# 2017 Annual Report

DeNederlandscheBank

EUROSYSTEEM

## Working on trust

**DNB seeks to safeguard financial stability and thus contributes to sustainable prosperity in the Netherlands.**

As an independent central bank, supervisory authority and resolution authority, DNB works in tandem with its 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.

By issuing independent economic advice, DNB strengthens policies aimed at its primary targets.

# De Nederlandsche Bank N.V.
# 2017 Annual Report

Presented to the general meeting held on 28 March 2018.

Central bank and prudential supervisor of financial institutions

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# Contents

# Charts

## Figures



## Tabellen



## Annex

The cut-off date for this Report was 15 March 2018.

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.

# Organisation and governance



From left to right: Frank Elderson, Job Swank, Klaas Knot and Jan Sijbrand

At the adoption of the 2017 financial statements, the Governing Board, Supervisory Board, Bank Council and Employees Council were composed as follows:

## Governing Board

**President:** Klaas Knot (1967, NL, economics, end of first term: 2018)

**Executive Director:** Jan Sijbrand (1954, NL, mathematics, end of first term: 2018)

**Executive Director:** Frank Elderson (1970, NL, Dutch law, end of first term: 2018)

**Executive Director:** Job Swank (1955, NL, economics, end of first term: 2018)

**Secretary-Director:** Nicole Stolk (1969, NL, history and Dutch law)

**Company Secretary:** Gert-Jan Duitman (1981, NL, business administration)
The allocation of responsibilities among the members of the Governing Board and the Secretary-Director is represented in the organisation chart on DNB's website.
The Governing Board appointed Gert-Jan Duitman Company Secretary as of 1 August 2017.

## Supervisory Board

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

**Vice-Chair:** Jaap van Manen (1950, NL, economics, end of second term: 2018)
Chair of the Supervision Committee.

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

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

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

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

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

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

**Audit Committee**
Kees Goudswaard, Chair
Margot Scheltema

**Supervision Committee**
Jaap van Manen, Chair
Annemieke Nijhof
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 of the Supervisory Board.

Annemieke Nijhof
Government-appointed member of the Supervisory Board.

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.

David Knibbe
Chair of the Dutch Association of Insurers.

Maurice Limmen
Chair of CNV.

Kick van der Pol
Chair of the Federation of the Dutch Pension Funds.

(vacancy)
Chair of Royal Association MKB-Nederland.

**Representative of the Ministry of Finance:**
(vacancy), Treasurer General.

Han Busker was appointed as member of the Bank Council in his capacity as Chair of FNV for a first term of four years as of 1 June 2017. As of the same date, Chris Buijink was reappointed as member of the Bank Council in his capacity as Chair of the Dutch Banking Association for a second term of four years. Michaël van Straalen was reappointed as member of the Bank Council in his capacity as Chair of Royal Association MKB-Nederland as of 1 September 2017. He resigned as Chair of Royal Association MKB-Nederland on 29 January 2018. Maurice Limmen was reappointed as member of the Bank Council in his capacity as Chair of CNV for a second term of four years.

## Employees Council

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

## 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. As the supervisory authority and resolution authority, DNB is an independent public body.

DNB is managed by the Governing Board, which comprises 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).

One of the Executive Directors also chairs the Prudential Supervision Council for Financial Institutions, and as such holds primary responsibility for supervision policies. This Executive Director, who is also responsible for banking supervision, is a member of the ECB's Supervisory Board on DNB's behalf. 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). DNB has a Prudential Supervision Council for Financial Institutions, chaired by the Chairman for Prudential Supervision, to support the internal deliberations and decision-making concerning supervisory matters. Within the Governing Board, DNB's national supervisory tasks are assigned to the Executive Directors of Supervision, without prejudice to the joint responsibility of the Governing Board as such.

Another Executive Director is responsible for resolution and in charge of resolution tasks concerning Dutch banks and investment firms. This Executive Director is also a member of the Single Resolution Board (SRB) on DNB's behalf. Within the framework of the Single Resolution Mechanism (SRM), all resolution decisions in relation to significant banks and cross-border banks within the euro area are taken under the auspices of the SRB. DNB has a Resolution Council, chaired by the Executive Director for Resolution, to support the internal deliberations and decision-making concerning resolution matters. To ensure the operational independence of DNB's resolution function from its other functions, the Director for Resolution is not simultaneously responsible for performing the tasks relating to the supervision of banks, financial stability or monetary policy. The Governing Board's decision-making process provides for a special voting arrangement concerning resolution matters, giving the Executive Director for Resolution a casting vote in specific cases.

To conclude, one Executive Director is responsible for monetary affairs and in charge of financial stability, DNB's task of issuing economic advice, and payment systems. The Executive Director of Monetary Affairs is also responsible for DNB's statistics function.

The Secretary-Director is responsible for managing DNB's internal operations and monitoring the effective management of DNB. She chairs the Governance Board for Information Provision, which manages organisation-wide information dissemination, and DNB's Operational Risk Board, which monitors DNB's non-financial risks.

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 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 accountant.

The Bank Council functions as a sounding board for the Governing Board. The Governing Board brings the Bank Council up to date on the overall economic and financial developments, discussing the policies pursued by DNB. The Bank Council 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 publishes regular updates on its implementation of the Code on its website.

# Introduction by the President

# Introduction by the President

## Global outlook: buoyant growth



**The world economy is flourishing a decade after the outbreak of the financial crisis, supported by still extraordinarily expansionary monetary policy.** The financial crisis broke out in the United States in 2007, with the collapse of two hedge funds managed by the Bear Stearns investment bank. In Europe, the crisis only really dawned later in 2017, following the ECB's substantial liquidity support to financial markets, and the run on the UK bank Northern Rock. This brought an abrupt end to a period of heightened growth and unbridled optimism among investors, driven by far-reaching capital market deregulation and surging credit growth. Following a decade of slow growth and tentative recovery, the world economy has now recovered from the crisis, with the IMF even raising its global economic growth projections for 2018 to 3.9%. This recovery is broadly based across both advanced and emerging economies.

**The world economy no longer requires extraordinary monetary stimuli.** The leading monetary authorities, the American Federal Reserve foremost, responded to the financial crisis with extensive and unconventional easing of monetary policy. Official interest rates remain at unprecedented low levels, and central banks have swollen balance sheets due to bond-purchasing programmes and direct injections of liquidity to stimulate the economy. There is also a diminishing need for these stimuli in the global inflationary environment. While technological innovation and the emergence of global value chains keep worldwide inflation in check, the threat of a deflationary spiral of mutually reinforcing price and wage cuts has disappeared almost everywhere. The endogenous dynamics of the global economy have strongly eroded the original justification for exceptional monetary stimulus.

**Debt levels are still high.** Compared to gross domestic product (GDP), the total amount of global government debt and private debt (businesses and households) is higher than before the financial crisis. Debts incurred in the optimistic climate prior to the crisis have laid the basis for the current levels. Private debt has not shown a significant decline and government debt has only risen further. Combined with persistently low interest rates, high levels of debt point to a vulnerable situation, as any sudden interest rate hikes could have a major impact on debtors.

**The underlying growth potential of the western world is still lacklustre.** The favourable economic growth figures gloss over the fact that structural productivity growth is now lower than it was before the financial crisis. In this respect, the accommodative monetary conditions can also have a counter-productive effect. Artificially low interest rates mean less productive companies with high levels of debt can survive for longer. This stifles innovation and obstructs the shift of production capacity and lending to sustainable and more productive activities. Moreover, accommodative monetary policy masks the needs for structural reform to foster growth and productivity. At the same time protectionist tendencies are gaining ground throughout the world, and any resulting trade restrictions will adversely affect international competitiveness and productivity growth.

## Euro area: gradual normalisation of monetary policy desired

**More than five years after ECB President Mario Draghi's "whatever it takes" speech, the euro area economy has largely recovered from the banking and debt crisis.** In July 2012 ECB President Draghi felt compelled to pledge that the ECB would do everything in its power to preserve the integrity of the euro. Shortly afterwards, the ECB announced the Outright Monetary Transactions (OMT) programme to purchase sovereign bonds issued by euro area countries, provided they met certain conditions to prevent speculators from driving up interest rates. As investors realised it was senseless to speculate against a central bank in its role as lender of last resort, no bonds have ever been purchased under the OMT programme. Since then, the growth outlook for the euro area has become increasingly favourable.
The recovery of the euro area economy began in 2013 and accelerated in 2014. Since then it has grown at a pace above potential. In 2017, GDP growth in the euro area was 2.3%, surpassing the prior year's forecast of 1.6% and outpacing growth in the United States, as it did in 2016. At the end of 2017, unemployment in the euro area had fallen to 8.7% to reach its lowest level in nine years. This figure does however mask the considerable differences between Member States, and is still substantially higher than unemployment in the United States, the UK and Japan.

**The current buoyant growth follows ten years of crisis management and demand stimulation.** Partly due to limited budgetary headroom, monetary policy came to occupy a key role. In addition to lowering the key policy rate to below zero, unconventional instruments have been deployed on a massive scale to counter the direct consequences of the crisis. These include the ECB's policy of quantitative easing (QE) through the buying of bonds under the asset purchase programme (APP).

**The cocktail of unorthodox stimulatory measures, including the purchase programme, has left its mark.** Firstly, unconventional policy has further eased financing conditions up to the point where borrowing costs are no longer an impediment to whatever spending decision. Secondly, financial fragmentation between euro area countries has been reduced, and monetary transmission has become much more homogeneous across Member States than was the case during the crisis. Thirdly, monetary policy has supported economic activity. Fourthly, the tail risk of a deflationary spiral has been averted. The asset purchase programme has therefore delivered what could reasonably have been expected from it.

**Against the backdrop of the inflationary environment, a full phasing-out of net asset purchases from September onwards is warranted.** The ECB's current outlook for the inflationary environment does not constitute a threat to price stability. The ECB does not pursue strict inflation targeting, but aims to maintain inflation rates "below, but close to, 2% over the medium term". The interpretation of medium term is flexible, depending on the severity of the shocks affecting the economy. Following significant financial imbalances, like those resulting from the financial crisis, inflation may only return to close to 2% after a prolonged period. Current economic expansion has since reached the point where the onus is on the dynamics of the labour and goods markets, as introducing even more liquidity has become ineffective.

**Postponing the necessary monetary contraction could be costly.** Keeping interest rates artificially low over the long term not only drives up spending in the short term, but also encourages excessive debt financing. This makes an economy vulnerable to financial instability. As there are long and variable time lags associated with the transmission of monetary policy to the real economy, lengthy delays in adopting a tighter monetary regime can give rise to abrupt changes in monetary policy if inflation rises.

**Vigorous and prolonged monetary stimulation through negative interest rates and unconventional monetary policy can lead to market distortions and credit misallocation.** For example, the interest rate risk premiums on corporate bonds reached historically low levels and barely responded to economic developments. Equity indices reached new heights before undergoing a correction at the start of 2018. These markets have been driven by the search for yield. Low interest rates have also allowed certain businesses to bear corporate debt that would otherwise have been unsustainable, creating "zombie companies", whose interest expenses exceed their operating income. As experience in Japan has shown, the roll-over of debt to unproductive businesses comes at the cost of lending for innovation, which undermines productivity on a macroeconomic scale.

**Macroprudential policy cannot completely mitigate the side effects of unconventional monetary policy.** Macroprudential policy, such as requirements for banks to maintain additional capital buffers in cases of excessive lending, can help mitigate the negative external effects of accommodative monetary policy. This policy strengthens the financial systems' resilience to shocks. At the same time, macroprudential policy must still prove its effectiveness, as available instruments are still limited and can only be selectively deployed. As opposed to the monetary policy interest rate, these instruments do not filter through to all major components of the financial system.

**The purchase programme was scaled back at the beginning of 2018.** Net monthly purchases have been reduced to EUR 30 billion until September 2018. Leaving financial conditions unchanged in an economic upswing would on balance imply monetary easing. The next logical step is therefore to start a full phasing-out of net asset purchases. The ECB has agreed to provisionally maintain bond portfolio acquisitions by reinvesting the proceeds from maturing bonds. Accordingly, the overall size of the central bank's balance sheet will still have a prolonged impact.

**Looking further ahead raises the question of how and when monetary policy must be normalised.** One of the most important challenges facing central banks is dealing with turning points in monetary policy. Unwinding a unique combination of unprecedented long central bank balance sheets and low interest rates, in an environment where debt remains persistently high, is a precarious task. However, moderating and then winding down exceptional monetary policy is also inevitable. The order and timing of the adjustments to all instruments are in this respect crucial. In addition to the asset purchase programme and the lowering of policy rates, other instruments have also been implemented such as long-term refinancing operations (LTROs and TLTROs), whereby the ECB accepts all offers from counterparties against adequate collateral. After ending net purchases, other policy instruments, including the key policy rate, must be taken into consideration.

**The buoyant catch-up growth masks a less favourable economic foundation.** Productivity growth is subdued in many countries. This is decisive for the growth potential of production, income and prosperity in the longer term. Partly because of declining investment in fixed assets and research and development, growth in labour productivity is substantially lower than before the crisis. In the euro area, it is mainly countries with high levels of debt that lag behind. There is however no reason to assume that investment and productivity growth will remain at the current low levels. During a balance sheet recession, there is pressure on both of these during the balance sheet recovery period. New market opportunities emerge through the restructuring of debt and businesses, which ultimately leads to renewed growth in investment and productivity. The relatively favourable cyclical conditions also create the financial leeway for higher investment.

## Europe: The EMU should be strengthened



**Jeroen Dijsselbloem stepped down as chairman of the Eurogroup in January 2018.** The debt crisis was weathered under his tenure. The banking sector has been strengthened by heightened efforts towards the banking union, such as through the ECB's Single Supervisory Mechanism (SSM) and agreements about the resolution of banks. Partly due to the swift action taken to deal with the debt crisis, the EMU is now in a much stronger position than it was when Jeroen Dijsselbloem took office in 2013.

**The EMU is not yet complete.** Due to deficiencies in its institutional structure, the EMU has not yet delivered all the advantages of which it is potentially capable. Owing to structural differences, not all countries are successfully prospering to the same extent within the EMU. Therefore, the ECB has to deal with a larger than envisaged part of crisis management and the associated risks. Partly in light of this background, the EMU needs to be strengthened.

**Governments and banks need to reduce risks.** Insofar as strengthening the EMU implies that more risks must be shared between Member States, it is vital that banks and governments cut risks by comparable proportions. This promotes more manageable risks in the future, instead of placing emphasis on sharing accumulated risks. Governments can reduce risks in various ways:

- separating governments from financial institutions
- more private risk sharing
- better structured private risk sharing
- better compliance with agreements.

**Further separation of governments and banks is within reach.** The European debt crisis demonstrated how banks and national governments are too closely connected. Operations to rescue banks in difficulties weigh heavily on public finances; and weaker public finances in turn lead to higher financing costs for local banks and higher domestic sovereign exposures. This has proven a dangerous form of interaction. The banking union has partly addressed this, but domestic sovereign exposures of banks in certain Member States are still uncomfortably high. It is therefore important that the Basel and European policy forums take steps to reduce preferential treatment of sovereign debts on bank balance sheets.

**A European deposit guarantee scheme requires a reduction in non-performing loans.** The current national deposit guarantee schemes also constitute a source of interdependence between banks and their domestic sovereigns. This link between banks and governments would be broken by the creation of a European deposit guarantee scheme. In this respect reducing excessive balance sheet risks is a precondition. As a result of the crisis certain banks still have high levels of non-performing loans, which makes them needlessly vulnerable and undermines their lending capacity. The ECB has since issued guidelines about provisions that banks must set aside for new non-performing loans, and it is preparing a proposal to reduce the existing stock of these loans. The European Commission will issue a proposal for dealing with new non-performing loans at an earlier stage than is now the case.

**An adequate bank resolution system also reduces risks and weakens the link between banks and governments.** And the aim of resolution is after all to allow banks to fail in an orderly manner, without presenting major risks for the financial system or the taxpayer. New laws and regulations have resulted in the creation of the Single Resolution Board (SRB), and national resolution authorities such as DNB. Resolution plans for most major banks are now at an advanced stage, with attention shifting to ensure these banks are actually made resolvable. In this respect, it is vital to ensure there is sufficient equity and debt capital in order for creditors to be able to contribute to absorbing the losses and recapitalising a failing bank.

**In the meantime, it would be advisable to settle the ongoing debate about the legal framework of the resolution regime.** As events in Italy in 2017 have shown, governments can still be exposed to the consequences of bank failures. Adjustments to state support rules and national insolvency regimes are desirable to bring them in line with the principles of the resolution framework. A stable and unambiguous resolution framework prevents time being used to interpret policy rather than actually resolving the bank in difficulty.

**More private risk sharing and better structuring of public risk sharing are crucial.** Greater sharing of risk across international borders can reduce the effects of national shocks. However, this currently still occurs more through public instead of private channels. For example, much of the burden of adjustment arising from the last crisis periods was ultimately borne by the tax payer.

**More private risk sharing is possible.** The costs of cushioning shocks are lower when markets function well. In many Member States there is scope for structural reform to improve the functioning of the labour and goods markets, to strengthen the financial sector and to increase the efficiency of the legal system. Year in, year out, the European Commission has issued recommendations on all these areas, although compliance has fallen short. In addition to allowing more room to market forces, capital market funding offers the opportunities to increase private risk sharing. Reducing businesses' dependence on financing from banks and attracting more financing from capital markets would reduce systemic risks and allow non-banks to assume more risks. The European initiative of capital market union involves elements that support capital market financing and make it easier to spread financial risks across investors in different countries. For instance, further harmonisation of execution and insolvency regimes is desirable.

**Public risk sharing can be better structured.** Even with private risk sharing at the forefront, public risk sharing can continue to play a role. A consideration in this respect is strengthening the European Stability Mechanism (ESM), by expanding its instrumentation and ensuring decision making is as depoliticised as possible. To ensure the integrity of the necessary reforms, the strengthened ESM would only be able to provide financing under strict conditions. The conditions under which financing can be provided must also take fiscal sustainability into account. Under a structure of this nature, a mechanism for the orderly restructuring of unsustainable debt is quite conceivable. Finally, it is important that the ESM is not seen as an alternative to the IMF, but as part of a wider global safety net. The IMF has over 70 years' experience with stabilisation programmes, and can in extreme situations also intervene usefully and effectively in Europe.

**The added value of an EMU-wide stabilisation fund seems less apparent.** In theory, a European budgetary fund could safeguard prosperity, particularly in the event of asymmetric shocks. However, conjunctural shocks which have a widely varying impact on different Member States are very rare. Divergence of Member States' economic cycles is primarily due to their structural differences and differences in the financial cycle. Such a fund could also be used to increase the capacity to apply countercyclical budgetary policies at the euro area level. This proposal would however appear to be dispensable given the countercyclical leeway that the Stability and Growth Pact (SGP) already offers, if national budgetary positions are indeed in economically favourable times brought back to "close to balance or in surplus". It would ultimately be problematic to structure a fund in such a way that it effectively absorbs shocks as well as avoids permanent redistribution between countries. Permanent redistribution would probably meet considerable political resistance.

**Countries failing to keep to the agreements weakens the EMU.** In the EMU, the SGP and the macroeconomic imbalances procedure are crucial agreements for coordinating budget and macroeconomic policy. However, countries fail to sufficiently apply measures resulting from these agreements, while sanctions for continued non-compliance are not imposed. It is also possible to make progress by enshrining these rules in national legislation, and then assigning a mandatory enforcement role to an independent national authority.

**Brexit primarily weakens the UK.** Outside the euro area, developments in the United Kingdom (UK) are cause for concern. Sterling's exchange rate and the unfavourable expectations for UK growth compared to other Member States illustrate the negative repercussions of leaving the EU. However, Brexit also weakens the union's economic basis, with the loss of London as the EU's financial centre being particularly damaging. A positive side effect of Brexit could be that it prompts the EU to reflect on what it stands for, and how it can operate more effectively.

**A strong EU is good for its citizens.** In the sixty years since the Treaty of Rome, European institutions have been created that have outlasted those of many individual states. European integration has fostered valuable cooperation between Member States and led to free movement of goods, capital, services, and labour. This is a Europe that merits preservation and strengthening. Strengthening Europe in small, realistic steps yields positive results that citizens can experience in their daily lives. This mainly concerns public goods which can clearly be offered better at European level, such as internal and external security, migration, climate, international trade and also the Economic and Monetary Union. In this way, Europe can take up a more prominent role on the world stage, with the United States seeking to play a less active role, China increasingly emerging as a world power and the UK retreating back to its islands.

## The Netherlands: the economy is thriving

**Economic growth is now at its highest level in ten years.** Economic growth peaked at 3.1% in 2017. Unemployment fell to 5% of the labour force, compared to almost 8% in 2014, and continues to decline further. This illustrates that the Netherlands has fully emerged from the financial crisis. One of the positive outcomes of these improved prospects is the increasing number of labour market entrants, although there is also increasing tightness, with 17% of business owners citing the lack of suitable workers as an obstacle to production. Due to this labour market tightness, the rate of economic growth is expected to cool slightly.

**However, the situation is not equally favourable in all parts of the Kingdom.** Hurricane Irma struck St Maarten hard, and St Eustatius and Saba to a slightly lesser extent. Thankfully, reconstruction efforts are gradually gathering pace. In the Netherlands, the northern provinces lag behind in terms of labour market growth and development. Groningen has also suffered considerable damage and uncertainty resulting from natural gas extraction.

**Economic growth is broadly based.** As opposed to some other upswings in the past, growth is this time not only driven by the revival in the world economy and world trade. In addition to exports, consumption and investment are also contributing to growth.

**The high level of growth is also related to the recovery of the housing market.** Over a fourth of economic growth since the second quarter of 2013 can be attributed to the uptick in the housing market. This growth comes on the back of rising house prices, increased investment in housing and more transactions, although there has been a slight turnaround in this latter aspect. Average house prices rose by 8.2% in December 2017 compared to the previous year. In Amsterdam house prices are already around 30% above the peak reached in 2008. Continued price rises in combination with the recent fall in transactions suggests a shortage in the supply of housing. Nonetheless, the number of permits for new housing is still far below pre-crisis levels. There is simply a need for more housing, particularly mid-market rental housing in major cities. Middle income earners are now often left out in the cold, as they do not qualify for rented social housing and cannot afford to buy. Government initiatives to encourage municipalities and housing associations to step up their efforts in this segment of the market are to be applauded.

**As is the case elsewhere in the euro area, inflationary pressures remain low.** At 1.3% Dutch inflation was subdued in 2017, certainly in light of the buoyant economic conditions. As is the case in many other developed economies, supply factors limit pressure on prices. At 1.6%, growth in negotiated wages is also subdued against the backdrop of the tight labour market.

**Recent years have seen divergence in economic growth and household income.** Mean disposable household income lags behind economic growth because of two factors. Firstly, the burden of taxation and other levies has risen due primarily to higher healthcare insurance and pension premiums. Secondly, there has been a drop in employment income, compared to other sources, which has resulted in a lower labour-income ratio (LIR). International studies often cite globalisation and technological progress as a cause of the declining LIR. A likely contributory factor in the Netherlands is that the negotiating position of a growing number of workers on flexible contracts is weaker than that of employees on permanent contracts.

**Shock-proof government finances require sufficient buffers.** As a result of previously implemented policy and favourable economic conditions, government finances are in a stronger position compared to previous years. Nonetheless, the budgetary plans presented by the government will have some procyclical effects. Moreover, realising the envisaged budgetary surpluses in coming years would create only a limited buffer to employ as automatic stabilisers during a cyclical downturn. Experience has shown that in economically favourable times, a budget surplus of around 1% of GDP is necessary in the Netherlands to create sufficient margin with regard to European standards. It is therefore important in the coming years to maintain a trend-based budget policy, and to use any windfalls to further reduce government debt.

## Scope for structural improvements

**The favourable economic conditions offer opportunities to push through an ambitious agenda of reform.** There is more scope for reforms to strengthen growth potential, increase resilience to shocks and put the economy on a more sustainable footing.

**The Netherlands has a structurally favourable position.** Compared to the rest of the euro area, the Netherlands has a relatively high GDP per head, mainly as a result of the remarkably high employment rate and flexibility of the labour market. In terms of international comparisons with the structure of its economy, the Netherlands time and again performs very well.

**Nonetheless, there are still opportunities to further improve productivity and thereby promote sustainable prosperity.** Productivity can be stimulated by for instance removing barriers to investment in human capital. For example, very few efforts are made to correct language deficiencies before children go to primary school. Research has shown that investing in human capital at an early stage in life can generate significant returns. There are also opportunities to improve the functioning of the labour market by limiting the differences in tax treatment and labour legislation between the various forms of labour. Removing tax and legal impediments for self-employment, and reducing the differences in employment protection between permanent and fixed-term contracts will contribute to creating a more level playing field, where the choice for flexible or permanent contracts better reflects employee and employer preferences.

**Reforms make the economy more resilient to destabilising shocks.** The business cycle in the Netherlands fluctuates more than in surrounding countries, and the economy is still highly susceptible to financial shocks. Lower debt and relatively more capital can boost the financial resilience of businesses and families. Ways to reduce exposure to potential shocks include a more equal tax treatment of equity and debt capital, and a further lowering of mortgage debt. The new government has announced important measures to curb interest tax relief for debt capital financing, and has accelerated the process to phase out mortgage interest tax relief. It would also be advisable to create circumstances limiting loan-to-value (LTV) ratios, which are high from an international perspective. Lower mortgages compared to the property's value would allow owners to cope better with fluctuations in house prices.

**Fiscal reforms can generally strengthen the economic structure.** In addition to the proposed measures on debt capital financing and mortgage interest tax relief, the government has announced several other encouraging proposals, although these could in certain cases go further. For example, there is a strong argument for further raising the low VAT rate in order to gradually reduce the difficult-to-justify gap with the general VAT rate, or to apply the low rate to fewer goods and services. Another option is to stop equal tax treatment for different classes of privately-held assets. This would ensure that future decreases in the tax burden could be focused on stimulating labour participation.

**The government's sustainability ambitions call for measures to be implemented.** The government is preparing a climate act with binding environmental targets, including a reduction in $CO_2$ emissions of 49% by 2030, which is more ambitious than the 40% target agreed in the EU. The government also advocates raising the international emissions reduction target to 55%. A new national energy agreement will be implemented for the period up to 2030, which among other things envisages the closure of coal-fired power stations. The government also recognises that adequate $CO_2$ pricing and higher energy taxes are crucial to achieving the targets. Due to the potentially far-reaching changes in our economic structure that this will bring, it is important that sufficient progress is made in the first stages.

## Financial sector: digitisation and sustainability set the trend

**The financial sector faces turbulent times due to digitisation and FinTech innovations.** Artificial intelligence, machine learning and big data have significant implications for financial institutions. For example, efforts to make financial services widely available to new groups of consumers and businesses (financial inclusion) benefit hugely from FinTech innovations.

**Waves of financial innovation have always occurred through history.** The banking industry has already been around for five centuries, despite numerous predictions of its collapse. The banking sector now faces a challenge from technology companies and FinTech start-ups. By closely cooperating with start-ups or by sometimes taking them over, banks can profit from the innovations of these firms. Financial innovation in the Netherlands dates back to the Golden Age. Immediately after it was founded in 1609, the Bank of Amsterdam (*Wisselbank*) developed a ledger to keep a highly reliable record of all financial transactions. This innovation has clear parallels with today's distributed ledger technology.

**The costs and benefits of financial innovations to society must be considered.** The foremost benefit of FinTech innovations is the prime opportunities they offer for customer-friendly service. They can also raise productivity in the financial sector and boost market efficiency due to the vastly improved availability of information. Nonetheless, if there are substantial social costs and risks that private parties fail to consider, there is cause for policy intervention. This also has an impact on financial supervision. Any difficulties financial institutions encounter owing to a failure to sufficiently adjust their business model could also have spillover effects into society. Digitisation also heightens the risk of fraud, and the parties involved do not always take the social cost of this fully into account. One of DNB's priority areas for supervision in the coming years is to deal decisively with financial crime. An illustrative example of this is its approach in dealing with the trust sector, where digitisation and data analysis facilitate detecting unusual transactions.

**Many innovations concern the payment system.** Technological developments can streamline the payment process and make it more transparent. A case in point is the revised Payment Services Directive (PSD2), which sets out the conditions for third parties to gain access to a consumer's current account in order to initiate payment transactions or gather account information. PSD2 encourages new players to enter the payment services market, which as well as offering advantages can also raise questions about risks of breaching privacy.

**The future belongs to electronic payments, but they will not fully displace cash.** The Financial Times recently reported that cash was still king everywhere in the euro area, apart from in the Netherlands. In no other EMU country has the shift towards electronic payments been so strongly pronounced as in the Netherlands, with 55% of payments now transmitted electronically, and highly likely to grow even further. However, cash will not disappear completely, as it is a central bank's most tangible product, and is still vital for people who do not have a debit card or cannot use one. Others appreciate the ease with which cash allows them to control their spending. In terms of the payment system's resilience to shocks, cash is still a vital alternative when electronic payments are temporarily unavailable.

**Blockchain technology has been instrumental in the development of crypto "currencies", which do not merit the status of currencies.** Although blockchain technology offers many opportunities, cryptos pose substantial risks. They are generated by private, unregulated parties and do not have any legal or intrinsic value. They are not generally accepted as a medium of exchange, and due to the instability of their price, neither do they serve as an accounting unit or store of value. Due to their high volatility and anonymity for transactions, there are substantial risks associated with the use of cryptos, and they should be regarded as a speculative investment rather than as a form of money.

**There are still crucial objections to central banks issuing digital currency.** The rise of cryptos has fuelled a debate about the possibility of central banks issuing their own digital currencies, which would take the form of digitally transferable central bank money denominated in the official currency. The potential advantages of central bank digital currencies (CBDCs) do not presently appear to outweigh the risks. Of particular concern is the possibility of more serious and faster bank runs, which could occur if the public transfer their money to the central bank in times of financial crisis and low confidence in the banking system. If developments rapidly accelerate, the question also arises of whether it is desirable for this new asset to replace bank deposits, which are a major source of funding for banks. As a result, central banks would be forced to play a permanent role in lending that is incompatible with their tasks.

**Alongside digitisation, sustainability and climate change also heavily influence the financial sector.** Tightened sustainability requirements for office buildings may lead to new risks, most notably for banks, which finance large portions of the Dutch office market. Climate change will also force Dutch insurers to deal with an increasing claims burden as a result of climate-related damage. Furthermore, the consequences of the energy transition for the financial sector are still generally unclear. To gain a greater insight into possible scenarios, DNB is developing a stress test focussed specifically on these areas. It is also notable that at the recent Paris climate summit in December, DNB together with seven other central banks launched a cooperative initiative to promote sustainability in the financial system: the Network of Central Banks and Supervisors for Greening the Financial System.

**DNB is incorporating sustainability into its core tasks and internal operations.** Where possible, DNB embeds sustainability in its core tasks, and continually considers the consequences of the energy transition for these core tasks. DNB is also committed to widening access to financial services. In terms of its internal operations, DNB has recently established guidelines for socially responsible investment. In this respect, DNB seeks to take a leading role in the European System of Central Banks (ESCB). Recruitment policy will be more actively centred on employee diversity, with a greater focus on attracting staff from non-western backgrounds. Lastly, sustainability is a key factor in the construction of the new DNB Cash Centre in Zeist, and in the renovation of the office at the Frederiksplein location in Amsterdam. In this respect, there will be explicit attention for themes such as energy, user quality, health, environment and future value.

**A sector scarred by the financial crisis must face the structural challenges that digitisation and sustainability pose.** The financial position of the insurance and pension sectors is still under pressure. The banking sector, which had been hit the hardest, has now regained a measure of stability. After adjustment for the modified definitions of capital and risk-weighted assets, the core capital ratio for mid-sized and small banks has nearly doubled since the start of the crisis, and for the largest banks it has even almost tripled. A more solid banking sector contributes to sustainability in general.

**The new Basel Capital Accord (Basel 3.5) further strengthens the capital position of the banking industry.** Agreement has been reached about adjusting the capital framework, following lengthy negotiations, which have centred on a trade-off between reducing differences in risk weighting between banks while preserving as far as possible the risk sensitivity of the capital framework. The tighter risk weighting rules will lead to a renewed increase in the leverage ratio of Dutch banks.

**With the implementation of Basel 3.5, the post-crisis reform agenda is complete.** To ensure an even international playing field and lend credibility to the Basel standards, it is now important that the Accord is promptly and fully implemented in European Directives. The Accord could lead to slightly higher residential mortgage borrowing costs due to increased capital costs for banks. These slightly higher borrowing costs must however be regarded as insurance to cover the likelihood and effects of a further crisis. Macroprudential instruments, such as the countercyclical capital buffer, could also be deployed to address any new risks that may emerge to threaten the stability of the banking sector. The countercyclical capital buffer has not yet been introduced in the Netherlands, inter alia because lending is still below the long-term trend.

**The insurance sector faces difficulties ten years after the crisis.** Life insurers must contend with the negative consequences of historically low interest rates, which puts pressure on investment returns and solvency positions. Non-life insurers face stiff competition, which squeezes their margins, and health insurers face rising health costs and the effects of an ageing population. Against this backdrop, in its vision for the future of Dutch insurance, DNB emphasises the importance of making business models more sustainable. There are notable developments in this respect, such as sector consolidation. Problems in the sector have also prompted initiatives to develop a national recovery and resolution framework for insurers, based on the best practices prepared by the Financial Stability Board (FSB), and which envisage limiting the potential spillover effects of failing insurers on policyholders and the economy in general. At the same time, the European Insurance and Occupational Pensions Authority (EIOPA) has signalled the need to create a European recovery and resolution framework based on this global standard.

**The financial position of pension funds has only recovered to a limited extent following the crisis.** The value of pension fund investments compared to liabilities has still not recovered to previous levels, with declining interest rates playing a key role in this respect. Due to their weak financial position, pension funds have struggled to apply indexation since the crisis, and have been forced to curtail benefits. The financial position of pension funds raises the risk of further benefit curtailments in the coming years, as well as a bleak outlook for index-linked pensions for large groups of members. In this light, the world will not return to what it was before the crisis. Nonetheless, surveys reveal that many pension scheme members still expect to receive 70% of their pre-retirement income. Managing these expectations is crucial for preventing the announced pension system reform from being blamed for worse-than-expected pension results.

