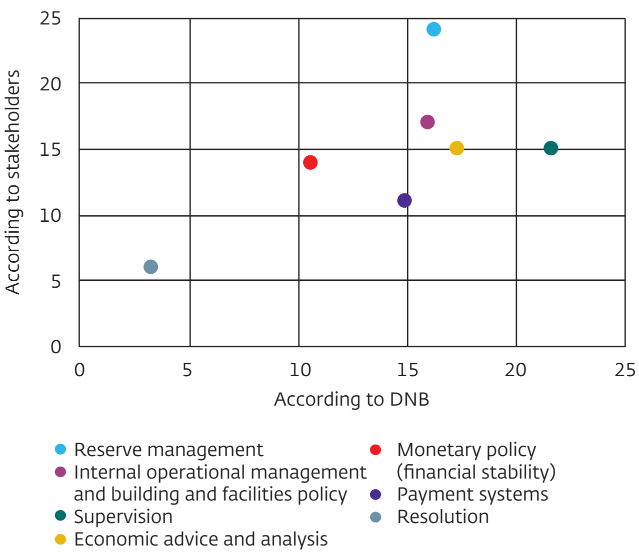
See the glossary for a brief description of each activity.

Figure 4.3 Importance of CSR in core tasks as assessed by external and in-house stakeholders



The results of the survey among external and in-house stakeholders serve as the basis for our CSR materiality analysis. The Y axis indicates the importance external stakeholders attach to the seven DNB activities. In-house stakeholders are represented on the X axis.

Figure 4.4 Materiality analysis



All DNB activities are in the public interest, which is why we have opted for a materiality analysis that has been structured specifically with our unique situation in mind. In relation to our CSR policy, a number of activities score high along both axes. This includes supervision, reserve management, economic advice and analysis, and internal operations and building and facilities policy. Some activities score significantly lower: the least amount of importance is attached to CSR as part of our resolution task.

The results of the materiality analysis served as the basis for identifying the high-priority themes in our CSR strategy that are part of our aim to create an economic climate that will foster sustainable prosperity. Our strategy has a specific focus on those activities that both external and in-house stakeholders see as most important for CSR purposes: reserve management, internal operational management, and building and facilities policy, economic advice and analysis, and payment systems.

GRI Content Index

GRI 102: General disclosures 2016

SRS reference:	Description:	Reference or direct answer:
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102-7	Scale of the organisation	■ Table 4.1 Key HR figures ■ Table 4.9 Composition of own-account investments and other portfolios ■ Annual accounts
102-8	Information on workforce and other staff	■ Table 4.1 Key HR figures
102-9	Description of the chain	■ 4.1 Introduction ■ 4.2.3 Payment system: secure, reliable and efficient ■ Annexes: Sustainable procurement ■ Annexes: Payment systems
102-10	Significant changes affecting the organisation and the chain	■ Annexes: Explanatory notes on DNB's financial position, risks and results ■ Annex 5: Scope
102-11	Explanatory notes on the application of the precautionary principle	■ Annexes: Risk management
102-12	External initiatives	■ Staff members [Talent to the Top Charter] ■ Environment [ISO 14001:2015] ■ Sustainable procurement [Green deal] ■ Own-account investments [UN Principles for Responsible Investment and UN Global Compact]
102-13	Membership in sector associations and special-interest groups	■ Section on cooperation on our website

SRS reference:	Description:	Reference or direct answer:
Strategy		
102-14	Statement from most senior decision-maker	■ Introduction by the President
Ethics and integrity		
102-16	Values, principles and standards Standards of conduct	■ 4.1 Introduction ■ CSR: working on sustainable prosperity in all core tasks ■ 4.3.2 Compliance and integrity ■ Annexes: CSR strategy ■ Annexes: Compliance and integrity
Governance		
102-18	Management structure	■ Governance ■ Annexes: Stakeholder dialogue on CSR
Stakeholder engagement		
102-40	List of groups of stakeholders	■ Annex 2 Dialogue with our stakeholders
102-41	Collective labour agreements	■ Annexes: HR policy
102-42	Identifying and selecting stakeholders	■ Annexes: Stakeholder dialogue on CSR ■ Annex 2 Dialogue with our stakeholders
102-43	How we get stakeholders involved	■ Annexes: Stakeholder dialogue on CSR ■ Annex 2 Dialogue with our stakeholders
102-44	Primary topics and issues	■ Annex 2 Dialogue with our stakeholders
Reporting practice		
102-45	The organisation's operational structure	■ Annual accounts ■ Annex 5: About this report
102-46	Contents and scope of the report	■ 4.1. Introduction ■ Annexes: Stakeholder dialogue on CSR ■ Annex 3 Materiality analysis ■ Annex 5 About this report, Scope

SRS reference	Description:	Reference:
102-47	List of material aspects	■ Annexes: Stakeholder dialogue on CSR ■ Annex 3 Materiality analysis
102-48	Revision of information released earlier	■ Annex 5: About this report, Structure of this report
102-49	Changes in reporting	■ Annex 3 Materiality analysis ■ Annex 5 About this report
102-50	Reporting period	■ 1 January 2018 – 31 December 2018
102-51	Date of most recent report	■ 28 March 2018
102-52	Reporting cycle	■ Annual
102-53	Contact for questions on the report	■ Cover sheet, page 2 ■ mvo@dnb.nl
102-54	Claims regarding reporting in accordance with GRI Standards	■ Annex 5: About this report - Scope
102-55	GRI Contents	■ Annex 4: GRI Content Index
102-56	External assurance	■ Annex 5: About this report - Structure of this report

Topic-specific Standards

SRS reference	Description:	Reference:
Material aspect: Internal operational management and building and facilities policy		
103-1/2/3	Management approach disclosures	■ 4.3 Operational management and the DNB mission ■ Annexes: HR policy ■ Annexes: Environmental awareness and sustainable procurement ■ Annex 1: Overview of CSR objectives and results ■ Annex 3: Materiality analysis ■ Annex 5: Method of management and evaluation, Definitions
305-1	Direct greenhouse gas (GHG) emissions (Scope 1)	■ Table 4.6 Measured environmental data and explanation of policy and activities
305-2	Energy indirect greenhouse gas (GHG) emissions (Scope 2)	■ Table 4.6 Measured environmental data and explanation of policy and activities
305-3	Other indirect greenhouse gas (GHG) emissions (Scope 3)	■ Table 4.6 Measured environmental data and explanation of policy and activities

SRS reference	Description:	Reference:
308-1	Percentage of suppliers screened for CSR	■ Annexes: Environmental awareness and sustainable procurement, Sustainable procurement
403-2	Absence due to illness	■ Annexes: HR Policies, Occupational health and safety ■ We do not make any administrative distinction between genders. Pursuant to the Working Conditions and Safety Act (Arbowet), we report incidents to the Inspectorate that involve death, permanent injury or hospital admission. We also register incidents that result in more than three days of absence. There have been no such incidents in these categories.
404-2	Education and training	■ 4.3.1 HR policy ■ Annexes: HR policy, Staff mobility, Development ■ Annex 1: Overview of CSR objectives and results ■ Annex 5: About this report, Annex 5: Method of management and evaluation

Material aspect: Payment systems

103-1/2/3	Management approach disclosures	■ 4.2.3 Payment system: secure, reliable and efficient ■ Annexes: Payment systems ■ Annex 1: Overview of CSR objectives and results ■ Annex 3: Materiality analysis ■ Annex 5: Method of management and evaluation, definitions
FS14	Accessibility of payment terminals	■ Annex 1: Overview of CSR objectives and results
Own indicator (DNB 1)	Sustainably sourced paper/cotton for banknotes	■ Annexes: Sustainable procurement ■ Annex 1 Overview of CSR objectives and results

SRS reference	Description:	Reference:
Material aspect: Supervision		
103-1/2/3/	Management approach disclosures	■ 4.2.6. Supervision: sound and ethical financial institutions that meet their obligations ■ Annexes: Financial stability ■ Annexes: Supervision ■ Annex 1: Overview of CSR objectives and results ■ Annex 3: Materiality analysis ■ Annex 5: Method of management and evaluation, Definitions
Own indicator (DNB 2)	Support sustainability based on supervisory role	■ 4.2.6. Supervision: sound and ethical financial institutions that fulfil their obligations ■ Annexes: Financial stability ■ Annexes: Supervision ■ Annex 1: Overview of CSR objectives and results
Material aspect: Economic advice and analysis		
103-1/2/3	Management approach disclosures	■ 4.2.2. Advice and research on economic policy: a partner in the public debate based on facts ■ Annexes: Advice and research ■ Annex 1: Overview of CSR objectives and results ■ Annex 3: Materiality analysis ■ Annex 5: Method of management and evaluation, Definitions
Own indicator (DNB 3)	Publications in the area of sustainability based on economic advisory role	■ 4.2.2. Advice and research on economic policy: a partner in the public debate based on facts ■ Annexes: Advice and research ■ Annex 1: Overview of CSR objectives and results

SRS reference	Description:	Reference:
Material aspect: Monetary policy (financial stability)		
103-1/2/3	Management approach disclosures	■ 4.2.1. Monetary tasks: price stability and balanced macroeconomic development in Europe ■ Annexes: Monetary tasks ■ Annex 1: Overview of CSR objectives and results ■ Annex 3: Materiality analysis ■ Annex 5: Method of management and evaluation, Definitions
Own indicator (DNB 4)	Greatest possible transparency in exercising our mandate on monetary policy	■ Annexes: Monetary tasks
Material aspect: Reserve management		
103-1/2/3	Management approach disclosures	■ 4.2.5 Reserve management: prudent and responsible own investments ■ Annexes: Explanatory notes on DNB's financial position, risks and results ■ Annex 1: Overview of CSR objectives and results ■ Annex 3: Materiality analysis ■ Annex 5: Method of management and evaluation, Definitions
G4 -FS11	Assets subject to screening	■ 4.2.5. Reserve management: prudent and responsible own investments ■ Annexes: Explanatory notes on DNB's financial position, risks and results ■ Annex 1: Overview of CSR objectives and results

Annex 5 About this report

Our mission and ambitions drive the objectives we set ourselves and the activities we undertake. We have further specified our mission – we seek to safeguard financial stability and thus contribute to sustainable prosperity in the Netherlands – producing 11 strategic ambitions in our organisational strategy:

1. DNB is an influential institution in the ESCB, SSM and SRM.
2. DNB is a leading institution in the area of financial stability.
3. DNB stands for efficient and robust payment and securities chains.
4. DNB's supervision sets a benchmark and is authoritative.
5. DNB is an effective resolution authority.
6. DNB influences financial and economic policies in its preferred direction, providing insight into relevant social themes.
7. DNB makes full use of the synergy stemming from its combined role of central bank and resolution authority
8. DNB has excellent people working in all positions.
9. DNB has a modern information system and derives the maximum value from data in the performance of its duties.
10. The tone and content of DNB's communications help it to achieve its mission.
11. DNB's services are modern and cost-conscious.

Together, the mission and ambitions give substance to how we create value for society, based on the role we play in that society. Furthermore, we integrate and anchor sustainability, to the fullest extent possible, into our internal operations and our core tasks, so that we can add value in this way. The image at the top of Chapter 4 in this Annual Report illustrates how we shape our value creation process. It shows that we use the powers vested in us under laws and regulations through the use of financial and human capital and operational management to put our mission and ambitions into practice. The fulfilment of our mission is safeguarded by an integrated planning and control cycle. This ensures that the long-term aspirations in our internal organisational strategy are translated into annual priorities. These are laid down in divisional plans and SMART objectives for employees. We aim to be a learning organisation by conducting quality and impact measurements, performing quality studies and providing training opportunities, and by learning lessons from important cases we handle. This provides input for next year's priority-setting exercise and the review of our aspirations. The image also shows the results from all activities within our core tasks. They refer to the individual paragraphs in Chapter 4, which discuss these results for each core task and for operational management. Combined, they reflect the impact we have on society, namely that DNB seeks to safeguard financial stability, thereby contributing to sustainable prosperity in the Netherland.

Scope

We have prepared this report according to the reporting guidelines of the Global Reporting Initiative (GRI Standards: core option). These GRI guidelines form a general CSR standard that is broken down into different categories and principles. We have selected our material activities on the basis of a stakeholder dialogue and materiality analysis (see Annex 3). We have made one change with regard to materiality since last year's annual report.
To improve overall connectivity in the annual report, we have established a link to our core activities in this year's materiality analysis. Stakeholder management no longer appears as part of the materiality analysis. For reasons of transparency, however, the results achieved in this area are shown in the CSR table (Annex 1).
Report coordination is handled by the CSR Committee with the direct involvement of our senior management. The CSR strategy, including the annual priorities, have been discussed and adopted by the Governing Board. Our reports do not cover activities outside of our own organisation.

No significant changes occurred in DNB's size, structure, ownership or supply chain in 2018.

Any questions or comments concerning this Annual Report can be sent to the following email address: info@dnb.nl.

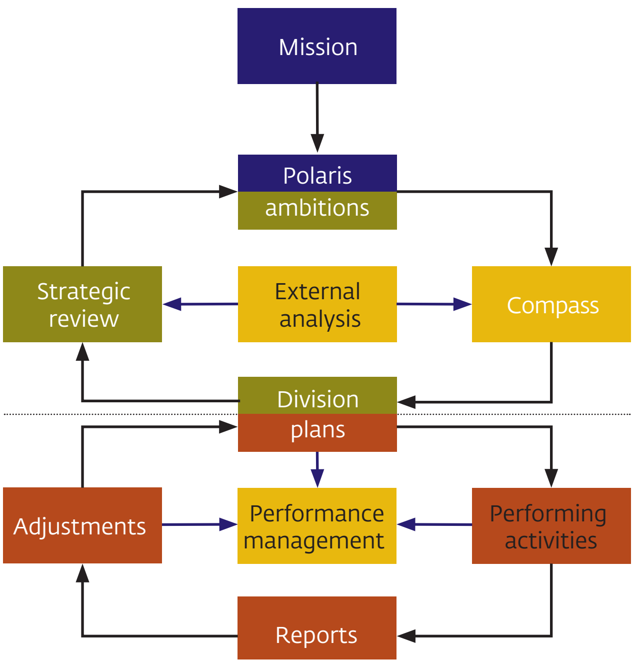
Method of management and evaluation

The CSR table in Annex 1 provides a more detailed explanation of the process and the structure of the CSR policy on our material policy areas, aimed at ensuring that responsibilities, objectives and the monitoring of CSR aspects are properly safeguarded.

Our aim is to incorporate aspects of CSR in the day-to-day performance of our duties. The material CSR topics included in our reports are thus in accordance with our mission and are integrated into our core tasks. We have structured our method of management and evaluation accordingly. With respect to all topics, implementation of the objectives is safeguarded in an integrated planning and control (P&C) cycle, in which we translate the long-term aspirations into annual priorities. We lay down the objectives in each policy areas in division-specific plans and SMART objectives for employees. We monitor progress using the planning and control tool, supplied with data provided by the departments responsible for the objectives. The business controllers from the Finance & Advice department and the Risk Management & Strategy (RMS) department ensure that the reported progress is challenged. Based on this input, the Governing Board receives quarterly reports. In addition, reports are prepared on the specific CSR objectives twice a year. These reports are sent to the Governing Board and the CSR Committee, which is responsible for encouraging all departments and divisions to fulfil their CSR objectives.

Alongside this method of management, the RMS department is also responsible for quality improvements in the organisation's overall performance of its duties. RMS fulfils this quality assurance function throughout the entire DNB organisation (i.e. supervision, central bank, internal operations) with a view to improving not only our processes, but also the underlying substance of our work. In addition, RMS provides support on request to QA procedures in the first line, for example by organising sessions devoted to lessons learned and providing advice on effective working methods. RMS conducts evaluations to identify strengths and weaknesses, resulting in a report on findings and recommendations. The ultimate goal is to enhance our capacity as a learning organisation. The focus of the RMS department's evaluations is not so much on risk-management processes, but more on the primary processes in the first line. Additionally, our Internal Audit department (IAD) conducts independent audits into the effectiveness of the overall risk framework and the consistent application of policies and processes. The IAD then submits periodic reports on its findings to the Governing and Supervisory Boards.