**Efforts are under way for a more sustainable pension system.** Following years of discussion with social partners, in its coalition agreement the government announced its intention to reform the pension system, on the basis of plans developed by the Social and Economic Council of the Netherlands (SER). A key element of the plans is to abolish the average contribution system, whereby younger pension scheme members pay too much and older members too little. Scrapping the average contribution system will put an end to intergenerational transfers, thereby improving transparency. A system without average contribution will also be better in line with current labour market conditions, by no longer putting at a disadvantage people who for example change jobs or decide to become self-employed. In addition to abolishing the average contribution system, the government policy programme also establishes a framework for a new pension contract. During the accrual stage, pension scheme members will have their own personal pension account, while the risks will be shared collectively. The pension contract may also be supplemented with a collective buffer, drawdowns on which must never exceed the amount built up, in order to prevent passing any shortfalls on to future generations. A personal pension account will prevent a debate about who is entitled to what, which seems to be a cause of division between generations. Combining a personal pension account with an age-related investment policy offers younger people improved perspectives for their pension, while protecting older pension scheme members from any loss of indexation.

## Final remarks

**The most important challenge for financial-economic policy is in the monetary sphere.** Normalisation of monetary policy can be seen as the litmus test for initiatives implemented in response to the crisis to achieve a more robust financial system. In view of the lengthy and variable lags in the transmission of monetary policy to the economy, it must be normalised before inflation accelerates. It is the art of central banking to initiate these actions before they become unavoidable.

# Cyclical peak in sight, time to strengthen fundamentals

# 1 Cyclical peak in sight, time to strengthen fundamentals

## 1.1 Introduction



The euro area economy is expanding vigorously, but the cyclical peak seems to be in sight. The time has therefore come to scale down the unconventional monetary policy, all the more because its distorting effects are building up. In the coming years, the economy will probably still show above potential growth, as monetary policy continues to be accommodative and world trade is growing strongly. As the euro area has low potential growth, the economy is bound to embark on a path of lower growth at some point. In addition, the euro area economy has various other structural vulnerabilities. Households, businesses and governments in a large number of economies are still showing undiminished high debt levels for instance, and the financial system is still displaying weaknesses despite large-scale reforms. Now that the economy is at full steam, strengthening fundamentals deserves full attention. In the Netherlands, too, the cyclical peak is in sight. The country faces the specific challenges of reducing household debt, modernising the pension system, increasing investments in human capital, and improving the operation of the labour market. The new government has announced welcome plans in these areas, which can best be implemented amid the current favourable economic conditions.

Section 1.2 discusses the economic outlook for the European and the Dutch economy, both for the short and the long term. It also highlights the ever high household and government debt levels, and the measures that governments may take to underpin growth. Box 1.1 examines the reasons why in the Netherlands wage growth, an important factor behind inflation, is still lagging behind the economic acceleration. Section 1.3 homes in on the unconventional monetary policy and the increasing risks of misallocation and bubble formation. And last but not least, Section 1.4 describes the post-crisis measures that have been taken to strengthen the financial sector, and the remaining Dutch and European policy agenda to provide for a shock-proof financial system.

## 1.2 Favourable economic conditions mask vulnerabilities

The euro area is experiencing a vigorous economic upturn. The boom is, however, masking structural vulnerabilities, including high debt levels and low potential growth. In many countries, private and public sector debt remains high. Deleveraging therefore continues to be a priority for some time to come. This also applies to the Netherlands, where household debt in particular is still high. Not only is the low potential growth in the euro area bad news for the standard of living in euro area countries, but it also poses a big challenge for public debt sustainability. Countries with the highest public debt levels do have the largest scope for boosting labour participation and productivity, however. In the Netherlands a lot of low hanging fruit has been picked when it comes to labour participation, so labour market policies can be concentrated on raising productivity growth also by means of education and improving the functioning of the labour market.

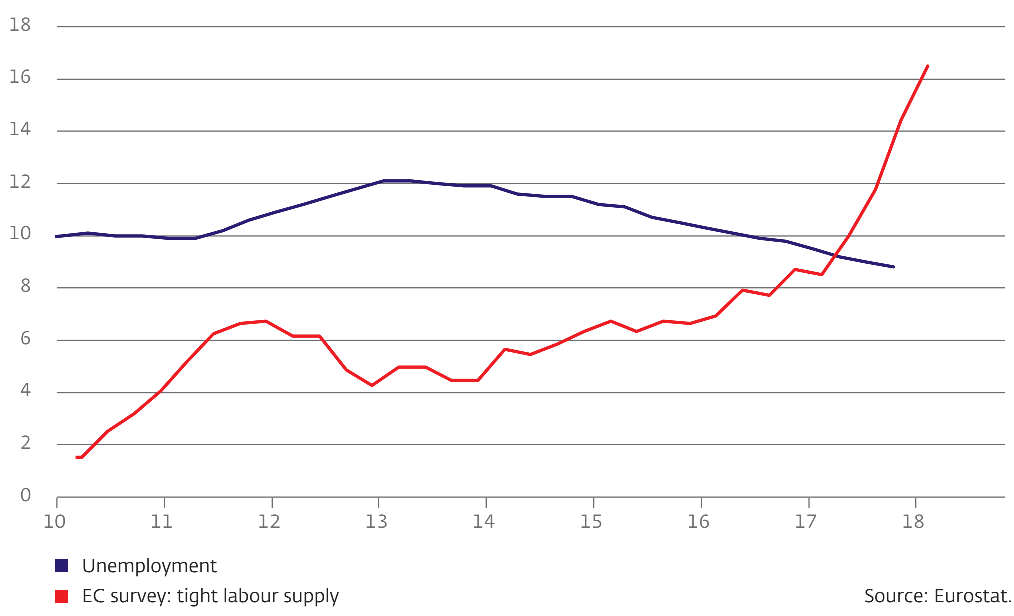
### 1.2.1 Favourable economic conditions

The euro area economy is showing a vigorous expansion, but in terms of GDP growth the cycle seems to have peaked in 2017. Since 2013, average annual economic growth in the euro area came to 1.5%, reaching 2.3% in 2017. Many countries are running up against the limits of production capacity, which will hold back growth. This is reflected in particular in the ever tighter labour market (see Chart 1.1). In 2018, the output gap is projected to become positive; the employment rate is expected to fall for the fifth consecutive year and the industrial occupancy rate is well above its long-term average.

GDP growth in the euro area is projected to slow down gradually in the years ahead. As economic growth will remain above potential in the coming years, the output gap will continue to increase. This is because the revival of the world economy and world trade and the high levels of consumer and producer confidence are supporting economic growth. The development of unit wage costs remains subdued, due to which inflation is expected to remain below 2% for some time to come. Even when the monetary authorities have made a start with normalising monetary policy, financing conditions will remain generous in the years ahead, which will provide an additional boost to economic growth. Production growth is spread widely across sectors and is driven by domestic demand, which makes it less vulnerable to international developments.

## Chart 1.1 Euro area labour market is tightening

Percentage of labour force; percentage of businesses facing tightness




Source: Eurostat.

Economic growth in the Netherlands in 2017 was above 3%, and also seems to have reached its cyclical peak. The vigorous cyclical uptrend is related to the housing market recovery, which is reflected in rising house prices, an increasing number of housing transactions, and growing housing investment. Partly due to the increasing labour market tightness, the current economic growth rate is not sustainable. Over 17% of industrial businesses are now citing the shortage of suitable labour as an obstacle to production. This is the highest level since 1990.

### 1.2.2 Potential growth is lagging behind

The favourable economic growth figures gloss over the fact that potential growth is now at a lower level than it was before the financial crisis. International organisations estimate potential GDP growth for the euro area in the years ahead at around 1.4% annually, and at 1.7% annually for the Netherlands. So growth will unavoidably show a strong decline when it resumes its potential growth rate at some point.

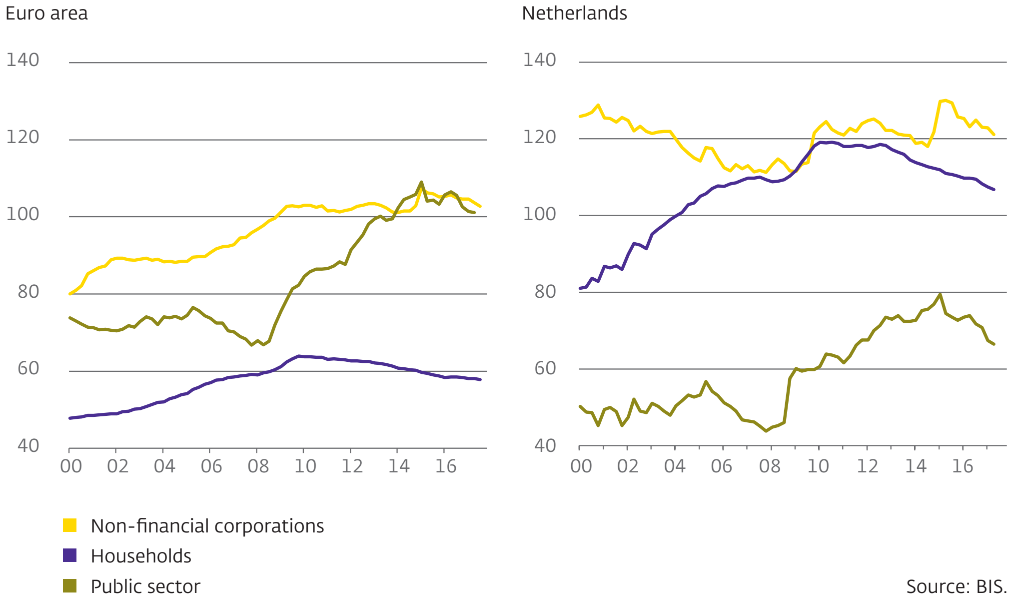
While potential growth began falling worldwide even before the financial crisis due to stagnating productivity growth, the financial crisis has also dampened potential growth. Investment decreased and structural employment growth fell as a direct consequence of the crisis. The latter was due to the fact that a part of the people who lost their job had trouble finding new employment, and emigration of young, highly-educated job seekers from hard-hit countries like Spain, Greece and Ireland. Potential growth has meanwhile picked up again, but the growth rates recorded before the crisis will not be achieved in the coming years. There are several reasons for this. Despite the accommodative monetary policy, business investments in many countries are growing scantily for instance, and the prolonged low interest rates are disturbing the allocation of production resources (see Section 1.3). And finally, the negative effect of demographic developments on the labour supply in the years ahead will only be partly compensated for by higher net immigration and growing labour market participation among other factors.

### 1.2.3 Lower economic growth is a challenge for high debt levels

The low potential growth in the euro area also increases risks to the sustainability of public and private debt. On average, public debt in the euro area in 2017 was well above the 60% ceiling of the Stability and Growth Pact (see Chart 1.2, left panel). Despite consolidation programmes and the recent economic tailwinds, various countries are still dealing with public debt levels of more than 100% of GDP. Debts of non-financial corporations and households in the euro area also remain high. This means that in many euro area countries the debt burden of the business sector and households as a percentage of income has hardly fallen since 2009, while interest rates are much lower now. Despite the vigorous economic upswing, average debt levels in the euro area are projected to fall only slowly in the years ahead. When economic growth decelerates, governments, business and households are more likely to run into trouble when economic shocks, like an interest rate hike, occur.

## Chart 1.2 Continuing high debt levels

As a percentage of GDP




Source: BIS.

The Netherlands stands out by showing relatively low public debt and relatively high levels of household debt (see Chart 1.2, right panel). Public debt in the Netherlands is expected to fall in the years ahead, owing to budget surpluses and the favourable economic conditions. On balance, however, the Dutch government is spending more and is lowering taxes. This budgetary easing coincides with a period of economic boom, and therefore has a procyclical effect. From this perspective, the government would do well to use possible windfalls in the years ahead to reduce public debt in conformity with trend-based budgetary policy. This will provide more scope for allowing the automatic stabilisers to work when the economic trend turns again. Dutch households have relatively high debts, in particular related to home mortgages, partly owing to the still ongoing generous tax incentives for home purchases and ownership. At the same time, most households also have substantial pension savings at their disposal, so Dutch households have "long balance sheets". The government plans to abolish the uniform contribution rate combined with a uniform accrual rate at pension funds and work towards a contract with a personal pension account as befits a modern labour market (see Chapter 2), which may also help households to shorten their balance sheets. In addition to this, it would be wise to reduce the incentive for debt formation further. Although the previous and the current government have taken some steps in the right direction by accelerating the reduction of mortgage interest tax relief, DNB is in favour of a more neutral tax treatment of home ownership. The latter is also a precondition for a balanced housing market with more scope for a well-functioning rental market, which will reduce the necessity for young people to buy a home and enter into high debt at an early age.

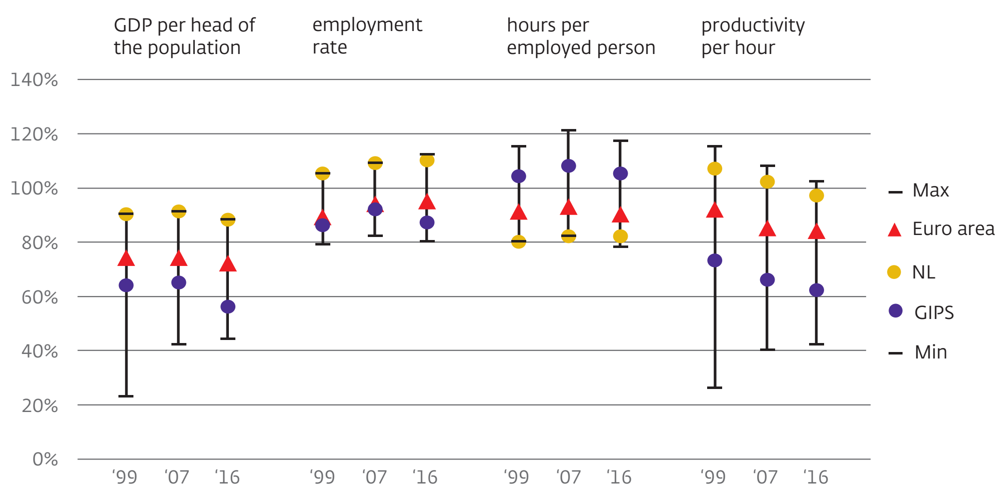
### 1.2.4 Scope for higher GDP growth

Higher potential economic growth in the euro area is needed to relieve the high debt ratios and increase the standard of living in the different countries. GDP per head of the population in the euro area lags some 30% behind that in the United States and there are large differences between the euro countries. The decomposition in Chart 1.3 illustrates that the gap with the United States is primarily attributable to productivity per hour. In this respect, the differences between the various euro area countries are also strikingly large. And secondly, the gap with the United States is explained by the lower employment rate in the euro area. Finally, the number of hours worked per employed person in the euro area is lower on average than in the United States, although there are countries where this is higher.

Lagging productivity suggests that many euro countries have scope for catch-up growth. When the GIPS countries (Greece, Italy, Portugal and Spain) for instance succeed in improving their investment climate, businesses will be able to benefit more from technologies that have already been embraced by firms in other countries. Investments in human capital may also improve productivity. Since the 1980s, human capital has increasingly determined productivity growth. In the past few years, the euro area countries have made some progress relative to the United States with respect to labour participation, for example by increasing the retirement age, and ensuring more activating social security. That said, there is still a lot of scope left for improving labour utilisation. Structural employment may for instance be increased in some countries by stimulating labour participation among women. The number of hours worked is also lower in the euro area than in the United States. The scope for increasing the number of

## Chart 1.3 Income levels in euro area countries lag behind due to low productivity

Relative to the United States (100%)




Note: Maximum and minimum of euro area calculated excluding Luxembourg and Ireland. Source: OECD.

hours worked, however, seems limited, also due to composition effects playing a large role, e.g. the rising share of the services sector, where people work part-time more often.

Compared to the rest of the euro area, the Netherlands has a relatively high GDP per head of the population. This is first of all related to the remarkably high employment rate, which is well above that in the United States. On the one hand this leaves little low hanging fruit, but on the other progress can definitely be made for specific groups, e.g. by raising the long-term employability of older people, or by introducing earned income tax credits for groups that respond relatively strongly to financial incentives.

Besides the rate of employment, productivity in the Netherlands is also relatively high. Nevertheless productivity can be raised further, e.g. by targeted investment in human capital. Although the Netherlands has a well-functioning education system, there are some bottlenecks in investment in human capital. Research has shown that investing in human capital at an early stage in life can generate great returns. The government could promote this by making targeted investment in pre-school provisions, as it has indeed projected. In addition, people should be encouraged to continue developing their knowledge and skills also during their working life. This applies in particular to vulnerable groups such as the lower-educated, who on the whole invest less in skills development, while the returns on this investment are particularly high for these groups. The government's intention to stimulate permanent education by means of individual schooling accounts is therefore very welcome. A point for consideration here is that government subsidies must be mainly directed at groups that would otherwise follow no training or education at all. In addition, employers and employees have a responsibility for sustainable employability and they should ensure that agreements are made to that effect both at workplace and at collective bargaining level.

Productivity can also be boosted by improving the functioning of the labour market. Due to the existing differences in tax treatment and labour legislation between the various forms of labour, both the proportion and growth of flexible labour in the Netherlands is relatively high. Employers are less inclined to invest in schooling of flexible labour, which, especially if flexibilisation continues, may dampen productivity. The current dismissal laws may also hamper businesses that need a different type of staff in order to innovate. Although the government is taking measures to diminish the differences in dismissal protection, there is still room for improvement, e.g. by more equalising the tax treatment of self-employed and employed people.

## Box 1.1 Why aren't wages rising faster in the Netherlands?

While employment has risen sharply in the past years and unemployment has come down quickly, wages are currently growing at a slower pace than in the years preceding the crisis. Nominal negotiated wage growth in the Netherlands has been subdued since the credit crisis, but is largely in line with fundamental factors. The joint contribution of labour productivity growth and inflation has for instance been low since 2010, at a maximum of 2 percentage points per year, relative to between 3 and 4 percentage points between 2000 and 2008. The high level of unemployment and low level of inflation have also depressed wage growth.

### Chart 1.4 Different wage components, each with their own dynamics

Percentage change; business sector wage growth based on FTEs


Source: Statistics Netherlands, adapted by DNB.

Note: 2017 no annual figures, but 2016 Q4 - 2017 Q3 growth.

The real puzzle is the development of the incidental pay component, which has now been negative for four years. Never has this shrinkage been so prolonged, nor has its cumulative effect been so pronounced. Incidental pay rises are the resultant of wage drift (non-recurring pay elements such as bonuses, promotion or one-off payments) and the composition effect. Changes in the composition of employees at macro level play a particularly significant role here. In the past few years, the increase of employees on flexible labour contracts has continued unabated. In addition, half of the current employment growth is accounted for by young people (up to 35), while this group played no role at all during the previous recovery period (2004-2007). Significantly, flex workers and young people in the Netherlands are paid lower hourly wages on average than older people and people on permanent employment contracts. The sharp rise in the number of flex workers and young employed people is therefore putting the brakes on wage growth.

Growth in negotiated wages and incidental pay growth are expected to pick up gradually in the years ahead, but, historically speaking, sharp wage rises are not likely. This is because wage growth does not depend on economic growth only. There are also structural developments affecting pay rises. Globalisation and digitisation have increased competition for Dutch employees from foreign workers, smart software and robots. Production chains can be cut up and moved to other countries more easily, increasing the threat of outsourcing. The ongoing labour market flexibilisation also touches on wage trends. These trend-based developments are bringing pressure to bear on the negotiating position of both individual employees and trade unions, which may dampen both growth in negotiated wages and wage drift.

## 1.3 Distorting effects demand normalisation of monetary policy

The vigorous economic uptrend diminishes the need for ongoing monetary stimulus. Even in case of scaling down of the ECB's asset purchase programme, monetary and financial conditions are set to remain accommodative for some considerable time to come. This increases the risk of misallocation of production factors. The financial markets are reflecting the distorting effects of the accommodative monetary policy in increasingly small pricing differentiation between risks and in growing market inefficiencies. A return to market conditions that are less driven by monetary policy is therefore welcome.

### 1.3.1 Ongoing accommodative monetary policy

The accommodative monetary policy conditions have contributed to broad economic growth. Admittedly, inflation is lagging behind, but this is due to factors that are partly beyond the central bank's span of control, e.g. the worldwide savings surplus and lower productivity and wage growth (see Box 1.1). The need for further economic stimulus has therefore waned. In view of this, the ECB's Governing Council in October 2017 decided to extend its bond purchases under the Asset Purchase Programme (APP) until 30 September 2018, while lowering its monthly net purchases to EUR 30 billion from EUR 60 billion with effect from January 2018.

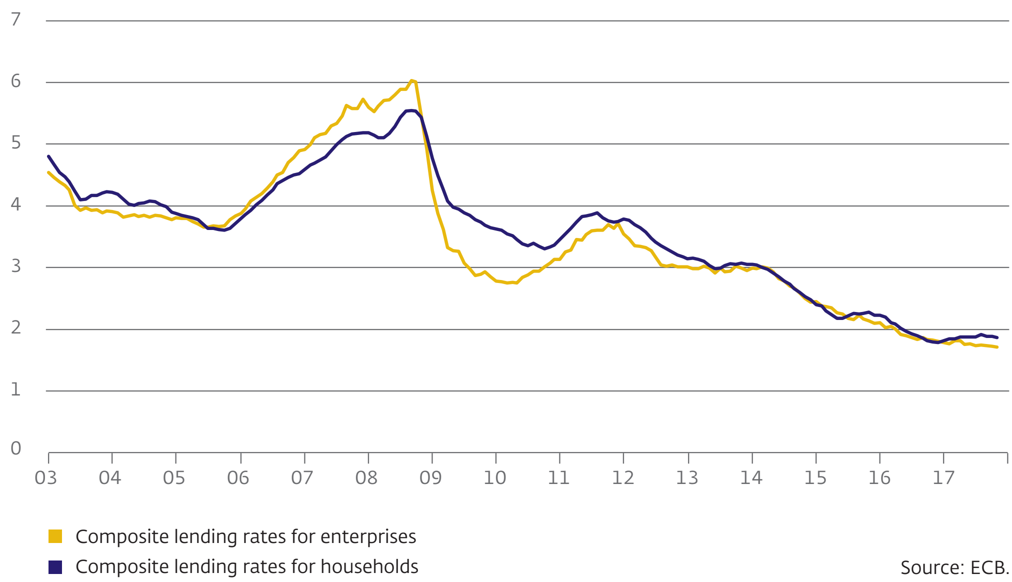
Other than through net bond purchases (the through-flow effect), the APP influences market interest rates by means of the expected bond inventories in the end situation (the inventory effect). Communication about bond purchases is an important instrument for influencing market expectations. The inventory effect happens because the Eurosystem is set to maintain the size of its bond portfolio for the foreseeable future. The liquidity flows falling free from maturing bonds are used to buy new sovereign bonds. The inventories of bonds purchases influence the term premium in long-term interest rates, which among other things serves as compensation for interest rate risk. By buying up bonds, the central bank has taken over interest rate risk from private parties. As the proceeds from maturing bonds are reinvested, interest rate risk on the balance sheet of the Eurosystem stays away from the market for longer periods of time. This depresses the term premium and contributes towards monetary and financial conditions remaining accommodative for a prolonged period of time.

By communicating about the future direction of the policy rate in the form of forward guidance, the expectations component in long-term interest rates is kept low. This component reflects the market perception of the future trend of policy rates. The ECB communicated that policy rates will remain at their current levels for the foreseeable future and well beyond the time of net bond purchases. As a result, the expectations component remains low, which together with the negative term premium is keeping market interest rates low. Bond yields are also being downwardly impacted by the fact that investors are using sovereign bonds as an attractive alternative to hold liquid assets. Low market rates have gone hand in hand with further drops in lending rates for businesses and households, which have fallen to historically low levels (see Chart 1.5).

This means that monetary policy has eased financial conditions in the euro area to such an extent that lending costs no longer stand in the way of spending. In this way, the accommodative monetary policy has contributed to the vigorous economic upswing. It also means that there is a limited upside to further monetary easing.

## Chart 1.5 Historically low lending rates

Percentage, euro area




Source: ECB.

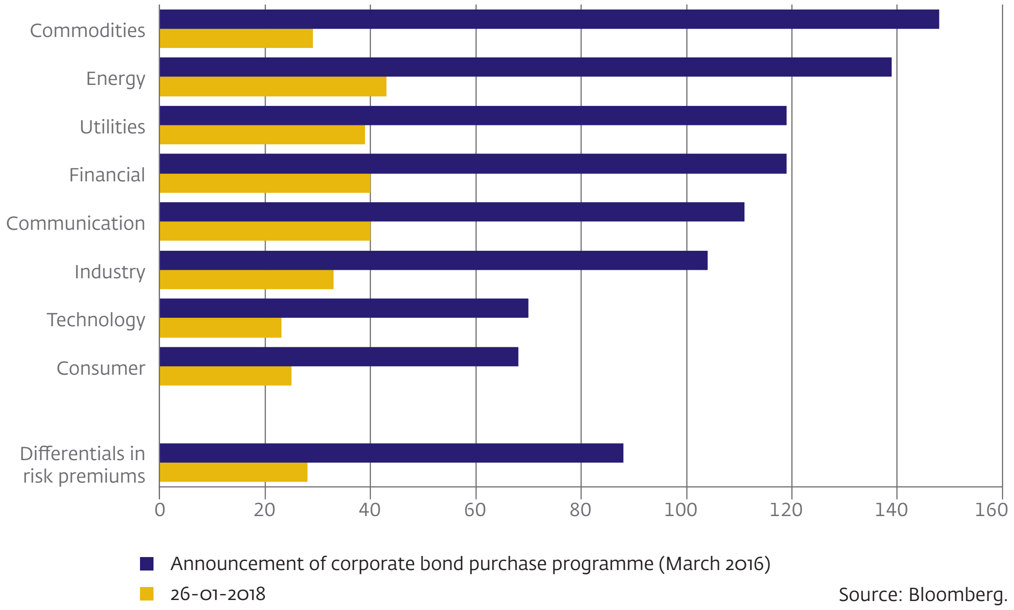
### 1.3.2 Distorting effects are increasing

As monetary policy has been accommodative for an exceptionally long period, since 2007, the risks of misallocation of production factors is increasing. Misallocation of capital occurs when relatively large amounts of capital flow to less productive businesses. This effect may occur due to the influence of monetary policy on the financial cycle. Amid accommodative financial conditions with rising asset prices, financial and real developments may begin to diverge. When this happens, the risk of misallocation increases as underperforming businesses have relatively easy access to funding, based on rising balance sheet valuations. Rising asset prices and low interest rates enable these businesses to obtain funding for projects that would not be viable amid rising interest rates. This mechanism keeps unprofitable and insolvent businesses alive and causes fewer capital to be available for new, more profitable projects. This depresses potential economic growth at the macro level.

The prevailing monetary policy is also causing distortionary effects on the financial markets. Credit risk compensation on corporate bonds and covered bank bonds has been falling since 2014 to levels that were last seen before the financial crisis broke out in 2007. In addition, the market is hardly distinguishing between sectors (Chart 1.6), which points towards investment positions being largely driven by a common factor. This obviously is a combination of favourable macroeconomic trends and very accommodative monetary policy. The trend of falling compensation for credit risk is also manifesting itself on the capital markets where

## Chart 1.6 Very slight differentials in risk premiums on corporate bonds

Basis points




Source: Bloomberg.

the Eurosystem is not active. The bond purchasing programmes combined with negative policy rates are stimulating investors to go in search of investments with higher returns and higher risks. This effect is also distorting risk pricing, however, as reflected in the sharp falls in interest rates on contingent convertible bonds (CoCos) and loans of businesses with low creditworthiness. The accommodative monetary policy is also softening market volatility. This may lead investors to underestimate risks in their search for yield, which in the longer term could pose a threat to the solidity of the financial market (see Section 1.4).

As the risk of negative side-effects on the economy and the financial markets is growing, it would be advisable to return to market conditions that are less driven by monetary policy. To prevent market shocks, market participants must be prepared for this well ahead of time. This may prevent disappointment from causing severe volatility at a later stage. That said, some volatility may prompt investors to start discriminating between assets based on risk again. In addition, rising bond yields are appropriate to accelerating economic growth with increasing demand for capital and improved inflation expectations. Under those circumstances, movements in long-term interest rates do not automatically imply that monetary policy is becoming less accommodative. The central bank may also use forward guidance to ensure that policy rates are normalised gradually.

## 1.4 Reinforcing financial stability

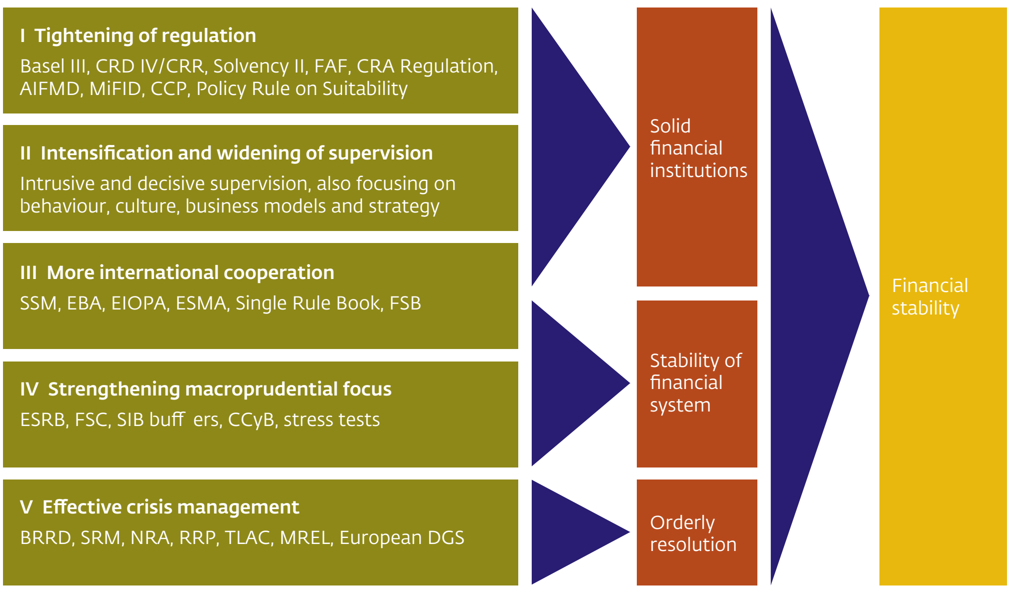
The reforms made in the past ten years are contributing towards solidifying financial institutions and ensuring that risks are more transparent and can be managed better. At the same time, the current favourable economic environment warrants extra attention to the building up of risks to financial stability. The current economic tailwinds can be used to improve the shock resilience of the financial system. The initiatives launched by the European Commission to create a European capital market union are also contributing to this. DNB supports the campaign for increasing the role of market-oriented funding.

### 1.4.1 Financial sector solidity has improved after the crisis

The financial crisis has led to a broad range of financial sector reforms (see Figure 1.1). Rules and regulations have been sharpened and supervision has been intensified. International cooperation has also been boosted by the establishment of European supervisory authorities and the introduction of the Single Supervisory Mechanism under the flag of the ECB. Macroeconomic imbalances have been receiving increased attention with the development of macroprudential policy. A recovery and resolution framework was developed with a national and a European resolution authority, enabling prompt mitigation of problems and orderly resolution of non-viable institutions.

The main systemic risks in the Dutch financial sector have been reduced as a result of these reforms. The banking sector's financial position has improved. Banks are maintaining more capital, which is also of higher quality. The stress tests performed have revealed that Dutch banks are well

## Figure 1.1  Reforms support financial stability




placed to cushion losses in case of external shocks. The Dutch banking sector as a whole has become smaller and less complex. The pension and insurance sectors are also seeing major reforms and consolidation, but at the same time are experiencing difficult economic conditions (see Section 2.2).

### 1.4.2 Attention to new risks

Following the peak of the financial crisis in 2012, financial markets have operated in calmer waters, barring a few short periods of volatility. The combination of accelerating growth and low interest rates has provided for a period of low volatility. Prudence remains called for, however. The favourable economic developments and the calm on the financial markets in the past year may present a distorted picture of risks (see Section 1.3). The ECB's unconventional monetary policy is temporary and financial markets should make allowances for the phasing out of the asset purchase programme. The prolonged period of low interest rates may also cause new risks to emerge, due to misallocation of capital and the increased risks inherent in the search for yield. In the Netherlands for instance, house and commercial real estate prices have risen sharply in the past few years.

In addition to emerging new risks, macroeconomic imbalances in the EU have not been fully remedied. All euro area countries are seeing economic recovery: growth is accelerating, budget balances are improving and unemployment is falling. At the same time, a part of the European banking sector is still grappling with relatively high levels of non-performing loans on its balance sheets, and household and public sector debt levels are still relatively high in many countries. If economic growth slows down and external shocks occur, negative debt dynamics may again emerge in countries facing high debt levels. And last but not least, international economic and political uncertainties continue to exist.



### 1.4.3 Towards a shock resilient financial system

The favourable economic conditions can be used to reinforce financial stability further. An important lesson learned from the crisis is that well-capitalised financial institutions do not automatically provide for a stable financial sector. In addition to economic reforms to underpin potential growth (see Section 1.2), promptly addressing macroeconomic imbalances can also contribute towards ensuring a more stable financial system.

In the Netherlands, economic imbalances may be addressed by creating a more balanced tax treatment of equity and debt financing and a further reduction of mortgage debt. The coalition agreement announces significant measures, including the accelerated reduction of mortgage interest tax relief and limited tax deductibility of interest payments for businesses using debt financing. Additional steps are possible. The Financial Stability Committee in May 2015 made a recommendation to lower the LTV limit in the Netherlands further to 90% after 2018.

In addition to this, attention must be paid to the interplay between the real economy and the financial sector. The housing and commercial real estate markets are being monitored closely as they often play a significant role in the eruption of financial crises. Another important factor is that Dutch banks must hold sufficient capital compared to their total balance sheet size. Banks in the Netherlands hold many assets with a low risk weight, so that they do not need to maintain a great deal of capital. This makes them relatively vulnerable when unexpected losses do occur. DNB performs macroeconomic analyses and stress tests in order to chart risks. We have the authority to impose macroprudential measures if necessary. In the Netherlands, the countercyclical buffer has not been activated to date, in part because lending is still below its long-term trend.

In the European context, the financial system can be underpinned by completing the banking union and developing a framework for addressing problematic government debt. This also contributes towards relieving monetary policy in the management of future crises. As part of this, the European Commission has proposed to reform the European Stability Mechanism (ESM). The ESM offers a good basis for a stronger crisis resolution mechanism for the European Member States, but it must have sufficient capital at its disposal, clear procedures for debt restructuring and stringent conditions. Crisis resolution would also benefit by quick and efficient decision-making with respect to the shape and monitoring of support programmes. At least for the time being, involvement of the IMF remains warranted in view of its knowledge and expertise. The ESM also plays an important role as a public backstop for the joint resolution fund for banks. An important precondition, however, is that this can only happen once the existing risks on bank balances have been further reduced. In view of this, the ECB recently presented proposals that should contribute towards quicker addressing of new non-performing loans on bank balance sheets in the future.

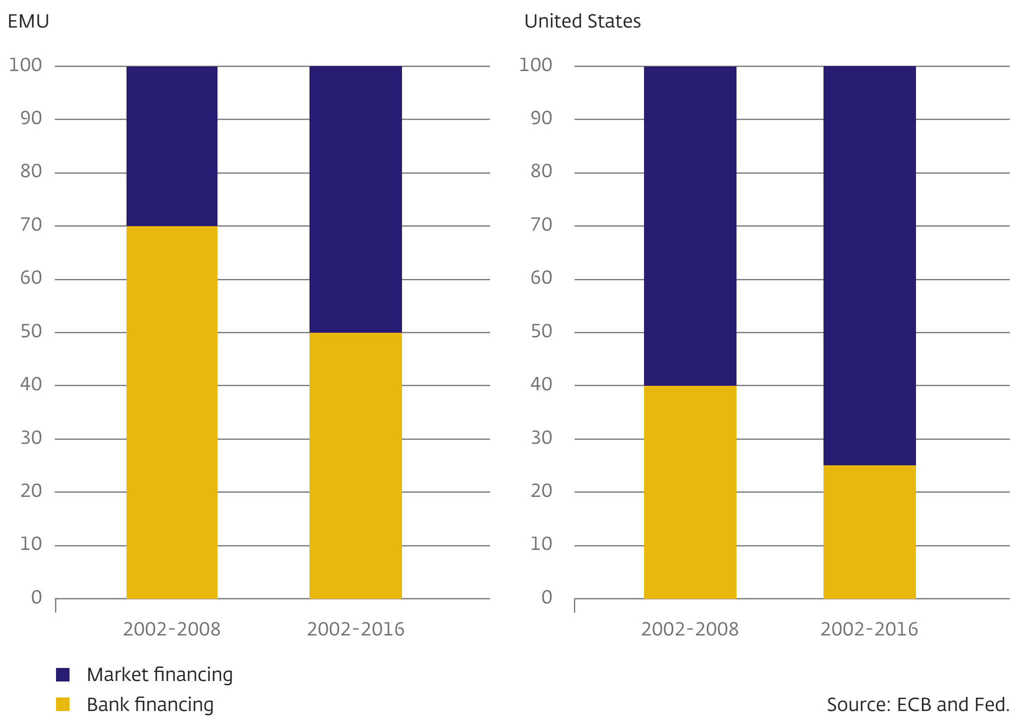
And finally, the financial system could be reinforced further by a more balanced treatment and adequate pricing of government debt in the capital adequacy rules for banks. The capital framework for banks currently sets less strict rules and lower capital requirements for government debt than for other assets held by banks. This is undesirable as it is based on the misconception that government debt is free of risk and that losses are inconceivable in practice. It also reinforces the interconnectedness of banks and governments, potentially causing contagion. DNB is in favour of carefully phasing out the existing preferential treatment of government debt contained in the capital framework for banks. The EU should take the initiative here as this negative interaction played a significant role in the European debt crisis. Phasing out is also one of the main features of the road map of European finance ministers to boost the banking union and develop a European deposit guarantee scheme.

### 1.4.4 Strengthening the capital market union

A more diverse financing structure is conducive to the stability of the financial system. This is because well-developed capital markets may prove a useful resort in case that bank lending comes to a standstill. In addition, bond markets are less nationally oriented, meaning that they contribute towards better international spreading of risks. Equity markets also absorb shocks efficiently, which benefits economic resilience. There is unused potential here: the capitalisation of both the equity and the bond markets in the euro area is relatively low compared to that in the United States (see Chart 1.7). Since the crisis, the proportion of market funding in the euro area

## Chart 1.7 Euro area depends relatively strongly on bank financing

Share in percentages




Source: ECB and Fed.

has increased slightly. Especially large businesses increasingly turn to the international capital markets for funding. They mainly use debt capital, while equity continues to play a minor role.

Despite these recent developments, the euro area still largely depends on bank funding. This may increase systemic risk as banks can reduce their lending operations quickly during a crisis. Some specific characteristics of market-oriented debt financing may on the other hand reduce risks to the financial system. For instance, market funding is accompanied by a smaller differential in maturity between funding and outstanding loans, less leverage and less interdependence between financial market participants.

In view of the above, DNB supports the proposed initiatives to strengthen the capital market union (foreseen for 2019). The challenge now is to flesh out these initiatives and to supplement them by national legislation where necessary. DNB is committed to promoting measures that sustainably increase the role of market-oriented funding. To this end, it is important to achieve a more equal tax treatment of equity and debt capital in order to reduce the incentive to build up debt. Individual Member States could phase out tax incentives for debt financing themselves. In addition, insolvency laws need to be harmonised in order to improve risk assessment, and to stimulate cross-border investment. Market access for small and medium-sized businesses must also also be guaranteed in order to prevent large firms from dominating the market. And last but not least, it is important to reduce the bias of investors towards their national equity markets. This will decrease investors' sensitivity to country-specific shocks.

# Financial sector emerges stronger from the crisis, but new challenges lie ahead

# 2 Financial sector emerges stronger from the crisis, but new challenges lie ahead

## 2.1 Introduction



Dutch banks have built up solid buffers and intend to strengthen these in the next few years, further to the new Basel accord on the new framework for calculating capital requirements. The financial position of the pensions and insurance sector remains subdued, however, due in part to the low interest rate environment and sector-specific challenges. The shortcomings of our current pension system necessitate a review, and we welcome the plans proposed by the government in its policy programme. Regulations must be in accordance with the size, complexity and risks of the institutions concerned. That is why we will launch policy proposals and action points aimed at promoting proportionality in 2018.

The independent public body (ZBO) report, which is published simultaneously with this Annual Report, reviews our execution of supervisory duties in the past year. This chapter sets out the main trends in the financial sector and in the area of financial regulation we observed in the year under review. Section 2.2 presents an overview of the state of the financial sector, ten years post-crisis. Section 2.3 addresses the government's plans for a review of the pension system. Section 2.4 explains the new Basel accord for calculating capital requirements for banks. And Section 2.5 highlights our research into the unintended effects of rules and regulations.

## 2.2 The state of the financial sector ten years post-crisis

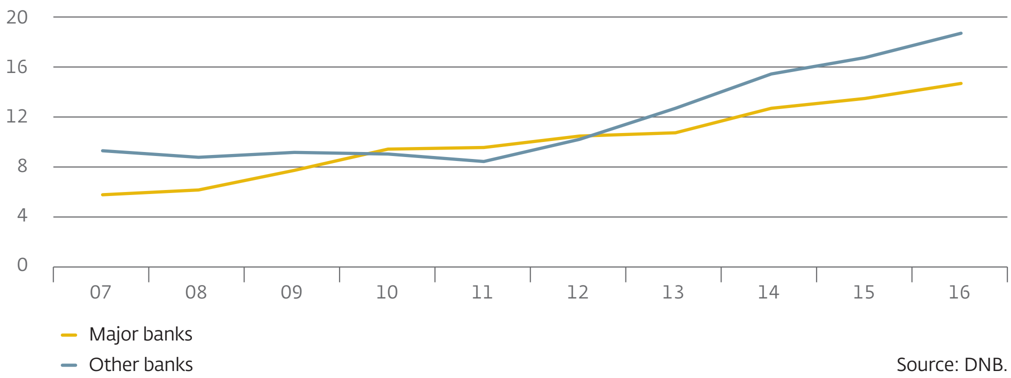
The financial crisis has had a severe impact on banks, insurers and pension funds. This section sets out how these three sectors developed over the past ten years. While the banks managed to strengthen their resilience, the financial position of the pension and insurance sector is still under pressure.

### 2.2.1 Banks

Ten years post-crisis, the Dutch banking sector has regained much of its strength. Banks have managed to build up solid capital buffers over the past decade. Even after adjustment for the changed definitions of capital and risk-weighted assets, we see that the average core capital ratio (CET1, highest quality capital) for small and medium-sized banks has nearly doubled since the start of the crisis (see Chart 2.1). For the largest banks it even almost tripled. The leverage ratio (indicating the extent to which a bank is funded with own funds) also increased across the board over the past years (see Chart 2.2). Even under the stricter definitions of Capital Requirements Directive IV (CRD IV), which also include risk positions outside the balance sheet, the average leverage ratio for systemically important banks remained above 4%.

## Chart 2.1 Core capital ratios have more than doubled

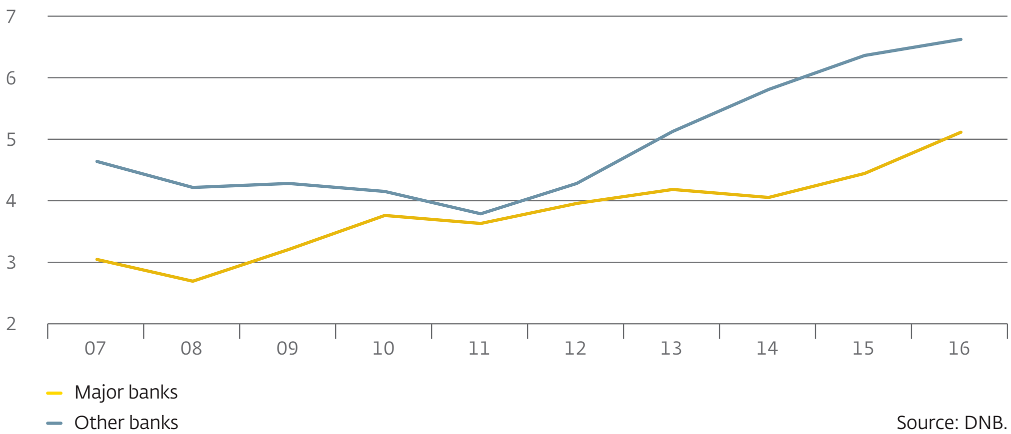
Percentage




Source: DNB.

## Chart 2.2 Leverage ratios have strongly improved

Percentage




Source: DNB.

Note: This chart presents the leverage ratio as the ratio of own funds to the balance sheet total. This deviates from the official definition, which also includes off-balance sheet instruments. The figures required to compile this official measure are only available for a limited period.

In addition to better capitalisation, the ratio between the size of the banking sector and the economy also improved. At the start of the crisis, the size of the banking sector measured 5.5 times gross domestic product. Over the past ten years it declined to about 3.5 times the size. This is still higher than the euro area average, however, which is 3.2 times gross domestic product. While the market share of small and medium-sized banks edged up and banks are facing increasing competition from insurers in the mortgage lending market, the Netherlands still has one of the most concentrated banking sectors in the euro area.

Dutch banks have made significant changes to their business models over the past decade, steadily improving the cost-to-income ratio at the three largest banks to just over 60% in 2017 from almost 70% in 2007. The small and medium-sized banks show a more variegated picture, and their efficiency could still be improved. 

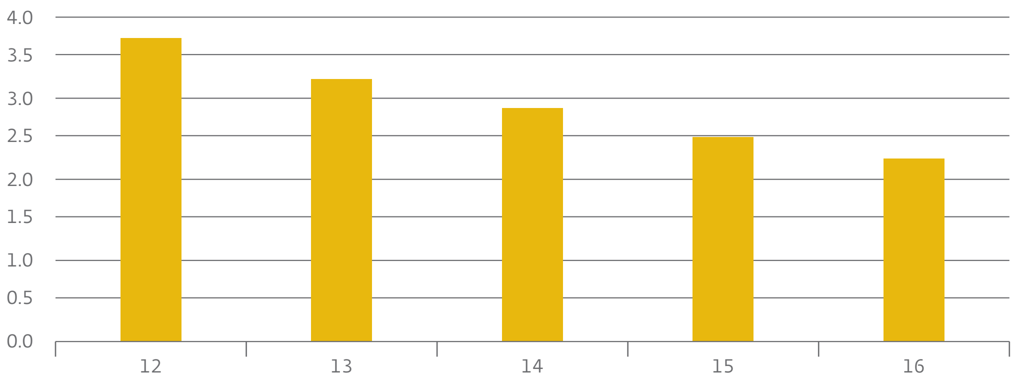
Dutch banks attract fewer savings compared to their mortgage loans and corporate lending issued. A positive trend is that this deposit funding gap has been contracting in the past few years, which means banks have become less dependent on short-term funding. However, compared to other European countries the deposit funding gap is still relatively large. In addition, the contraction may partly be the result of moderate economic growth, which depresses credit demand. It therefore remains to be seen whether it will last now that the economy is recovering.

### 2.2.2 Insurers

Ten years post-crisis, the insurance sector is still facing many challenges. Firstly, the steep decline of interest rates of recent years has had an impact on the investment returns and solvency positions of life insurers in particular. Secondly, life insurers must deal with the aftermath of the social discontent with unit-linked insurance policies. While the number of such policies continues to fall (see Chart 2.3), the issue has had an adverse effect on confidence in the sector. Last but not least, life insurers are experiencing increasing competition from bank saving schemes, which negatively impacts new life insurance production (see Chart 2.4). Non-life insurers are also up against strong competition, but from within; this market is extremely competitive and margins are under severe pressure. Increasing health care costs and population ageing are the main challenges facing the health insurance sector. The current state of affairs in the insurance sector calls for more attention from policymakers and supervisors. In 2016, for example, we highlighted the importance of sustainable business models in our "Vision for the future of the Dutch insurance sector" and stressed the fact that structural changes are inevitable.

## Chart 2.3 Number of unit-linked insurance policies has declined

EUR million



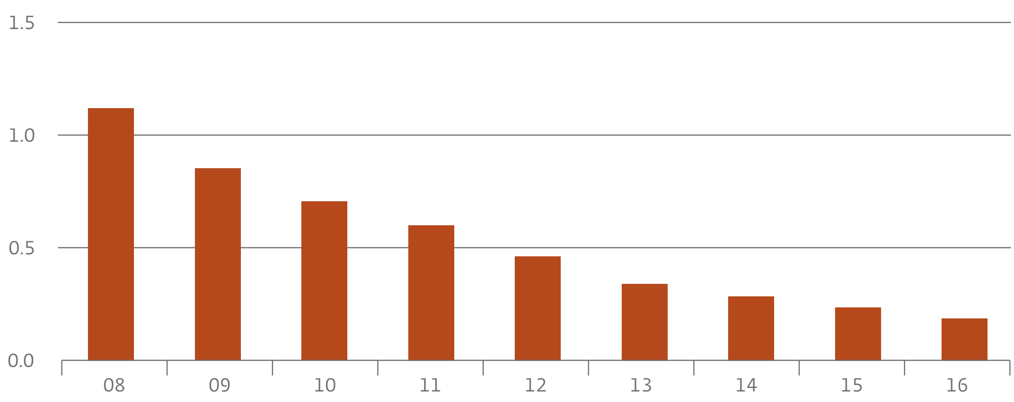

Source: DNB.

In recent years, the new insurance supervision framework Solvency II (SII) has been implemented. While this has brought about significant improvements, the framework provisions, such as the statutory required solvency ratios, fail to fully address the challenges the insurance sector is facing, for example in the light of the low interest rates. This may be particularly eminent in the event of liquidation or transfer (gone concern), where the economic value of the insurer is relevant. The discrepancy between this liquidation value and SII has been steadily increasing as a result of the continuing interest rate decline.

Moreover, the crisis has shown that problems at insurers may have consequences for the financial system as a whole. That is why the Financial Stability Board (FSB) has been assessing global systemically important insurers (G-SIIs) since 2011. The challenges facing the sector and potential systemic risks have prompted the government to propose a national recovery and resolution framework for insurers. This will help the supervisory authorities and insurers alike in preparing for crisis situations, and will better protect policy holders and financial stability. An EU framework would also be welcome.

## Chart 2.4 New production of life insurance policies shows downward trend

As a percentage of GDP




Source: DNB.

### 2.2.3 Pension funds

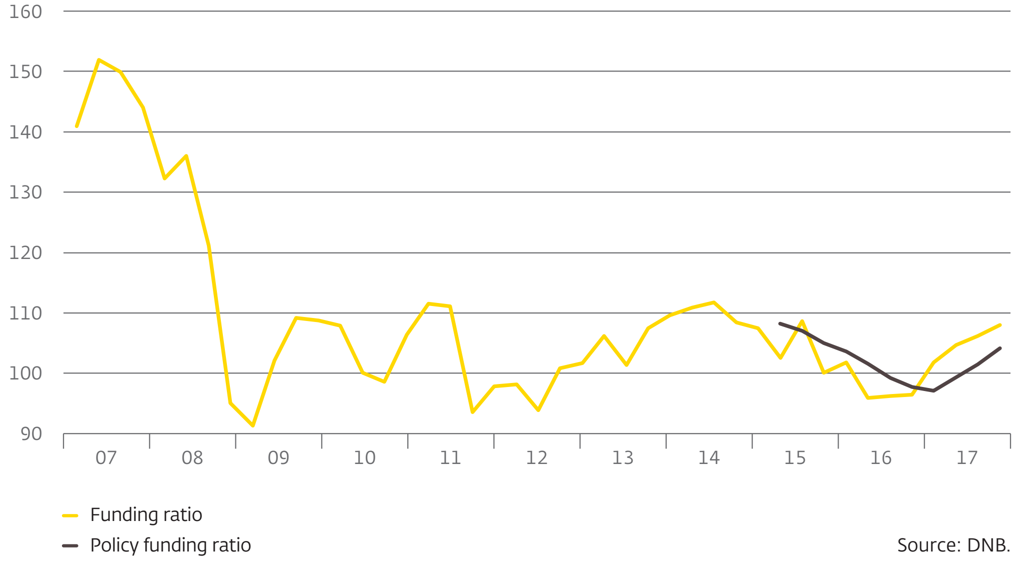
The financial position of pension funds deteriorated significantly during the financial crisis, mainly as a result of declining interest rates. Their technical provisions (the funds expected to be needed to cover all pension liabilities) have increased by 40% since 2008 as a result. This has had a significant effect on the funding ratio, since pension funds tend to hedge their interest rate risk for less than 50% (see Chart 2.5). Due to the pension funds' weak financial position, index-linking has hardly been applied since the crisis, and 87 pension funds were forced to apply curtailments.

In the year under review, many pension funds saw their situation improve, thanks in part to rising equity prices. The share of funds not meeting the minimum own funds requirement of 104% declined to 25% from 61%.

Meeting the minimum own funds requirement proves particularly challenging for the larger funds (see the red dots in Chart 2.6). If the funding ratio remains unchanged, pension funds will be forced to apply average curtailments of 2.9% for a total of 6.6 million members (active members, deferred members and pensioners). Under the same scenario, it will not be possible to apply index-linking to the pensions of some 11.2 million members.

## Chart 2.5 Sharp post-crisis decline of funding ratio

Percentage




Source: DNB.

## Chart 2.6 Precarious financial position of pension funds


Note: The dots represent the pension funds, with the size of the dots indicating their volume.

Source: DNB.

The pension sector remains vulnerable to new financial shocks. In EIOPA's most recent stress test, the Dutch pensions sector's funding ratio falls back 24 percentage points. The Dutch pension funds' investment policies are risk-sensitive compared to those of other European pension funds, and this plays an important role.

Notwithstanding the pension funds' vulnerable position, members' expectations are still high. They often expect their net income after retirement (including state pension) to be around 70% of their net wages before retirement, while the purchasing power of pension benefits has declined dramatically in recent years. This expectation gap adversely impacts confidence in the pensions sector.

In order to close this gap, pension funds must be fully transparent towards their members about the uncertainties surrounding the expected value of pensions. That is why the obligation to provide members with a pessimistic, neutral and positive outlook of their income following retirement effective from 1 January 2019 is a first step in the right direction. More effort is needed, however.

## 2.3 Pension system review



Following years of debate and discussions between social partners and in the political arena, the Rutte III Cabinet announced its intention to review the pension system. While the review must result in a more sustainable system, the transitional process will pose some considerable challenges. Decision-making in this regard will require a balanced and transparent consideration of the interests at stake.

### 2.3.1 Government's policy programme offers perspective of a sustainable pension system

In its policy programme, the government proposes to abolish the average contribution system, in which young people pay too much and older people too little compared to the entitlements they accrue. The abolition of the average contribution system is a crucial step in the transition towards a sustainable system, which will end the current intransparent intergenerational redistribution involving EUR 35 to 55 billion. It will also end the lower-educated having to contribute to the pensions of the higher-educated.

A pension system without an average contribution system will also better match the changing labour market. Members switch jobs more often, or become self-employed, or temporarily work less, or fall into unemployment. Abolishing the average contribution system will stop employees from being unnecessarily disadvantaged by this system, and this in turn will benefit the functioning of the labour market.

It will also stop the system from being overly dependent on future contribution inflows. Population ageing, industry sector contractions, tax regime changes and the surge in the number of self-employed all put a great strain on the contribution inflows and make it harder to maintain the average contribution system.

Last but not least, abolishing the average contribution system opens up opportunities to designing a system that better reflects individual members' personal situations. It will then be easier to apply different contribution levels for different member groups.

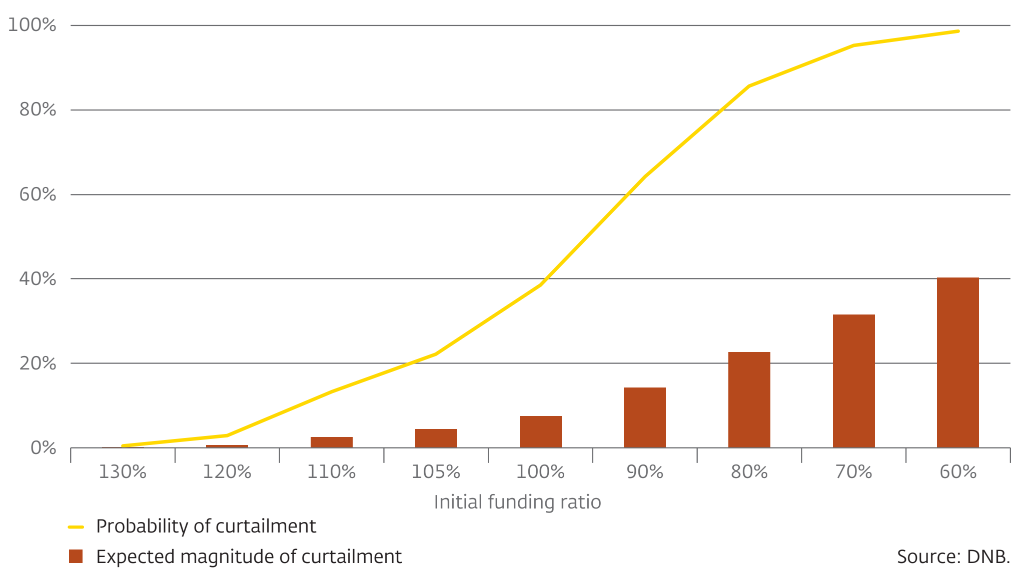
In addition to abolishing the average contribution system, the government policy programme also sets a framework for the design of a new pension contract. While the accrual stage will comprise a personal pension account, the benefits stage will have a collective structure, in line with the Defined Contribution Scheme (Improvements) Act (*Wet verbeterde premieregeling*). This may be supplemented by a collective buffer.

Together, these elements will contribute to a more sustainable pension system. A personal pension account will prevent discussions about who is entitled to how much. The accompanying age-related investment policies will make it possible to differentiate between risk levels for various member groups. Older members will be better protected against curtailments, while younger members can be offered the perspective of potentially higher pensions. In order to reap the benefits of a personal pension account, it would be best to limit buffer sizes and keep distribution rules as simple and transparent as possible. This contributes towards enhancing confidence in the pension funds sector.

The government policy programme also stipulates that collective buffer provisions must never be negative, to prevent deficits from being deferred – past experience has shown that this is a tempting strategy. Regulations have been amended multiple times in the past to prevent curtailments. This benefits older members at the expense of younger and future members, and erodes confidence in the system. Furthermore, pension fund boards have been found to use the available room in the supervisory framework to the full in order to defer painful, but necessary measures. Amending regulations to defer deficits may result in increasingly lower funding ratios, which will eventually lead to substantial and unconditional curtailments. These curtailments could be extensive (see Chart 2.7) and could undermine the pension accrual system as we know it. Prohibiting negative buffers will prevent this from happening.

The measures announced in the government policy programme therefore offer plenty of scope for designing a more sustainable pension system. Properly informing the members of expected pension results and the uncertainties surrounding this is crucial in order to close the expectation gap (see Section 2.2) and make a successful transition to a new system, to eliminate the risk that worse-than-expected pension results are attributed to the review of the pension system. During the transitional period it is also essential to focus on realistic expectations, since the review will not lead to an increase in pension fund assets.

## Chart 2.7 Low funding ratio increases probability and magnitude of curtailments




Source: DNB.

### 2.3.2 A balanced transition is crucial

While the government policy programme explains that the transition to a new pension system is a voluntary process, the government is prepared to facilitate the transfer of existing rights into a personal pension account and will develop a transition framework.

The transition towards a new pension system is a challenging process, both in terms of abolishing the average contribution system and designing a new pension system. Decision-making in this regard will require a balanced and transparent consideration of the interests at stake. That is why we need a transparent supervisory framework with clear roles and responsibilities for pension funds and DNB alike. It is important to chart the impact of proposed decisions on members, deferred members and pensioners using objective, feasible, justifiable and measurable calculation rules, It also calls for detailed requirements for the decision-making processes of pension fund boards. This is how a balanced transition to a more sustainable pension system can be safeguarded.

## 2.4 New Basel accord completes post-crisis reforms

On 7 December 2017, the Basel Committee on Banking Supervision reached agreement on a new framework for calculating capital requirements for banks. Ten years post-crisis, this marks the completion of the global banking regulation framework. The accord will create more uniformity in the ways in which banks calculate their capital buffers. The new framework provides for global standards that will be incorporated into national legislation. For the Netherlands, this will be done within the European Union, based on a European Commission proposal. This process is expected to take several years.

### 2.4.1 More level playing field

The Basel Committee on Banking Supervision, the international forum of banking supervisors, has been responsible for setting global capital requirements for banks since 1974. In the wake of the financial crisis, the 2010 Basel III accord laid down agreements about an overall increase of the amount and quality of the capital that banks are required to hold. These agreements were soon found in need of review due to deficiencies in the calculation method for risk-weighted assets – the banks' exposures adjusted for risks, for which they are required to hold capital. The deficiencies mainly related to the internal models used by large banks – subject to prior approval from the supervisory authority – to calculate their risk-weighted assets and capital ratios. The Committee believes that banks currently have too much leeway in calculating their ratios. In addition to the internal models method, banks may also opt to use the standardised approach. This model, prescribed by the supervisory authorities for determining risk-weighted assets, is mainly used by the smaller banks. The Committee believes the standardised approach model should be improved to better reflect the actual risks that banks are exposed to. By more accurately defining the rules for risk weighting in both the standardised approach and the internal models method, the banks' capital ratios will become more mutually comparable – creating a more level playing field at a global scale.

### 2.4.2 Tightened rules for internal models

The most important changes for the major Dutch banks involve the tightened rules for the internal models method. The new accord sets stricter rules as risks are more difficult to quantify. For example, it will no longer be permitted to use internal models for operational risk (i.e. losses due to internal process deficiencies, human errors, system faults or external events). Banks will have to use a standardised approach instead, in which capital requirements for operational risk depend on the institutions' financial income. Any historic losses as a result of operational risk must also be taken into account.

For credit risk, banks will have to apply standardised probability of default (PD) ratios and loss given default (LGD) percentages if insufficient data are available to accurately estimate risks. This is the case with loans to banks and large enterprises. In other cases, for example with loans to households and smaller enterprises, lower limits or input floors apply for the internally estimated probability of default and loss given default percentages.

With regard to internal models the rules are tightened even further, with two additional backstops that are to be applied to the risk-weighted capital requirements. The largest banks (globally significant banks – G-SIBS) will be subject to a higher leverage ratio requirement in the form of an additional add-on of 1.5% on top of the current international standard of 3%. Moreover, an output floor for capital requirements will be set for banks: when applying the internal models method, the banks' capital requirements may never fall below 72,5% of the capital requirements under the standardised approach. This further limits the risk of banks being overly optimistic in estimating their capital requirements. On the other hand, capital requirements will become less sensitive to risks.

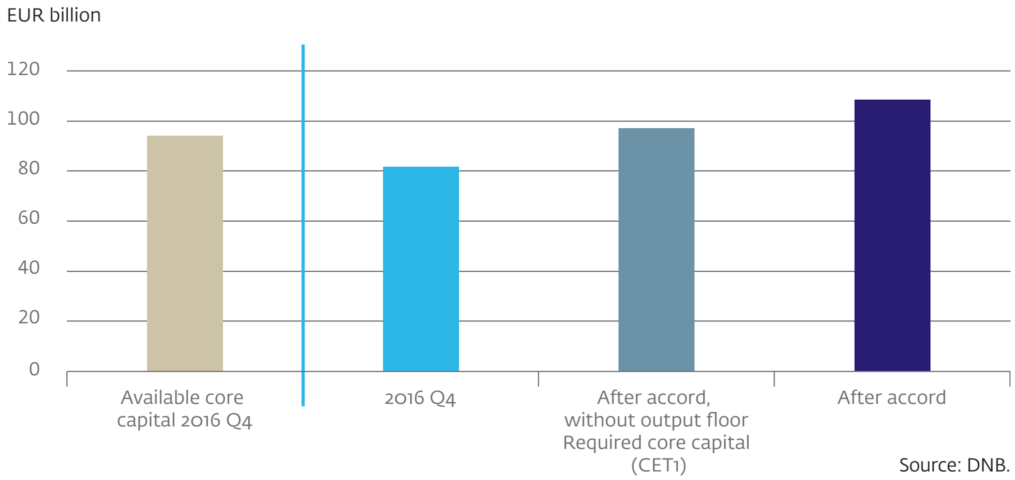
### 2.4.3 Impact on the Dutch banks

The impact of the new Basel accord (Basel 3.5) on the Dutch banks can be measured in several ways, for instance, by measuring the impact on the risk-weighted assets (RWA) underlying the capital requirements for banks. Based on the Dutch major banks' balance sheet composition as at end-2015, the accord would cause their RWA to increase by around 33%. Another way is to measure the impact on minimum required core capital (CET1). At an average minimum capital requirement of 12.5% for major banks in the new framework, the banks would have to hold around EUR 27 billion more in core capital compared to the present situation (see Chart 2.8).

As the banks' CET1 capital already exceeds the current minimum requirement, they would only need an additional EUR 14 billion (i.e. around 15%) to meet the new framework capital requirement. The additional precautionary management buffer the banks maintain on top of the minimum required capital is not taken into account in this method, however. Impact figures may still change, for example as a result of balance sheet adjustments and profits retained after end-2015. Based on the major banks' recent annual figures, the impact of Basel 3.5 for CET1 capital seems to be smaller than expected.

## Chart 2.8 Major banks must increase their core capital by around EUR 14 billion






Source: DNB.

The amendments to the credit risk framework, and in particular the introduction of input and output floors, are key to explaining the higher requirements. The impact of the output floor is substantial, due to the size of the Dutch banks' mortgage portfolios. This is how it works. The Basel standardised approach leads to a significantly higher risk weighting compared to the internal models method, the outcomes of which are based on the low historical losses on Dutch mortgage portfolios. Many banks, especially the larger ones, use their own internal models rather than the standardised approach. As the new output floor narrows the gap between internal models and standardised approach risk weighting outcomes, banks are required to hold more capital.

With respect to corporate loans, it is the standardisation of the risk of default and loss given default on the one hand and the input floors on the other that are responsible for the increase in risk weightings and hence the increased capital requirements for the major banks. The input floors set lower limits to the default losses modelled by the banks. For well-collateralised loans these internally modelled losses may be below the input floor or the standardised LGD percentages. This applies for example to the corporate loans of Dutch banks.

On the whole, the capital requirements for smaller banks remain virtually the same, although for individual banks the impact can be significant – upward as well as downward. Smaller banks generally apply standardised approaches rather than internal models, which means they will not be affected by input and output floors. The main changes for smaller banks involve the requirements related to the risk weighting of mortgages, for which a loan splitting system is introduced. Under this system, a lower risk-weighting is applied for mortgage components with a loan-to-value (LTV) ratio of up to 55%. This loan splitting approach better reflects the underlying risks. For example, mortgages with an LTV ratio of 100% are split into a covered and an uncovered component. A lower risk weighting is applied to the covered component – with an LTV ratio of up to 55% – while a higher risk weighting is applied to the remaining uncovered component. The loan splitting system better reflects the underlying risk attached to mortgages compared to systems with a fixed risk weight for mortgages with higher LTV ratios.

#### 2.4.4 Outlook

Given the Dutch banks' strong capital and profit positions, we expect them to be able to comply with the new requirements by means of profit retention until 2027. The Dutch major banks' average profit over the past five years amounted to well over EUR 6 billion. Banks may also work towards meeting the new capital requirements by reducing certain balance sheet risks, for example.

The impact on lending and economic growth depends on the banks' responses. If banks pass on the costs for additional capital in their interest rates, this will result in interest surcharges of 13 to 19 basis points. This may temper lending to households and businesses and slow down consumption and investment growth. The implications for the economy are limited: GDP and credit growth will slow down by less than 10 basis points on an annual basis. This calculation assumes that the banks' return on equity required by investors will decrease: as banks become safer thanks to higher capital buffers, the risks for investors will decline. If this effect does not materialise, or only to a limited extent, the implications for the economy may be more pronounced. The same is true if banks actively start curbing their lending in order to eliminate the risks on their balance sheets. If the banks wish to maintain their investment return targets at the exact same level, higher interest surcharges can be expected. The impact on GDP growth and lending will then be more significant, in the order of -20 and -70 basis points, respectively.