Figure 4.5 Method of management and evaluation



Structure of the Annual Report

Corporate social responsibility follows on directly from our mission, and we have integrated it in all our core tasks. We are an organisation under public law that is dedicated to achieving and maintaining financial stability and sustainable prosperity in the public interest.

The introduction by the President and chapters 1 to 3 of the Annual Report describe the main developments relating to our core tasks and the associated outlook. In these chapters, we take a look ahead and describe how we are responding to the most important risks and challenges, including in the area of CSR where relevant. Chapter 4 reflects on our activities and results in 2018. This chapter also contains a more detailed account of the specific CSR priorities in the core tasks in the year under review. The Annual Report was produced under the direction of an editorial committee, centrally coordinated by the Economic Policy & Research division and the Communications department, with input provided by the CSR Committee and the Risk Management & Strategy department. The IAD and the external auditor verified the Annual Report. We engaged an external agency to provide advice and support for the relevant CSR passages and transparency benchmark. The texts of the Annual Report were discussed and approved by the Governing Board.

Since the previous annual report, we have endeavoured to strengthen and further integrate our vision on CSR and our approach to achieving our CSR objectives. Our CSR Committee has also become more firmly embedded in our organisation, thus allowing for a more structured means of fulfilling our CSR priorities. Moreover, by integrating CSR into our primary tasks, we have expanded our focus and objectives. Annex 1 provides a more detailed explanation of the objectives for the past year and current year in the various material policy areas.

No changes have been made to definitions or methods of measurement. The current parameters as used for the year under review can be found in the Annex on Environmental awareness and sustainable procurement. Staff data has been derived from our HR system, Peoplesoft HCM.

It should be noted that many of our results in the area of CSR are difficult to measure and quantify. Financial stability and sustainable economic growth are outcomes that do not lend themselves to expression in monetary terms. Insofar as CSR data are presented in this Annual Report, such data are objectively observable, and the likelihood that such data have been incorrectly reported is low. In addition, the CSR report was verified by the IAD and our external auditor in order to ensure the reliability of the reported data.

Definitions

Payment system: DNB actively promotes an accessible, secure and reliable payment system. In this regard, we are responsible for issuing euro banknotes and coins in the framework of the Eurosystem, we ensure robust and reliable payment systems and we oversee institutions and systems that process payment transactions. See Section 4.2.3 for our results in this core task in the year under review.

Central Banks and Supervisors Network for Greening the Financial System: network of central banks and supervisors. This international network aims to green the financial system and strengthen the efforts being put forth by the financial sector to achieve the Paris climate agreement goals.

CO_2 credit: a certificate representing an independently verified reduction of one tonne of carbon dioxide equivalent (CO_2-e) from the atmosphere.

CO_2 neutral: the offsetting of all of our CO_2 emissions as shown in Table 4.6.

CSR Committee: DNB committee made up of a number of division directors and heads of department who update the CSR policy every year, promote the integration of the CSR policy into our core tasks and overseeing its implementation.

Economic advice and analysis: DNB provides economic advice to the government and we are represented on important councils and consultative bodies. Thanks to our expertise, reputation and autonomous position, we are able to provide independent economic advice that helps to promote solid national and international decision-making on economic policy. See Section 4.2.2 for our results in this core task in the year under review.

InnovationHub: a help desk that enables entrepreneurs and existing market participants seeking to launch innovative financial services or products to put questions concerning rules and regulations to DNB and the AFM at an early stage.

ISO 14001:2015: an international standard that specifies requirements for an environmental management system that the organisation can use to gain insight into its environmental impact.

NFPS: a group of 15 organisations, chaired by DNB, which focuses on improving the efficiency of the retail payment system.

Socially responsible investment: the policy through which DNB considers environment, social and governance aspects, in addition to financial and economic aspects, when making investment decisions.

Monetary policy: As a member of the Eurosystem, we contribute to decision-making on monetary policy and its implementation. Monetary policy is aimed at price stability, which is defined as an inflation rate of under but close to 2% over the medium term. See Section 4.2.1 and 4.2.5 for our results in this core task in the year under review.

Sustainable Finance Platform: a group formed by the supervisory authorities, sector associations, ministries and the Sustainable Finance Lab that seeks to promote and increase awareness of sustainable finance in the financial sector by coming together to consider ways to avoid or overcome obstacles to sustainable finance.

Reserve management: We are responsible for the reserves and financial assets that are used to underpin confidence in the Dutch financial system and to support the single European monetary policy. See Section 4.2.5 for our results in this core task in the year under review.

Resolution: As the Dutch resolution authority, we seek to ensure that the critical functions of banks are safeguarded to the greatest extent possible, while non-viable institutions or parts of institutions are resolved in an orderly manner. See Section 4.2.7 for our results in this core task in the year under review.

RVO criteria: sustainable procurement criteria used by the Dutch public authorities.

Supervision: We supervise banks, pension funds, insurers and other financial institutions by conducting fit and proper assessments of board members, issuing licenses and combating financial and economic crime. We also assess whether institutions are financially sound and whether they can meet their obligations, even when faced with economic downturns. See Section 4.2.6 for our results in this core task in the year under review.

Sick leave percentage: the sick leave percentage is calculated by dividing the number of days of sick leave in a given period by the average number of staff during that period and multiplying this by the number of days in the period.

Scope and aspect boundaries

The information in this chapter relates to the 2018 reporting year (1 January to 31 December 2018), with the exception of the environmental data, for which the reporting period is the fourth quarter of 2017 to the third quarter of 2018. Chapter 4 is therefore the fulfilment of our obligation to account to external stakeholders for sustainability in the past year.

All DNB locations are wholly owned. Supplier information falls outside the scope of this Annual Report. The calculation of CO_2 emissions covers energy consumption (gas, electricity and diesel for heating) at all DNB locations. CO_2 emissions associated with commuting, business travel and goods transport were also reported on an organisation-wide basis. All information is based on calculations (not estimates), unless stated otherwise. The table on the method of management and evaluation, as contained in this Annex, describes the scope and the internal safeguards relating to the CSR aspects.

Benchmark

DNB takes part in the Ministry of Economic Affairs and Climate Policy's Transparency Benchmark on CSR reporting. The Ministry defines the benchmark criteria and arranges the biennial benchmarking in order to learn about the transparency of CSR reporting by the Netherlands' largest enterprises. Table 4.14 below shows our score in the transparency benchmark and our ranking compared to other organisations.

Table 4.14 Our score in the Transparency Benchmark

	Points	Ranking (total number of organisations)
2017 (Annual Report 2016)	186	26 (477)
2016 (Annual Report 2015)	170	53 (483)
2015 (Annual Report 2014)	174	22 (461)
2014 (Annual Report 2013)	150	57 (242)

www.transparantiebenchmark.nl

Independent auditor's assurance report

To the Supervisory Board of De Nederlandsche Bank N.V.

Our conclusion

We have reviewed the CSR information for 2018 of De Nederlandsche Bank N.V. in Amsterdam. A review is focused on obtaining limited assurance.

Based on our procedures, nothing has come to our notice that would cause us to conclude that the CSR information, in all material respects, is not a reliable and adequate reflection of:

- the policy and operational management of De Nederlandsche Bank N.V. relating to corporate social responsibility; and
- the events and performance in this area in 2018

in accordance with the reporting criteria set out in the "reporting criteria" section of our report.

The CSR information comprises the CSR information set out in Annex 4 "GRI Content Index" and the references made to other parts of the 2018 Annual Report of De Nederlandsche Bank N.V. (the CSR information).

Basis for our conclusion

We conducted our review of the CSR information in accordance with Dutch law, including Dutch Standard 3810N "Assurance engagements relating to corporate social responsibility reports". Our responsibilities hereunder are further described in the "Our responsibilities for the review of the CSR information" section of our report.

We are independent of De Nederlandsche Bank N.V. in accordance with the Code of Ethics for Professional Accountants (Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten – ViO) and other relevant independence regulations in the Netherlands. Among other things, this means we do not engage in activities that may conflict with our independent assurance engagement. Furthermore, we have complied with the Dutch Code of Ethics (Verordening gedrags- en beroepsregels accountants – VGBA).

We believe that the assurance evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Reporting criteria

The CSR information must be read together with and interpreted in accordance with the reporting criteria. De Nederlandsche Bank N.V. is responsible for selecting and applying these reporting criteria, taking account of the applicable reporting laws and regulations.

The reporting criteria used in preparing the CSR information are the Sustainability Reporting Standards of the Global Reporting Initiative (GRI) and the supplementary reporting criteria as detailed on page 118 of the Annual Report.

Materiality

Based on our professional judgement, we have established materiality thresholds for each relevant element of the CSR information and for the CSR information as a whole. In evaluating our materiality thresholds, we considered quantitative and qualitative aspects as well as the relevance of information to both De Nederlandsche Bank N.V. and its stakeholders.

We have agreed with the Supervisory Board that we would report any misstatements found during our review which we believed were relevant for quantitative or qualitative reasons.

Limitations in the scope of our review

The CSR information contains forward-looking information such as ambitions, strategies, plans, expectations and projections. The actual outcome of forward-looking information is inherently uncertain. We do not provide any assurance on the assumptions or the feasibility of forward-looking information in the CSR information.

References to external information sources or websites in the CSR information do not form part of the CSR information we reviewed. Accordingly, we do not provide any assurance on them.

Responsibilities of the Governing Board and the Supervisory Board

The Governing Board is responsible for the preparation of the CSR information in accordance with the reporting criteria set out in the "Reporting criteria" section of our report, including identifying stakeholders and determining material subjects. Annex 5 of the Annual Report sets out the choices made by the Governing Board with respect to the scope of the CSR information and the reporting policy.

The Governing Board is also responsible for maintaining such internal control as it considers necessary to enable the preparation of CSR information that is free from material misstatement, whether due to fraud or error.

The Supervisory Board is responsible for exercising supervision on the reporting process of De Nederlandsche Bank N.V.

Our responsibilities for the review of the CSR information

Our responsibility is to plan and perform the review engagement in a manner that allows us to obtain sufficient and appropriate assurance evidence for our conclusion.

The procedures we perform to obtain limited assurance are aimed at establishing the plausibility of information. They differ in terms of nature and timing from and have a more limited extent than procedures performed to obtain reasonable assurance. Consequently, the degree of assurance obtained in the context of a review is substantially less than that obtained in the context of an audit.

Misstatements can be due to fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the decisions of users taken on the basis of the CSR information. The materiality affects the nature, timing and extent of our review procedures and the evaluation of the effect of identified misstatements on our conclusion.

We comply with the Further Rules on Quality Systems (Nadere voorschriften kwaliteitssystemen – NVKS), under which we operate a coherent quality management system, which includes documented guidelines and procedures to safeguard compliance with ethical requirements, standards on auditing and other relevant laws and regulations.

We have exercised professional judgement where relevant and have maintained professional scepticism throughout the review, in accordance with Dutch Standard 3810N, ethical requirements and independence requirements.

Among other procedures, our review included the following:

- Performing an environmental analysis and gaining insight into relevant social themes and issues and the characteristics of the entity.
- Evaluating the appropriateness of the reporting criteria used, their consistent application and related disclosures in the CSR information. This involves evaluating the outcome of the stakeholder dialogue and the reasonableness of estimates made by the Governing Board.

- Gaining insight into the reporting processes underlying the reported CSR information, including obtaining an overall understanding of internal controls to the extent relevant to our review.
- Obtaining an understanding of the procedures performed by the Internal Audit Department of the entity.
- Identifying areas in the CSR information that have a higher risk of presenting misleading or unbalanced information or containing material misstatements due to error or fraud. Based on this risk assessment, determining and performing further procedures aimed at establishing the plausibility of the CSR information. These procedures included:
  - holding interviews with management and/or relevant staff members responsible for the sustainability strategy, policy and performance;
  - holding interviews with relevant staff members responsible for providing information for, performing internal audits of and consolidating data in the CSR information;
  - obtaining assurance evidence that the CSR information reconciles with the underlying accounting records of the entity;
  - based on limited sample tests, reviewing relevant internal and external documentation; and
  - analysing data and trends.
- Reconciling the relevant financial information with the financial statements.
- Evaluating the consistency of the CSR information with the information in the Annual Report that is outside the scope of our review.
- Evaluating the overall presentation, structure and content of the CSR information.
- Considering whether the CSR information as a whole, including related disclosures, presents a view that is consistent with the aim of the reporting criteria used.

We communicate with the Supervisory Board regarding, among other matters, the planned scope and timing of the review and significant review findings.

Amsterdam, 27 March 2019

Deloitte Accountants B.V.

Ronald Spijker

5 Report of the Supervisory Board

5 Report of the Supervisory Board

5.1 Introduction

DNB took important steps in connection with policy matters, various supervisory cases and operational management in 2018. In addition, membership changes took place in the Governing Board and the Supervisory Board. In 2018 the Supervisory Board devoted attention to the way in which DNB's policies relating to its core tasks and internal operations were carried out. Special focus was placed on the process for appointment and reappointment of Governing Board members, DNB's office accommodation, information security and cybersecurity, DNB's capital policy, the fit and proper assessments in the financial sector, sustainability and climate change, and DNB's diversity policy. These and other subjects caused the Supervisory Board to remain closely involved with DNB throughout 2018.

5.2 Composition and appointments

The Governing and Supervisory Board compositions changed in 2018. The members of the Governing Board were reappointed, and DNB needed a further Executive Director to join the Governing Board as of 1 July 2018 owing to the expansion of DNB's resolution remit. The Supervisory Board welcomes the appointment of Else Bos as Chair for Prudential Supervision and Nicole Stolk as Executive Director of Resolution and Internal Operations with effect from 1 July 2018, the reappointment of Klaas Knot as President, Frank Elderson as Executive Director of Supervision, and Job Swank as Executive Director of Monetary Affairs. The Supervisory Board expressed its gratitude to Jan Sijbrand, whose terms as Chair for Prudential Supervision for Financial Institutions ended on 1 July 2018, for the energetic and authoritative way in which he fulfilled his role.

In conformity with Section 13(1) of the Bank Act 1998, the Supervisory Board consists of at least seven and at most ten members. As of the date of adoption of the 2018 financial statements, the Supervisory Board consisted of seven members: Wim Kuijken (Chair), Margot Scheltema (Vice-Chair), Annemieke Nijhof (government-appointed member), Feike Sijbesma, Kees Goudswaard, Marry de Gaay Fortman and Roger Dassen. The Supervisory Board took note of Tom de Swaan's decision not to join its ranks owing to his appointment as Chairman of the Supervisory Board of ABN AMRO N.V., which is incompatible with membership of DNB's Supervisory Board. The Remuneration and Appointments Committee was asked to start the search for a successor. The Supervisory Board took leave of Jaap van Manen, who had served two terms as a member, with effect from 1 October 2018, thanking him for his unwavering commitment, accurate analysis and exemplary collaboration with the other members. Margot Scheltema succeeded Jaap van Manen as the Supervisory Board's Vice-Chair. The Supervisory Board is also pleased to welcome Roger Dassen, who succeeded Jaap van Manen as the member with accounting and digital IT expertise. Discussions with the shareholder about these appointments and reappointments were constructive, and the relationship with the Dutch Ministry of Finance in other matters is likewise constructive.

With Jaap van Manen stepping down and Roger Dassen joining, gender diversity on the Supervisory Board remained unchanged. The Governing Board's gender diversity increased, as Jan Sijbrand left and Else Bos and Nicole Stolk joined. We amply achieved the statutory target for a balanced distribution of board membership between men and women, given that the female/male mix was 43/57% on the Supervisory Board and 40/60% on the Governing Board. In the event of appointment or reappointment, the Supervisory Board focuses on the adopted board profile, in which the aim of diversity extends beyond the male/female mix and also takes account of expertise, background and competencies. For further details, see the expertise matrix and gender diversity matrix below.

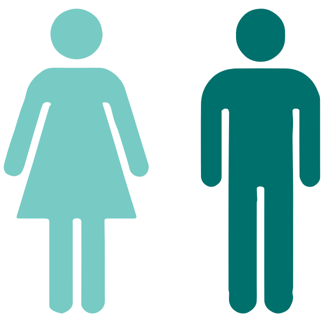
Area of expertise	Wim Kuijken	Margot Scheltema	Annemieke Nijhof	Marry de Gaay Fortman	Kees Goudswaard	Feike Sijbesma	Roger Dassen
Management							
Management and organisation	x	x	x	x	x	x	x
Accounting, administrative organisation and internal control structure		x					x
Stakeholder management	x		x			x	
Risk management		x		x	x	x	x
Outsourcing	x	x				x	x
Legal affairs and corporate governance		x		x			x
Core tasks							
Macroeconomic issues	x				x	x	x
Financial stability and institutions		x		x	x		
Payment systems							
Statistics					x		
Strategic issues							
Sustainability		x	x			x	x
Digital IT	x					x	x
Public interest	x		x	x	x		

Age

45 – 55
Annemieke Nijhof, Marry de Gaay Fortman

55 – 65
Margot Scheltema

65 – 75



Age

45 – 55
Roger Dassen

55 – 65
Kees Goudswaard, Feike Sijbesma

65 – 75
Wim Kuijken

The participation of Supervisory Board members in the Bank Council remained unchanged in 2018. Annemieke Nijhof continued her membership as government-appointed Supervisory Board member throughout 2018. Kees Goudswaard stayed on as Bank Council member appointed by the Supervisory Board throughout 2018.

The composition of the Supervisory Board, its committees and the Governing Board is provided from page 5 of this Annual Report. The profiles of the Governing and Supervisory Board members and the other positions they hold can be found on DNB's website.

5.3 Activities

In plenary Supervisory Board meetings, the average attendance rate of its members was 94%. None of the members were regularly absent. A part of each of these meetings was held with the Governing Board being present. The table below specifies the attendance rates of each of the members in plenary Supervisory Board meetings and committee meetings.

Member	SB	RAC	AC	SC
Wim Kuijken	7/7	10/10		
Jaap van Manen	5/6			3/3
Margot Scheltema	7/7		4/4	4/4
Feike Sijbesma	5/7	10/10		
Kees Goudswaard	7/7		3/3	1/1
Marry de Gaay Fortman	7/7	10/10		4/4
Annemieke Nijhof	7/7		1/1	3/3
Roger Dassen	1/1		1/1	

SB: Supervisory Board; RAC: Remuneration and Appointments Committee; AC: Audit Committee; SC: Supervision Committee

The Chair of the Supervisory Board and the President were in frequent contact about issues concerning the Supervisory Board's work and developments concerning DNB. The activities of the three Supervisory Board committees are described in Sections 5.4 to 5.6 below.
As part of the Supervisory Board's supervision of the general course of business at DNB, the Supervisory Board discussed the financial results for 2018 in the Audit Committee and it discussed the financial results for 2018 relating to DNB's tasks as an independent public body in the Audit Committee, the Supervision Committee and in its plenary meetings. These discussions were based on quarterly financial reports, the management letters and audit reports from the external auditor and the internal audit department (IAD) and the IAD quarterly reports.

One of the Supervisory Board's areas for attention in 2018 was the size of the balance sheet items related to the monetary operations and associated risks.

DNB's balance sheet risk exposure resulting from the Eurosystem's monetary policy prompted the Governing Board – supported by the Supervisory Board – to decide for the 2018 financial year to add another EUR 500 million to the provision for credit and interest rate risk formed in 2015. Net profit for 2018, therefore, came to EUR 188 million (2017: EUR 121 million), and the distribution to the Dutch State amounted to EUR 179 million. DNB again refrained from distributing an interim dividend for the 2018 financial year. No gold sales took place in 2018. From time to time, the Supervisory Board discusses the Governing Board's considerations concerning the gold stock when there is reason to do so.

The Supervisory Board discussed the 2018 financial statements with the Governing Board at length, in the presence of the external auditor. The external auditor's report and the IAD's analyses were included in these discussions. Pursuant to Section 13(6) of the Bank Act 1998, the Supervisory Board subsequently adopted DNB's financial statements and presented them for approval to the general meeting. The Supervisory Board discussed the budget for 2019, including the independent public body budget, on 23 November 2018 and approved it. The Supervisory Board established that the internal operational and control instruments, such as the planning and control cycle and the risk management and control system, operated effectively.

Following deliberation by the Supervisory Board, the Governing Board and several members of the Supervisory Board reviewed the independent public body budget in the annual budget meeting with the Ministry of Finance. The Supervisory Board is pleased to see that the Governing Board practises transparency in the budgeting process.

It believes DNB exercises its supervision decisively and intrusively, formulating unambiguous priorities. It encourages the Governing Board, whenever resources are scarce, to primarily look for a solution by setting internal targets and priorities.

The Supervisory Board continued to devote particular attention to DNB's internal organisation in 2018. 2018 saw a continuation of the reconfiguration of DNB's internal operations based on a dedicated strategic plan for 2016-2020 (Meerjarenplan Intern Bedrijf 2016-2020). On various occasions, the Supervisory Board discussed the progress made in ICT sourcing and DNB's programme on accommodation, which encompasses the relocation of the gold vaults and banknote activities to a Cash Centre to be newly built, the refurbishment of the office premises at Westeinde 1, and DNB's temporary alternative accommodation during the renovations. The Supervisory Board approved the alternative accommodation and discussed the scope and business case of the refurbishment, stressing the importance of a balanced weighing of cost efficiency, sustainability, security and transparency. Lastly, the Governing Board and Supervisory Board discussed Compass, the internal document detailing the priorities for each division in 2019. In part driven by these discussions but also at other plenary meetings with the Governing Board, the Supervisory Board addressed DNB's corporate culture and how it contributes to the desired behaviour throughout the organisation, as well as discussing the performance of DNB's core tasks. The Supervisory Board endorsed DNB's diversity policy, emphasising the importance of inclusiveness. By continuing an ongoing dialogue with the Governing Board on themes such as diversity, checks and balances in governance and DNB's risk management, the Supervisory Board seeks to contribute to the strengthening of DNB's corporate culture.

At each of its meetings, the Supervisory Board addressed the most important trends in DNB's areas of responsibility, derived from the periodic update on current affairs, with the Governing Board members, who informed the Supervisory Board about the international forum meetings they attended.

In a separate continuing professional training session with the Governing Board, the Supervisory Board addressed DNB's strategic challenges, engaging extensively with an external expert about cybersecurity and the associated risks to both DNB and the financial sector overall. The Supervisory Board also reflected on the consequences which the ECB's unconventional monetary policy might have for DNB and the Dutch and European economies.

In conformity with Section 24 of the Works Councils Act (Wet op de ondernemingsraden), members of the Supervisory Board attended consultation meetings between the Executive and the Employees Council. The Chair of the Supervisory Board and the Chair of the Audit Committee met with the Head of the Compliance & Integrity Department at regular intervals, and the Chair of the Audit Committee regularly met with the Head of the IAD and the external auditor. The Supervisory Board held its regular meeting with the supervisory board of the Dutch Authority for the Financial Markets (AFM) in November 2018. The Supervisory Board assessed its own performance in 2018 and discussed the results at a plenary meeting without the Governing Board being present. The assessment was held on the basis of a questionnaire, and special focus was placed on the functioning of the committees, also in relation to the functioning of the Supervisory Board in plenary meeting. At this meeting, the Supervisory Board also discussed its cooperation with the Governing Board and the latter's performance.

5.4 Audit Committee

The Audit Committee consisted of Kees Goudswaard (Chair) and Margot Scheltema up to 1 October 2018, when its composition changed to Margot Scheltema (Chair), Roger Dassen and Annemieke Nijhof. Meetings were held in the presence of the Executive Director for Resolution and

Internal Operations, the external auditor, the Head of IAD, and several officers from the relevant areas.

The Audit Committee discussed the financial statements, including the relevant IAD reports and the external auditor's findings, reflecting on DNB's capital policy, the ratio of its capital to its balance sheet risks, the provision for credit and interest rate risk formed for that purpose and the addition to it. The Audit Committee advised the Supervisory Board to adopt the 2018 financial statements and to approve the independent public body report for 2018. When discussing the 2019 budget, the Audit Committee concluded that the budget is transparent and sound. It therefore advised the Supervisory Board to approve the 2019 DNB budget and the 2019 independent public body budget. In 2018, as in previous years, the Audit Committee paid attention to the reports and management letters of the external auditor and the IAD, establishing that the Governing Board adequately acts on the findings and recommendations set out in the management letters.

The Audit Committee discusses current affairs relating to DNB's internal operations with the Executive Director for Resolution and Internal Operations at each meeting, with the theme of information security being a key priority for the Audit Committee. It also confers about such updates on payments and statistics, the quarterly reports issued by the Compliance & Integrity Department, and the quarterly financial reports. Throughout 2018 the Audit Committee regularly discussed the progress made in DNB's programme on accommodation and the sourcing of specific ICT services. It also deliberated on the outcome of the stakeholder survey, DNB's Payments Strategy 2018-2022, and DNB's diversity policy. The Committee recommended that the Supervisory Board approve the implementation of the new Dutch Corporate Governance Code and adopt DNB's new Delegation of Powers Regulation. It was also closely involved in the tender procedure for DNB's external audit. The Audit Committee regularly meets with relevant lines of defence within DNB and with the external auditor without the Governing Board being present.

5.5 Remuneration and Appointments Committee

In the year under review, the Remuneration and Appointments Committee consisted of Feike Sijbesma (Chair), Wim Kuijken and Marry de Gaay Fortman.

The Committee devoted extensive attention to the composition of the Supervisory Board, resulting in Roger Dassen's appointment effective from 1 October 2018. In addition, the Remuneration and Appointments Committee started its preparations for the nomination of an eighth Supervisory Board member with financial sector expertise, as Tom de Swaan did not join the Supervisory Board. The Committee also considers payment systems expertise in formulating its nomination. The Remuneration and Appointments Committee also devoted much of its time to the appointments and reappointments to the Governing Board. The efforts made by the Committee and the Supervisory Board in this respect resulted in nominations to the Crown, all of which led to appointments. The Remuneration and Appointments Committee spoke with the President about his performance and that of the other Governing Board members, following the Supervisory Board's annual evaluation. The Supervisory Board's role in compliance matters, for instance assessing the compatibility of secondary posts, also comprises periodic meetings between the Chair of the Supervisory Board and the shareholder.

5.6 Supervision Committee

The Supervision Committee consisted of Jaap van Manen (Chair), Marry de Gaay Fortman, Annemieke Nijhof and Margot Scheltema up to 1 October 2018, when its composition changed to Kees Goudswaard (Chair), Margot Scheltema and Marry de Gaay Fortman. Meetings were held in the presence of DNB's two Executive Directors of Supervision and several officers from the relevant areas. The Supervision Committee's agenda is based in part on an annual agenda and in part on current events. In 2018, the meetings again focused on a combination of practical cases, current policy issues and building a deeper understanding of various supervisory topics, including DNB's strategic priorities in the banking union, the indirect costs of supervision, the overhaul of the pension system, DNB's digital ambition, changes in the value chain, and banks' contacts with customers. The Committee raised in-depth questions, including about the capital positions of Dutch banks, also with a view to the Basel 3.5 accord, and the segregation of supervision and enforcement duties. In addition, the Supervision Committee at length exchanged views with the Executive Directors of Supervision about integrity supervision. The Committee was informed of experiences gained in the Single Supervisory Mechanism, including about reviews of internal models, the supervision of behaviour and culture, and fit and proper assessments. As part of the Supervisory Board's monitoring of DNB's policy in respect of its prudential supervision, the Supervision Committee at all of its meetings exchanged views with the Governing Board about institution-specific supervision cases to which the latter devoted particular attention in that period, to the extent relevant to safeguarding the quality and effectiveness of DNB's supervision policy. The Supervision Committee, like the Audit Committee, advised the Supervisory Board to approve the independent public body report for 2018 and the independent public body budget for 2019. In preparation for the independent public body budget for 2019, the Supervision Committee took account of the Supervision Outlook. The Supervision Committee discussed the evaluation of specific supervision cases with the Executive Directors of Supervision and addressed the action points emerging from DNB's annual stakeholder analysis.

5.7 Declaration of independence

The Regulation on Incompatible Offices and the Regulation on Conflicts of Interest apply to Supervisory Board members without restriction. Supervisory Board members are not employed by DNB and were not a DNB employee at any time in the five years preceding their appointment, nor do they have any relationship with DNB from which they could obtain personal gain. Supervisory Board members receive a fixed annual fee that is not related to DNB's results in any given year. All Supervisory Board members are independent within the meaning of the Dutch Corporate Governance Code. Any potential secondary position is assessed on the basis of the Regulation on Incompatible Offices and submitted to DNB's Compliance & Integrity Department for advice. This procedure was also followed in 2018.

5.8 Concluding remarks

DNB's activities continued to place high demands on the organisation in 2018. This was driven not only by external developments, such as the uncertainty and unpredictability in international politics, increased volatility in the financial markets and the other trends in the Dutch and European financial sectors. DNB's internal organisation shows great commitment in working to modernise and innovate by implementing the dedicated strategic plan for 2016-2020. The Supervisory Board would like to thank DNB's staff and Governing Board for their contribution to sustainable prosperity in the Netherlands and looks forward to its continued cooperation with the Governing Board in 2019.

Amsterdam, 27 March 2019

The Supervisory Board of
De Nederlandsche Bank N.V.

Wim Kuijken, Chair
Margot Scheltema, Vice-Chair
Annemieke Nijhof, government-appointed member
Kees Goudswaard
Feike Sijbesma
Marry de Gaay Fortman
Roger Dassen

Financial statements

Balance sheet as at 31 December 2018

(before appropriation of profit)

Millions

		31 December 2018	31 December 2017
	Assets	EUR	EUR
1	Gold and gold receivables	22,073	21,303
2	Claims on non-euro area residents denominated in foreign currency	11,270	10,499
2.1	Receivables from the International Monetary Fund (IMF)	7,588	6,628
2.2	Balances held with banks and investments in securities, external loans and other external assets	3,682	3,871
3	Claims on euro area residents denominated in foreign currency	1,354	1,690
4	Claims on non-euro area residents denominated in euro	2,008	760
5	Lending to euro area credit institutions related to monetary policy operations denominated in euro	27,742	28,167
5.1	Main refinancing operations	0	0
5.2	Longer-term refinancing operations	27,742	28,167
5.3	Fine-tuning reverse operations	0	0
5.4	Structural reverse operations	0	0
5.5	Marginal lending facility	0	0
5.6	Credits related to margin calls	0	0
6	Other claims on euro area credit institutions denominated in euro	885	100
7	Securities of euro area residents denominated in euro	128,008	119,196
7.1	Securities held for monetary policy purposes	119,304	109,052
7.2	Other securities	8,704	10,144
8	Intra-Eurosystem claims	149,161	124,119
8.1	Participating interest in ECB	482	482
8.2	Claims equivalent to the transfer of foreign reserves to the ECB	2,320	2,320
8.3	Claims related to the issuance of ECB debt certificates	0	0
8.4	Net claims related to the allocation of euro banknotes within the Eurosystem	54,191	50,843
8.5	Other intra-Eurosystem claims (net)	92,168	70,474
9	Other assets	4,516	4,158
9.1	Euro area coins	0	0
9.2	Tangible and intangible fixed assets	177	205
9.3	Other financial assets	2,494	2,204
9.4	Off-balance sheet instruments revaluation differences	0	131
9.5	Accruals and prepaid expenses	1,788	1,608
9.6	Sundry	57	10
	Total assets	**347,017**	**309,992**

Amsterdam, 27 March 2019
The Governing Board of De Nederlandsche Bank N.V.