## 2.5 Unintended effects of legislation and regulations



Following the crisis, rules and regulations had to be tightened in order to restore financial stability. Basel III, Solvency II and the new Financial Assessment Framework (Financieel Toetsingskader – FTK) for banks, insurers and pension funds, respectively, involve significant regulatory changes for these sectors. Financial buffers are increasing, especially the banks', and risk awareness and transparency are improving across the board. It is impossible to predict exactly how financial institutions will respond to regulatory changes. Their response may – unintentionally – lead to increasing prudential risks for individual institutions, a sector, or the financial system as a whole. That is why we keep a close eye on such unintended effects. Based in part on input provided by the sector, we have established three areas for further research. Do changing capital requirements lead to homogenisation of financial institutions' activities and hence to increased systemic risk? Does the regulatory burden change the approach to strategy and risk management? And to what extent is regulatory treatment proportionate, and what are the consequences for market diversity?

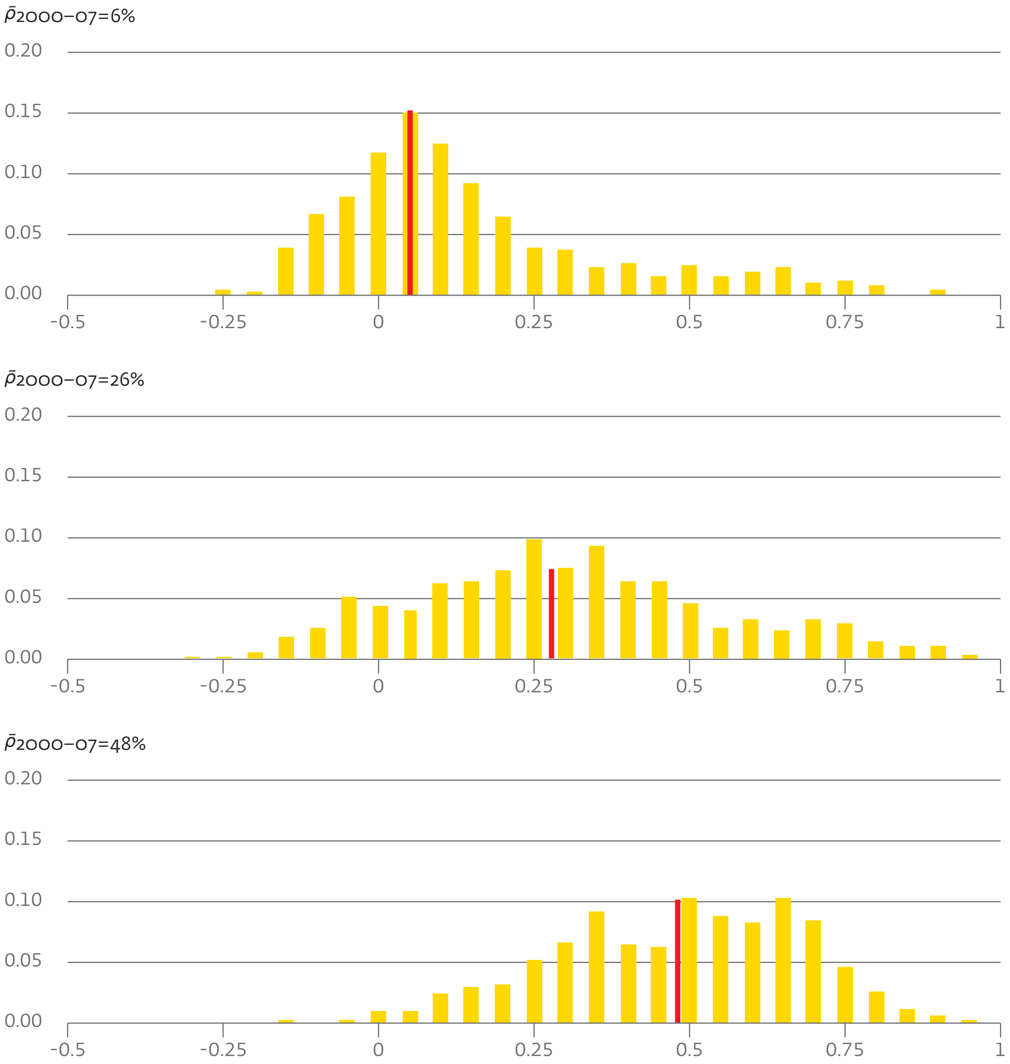
### 2.5.1 Increasing homogeneity in the financial sector

Higher capital requirements help to strengthen individual banks' positions. However, this does not automatically imply that the banking sector as a whole is becoming less sensitive to risks. Increasing homogeneity is an increasing point for concern. The diversity of the Dutch banking sector has been declining over the past few decades, thanks in part to tightened rules and regulations. We highlighted this trend in our 2015 report "Perspective on the structure of the Dutch banking sector". Homogeneous financial institutions are an uncertain factor for financial stability because these institutions are exposed to the same types of risks and their response to shocks is similar. This increases the correlation among banks.

Chart 2.9 shows the trend of increasing homogeneity by looking at the correlations among the return on equity of 33 large European banks over three consecutive periods of regulatory change. Under Basel I, the average return correlation among these banks amounted to 6%. Under Basel II this increased to 26% and under Basel III to 48%.

Increasing homogeneity in the banking sector has several causes. Firstly, all banks are subject to the same statutory limits for structuring their balance sheets. The more prescriptive these limits are, the more homogeneity this creates among banks. Secondly, most banks tend to develop the same types of products in the context of their activities, i.e. products with the highest return on equity with respect to a given capital requirement, and activities that help to minimise liquidity requirements. Thirdly, the market is "discovering" this correlation as a result of increasing transparency.

## Chart 2.9 Correlation among banks increases




Note: Each chart shows the frequency distribution of the correlation between each possible combination of returns on the shares of two listed banks. The sample consists of 33 shares of large European banks.

Sources: Bloomberg, DNB.

Certain elements of Solvency II seem to contribute to homogeneity among insurers, more particularly the application of the ultimate forward rate (UFR) and the volatility adjustment (VA) for the valuation of insurance obligations. Insurers can use these to limit undue volatility in their capital. Both instruments have an impact on insurers' investment policy and risk management. The UFR is a risk-free actuarial interest rate that insurers must use to value long-term contracts that are scarcely traded due to the long term to maturity. From the last liquid point (LLP) in the market (i.e. 20 years), the UFR leads to a relatively high and stable discount curve compared to the market rates. It is an incentive for higher-risk investments and reduced interest rate risk hedging. The VA is a surcharge to the discount curve up to the LLP, and encourages investment in the reference portfolio on which the VA is based, even if its credit risk level is high. These incentives create a discrepancy between the optimum situation from an economic and a regulatory perspective, respectively.

Homogeneity is also at play in the pension sector. In response to the 2015 amendments to the FTK, the pension funds collectively raised the interest rate risk on their balance sheets.

### 2.5.2 Regulation promotes focus on strategy and risk management

In addition to homogeneity, regulatory burden is another unintended effect of regulation. While regulation and supervision require time and attention from the financial sector, they do not immediately yield better income results. So, in general, regulatory amendments are usually followed by assertions that the regulatory burden is too high and detracts from the sector's core tasks. A possible unintended effect is that the implementation of new rules and regulations and supervisory requirements interferes with a board's focus on its own risk management and strategy processes. However, this seems not to be the case, as the boards of banks, insurers and pension funds all indicate that risk management and strategy receive sufficient attention. On the contrary, more regulations and reporting requirements lead to increased focus on these processes in most institutions. The three sectors all show a similar picture.

However, the regulatory burden is perceived differently. Banks experience a high regulatory burden. This is mostly due to the requirements of the European Capital Requirements Directive IV (CRD IV) and Capital Requirements Regulation (CRR), and the Markets in Financial Instruments Directive (MiFID II), but also to supervisory reporting requirements and on-site inspections. The complexity and level of detail of regulations, a lack of proportionality and short reporting deadlines are cited as important causes. Insurers mainly perceive regulatory pressure resulting from the implementation of Solvency II. Smaller insurers in particular experience regulation and reporting requirements as being complex and highly detailed. Pension funds perceive pressure from ad hoc information requests. These are often insufficiently clear. Furthermore, they are difficult to predict and have tight deadlines.

### 2.5.3 More focus on proportionality

Rules and regulations must be in accordance with the size, complexity and risks of the institutions concerned. Applying the principle of proportionality in regulation and supervision contributes to diversity and relieves the regulatory burden for smaller and less complex institutions. If regulations and supervision take into account heterogeneity in business models within a sector, this creates a more level playing field for smaller players and hence reduces the impact on market diversity. The impact of regulation and supervision on market regulation is currently perceived as high by all types of financial institutions. Proportionality promotes diversity and financial stability, and helps the supervisory authority in implementing the available resources effectively. That is why we will launch policy proposals and action points aimed at promoting proportionality in 2018.

It must be noted, however, that proportionality is not the same as deregulation. One of the preconditions for applying the principle of proportionality is that it must not stand in the way of micro- and macroprudential objectives. Even if a specific issue at a small institution does not pose a systemic risk, it may still erode public confidence. Other preconditions include preventing unnecessary increases in complexity of regulation and safeguarding mutual comparability of institutions. The proportionality framework must also continue to be sufficiently risk-sensitive and prevent supervisory arbitrage.

The theme of proportionality is currently high on the international agenda. At EU level, a debate has started about whether a dedicated proportionality framework for smaller banks is desirable. Such a framework might not be applicable to the smaller Dutch banks, as these are relatively large in terms of balance sheet totals compared to the small cooperative savings banks in, for example, Germany and Austria.

# Resolution:
# full steam ahead

# 3 Resolution: full steam ahead



## 3.1 Introduction

We are making headway in the execution of our tasks with regard to resolution and the deposit guarantee scheme (DGS). At European level, the Single Resolution Board (SRB) in cooperation with the national resolution authorities (NRAs) including DNB, continued its development of policy and data standards. These standards are to be operationalised in the upcoming period. At the same time, the statutory framework continues to evolve and the resolution approach is gaining ground in other financial sectors. These developments all contribute to the stability of the financial sector.

Over the past year, the frameworks for resolution planning and execution were further improved at the European and national level. The resolution plans for Dutch significant institutions were deepened and resolution plans and resolution strategies were designed for a number of less significant banks. The next phase will see a shift towards measures for improving resolvability, and it will be up to the banks to play their part.

Regarding the DGS we made significant progress towards shortening the payout deadline by standardising data requirements and building a digital core infrastructure. At the European level, the European Deposit Insurance Scheme (EDIS) is to be given new impetus.

## 3.2 The state of resolution ten years post-crisis

The financial crisis revealed the risks of failing banks for the financial system and public finance. The banking union and the European resolution regime were introduced to address these risks at a structural level. Two years after their introduction, work on the statutory framework is ongoing. For example, negotiations about the implementation of the Financial Stability Board's (FSB) minimum standard for loss-absorbing capacity are still underway. The recent experiences with failing banks in Europe illustrate the importance of maintaining sufficient subordinated capital and debt instruments on banks' balance sheets. The resolution regime requires clarification in a number of other aspects, including on the relationship with state support regulations. This need not be in the way of operationalisating resolution plans.

### 3.2.1 Resolution in practice

One significant Spanish bank went into resolution after the resolution regime entered into effect, and two significant Italian banks were resolved through liquidation, with state support. These cases show that the resolution regime can be effective, but also that the level of resolvability and starting positions in Europe differ considerably at the national level. While implementation of the resolution regime needs time, it is crucial to safeguard consistency and address any remaining vulnerabilities in specific banking sectors, such as non-performing loans.

We can learn the following three lessons from these cases. The most important lesson is that bail-in of non-subordinated liabilities must be avoided in order to prevent operational, legal and stability risks from arising (see Section 3.2.2). Briefly put, bail-in entails writing off and converting capital and specific types of debt to absorb losses and recapitalise a bank, in order to prevent bail-out by the government. The cases also reveal friction between the objective of the regime and its practical implementation: while the objective of the Bank Recovery and Resolution Directive (BRRD) is to break the interdependence between banks and governments, the liquidation of the Italian banks was in fact partly funded by the government. To ensure consistency in the approach to failing banks in the EU, it is essential to align government support regulations and national insolvency procedures mutually and with the principles laid down in the BRRD. Last but not least, the cases show that successful resolution requires sufficient liquidity, in addition to recapitalisation. Liquidity, then, is a key priority in current discussions on European policy and resolution planning, and in the operationalisation of the Single Resolution Fund (SRF).

### 3.2.2 The importance of subordinated MREL

The European negotiations on the review of the BRRD are ongoing in 2018. The discussion centres around the level and quality of the minimum requirement for own funds and eligible liabilities (MREL). The BRRD review was prompted by the FSB's minimum standard for loss-absorbing capacity, which creates an intermediate layer of subordinated capital instruments on banks' balance sheets. This layer is needed to safeguard the credibility and feasibility of bail-in, given that a bail-in of non-subordinated instruments such as intragroup liabilities or unsecured deposits would give rise to contagion risks and enhance the likelihood of bank runs. This would increase the risks for financial stability rather than reduce them.

Against this background, the SRB adopted its MREL policy for 2017, with the intention to adopt the first MREL decisions for significant institutions in the spring of 2018. For the time being, the SRB has only set a group-level MREL target, without further specifying the level of subordination. The SRB plans to recalibrate its policy in 2018. As the Dutch national resolution authority, we will continue to press for thorough assessment of risks at bank level and an adequate layer of subordinated instruments. Clarity about the required level of subordination is also in the interest of banks, with a view to their capital planning. At present, the market conditions for attracting subordinated capital are favourable for banks, and the planned statutory changes to the creditor hierarchy will make the issuance of subordinated MREL instruments less complex.

## 3.3 Resolution is becoming increasingly cross-sectoral

In addition to the risks relating to banks, policymakers increasingly acknowledge the social risks of unorderly bankruptcies of central counterparties (CCPs) and insurers. In response, the FSB has developed international standards for the resolution of these insitutions, which are now being transposed into European and national legislation.

Expansion of the resolution regime to non-banking sectors should reduce the risks of failing institutions to financial stability. This is essential for CCPs because of the large concentration of counterparty risks they are exposed to. Orderly resolution of larger CCPs and insurers will reduce the risk of contagion effects for financial markets, the real economy, and government finances. Improving these institutions' resolvability will also contribute to their robustness and crisis resilience.

### 3.3.1 Resolution regime for CCPs: striking the right balance

The role of CCPs in the financial markets has become more prominent over the past few years, partly as a result of regulatory and legislative changes. This requires more focus on the supervision of CCPs, and their resolution. As regards supervision there is a European legislative proposal to lift decision-making to the European level and bring third-country CCPs under European supervision. Work is underway on a European recovery and resolution regime for CPPs that is to be implemented at the national level.

The current European draft proposal equips the resolution authority with instruments that are largely similar to the recovery measures that CCPs can take themselves, and this is where the regime differs from that for banks and insurers. The success of resolution for CCPs therefore hinges on the timing of intervention. This requires close and intensive cooperation with the supervisory authority, which is responsible for establishing whether an institution is failing or likely to fail and therefore determines the moment when the resolution authority comes into play. Even then it is crucial for the European proposal to provide resolution authorities with adequate discretionary powers with respect to the application of instruments and the order of their application.

### 3.3.2 A resolution regime for insurers: protecting policy holders

Together with France and Romania, the Netherlands is one of the first countries to introduce a national resolution regime for insurers. The available instruments are similar to those for banks and include, in addition to resolution planning, the power to sell an enterprise, to set up bridge institutions and to bail in creditors. With a bail-in, shareholders, debt paper holders and, if required, policy holders, must contribute to maintaining an insurer's critical functions.

The regime is mostly targeted at the larger life insurers, as their unorderly failure could have serious ramifications for society. Orderly resolution may help to control contagion effects in the financial system and preserve value for large groups of policy holders. The no-creditor-worse-off principle protects stakeholders during resolution by stipulating that any creditors, including policy holders, may not be worse off in a resolution procedure compared to a liquidation procedure.

### 3.3.3 Ambition: harmonisation at the European level

The proposed resolution regimes for CCPs and insurers would benefit from more harmonisation at the European level, in order to achieve a more consistent, cross-border representation of European interests. The supervisory regime for CCPs will be strengthened at the European level, but under the current European proposal the execution of the resolution regime will remain the responsibility of the national authorities. For insurers, there is as yet no harmonisation of resolution regimes in European countries. Harmonisation at the European level for CCPs and insurers therefore needs further strengthening.

## 3.4 Towards a shorter DGS payout deadline

In 2017, DNB decided on the structure of the single customer view (SCV). The SCV is an overview of all deposits held by a deposit holder, and it is currently compiled by us. Effective from 2019, the banks will be responsible for compiling and submitting the SCV files. This will enable us to shorten the DGS payout deadline from 20 to 7 business days. At the same time, we are working on strengthening the basis of the new DGS and the operationalisation of cross-border collaboration between the DGS authorities. Within the banking union, we will continue to promote the establishment of EDIS, combined with risk-reducing measures.

### 3.4.1 Strengthening the Dutch DGS

In order to shorten the DGS payout deadline, it is crucial that banks are able to provide insight into their deposit holders' deposits more quickly in the event of bankruptcy, to establish the correct guaranteed amount in good time. That is why we are working together with the sector on a new payout system, in which the banks compile and submit the SCV files in a uniform manner.

The final SCV regulation was adopted in July 2017, with an 18-month transitional period. Effective from 2019, it will be possible to pay out DGS compensation within seven business days through a new web-based application currently under development. We are making good progress with the new system and the application. The basic infrastructure for the new payout system was put into operation at the end of 2017.

In the context of the new European DGS directive, we are also working to improve our collaboration with the DGS authorities in other countries. Deposits held with branches of Dutch banks abroad are paid out by the DGS in the country where the branch is established. In 2017, the Dutch DGS became a partner in the European Forum of Deposit Insurers (EFDI), co-signing a multilateral cooperative agreement, to put our intentions into practice. In the year ahead we intend to build on this cooperation by laying down bilateral agreements.

With these measures we hope to promote public confidence in the DGS. Our 2017 study showed that Dutch consumers are positive about the DGS. Three quarters of the Dutch public are aware that savings deposits are guaranteed up to a certain amount in the event of bank failure. However, fewer people are familiar with the scheme's specific features, such as the guaranteed amount and the payout deadline. As greater public awareness of the DGS contributes to the scheme's stabilising effect, we are looking at appropriate strategies to achieve this in the years to come.

DNB is responsible for the execution of the DGS and works in concert with the Deposit Guarantee Fund (DGF), a legally independent entity outside DNB funding the DGS. The DGF collects the risk-weighted levies paid by the banks participating in the Dutch DGS. End-2017, the fund held EUR 915.5 million, which equals 0.19% of guaranteed deposits. The DGF is well on track towards achieving the target amount of 0.8% of guaranteed deposits in 2024, which currently amounts to approximately EUR 3.9 billion.

### 3.4.2 EDIS as the third pillar of the banking union

At the European level, limited progress was made in negotiations about the European deposit guarantee scheme (EDIS), which is to contribute to the completion of the banking union. EDIS will not replace the national DGSs, but will raise the funding of these national DGSs within the banking union fully or partially to the European level, thus helping to break the interdependence between governments and banks and strengthening confidence in the banking union.

Reducing the risk differentials between Member States is regarded as a prerequisite for risk sharing in EDIS. We support this approach, as it also contributes to improved resolvability of banking balance sheets. We already proposed basing EDIS on liquidity sharing agreements for a prolonged period of time. That is why we welcome the European Commission's 2017 proposal – aimed at speeding up negotiations – to opt for a phased implementation of EDIS and strengthen the first phase of liquidity sharing.

We consider it important for a changeover to risk sharing in EDIS to be accompanied by a study into the soundness of the LSIs guaranteed by the European DGS in order to safeguard equal starting positions. While supervision of these banks is primarily organised at a national level, their deposits would be guaranteed by the European DGS with the introduction of EDIS. In its new proposal, the European Commission also expresses its support for a study into banking balance sheet quality as part of the phased introduction of EDIS.

# Payments now and in the future

# 4 Payments now and in the future

## 4.1 Introduction



Payment systems are changing. Innovations emerge, new payment methods are introduced, and financial infrastructures are modernised. Not all changes can simply be allowed to develop unbridled, however. Some of them warrant measures by central banks or supervisory authorities to ensure that payments remain secure, reliable and efficient.

Fuelled by trends in technology and society, the payments landscape witnesses many innovations. Examples of such trends are ongoing digitisation, and shifting behaviour and expectations of consumers and corporate users of payment systems. In a related development, the use of smartphones as a platform for a multitude of applications is increasing. Similarly, new rules and regulations may prompt changes or even bring about fundamental innovations, resulting in an ever wider array of payment methods, such as cash payments, credit transfers, PIN-based and contactless debit card payments, and online payments. The private parties in the payments sector – banks, payment institutions, technical service providers, transaction processors, clearing institutions – facilitate these changes. Nevertheless, their efforts do not always result in the best possible outcome for society as a whole. While we welcome innovations in the payment system, as a public institution we aim to ensure that any drawbacks to society or risks inherent in new payment methods are eliminated insofar as possible.

This chapter outlines a number of developments in the area of payments. Section 4.2 below describes the advancing shift from cash to electronic payments in the Netherlands. It involves the challenge of ensuring that cash payments remain efficient and secure, while the cash chain continues to function at its optimum. Section 4.3 describes a number of innovations in retail payments and the underlying infrastructure. Section 4.4 discusses several policy challenges, including the strengthening of the financial system's cyber resilience and robustness, and the accessibility of financial services and privacy. Lastly, section 4.5 addresses the rise of cryptos and the question whether central banks should issue a digital currency.

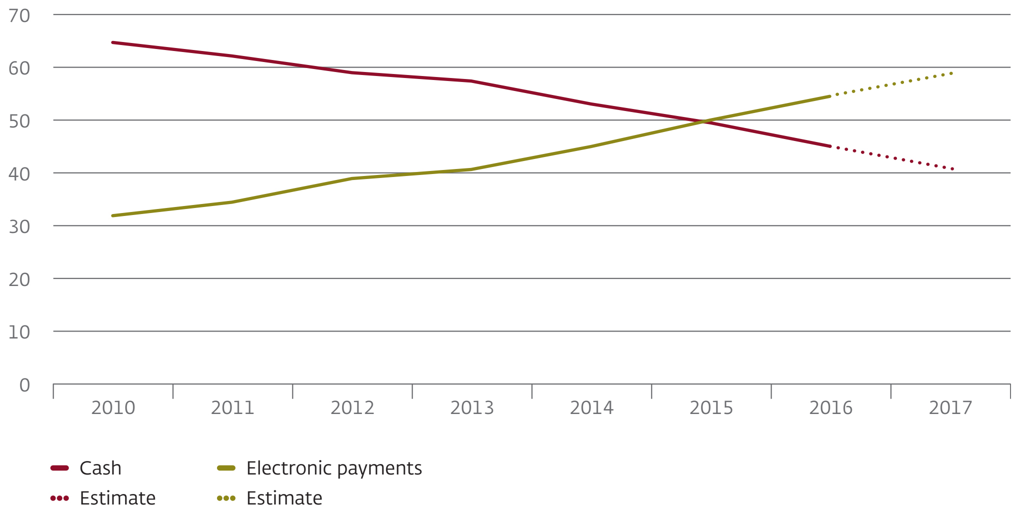
## 4.2 Electronic payments are on the rise, but cash must remain an accepted payment method

The Dutch increasingly make their payments electronically at points of sale, rather than in cash, using coins and banknotes. It is important, however, that cash can be used generally and continues to be available.

The shift from cash to electronic consumer payments seen at points of sale in the Netherlands is becoming more pronounced. The share of debit card payments in point-of-sale payments rose further in 2017 and is now approaching 60%. This means that the target set by banks and retailers of 60% debit card payments and 40% cash payments at points of sale will be achieved nearly a year ahead of time (see Chart 4.1). Our studies show that retailers prefer the

## Chart 4.1 More electronic, fewer cash payments in the Netherlands

Number of transactions as a percentage of the total number of payments



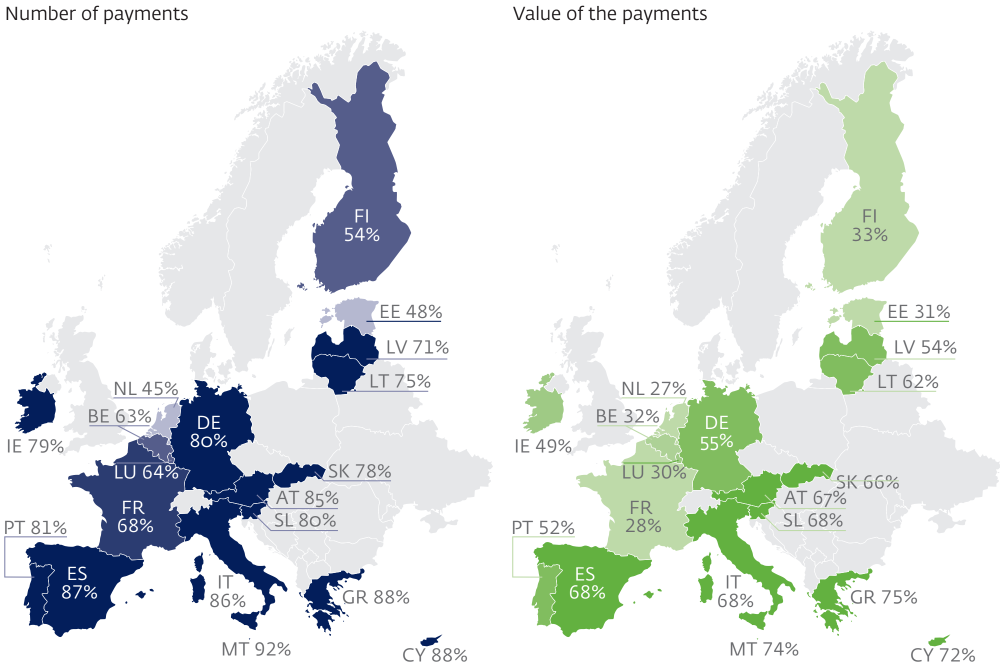

use of debit cards over cash for reasons of safety, costs and speed. Consumers increasingly favour debit card payments for reasons of convenience, speed and safety, and their use is gradually developing into a habit. The incessant growth in debit card payments is supported by the increase in contactless card payments. Almost half of all debit card payments are now contactless, with transaction amounts averaging EUR 13, against EUR 35 for non-contactless card payments. Furthermore, new payment methods are emerging, such as paying by smartphone, which could reduce cash payments even more. We therefore expect electronic payments to grow further in the Netherlands over the next few years.

The Netherlands is a forerunner in the euro area where the shift towards electronic payments is concerned (see Figure 4.1). An ECB study shows that on average euro area households still paid almost 80% of their purchases in cash in 2016.

While consumers increasingly prefer electronic payments, some shops and public or semi-public institutions refuse cash payment for reasons of their own. However, it is in the interest of society that cash can be used to make payments at points of sale. Consumers must not be forced to make their payments electronically, particularly in situations where they are unable to turn to another product or service provider that does accept cash. This concerns in particular people who do not have access, temporarily or otherwise, to a debit card (such as young people), or cannot use it (such as disabled and elderly people). In addition, some people prefer to pay in cash for reasons of privacy. Moreover, cash is a generally accepted alternative when electronic means of payment are temporarily unavailable due to disruptions.

## Figure 4.1 The Netherlands is among the forerunners in electronic payments

Cash payments at points of sale as a percentage of country totals in 2016




Source: ECB, The use of cash by households in the euro area, Occasional Paper Series No. 201, November 2017.

Besides its acceptance, the accessibility of cash should also be safeguarded – consumers must be able to withdraw banknotes at a sufficient number of locations. Conversely, retailers want to deposit their cash receipts conveniently and at reasonable cost. To ensure this, the installed base of ATMs must have sufficient geographical coverage, but as the number of cash transactions declines further, the costs involved weigh more heavily on the remaining transactions. For this reason, the three largest banks announced in May 2017 they would bring their ATMs together in a joint network, which will allow cash to remain accessible against acceptable social costs. The combined network also offers opportunities for improving safety.

We also invest in the efficiency and security of the cash chain. As a member of the Eurosystem, we issue new banknotes that offer enhanced protection against counterfeiting. Also, we plan to move our banknote activities and the gold vaults to Camp New Amsterdam, a Ministry of Defence site in the municipality of Zeist, around the year 2022. This will in due course obviate the need for ever more onerous measures inside and around our head office to secure the banknote and gold vaults. A new Cash Centre will be built in Zeist that is centrally located and well accessible to security transport companies, and it will offer a high degree of safety to both employees and valuables.

## 4.3 Innovation in electronic payments forges ahead

Ongoing digitisation, shifts in consumer behaviour and new regulations are causing innovation in electronic payments to forge ahead. This calls for changes to the European financial infrastructure.

Ongoing digitisation simplifies and speeds up numerous economic activities, including payment processes. This causes the demand and behaviour of consumers and retailers to shift. Two cases in point are the central role played by the smartphone and the growth of e-commerce. Naturally, payment solutions must match these developments, as evidenced by the rapid rise of mobile payments, for which consumers use banking apps and the mobile variant of iDEAL. Smartphones and tablets can also be used for peer-to-peer payments between consumers, and various providers have developed user-friendly apps for this purpose. Moreover, smartphones can be used to make point-of-sale payments, including contactless payments. Other new developments seen in the Dutch payments landscape are electronic mandates, electronic invoices that are directly linked to payment systems, and online identification methods that can be used in e-commerce payments.

Two major developments merit particular attention. First, the European Union's revised Payment Services Directive (PSD2) should have been transposed into the Member States' national legislation by 13 January 2018. Its implementation is slightly delayed in many Member States, however, and it is likely to be completed in the Netherlands in the spring of 2018. PSD2 forces the European payments sector to ready itself for digital service provision. It regulates the conditions – most importantly consumers' consent – subject to which new types of payment institutions can obtain online access to current accounts held by consumers. Such access allows them to initiate payment transactions or provide account information services. Payment initiation services are an alternative for iDEAL and credit card payments, while account information service providers use payments data obtained from banks, for example to provide consumers with overviews of their financial position.

A second major development is the introduction of instant payments, meaning that money transfer orders are processed in a matter of seconds, giving recipients instant access to their money. This new functionality will be available 24/7 and 365 days a year. Account holders demand the continuous availability of mobile and web-based payment methods. Banks in some non-euro countries already offer instant payments. In the euro area, around one thousand mostly smaller banks in eight countries have been offering it since November 2017, including two Dutch banks. Participation in the European initiative is voluntary, and payments can only be processed instantly if both the payer's and the payee's bank participate. The Dutch project is unique in that the large banks have joined forces to prepare for nation-wide introduction of instant payments, so that implementation can take place on a large scale. The Dutch banks consider instant payments as the new normal, the standard for all retail payments in the longer run. They are currently building a new infrastructure to facilitate this, and initial tests have already begun. All mobile and online payments in the Netherlands will be processed instantly from May 2019 onwards. 79

Financial infrastructures are also being renewed and modified. For example, European clearing institutions now offer systems for immediate transaction processing. The ECB facilitates the processing of payment flows between participating banks, and also develops a dedicated TARGET2 module named TIPS (TARGET Instant Payment Settlement) for immediate processing of retail payments. TARGET2 is the European Union's interbank large-value funds transfer system. The Eurosystem decided in late 2017 to modernise TARGET2 and consolidate it with TARGET2-Securities (T2S), the central European platform for processing securities transfers. In addition, the Eurosystem will develop a common collateral management platform for all euro area central banks.

## 4.4 Innovations pose challenges for DNB

Innovations in electronic payments do not necessarily result in the best possible outcome for society as a whole. Public authorities may need to intervene to achieve a better outcome, which involves various challenges.

### 4.4.1 Bolstering cyber resilience

Ongoing digitisation of the financial sector makes cyber risks stand out more clearly. Cybercriminals increasingly target financial institutions in large value payment infrastructures. Furthermore, knowledge of advanced attack techniques is disseminated quickly across the globe and cyberattacks are becoming more sophisticated. The large Dutch banks experienced various disruptions due to DDoS attacks in early 2018. Institutions therefore need to step up their investments, both individually and collectively, to prevent such attacks. After all, every operator in the financial sector or any other vital sector, such as energy or telecoms, can be affected by a cyberattack. Interdependencies mean that, if the worst comes to the worst, financial stability could be endangered. Cyber resilience is therefore of crucial importance.

With this in mind, we developed TIBER (threat intelligence-based ethical red teaming) in 2017 in tandem with other institutions in the financial core infrastructure. A cybersecurity framework and testing programme, TIBER involves controlled cyberattacks against the vital systems of participating institutions, including DNB, based on up-to-date threat intelligence. The aim is to learn lessons from the results and become more resilient against sophisticated attacks. The pilot phase was completed and guidelines for the framework published in November 2017. Initial test findings are positive – TIBER has the potential to make the institutions safer.

The Eurosystem has also formulated its cyber resilience strategy, based on international guidelines prepared by a committee co-chaired by DNB. Its first element is the development of a testing framework based in part on the Dutch TIBER. The European variant, TIBER-EU, is expected to become operational in 2018. Its second element is an assessment of the cyber resilience of financial institutions in the European Union. Furthermore, a Euro Cyber Resilience Board will be set up to facilitate board-level consultations between the managers of financial market infrastructures and the central banks that supervise them, including DNB. On a global scale, too, central banks seek to strengthen the security of high-value payment systems. Their strategy focuses on the systems (such as TARGET2), the participants (financial institutions) and the financial messaging networks. The Society for Worldwide Interbank Financial Telecommunications (SWIFT) offers such a network, and it has launched a long-term programme under which participating institutions bolster their security.