Klaas Knot, *President*
Else Bos
Frank Elderson
Job Swank
Nicole Stolk

	Liabilities	31 December 2018 EUR	31 December 2017 EUR
1	Banknotes in circulation	64,419	61,258
2	Liabilities to euro area credit institutions related to monetary policy operations denominated in euro	178,101	170,327
2.1	Current accounts (covering the minimum reserve system)	162,308	129,031
2.2	Deposit facility	15,793	41,296
2.3	Fixed-term deposits	0	0
2.4	Fine-tuning reverse operations	0	0
2.5	Deposits related to margin calls	0	0
3	Other liabilities to euro area credit institutions denominated in euro	824	49
4	Liabilities to other euro area residents denominated in euro	2,944	3,954
4.1	General government	2,193	3,330
4.2	Other liabilities	751	624
5	Liabilities to non-euro area residents denominated in euro	62,221	37,560
6	Liabilities to euro area residents denominated in foreign currency	0	0
7	Liabilities to non-euro area residents denominated in foreign currency	0	0
8	Counterpart of special drawing rights allocated by the IMF	5,878	5,744
9	Intra-Eurosystem liabilities	0	0
9.1	Liabilities related to the issuance of ECB debt certificates	0	0
9.2	Other intra-Eurosystem liabilities (net)	0	0
10	Other liabilities	764	499
10.1	Off-balance sheet instruments revaluation differences	284	0
10.2	Accruals and income collected in advance	277	203
10.3	Sundry	203	296
11	Provisions	2,017	1,516
12	Revaluation accounts	21,726	21,035
13	Capital and reserves	7,935	7,929
13.1	Issued capital	500	500
13.2	General reserve	7,415	7,399
13.3	Statutory reserve	20	30
14	Profit for the year	188	121
	Total liabilities	**347,017**	**309,992**

Amsterdam, 27 March 2019
Adopted by the Supervisory Board of De Nederlandsche Bank N.V.

Wim Kuijken, *Chair*
Margot Scheltema, *Vice-Chair*
Feike Sijbesma
Kees Goudswaard
Annemieke Nijhof
Marry de Gaay Fortman
Roger Dassen

Profit and loss account for the year ending 31 December 2018

Millions

		2018	2017
		EUR	EUR
1	Interest income	1,630	1,478
2	Interest expense	(263)	(246)
	Net interest income	**1,367**	**1,232**
3	Realised gains/(losses) from financial operations	(1)	52
4	Write-downs on financial assets and positions	(42)	(14)
5	Transfer to/(from) provision for credit and interest rate risks	(491)	(496)
	Net result from financial operations and write-downs	**(534)**	**(458)**
6	Fees and commissions income	11	10
7	Fees and commissions expense	(9)	(8)
	Net fees and commissions income/(expense)	**2**	**2**
8	Income from equity shares and participating interests	93	79
9	Net result from monetary income pooling	(509)	(541)
10	Other income	178	189
	Total net income	**597**	**503**
11	Staff costs	(230)	(216)
12	Other administrative costs	(114)	(100)
13	Depreciation and amortisation of tangible and intangible fixed assets	(47)	(49)
14	Banknote production costs	(19)	(17)
15	Other costs	0	0
16	Capitalised software costs	1	3
17	Corporate income tax	0	(3)
	Profit for the year	**188**	**121**

Amsterdam, 27 March 2019
The Governing Board of De Nederlandsche Bank N.V.

Klaas Knot, *President*
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Amsterdam, 27 March 2019
Adopted by the Supervisory Board of De Nederlandsche Bank N.V.

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Roger Dassen

Notes to the balance sheet as at 31 December 2018 and the profit and loss account for the year 2018

1. Accounting policies

The financial statements are drawn up in accordance with the models and accounting policies applying to the European Central Bank (ECB) and the European System of Central Banks (ESCB) (hereafter: ESCB accounting policies) and the harmonised disclosures to the balance sheet and the profit and loss account. Otherwise the financial statements observe the provisions of Part 9 of Book 2 of the Dutch Civil Code, in line with the provisions of Section 17 of the Bank Act 1998.

The ESCB accounting policies are broadly in line with the Dutch Generally Accepted Accounting Principles (GAAP). In deviation from Part 9 of Book 2 of the Dutch Civil Code:

a. unrealised gains from assets and liabilities measured at revalued amounts are recognised as set out under 'General' below;
b. no cash flow statement is included; and
c. a provision for foreign exchange rate, interest rate, credit and gold price risks may be included.

Comparison with preceding year
The accounting policies have not changed compared with the preceding year.

General
Gold and gold receivables and on- and off-balance sheet rights and liabilities denominated in foreign currency are valued at market prices prevailing at the end of the financial year.

Securities held for monetary policy purposes are accounted for at amortised cost, less any accumulated impairment losses. Marketable securities held for other than monetary policy purposes are valued at the market value prevailing on the next-to-last trading day of the year. Price revaluations are carried out on a security-by-security basis. Liquid securities are valued at market value. Non-liquid securities are valued at the lower of cost or market value. Composite securities are not split for valuation purposes.

'Other assets' and 'Accruals and income collected in advance' are carried at cost or face value, less any accumulated impairment losses. Transactions in 'Other assets' and 'Accruals and income collected in advance' are recognised in the financial statements as at the settlement date, with the exception of foreign exchange transactions and the related accruals, which are reported as at the trade date (in accordance with the economic approach).

Revaluations arising from price differences in respect of securities are determined on a trading portfolio basis and subsequently on a security basis. Revaluations arising from exchange rate differences are determined on a currency portfolio basis and subsequently on a currency basis. Unrealised revaluation gains are added to the 'Revaluation accounts'. Unrealised revaluation losses are recognised in 'Revaluation accounts' to the extent that the balance of the relevant revaluation account is positive. Any shortfall is recognised in the profit and loss account at the end of the financial year. Price revaluation losses on a security are not netted against price revaluation gains on another security or exchange rate revaluation gains. Exchange rate revaluation losses on any one currency are not netted against exchange rate revaluation gains on any other currency or against price revaluation gains. For gold and gold receivables, no distinction is made between price revaluation and exchange rate revaluation.

Conversion of foreign currencies

Assets and liabilities denominated in foreign currency are converted into euro at the ECB market exchange rate prevailing at the end of the financial year. Income and expenses are converted at the ECB market exchange rates prevailing at the transaction dates. The exchange rate revaluation of assets and liabilities denominated in foreign currency, including off-balance sheet rights and liabilities, is performed on a portfolio basis and subsequently on a currency basis.

Private loans

Private loans are valued at nominal value less any accumulated impairment losses.

Repurchase and reverse repurchase transactions

Repurchase transactions (repos) consist of a spot sale of securities hedged by a forward purchase of the same securities. The receipts from the spot sale are presented in the balance sheet as a deposit. In the light of the forward purchase, the securities continue to be recognised as assets; hence, the amount involved in the forward purchase is presented in the balance sheet under liabilities. Reverse repurchase transactions (reverse repos) are regarded as lending. The securities received as collateral are not recognised in the balance sheet and do not, therefore, affect the balance sheet position of the portfolios concerned.

Other financial instruments

Other financial instruments include currency forward and currency swap contracts as well as interest rate swap contracts. Currency forward and currency swap contracts are valued at their forward rates, while interest rate swap contracts are valued at market value. Any revaluation differences follow the revaluation rules set out under 'General' above.

Intra-ESCB and intra-Eurosystem claims and liabilities

Intra-ESCB balances are the result of cross-border payments within the EU settled in euro by the central banks. Such transactions are for the most part initiated by private institutions.

Most are settled within TARGET2[1] and give rise to bilateral balances in the TARGET2 accounts held by the EU central banks. On a daily basis, such bilateral balances are netted and assigned to the ECB, leaving every national central bank (NCB) with a single net bilateral balance vis-à-vis the ECB. DNB's position vis-à-vis the ECB arising from TARGET2 transactions is presented, together with other euro-denominated positions within the ESCB (such as interim profit distributions to the NCBs and monetary income results), as a net asset or liability item under 'Other intra-Eurosystem claims/liabilities (net)' on the NCB's balance sheet. Positions held within the ESCB vis-à-vis NCBs outside the euro area arising from TARGET2 transactions are reported in 'Claims on/liabilities to non-euro area residents denominated in euro'. Intra-ESCB balances arising from the allocation of euro banknotes within the Eurosystem are included as a net single asset or liability item under 'Net claims/liabilities related to the allocation of euro banknotes within the Eurosystem' (see below under 'Banknotes in circulation'). Intra-Eurosystem positions arising from the transfer of foreign currencies to the ECB by the NCBs that have joined the Eurosystem are reported in 'Claims equivalent to the transfer of foreign reserves to the ECB'.

Participating interests

Participating interests are valued at cost less any accumulated impairment losses. Income from participating interests is included in the profit and loss account under 'Income from equity shares and participating interests'.

The share in the ECB's capital is revised every five years. The most recent Eurosystem capital key revisions were made on 1 January 2019. See the section on events after the balance sheet date for more details.

Tangible and intangible fixed assets

Tangible and intangible fixed assets are valued at cost less accumulated depreciation or amortisation and any accumulated impairment losses. For intangible assets, in addition to the primary acquisition cost and the costs of external advisers relating to these assets, the in-house hours spent on these assets are also capitalised. For software developed in-house under 'Intangible fixed assets', a statutory reserve has been formed. Depreciation and amortisation are calculated on a straight-line basis over the estimated useful life of the assets. The standard estimated useful life of buildings and renovations is 25 years, that of equipment, plant and furniture 10 years and that of computer hardware, software, motor vehicles and intangible assets 4 years. Deviations from this standard are made only if a shorter useful life is likely. Land is not depreciated. Retired tangible fixed assets are valued at the lower of book value or expected realisable value.

1 TARGET2 stands for Trans-European Automated Real-Time Gross Settlement Express Transfer system 2.

Banknotes in circulation

The ECB and the euro area NCBs, which together comprise the Eurosystem, issue euro banknotes[2]. The shares in the total value of the euro banknote circulation is allocated to the Eurosystem central banks on the last working day of each month, in accordance with the banknote allocation key[3].

The ECB has been allocated a share of 8% of the total value of euro banknotes in circulation, whereas the remaining 92% has been allocated to NCBs in proportion to their weightings in the Eurosystem capital key. The value of the share of banknotes in circulation allocated to each NCB is accounted for on the liabilities side of the balance sheet under 'Banknotes in circulation'.

The difference between the value of the euro banknotes allocated to each NCB in accordance with the banknote allocation key and the value of the euro banknotes actually circulated by the relevant NCB gives rise to intra-Eurosystem positions. These claims or liabilities are presented under 'Net claims/liabilities related to the allocation of euro banknotes within the Eurosystem'.

For the five years following the year of the cash changeover[4], the intra-Eurosystem positions arising from the allocation of euro banknotes are adjusted in order to prevent substantial changes in NCBs' relative income positions as compared with previous years. The adjustments are effected by taking into account the differences between the average value of banknotes put into circulation by each NCB in the reference period[5] and the average value of banknotes that would have been allocated to them during that period under the Eurosystem capital allocation key. The adjustments are reduced in annual stages until the first day of the sixth year after the cash changeover year. From then on, the income on banknotes is allocated fully to the NCBs in proportion to their paid-up shares in the ECB's capital. In the year under review, adjustments resulted from the accession of Latvijas Banka in 2014 and Lietuvos bankas in 2015. For Latvijas Banka the adjustment period will end on 31 December 2019 and for Lietuvos bankas on 31 December 2020.

Provision for credit and interest rate risks

A provision for foreign exchange rate, interest rate, credit and gold price risks may be included pursuant to Article 8 of the accounting policies that apply to the ECB and the

2 Decision of the ECB of 13 December 2010 on the issue of euro banknotes (recast) (ECB/2010/29), OJ L 35 of 9.2.2011, p. 26.
3 The banknote allocation key is based on the ECB's share in the total euro banknote issue and the shares of the Eurosystem national central banks in the remainder of such issue in proportion to their contributions to the ECB's subscribed capital.
4 The year of cash changeover is the year in which the Member State concerned introduced euro banknotes as legal tender.
5 The reference period is the 24-month period starting 30 months prior to the date on which euro banknotes will become legal tender in a particular Member State.

ESCB (Guideline ECB/2016/34). DNB has formed a provision for credit and interest rate risks which relates to specific risks under the asset purchase programme (APP[6]). It is comprised of credit risk on the asset purchases (excluding exposures to the Dutch government) and interest rate risk. DNB decides on the size and use of the provision on the basis of a reasoned estimate of DNB's risk exposure.

Pension and other retirement schemes

The pension rights of staff and former staff of DNB and the former Pensions and Insurance Supervisory Authority of the Netherlands (PVK) as well as of other eligible persons have been transferred to Stichting Pensioenfonds van De Nederlandsche Bank N.V. (DNB Pension Fund). Through an agreement, DNB has undertaken to pay DNB Pension Fund, subject to conditions agreed for the purpose, such amounts as to ensure the pensions under DNB Pension Fund's pension schemes. In the agreement, the financial methodology is set out in a premium, supplement and risk policy ladder; in the target assets, allowance is made for the indexation ambition. The level of the amounts payable by DNB and the liabilities reported in the financial statements in respect of other retirement schemes are calculated on an actuarial basis.

ECB profit distribution

After adoption by the ECB's Governing Council, the ECB's profit is distributed to the NCBs of the Eurosystem in proportion to their weightings in the Eurosystem capital key. The amount distributed to DNB is presented in the profit and loss account under 'Income from equity shares and participating interests'.

The ECB's Governing Council has decided that the ECB's seigniorage income, arising from the 8% share of euro banknotes in circulation allocated to the ECB, as well as the income arising from securities purchased through the securities markets programme (SMP), the third covered bond purchase programme (CBPP3), the asset-backed securities purchase programme (ABSPP) and the public sector purchase programme (PSPP) will accrue to the Eurosystem NCBs in the year in which this income is realised in proportion to the Eurosystem capital key. Unless the ECB's Governing Council decides otherwise, the ECB will, in January of the following year, distribute this amount in the form of an interim profit distribution[7]. The amount will be distributed in full, unless it exceeds the ECB's net profit for the year. The amount concerned may, subject to a decision to that effect by the ECB's Governing Council, be added to a provision for foreign exchange rate, interest rate, credit and gold price risks. The ECB's Governing Council may also decide to charge expenses arising from the

6 The APP comprises the covered bond purchase programme 3 (CBPP3), the asset-backed securities purchase programme (ABSPP), the public sector purchase programme (PSPP) and the corporate sector purchase programme (CSPP).
7 Decision of 15 December 2014 on the interim allocation of the income of the European Central Bank (ECB/2014/57), OJ L 53 of 25 February 2015, p. 24.

 ECB's issue and handling of euro banknotes to profit. After adoption by the ECB's Governing Council, the remaining profit is distributed to the NCBs of the Eurosystem in proportion to their weightings in the Eurosystem capital key.

Recognition of income and expenses

Income and expenses are recognised in the period in which they are earned or incurred. Realised gains and losses on investments are determined according to the average cost method and recognised in the profit and loss account, except securities held to maturity, which are valued at amortised cost less any accumulated impairment losses. Unrealised gains are not recognised as income, but are transferred directly to the revaluation accounts. Unrealised losses are taken to the profit and loss account to the extent that they exceed the balance of the corresponding revaluation accounts. They are not netted against any unrealised gains in later years.

2. Notes to the balance sheet

Assets

1. Gold and gold receivables

In the year under review, the volume of the gold holdings did not change. The gold holdings on the last business day of the financial year consisted of 19.7 million fine troy ounces (or 612 tonnes) of gold. The market value as at 31 December 2018 stood at EUR 1,120.96 (31 December 2017: EUR 1,081.88) per fine troy ounce. The euro value of this item was higher at year-end 2018 compared with year-end 2017 due to an increase in the market price of gold.

Millions

	EUR
Balance as at 31 December 2016	21,622
Revaluation 2017	(319)
Balance as at 31 December 2017	21,303
Revaluation 2018	770
Balance as at 31 December 2018	**22,073**

2. Claims on non-euro area residents denominated in foreign currency

As at 31 December 2018, this item stood at EUR 11,270 million (31 December 2017: EUR 10,499 million) and can be broken down as follows:

- 2.1 Receivables from the International Monetary Fund (IMF)

On the last business day of the financial year, the receivables totalled EUR 7,588 million (31 December 2017: EUR 6,628 million). The EUR/SDR exchange rate as at 31 December 2018 stood at EUR 1.2154 (31 December 2017: SDR/EUR 1.1876).

Millions

	31 December 2018		31 December 2017	
	SDR	EUR	SDR	EUR
Special drawing rights	4,700	5,713	4,481	5,321
Reserve tranche position	1,032	1,254	517	614
Loans	511	621	583	693
Total	**6,243**	**7,588**	**5,581**	**6,628**

Since DNB is the implementing body of the Dutch IMF membership, the Dutch State has extended a credit guarantee up to the sum of the commitments.

Special drawing rights

As at 31 December 2018, DNB's special drawing rights amounted to EUR 5,713 million (31 December 2017: EUR 5,321 million). Special drawing rights represent the right to exchange SDR holdings to obtain other currencies. These rights were created against the liability item 'Counterpart of special drawing rights allocated by the IMF' of EUR 5,878 million (31 December 2017: EUR 5,744 million).

Reserve tranche position

The reserve tranche position stood at EUR 1,254 million as at 31 December 2018 (31 December 2017: EUR 614 million). The drawing rights in the reserve tranche position correspond to the amounts actually paid to the IMF, representing SDR 1,032 million. This equals the difference between the Dutch quota (SDR 8,737 million) and the IMF's euro holdings (SDR 7,705 million).

Loans

The loans, standing at EUR 621 million as at 31 December 2018 (31 December 2017: EUR 693 million), consist of loans to the Poverty Reduction and Growth Trust (PRGT) and the New Arrangements to Borrow (NAB). In addition, DNB made a EUR 13,610 million credit line available, under which no amounts have been drawn.

Millions

	Total facility	31 December 2018		31 December 2017	
	SDR	SDR	EUR	SDR	EUR
PRGT	1,450	162	197	75	89
- GLA	*1,000*	*135*	*165*	*8*	*10*
- ECF	*450*	*27*	*32*	*67*	*79*
NAB	4,595	349	424	508	604
2016 credit line	13,610	-	-	-	-
Total	**19,655**	**511**	**621**	**583**	**693**

The PRGT is a fund set up to supply the principal amounts of subsidised low-interest loans to the poorest developing countries, and it is comprised of two underlying loans: the General Loan Account (GLA) and the Extended Credit Facility (ECF).

The NAB is a SDR 4,595 million credit line which DNB has made available to the IMF as part of the Dutch participation in the IMF. The IMF can use this credit line for its regular operations in addition to the quota.

- 2.2 Balances with banks and security investments, external loans and other external assets

As at 31 December 2018, this item stood at EUR 3,682 million (31 December 2017: EUR 3,871 million).

The table below provides a breakdown of this item by currency.

Millions

	31 December 2018			31 December 2017		
	Foreign currency	EUR	Exchange rate	Foreign currency	EUR	Exchange rate
USD	2,182	1,906	1.1450	2,721	2,269	1.1993
JPY	182,107	1,447	125.85	194,391	1,440	135.01
DKK	2,459	329	7.4673	1,201	161	7.4449
Other currencies		0			1	
Total		**3,682**			**3,871**	

 The table below specifies these balances in foreign currency by investment category.

Millions

	31 December 2018	31 December 2017
	EUR	EUR
Fixed-income securities	3,302	3,302
Bond funds	195	456
Reverse repos	182	109
Nostro accounts	3	4
Total	**3,682**	**3,871**

The table below provides a breakdown of the maturities of the fixed-income securities.

Millions

	Residual maturity* 31 December 2018				Residual maturity* 31 December 2017			
	Total	0 - 1 year	1 - 2 years	> 2 years	Total	0 - 1 year	1 - 2 years	> 2 years
	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR
USD	**1,526**	745	228	553	**1,701**	892	376	433
JPY	**1,447**	1,447	-	-	**1,440**	1,440	-	-
DKK	**329**	329	-	-	**161**	161	-	-
Total	**3,302**	**2,521**	**228**	**553**	**3,302**	**2,493**	**376**	**433**

* For each investment, the residual maturity is the period between the balance sheet date and the expiration date.

3. Claims on euro area residents denominated in foreign currency

As at 31 December 2018, this item stood at EUR 1,354 million (31 December 2017: EUR 1,690 million). It comprises EUR 1,016 million (31 December 2017: EUR 719 million) in USD-denominated fixed-income securities and EUR 338 million (31 December 2017: EUR 971 million) in liquidity-providing operations in USD.

The table below provides a breakdown of the maturities of the fixed-income securities.

Millions

	Residual maturity* 31 December 2018				Residual maturity* 31 December 2017			
	Total	0 - 1 year	1 - 2 years	> 2 years	Total	0 - 1 year	1 - 2 years	> 2 years
	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR
USD	**1,016**	690	195	131	**719**	398	227	94

* For each investment, the residual maturity is the period between the balance sheet date and the expiration date.

4. Claims on non-euro area residents denominated in euro

As at 31 December 2018, this item stood at EUR 2,008 million (31 December 2017: EUR 760 million). They can be broken down as follows.

Millions

	31 December 2018	31 December 2017
	EUR	EUR
Fixed-income securities	1,019	493
Reverse repos	482	120
Deposits	475	-
Nostro accounts	32	147
Total	**2,008**	**760**

The table below provides a breakdown of the maturities of the fixed-income securities.

Millions

	Residual maturity* 31 December 2018				Residual maturity* 31 December 2017			
	Total	0 - 1 year	1 - 2 years	> 2 years	Total	0 - 1 year	1 - 2 years	> 2 years
	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR
EUR	**1,019**	471	264	284	**493**	252	141	100

* For each investment, the residual maturity is the period between the balance sheet date and the expiration date.

5. Lending to euro area credit institutions related to monetary policy operations denominated in euro

As at 31 December 2018, the Eurosystem's claim arising from the item 'Lending to euro area credit institutions related to monetary policy operations denominated in euro' totalled EUR 732,106 million (31 December 2017: EUR 764,310 million). Of this total, lending by DNB to Dutch-based credit institutions amounted to EUR 27,742 million (31 December 2017: EUR 28,167 million). In accordance with Article 32.4 of the ESCB and ECB Statute, all risks relating to such lending will, if materialised, following a decision by the ECB's Governing Council, be borne in full by the Eurosystem NCBs in proportion to the Eurosystem capital key in force at the time when the loss is suffered. To have access to this facility, a financial institution must meet the requirements made by the ECB, including the collateral eligibility criteria. Losses occur only if the counterparty defaults on the repayment and, in addition, the sale of the collateral fails to cover the debt. NCBs may temporarily accept supplementary collateral that fails to meet the eligibility standards. Any losses on such collateral will not be shared across the ESCB. As in 2017 DNB did not have reason to accept supplementary collateral in 2018.

The main refinancing rate stood at 0.00% throughout 2018, while the deposit rate was -0.40% throughout the reporting period (unchanged from 2017).

- 5.1 Main refinancing operations

No credit is outstanding under main refinancing operations as at 31 December 2018 (31 December2017: nil). These operations meet part of the financial sector's refinancing needs. They are conducted as standard tenders on a weekly basis, usually with a maturity of one week. The main refinancing operations have been conducted as fixed-rate tenders with full allotment of all bids since October 2008.

- 5.2 Longer-term refinancing operations

Longer-term refinancing operations, amounting to EUR 27,742 million as at 31 December 2018 (31 December 2017: EUR 28,167 million), provide longer-term liquidity. These are conducted with maturities equalling the cash reserve period or between 3 and 48 months.

A total of four new series of targeted longer-term refinancing operations (TLTRO II) were introduced between March 2016 and March 2017. Their maturity is four years, with the option of early redemption after two years. Pursuant to a decision by the ECB's Governing Council, the actual interest rates for individual TLTRO II operations depend on the volume of the credit portfolio of the relevant counterparty between 1 February 2016 and 31 January 2018.

In addition, they would be between the main refinancing rate and the deposit facility rate at the time of lending. The actual interest rates were not announced until 2018, and no reliable estimate could be made until that time. In keeping with the principle of prudence, they have been calculated on the basis of the deposit facility rate until year-end 2017. Interest expenses were recalculated after the actual interest rates were announced in 2018. Differences in interest expenses for 2016-2017 resulting from the difference between the actual interest rates and the deposit facility rate used were recognised as adjustment to the interest expenses for 2018. The weighted average interest rate paid on the TLTRO II loans is 0.34%.

- 5.3 Fine-tuning reverse operations

Fine-tuning reverse operations are conducted with the aim of regulating liquidity in the market, directing interest rates and, in particular, mitigating the impact of unexpected market fluctuations on interest rates. They are conducted on an ad-hoc basis but, as in 2017, they were not conducted in 2018.

- 5.4 Structural reverse operations

These operations may be conducted as standard tenders in order to adjust the structural position of the Eurosystem vis-à-vis the financial sector. As in 2017, no such operations were conducted in 2018.

- 5.5 Marginal lending facility

Counterparties may use this facility (amount outstanding nil at both year-end 2018 and 2017), to obtain overnight liquidity from NCBs at the marginal lending rate. No such operations were conducted in 2018, while recourse to this facility remained very limited in 2017.

- 5.6 Credits related to margin calls

These are credits to counterparties in case the collateral provided exceeds a predetermined limit, resulting in excess collateral relative to the outstanding monetary policy operations. In 2018, as in 2017, no credits related to margin calls were extended.

6. Other claims on euro area credit institutions denominated in euro

As at 31 December 2018, this item stood at EUR 885 million (31 December 2017: EUR 100 million) and, as in 2017, it consisted entirely of short-term reverse repos.

7. Securities of euro area residents denominated in euro

As at 31 December 2018, this item stood at EUR 128,008 million (31 December 2017: EUR 119,196 million) consisting of 'Securities held for monetary policy purposes' and 'Other securities'.

- 7.1 Securities held for monetary policy purposes

This item contains holdings of securities acquired under the three covered bond purchase programmes (CBPP)[8], the securities markets programme (SMP)[9], and the public sector purchase programme (PSPP)[10]. The purchases under the first and second CBPPs were terminated on 30 June 2010 and 31 October 2012, respectively. On 6 September 2012, the Governing Council of the ECB decided to terminate the SMP.

In 2018, the Eurosystem continued its expanded asset purchase programme (APP), which comprises the CBPP, the asset-backed securities purchase programme (ABSPP)[11], the PSPP and the corporate sector purchase programme (CSPP). DNB is among the NCBs that conducts the ABSPP for the ECB's account and risk, and it does not effect any transactions under the CSPP. Up to and including September 2018, the Eurosystem's combined net purchases under the expanded purchase programme averaged EUR 30 billion a month. From October to December 2018 onwards, the combined net purchases were reduced to EUR 15 billion and terminated thereafter. The Governing Council intends to continue reinvesting, in full, the principal payments from maturing securities purchased under the APP for an extended period of time past the date when the key ECB interest rates are raised, and in any case for as long as necessary to maintain favourable liquidity conditions and an ample degree of monetary accommodation.

8 Decision of the ECB of 2 July 2009 on the implementation of the covered bond purchase programme (ECB/2009/16), OJ L 175 of 4 July 2009, p. 18, Decision of the ECB of 3 November 2011 on the implementation of the second covered bond programme (ECB/2011/17), OJ L 297 of 16 November 2011, p. 70 and Decision of the ECB of 15 October 2014 on the implementation of the third covered bond purchase programme (ECB/2014/40), OJ L 335 of 22 October 2014, p. 22.

9 Decision of the European Central Bank of 14 May 2010 establishing a securities markets programme (ECB/2010/5), OJ L 124 of 20 May 2010, p. 8.

10 Decision of the ECB of 4 March 2015 on a secondary markets public sector asset purchase programme (ECB/2015/10) OJ L 121 of 14 May 2015, p. 20. Under this programme, the ECB and the NCBs can purchase on secondary markets euro-denominated securities issued by central, regional or local governments and recognised agencies located in the euro area, as well as by international organisations and multilateral development banks located in the euro area.

11 Decision of the European Central Bank of 19 November 2014 on the implementation of the asset-backed securities purchase programme (ECB/2014/45).

As at 31 December 2018, the amounts held by the Eurosystem NCBs under these programmes totalled EUR 2,645,735 million (31 December 2017: EUR 2,386,012 million). Of this amount, DNB held EUR 119,304 million (31 December 2017: EUR 109,052 million).

The amortised cost and market value[12] of the fixed-income securities held by DNB are as follows:

Millions

	31 December 2018		31 December 2017	
	Amortised cost	Market value	Amortised cost	Market value
	EUR	EUR	EUR	EUR
Covered bond purchase programme	106	110	233	244
Covered bond purchase programme 2	85	89	114	121
Covered bond purchase programme 3	16,092	16,248	13,439	13,622
Securities markets programme	3,978	4,296	5,443	6,018
Public sector purchase programme	99,043	100,692	89,823	89,766
Total	**119,304**	**121,435**	**109,052**	**109,771**

12 Market values are indications derived from market quotations. Where market quotations are unavailable, estimates based on internal Eurosystem models are used. Market values are not reported in the balance sheet nor in the profit and loss account, but presented here for comparison purposes.

The table below provides a breakdown of the maturities of the fixed-income securities.

Millions

	Residual maturity* 31 December 2018				Residual maturity* 31 December 2017			
	Total	0 - 1 year	1 - 2 years	> 2 years	Total	0 - 1 year	1 - 2 years	> 2 years
	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR
Covered bond purchase programme	**106**	51	55	-	**233**	127	52	54
Covered bond purchase programme 2	**85**	39	6	40	**114**	29	39	46
Covered bond purchase programme 3	**16,092**	1,071	1,827	13,194	**13,439**	1,008	1,093	11,338
Securities markets programme	**3,978**	1,581	984	1,413	**5,443**	1,500	1,567	2,376
Public sector purchase programme	**99,043**	8,275	10,036	80,732	**89,823**	6,450	7,646	75,727
Total	**119,304**	**11,017**	**12,908**	**95,379**	**109,052**	**9,114**	**10,397**	**89,541**

* For each investment, the residual maturity is the period between the balance sheet date and the expiration date.

The Governing Council of the ECB and the Governing Board of DNB regularly assess the financial risks related to the securities held under these programmes. The Eurosystem conducts annual impairment tests on the basis of the accounting policies applicable to the ESCB, the available information and expected recoverable amounts at year-end. DNB's policy is in accordance with a Decision by the ECB Governing Council.

In accordance with a Decision by the ECB Governing Council under Article 32.4 of the ESCB and ECB Statute, all financial losses relating to the CBPP3, SMP, PSPP (in respect of the international and supranational portion) and CSPP will, if materialised, be borne in full by the Eurosystem NCBs in proportion to the Eurosystem capital key in force at the time when the loss is incurred. The Governing Council of the ECB decided to add an amount to the provision for monetary policy operations in 2018, due to the impairment of a security held under the CSPP (see page 167).

Paragraph 4.2.5 of the Annual Report and the related annex provide a more detailed discussion of the various risks to which the monetary programmes are exposed.

- 7.2 Other securities

As at 31 December 2018, this item stood at EUR 8,704 million (31 December 2017: EUR 10,144 million) and, as in 2017, it consisted entirely of fixed-income securities valued at market value.

The table below provides a breakdown of the maturities of the fixed-income securities.

Millions

	Residual maturity* 31 December 2018				Residual maturity* 31 December 2017			
	Total	0 - 1 year	1 - 2 years	> 2 years	Total	0 - 1 year	1 - 2 years	> 2 years
	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR
EUR	**8,704**	5,906	1,234	1,564	**10,144**	5,782	2,241	2,121

* For each investment, the residual maturity is the period between the balance sheet date and the expiration date.

8 Intra-Eurosystem claims

As at 31 December 2018, this item stood at EUR 149,161 million (31 December 2017: EUR 124, 119 million).

- 8.1 Participating interest in the ECB

This item represents DNB's participating interest in the ECB of EUR 482 million (unchanged from 2017), including EUR 49 million in additional paid up capital.

Pursuant to Article 28 of the ESCB and ECB Statute, the NCBs of the ESCB are the sole subscribers to the capital of the ECB. The level of subscriptions is dependent on shares which are fixed in accordance with Article 29 of the ESCB and ECB Statute.

The table below sets out the NCBs' shares in the authorised, subscribed and paid-up capital of the ECB.