### 4.4.2 Other objectives

A related objective concerns the robustness of the infrastructure for bank payments. We wish to further this not only with a view to cyberthreats, but also given the ever-faster growth in electronic payments. We will therefore devote heightened attention to the availability and security of the payment systems we manage for the Netherlands (TARGET2, T2S and TIPS), the stability of the payments chain (including by means of annual crisis drills), and the rules and regulations applying to the supervision and possible disentangling of central counterparties.

A second objective is safeguarding public access to financial services – financial inclusion. Although such public access has been adequate for quite some time in the Netherlands, ongoing digitisation in payments carries the risk of specific user groups being left out. On a more general note, financial autonomy of citizens must be promoted. We seek to foster this through the activities of the National Forum on the Payment System and the Money Wise Platform.

A third objective is the protection of payment data and personal data. As a supervisory authority, we monitor adequate data protection by financial institutions as part of their sound and ethical business operations. The arrival of PSD2 marks a watershed in terms of data protection, allowing third parties to access payment data, subject to the account holder's consent. Both PSD2 and the General Data Protection Regulation lay down rules for this. To enforce both, we work alongside the Dutch Data Protection Authority (Autoriteit Persoonsgegevens). Protection of personal data is fundamental to upholding trust in financial institutions and the payment system.

## 4.5 Surge in cryptos and the debate about central bank digital currency



2017 saw the combined market value of cryptos surge, boosting public interest in the phenomenon. While cryptos represent an innovation, they carry substantial risks. Although they are also referred to as cryptocurrencies, they do not constitute legal tender. Their rapid rise and their flaws have sparked a debate among central banks about the possibilities for issuing their own digital currency.

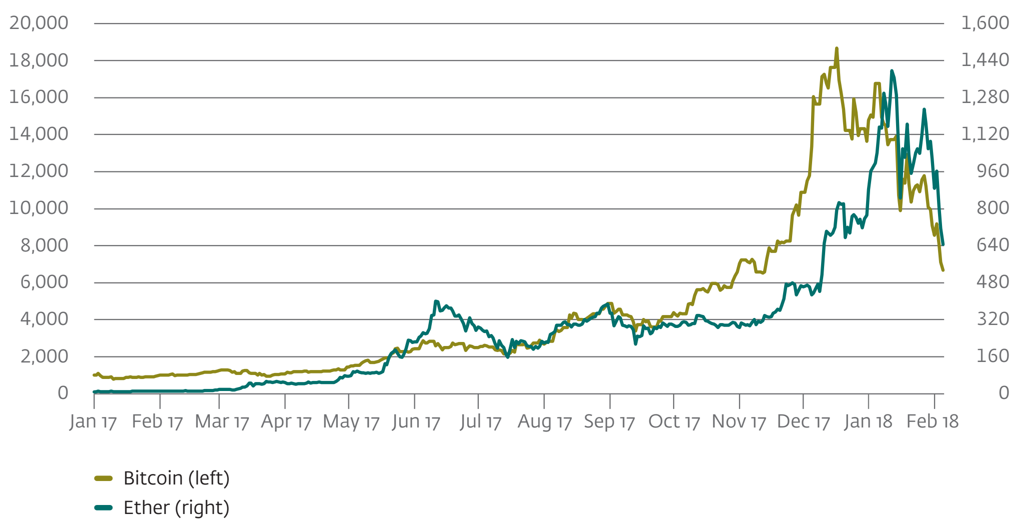
### 4.5.1 Emergence of cryptos

Cryptos such as bitcoin, ether and litecoin are digital media of exchange that are created, validated and exchanged using cryptographic techniques in a decentralised computer network. At year-end 2017, over 1,300 cryptos were in existence, with a combined market value of over USD 300 billion. As crypto prices went up, including that of bitcoin, investors showed increasing interest in 2017, and trading facilities were expanded. For example, some US stock exchanges now facilitate the trade in bitcoin futures. Market operators are setting up investment funds and developing derivatives based on cryptos, and new professional services, such as bitcoin custody and consultancy, are emerging.

Cryptos are created by private parties, and they lack any intrinsic value or value by law. It is the market that determines their value, and speculation is a major influence. As a result, prices fluctuate sharply (see Chart 4.2). This makes them unsuitable as an accounting unit or store of value. Moreover, they are not generally accepted media of exchange, as they are used in payments almost nowhere outside the virtual world. Although they are referred to as

### Chart 4.2 Sharp fluctuations in crypto prices

Prices of bitcoin and ether, in USD



cryptocurrencies, they cannot be equated to money. What is more, the risks inherent in cryptos are substantial, such as their high price volatility and the anonymity of transactions. Users and investors cannot rely on any safety net whatsoever.

Besides cryptos, initial coin offerings (ICO) are more widely used nowadays. An ICO is a stock exchange listing that allows a company or project organisation to raise funds digitally. Units of participation referred to as tokens are issued based on blockchain technology in exchange for payment in regular currencies or cryptos. Like cryptos, ICOs carry risks. They are typically unregulated, and investors are not protected. Furthermore, ICOs can be used for money laundering or terrorist financing. We therefore require institutions subject to our supervision that are involved in ICOs to demonstrate that measures aimed at controlling the related risks are in place.

### 4.5.2 Debate on central bank digital currency

The rapid rise of cryptos has sparked a debate about the possibilities for central banks to issue a digital currency. Referred to as central bank digital currency (CBDC), it would be digitally transferable central bank money, denominated in the official currency, permanently available and widely accessible. It would not require the application of blockchain technology. CBDC could fulfil the role of cash or partly replace it. As an additional payment instrument, it could make payment systems more robust and make cross-border payments more efficient. A range of variants are conceivable, depending on their purpose, such as a digital banknote, a central bank deposit or a transaction processing instrument for professional parties. However, central bank digital currency has substantial inherent uncertainties and risks. The introduction of CBDC would create an asset that competes with government bills and notes, and guaranteed bank deposits. If it became very popular, the question would arise whether displacement of bank deposits is desirable. It would erode an essential source of bank funding, make bank funding more expensive and undermine banks’ lending capacity. Central banks would be forced to play a permanent role in lending that is incompatible with their tasks. A further important danger is that a financial crisis could fuel larger and faster bank runs if consumers were to move their funds to the central bank. All in all, we believe that the arguments against issuing central bank digital currency outweigh the arguments in favour of doing so, which is why we adopt a critical stance in this debate.

# Accountability

# 5 Accountability

## 5.1 Introduction



In this chapter, we report on the main results achieved in 2017. Corporate social responsibility (CSR) plays a key role in our core tasks, and we discuss it in detail in this chapter. Section 5.2 sets out our mission and ambitions. In Section 5.3, we describe how we give concrete form to corporate social responsibility at DNB. Section 5.4 considers our CSR performance in relation to our core tasks, while Section 5.5 discusses the results achieved in our internal operations. CSR priorities in the various core tasks are also highlighted in these two sections. The remaining sections of this chapter explain our risk management (Section 5.6) and account for the costs incurred (Section 5.7), and, lastly, Section 5.8 discusses our financial position.

## 5.2 Our mission and ambitions

Our mission and ambitions drive the objectives we set ourselves and the activities we undertake.

### Our mission

**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.

We fleshed out our mission, producing 11 strategic ambitions (see Figure 5.1), which we reviewed in 2016 to put arrangements into place reflecting significant external and internal developments, such as the further development of the Single Supervisory Mechanism (SSM), the establishment of the national resolution authority within DNB, and the reconfiguration of our internal operations. Following on from our mission and ambitions, we have also defined the four following core values to guide our day-to-day activities: committed, open, dependable and alert.

The fulfilment of our mission and ambitions is safeguarded by an integrated planning and control cycle, in which the long-term ambitions are translated into annual priorities. These are laid down in division 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 our annual priority-setting exercise and the review of our ambitions (see Annex 5).

**Value creation**

Together, the mission and ambitions give substance to how we create value for society. We add value on the basis of the role we play in 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. Our CSR policy focuses on the further integration of corporate social responsibility into our core tasks, sustainable internal operations, a sustainable social policy, integrity and compliance, and social commitment.

Figure 5.1 illustrates how the value creation process is shaped at DNB. It shows the powers, financial resources and capacity at our disposal and how we use them to contribute to sustainable prosperity in the Netherlands. It also indicates where the various elements can be found in this chapter on accountability.

## Figure 5.1 Value creation at DNB

### Input

**Legislation and regulations:**

- Responsibilities and powers that relate to performing our **statutory duties**.

**Financial capital:**

- Available budget: EUR 384 million **(2017 budget)** (§ 5.7)
- Financial position (§ 5.8)

**Human capital:**

- Employees: 1,767 FTEs **(2017 budget)**
- Knowledge and expertise
- Research and policy planning

**Effective and efficient operations:**

- Information system
- ICT tools
- Internal operations (§ 5.5)
- Risk management (§ 5.6)

### Strategy

#### Our mission

DNB seeks to safeguard financial stability and thus contributes to sustainable prosperity in the Netherlands.

#### Ambitions

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 policy in its preferred direction and delivers 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.

### Output

#### Results

(2017 accountability)

- **Monetary tasks:** price stability and balanced macro-economic development in Europe (§ 5.4.1)
- **Financial stability:** a shock-resistant financial system (§ 5.4.2)
- **Payment system:** a secure, reliable and efficient payment system (§ 5.4.3)
- **Supervision:** sound and ethical financial institutions which fulfil their obligations (§ 5.4.4)
- **Resolution:** DGS and a controlled approach to bank failure (§ 5.4.5)
- **Statistics:** practically viable statistics to support DNB's core tasks (§ 5.4.6)

## 5.3 Vision on corporate social responsibility

In this section, we aim to explain what corporate social responsibility means to us. We set out our vision on CSR in Section 5.3.1, and address the outcome of CSR stakeholder survey in Section 5.3.2, the CSR materiality analysis in Section 5.3.3, the CSR priorities in Section 5.3.4, and our CSR performance for 2017 in Section 5.3.5.

Across the globe, awareness of sustainability issues has been given a considerable boost by the Sustainable Development Goals and the Paris climate change agreement, both drawn up by the United Nations (UN) in 2015. The European Union and the UN set their targets with respect to achieving the Goals in 2016. In the Netherlands, too, government institutions, businesses and social organisations have expressed their commitment.

Sustainability also takes pride of place in what we do, tying in seamlessly with our mission, which is that we seek to safeguard financial stability and thus contribute to sustainable prosperity in the Netherlands. Sustainable prosperity means sustainable economic growth that is achieved without harmful effects on the environment and without systematically putting certain groups or generations at an advantage or disadvantage. Sustainable prosperity also benefits from a sustainable financial sector, and we seek to facilitate and encourage the financial sector in this respect. One of the key ways in which we do so is through the Sustainable Finance Platform, which brings together actors from across the Dutch financial sector to promote cross-sectoral knowledge exchange and coordinate sustainable finance initiatives (see Box 5.1).

## Box 5.1 Sustainable Finance Platform

The Sustainable Finance Platform was set up in 2016 at our initiative with the object of promoting and increasing awareness of sustainable finance in the financial sector. Besides DNB (Chair), the platform's members are the Dutch Banking Association, the Dutch Association of Insurers, the Federation of the Dutch Pension Funds, the Dutch Fund and Asset Management Association, the Dutch Authority for the Financial Markets (AFM), the Ministry of Infrastructure and Water Management, and the Sustainable Finance Lab. The aim is to link with other sectors and jointly consider ways of avoiding or overcoming obstacles to sustainable finance. This provides a positive impetus for sustainability in a broad sense, and focuses on all environmental, social and governance aspects of finance. The platform's members meet twice a year to discuss sustainability initiatives in the Dutch financial sector. In addition, working groups have been set up to flesh out specific topics or initiatives.

They have produced a range of deliverables in 2017. The Sustainability Education and Communication working group developed a three-day Finance in Transition training module in tandem with Nyenrode Business Universiteit, while the SDG Impact Measurement working group prepared a guide for measuring the impact of investments in sustainable development goals. The Circular Economy working group hosted a round table session for senior management members in the financial sector about the circular economy. Lastly, the Platform Carbon Accounting Financials working group designed an open source methodology that allows measurement of the carbon footprint of investments and loans. Up-to-date information can be found on our website.

### 5.3.1 Our vision on CSR

We have established our CSR policy over the past few years, working from the fundamental principle that our actions and decision-making should not only reflect financial and economic but also social and ecological aspects. We regularly engage in dialogue with our stakeholders, carefully balance various interests in our decision-making, and communicate openly about our considerations. Similarly, we have embedded CSR into our core tasks and internal operations.

Within DNB, the CSR Committee acts as a driving force in the area of sustainability. Its task is to update the CSR plan annually, promote the integration of the CSR policy throughout our organisation and oversee its implementation. In addition, the CSR Committee reports to the Governing Board and the Supervisory Board on progress in the CSR plan's implementation in writing twice yearly. The IAD and the external auditor verify the CSR report.

### 5.3.2 Outcome of stakeholder survey

To gain an understanding of what stakeholders expect from DNB in the area of CSR, we asked external stakeholders in 2017 how important they considered CSR in our activities with regard to monetary policy, financial stability, economic advice and analysis, supervision, resolution, payments, reserve management, and internal operations and accommodation policy (see Box 5.2).

## Box 5.2 Stakeholder survey on CSR

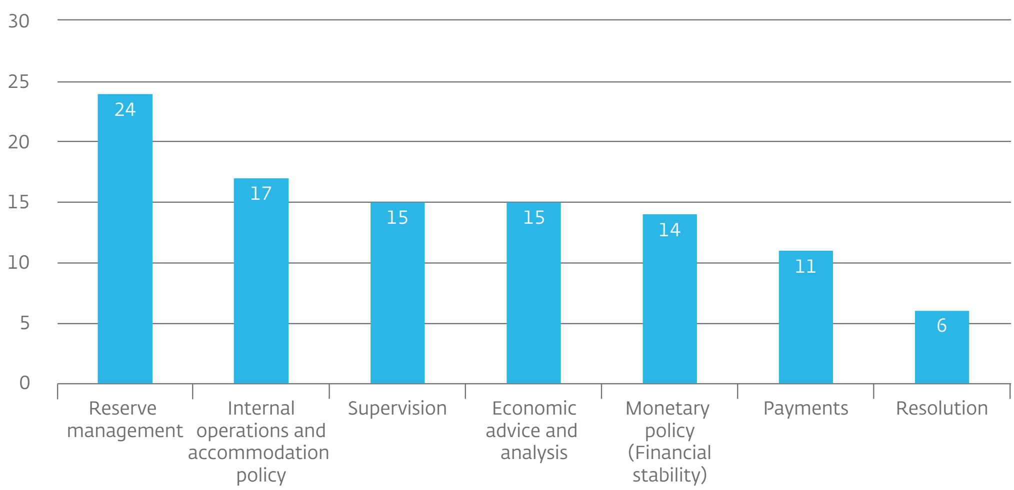
We believe stakeholder surveys are important because they provide input about how external stakeholders expect us to deal with CSR. Conversely, dialogue with stakeholders increases awareness among financial sector participants of our efforts in the field of sustainability and CSR.

To gain a better understanding of what our stakeholders expect from us, we sent out a survey to over 1,500 stakeholders, almost 500 of which responded. We also held almost 60 in-depth interviews with individuals from a wide array of backgrounds, including financial institutions, sector associations, government agencies, academia, consumer organisations, international organisations, the political arena and the media.

Chart 5.1 shows the importance our stakeholders attach to CSR in various aspects of our work. Stakeholders are primarily of the view that we should take account of CSR in our reserve management by considering Environmental, Social and Governance (ESG) criteria in our investment decisions. Similarly, they believe it is important that our workforce reflects social diversity and that we implement sustainability as part of our office accommodation policy. Stakeholders consider CSR of the least importance in our resolution task.

## Chart 5.1 The importance of CSR in the aspects of our work, according to the survey

Basis: all stakeholders (n=492).




Note: we asked respondents to indicate the importance of CSR in seven policy areas by allocating a total of 100 points.

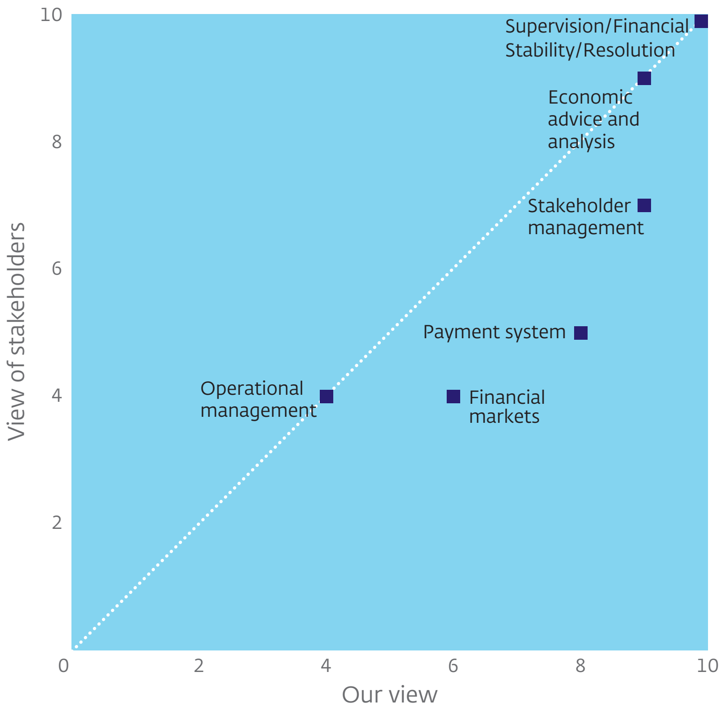
### 5.3.3 CSR materiality analysis

We use the outcome of the stakeholder survey as input for our CSR materiality analysis. It informs the choices we make with regard to the CSR activities we wish to focus on. The materiality analysis helps us consider relevance, importance and influence.

The outcome of the stakeholder survey will be finalised in the spring of 2018, so we use the 2017 version in this Annual Report. Figure 5.2 illustrates the analysis.

The vertical axis shows the importance that stakeholders attach, from a CSR perspective, to various aspects of our work. The horizontal axis shows our own view in this regard. We will update the analysis over the course of 2018, based on the outcome of the most recent stakeholder survey. The outcome of that survey cannot be directly related to those of last year's survey, because the questions were worded differently.

## Figure 5.2 CSR materiality analysis




As Figure 5.2 shows, DNB and its stakeholders both consider CSR in DNB's supervisory tasks as being highly material. The same applies to our economic advice and analysis task.

### 5.3.4 CSR priorities

Our mission and ambitions take centre stage when we set our annual CSR priorities. We have embedded CSR into our core tasks and internal operations to contribute to sustainable prosperity in the Netherlands. On this basis, and taking into account the outcome of the stakeholder survey and materiality analysis, we establish specific CSR objectives that must be included in the divisional plans each year. The CSR objectives will be adjusted and new initiatives implemented after the materiality analysis has been updated later in 2018.

The DNB Supervisory Strategy 2018-2022 also mentions sustainability as one of our focus areas. The approach we have opted for goes beyond the short-term outlook. Besides devoting attention to the impact of the energy transition, climate risks and climate policies, we also consider the effect of other relevant sustainability risks in the financial sector as part of our supervision. In addition, we have set ourselves the target of integrating the principles of socially responsible investment in our investment policy, and are committed to increasing external dialogue and transparency. We will actively participate in initiatives in this area to contribute to awareness-raising and integration of socially responsible investment in the financial sector and thereby promote sustainable economic growth.

Digitisation of payment systems allows new financial products and services to be developed. Often, this brings new opportunities for consumers. However, it can also carry a risk of exclusion for certain groups of people who are unable or unwilling to embrace these developments. For this reason, we will actively promote continuing access to payment systems for everyone in the Netherlands, also in the year ahead. We will also continue our efforts to make euro banknote production more sustainable while working towards the target of using 100% sustainable cotton in 2019.

Most other priorities in our internal operations concern ethnic and other diversity and state-of-the-art and cost-effective services, in which sustainability aspects are an important factor.

#### 5.3.5 Our CSR performance in 2017

In the remaining sections of this chapter, we account for our actions in each of our core tasks and our internal operations. The following sections therefore describe the results we achieved in 2017 for each core task, of which CSR results are an inseparable part. Annex 1 provides a full overview of all CSR objectives and results.

## 5.4 Results achieved by core task

#### 5.4.1 Monetary tasks: price stability and balanced macroeconomic development in Europe

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

##### Main activities and outcomes in 2017

Actual and expected inflation trends prompted the Eurosystem to continue its programme of large-scale bond purchases in 2017. In October 2017, the ECB's Governing Council decided to extend this purchase programme until 30 September 2018, while lowering monthly net purchases from EUR 60 billion to EUR 30 billion with effect from January 2018. The Governing Council did not change any of the key rates in 2017. Section 1.3 of this Annual Report discusses the monetary policy measures and the effectiveness and side-effects of those measures in further detail. Within the scope of their possibilities, DNB and the ECB seek to practise maximum transparency about the way in which they fulfil their monetary policy mandate, vis-à-vis both stakeholders and the general public. For this reason, the ECB publishes the minutes of all its monetary policy meetings, and the President of the ECB clarifies monetary decisions in press conferences. In 2017, we elucidated the monetary measures and the considerations that underlie them in various ways, such as publications, interviews and speeches. DNB President Klaas Knot also provided further information on the Eurosystem's monetary policy in a public hearing in the Lower House of Dutch Parliament. Last but not least, we updated the government regularly on monetary policy, for example in the regular meetings between the President and the Minister of Finance.

### Advisory role in economic policies

To support our core tasks, we play an advisory role in key economic debates. We fulfilled this role in 2017 mainly by providing advice on budgetary policy and other major economic challenges in the run-up to the coalition agreement concluded in October. We based our advice on in-house analyses and recommendations, and drew on reports from the independent Study Group on the Budget Margin and the Study Group on Sustainable Growth, in which we participated in 2016.

Our advice took on many forms. In the period leading up to the general elections, various political parties invited us to organise advisory briefings on government finances and wider economic policies. In addition, through communications in the media, we drew attention to our priorities, such as maintaining robust government finances, scaling back mortgage interest tax relief, and reforming the pension system and the labour market. Furthermore, DNB's President participated in the coalition talks twice. Lastly, after the coalition agreement had been made public, we issued recommendations on several measures it contained, including about the abolition of the Hillen Act in a Lower House round table session and about a new pension contract. The debate about a new pension contract has been going on for some years, most prominently at the Social and Economic Council of the Netherlands (SER), of which DNB is a Crown-appointed member. The new government expressed its support for the contract variant developed by the SER in October 2017. Tentative SER discussions on the exact design of such a contract have meanwhile been launched, and we provide advice on its economic and supervisory consequences. DNB is an advisory member of the SER's Sustainable Development Committee. In this capacity, we have been involved in the preparation of a pending study into the circular economy.

### Research and models

We carry out research into topics that are relevant to our core tasks. Through our research activities, we contribute to high-quality policy advice and decision-making on monetary policy. In addition, we present our Economic Developments and Outlook twice a year.

In 2017, we conducted research into the effects and side-effects of the unconventional monetary policy and the low interest rates, the drivers of the subdued inflation and low-interest climate, indicators of systemic risk in the financial sector and the financial cycle, and the effects of financial structure and regulations on financial markets and institutions. We also studied the impact of climate policies on the corporate sector's competitiveness and the economy in 2017. We will publish the results this year. In 2017, the topic of our Annual Research Conference was the relationship between budgetary and monetary policies in a changing economic and political environment.

Research also contributes significantly to the maintenance and development of econometric models. One such model is our macroeconomic DELFI tool, which we use to make forecasts and perform scenario analyses relating to the Dutch economy. In 2017, we integrated a new submodel for the banking sector. This allows us to leverage the model to analyse the interaction between the financial sector and the real economy, notably the special role which the banking sector plays in transmitting financial shocks and regulatory change to the wider economy. In addition, we maintain and develop smaller econometric models for short-term economic cycle and inflation forecasts.

In June 2017, Statistics Netherlands, CPB Netherlands Bureau for Economic Policy Analysis and DNB jointly published a report on an alternative definition of the labour income share (LIS), which provides a better reflection of the actual labour income of self-employed persons as a proportion of total earned income. The three institutions adopted this definition in 2017, which we had proposed in 2016.

## 5.4.2 Financial stability: a shock-resistant financial system

We promote a stable financial system: a system that is resilient and contributes to sustainable economic prosperity. We analyse risks that potentially affect the financial system, and we make policy recommendations aimed at addressing systemic risks.

### Main activities and outcomes in 2017

In our biannual Financial Stability Report (FSR), we outline the principal risks that could affect the stability of the Dutch financial system. In 2017, the report paid special attention to the risks of persistently low interest rates, interest-only mortgage loans, and the interaction between banks and governments, as well as current developments in domestic and international financial markets. The FSR also sets out recommended risk-mitigating measures, and it monitors follow-up of previous recommendations. We use the macro-micro link to translate key risks into supervisory assessments and action aimed at individual institutions. Conversely, our supervisors report on risks they observe at individual institutions, allowing us to assess whether these may evolve into systemic risks. We also bring our assessments to the attention of key stakeholders and the ECB.

Stress tests are an important tool for bringing into focus the shock resilience of financial institutions and their interaction with the macroeconomy. In close collaboration, both in-house and internationally, we develop consistent scenarios that involve extreme but plausible external shocks. They are used as a basis for calculating the impact of shocks on individual institutions. We published an Occasional Study in 2017 on a new framework for top-down stress tests for the Dutch banking sector.

Stress tests are employed for a variety of purposes, however. Our studies "Time for Transition" (2016) and "Waterproof? An exploration of climate-related risks for the Dutch financial sector" (2017) contain initial assessments of the implications of climate change for financial stability. For this, we asked the major Dutch financial institutions to submit data on their exposure to carbon-intensive sectors. We also started a macroeconomic assessment of the impact which climate policies have on the corporate sector's competitiveness and the economy in 2017. Based on these studies, we are currently developing a climate stress test that should show Dutch financial institutions how resilient they are to risks emerging from the energy transition.

We also devoted heightened attention to the Dutch housing market again in 2017. House prices and transaction volumes have risen sharply over the past four years, while regional divides are widening. An Occasional Study we issued reveals that the housing markets in major cities are showing signs of overheating. However, there is as yet no sign of a credit-driven bubble, partly because people tend to finance a larger portion of their purchase sum with their private assets. Central government can play an important role in the creation of a more balanced housing market, including by taking measures to encourage residential development in the private rented market.

Over the past year, we studied the development of macroprudential instruments for non-banking sectors, and we described the macroprudential policy for alternative investment funds in an Occasional Study. Furthermore, we assessed the consequences which central derivatives clearing, tax issues and financial innovation could have for financial stability. We also participated in conferences, expert meetings and workshops to keep abreast of trends and gain new insights.

We have various instruments at our disposal to mitigate systemic risks, such as the imposition of additional systemic buffers to make the system more resilient. In 2017, we maintained the systemic buffers for ING Bank, Rabobank and ABN AMRO Bank at 3% of their risk-weighted assets, and for SNS Bank and BNG Bank at 1%. Additionally, we decide on the size of the countercyclical capital buffer each year. Banks must build up this buffer against systemic risks arising from excessive growth within the credit cycle. Our analysis shows that lending is still below trend, and other indicators, such as trends in real estate prices and a breakdown of lending into subsectors, do not suggest excessive credit growth. In view of this, we maintained the countercyclical capital buffer at 0%.

The Basel 3.5 accord concluded in 2017 will contribute to the further strengthening of the financial system. Imposing higher capital requirements, it will make Dutch banks more resilient to shocks. Before its conclusion, we assessed the possible effects for the Dutch banking sector, for instance by conducting a quantitative impact study. Dutch banks should be able to meet the new capital requirements by the set deadline, given their robust capital position and profitability.

The Basel Committee on Banking Supervision also published a discussion paper about the regulatory treatment of sovereign exposures as part of the banks' capital framework. The interconnectedness of banks and governments was a key factor in the European sovereign debt crisis. We urged European policymakers to agree on phasing out the current preferential treatment of sovereign debt as part of the debate on bolstering the banking union and creating a European deposit guarantee scheme.

The main risks to financial stability are also discussed in the Financial Stability Committee (FSC). Representatives of DNB, the Netherlands Authority for the Financial Markets (AFM) and the Dutch Ministry of Finance meet in the Committee, chaired by our President, to identify and mitigate the principal risks to financial stability. Besides discussing current trends, such as financial market conditions and the impact of Brexit, the FSC in 2017 addressed the financial stability risks arising from the unequal tax treatment of own and borrowed capital, systemic risks emerging in the asset management sector and the implications of interest-only mortgage loans. The FSC called on lenders to develop a dedicated approach that also involves intermediaries, to chart the consequences of interest-only mortgage loans for financial stability and take measures where needed. The Minister of Finance presents the accounts of the FSC meetings to the Lower House of Dutch Parliament and the accounts are available (in Dutch) on the FSC’s website.

We also participate in international consultations aimed at developing macroprudential policies. At a global level, the Financial Stability Board (FSB) monitors trends in the financial system and issues recommendations aimed at mitigating systemic risks. Since 2016, our President has chaired the Board's Standing Committee on Assessment of Vulnerabilities (SCAV), which identifies and assesses trends in key risks. Among other things, in 2017, the FSB published a number of studies into shadow banking, FinTech, resolution and OTC derivatives. European countries work together in the European Systemic Risk Board (ESRB). In another notable development, the Netherlands was invited to join the G20 forum in 2017, in which the world's leading economic powers meet to coordinate the international reform agenda and discuss progress.

Financial stability is an area in which the synergy of our different core tasks typically proves its worth. We exchange information, coordinate discussions and collaborate, which allows our policy-making to be informed and enriched by multiple perspectives.

#### Publication of IMF FSAP report and follow-up

In 2017, the IMF reported on its Financial Sector Assessment Program (FSAP), under which it assessed the stability and solidity of the Dutch financial sector. Taking a positive view of the Dutch banking sector's financial resilience, the IMF considered the Dutch financial system resilient to shocks, noting that supervision on financial institutions has been strengthened following the crisis. Its principal recommendations include lowering the LTV ratio further to 90% after 2018, and to accelerate the reduction of mortgage interest tax relief. The new coalition agreement adopted a number of the IMF's recommendations. The tax rate at which mortgage interest relief is available will be reduced by 3 percentage points annually until the standard tax rate is reached. The LTV ratio will remain unchanged, however. The IMF further advises to strengthen the operational independence of the supervisory authorities and place the Financial Stability Committee on a statutory footing. Together with the government and the AFM, we will follow up on these recommendations. The IMF has stated that it was looking forward to working alongside DNB in strengthening the sustainability of the financial sector.

### 5.4.3 Payment system: secure, reliable and efficient payments

We seek to ensure that payments are secure, reliable and efficient, and we have traditionally performed a range of tasks to achieve this. As part of the European System of Central Banks (ESCB), we issue euro banknotes and circulate them in the Netherlands. With regard to cashless payments, we manage large-value payment systems. We also oversee institutions and systems that process debit card transactions and payment instructions. Our oversight is aimed at managing infrastructural systemic risks and preventing serious disruptions in the payment and securities systems. In addition, in tandem with partners in society, we promote a payment system that meets the needs in society and is secure, reliable and efficient. We also conduct prudential supervision of financial institutions in the Netherlands, which include the banks, electronic money institutions and payment institutions, all of which play an important role in the Dutch payment system.

#### Main activities and outcomes in 2017

DNB chairs the National Forum on the Payment System (the Forum), which brings together organisations representing providers and users of payment services. The Forum's mandate is to contribute to the social efficiency of the Dutch retail payment system. Under that mandate, it performed a range of activities. In late 2017, it started the development of a public information campaign for DNB's website about the consequences of the revised European Payment Services Directive (PSD2). On the Forum's behalf, we held talks in 2017 with various municipal authorities that no longer accept cash payments from their residents under a debit card-only policy. The Forum believes such a policy is unreasonably burdensome. The Forum also initiated a follow-up study into the possibilities for vulnerable persons to make payments autonomously. Together with the Forum, we provided support to the European Pay-Able platform, which ensured that barrier-free access to payment terminals was included as a requirement in the draft version of the European Accessibility Act (EAA). Additionally, we again hosted an international seminar on financial inclusion in 2017 to raise global awareness of the need for universal access to financial services.

We studied the environmental impact of cash and debit card payments in 2016 and 2017 (see Box 5.3) to gain insight into the sustainability of retail payments and increase it where needed. We discussed the outcomes with financial institutions. Our aspiration in conducting these studies is to create awareness and promote measures aimed at reducing the environmental impact.

## Box 5.3 Impact of cash and debit card payments

We studied the impact of coin and banknote payments on the environment and climate change in 2017. The cash chain's environmental impact in 2015 was 2.4 million ecopoints, which is a standard measure for the ecological footprint. The impact on climate change was around 17 million kilogrammes of carbon equivalents, which equals approximately 0.009% of the Netherlands' total $CO_2$ emissions. Transport of coins and banknotes and energy consumption of ATMs account for the lion's share. Coin production has a limited impact on climate change, but a major impact on the environment due to ore mining. We used the same methodology in 2016 to study the sustainability of debit card payments. A comparison between both studies reveals, taking uncertainty margins into account, that cash payments have a slightly higher impact on the environment and climate change than debit card payments.

### Impact of cash and debit card payments in the Netherlands in 2015

| | **Environment (ecopoints)** | | **Climate change (carbon equivalents)** | |
|---|---|---|---|---|
| | Per payment | Entire chain | Per payment | Entire chain |
| Cash | 0.64 | 2.4 million | 4.6 grammes | 17 million kg |
| Debit card payments | 0.47 | 1.5 million | 3.8 grammes | 12 million kg |

In our payments oversight, we seek to ensure that the general public can continue to rely on the authenticity and fitness of banknotes. At the same time, we aim to minimise the number of banknotes that are rejected and destroyed. In collaboration with Dutch market participants, we therefore recirculate old euro notes that are still fit for purpose when a new model is introduced, such as the 50 euro banknote on 4 April 2017. We are also committed to optimising the banknote sorting process. We reject and destroy fewer false positives than before owing to increased availability of sorting data, which allows us to modify our sorting machines more quickly. Other euro area central banks have expressed their interest in our working method.