	31 December 2018			
	Eurosystem capital key	Capital key	Authorised and subscribed capital since	Paid-up capital
	%	%	EUR millions	EUR millions
National Bank of Belgium	3.5200	2.4778	268	268
Deutsche Bundesbank	25.5674	17.9973	1,948	1,948
Eesti Pank	0.2739	0.1928	21	21
Central Bank of Ireland	1.6489	1.1607	126	126
Bank of Greece	2.8884	2.0332	220	220
Banco de España	12.5596	8.8409	957	957
Banque de France	20.1433	14.1792	1,535	1,535
Banca d'Italia	17.4890	12.3108	1,333	1,333
Central Bank of Cyprus	0.2149	0.1513	16	16
Latvijas Banka	0.4008	0.2821	31	31
Lietuvos bankas	0.5870	0.4132	45	45
Banque centrale du Luxembourg	0.2884	0.2030	22	22
Central Bank of Malta	0.0921	0.0648	7	7
De Nederlandsche Bank	**5.6875**	**4.0035**	**433**	**433**
Oesterreichische Nationalbank	2.7888	1.9631	213	213
Banco de Portugal	2.4767	1.7434	189	189
Banka Slovenije	0.4908	0.3455	37	37
Národná banka Slovenska	1.0974	0.7725	84	84
Suomen Pankki-Finlands Bank	1.7849	1.2564	136	136
*Total euro area NCBs**	*100.0000*	*70.3915*	*7,620*	*7,620*
Bulgarian National Bank	-	0.8590	93	3
Česká národní banka	-	1.6075	174	7
Danmarks Nationalbank	-	1.4873	161	6
Hrvatska narodna banka	-	0.6023	65	2
Magyar Nemzeti Bank	-	1.3798	149	6
Narodowy Bank Polski	-	5.1230	555	21
Banca Națională a României	-	2.6024	282	11
Sveriges Riksbank	-	2.2729	246	9
Bank of England	-	13.6743	1,480	56
*Total non-euro area NCBs**	-	*29.6085*	*3,205*	*120*
Total euro area and non-euro area NCBs	**-**	**100.0000**	**10,825**	**7,740**

* Totals may not add up owing to rounding.

- 8.2 Claims equivalent to the transfer of foreign reserves to the ECB

As at 31 December 2018, these claims – arising from the transfer of foreign reserve assets to the ECB – totalled EUR 2,320 million (unchanged from 31 December 2017). The interest paid on these claims is calculated daily at the latest established rate used in the main refinancing operations of the Eurosystem, with a zero return on the gold component.

- 8.4 Net claims related to the allocation of euro banknotes within the Eurosystem

This item, amounting to EUR 54,191 million (31 December 2017: EUR 50,843 million), consists of a net claim of DNB on the Eurosystem relating to the reallocation of euro banknotes (see under 'Intra-ESCB and intra-Eurosystem claims and liabilities' and 'Banknotes in circulation' in the 'Accounting policies' section). The interest paid on these claims is calculated daily at the latest established rate used in the main refinancing operations of the Eurosystem.

- 8.5 Other intra-Eurosystem claims (net)

As at 31 December 2018, this net claim amounts to EUR 92,168 million (31 December 2017: EUR 70,474 million), comprising three components.

Millions

	31 December 2018	31 December 2017
	EUR	EUR
Claims on ECB in respect of TARGET2	92,604	70,955
Due to the ECB in respect of monetary income	(504)	(537)
Due from the ECB in respect of the ECB's interim profit distribution	68	56
Total	**92,168**	**70,474**

The first component is the TARGET2 claim on the ECB of EUR 92,604 million (31 December 2017: EUR 70,955 million). This claim is related to receipts and payments of credit institutions and NCBs via TARGET2 and balances held with Eurosystem banks in correspondent accounts. The interest paid on this claim is calculated daily at the latest established rate used in the main refinancing operations of the Eurosystem.

The second component, i.e. DNB's position vis-à-vis the ECB due to the annual pooling and distribution of monetary income by the Eurosystem NCBs shows a net balance of EUR (504) million at the end of the year (31 December 2017: EUR (537) million). It can be broken down into a liability of EUR 507 million relating to 2018 and a claim of EUR 3 million relating to the years 2016 and 2017 due to the announcement of the real interest rates on the TLTRO II loans.

The third component is DNB's claim on the ECB in connection with the interim profit distribution by the ECB. For 2018, the Governing Council of the ECB decided to distribute interim profits of EUR 1,191 million (31 December 2017: EUR 988 million) to the Eurosystem NCBs. As at 31 December 2018, the amount allocated to DNB totalled EUR 68 million (31 December 2017: EUR 56 million).

9. Other assets

As at 31 December 2018, this item totalled EUR 4,516 million (31 December 2017: EUR 4,158 million).

- 9.2 Tangible and intangible fixed assets

The table below sets out the components of and movements in 'Tangible and intangible fixed assets'.

Millions

	Total tangible and intangible fixed assets	Total tangible fixed assets	Buildings and land	Fittings	Fixed assets under construction	Total intangible fixed assets	Development costs (software)
	EUR	EUR	EUR	EUR	EUR	EUR	EUR
Book value as at 1 January 2018	**205**	*175*	130	35	10	*30*	30
Movements:							
Reclassification	**-**	*-*	6	1	(7)	*-*	-
Additions	**19**	*16*	0	7	9	*3*	3
Disposals	**0**	*0*	-	0	-	*-*	-
Depreciation and amortisation	**(47)**	*(34)*	(18)	(16)	-	*(13)*	(13)
Impairment losses	**-**	*-*	-	-	-	*-*	-
Book value as at 31 December 2018	**177**	*157*	**118**	**27**	**12**	*20*	**20**
Cost	**621**	533	363	158	12	*88*	88
Accumulated depreciation and amortisation	**(444)**	*(376)*	(245)	(131)	-	*(68)*	(68)
Book value as at 31 December 2018	**177**	*157*	**118**	**27**	**12**	*20*	**20**

Owing to the renovation of the Westeinde 1 office building and the planned move from the Wassenaar office building, accelerated depreciation will be applied to both buildings.

- 9.3 Other financial assets

The table below provides a breakdown of 'Other financial assets' by currency.

Millions

	31 December 2018	31 December 2017
	EUR	EUR
EUR	1,099	752
USD	1,395	1,452
Total	**2,494**	**2,204**

The table below sets out the subcategories of 'Other financial assets'.

Millions

	31 December 2018	31 December 2017
	EUR	EUR
Participating interests	61	61
Equity funds	1,650	1,455
Bond funds	630	499
Other receivables	153	189
Total	**2,494**	**2,204**

Participating interests

The participating interests concern shares in the Bank for International Settlements (BIS), the Society for Worldwide Interbank Financial Telecommunication SCRL (SWIFT), and N.V. Settlement Bank of the Netherlands (SBN). The shareholding percentages for the BIS and SBN are unchanged from 2017, The BIS shares are 25% paid-up. As in 2017, the contingent liability for the uncalled part of the shares stood at SDR 64.9 million as at 31 December 2018. Although DNB holds 100% of the shares in SBN, this entity is not within DNB's scope of consolidation. The reason is that DNB cannot exercise any policy-making influence over SBN, which is entirely controlled by external parties.

Percentages and millions

Participating interests	Participation share	Location	Shareholders equity*	31 December 2018	31 December 2017
			EUR	EUR	EUR
BIS	3.10	Basel (Switzerland)	22,842	52	52
SWIFT	0.03	La Hulpe (Belgium)	469	0	0
SBN	100.00	Amsterdam	9	9	9
Total				**61**	**61**

* Shareholders' equity of SWIFT and SBN is based on the 2017 annual financial statements. Shareholders' equity of the BIS is based on the 2017/2018 annual financial statements (financial year from 1 April 2017 through 31 March 2018).

Equity funds

Equity funds consist of equity index investments. As at 31 December 2018, they stood at EUR 1,650 million (31 December 2017: EUR 1,455 million).

Bond funds

Bond funds consist of corporate bonds. As at 31 December 2018, they stood at EUR 630 million (31 December 2017: EUR 499 million).

Other receivables

'Other receivables' include mainly receivables arising from mortgage loans extended to DNB staff.

- 9.4 Off-balance sheet instruments revaluation differences

This balance sheet item is composed of the currency revaluation differences on the off-balance sheet instruments. As at 31 December 2018, the currency revaluation differences stood at EUR (284) million (see item 10 under 'Liabilities' on page 165; 31 December 2017: EUR 131 million).

- 9.5 Accruals and prepaid expenses

As at 31 December 2018, this item stood at EUR 1,788 million (31 December 2017: EUR 1,608 million), consisting predominantly of accrued interest and unamortised forward results. The table below provides a breakdown of the unamortised results.

Millions

	31 December 2018	31 December 2017
	EUR	EUR
Currency swaps	117	82
Currency forwards	2	1
Interest rate swaps	-1	-
Total	**118**	**83**

Liabilities

1. Banknotes in circulation

This item represents DNB's share in the total euro banknotes circulated by the Eurosystem.

The table below sets out the composition of banknotes put into circulation by DNB less banknotes returned to DNB, by denomination.

Millions

	31 December 2018		31 December 2017	
	Number	EUR	Number	EUR
EUR 5	(168)	(841)	(155)	(775)
EUR 10	(179)	(1,789)	(163)	(1,631)
EUR 20	(565)	(11,300)	(543)	(10,851)
EUR 50	575	28,751	524	26,217
EUR 100	(38)	(3,836)	(27)	(2,662)
EUR 200	30	5,921	30	6,087
EUR 500	(13)	(6,678)	(12)	(5,970)
Total euro banknotes circulated by DNB		10,228		10,415
Reallocation of euro banknotes in circulation	59,793		56,170	
Euro banknotes allocated to the ECB				
(8% of the sum of 10,228 + 59,793)	(5,602)		(5,327)	
		54,191		50,843
Total		**64,419**		**61,258**

In 2018 the total value of the banknotes in circulation within the Eurosystem rose by 5%. As a result of the reallocation of banknotes, DNB's banknotes in circulation totalled EUR 64,419 million as at 31 December 2018 (31 December 2017: EUR 61,258 million). The value of the banknotes actually put into circulation by DNB decreased by 2%, from EUR 10,415 million to EUR 10,228 million. The difference of EUR 54,191 million between the reallocated amount and the total amount of euro banknotes put into circulation through DNB is recognised under 'Net claims related to the allocation of euro banknotes within the Eurosystem'. The negative numbers of banknotes for certain denominations are accounted for by the fact that, on a net basis, DNB issued fewer of these banknotes than it received from circulation.

DNB has entered into consignment agreements with commercial banks, under which these banks hold banknotes on location overnight, with DNB being the legal and beneficial owner of the banknotes. The item 'Banknotes in circulation' does not include the movement in banknotes held on consignment between the next-to-last business day and the balance sheet date, which is EUR 74 million (31 December 2017: EUR 191 million). The banknotes given on consignment are processed on the first business day after year-end.

2. Liabilities to euro area credit institutions related to monetary policy operations denominated in euro

This item relates to liabilities to credit institutions arising from DNB's money market policy conducted on behalf of the Eurosystem. As at 31 December 2018, this item stood at EUR 178,101 million (31 December 2017: EUR 170,327 million).

As at 31 December 2018, the breakdown of 'Liabilities to euro area credit institutions related to monetary policy operations denominated in euro' was as follows:

- 2.1 Current accounts (covering the minimum reserve system)

These liabilities, amounting to EUR 162,308 million as at 31 December 2018 (31 December 2017: EUR 129,031 million) relate to amounts held by banks in accounts with DNB, including amounts held in order to meet their minimum reserve requirements. The main refinancing rate of interest is paid on these mandatory reserve holdings. Since June 2014, commercial banks have been charged interest on the balance held in excess of the reserve requirement at the lower of 0% and the deposit rate.

- 2.2 Deposit facility

This permanent facility, amounting to EUR 15,793 million as at 31 December 2018 (31 December 2017: EUR 41,296 million), may be used by credit institutions to place overnight deposits at DNB at the deposit rate of interest.

- 2.3 Fixed-term deposits

These are liquidity absorption operations that take the form of deposits. As in 2017, no bids were made in 2018.

- 2.4 Fine-tuning reverse operations

These are monetary policy operations intended to tighten liquidity. As in 2017, no such operations were conducted in 2018.

- 2.5 Deposits related to margin calls

These are deposits made by credit institutions to compensate any decrease in value of securities pledged as collateral for credits granted to those institutions. In 2018, as in 2017, no deposits related to margin calls were held.

3. Other liabilities to euro area credit institutions denominated in euro

This item, amounting to EUR 824 million (31 December 2017: EUR 49 million) consisted entirely of euro-denominated repos.

4. Liabilities to other euro area residents denominated in euro

As at 31 December 2018, this item totalled EUR 2,944 million (31 December 2017: EUR 3,954 million).

- 4.1 General government

This item, amounting to EUR 2,193 million (31 December 2017: EUR 3,330 million) consists of liabilities payable on demand to the government.

- 4.2 Other liabilities

This item, amounting to EUR 751 million (31 December 2017: EUR 624 million), comprising non-monetary deposits.

5. Liabilities to non-euro area residents denominated in euro

This item, amounting to EUR 62,221 million (31 December 2017: EUR 37,560 million), consists mainly of liabilities to non-euro area financial institutions of EUR 59,562 million (31 December 2017: EUR 33,796 million), liabilities to the Single Resolution Fund of EUR 1,792 million (31 December 2017: EUR 1,799 million) and liabilities arising from repo transactions of EUR 863 million (31 December 2017: EUR 1,874 million).

8. Counterpart of special drawing rights allocated by the IMF

This item is disclosed under the asset item 'Receivables from the International Monetary Fund (IMF)'.

10. Other liabilities

As at 31 December 2018, this item stood at EUR 764 million (31 December 2017: EUR 499 million), consisting predominantly of revaluation differences on the off-balance sheet instruments of EUR 284 million (31 December 2017: asset item 9.4 of EUR 131 million, see page 162), accrued interest related to TLTRO II operations of EUR 203 million (31 December 2017: EUR 125 million) and collateral provided by counterparties of EUR 193 million (31 December 2017: EUR 280 million).

The breakdown of the revaluation differences can be found in the table of off-balance sheet positions related to currency swaps, currency forwards and interest rate swaps on page 172.

11. Provisions

Provisions can be broken down as follows:

Millions

	Total	Provision for credit and interest rate risks	Provision for monetary policy operations	Provision for employee benefits	Other provisions
	EUR	EUR	EUR	EUR	EUR
Balance as at 31 December 2016	**1,016**	1,000	-	13	3
Withdrawal	**(8)**	(4)	-	(1)	(3)
Release	**0**	0	-	0	0
Addition	**508**	500	4	1	3
Balance as at 31 December 2017	**1,516**	1,496	4	13	3
Withdrawal	**(16)**	(9)	(4)	(1)	(2)
Release	**-**	-	-	0	0
Addition	**517**	500	9	0	8
Balance as at 31 December 2018	**2,017**	1,987	9	12	9

Provision for credit and interest rate risks

As in 2017, EUR 500 million was added to the 'Provision for credit and interest rate risks' in 2018. EUR 9 million (31 December 2017: EUR 4 million) was charged to the provision due to the impairment of a security held in a Eurosystem NCB's CSPP portfolio. As at 31 December 2018, this item stood at EUR 1,987 million (31 December 2017: EUR 1,496 million).

Section 4.2.5 of the Annual Report provides a more detailed discussion on the risks to which DNB is exposed.

Provision for monetary policy operations

Prompted by the impairment of a security held as part of the CSPP portfolio, the ECB's Governing Council has decided to form a EUR 161 provision against future losses from monetary operations in 2018. In accordance with Article 32.4 of the ESCB and ECB Statute, the provision was formed by all participating Eurosystem NCBs in proportion to their ECB capital keys. Accordingly, EUR 9 million was added to the provision for monetary policy operations.

A similar provision, of EUR 69 million, was formed in 2017 relating to losses realised on a security in an NCB's CSPP portfolio. The amount of this provision in the 2017 financial statements was calculated based on information obtained at the time of the security sale in January 2018. DNB's share in the realised loss (EUR 4 million) was withdrawn from the provision in 2018.

Provision for employee benefits

DNB operates the following arrangements:

- a defined benefit pension scheme
- a contribution to the health care insurance premiums of pensioners (limited group)
- a service anniversary and retirement bonus arrangement
- a social plan arrangement

DNB operates a staff pension scheme, which features provisional indexation based on the consumer price index in line with that for pensioners and former DNB staff. Annual indexation takes place only if DNB Pension Fund's financial position allows this. DNB Pension Fund's funding ratio stood at 123.4% at 31 December 2018, which means it was not underfunded. Accordingly, partial indexation was applied in the year under review. The pension contribution paid is charged to the profit and loss account rather than set against a provision.

The contribution towards the health insurance premiums payable by pensioners is an allowance for a limited group of pensioners towards the costs concerned and may be characterised as a temporary transitional arrangement.

The service anniversary and retirement bonus arrangements provide for bonuses payable to staff upon 20, 30, 40 and 50 years' service, retirement, and payments and payments made in the event of incapacity for work and to surviving dependants.

 The liabilities and annual costs are actuarially determined. The assumptions used were:

	31 December 2018	31 December 2017
Discount rate for other employee benefits	Scheme-dependent (anniversaries: 1.45% other: 1.35%)	Scheme-dependent (anniversaries: 1.40% other: 1.30%)
Price inflation	2.0%	2.0%
General salary increase	2.0%	2.0%
Individual salary increase (average)	2.0%	2.0%
Expected average retirement age	Assumption for all participants: 67 years	Assumption for all participants: 67 years
Mortality outlook	AG 2016 mortality table + mortality experience	AG 2018 mortality table + mortality experience

Other provisions

EUR 8 million was added to the 'Other provisions' in 2018 for staff-related expenses with respect to the planned outsourcing of ICT services.

12. Revaluation accounts

As at 31 December 2018, this item totalled EUR 21,726 million (31 December 2017: EUR 21,035 million). The table below sets out the components of and net movements in the revaluation accounts.

Millions

	Total	Gold	Foreign currency	Securities and other financial instruments
	EUR	EUR	EUR	EUR
Balance as at 31 December 2016	**21,347**	20,496	158	693
Net revaluation movements	**(312)**	(319)	(96)	103
Balance as at 31 December 2017	**21,035**	20,177	62	796
Net revaluation movements	**691**	770	33	(112)
Balance as at 31 December 2018	**21,726**	**20,947**	**95**	**684**

The increase in the aggregate amount for the revaluation accounts of EUR 691 million can be largely ascribed to the higher market value of gold seen in 2018.

13. Capital and reserves

DNB's authorised capital, which is fully issued and paid up, amounts to EUR 500 million and is divided into 500 shares of EUR 1 million each. All shares are held by the Dutch State. The statutory reserve has been formed for the book value of the intangible fixed assets.

The table below sets out the movements in capital and reserves before appropriation of profit:

Millions

	Total	Issued capital	General reserve	Statutory reserve
	EUR	EUR	EUR	EUR
Balance as at 31 December 2016	**7,927**	500	7,392	35
Profit for the year 2016	**43**			
Dividend	**(41)**			
*Addition of 2016 net profit**	**2**		2	
Movement in statutory reserve	**-**		5	(5)
Balance as at 31 December 2017	**7,929**	**500**	**7,399**	**30**
Profit for the year 2017	**121**			
Dividend	**(115)**			
*Addition of 2017 net profit**	**6**		6	
Movement in statutory reserve	**-**		10	(10)
Balance as at 31 December 2018	**7,935**	**500**	**7,415**	**20**

* Addition of net profit concerns profit after dividend payment.

14. Profit for the year and appropriation of profit

The profit for the 2018 financial year was EUR 188 million (31 December 2017: EUR 121 million).

With due observance of the relevant provision of the Articles of Association, the proposed appropriation of profit is set out below.

Millions

	2018	2017
	EUR	EUR
Addition to the general reserve	9	6
Distribution to the State	179	115
Profit for the year	**188**	**121**

Other notes to the balance sheet

Off-balance sheet positions revaluation differences

The revaluation differences relating to off-balance sheet positions are shown below:

Millions

	31 December 2018								31 December 2017							
	Total	EUR	USD	JPY	GBP	CNH	DKK	SDR	Total	EUR	USD	JPY	GBP	CNH	DKK	SDR
Currency swaps																
Receivables	**7,767**	6,256	1,511	-	-	-	-	-	**9,447**	7,311	2,136	-	-	-	-	-
Payables	**(8,046)**	(60)	(5,115)	(1,456)	(10)	(13)	(329)	(1.063)	**(9,317)**	(728)	(6,185)	(1,448)	(10)	(13)	(161)	(772)
	(279)	6,196	(3,604)	(1,456)	(10)	(13)	(329)	(1,063)	**130**	6,583	(4,049)	(1,448)	(10)	(13)	(161)	(772)
Currency forwards																
Receivables	**7,024**	3,679	3,345	-	-	-	-	-	**3,569**	1,831	1,738	-	-	-	-	-
Payables	**(7,029)**	(3,112)	(3,399)	(1)	-	-	-	(517)	**(3,568)**	(1,777)	(1,791)					
	(5)	567	(54)	(1)	-	-	-	(517)	**1**	54	(53)	-	-	-	-	-
Interest rate swaps	**0**	-	0	-	-	-	-	-	**-**	-	-	-	-	-	-	-
Total*	**(284)**	**6,763**	**(3,658)**	**(1,457)**	**(10)**	**(13)**	**(329)**	**(1,580)**	**131**	**6,637**	**(4,102)**	**1,448**	**(10)**	**(13)**	**(161)**	**(772)**

* DNB has fully hedged the exchange rate risk of the exposures listed, except for working stocks.

The currency swaps and forwards are used to hedge currency risks. The purpose of an interest rate swap is to hedge interest rate risk.

A currency swap is a transaction in which parties agree to directly buy or sell one currency in exchange for another currency at the spot rate and later to sell or buy back the currency at the forward rate. The spot purchase or sale is shown in the balance sheet, while the forward sale or purchase is recorded as an off-balance sheet item at the forward rate.

A currency forward contract is a transaction in which parties agree to buy or sell a currency in return for another currency at a specific rate and for delivery at a date in the future. These positions are shown off-balance sheet, at the forward rate. Differences between the spot and forward rates for currency swaps and forwards are amortised and recognised in the profit and loss account. Unamortised forward results are recognised in the balance sheet under 'Accruals and prepaid expenses'. These currency positions are included in the revaluation accounts in the balance sheet.

An interest rate swap is a contract under which two parties exchange streams of interest payments in a single currency over a set period of time without exchanging the principal amount.

Foreign currency position

As at 31 December 2018, the euro equivalent of the total sum of assets denominated in foreign currency (included in asset items 2, 3 and 9.3) amounted to EUR 14,020 million (31 December 2017: EUR 13,641 million). As at 31 December 2018, the euro equivalent of the total sum of liabilities denominated in foreign currency (included in liability items 6, 7 and 8) amounted to EUR 5,878 million (31 December 2017: EUR 5,744 million). DNB has fully hedged its currency exposures, except for working stocks.

Custody

DNB holds securities and other documents of value in custody for third parties. Such custody is for the account and risk of the depositors.

Buffers to absorb balance sheet-wide risks

The financial risks for DNB remained significant in 2018 as a result of the measures taken by the Eurosystem to stabilise the functioning of the euro area. The financial risk as at 31 December 2018 was determined at EUR 5.2 billion (31 December 2017: EUR 8.4 billion). Of the total EUR 5.2 billion balance sheet-wide risk, EUR 2.3 billion relates to specific risks under the APP[13]. EUR 500 million was added to the 'Provision for credit and interest rate risks' in 2018 with a view to these risks. As at 31 December 2018, this provision stood at EUR 1,987 million (31 December 2017: EUR 1,496 million), following a EUR 9 million impairment charge.

13 The APP risk consists of credit risk relating to the asset purchases (excluding exposures to the Dutch government) and interest rate risk.

The table below provides a breakdown of the buffers for balance sheet-wide risks.

Millions

	31 December 2018	31 December 2017
	EUR	EUR
Capital and reserves (excluding statutory reserve)	7,915	7,899
Provision for credit and interest rate risks	1,987	1,496
Total	**9,902**	**9,395**

Events after the balance sheet date

Pursuant to Article 28 of the ESCB Statute, the NCBs of the ESCB are the sole subscribers to the capital of the ECB. The weighting assigned to DNB is laid down in accordance with Article 29 of the Statute of the ESCB and the ECB and is revised every five years. It was most recently revised on 1 January 2019, raising DNB's Eurosystem capital key from 5.6875% to 5.8429%. The next revision is due in five years' time, unless Member States join or leave the ESCB.

Off-balance sheet rights and liabilities

Liability claims and procedures

By reason of its supervisory task or otherwise, DNB may receive liability notices or pre-announcements of such notices. In some cases liability proceedings have been brought against DNB. Where the liability amounts cannot reasonably be estimated or where reasonable doubts remain as to whether a liability will have to be settled, DNB suffices by disclosing such cases in this section. The relevant current case is discussed in more detail below.

In September 2016, a foundation which had previously operated as an insurer without licence and its managing director instituted legal proceedings against DNB before the cantonal section of the Amsterdam District Court, claiming damages. They asserted that DNB had acted unlawfully with respect to the foundation and its managing director. The case was referred to District Court in the next instance, which considered the claimants' action inadmissible. The foundation and its managing director appealed from the ruling. The Amsterdam Court of Appeal is expected to rule on the appeal in 2019.

IMF

As the implementing body of the Dutch IMF membership, DNB has made various credit lines available to the IMF. More details are provided on pages 145 to 147.

Rental and lease agreements

DNB has rented the Toorop building and the neighbouring building at Omval in Amsterdam since 1 July 2018. The rental agreements expire on 31 August 2025. DNB will relocate in early 2020 as its office building at Westeinde 1 is due to undergo major renovation. Annual rental expenses are charged to profit. The rental liability is presented in the table below.

Several DNB staff members are entitled to a lease car on the basis of their positions. By default, the duration of car lease contracts is 4 or 5 years, with the option of renewal. The liability under the present car lease contracts is presented in the table below. Renewal at the current prices is assumed for staff members whose contracts expire in 2018.

Millions

	Total	2019	2020 to 2023	2024 and beyond
	EUR	EUR	EUR	EUR
Rental agreements	**53**	7	32	14
Lease contracts	**3**	1	2	-
Total	**56**	**8**	**34**	**14**

3 Notes to the profit and loss account

Operating income

1 and 2 Net interest income

This item includes interest income and interest expense in respect of the assets and liabilities denominated in euro.

The table below provides a breakdown of interest income.

Millions

	2018	2017
	EUR	EUR
Investments	121	123
Liabilities to euro area credit institutions	939	861
Other liabilities	125	81
Monetary portfolios	445	413
Total	**1,630**	**1,478**

Interest income went up primarily because DNB's liabilities increased (liability items 2 and 5) and owing to the ECB's monetary policy purchase programmes (asset item 7.1). Institutions pay interest at a rate equal to the deposit facility rate for maintaining funds at DNB.

The table below sets out the components of interest expense.

Millions

	2018	2017
	EUR	EUR
Lending	(79)	(102)
Other	(184)	(144)
Total	**(263)**	**(246)**

 Interest expenses related to lending concern the charges incurred on the TLTRO II loans (see notes to asset item 5.2). 'Other' predominantly relates to the costs of hedging foreign exchange risks.

3. Realised gains/(losses) from financial operations

Millions

	2018	2017
	EUR	EUR
Net realised exchange rate losses	(2)	(2)
Net realised price gains on fixed-income securities	12	18
Net realised price gains on equities	2	36
Net realised price losses on bond funds	(13)	-
Total	**(1)**	**52**

4. Write-downs on financial assets and positions

The write-downs of EUR 42 million (2017: EUR 14 million) consist mainly of price revaluation losses on corporate bonds that could not be recognised under 'Revaluation accounts'.

5. Transfer to/(from) provision for credit and interest rate risks

Based on the outcome of the risk assessment, an amount of EUR 500 million was added to the provision for credit and interest rate risks (2017: EUR 500 million). In addition, EUR 9 million (2017: EUR 4 million) was charged to the provision due to the impairment of a security held by a Eurosystem NCB under the CSPP.

8. Income from equity shares and participating interests

For 2018, this item amounted to EUR 93 million (2017: EUR 79 million) and mainly included income from DNB's participating interest in the ECB and dividends from investments.

Income from DNB's participating interest in the ECB can be broken down as follows.

Millions

	2018	2017
	EUR	EUR
Interim profit distribution in the financial year	68	56
Final profit distribution for the preceding financial year	16	13
Total	**84**	**69**

9. Net result from monetary income pooling

The amount of each Eurosystem NCB's monetary income is determined by measuring the actual annual income that derives from the earmarked assets held against its liability base. The earmarkable assets consist of the following items: 'Lending to euro area credit institutions related to monetary policy operations denominated in euro', 'Securities held for monetary policy purposes', 'Claims equivalent to the transfer of foreign reserves to the ECB', 'Net claims related to the allocation of euro banknotes within the Eurosystem', 'Other intra-Eurosystem claims (net)' and a limited amount of gold reserves in proportion to the Eurosystem's capital key. Gold is assumed to generate no income. Securities held for monetary policy purposes[14], which include securities issued by central governments and agencies[15], are deemed to generate income at the refinancing rate. Where the value of an NCB's earmarked asset exceeds or falls short of the value of its liability base, the difference is offset by applying the refinancing percentage to the value of the difference. The income on the earmarked assets is included under 'Interest income'. The liability base consists of the following items: 'Banknotes in circulation', 'Liabilities to euro area credit institutions related to monetary policy operations denominated in euro' and 'Other intra-Eurosystem liabilities (net)'. Any interest paid on items included in the liability base is deducted from the monetary income to be pooled.

14 Decision ECB/2009/16 of 2 July 2009 on the implementation of the covered bond purchase programme and Decision ECB/2011/17 of 3 November 2011 on the implementation of the second covered bond purchase programme.
15 Decision ECB/2015/10 of 4 March 2015 on a secondary markets public sector asset purchase programme.

The net result from monetary income pooling can be broken down as follows.

Millions

	2018	2017
	EUR	EUR
Monetary income accruing to DNB	694	614
Monetary income earned by DNB	(1,201)	(1,151)
Result of monetary income pooling	(507)	(537)
Adjustment of monetary income pooling from preceding years	3	0
Provision for monetary policy operations	(5)	(4)
Net result from monetary income pooling	**(509)**	**(541)**

The monetary income pooled by the Eurosystem NCBs is to be allocated among the NCBs in proportion to the subscribed capital key. Monetary income pooling and redistribution leads to redistribution effects. Such effects may arise from, on the one hand, differences between NCBs of the Eurosystem with respect to returns on certain earmarked assets or interest paid on related liabilities. On the other hand, the shares of earmarkable assets and related liabilities of those national banks differ from the shares in the total earmarked assets and related liabilities allocated to the NCBs according to the Eurosystem capital key. For DNB, the result from monetary income pooling of EUR (507) million (2017: EUR (537) million) arises from the difference between the monetary income pooled by DNB, amounting to EUR 1,201 million, and the monetary income reallocated to DNB based on the capital key, amounting to EUR 694 million. The net result from monetary income pooling includes DNB's share in the provision for losses from monetary policy operations. This concerns both DNB's share in the provision formed for 2018 with regard to a security held under the CSPP and the Eurosystem settlement of the realised loss upon the sale of a CSPP security in early 2018 for which a provision had been formed in 2017.

10. Other income

This item includes the fees raised from the supervised institutions to cover supervision and resolution costs, as well as the government contribution to the performance of supervisory and resolution activities.

Other income can be broken down as follows.

Millions

	2018	2017
	EUR	EUR
Fees from supervised institutions	173	156
Government contribution	5	4
Other	0	29
Total	**178**	**189**

Operating costs

11. Staff costs

The average number of employees, expressed as full-time equivalents (FTEs), amounted to 1,816 in 2018, versus 1,762 on average in 2017.

The table below provides a breakdown of 'Staff costs' in 2018 and 2017.

Millions

	2018	2017
	EUR	EUR
Wages and salaries	(153)	(149)
Social insurance contributions	(21)	(17)
Pension costs	(33)	(32)
Other staff costs	(23)	(18)
Total	**(230)**	**(216)**

The pension scheme costs of EUR 33 million for the year (2017: EUR 32 million) are included under 'Pension costs'. They equal total pension contributions paid (2018: EUR 39 million; 2017: EUR 38 million), less employee-paid contributions (2018: EUR 6 million; 2017: EUR 6 million).