We also strive for sustainability in banknote production. In 2017, Dutch banknote printers used 86.6% sustainable cotton as their main material, amply exceeding the minimum requirement of 70% that we had set. The goal is to increase this percentage to 100% in 2019. To do so, we conducted a pilot test with the Better Cotton Initiative label in 2017, which our suppliers had not used before. Test results have been positive thus far. Other euro area central banks will also increase the proportion of sustainably grown cotton they use over the next few years. We also want to make sure we do not do business with suppliers engaged in unethical practices. For this reason, we included a clause in our contracts with printers stipulating that we have the right to terminate the contract if we should find out that they violate specific rules on ethical business practices.

### 5.4.4 Supervision: sound and ethical financial institutions that fulfil their obligations

Our supervision aims to ensure that financial institutions are sound and ethical and the financial system is resilient. For detailed notes, the reader is referred to our (Dutch-language) ZBO report on our public duties in 2017.

#### Main activities and outcomes in 2017

#### Banks

In 2017, our banking supervision focused on the impact of low interest rates and the introduction of new regulations. In recent years, the Dutch banks have been coping well with pressure on profits from low interest rate, but their capacity to maintain profit levels is decreasing. Research and a specific interest rate risk stress test showed that banks have thus far offset lower interest income by higher margins in the large corporate market, the low interest rates on savings and cost savings in their internal operations. We expect from banks that they closely monitor the impact of the low interest rates and take prompt action where needed. With respect to regulations, the focus in 2017 was on the continued development of international agreements on capital requirements under Basel 3.5. As noted in Section 5.4.2 above, the new framework is expected to significantly increase the capital requirement for Dutch major banks. A start was also made in 2017 with the revision of the European Capital Requirements Directive for banks, which will in all likelihood be completed in 2018.

#### Insurers

Low interest rates, technological innovation and changing customer behaviour give rise to major challenges in the insurance sector. Our focus in 2017 was primarily on the sector's resilience and capacity for change, while implementation of Solvency II, the new European solvency framework for insurers, progressed. We discussed the elements of insurers' capital policies on which we had issued a sector letter in late 2016 with individual insurers and the Dutch Association of Insurers. The sector letter set out our expectations regarding the insurers' capital policies, such as our expectation that insurers in their policy take account of the impact of such factors as the ultimate forward rate (UFR) on their capital positions. This is because the impact of the current low interest rates is not fully reflected in the statutory solvency figures of insurers, mainly due to the use of the UFR under Solvency II. Where needed, we will raise this subject when we talk to insurers about their capital and dividend policies. We also issued a report highlighting the key trends seen in the insurance sector (available in Dutch), entitled

"Visie op de toekomst van de Nederlandse zorgverzekeraars" (Vision for the future of the Dutch health insurance sector).

In it, we recommend that health insurers continue to modernise their business models and risk management and maintain their financial buffers so as to safeguard that the health insurance sector will remain sustainable and solid and continues to serve society going forward. Following on from our 2016 study "Technological innovation and the Dutch financial sector", we placed a particular focus on the impact which this phenomenon has on the insurance sector (InsurTech). To gain more insight, this new study identified trends and assessed how insurers respond to opportunities and risks presented by InsurTech. We expect InsurTech will in the short term supplement insurers' current business models, whereas its impact could well be more disruptive in the medium term, as the potential of new technologies is most likely to go beyond strengthening insurers' existing business models. Lastly, we applied the supervisory instrument of a forced transfer of shares to protect the interests of the policyholders for the first time. In mid-May 2017, we received permission from the Amsterdam District Court to transfer the shares of life insurer Conservatrix to a new owner.

### Pension funds

The consolidation trend in the pension sector has been apparent for some time and continued in 2017. The number of pension funds fell by 33 to a total of 260 as at 31 December 2017. Several pension funds that ceased to exist decided to join a general pension fund (APF). In addition, our assessment of recovery plans and a European stress test revealed that the financial position of many pension funds remains precarious. We devoted particular attention to pension funds whose long-term viability may be at risk. Based on a set of indicators we identified a group of 22 pension funds as highly vulnerable and asked them to draw up a plan for the future. As the pension sector is evolving and the pensions regime will soon be changed, we expect pension funds overall to consider their long-term viability and develop a vision for the future.

### Trust offices, investment firms, investment fund managers and payment institutions

In 2017, we asked trust offices to provide more information to fine-tune our understanding of trust offices' risk profiles. Furthermore, a decrease in the number of licensed trust offices in the Netherlands could be observed. Our supervision of investment firms and investment fund managers largely centred around a study into liquidity risk. We discussed our findings with the sector's umbrella organisation and informed sector participants in a seminar. With regard to payment institutions, our main focus was on their obligation to have recovery and exit plans in place. In addition, the sector will soon need to comply with the revised European Payment Services Directive (PSD2).

## Caribbean Netherlands (CN)

In our supervision of financial institutions that operate in Bonaire, St Eustatius and Saba (Caribbean Netherlands), we depend on the proper functioning and ethical operations of the Centrale Bank van Curaçao en Sint Maarten (CBCS), We intervened in various CN supervision files, conducting special investigations and regular supervisory examinations and submitting policymakers to fit and proper assessments. Some institutions subsequently decided to dispose of their activities in the Caribbean Netherlands.

## Ethical business operations and crime

In 2017, we found shortcomings in the management of risks inherent in aggressive tax planning and customer anonymity by banks and trust offices. Our examinations revealed that they insufficiently managed the tax integrity risks involved. Customer due diligence was inadequate where complex structures in multiple off-shore jurisdictions and ultimate beneficial owners in high-risk countries were involved. Furthermore, we assessed the use of the systematic integrity risk analysis (SIRA) in relation to specific risks, such as tax risks, across sectors in 2017. We found that a number of institutions had started to establish their integrity risk appetite and formulate policies for dealing with tax risks connected with customers, prompted in part by the Panama Papers and the increased attention devoted internationally to tax issues. To assist them in formulating their integrity risk appetite , we prepared a guidance document. Following up on examinations and interventions at various institutions, we hosted round table sessions with banks, payment institutions and money transfer offices about transaction monitoring within the context of combating money laundering and terrorist financing. Lastly, we issued guidance documents about transaction monitoring for the individual sectors to urge financial institutions to take the action needed to remediate their transaction monitoring process (see Box 5.5).

## Box 5.4 Good practices in transaction monitoring for banks

In 2017, we conducted an investigation into transaction monitoring, which is an essential element in the management of integrity risks. Based on our findings, we drew up good practices in transaction monitoring for banks. Below we list the most important ones:

1. Banks must ensure the transaction monitoring process reflects the risks of money laundering and terrorist financing that emerge from the SIRA.
2. Banks must have developed an adequate policy for transaction monitoring and have sufficiently elaborated this policy in underlying procedures and operating processes.
3. Banks must have an (automated) transaction monitoring system in place and have a substantiated and adequate set of detection rules with scenarios and threshold values to detect risks of money laundering and terrorist financing.
4. Banks must have an adequate alert notification and handling process in place.
5. Banks must have structured their governance with regard to transaction monitoring in such a way that duties are clearly segregated.
6. Banks must offer their staff tailored training programmes.

### Fit and proper assessments

In 2017, we implemented various enhancements in the process for fit and proper assessments of management and supervisory board members, in tandem with the AFM, following up on the recommendations made in 2016 by the independent evaluation committee chaired by Professor Annetje Ottow. We also improved the information we provide about the assessment process, for instance by producing an animation and a brochure on the practical aspects of initial assessments. In addition, we created an online environment for submitting applications for licences and fit and proper assessments, the Digital Supervision Portal (Digitaal Loket Toezicht – DLT). This allows financial institutions and their qualifying shareholders to digitally complete and submit their applications for licences, declarations of no-objection and fit and proper assessments.

### Innovation

We also devoted attention in 2017 to the emergence of innovative technologies in the financial sector. A joint initiative of the AFM and DNB, the InnovationHub provides support to market parties that have queries about supervision and regulations relating to innovative financial products and services. In addition to the InnovationHub, we have set up a regulatory sandbox in which we welcome any innovation hindered by unnecessarily prohibitive rules. Lastly, in a DNBulletin we drew particular attention to the safe growth of innovation in the business lending market.

### Climate

We published our report "Waterproof? An exploration of climate-related risks for the Dutch financial sector" in October 2017. It emerged from our study that increasing climate-related risks demand more action from the financial sector. For example, Dutch insurers will have to deal with an increasing claims burden as a result of climate-related damage. Tightened sustainability requirements for office buildings may equally cause new risks to emerge, most notably for banks, which finance a large share of the Dutch office market. We therefore call on financial institutions to factor in the consequences of climate change and the transition to a carbon-neutral economy.

## 5.4.5 Resolution: Deposit Guarantee Scheme (DGS) and a controlled approach to bank failure

If a bank gets into difficulties, it is essential that an effective solution can be 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 the financial safety net 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.

### Main activities and outcomes in 2017

In the same way as we are part of the SSM for the purpose of banking supervision, we are also part of the Single Resolution Mechanism (SRM) where resolution is concerned. In this capacity, we contributed to the further refinement of the resolution plans of the largest Dutch banks in 2017. The Single Resolution Board (SRB) will in early 2018 take the first institution-specific decisions on the required level of loss-absorbing capital (minimum requirement for own funds and eligible liabilities – MREL). We have pushed for sufficient and credible MREL requirements to safeguard the resolvability of all banks under the SRB's mandate. Our priority is to monitor that the required MREL is effectively bail-inable (see Chapter 3).

In 2017, the SRB resolved one significant Spanish bank. In addition, two significant Italian banks were resolved in liquidation with state support. Practice has shown that, while the resolution regime is effective, safeguarding a level playing field still warrants attention.

We made further headway in terms of preparing resolution plans for small and medium-sized banks under our direct authority. By year-end 2017, resolution plans or strategies had been adopted for 19 banks, including those under the SRB's mandate. Together they manage around 94% of the guaranteed deposits in the Netherlands.

We further operationalised the resolution instruments in 2017, for instance by making preparations for the incorporation of bridge entities, drafting manuals and finalising policies concerning a public interest test. Such a test should establish whether resolution is needed to ensure the continuation of a bank's critical functions, protect financial stability and prevent the government from having to foot the bill. We completed the public consultation round concerning the application of the bail-in mechanism and published the definitive notice in late 2017. It illustrates the possible use of the bail-in instrument by describing a simplified and fictitious case. We also worked to further standardise and automate the reports we need to perform our resolution task.

With regard to the DGS, we are developing a fully revamped compensation application that should allow payout of deposit balances within seven business days from 2019 onwards. Production of the application started towards the end of 2017. In the future, the DGS will operate on the basis of single customer views (SCVs), and the associated regulations were adopted in the year under review. In 2017, the Dutch DGS became a partner in the European Forum of Deposit Insurers (EFDI), co-signing a multilateral cooperation agreement. The agreement regulates how a local DGS can compensate a branch office's deposit holders on behalf of the DGS in the country in which the bank is formally established. At the same time, we administered an interest compensation settlement programme and introduced a dedicated DGS for the Caribbean Netherlands (DGS CN) in 2017.

Negotiations on the creation of a European Deposit Insurance Scheme (EDIS) are still under way and progress is limited. EDIS is one of the initiatives aimed at completing the banking union, and it must be considered in parallel with risk-mitigating measures. We are contributing technical expertise to the negotiations.

### 5.4.6 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 tasks to the maximum 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.

We launched the in-house Data Meester (Mastering Data) initiative in late 2017, a DNB-wide programme aimed at supporting staff throughout our organisation in the area of data-driven working. The four objectives of the programme are ease of use, handling data in a reliable and secure way, organisational synergy and efficiency, and internal and external collaboration. We are introducing various innovations, including in the area of data science. The programme is an important stepping stone in our efforts to capitalise on the increased availability of ever larger volumes of granular data and novel technologies.

We are also actively working to create a programme for revising the process by which we produce our macroeconomic statistics. This includes stepping up cooperation between DNB and Statistics Netherlands, in a working relationship that is unique in Europe. The newly created joint statistics chain will enhance the quality and consistency of data on the Dutch economy. We jointly revised historical data during the summer of 2017, producing the initial positive results. In addition, over the course of the year we gradually took over the provision of financial sector statistics for the sectoral accounts from Statistics Netherlands. In so doing, we draw on our expertise and relative advantages with respect to financial institutions, thereby contributing to increased social cost-effectiveness. Statistics Netherlands and DNB signed a cooperation agreement in September, which also provides for the replacement of the systems we use for macroeconomic statistics.

Highly detailed, granular data are becoming increasingly important for both European and national policymakers, such as DNB. A point in case is the SHS-G report, in which all large Dutch banks report the securities they hold on an item-by-item basis. Effective September 2018, all banks subject to SSM supervision will report the securities holdings of their domestic and foreign entities at a detailed level. This will create a rich data source for financial stability analysis purposes. A common platform set up by the ECB will be used for the SHS-G reports, eliminating the need for us to implement the submission process at a national level. We organised an information meeting about SHS-G reporting together with the ECB.

Further granular submissions include the AnaCredit statistics, which are designed to provide detailed information on bank lending to legal entities. We consulted closely with the banks about AnaCredit's implementation. We also worked on preparing the systems and models that receive, process and open up the data and on integrating the various data sources to create a coherent dataset. The first AnaCredit reports are due for submission in the autumn of 2018. Lastly, DNB and Statistics Netherlands recently launched the Residential Real Estate (RRE) project to lend structure and a formal basis to requests for granular mortgage loan data. Aiming to improve data quality and availability, the project seeks to fill the gaps previously identified by the European Systemic Risk Board and the IMF.

Likewise, we seek to achieve increasing harmonisation of supervisory reporting processes in a European context, which will make processes more efficient, increase data quality and benefit data comparability for supervision purposes. In view of this, we are a participant in the recently set up European task force that seeks to achieve this. We are also actively involved in the preparation of the ECB's Pension Fund Regulation and participate in the EIOPA Pension Data Project. This project aims to further the quality and availability of data from European pension providers so that market trends and financial stability can be monitored and assessed. We provided banking data to the World Bank in 2017 for a long-term study into regulatory developments in banking supervision.

We undertook preparatory work in the past year to migrate the submission of an increasing number of supervisory reports to the new Digital Reporting Portal (DLR) and to inform the sector accordingly. The portal allows us to receive and process reports more uniformly. It simplifies the use and linking up of data and facilitates more efficient communications with reporting entities about their submissions.

We worked on an overhaul of the statistics website in 2017. Apart from a fresh look and feel, the new website offers user-friendly data search facilities and dashboards in which we present our most interesting data. A further key aspect is that its administration is more efficient. The website also offers statistical time series without breaks, for which we eliminated breaks in various statistical series. The website's launch was postponed until early 2018 due to delays in the test phase.

## 5.5 Results achieved in our internal operations

Our support departments work in partnership to ensure that their services are modern, high-quality and efficient. We have developed a long-term plan for organising our services in the most efficient and effective way possible. This will lead to improved services and a lasting reduction in the costs of internal operations by 20% compared to 2015 levels by 2020. Below, we will discuss our employees (Section 5.5.1), compliance and integrity (Section 5.5.2), the environment (Section 5.5.3), sustainable procurement (Section 5.5.4) and social commitment (Section 5.5.5).

### 5.5.1 Our employees

We fulfil our tasks in a continuously changing society that makes new demands on our employees in terms of their background, knowledge and skills and on our organisation with respect to our position as an employer and the way in which we operate. Our HR policy therefore faces important challenges. Our new HR strategy sets out the choices we make to address these challenges. We seek to employ high-quality people in all positions. Staff excellence is fundamental to our ability to fulfil our tasks properly.

#### Employer proposition

We have drawn up an employer proposition as part of our new HR strategy. At its core is the following statement: “If you work for DNB, you work for a unique organisation that is highly committed to society, your activities have an impact, and you are given plenty of opportunities to develop yourself and your career, also across borders.” This proposition reflects the envisaged modernisation of our terms of employment and our position in the labour market. In 2017, we were again awarded ‘Top Employer’ certification. This accreditation is awarded to organisations that demonstrably offer excellent terms of employment.

## Table 5.1 Key HR figures

| Key data at year-end | 2017 | 2016 |
|---|---|---|
| Workforce | 1,920 | 1,849 |
| Average number of FTEs | 1761.5 | 1,703 |
| | | |
| Share of female workforce overall (%), of which: | 38.5 | 38.2 |
| Employees (%) | 39.1 | 38.7 |
| Governing Board members (%) | 0.0 | 0.0 |
| Secretary-Director (%) | 100.0 | 100.0 |
| Division directors (%) | 23.1 | 14.3 |
| Heads of department (%) | 32.6 | 34.1 |
| Heads of section (%) | 39.1 | 38.1 |
| | | |
| Actual training costs (EUR) | 6,010,208 | 5,521,241 |
| Budgeted training costs (EUR) | 6,364,462 | 6,572,867 |
| | | |
| **Workforce** | **2017** | **2016** |
| Central bank (divisions: Financial Stability, Financial Markets, and Economic Policy & Research) | 199 | 195 |
| Payments (divisions: Cash, and Payments & Market Infrastructures) | 236 | 231 |
| Supervision (divisions: Supervision Policy, European Banks Supervision, National Institutions Supervision, On-Site Supervision & Banking Expertise, Insurance Supervision, Pension Supervision, and Horizontal Functions & Integrity Supervision) | 616 | 588 |
| Resolution (division: Resolution) | 32 | 26 |
| Statistics (division: Statistics) | 166 | 151 |
| Other (Governing Board, Legal Services division, Internal Audit department and Internal Operations) | 671 | 658 |
| | **1,920** | **1,849** |

### Inflow, internal transfers and outflow of employees

A total of 296 vacancies were filled in 2017. External candidates filled 198 (67%) of these positions. The inflow of new employees ensures that we have a healthy outside perspective and it is essential for ensuring that we remain sharply focused. The other 98 vacancies were filled internally, including 17 management positions. These internal transfers contribute to staff development and enhance the synergy between our different areas of expertise. In addition, 127 employees left us in 2017. In most cases, they left to continue their careers at other organisations (see also Tables 5.2 and 5.3).

## Table 5.2 Inflow, outflow and internal transfers of employees

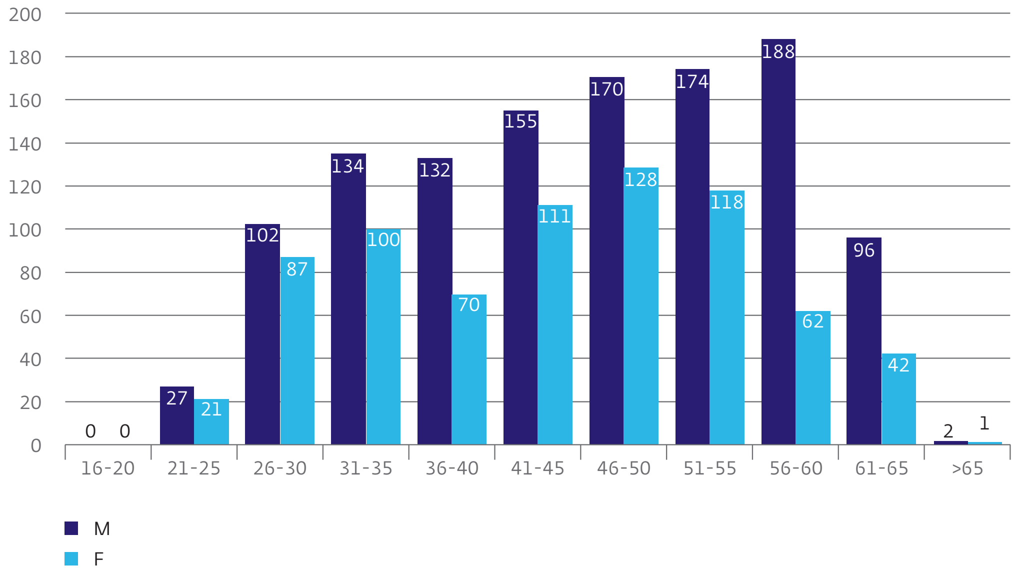
| **Total** | F | M | %F | %M |
|---|---|---|---|---|
| Inflow (198) | 87 | 111 | 43.9% | 56.1% |
| Outflow (127) | 54 | 73 | 42.5% | 57.5% |

We promote mobility and development among our employees, for example by encouraging internal transfers and training, also abroad. Within our organisation, we emphasise the strategic importance of sharing knowledge and experience by offering opportunities for secondments at home and abroad. In 2017, 62 employees were seconded, 54 of whom were posted abroad. In addition, DNB staff members undertook on-site missions at the ECB's request, and foreign staff members were posted at DNB. Domestic secondments primarily involved postings at the AFM and various government ministries. Conversely, 12 employees from various domestic organisations came to work for us on a temporary basis. We also offered accommodation facilities to a FEC unit of 14 staff, 10 of whom were DNB staff members allocated to the FEC.

## Table 5.3 Reasons for leaving

| | 2017 |
|---|---|
| Own request | 77 |
| Termination of contract | 20 |
| End of temporary employment contract | 10 |
| Retirement and early retirement | 15 |
| Restructuring | 4 |
| Occupational disability | 0 |
| Death | 1 |
| **Total** | **127** |

## Chart 5.2 Number of male and female employees by age bracket as at 31 December 2017




### Diversity

We define diversity broadly to encompass both visible and invisible differences between employees, such as gender, sexual orientation, age, ethnicity, educational background and work impairment. We set up a Diversity Board in 2017, which is a broad representation of our employees' backgrounds and professional positions. It monitors achievement of the diversity goals and ensures that diversity remains on the agenda. The Board has made a start on designing a comprehensive vision for diversity, new goals for DNB organisation-wide and an action plan for embedding diversity more deeply throughout our organisation.

We devote ongoing attention to spotting and developing talented women. As a signatory to the Talent to the Top Charter, we have set a target of ensuring that at least 32% of our management positions are held by women, a target we have consistently achieved in recent years. Our management committee accordingly pays a great deal of attention to the succession potential we have among our female staff when selecting candidates for our programme for prospective managers and when appointing managers. We did not achieve the statutory target for a balanced distribution of Governing Board membership in 2017, as there were no vacancies, but we announced in 2017 that the successor to our Chairman for Prudential Supervision would be a woman, marking an important step towards achieving the statutory target. We did achieve the target for our Supervisory Board. Lastly, five young female talents were allocated an external mentor under the Cross Mentoring Programme of external training provider D&I Company.

We have also identified a need for more diversity and awareness in the area of ethnicity. To respond to this need, we hold brainstorm sessions every other month about cultural and ethnic diversity. The election of a DNB manager with a bicultural background as "The Other Manager 2017" and the close involvement of the Governing Board and many employees testify to the positive diversity climate throughout our organisation.

Furthermore, we succeeded in recruiting the first candidate who has an occupational disability and is at a distance from the labour market under our "The best by a distance" pilot project. A second candidate will start work in early 2018.

### Development

We offer our employees many opportunities for continuing education. Besides on-the-job learning by means of internships and projects, we provide a broad range of training programmes. The DNB Academy curriculum offers various learning pathways, which mainly comprise technical training for our staff in the central bank and supervision divisions. In addition, the DNB Academy offers tailor-made in-house learning activities throughout the year, wherever they match DNB's strategic objectives and only if learning cannot take place at an external service provider. The underrun of our training budget (see Table 5.1) is due in part to the fact that employees increasingly follow the DNB Academy's curriculum, which depresses costs.

Supplementary to these activities, we encourage our employees to learn from and with people from outside our organisation. We make frequent use of the curricula offered by universities at home and abroad, domestic and international supervisory authorities and other central banks. Lastly, our learning activities in 2017 devoted ample attention to regulatory changes and technological developments such as FinTech.

### Strategic succession planning

The increasingly complex labour market makes strategic succession planning of the utmost importance for DNB. Each year, we review the status of our strategic succession planning for incumbent management in terms of quality and quantity.

We have always enjoyed a solid position in the labour market, allowing us to recruit excellent staff, but labour market tightness makes recruiting people, in specialist and management positions in particular, exceedingly difficult. We also aim for diversity in selecting our new recruits, and our diverse workforce will also be reflected in internal transfers and management appointments. We refocused our recruitment and selection policy to that end in 2017.

In 2017, we again launched our in-house programme for prospective managers. We also developed an on-boarding programme for newly appointed managers who gained management experience elsewhere to show them the ropes. The programme comprises management modules, peer review and mentoring. Lastly, we offer a modular training programme for incumbent managers, consisting of master classes, network meetings and external training courses.

### Occupational health and safety

The Governing Board and the Employees Council approved the occupational health and safety policy in 2017, which sets out all statutory duties and activities aimed at furthering health and safety at work. The average number of times employees report sick remained low in 2017, at just below once a year on average (0.92). The sick leave percentage (2.99%) was below the national average, but went up compared with 2016 (2.83%).

Employees make use of the occupational health surgery held by the company doctor and staff welfare officer in the context of absence prevention. We have our own fitness room and organise activities aimed at promoting a healthy lifestyle and a good energy balance. Our staff association organises a wide range of sports and leisure activities.

The occupational health and safety service is also actively involved with various ergonomic aspects related to the workplace, for example by carrying out individual workplace assessments. Lastly, we have started preparations for a periodic medical check-up, which will be offered to all our employees to encourage vitality and promote permanent employability.

## 5.5.2 Compliance and integrity

We attach great value to compliance and integrity. Given our special position and function in society, we must be seen to "walk the talk". We are therefore developing and propagating an in-house policy, thereby contributing to our mission of working on trust.

At DNB we define compliance and integrity as observing prevailing laws and regulations, moral standards and the core values we hold as part of our individual professional responsibility. Our policy aims to ensure that employees know what is expected of them, and that they act in accordance with our guidance when dealing with dilemmas. We also expect our employees to exercise care when handling powers, company property and information. The independent Compliance & Integrity (C&I) department can monitor specific cases and issue recommendations, both upon request and of its own accord.

### Main activities and outcomes in 2017

In our organisation, we not only avoid undesirable behaviour, we also explicitly focus on desirable behaviour. We hold workshops and dilemma training sessions for employees, new recruits and managers. In addition, the C&I department informs employees of our integrity policy and relevant social issues through various media, such as news releases on our intranet, e-learning modules and email alerts. In the event of potential or actual integrity breaches, C&I investigates the nature and circumstances of the case and informs management of recommended follow-up action. It also advises DNB's various organisational units on desirable risk control or dilemmas with respect to privacy, compliance and integrity. The European General Data Protection Regulation (GDPR), which is due to take effect in 2018, imposes stricter requirements in terms of personal data processing. The accountability requirements and the requirement of being demonstrably in control will have a great impact. To meet these requirements, C&I is taking action to gain insight into personal data processing. Its policy is geared towards assessing and mitigating the attendant risks.

### Compliance with integrity regulations: reports and requests for advice

C&I also monitors compliance with our code of conduct and integrity regulations. Our employees must be able to perform their roles completely independently of the financial sector and potential or actual contracting parties at all times. Our own employees and insourced staff must therefore also comply with our code of conduct and integrity regulations in order to prevent integrity risks such as conflicts of interest and bribery. Any situation that could jeopardise their independence or entail an apparent conflict of interests must be reported to the Compliance Officer (see Table 5.4).

## Table 5.4 Reports and requests for advice relating to integrity regulations

| | 2017 | 2016 |
|---|---|---|
| Reports filed under the Independence Regulation (gifts and invitations, secondary positions, transfers) | 509 | 485 |
| Requests for advice | 744 | 628 |

We ask our employees once a year to confirm that they have complied with the rules and principles of the integrity policy. C&I uses the confirmations to carry out a risk-based check to determine whether privately held investments comply with the private portfolio investment transactions regulations. C&I also checks whether all relevant outside activities, other relevant activities and benefits have been notified. The annual request for confirmation also makes employees aware of the notification requirements under our regulations.

Action was taken in 2017 to prevent conflicts of interest following notifications under the Independence Regulation (see Table 5.4). Specific arrangements were made where needed, such as not accepting a gift or invitation or observing a cooling-off period after leaving DNB.

Wherever an incident may bring the integrity of an employee into question, an investigation is initiated. Two such investigations were initiated in 2017. None of these investigations found that integrity regulations had been infringed.

No whistle-blower reports were received in 2017, but DNB's complaints committee received a total of 10 internal and external complaints (see Table 5.5). One internal complaint about unfair treatment and sexual harassment was declared to be unfounded. One external complaint about an alleged mistake in a pension sector letter and one about a proscribed value transfer were dismissed as unfounded. One external complaint suggesting that DNB failed to take action against an institution in its capacity of supervisory authority was not admitted as unfounded. A further external complaint about an institution's conduct towards a customer was not followed up by the complainant after we had requested more information. Two external complaints were about the conduct of two of our staff members during their supervisory visit. One complaint was declared to be unfounded, but we took additional measures. The other complaint was declared to be founded in part. We took measures aimed at increasing awareness of specific in-house rules. One external complaint was not admitted because appeal can still be made to the administrative court. A letter received from the complainant on this subject was not admitted as a complaint, as it related to our general policies or their implementation. With regard to one external complaint, the complaints committee found that it did not involve conduct on DNB's part, recommending that the Communications department referred the complainant to another party.

## Table 5.5 Integrity incidents, investigations and complaints

| | 2017 | 2016 |
|---|---|---|
| **Integrity incidents (total)** | **40** | **33** |
| of which: | | |
| - improper use of information | 28 | 24 |
| - Regulation on private investment transactions | 6 | 5 |
| - other | 6 | 4 |
| | | |
| Complaints | | |
| - internal | 1 | 3 |
| - external | 9 | 2 |
| | | |
| Whistleblower reports | 0 | 0 |

### 5.5.3 Environment

The environment is a key aspect of our CSR policy, and we make sure that we consider the environmental impact of our internal operations.

#### Main activities and outcomes in 2017

We achieved our environmental objectives for 2017 and constantly look for opportunities to reduce existing and future emissions where possible.

#### Environmental care in 2017

Our environmental objectives are aimed at complying with laws and regulations, managing environmental risks and improving our organisation's environmental performance on an ongoing basis. We operate an ISO 14001-certified environmental management system for our Facilities Management, Cash Operations and Security departments. In 2016, our environmental care system obtained certification once again, this time in accordance with the new ISO 14001:2015 standard, and the accreditation was continued. This demonstrates that we have embedded environmental care in our operations for these departments in a professional manner.

#### Sustainable office accommodation

We are also making progress in terms of sustainable office accommodation. Our long-term real estate strategy was adopted in 2015, aiming to dispose of buildings we no longer need, build a new centre for cash and gold storage and distribution (the DNB Cash Centre in Zeist) and renovate our Amsterdam head office. This will make our office accommodation more sustainable and contribute to achieving our CSR objectives. We made our accommodation more compact in 2017 by disposing of various office buildings, that were no longer needed after we had taken the sustainably renovated Visitor Centre into use in 2015.

Sustainability is also a key aspect in the construction of DNB's Cash Centre (due for delivery in 2022) and the renovation of our head office at Westeinde (due for delivery after renovation in 2024). We consider sustainability across the full spectrum of our accommodation development activities. Moreover, our decision-making always takes account of the CSR aspects People, Planet and Profit where health, environment, future value, quality of use and energy consumption are concerned.

#### Energy consumption in 2017

We use electricity, natural gas and diesel for our energy supply. In addition, our Visitor Centre has a thermal storage system,which reduces energy consumption in a sustainable manner.

All electricity we purchase is green electricity. When performing building maintenance, renovation and conversion work, we look for possibilities to cut $CO_2$ emissions by reducing energy consumption, and in 2017 we adjusted the settings of a great deal of equipment accordingly.

## $CO_2$ emissions

Thanks to the purchase of green electricity and the offsetting of the remaining $CO_2$ emissions, DNB was climate-neutral in 2017. 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 went up in absolute terms in 2017, however. The amount of $CO_2$ emissions to be offset rose by 346 tonnes compared with the 2016 reporting period. This increase is largely due to a higher amount of air travel (see Table 5.6)

## Table 5.6 Measured environmental data and explanation of policy and activities

$CO_2$ emissions (in tonnes)

| Measured data[1] | 2017[2] | 2016[3] |
|---|---|---|
| Energy | 1,762 | 1,847 |
| - Purchased green electricity | 0 | 0 |
| - Natural gas for heating | 1,723 | 1,788 |
| - Diesel for energy supply | 39 | 58 |
| Commuting | 2,068 | 2,047 |
| - Public transport | 824 | 800 |
| - Passenger vehicles | 1,244 | 1,246 |
| Business travel | 2,229 | 1,813 |
| - Passenger vehicles | 349 | 363 |
| - Air travel | 1,813 | 1,413 |
| - International train travel | 67 | 37 |
| Goods and passenger transport | 23 | 30 |
| - Passenger vehicles for passenger transport | 16 | 21 |
| - Lorries for goods transport | 7 | 9 |
| **Total $CO_2$** | **6,083** | **5,737** |
| Offset through purchase of carbon credits | 6,083 | 5,737 |
| **Total $CO_2$ emissions** | **0** | **0** |
| Number of FTEs | 1,761.5 | 1,703 |
| **$CO_2$ per FTE** | **0** | **0** |

1 We use the emission conversion factors published online to determine our material $CO_2$ emissions.
2 The 2017 reporting period runs from 1 October 2016 to 30 September 2017.
3 The 2016 reporting period runs from 1 October 2015 to 30 September 2016.

### 5.5.4 Sustainable procurement

We also take account of the social consequences in our procurement of goods, services and labour. This concerns the social, environmental and economic consequences for society in general and for DNB, its suppliers and their staff in particular. Our procurement policy includes an ongoing commitment to apply the social criteria of the Netherlands Enterprise Agency (Rijksdienst voor ondernemend Nederland – RVO) wherever possible, in addition to the environmental criteria. We notify the Compliance & Integrity department in the event of non-compliance with our code of conduct, the underlying integrity regulations or the code of conduct "Guide to Procurement Ethics" published by the Dutch Expertise Network for Procurement and Supply Management (NEVI). In addition, we enter into talks with the party or parties concerned, issue a formal warning (depending on the seriousness of the incident) and ensure that compensation is provided for any damage done. In extreme cases, we terminate the contract with the party in question.

#### Main activities and outcomes in 2017

In 2017, we carried out 23 European procurement projects and multiple private tenders (valued at more than EUR 50,000). RVO criteria were available for four product groups and were applied in all cases. Our invitation for tenders under our energy tender procedure explicitly states that the framework agreement will contain guarantees of origin (GOs) for Dutch wind energy and $CO_2$ emission allowances/credits. In 2017, we chose circular procurement as a key focal area, expressing our commitment to the Green Deal on circular procurement.