The annual costs on account of the contribution to the health care insurance premiums of pensioners are included under 'Social insurance contributions'. The annual costs on account of other employee benefits are included under 'Wages and salaries' and 'Social insurance contributions'.

Remuneration

General

Under the Public and Semi-public Sector Executives Remuneration (Standards) Act (Wet normering bezoldiging topfunctionarissen publieke en semipublieke sector – WNT), DNB is required to disclose the remuneration of its senior executives and of officials other than senior executives exceeding the remuneration ceiling referred to in the WNT. In 2014, the Ministry of Finance decided not to adjust the remuneration of DNB's incumbent Governing Board members during their current tenures. The Minister of Finance and the Minister of the Interior and Kingdom Relations have decided that DNB is allowed to agree with Governing Board members who were reappointed for a second term and Governing Board members who were newly appointed in 2018 on remuneration in excess of the ceiling referred to in the WNT.

The remuneration ceiling under the WNT for the financial year 2018 amounts to EUR 189,000 (2017: EUR 181,000). Unless stated otherwise, all officials mentioned worked in full-time employment throughout the year.

Governing Board

The individual maximum remuneration of the Governing Board members in 2018, as fixed by the Minister of Finance, includes holiday allowance, an extra month's pay and other terms and conditions of employment, but has no performance-related component. The pension scheme for the members of the Governing Board is in accordance with the agreements made with the Minister of Finance in 2005, and has been aligned with the statutory provisions at 1 January 2015. Like other staff, the members of the Governing Board contribute to their pension premiums.

The table below specifies the remuneration, taxable fixed and variable expense allowances and deferred remuneration (employer's pension contributions) for each member of the Governing Board.

	Total remuneration		Compensation		Taxable fixed and variable expense allowances		Deferred remuneration	
	2018	2017	2018	2017	2018	2017	2018	2017
	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR
Klaas Knot	416,621	423,288	382,079	389,298	8,867	8,745	25,675	25,245
Else Bos[1]	237,168	-	216,510	-	4,090	-	16,568	-
Frank Elderson	346,325	352,984	313,271	320,461	7,379	7,278	25,675	25,245
Nicole Stolk[2]	210,391	180,517	180,835	153,864	4,890	2,400	24,666	24,253
Job Swank	349,319	353,982	316,265	321,459	7,379	7,278	25,675	25,245
Jan Sijbrand[3]	205,938	382,715	188,140	346,919	5,085	10,551	12,713	25,245
Total	**1,765,762**	**1,693,486**	**1,597,100**	**1,532,001**	**37,690**	**36,252**	**130,972**	**125,233**

1 Else Bos joined DNB on 1 May 2018, initially as a division director. She was appointed to the Governing Board with effect from 1 July 2018. Her remuneration for 2018 includes that as a division director.

2 Nicole Stolk served as Secretary-Director until 1 July 2018, after which she was appointed to the Governing Board. Her remuneration for 2017 and 2018 includes that as Secretary-Director.

3 Jan Sijbrand stepped down with effect from 1 July 2018. His remuneration shows a permissible excess over and above the remuneration ceiling owing to his departure halfway through the year, the payment of his holiday allowance in April and the final settlement in July.

Remuneration paid to the members of the Supervisory Board

Members of the Supervisory Board are paid fees in line with the WNT, which stipulates maximum fees of 10% and 15% of the remuneration ceiling for members and the Chair, respectively.

In 2018 and 2017, the members of the Supervisory Board were paid the following fees:

	2018	2017
	EUR	EUR
Wim Kuijken (Chair)	28,350	27,150
Margot Scheltema (Vice-Chair)[1]	18,900	18,100
Jaap van Manen (Vice-Chair)[2]	14,136	18,100
Roger Dassen[3]	4,764	-
Annemieke Nijhof[4]	18,900	18,100
Feike Sijbesma	18,900	18,100
Kees Goudswaard[4]	18,900	18,100
Marry de Gaay Fortman	18,900	18,100
Total	**141,750**	**135,750**

1 Margot Scheltema was appointed Vice-Chair with effect from 1 October 2018.
2 Jaap van Manen served as Vice-Chair until 1 October 2018.
3 Roger Dassen was appointed with effect from 1 October 2018.
4 They are also members of the Bank Council, for which they were each paid EUR 3,299 on an annual basis (2017: EUR 3,140), which is not included here.

Officials with remuneration that exceeds the WNT ceiling

In compliance with the WNT, DNB also reports remuneration of officials other than executives that exceeds the WNT ceiling. In respect of these officials the WNT does not impose a ceiling, but prescribes disclosure. The remuneration of these officials exceeds the WNT standard as a result of DNB's package of employment conditions. The number of officials whose remuneration details we publish fell from 37 to 29 compared with the previous year.

Remuneration overview

The table below shows the non-senior executives, listed by position, whose remuneration exceeds the WNT maximum. Where an official resigned over the course of the calendar year, his or her remuneration is also presented if, on an annual basis, it exceeds the WNT maximum.

	Total remuneration		Average number of hours a week		Compensation		Taxable fixed and variable expense allowances		Deferred remuneration	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Position	EUR	EUR			EUR	EUR	EUR	EUR	EUR	EUR
Division Director	314,103	316,251	38.5	38.5	285,982	288,542	2,400	2,418	25,721	25,291
Division Director	273,247	263,340	38.5	38.5	245,126	235,649	2,400	2,400	25,721	25,291
Division Director	269,911	255,917	38.5	38.5	241,790	228,166	2,400	2,460	25,721	25,291
Division Director	260,019	256,428	38.5	38.5	231,898	228,737	2,400	2,400	25,721	25,291
Division Director	254,764	251,059	38.5	38.5	226,643	223,141	2,400	2,627	25,721	25,291
Division Director	253,788	249,576	38.5	38.5	225,667	221,885	2,400	2,400	25,721	25,291
Division Director	246,535	247,860	38.5	38.5	218,414	220,169	2,400	2,400	25,721	25,291
Division Director	243,676	226,356	36	36	215,601	198,711	2,400	2,400	25,675	25,245
Division Director	237,741	205,445	36	36	209,648	177,766	2,418	2,434	25,675	25,245
Division Director	231,860	204,495	36	36	204,742	177,797	2,452	2,445	24,666	24,253
Division Director	222,272	204,791	36	36	194,191	177,146	2,406	2,400	25,675	25,245
Division Director [1]	219,253	281,076	38.5	38.5	200,533	253,385	1,600	2,400	17,120	25,291
Division Director	215,443	198,927	36	36	188,302	172,274	2,475	2,400	24,666	24,253
Division Director	211,276	165,165	36	36	182,593	138,120	3,008	1,800	25,675	25,245
Division Director	208,427	193,304	36	36	180,277	165,844	2,475	2,215	25,675	25,245
Division Director	199,380	194,461	36	36	171,271	166,810	2,434	2,406	25,675	25,245
Head of Department	220,202	243,754	36	37.2	192,727	216,386	1,800	2,100	25,675	25,268
Head of Department	219,328	214,882	40	40	191,779	187,764	1,800	1,800	25,749	25,318
Head of Department	215,357	221,902	36	36	186,727	192,729	2,955	3,928	25,675	25,245
Head of Department	206,797	201,923	36.8	37.8	179,308	174,846	1,800	1,800	25,689	25,277
Head of Department	202,488	201,194	38.5	38.5	174,967	174,103	1,800	1,800	25,721	25,291
Head of Department	200,982	180,564	36	36	173,507	153,519	1,800	1,800	25,675	25,245
Head of Department	198,201	172,236	36	36	170,726	145,191	1,800	1,800	25,675	25,245
Head of Department	197,930	194,934	38.5	38.5	170,409	167,843	1,800	1,800	25,721	25,291
Head of Department	196,844	193,233	36	36	169,369	166,188	1,800	1,800	25,675	25,245
Head of Department	195,007	157,440	36	36	167,525	130,351	1,807	1,844	25,675	25,245
Head of Department	193,161	190,030	36	36	165,686	162,830	1,800	1,955	25,675	25,245
Expert	209,053	206,447	38.5	38.5	181,532	179,250	1,800	1,906	25,721	25,291
Expert	196,114	193,669	36	36	168,639	166,624	1,800	1,800	25,675	25,245

1 Resigned effective 1 September 2018.

12. Other administrative expenses

The table below specifies 'Other administrative expenses'.

Millions

	2018	2017
	EUR	EUR
Temporary staff and outsourcing	(64)	(50)
Travel and accommodation expenses	(5)	(5)
Accommodation	(10)	(10)
Office equipment, software and office expenses	(26)	(25)
General expenses	(9)	(10)
Total	**(114)**	**(100)**

'General expenses' include the fees paid to the external auditor. The table below provides a breakdown of the fees into categories.

Whole amounts

	2018	2017
	EUR	EUR
Audit of the financial statements	(523,050)	(526,927)
Other audit services	(166,315)	(90,750)
Other non-audit services	-	(97,031)
Total	**(689,365)**	**(714,708)**

The total fees for the audit of the financial statements are based on the fees paid during the financial year to which the audit related.

17. Corporate income tax

DNB's corporate income tax liability is limited to duties not assigned to it by law. The corporate income tax receivable for 2018 amounts to EUR 0 million (2017: EUR 3 million payable). In 2017 DNB achieved a taxable gain on the sale of real estate. In 2018 no significant results were posted that are related to duties not assigned to it by law.

Costs of DNB's duties as an independent public body (ZBO)

In its capacity as an independent public body, DNB exercises prudential supervision over financial institutions. In accordance with supervision and resolution legislation, a more detailed account is given in a separate report.

The actual costs as accounted for in that ZBO report were as follows:

Millions

	Actual 2018	Budget 2018	Actual 2017
	EUR	EUR	EUR
Banks, including other credit institutions	(70)	(69)	(61)
Pension funds	(30)	(29)	(27)
Insurers, including health insurers	(39)	(41)	(40)
Other institutions and Sanctions Act	(18)	(18)	(16)
Total costs of supervision	**(157)**	**(157)**	**(144)**
Resolution	(6)	(7)	(5)
Resolution of insurers	(1)	(2)	-
DGS for the European part of the Netherlands	(10)	(11)	(8)
DGS for the Caribbean Netherlands	-	-	(1)
Total costs of resolution and DGS	**(18)**	**(19)**	**(13)**
Total costs of duties as a ZBO	**(175)**	**(176)**	**(157)**
Interest compensation settlement	**0**	**0**	**(1)**

Totals may not add up owing to rounding. Presentation is in line with that in the ZBO report for 2018.

For detailed notes, please consult DNB's (Dutch-language) ZBO report on its public duties in 2018.

Amsterdam, 27 March 2019
Governing Board of De Nederlandsche Bank N.V.

Klaas Knot, *President*
Else Bos
Frank Elderson
Job Swank
Nicole Stolk

Amsterdam, 27 March 2019
Adopted by the Supervisory Board of De Nederlandsche Bank N.V.

Wim Kuijken, *Chair*
Margot Scheltema, *Vice-Chair*
Feike Sijbesma
Kees Goudswaard
Annemieke Nijhof
Marry de Gaay Fortman
Roger Dassen

4. Other information

Independent auditor's report

To the Supervisory Board of De Nederlandsche Bank N.V.

Report on the financial statements for 2018 as set out in the Annual Report

Our opinion

We have audited the financial statements of De Nederlandsche Bank N.V., Amsterdam, for the year ended 31 December 2018 as set out in this Annual Report on pages 135 to 190.

In our opinion, the 2018 financial statements of De Nederlandsche Bank N.V. have been compiled, in all material respects, in accordance with the accounting principles as set out in Guideline ECB/2016/34, supplemented by the applicable provisions of Part 9 of Book 2 of the Dutch Civil Code pursuant to Section 17 of the Bank Act 1998.

The financial statements comprise:

1. the balance sheet as at 31 December 2018;
2. the profit and loss account for the year then ended; and
3. the notes, comprising a summary of the accounting policies and other explanatory information.

Basis for our opinion

We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing and the Audit Protocol under the Public and Semi-public Sector Executives Remuneration (Standards) Act (Wet normering bezoldiging topfunctionarissen publieke en semipublieke sector – WNT). Our responsibilities under those standards are further described in the section "Our responsibilities for the audit of the financial statements" below.

We are independent of De Nederlandsche Bank N.V. in accordance with the Code of Ethics for Professional Accountants (Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten – ViO) and other relevant independence regulations in the Netherlands. Furthermore, we have complied with the Dutch Code of Ethics (Verordening gedrags- en beroepsregels accountants – VGBA).

We believe the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Report on the other information included in the Annual Report

In addition to the financial statements and our independent auditor's report thereon, the Annual Report contains other information that consists of:

- The Governing Board's report set out on pages 5 to 134; and
- the other information.

Based on the following procedures performed, we conclude that the other information:

- is consistent with the financial statements and does not contain material misstatements; and
- contains the information as required by Part 9 of Book 2 of the Dutch Civil Code.

We have read the other information. Based on our knowledge and understanding obtained through our audit of the financial statements or otherwise, we have considered whether the other information contains material misstatements.

By performing these procedures, we comply with the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Standard 720. The scope of the procedures performed is substantially less than the scope of those performed in our audit of the financial statements.

The Governing Board is responsible for the preparation of the Governing Board's report set out on pages 5 to 134 in accordance with Part 9 of Book 2 of the Dutch Civil Code and other information as required by Part 9 of Book 2 of the Dutch Civil Code.

Description of responsibilities regarding the financial statements

Responsibilities of the Governing Board and Supervisory Board for the financial statements

The Governing Board of De Nederlandsche Bank N.V. is responsible for the preparation and fair presentation of the financial statements in accordance with the accounting principles as set out in Guideline ECB/2016/34, supplemented by the applicable provisions of Part 9 of Book 2 of the Dutch Civil Code pursuant to Section 17 of the Bank Act 1998 and the provisions of and pursuant to the WNT. Furthermore, the Governing Board is responsible for such internal control as it determines necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

As part of the preparation of the financial statements, the Governing Board is responsible for assessing the company's ability to continue as a going concern. Based on the financial reporting frameworks mentioned, the Governing Board should prepare the financial statements using the going concern basis of accounting, unless it either intends to liquidate the company or to cease operations, or has no realistic alternative but to do so.

The Governing Board should disclose events and circumstances that may cast significant doubt on the company's ability to continue as a going concern in the financial statements.

The Supervisory Board is responsible for exercising supervision on the financial reporting process of De Nederlandsche Bank N.V.

Our responsibilities for the audit of the financial statements

Our objective is to plan and perform the audit assignment in a manner that allows us to obtain sufficient and appropriate audit evidence for our opinion.

Our audit has been performed with a high, but not absolute, level of assurance, which means we may not detect all material errors and fraud during our audit.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements. The materiality affects the nature, timing and extent of our audit procedures and the evaluation of the effect of identified misstatements on our opinion.

We have exercised professional judgement and have maintained professional skepticism throughout the audit, in accordance with Dutch Standards on Auditing, ethical requirements and independence requirements and the Audit Protocol under the WNT. Our audit included:

- Identifying and assessing the risks of material misstatement of the financial statements, whether due to fraud or error, designing and performing audit procedures responsive to those risks, and obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- Obtaining an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control;
- Evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Governing Board;
- Concluding on the appropriateness of the Governing Board's use of the going concern basis of accounting, and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related

disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause a company to cease to continue as a going concern;

- Evaluating the overall presentation, structure and content of the financial statements, including the disclosures.
- Evaluating whether the financial statements have been compiled in accordance with the accounting principles as set out in Guideline ECB/2016/34, supplemented by the applicable provisions of Part 9 of Book 2 of the Dutch Civil Code pursuant to Section 17 of the Bank Act 1998.

We communicate with the Supervisory Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant findings in internal control that we identify during our audit.

Amsterdam, 27 March 2019

Deloitte Accountants B.V.

Carlo Renne

Provisions governing the appropriation of profit

These provisions are set out in Article 22(2) of the Articles of Association of De Nederlandsche Bank N.V. and read as follows:
The profit, as shown in the adopted annual accounts, is at the disposal of the general meeting.