In 2018, we will consider whether additional sustainability aspects that are not prescribed by RVO can also be included in all procurement projects and tendering procedures, or whether the social criteria can be applied. Our code of conduct and integrity regulations that apply to our own employees and insourced staff help to prevent conflicts of interest and bribery.

### 5.5.5 Social commitment

#### Contributions and donations

We support various activities that touch upon our core tasks, We also 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 2017 (2016: EUR 874,000). A sum of EUR 700,500 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, or organisations we helped establish, such as the Money Wise (Wijzer in Geldzaken) platform. One DNB employee was also released for several days per week to devote time to the Inspire2Live organisation.

## Financial education

We have acknowledged the importance of informing Dutch society about our work and its importance for many years, and we deploy a wide array of tools to do so. Perhaps the most prominent among them is DNB's Visitor Centre, where visitors become acquainted with our core tasks in a playful setting. It welcomed around 20,000 visitors in 2017, mainly secondary school groups. We devote particular attention to this target group, and we overhauled and extended the range of educational materials on offer through our website in 2017. For example, we added our first theme lessons, which are always based on current events, and revamped our educational package on the financial crisis. In the year under review, 1,837 unique visitors consulted our Dutch-language website pages on education. In extending and renewing our educational materials, we also apply gamification. Applying game elements enhances the allure of educational materials for the – mostly young – users. We also go to great lengths to promote our materials, for example by strengthening relations with economics teachers by hosting teachers' days and undertaking other promotional activities. We also cooperate with various universities.

In addition, we initiated brief educational campaigns in our visitor centre in 2017, the first one focusing on the security features of the new €50 banknote. The annual numismatic lecture was also held in the visitor centre this year, which ties in with our efforts aimed at raising awareness of the priceless National Numismatic Collection, which we manage. We participated in the Science Weekend (Weekend van de Wetenschap) for the first time in 2017, during which participating organisations open their doors to the public. We demonstrated how we check the authenticity of banknotes, and turnout was overwhelming.

We are closely involved in the Money Wise (Wijzer in Geldzaken) platform, including as a sponsor and a steering committee member. Many organisations work together on this platform to educate consumers and increase their financial awareness. One of the activities organised by the platform is the Money Week, during which dozens of DNB employees teach guest classes in primary schools. In addition, we participate in the Youth Council project, in which primary school pupils formulate their advice about a social issue. In 2017, the project focused on pensions and in 2018 it will address sensible money management.

## Technical cooperation

As part of our international technical cooperation, we share our expertise and experience with fellow central banks and supervisors in countries seeking transition towards sustainable market economies, in particular those of the IMF constituency representing the Netherlands and Belgium in the IMF. Besides the Netherlands, this group includes the following countries: Armenia, Belgium, Bosnia-Herzegovina, Bulgaria, Croatia, Cyprus, Georgia, Israel, Luxembourg, Macedonia, Moldavia, Montenegro, Romania and Ukraine. It is important that this constituency is maintained and strengthened, as the leadership of this constituency, which the Netherlands shares with Belgium, allows it to contribute significantly to the IMF's policies. An additional benefit of lending technical assistance is that it can help broaden our employees' horizons, thereby enriching their work and enhancing their skill set. 

We dedicated roughly 5.5 FTEs to technical cooperation activities in 2017, which is similar to previous years. Part of our cooperation consists of bilateral partnerships, while another part involves hosting seminars for an international audience. In 2017, we provided long-term internship placements for constituency supervisors within the context of technical cooperation, following up on previous training programmes they completed. A newly developed feature was an academic programme in which external professors held lectures for monetary and supervision experts from the constituency countries. Following our preparatory work, the Armenian central bank hosted the programme together with the Dutch development bank FMO. Exceptionally, participation was also open to experts from the banking sector in the constituency countries. We also contributed to two EU-funded twinning programmes in 2017. The programme involving the central bank of Moldavia, which was launched in mid-2015 and had been led by Romania, was successfully completed in mid-2017. Subsequently, a start was made with a new programme, which involved the central bank of Montenegro. It is being implemented by DNB and the central banks and supervisory authorities of Croatia and Germany. Both twinning programmes aim to strengthen local supervision towards compliance with European standards. Lastly, we cooperated with various other central banks in 2017, including those of Aruba and Indonesia.

### Volunteer projects

Under the heading of Building Together (Samen Bouwen), our employees take part in organised voluntary work projects. In 2017, around 300 employees signed up, a 20% increase from 2016.

In addition to recurring projects, such as the annual summer festival at the 's Heeren Loo care facility for people with physical and mental disabilities, we joined various new projects. A prime example is our new partnership with an organisation that seeks to raise awareness of and combat loneliness and social isolation by bringing people together (preparing and enjoying meals together). Similarly, day trips were made under the aegis of a foundation for vulnerable children and a secondary school for children with a disability, as well as with a group of children from an asylum seekers' centre.

We also contribute to projects in the sphere of knowledge transfer, such as job application training programmes, flash internships, coaching programmes and guest lessons in primary and secondary schools. They are organised by JINC, which seeks to give young people a leg up in the labour market. Around 80 DNB employees contributed their time in 2017.

## 5.6 Risk management

We have an integrated risk management framework and policy for the early identification and management of our principal risks. Below, we discuss our risk management model (Section 5.6.1), recent trends in risk management (Section 5.6.2) and the main operational risks and how we manage them (Section 5.6.3).

### 5.6.1 Risk management model

We aspire to observe the same standards that our supervision divisions impose to the institutions they supervise. Leading principles we use include the standards issued by the EBA, the Basel Committee on Banking Supervision and the ECB, which set out corporate governance principles and sound practices for risk management by banks. In conformity with these standards, we apply the three-lines-of-defence model. The first line is formed by the divisions that bear primary responsibility for identifying, assessing and controlling risks when performing their activities. The second line consists of various 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. The strategic risks relate to our core tasks and are an integral part of our decision-making and governance process. Each year, we identify key trends for the year ahead, as well as the attendant opportunities and threats. In 2017, these opportunities and threats were again used as input in reviewing our strategy and performing our core tasks.

We have set up a dedicated governance structure for dealing with financial risks. Financial risk management is coordinated by the Risk Management Committee (RMC). This is discussed in more detail in Section 5.8 below.

Operational risk management is coordinated by the Operational Risk Board (ORB), which comprises representatives from our first and second-line functions, chaired by the Secretary-Director. We define an operational risk as a a risk caused by inadequate or failed internal processes, systems or human actions, and we classify them in 11 categories. The Operational Risk Management (ORM) department coordinates the periodic submission of reports to the ORB that address all relevant operational risks and their management. Where necessary, the ORB can make changes to the management of these risks.

### 5.6.2 Developments in risk management

In 2017, we further reinforced our risk management model. We had previously established that the structure and effectiveness of our risk management function could be improved by reducing functional overlap and ensuring that roles are adhered to more consistently.

The reinforcement allows us to identify, assess and monitor risks and mitigate them where needed in an integrated manner.

The creation of the ORM department in mid-2017 marked an important step in this integrated approach. The department coordinates the second-line operational risk management activities, engaging in the disciplines of information security, business continuity management and operational risk management. It is a major hub in terms of operational risk identification, contributing to the further optimisation of risk management going forward.

The Governing and Supervisory Boards formally endorsed the ORB's charter, which sets out the ORB's mandate and its tasks and powers in the area of operational risk management.

We also achieved further improvements in risk management in a number of other areas. For example, we harmonised and extended our integrated risk reporting in 2017. The ORM department conducted various Risk & Control Self Assessments within DNB to chart the various risks and their management in a uniform manner. It is also implementing an integrated tool for the structured documentation and monitoring of these risks, and the tool's use will be further expanded in 2018. In addition, we launched a project to bring DNB's risk appetite into closer focus, and a reviewed risk appetite should be produced in 2018.

The ORM department is also modifying the integrated risk management framework. Owing to various developments inside and outside of DNB, the 2013 framework was due for overhaul. We expect to adopt a reviewed framework in 2018.

### 5.6.3 Main operational risks

In the past year we again devoted considerable attention to information security risks. Many of the data we work with are confidential and require robust protection. We use our Best in Class programme for information security to ensure that the required information security is achieved across DNB. Various centralised and decentralised measures serve to achieve this. For example, we introduced our new data classification policy in 2017, and we are working to further harmonise identity and access management. In similar vein, we started an in-house information security awareness campaign, which will run into 2018.

Business continuity risk was also at the centre of attention in 2017, with various divisions having finalised updated business impact analyses, pandemic plans and business continuity plans. We also made revised arrangements with respect to fall-back facilities for our critical operating processes. The payments chain will in due course have a fall-back facility near DNB's new Cash Centre in Zeist to allow for situations in which our Amsterdam office is unavailable.

We also took a range of measures aimed at managing our physical security risks more closely. For instance, we reassessed security procedures, tightening them where needed. In addition, we paid special attention to the timely detection of threats and identification of their ramifications. Effective 1 September 2017, the Royal Netherlands Marechaussee assumed responsibility for the physical protection of the perimeter around our Amsterdam office at Westeinde.

We also zoomed in on privacy matters in 2017, launching a project to ensure responsible compliance with the General Data Protection Regulation, which is due to take effect on 25 May 2018 (see also Section 5.5.2).

Lastly, we closely monitor the risks associated with outsourcing, as evidenced by a set of standards we use for contract and supplier management to remain in control over outsourced activities.

## 5.7 Report on costs

The costs allocated to our core tasks in 2017 amounted to EUR 353.2 million, a budget undershoot of EUR 30.8 million mainly due to the EUR 24.6 million gain on the sale of the office buildings at Achtergracht in Amsterdam. Staff costs likewise show a budget undershoot, of EUR 7.4 million, caused by understaffing. Against this, depreciation charges on tangible fixed assets were higher than budgeted owing to the accelerated depreciation of the Westeinde and Wassenaar buildings as part of our long-term accommodation programme .

The costs for each core task are set out in Table 5.7. The material differences for each core task are explained in further detail. The gain on the sale of the office buildings is reflected in the figures for all core tasks. 

## Table 5.7 Core task costs

EUR million

| | Actual 2017 | Budget 2017 | Difference | Actual 2016 | Actual 2015 |
|---|---|---|---|---|---|
| **Core task** | | | | | |
| Financial stability | 10.1 | 11.4 | (1.3) | 15.6 | 12.6 |
| Monetary policy and economic advice | 54.8 | 60.1 | (5.2) | 57.3 | 54.4 |
| Payments | 89.1 | 102.3 | (13.2) | 114.7 | 85.7 |
| Supervision (excl. FEC) | 143.8 | 154.4 | (10.6) | 145.0 | 144.0 |
| FEC | 1.4 | 1.3 | 0.1 | 1.2 | 1.2 |
| Statistics | 39.2 | 38.3 | 0.9 | 39.1 | 30.5 |
| Resolution | 4.9 | 6.8 | (1.9) | 4.6 | 3.6 |
| DGS | 8.3 | 9.2 | (0.9) | | |
| DGS Crisis | 1.4 | - | 1.4 | | |
| **Total** | **353.2** | **384.0** | **(30.8)** | **377.5** | **332.0** |

Figures are based on data at 16 January 2018.

Spending on the Financial Stability core task was EUR 1.3 million below budget in 2017, as insourced legal advice involved lower costs than budgeted.

The costs for the Monetary core task are EUR 5.2 million lower than budgeted, due to understaffing and lower externally hired ICT support than budgeted.

Spending on the Payments core task was EUR 13.2 million below budget. A smaller portion of the costs relating to banknote production was allocated to 2017 than budgeted.

Actual supervisory costs, net of non-recurring income from the sale of the office buildings, were EUR 143.8 million in 2017. Excluding non-recurring income, they came to EUR 154.0 million, virtually in line with the budget.

Spending on the Statistics core task was EUR 0.9 million above budget, owing to a stricter capitalisation policy and higher than budgeted insourced ICT support.

The underspend on the Resolution core task was EUR 1.9 million. De division's average staff numbers were lower than budgeted as staff levels were gradually increased towards the target throughout the year. In addition, fewer externally hired staff members were needed than initially budgeted.

## 5.8 Financial position of DNB

Our exposures in the balance sheet increased in 2017 as the ECB's accommodative monetary policy was continued. Nevertheless, our balance sheet-wide risk contracted by EUR 2.1 billion thanks to improved risk profiles of peripheral euro area countries.

The exposures and risks on our balance sheet stem from the joint monetary policy of the Eurosystem on the one hand and from our own-account investments on the other. Our risk profile is largely dictated by monetary exposures. The Eurosystem's monetary policy is established jointly, meaning that we have limited control over the risks in our balance sheet. As at 31 December 2017, total purchases under the Eurosystem's extended asset purchase programme (APP) stood at EUR 2,286 billion (31 December 2016: EUR 1,532 billion). Risks and proceeds of the APP are shared by the central banks in the Eurosystem using a capital key (5.69% for DNB).

The APP entails the large-scale purchase of long-term assets, which means that our interest income is fixed at a low level for a prolonged period. Credit institutions hold the surplus liquidity arising from these purchases in monetary deposits at central banks in the Eurosystem on which they receive interest. The accommodative monetary policy exposes us to credit and interest rate risks. The interest rate risk will be manifested if key interest rates are raised significantly and rapidly.

As in 2015 and 2016, 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 ECB's unconventional monetary policy. The provision stood at EUR 1,496 million at 31 December 2017. An amount of EUR 4 million was released due to an impairment in the CSPP portfolio of a Eurosystem central bank. The balance of the provision is still below the risks inherent in the APP, which are estimated at EUR 3.6 billion (see Table 5.8). These will continue to be substantial in the years ahead, given the large volumes of long-term assets purchased by the Eurosystem pursuant to its monetary policy.

The Governing Board formalised DNB's risk management principles in 2017. They summarise our current balance sheet risk practices where they concern the volume, grades and liquidity of our own-account investments. Gold occupies a special position in our risk framework. Our gold stocks serve to cover ultimate systemic risks that materialise under extreme scenarios outside the boundaries of risk calculations. We manage the gold stocks passively.

Our total risk is determined using a combination of three different methods. First, the credit and market risks on the asset purchase programmes and own-account investments are determined using an expected shortfall method, which considers average losses beyond the 99th percentile of the loss distribution over one year. Next, deterministic scenarios are used for credit risk related to some peripheral euro area countries. Finally, the interest rate risk for our entire balance sheet is determined using a customised scenario analysis for trends in the balance sheet and interest rates. This is in line with the method which the ECB uses to determine overall risk. In-house and external experts perform independent validations on a regular basis to assess the method's quality.

## Table 5.8 Total exposures of DNB

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

| | 31/12/2017 | 31/12/2016 | Difference |
|---|---|---|---|
| Total exposures | 192.6 | 151.5 | 41.1 |
| Monetary exposures | 174.1 | 123.0 | 51.1 |
| Own investments and other portfolios | 18.5 | 28.5 | (10.0) |
| | | | |
| Total risk | 8.4 | 10.5 | (2.1) |
| APP risk (under provision for credit and interest rate risk)* | 3.6 | 3.7 | (0.1) |
| Risk under guarantee** | 3.5 | 5.4 | (1.9) |
| Own investments and other asset risks*** | 1.3 | 1.4 | (0.1) |
| | | | |
| Risk buffer | 9.4 | 8.9 | 0.5 |
| Capital and reserves | 7.9 | 7.9 | 0.0 |
| Provision for credit and interest rate risks | 1.5 | 1.0 | 0.5 |

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

** The maximum level of the state guarantee of exposures to peripheral euro area countries amounts to EUR 5.7 billion. This guarantee expired on 1 March 2018.

*** Other assets include the conventional provision of liquidity to banks (OMO).

### 5.8.1 Monetary exposures

The Eurosystem continued its monetary asset purchase programme (APP) in 2017, reducing the monthly purchase volume from EUR 80 billion to EUR 60 billion with effect from April 2017. Purchases will continue in 2018, but volumes will be halved from January 2018 onwards, to EUR 30 billion a month. The APP will be continued until September 2018 at least. We expect to carry the related exposures on our balance sheet for a long time to come, given the long average term to maturity of the purchased securities (7.3 years) and the decision to reinvest redemption proceeds for a considerable period following the programme's termination.

Under the various APP programmes, 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 (see Table 5.9). Unlike the other purchase programmes, the PSPP does not involve an arrangement for sharing risks or returns. We have carried out the ECB's purchases in the Dutch ABS market for the ECB's account and risk since mid-2017. Dutch purchases account for almost half of the total volume of the ABSPP programme, given the large volume of the Dutch mortgage loan securitisation market and the high quality of those securitisations.

The large-scale purchases under the APP cause growing scarcity of Dutch sovereign bonds. We therefore offer securities lending facilities to ensure the market continues to function smoothly, lending sovereign bonds we purchased to parties responsible for providing liquidity to this market, with cash or other sovereigns serving as collateral. We extended these lending facilities in early 2017 to accommodate increasing market demand.

In March 2017, market parties could for the fourth time subscribe for the second programme of targeted longer-term refinancing operations (TLTRO-II), under which the Eurosystem offers banks low-cost funding for a four-year period. Under TLTRO II, banks are charged a rate of interest between the main refinancing rate (currently 0.0%) and the deposit facility rate (currently -0.4%). The final rate will be announced in 2018 and will depend on the extent to which the bank in question uses the funding obtained to provide loans to the real economy.

In spite of increased monetary exposures, our balance sheet-wide risk contracted by EUR 2.1 billion to EUR 8.4 billion, thanks mainly to improved risk profiles of peripheral euro area countries. For example, Portugal's credit rating improved in December 2017, and Greek institutions rely on the central bank's emergency funding to a lesser extent. Most of our risks related to peripheral euro area countries were covered by the Dutch state guarantee issued in 2013. This guarantee expired on 1 March 2018, and without it, we must rely on the provision for credit and interest rate risk and our own capital to absorb balance sheet-wide risks.

## Table 5.9 Monetary exposures by purchase programme and country

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

| | Open Market Operations (OMO) | Securities Markets Programme (SMP) | Covered Bond Purchase Programmes (CBPP 1-3) | Public Sector Purchase Programme (PSPP) | Corporate Sector Purchase Programme (CSPP) | Total |
|---|---|---|---|---|---|---|
| Netherlands | 1.6 | 0.0 | 0.9 | 93.3 | 2.2 | 98.1 |
| Italy | 14.4 | 2.6 | 1.5 | 0.0 | 0.8 | 19.2 |
| Spain | 9.7 | 0.9 | 3.3 | 0.0 | 0.5 | 14.4 |
| France | 6.5 | 0.0 | 3.4 | 0.0 | 2.3 | 12.1 |
| Germany | 5.4 | 0.0 | 2.7 | 0.0 | 0.9 | 9.0 |
| Greece | 0.7 | 0.4 | 0.0 | 0.0 | 0.0 | 1.1 |
| Portugal | 1.3 | 0.3 | 0.2 | 0.0 | 0.0 | 1.8 |
| Other provisions | 4.1 | 0.3 | 1.3 | 11.9 | 1.0 | 18.5 |
| **Total*** | **43.5** | **4.6** | **13.3** | **105.2** | **7.6** | **174.2** |
| Difference ** | 9.6 | (0.6) | 1.6 | 35.9 | 4.7 | 51.2 |

* The total may differ from the sum of the exposures for each country and each programme due to rounding differences. The ABSPP exposures are not included as they are initially for the account and risk of the ECB and consequently can only indirectly give rise to losses.

** Difference relative to 31 December 2016.

### 5.8.2 Own-account investments

Our own-account investments consist primarily of high-grade short-dated bonds issued by governments and semi-government bodies in countries such as Germany and the United States. 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 in this portfolio. The currency risk on the IMF receivable, which is based on a basket of international currencies (Special Drawing Rights – SDRs), is also hedged.

The persistently low bond yields strongly depressed returns on our bonds. We decided to contract our bond portfolio at a strategic level by EUR 8.7 billion in 2017 to limit negative yields, and may decide to expand it again once market conditions become more favourable. We nevertheless achieved positive total returns on our own-account investments on the back of excellent returns on equity investments. The equity portfolio amounts to EUR 1.4 billion and tracks the MSCI World benchmark through a passive investment policy. It is managed by two external asset managers.

We aim to maintain the returns on our own-account investments, which is why we expanded our investment universe in 2017, deciding to include both investment-grade and high-yield corporate bonds. Our investments in investment-grade corporate bonds stood at EUR 0.5 billion at 31 December 2017, and purchases take place by investing in exchange-traded funds. We are currently building our high-yield portfolio by investing in two funds. At 31 December 2017, it stood at EUR 0.5 billion, the target investment being EUR 0.7 billion. Our investment income from corporate bonds was EUR 12 million in 2017. As for equity investments, price gains achieved in this portfolio are recognised in the revaluation reserve and will be realised upon sale.

We aim to integrate international environmental, social and governance (ESG) aspects in the implementation of our investment policy and believe that targets for returns on investment should go hand in hand with socially responsible investment. In this context, we seek to improve ESG aspects within our own-account investments. Approximately 5%, or EUR 0.8 billion, of the fixed-income portfolio are bonds issued by development banks such as the World Bank and "green" bonds issued by supranational institutions and semi-governments.

We regularly check the sustainability of our investments in equities and corporate bonds. The external asset managers adhere to international standards such as the United Nations Principles for Responsible Investment (UN PRI). The equity investment universe (the MSCI World Index) is screened to exclude manufacturers of controversial weapons and determine compliance with the UN Global Compact's Ten Principles. The high-yield bond investment universe is likewise screened to exclude manufacturers of specific controversial weapons.

We also evaluate the external asset managers on an annual basis in terms of their ESG policy aspects. We address these aspects when we select new asset managers and consider the outcome in our final selection. In 2017, we added CSR policy as an evaluation criterion for current asset managers. We evaluate asset managers on the basis of a questionnaire, and we provide feedback, urging them to make improvements where needed.

## Table 5.10 Composition of own-account and other investment portfolios

EUR billion

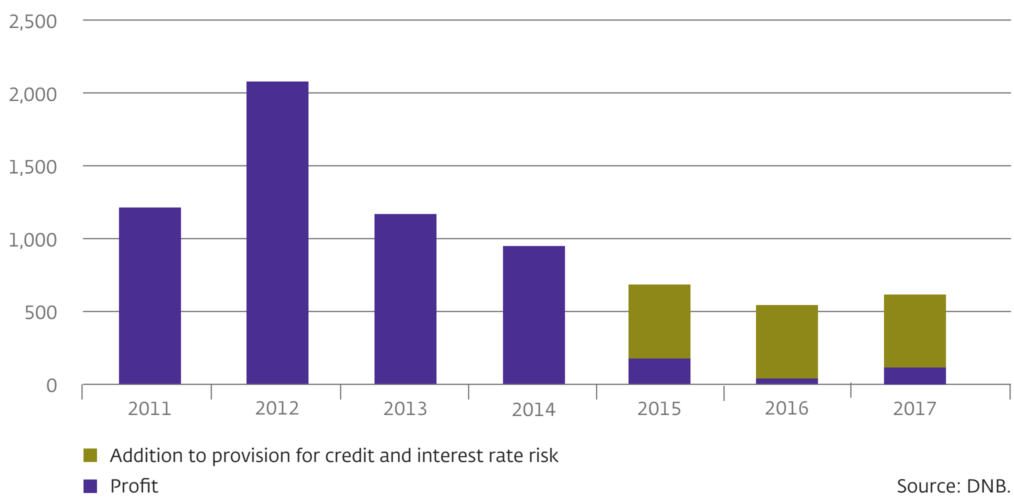
| | 31/12/17 | 31/12/16 | Difference |
|---|---|---|---|
| Dutch government | 1.5 | 3.6 | (2.1) |
| Other EU government | 6.7 | 13.7 | (7.0) |
| Semi-government/supra national | 2.7 | 2.3 | 0.4 |
| Covered bonds | 0.0 | 0.1 | (0.1) |
| Reverse repo/deposit | 0.1 | 0.2 | (0.1) |
| Euro investment portfolio | 11.0 | 20.0 | (9.0) |
| | | | |
| Government | 2.4 | 4.1 | (1.7) |
| Semi-government/supra national | 1.5 | 1.9 | (0.4) |
| Reverse repo/deposit | 0.1 | 0.4 | (0.3) |
| USD investment portfolio | 4.0 | 6.3 | (2.3) |
| | | | |
| IMF receivables | 0.9 | 1.1 | (0.2) |
| Equities | 1.5 | 1.4 | 0.1 |
| Market value of currency hedging | 0.1 | (0.3) | 0.4 |
| High yield | 0.5 | 0.0 | 0.5 |
| ETF investment grade | 0.5 | 0.0 | 0.5 |
| Other | 3.5 | 2.2 | 1.3 |
| | | | |
| **Total** | **18.5** | **28.5** | **(10.0)** |

### 5.8.3 Result

The result for 2017 stood at EUR 121 million, an increase of EUR 79 million compared with 2016. The main causes of the increase are higher income from deposits and the results from monetary operations. Returns on own-account investments were below those in 2016. As in previous years, EUR 500 million was added to the provision for credit and interest rate risks.

## Chart 5.3 Trend in our results

EUR million




Source: DNB.

### Monetary operations

Income from the monetary operations contributed EUR 636 million to our result for 2017, up EUR 31 million from 2016. The liquidity created by the non-standard monetary purchase programmes is reflected in the monetary deposits of the Eurosystem central banks. This leads to an increase in monetary income thanks to the negative interest rate on monetary deposits. This increase was dampened, however, by increased interest expenses on targeted longer-term refinancing operations (TLTRO-II). In addition, interest income in these monetary portfolios was down due to redemptions in the high-income, expiring crisis bond portfolios (SMP, and CBPP1 and CBPP2).

### Foreign reserves and euro investments

Negative bond yields depressed the result on our own-account investments. For this reason, we reduced our fixed-income portfolios in 2017, limiting our losses to some extent. Price gains achieved in the equity portfolio are reflected in the higher revaluation reserve rather than in the result, with the exception of a small portion of the equity portfolio, which was sold because the asset manager failed to comply with our criteria.

### Other investments

Income from unshared deposits, including from bilateral services provided to non-Eurosystem central banks, was sharply up, contributing EUR 81 million to our annual result (2016: EUR 23 million). Deposit services like these are carried out by central banks for their own account and risk. Historically, unshared deposits tend to be limited, but they increased sharply from EUR 23 billion at end-2016 to EUR 42 billion at end-2017. Interest rates charged on unshared deposits are around the deposit rate, which currently stands at -0.4%. Current market conditions, with market rates below the deposit rate, make it attractive for financial institutions that have access to our facilities to maintain euro amounts in a current account.



## Table 5.11 Breakdown of our results

EUR million

| | 31/12/17 | 31/12/16 | Difference |
|---|---|---|---|
| OMO | (157) | (35) | (122) |
| CBPP1 and 2 | 18 | 36 | (18) |
| CBPP3 | 58 | 47 | 11 |
| SMP | 282 | 332 | (50) |
| CSPP | 38 | 4 | 34 |
| PSPP | 26 | 22 | 4 |
| Other* | 371 | 199 | 172 |
| **Total monetary transactions** | **636** | **605** | **31** |
| | | | |
| Foreign reserves and euro investments | | | |
| Euro investments | 9 | 95 | (86) |
| USD investments | (34) | (27) | (7) |
| JPY, AUD and SDR investments | 9 | (5) | 14 |
| Equity investments | 37 | 5 | 32 |
| Income from ECB and BIS participating interests | 75 | 75 | 0 |
| **Total foreign reserves and euro investments** | **96** | **143** | **(47)** |
| | | | |
| Total sundry (including expenses)** | (111) | (205) | 95 |
| Total addition to provision | (500) | (500) | 0 |
| | | | |
| **Total** | **121** | **43** | **78** |

* This primarily concerns income from bank deposits due to the negative deposit rate.

** This includes income from unshared deposits.

## Annex 1 Overview of CSR objectives and results

Table 5.12 below summarises our objectives and the results we achieved in the material CSR policy areas. We have set our priorities on the basis of our mission and ambitions (see Section 5.2), and we have translated these into a vision on corporate social responsibility (see Section 5.3). We pursue a structured policy, under the direction of the CSR Committee, with the aim of integrating and promoting the vision on CSR in our core tasks.

The information reported in Chapter 5 is structured along the lines of our core tasks. As explained in Section 5.3, sustainability is an integrated part of all our core tasks. Section 5.4 reports the results for each core task, including the achievement of CSR objectives. This marks a further step towards integrated reporting. In the year ahead we will again investigate further steps to allow stakeholders to extract information more easily from our Annual Report, for instance by more clearly highlighting our own sustainability context.

### Table 5.12 CSR accountability overview

| CSR policy area | Objective for 2017 | Actions and results achieved | Reference to AR | Objectives for 2018 |
|---|---|---|---|---|
| **Supervision/ Financial stability/ Resolution** | ■ All operational divisions will operationalise climate risk in their operational supervision activities.<br><br>■ Our operational supervision divisions will devote attention to the sustainability of business models. | ■ We moved this objective to 2018. We included sustainability in our "Supervisory Strategy 2018-2022".<br><br>■ We are devoting attention to the sustainability of business models in various ways:<br>– Pension Supervision: We conducted a thematic examination into robust pension administration to find out to what extent pension funds can manage change. We examined three pension funds and their pension providers. Our "Vision and Strategy" thematic examin-ation identified the strategic risks borne by large pension funds, explicitly devoting attention to the sustainability of their current business models and their capacity for change. We required the pension funds to manage their strategic risks and will assess this in 2018. We requested medium-sized pension funds to submit their current strategies and risk assessments with an eye to sustainability and capacity for change. | AR 5.4.2/ 5.4.4/5.4.5 | ■ Explore the supervisory implications of the Sustainable Development Goals (SDGs).<br>■ Follow up on our climate risk study by implementing recommendations internally and externally, and look into ways to incorporate outcomes into our supervision and risk analysis.<br>■ Conduct a climate stress test and publicise its outcome internationally.<br>■ Actively draw attention within the IMF to climate issues, based on our focus areas.<br>■ In our supervision, devote attention to sustainable business models and make institutions aware of sustainability agreements. |

| CSR policy area | Objective for 2017 | Actions and results achieved | Reference to AR | Objectives for 2018 |
|---|---|---|---|---|
| | | We carried out the "Sustainable Business Model" project in 2017. Using financial and non-financial indicators, this project identified 22 potentially vulnerable pension funds. The project aims to encourage these pension funds to take action to control or mitigate their vulnerabilities, with liquidation being one of the options.<br>– Banking Supervision: We performed a thematic examination in 2017 to gain better insight into the individual banks' profitability outlook and business models. Research and a specific interest rate risk stress test have shown that banks have thus far offset lower interest income by higher margins in the large corporate market, the low interest rates on savings and cost cuts in their internal operations. We expect banks to monitor the impact of the low interest rates closely and take prompt action where needed. We launched the "Targeted Review of Internal Models" project in 2017, which aims to harmonise supervision and takes place in an SSM context.<br>– Insurance Supervision: We studied the state of affairs in the health insurance sector in 2017. This shows that a healthy financial position is a key precondition for healthcare insurers to fulfil their social responsibility and contribute to the stable development of healthcare premiums. It is therefore important that health insurers keep modernising their business models and risk management and maintain their financial buffers to safeguard their soundness at the medium and long term. We conducted a stress test among Dutch non-life insurers in 2017, which revealed that they are relatively resilient against various natural-disaster scenarios. We also looked into the consequences of climate risks for insurers' liabilities, and we participate in the debate on the insurability of flood risk. | | ■ Explore the legal possibilities with regard to performing our tasks. If the legal framework should provide too narrow a basis for our aspirations, study options for supplementary legislation.<br>■ Continue to examine how frontrunners in the pension sector achieved actual implementation of their ESG investment policies, and share good practices with the sector.<br>■ In the area of pensions, develop further into a competence centre for ESG and sustainable investments.<br>■ Widely publicise the introduction of IORPII 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.<br>■ Continue to examine investment policies among insurers and incorporate findings into our regular supervision.<br>■ Formulate a sector-wide vision setting out the behaviour required to contribute to a future-oriented, adaptive and sustainable financial sector.<br>■ As part of our market access policy, 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, society will suffer the financial consequences to the minimum extent possible.<br>■ As part of our resolution task, 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. |

| CSR policy area | Objective for 2017 | Actions and results achieved | Reference to AR | Objectives for 2018 |
|---|---|---|---|---|
| | ■ Develop a climate stress test that translates the results of the study into the economic consequences of energy transition (see "Economic Advice and Analysis" policy area) into an impact on financial institutions. | ■ We studied climate-related risks in the financial sector in 2017 and issued the report "Waterproof? An exploration of climate-related risks for the Dutch financial sector." We are developing stress tests for physical and transition risks and will disclose the results of both tests in 2018. | | |
| | ■ Our Pension Supervision Division will carry out a follow-up study on sustainable investment. This study will continue to monitor and provide information on developments in the area of sustainability. | ■ Following on from the sustainability examination among pension funds, we are currently assessing ESG integration into investment policies in further detail. We discussed this with pension funds that are frontrunners in this area to improve our insight. Based on our discussions we will identify possible best practices and share them with the sector to encourage ESG integration into investment policies. | | |
| | ■ Work to ensure that ESG risks receive international attention. | ■ We shared our report "Waterproof? An exploration of climate-related risks for the Dutch financial sector" with the SSM's senior management. In the High Level Expert Group, we urged other European supervisory authorities to address climate risks, and we established bilateral contacts to stress the importance of the issue. | | |
| | ■ Ensure that transparency on how financial institutions deal with ESG aspects is further embedded in legislation. | ■ We are engaged in discussions with the Ministry of Finance and the AFM. For the moment, we will await developments at the European level before taking further action. | | |
| | ■ Further to the IMF's FSAP mission, in which we drew attention to the theme of sustainability, ensure that the IMF intends to work with us in this area. | ■ We spoke to the IMF's management and staff on several occasions during visits and hosted an in-house workshop about climate stress tests for various international participants. The constituency office also brought climate risks to the attention of the IMF Executive Board. | | |

| CSR policy area | Objective for 2017 | Actions and results achieved | Reference to AR | Objectives for 2018 |
|---|---|---|---|---|
| | ■ Contribute to the development of a sustainable finance roadmap for the EU by means of participating in the EU High Level Expert Group on Sustainable Finance. | ■ Frank Elderson attended all Expert Group meetings as an observer. We sought to clarify that managing material ESG risks is part of the investor duties and that the European supervisory authorities should incorporate ESG risks into their activities. Both objectives appear to be achieved. In addition, we prevented the issuance of a recommendation to lower capital requirements for green assets. | | |
| | ■ Ensure, through DNB's fit and proper assessment process, the suitability and integrity of managing and supervisory directors. Our objective is that less than 0.5% of reassessments performed within two years following an initial screening result in a negative opinion. | ■ We completed seven reassessments in 2017. One of those was within two years from the initial assessment. At a total number of 836 fit and proper assessments conducted in 2017 (reference date: December 2017) and 963 conducted in 2016, this represents 0.056%. | | |
| **Economic Advice and Analysis** | ■ Ensure that monetary policy is aimed at price stability, which is defined as inflation below but close to 2% over the medium term. | ■ We highlighted the social impact of the monetary measures in 2017 in interviews, speeches and external presentations. In addition, we kept the government regularly informed about monetary policy, for example in the regular meetings between the President and the Minister of Finance. | AR 5.4.1 | ■ 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), employment relations (permanent vs flexible), different income and wealth levels, varying access to financing and the housing market, and patterns that change over time.<br>■ Identify the implications which the energy transition and its funding have for the Netherlands, placing a special focus on the macroeconomic consequences of the transition for the industrial landscape.<br>■ Communicate this by means of innovative analyses and publications, deploying applied research and proprietary modelling tools, while demonstrably influencing the policy agenda. |

| CSR policy area | Objective for 2017 | Actions and results achieved | Reference to AR | Objectives for 2018 |
|---|---|---|---|---|
| | ■ Study the global trend of declining relevance of mid-income groups. | ■ We have launched a project to study the pressure on mid-income groups, devoting attention to functional income distribution (labour income share) and the distribution of income and wealth across households. We hosted various expert meetings in preparation of the project. We published an Occasional Study on the housing market in major Dutch cities, which also homes in on the situation of mid-income groups. | | |
| | ■ Ascertain economic consequences of energy transition and its funding for the Netherlands. | ■ We launched a project about the impact that the energy transition has on the Dutch economy, which will run into 2018. We published a DNBulletin and a Position Paper on the bottlenecks in funding green investment. We hosted and co-organised, with the Council on Economic Policies, an international conference on the role of central banks in fostering green investment. | | |
| **Stakeholder management** | ■ Our Communication department will set up a structured dialogue with relevant stakeholders. | ■ We hosted close to fifty events, such as seminars, round table sessions and communities to engage in dialogue with our stakeholders. Target groups were highly diverse, ranging from pension fund board members to school pupils, from journalists to actuaries and from financial citizens to central bank staff from across the globe. | Annex 2 | ■ Put the outcome of the 2017 stakeholder dialogue about CSR aspects into DNB-specific action. This will be further elaborated by the CSR Committee.<br>■ Implement the results of the Sustainable Finance Platform's working groups in the sector. |
| | ■ Improve the structure of Chapter 5 of the Annual Report, enabling stakeholders to extract information from the chapter more easily. | ■ We built on the solid foundation laid in 2016, following up on the independent auditor's comments. For instance, we fully incorporated CSR aspects into the narrative of Chapter 5, enabling stakeholders to extract information from the chapter more easily. In addition, we overhauled our in-house process for drafting the chapter. | | |

| CSR policy area | Objective for 2017 | Actions and results achieved | Reference to AR | Objectives for 2018 |
|---|---|---|---|---|
| | ■ Implement initial results of the Sustainable Finance Platform's working groups in the sector. | ■ The platform's Sustainability Education and Communications working group developed the three-day "Finance in Transition" training module with Nyenrode. The SDG Impact Measurement working group developed guidance for measuring the impact of investment in SDGs. The Circular Economy working group hosted a round table session for CEOs/directors from the financial sector. The Platform Carbon Accounting Financials working group issued the report Paving the way towards a harmonised Carbon Accounting Approach for the Financial Sector, as well as an open source methodology for measuring the carbon footprint of investment and loans. | Box 5.1 | |

| CSR policy area | Objective for 2017 | Actions and results achieved | Reference to AR | Objectives for 2018 |
|---|---|---|---|---|
| **Payments** | ■ Put sustainability on the agendas of meetings with institutions. | ■ We explicitly addressed sustainability in bilateral talks with institutions. We spoke with payment processing service providers about the outcome of our life-cycle analysis (LCA) of non-cash payments. We did not talk to parties in the wholesale payments and securities sectors as yet, in the absence of specific discussion topics. | AR 5.4.3 | ■ Put sustainability on the agendas of meetings with market parties at least once a year.<br>■ Take the interests of vulnerable groups into account through the National Forum on the Payment System.<br>■ Continue the Forum's regular activities through participation in the Working Group on Accessibility and Availability and the Working Group on Security. |
| | ■ Take the interests of vulnerable groups into account through the National Forum on the Payment System. | ■ We promoted the interests of vulnerable population groups through the Forum.<br>– Further to the outcomes of the Accessibility Monitor 2016, we initiated a study into the extent to which vulnerable population groups can autonomously use payment services.<br>– The national coverage rate of ATMs is still high. 99.58% of people in the Netherlands<br>– live within five kilometres of an ATM.<br>– DNB and the Forum provided support to the European Pay-Able platform, which ensured that barrier-free access to payment terminals was included as a requirement in the draft version of the European Accessibility Act.<br>– On the Forum's behalf, we held talks with various municipal authorities that no longer accept cash payments from residents under a debit card-only policy. The Forum believes such a policy is unreasonably burdensome.<br>– We hosted a well-attended financial inclusion seminar themed "Strategy for and challenges in financial inclusion."<br>– We act as the secretariat to the European Retail Payment Board's informal group on accessibility, which seeks to improve and maintain the accessibility of retail payments. It examined accessibility issues and prepared several best practices in 2017. | | ■ Study the problems which vulnerable groups experience in payments.<br>■ Assist the Pay-Able platform in calling for Europe-wide solutions to address accessibility issues.<br>■ Promote financial inclusion in various areas.<br>■ Complete the study into the environmental impact of cash and prepare a DNB Working Paper. Use these as a basis for engaging in dialogue with stakeholders to assess the feasibility of environmental impact reduction measures.<br>■ Continue efforts aimed at extending the life cycle of banknotes.<br>■ Reduce the number of banknotes that are rejected unnecessarily by improving the classification of sorting machines.<br>■ Set an example for the rest of Europe in reducing the number of banknotes that are rejected unnecessarily.<br>■ Promote the exchange or sale of coins.<br>■ Lend assistance in combating crime in the cash chain by investigating options for rendering banknotes unusable. |

| CSR policy area | Objective for 2017 | Actions and results achieved | Reference to AR | Objectives for 2018 |
|---|---|---|---|---|
| | ■ Assess the sustainability of payment products (cash, remote payments) by performing a life-cycle analysis and entering into talks on this matter with stakeholders | ■ We completed two studies into the sustainability of cash payments and held various presentations in-house and externally about the subject. The LCA outcomes for non-cash payments were published as DNB Working Paper No. 574 and included in the International Journal of Lifecycle Assessment. We discussed the LCA with CCV and Equens. We decided not to study remote payments. | | |
| | ■ Draw attention to CSR aspects of banknotes in European bodies. | ■ The ECB's Production Expert Group (PEG) included a statement in its working programme that it will work to promote sustainability of the supply chain. Since 1 January 2018, we have had a representative in the EHSEG, a working group concentrating on CSR issues. | | |
| | ■ Promote the matching of market surpluses and shortages of banknotes that are fit for circulation. | ■ An assessment in 2017 revealed that matching between market parties was adequate. The trade-off with lower circulation quality is still acceptable, which is why we will not urge market parties to step up matching. | | |
| | ■ Set an example for the rest of Europe in reducing the number of banknotes that are rejected unnecessarily. | ■ Since the introduction of the new €50 banknote we have circulated the old and new series together. Estonia, Slovenia and Belgium decided to do the same, but unfortunately we have been unable to convince any of the larger countries. | | |
| | ■ Continue efforts to make banknote production more sustainable while working towards the target of using 100% sustainable cotton in 2019. | ■ In 2017, 86.6% of the cotton used to produce banknotes for DNB/Joint European Tender Group was sustainably grown. This will be gradually increased to 100% in the years ahead. | | |
| | ■ Make banknotes and the cash chain as sustainable as possible by means of stepping up exchanges/sales of coins. | ■ We sold 41.04 million coins to Belgium in 2017. | | |

| CSR policy area | Objective for 2017 | Actions and results achieved | Reference to AR | Objectives for 2018 |
|---|---|---|---|---|
| | ■ Ensure banknotes last longer by not withdrawing and destroying old notes immediately when new notes are introduced. Encourage other central banks in the Eurosystem to adopt this approach. | ■ The Currency Information Management System (CIMS) we developed proved to be an important tool in in reducing the number of banknotes that are rejected unnecessarily. CIMS can provide access to sorting data, thereby improving sorting performance. Various European countries have shown interest in adopting this system. | | |
| | ■ Work towards paperless process design, carrying out a study of paperless invoicing, and making legal documentation available in a digital format only. | ■ We made a start with paperless process design, carrying out a study of paperless invoicing, and making legal documentation available in a digital format only. | | |
| **Financial markets** | ■ Regularly check the sustainability of DNB's investments in equities and corporate bonds and make adjustments where necessary. CSR standards form part of the selection criteria for external asset managers, which are also regularly assessed on the basis of the standards. | ■ We ask our asset managers to complete an ESG questionnaire twice yearly and provide them with feedback where needed to improve their policy and reports. Our Asset Management department applied strict ESG criteria when selecting high-yield bond portfolio managers. | AR 5.8.2 | ■ Integrate DNB's 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). Seek to exert positive influence and accordingly prefer ESG integration and engagement over positive selection. Only use negative selection in the event of serious non-compliance with the UNGC. Monitor or initiate the CSR dialogue with respect to underlying investments.<br>■ Initiate a CSR dialogue with counterparties and external asset managers. For all activities, explain how they are related to the UN's SDGs.<br>■ Host a sustainable investment seminar for central banks.<br>■ Share expertise on socially responsible investment with influential investors.<br>■ Perform CSR market research.<br>■ Look into endorsing principles and codes of conduct, such as PRI and stewardship codes. |
| | ■ Perform periodic analyses of develop-ments in the markets for green finance products. | ■ We performed periodic analyses of developments in the markets for green investment products, through regular monitoring, interviews with market experts and ad hoc contributions to banking sector projects. | | |

| CSR policy area | Objective for 2017 | Actions and results achieved | Reference to AR | Objectives for 2018 |
|---|---|---|---|---|
| **Internal operations** | ■ HR will develop the diversity policy and monitor its implementation, including the achievement of targets in the area of participation (people with disabilities) and the implementation of the Talent to the Top charter (32% of management positions held by women). | ■ We set up a Diversity Board in 2017, which coordinates our efforts in the area of diversity. It is currently engaged in formulating a comprehensive vision on diversity.<br>■ We did not achieve our participation target, which was to employee three persons under the Occupational Disability (Employment Targets and Quotas) Act (Wet banenafspraak en quotum arbeidsbeperkten) and the Participation Act (Participatiewet). We employed one staff member and recruited one.<br>■ We achieved our target for women in management positions. | AR 5.5 | ■ Develop DNB's diversity policy and monitor its implementation, including progress towards targets in the area of participation policy, permanent employability and the fulfilment of management positions.<br>■ Ensure readiness for applying the new GRI Sustainability Reporting Standards (SRS) in the 2018 Annual Report.<br>■ Explicitly consider sustainability in elaborating DNB's accommodation and outsourcing plans within the framework of the sustainability ambition adopted in late 2017.<br>■ Ensure that DNB's second and third-line function devote explicit attention to CSR processes within DNB as part of their duties.<br>■ Lower the barriers to in-house collaboration further, including by experimenting with new work forms and further digitisation. Step up digital collaboration, for example by introducing Skype for Business and reducing physical flows of information.<br>■ Increase the focus on circular procurement as part of DNB's socially responsible procurement efforts. |
| | ■ Endeavour to keep the rate of absenteeism due to sickness at its current low level by means of prevention and by following an active policy on absenteeism, and continue to endeavour to ensure that people who work for us are able to perform their work in a healthy and safe environment. | ■ At 2.99%, absenteeism due to sickness was below the national average in 2017, but slightly up from 2016. | | |
| | ■ Ensure that our programme on accommodation and ICT specifically take sustainability and energy conservation into account when developing proposals for future accommodation and partial outsourcing. | ■ As part of our long-term accommodation plans, we adopted a sustainability ambition in 2017 to serve as a framework for all accommodation projects. It covers aspects relating to health, environment, future value, quality of use and energy consumption.<br>■ The fundamental principles that we use for outsourcing state that requirements relating to the environment and energy consumption must be imposed. | | |

| CSR policy area | Objective for 2017 | Actions and results achieved | Reference to AR | Objectives for 2018 |
|---|---|---|---|---|
| | ■ Develop a new working environment as part of the "Working Differently" project that pays specific attention to the sustainability and reusability of materials and to reducing the environmental impact of using single-use products. | ■ We formulated objectives and principles for our new office concept in 2017. One of the objectives is that the concept must be in line with our CSR strategy. It must facilitate location and time-independent working, and digitisation and virtual meetings will be encouraged. Furthermore, it must be flexible enough to allow future modifications with a minimum of changes. | | |
| | ■ Streamline and upgrade our offering of financial education and teaching materials. | ■ We overhauled and extended the range of educational materials on our website in 2017. For example, we added our first theme lessons and revamped our educational package on the financial crisis. In the year under review, 1,837 unique visitors consulted our Dutch-language website pages on education. In extending and renewing our educational materials, we also apply gamification. | | |
| | ■ Ensure that the IAD devotes attention to embedding CSR processes in the organisation by means of audits. | ■ The IAD conducts a CSR audit of all our policy areas as part of the audit of DNB's financial statements. | | |
| | ■ Ensure that RMS devotes attention to embedding CSR processes by means of quality assurance. | ■ DNB's quality assurance function contributed in 2017 to lasting improvements in the performance of our tasks and helped embed and follow up on lessons learned throughout our organisation. It applied an overall emphasis on quality, effectiveness and the enshrinement of lessons learned, which contributed to more effective deployment of resources across the board. | | |
| | ■ Make efforts to develop virtual meetings and cooperation at DNB and within the system (introducing Skype for Business, expanding video conferencing). | ■ We started the introduction of Skype for Business and the associated reduction in the number of landline telephone sets. | | |

| CSR policy area | Objective for 2017 | Actions and results achieved | Reference to AR | Objectives for 2018 |
|---|---|---|---|---|
| | ■ Our Procurement department plans to emphasise a reduction in our carbon footprint in at least one tender procedure in 2017, apply social return or social conditions in at least one tender procedure and procure according to circular criteria in at least one tender procedure. | ■ We drew up RVO criteria for 4 of the 23 completed European procurement projects and multiple private tenders (above EUR 50,000) in 2017. These criteria were applied in all four cases (100%). No social criteria were applicable to these tender procedures. We chose circular procurement as a key focal area in 2017 and expressed our commitment to the Green Deal on circular procurement. | | |

## Annex 2: Dialogue with our stakeholders

We held our fourth stakeholder survey in 2017. We aimed to get a full overview of the range of stakeholders and hear their views, in addition to those of the general public. We define stakeholders as those persons and parties with whom we work together or that show an interest in our work, our role and our influence as a public organisation with a social remit. We selected stakeholders for this dialogue based on the extent to which the performance of our tasks affects them. In previous years, our survey covered our supervisory role only, but this time we asked stakeholders to express their views about all our core tasks. The survey comprised a questionnaire and interviews. From the findings we distilled action points to ensure that suggestions for improvement and internal measures would be solidly embedded. We will disclose the outcome of the stakeholder survey in early April 2018.

### Table 5.13 Dialogue with our stakeholders

| Stakeholders | Dialogue method | Outcomes | Our follow-up |
|---|---|---|---|
| **Employees** | Information sessions, discussion meetings, Employees 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) | In 2017, the average reputation scores[1] were 60 among the general public and 68 among financial citizens. | We will take the outcome of the reputation measurement on board in our communication and other strategies. |
| | Quantitative and qualitative surveys among public respondents' panels conducted by research agency Kantar. | | 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. | Insight into, knowledge about and trust in the deposit guarantee scheme. Feedback on points for improvement in terms of the understandability, accessibility and impact of the information video about resolution and the key message of the infographic about supervision.<br><br>Sharpened focus of the draft DNB Supervisory Strategy 2018-2022 and draft DNB Payments Strategy. | We will continue gathering feedback from the public respondents' panel during public events that address themes relevant in the financial sector. |

1 2017 shows a trend break from the reputation scores awarded in preceding years. We launched a new European tender procedure among research agencies that perform reputation measurements and selected a different agency based on the award criteria. Kantar uses a different method, according to which a score of 60 or more represents a 'very good' reputation, while 50-60 reflects a 'good' reputation and 40-50 stands for a 'reasonable' reputation.

| Stakeholders | Dialogue method | Outcomes | Our follow-up |
|---|---|---|---|
| **Media** | Press conferences, masterclasses and one-on-one sessions with DNB Governing Board members or subject matter experts. | We have increased journalists' knowledge of themes relevant in the financial sector and our role. | We will offer these methods permanently at fixed times during the year – publication of Annual Report and independent public body (ZBO) report – and on an ad hoc basis when we publish new reports and whenever there are new 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 will adjust our strategy, policies or working methods where needed. |
| **Payment system providers and users** | The National Forum on the Payment System meets twice a year and includes a number of working groups. | Through the Forum, we promoted the development of a system of instant payments. We studied bank account number portability and discussed the consequences of new technological developments, such as PSD2. | We will pay constant attention to the availability and accessibility of payment methods and continue to respond to technological developments and their consequences for market participants. |
| **Supervised financial institutions** | Annual 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. Various round table meetings on such subjects as transaction monitoring, fit and proper assessments, and tax structures. | Sector participants feel that DNB is well-informed about relevant developments, engages well in dialogue, and is persistent. They ask that we devote attention to improving our transparency and to cooperation between supervisors within DNB. | We will feed back our follow-up to the participants in the stakeholder survey and through our website. |
| **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. |
| **All** | Round table sessions on CSR dialogue. Sustainability Platform. | Materiality analysis. We identified material topics and areas where we can provide added value. | Prioritisation of CSR issues. We will play a role in promoting sustainability in the financial sector. |
| **Politicians** | Hearings, expert meetings and a parliamentary inquiry into supervision of the trust sector and tax structures. The President of our Governing Board regularly elucidates monetary affairs. | We explained relevant developments in the financial sector and economic developments and set out our own views. | The ongoing debate will serve as input for our policies. |

## Annex 3: Data on energy consumption

| Measured data | Unit | 2017[1] | 2016[2] | $CO_2$ parameter[3] |
|---|---|---|---|---|
| **Energy** | | | | |
| Purchased green electricity | kWh | 12,247,870 | 12,731,136 | 0 kg $CO_2$/kWh |
| Natural gas | $m^3$ | 913,022 | 949,266 | 1.887 kg $CO_2$/$M^3$ gas |
| Diesel for energy supply | litres | 12,214 | 17,994 | 3.23 kg $CO_2$/litre diesel |
| **Commuting** | | | | |
| Public transport | km | 13,505,572 | 13,117,563 | 0.061 kg $CO_2$/km |
| Passenger vehicles (private) | km | 4,518,312 | 4,388,503 | 0.22 kg $CO_2$/km |
| Lease cars, petrol | litres of petrol | 43,684 | 48,287 | 2.74 kg $CO_2$/litre |
| Lease cars, diesel | litres of diesel | 40,401 | 46,151 | 3.23 kg $CO_2$/litre |
| **Business travel** | | | | |
| Passenger vehicles (business mileage, private vehicles) | km | 596,377 | 568,017 | 0.220 kg $CO_2$/km |
| Passenger vehicles (lease cars, petrol) | litres of petrol | 36,600 | 40,457 | 2.74 kg $CO_2$/litre |
| Passenger vehicles (lease cars, diesel) | litres of diesel | 33,849 | 38. 667 | 3.23 kg $CO_2$/litre |
| Passenger vehicles (Lease cars, electric) | kWh | 17,897 | 4,228 | 0.526 kg $CO_2$/kWh |
| Air travel, regional (< 700 km) | km | 1,479,944 | 1,345,022 | 0.297 kg $CO_2$/ passenger km |
| Air travel, European (< 2,500 km) | km | 2,136,661 | 1,576,718 | 0.200 kg $CO_2$/ passenger km |
| Air travel, global (> 2,500 km) | km | 6,436,305 | 4,754,967 | 0.147 kg $CO_2$/ passenger km |
| International train travel | km | 1,179,762 | 940,952 | 0.039 kg $CO_2$/ passenger km |
| **Goods and passenger transport** | | | | |
| Passenger vehicles for passenger transport | litres of petrol | 3,291 | 4,713 | 2,74 kg $CO_2$/litre |
| Passenger vehicles for passenger transport | litres of diesel | 2,204 | 2,524 | 3.23 kg $CO_2$/litre |
| Lorries for goods transport | litres of diesel | 2,053 | 2,689 | 3.23 kg $CO_2$/litre |

1 The 2016 reporting period runs from 1 October 2015 to 30 September 2016, inclusive.
2 The 2017 reporting period runs from 1 October 2016 to 30 September 2017, inclusive.
3 Source: www.co2emissiefactoren.nl (in Dutch).

## Annex 4: GRI G4 table



| GRI G4 Reference: | Description: | Reference to AR or website | Direct response: |
|---|---|---|---|
| **Strategy and analysis** | | | |
| G4-1 | Statement from the most senior decision-maker of the organisation | Introduction by the President | |
| **Organisational profile** | | | |
| G4-3 | Name of the organisation | Title page (I) | |
| G4-4 | Primary products and/or services | AR 5.2, figure 5.1, and AR 5.4<br>www.dnb.nl under 'About DNB', 'Duties' | |
| G4-5 | Location of the organisation's headquarters | Chapter III | |
| G4-6 | The countries in which the organisation is active | www.dnb.nl under 'About DNB', 'Organisation' | |
| G4-7 | Legal form | AR 'Governance' section | |
| G4-8 | Markets served and types | www.dnb.nl under 'About DNB', 'Duties' | |
| G4-9 | Size of the organisation | AR Table 5.1<br>AR Tables 5.10 and 5.11 | |
| G4-10 | Total number of employees | AR Table 5.1 | |
| G4-11 | Number of employees covered by the collective labour agreement | | All employees are covered by the Collective Labour Agreement. |
| G4-12 | Organisation's supply chain | JV 5.2, figure 5.1, 5.4.3 and 5.5.4 | |
| G4-13 | Significant changes | | No significant changes occurred in DNB's size, structure, ownership or supply chain. |
| G4-14 | Explanation of the application of the precautionary principle by the reporting organisation | AR 5.6 | |
| G4-15 | Externally developed economic, environmental and social charters and principles which the organisation endorses | - Talent to the Top Charter, AR 5.5.1<br>- ISO 14001:2015, AR 5.5.3<br>- RVO criteria, AR 5.5.4<br>- United Nations Principles for Responsible Investment (UN PRI), AR 5.8.2 | |
| G4-16 | Memberships | http://www.dnb.nl/en/about-dnb/co-operation/index.jsp | |
| **Material aspects and scope** | | | |
| G4-17 | Entities included in the organisation's consolidated financial statements or equivalent documents | Financial statements and and Annex 5, section on scope, under About this report | |
| G4-18 | Process for defining the report content | AR 5.3 and Annex 5 | |
| G4-19 | Material aspects | AR 5.3.3 | |
| G4-20 | Scope of material aspects within the organisation | AR 5.3.3 and Annex 5 | |
| G4-21 | Scope of material aspects outside the organisation | AR 5.3.3 and Annex 5 | |

| GRI G4 Reference: | Description: | Reference to AR or website | Direct response: |
|---|---|---|---|
| G4-22 | Effect of any restatements of information provided in previous reports, and the reasons for such restatements | Annex 2, Dialogue with our stakeholders | |
| G4-23 | Significant changes from previous reporting periods in the scope and aspect boundaries | No significant changes | |
| **Stakeholder engagement** | | | |
| G4-24 | List of stakeholders | Annex 2 Dialogue with our stakeholders | |
| G4-25 | Selection of stakeholders | Box 5.2 Stakeholder survey on CSR and Annex 2 Dialogue with our stakeholders | |
| G4-26 | Approach to stakeholder engagement | AR 5.3.2 and Annex 2 Dialogue with our stakeholders | |
| G4-27 | Topics raised by stakeholders | AR 5.3.2 and Annex 2 Dialogue with our stakeholders | |
| **Report profile** | | | |
| G4-28 | Reporting period | | 1 January 2017-31 December 2017 |
| G4-29 | Date of most recent previous report | | 29 March 2017 |
| G4-30 | Reporting cycle | | Every year |
| G4-31 | Contact point | Annex 5 About this report | |
| G4-32 | 'In accordance' option | Annex 5 About this report | |
| G4-33 | External assurance | Annex 5, under Assurance report | |
| **Governance** | | | |
| G4-34 | CSR governance structure | AR 5.3.1 and section on overall governance | |
| **Ethics and integrity** | | | |
| G4-56 | Compliance and integrity programme | AR 5.2 (four core values) and 5.5.2, and www.dnb.nl, About DNB, Organisation, Integrity | |
| DMA | | AR 5.3 and Annex 5 | |
| **Specific material indicators reported in accordance with GRI** | | | |
| **Material aspect: Corporate Support** | | | |
| Indicator: G4-EN15 | Direct $CO_2$ emissions | AR 5.5.3 and Annex 3 | |
| Indicator: G4-EN16 | Indirect $CO_2$ emissions | AR 5.5.3 and Annex 3 | |
| Indicator: G4- EN32 | Sustainable procurement | AR 5.5.4 | |
| **Financial education** | | | |
| Indicator: G4 | Product and service labelling | AR 5.5.5 | |

| GRI G4 Reference: | Description: | Reference to AR or website | Direct response: |
|---|---|---|---|
| DNB employees | | | |
| Indicator: G4-LA6 | Occupational health and safety | AR 5.5.1 | |
| Indicator: G4-LA9 | Training and education | AR 5.5.1 | Based on principles of equality, we make no distinction by gender, ethnic or cultural background, beliefs or sexual orientation. |
| Indicator: G4-LA10 | Training and education | AR 5.5.1 | |
| Integrity | | | |
| Indicator: G4-HR3 | Integrity breaches | AR 5.5.2 and table 5.5 | |
| **Material aspect: Payment systems** | | | |
| G4-EN30 | Transport of banknotes | AR 5.4.3 and Annex 1 | |
| G4-FS14 | Accessibility of payment terminals | AR 5.4.3 and Annex 1 | |
| DNB 1: Use of sustainable cotton | Percentage of sustainable cotton | AR 5.4.3 and Annex 1 | |
| **Material aspect: Financial markets** | | | |
| G4-FS11 | Assets subject to screening | AR 5.8.2 | |
| **Material aspect: Supervision, Financial Stability and Resolution** | | | |
| DNB 2: Support sustainability based on supervisory role | Support sustainability based on supervisory role | AR 5.4.2 and 5.4.4, and Annex 1 | |
| **Material aspect: Economic advice and analysis** | | | |
| DNB 3: Publications in the area of sustainability based on economic advisory role | Publications in the area of sustainability based on economic advisory role | AR 5.4.1 and Annex 1 | |
| **Material aspect: Stakeholder management** | | | |
| DNB 4: Stakehol-der management on sustainable finance | Sustainable Finance Platform and launch of working groups | AR Box Sustainable Finance Platform and Annex 1 | |
| DNB 5: Reputation score (stakeholder management KPI) | Reputation score | Annex 2 Dialogue with our stakeholders | |

# Annex 5: About this report

### Aspect boundaries

We have prepared this report according to the reporting guidelines of the Global Reporting Initiative (GRI G4 Core option). These GRI guidelines form a general CSR standard that is broken down into different categories and principles. We selected our material activities on the basis of a stakeholder dialogue and materiality analysis (see Section 5.3). We report on our material activities in Annex 4. Coordination is handled by the CSR Committee with the direct involvement of our senior management. The CSR charter and CSR plan, including the annual priorities, have been discussed and adopted by the Governing Board. In response to the introduction of the new GRI standards (GRI SRS), we aim to further integrate reporting on sustainability in our 2018 Annual Report.

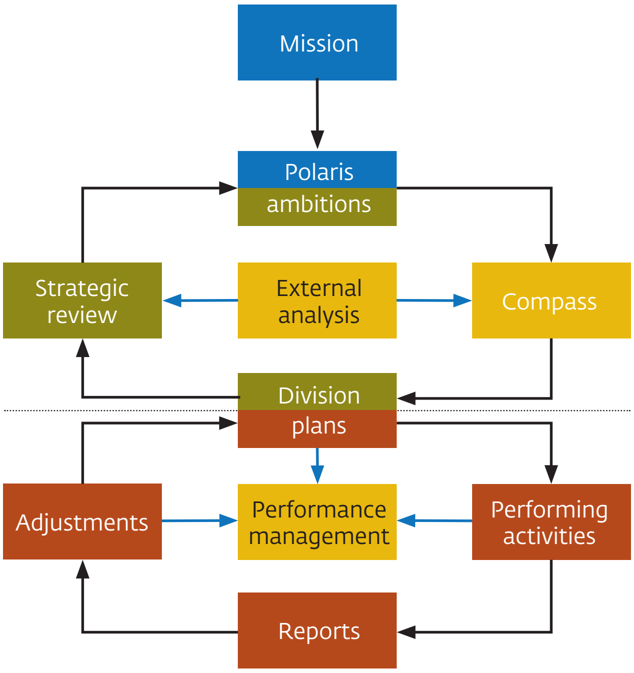
Any questions or comments concerning this Annual Report can be sent to the following email address: info@dnb.nl.

### Method of management and evaluation

Table 5.12 provides a more detailed explanation 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.

With respect to all policy areas, the mission and the 11 ambitions (see Section 5.1) are safeguarded in an integrated planning and control cycle, in which we translate the long-term ambitions into annual priorities. We also lay down the objectives in each policy area in division plans and SMART objectives for employees. We monitor progress using the planning and control tool, which the responsible departments supply with data. The business controllers from the Finance department and the Risk Management & Strategy department ensure that the reported progress is challenged. Based on this input, progress is reported to the Governing Board once a quarter (see Figure 5.3 and Table 5.14). In addition, the specific CSR objectives are reported on separately to the CSR Committee twice a year. These reports are used as a basis for making adjustments and evaluating matters.

Figure 5.3 Method of management and evaluation



## Table 5.14 Method of management and evaluation

| Policy area | Definition | Why is the topic material? | Scope | Line manager | Method of management and evaluation |
|---|---|---|---|---|---|
| **Supervision, Financial Stability and Resolution (§ 5.4.4)** | Socially responsible fulfilment of our supervisory role and the promotion and raising of awareness in the sector of sustainability and CSR issues. | Both our stakeholders and we consider these subjects to be material, because in our supervisory role, we are able to raise and promote awareness of sustainability and CSR throughout the financial sector. | Internal and external impact:<br>■ Our employees working in the supervision domain<br>■ Supervised institutions | ■ Director of the Supervision Policy Division<br>■ Directors of the operational supervision divisions<br>■ Director of the Financial Stability Division<br>■ Director of the Resolution Division | See text at the top of this table; Method of management and evaluation. |
| **Economic Advice and Analysis (§ 5.4.1)** | Socially responsible fulfilment of our advisory and analysing role. | Both our stakeholders and we consider economic advice and analysis to be material, because in our economic advisory role, we are able to influence Dutch society and hence have an impact. | External: influencing Dutch society. | Director of the Economic Policy & Research Division | See text at the top of this table; Method of management and evaluation. |
| **Stakeholder management (§5.3.1 and Annex 2)** | Promote awareness of sustainability and CSR among stakeholders (e.g. the sector and our employees). | Both our stakeholders and we consider this topic to be material, as we can play a key role in promoting awareness of sustainability and CSR. | Internal and external impact: see Annex 2 Dialogue with our stakeholders | Chair of the CSR Committee<br><br>Head of Communications | The Sustainable Finance Platform (see Box 5.2) was set up with the object of promoting and increasing awareness of sustainable finance in the financial sector. The aim is to link with other sectors and come together to consider ways of avoiding or overcoming obstacles to sustainable finance and ways of providing a positive impetus for sustainability. Initiatives are fleshed out by working groups. A member of the Executive Board of a financial institution must sponsor the working group and act as its public representative. Working groups must present their findings to the Platform, allowing it to provide feedback. |

| Policy area | Definition | Why is the topic material? | Scope | Line manager | Method of management and evaluation |
|---|---|---|---|---|---|
| **Payment system (§ 5.4.3)** | Make the payment system as sustainable as possible. | While stakeholders consider this topic to be less high-impact, we consider it to be material as payment services touch on a large number of sustainability and CSR-related themes that have a major influence on Dutch society. | Internal and external impact:<br>■ Our employees<br>■ Suppliers of bank notes (as regards the use of sustainable materials)<br>■ Dutch society (as regards the accessibility of the payment system) | Director of the Cash Division | See text at the top of this table; Method of management and evaluation. |
| **Financial markets (§ 5.8)** | Include CSR aspects in investment policy and communicate this externally. | We consider this area to be material, given that we serve as a role model. | Impact within and outside the organisation<br>■ Own-account investments<br>■ Role model | Director of the Financial Markets Division | Socially responsible investment goes hand in hand with achieving the targets for returns on investment. We will go beyond the legal requirements wherever possible. Our external asset managers have signed the UN Principles for Responsible Investment (PRI). Currently, negative screening is applied to the equity and high-yield bond portfolios, on the basis of which securities issued by companies that receive a negative assessment (e.g. manufacturers of controversial weapons) are excluded from the portfolios. With regard to the existing sovereign bond portfolio, ESG factors are taken into consideration indirectly when setting limits. In addition, we invest in development banks and also in green bonds where possible. |

| Policy area | Definition | Why is the topic material? | Scope | Line manager | Method of management and evaluation |
|---|---|---|---|---|---|
| **Internal operations and support divisions (§ 5.5)** | Socially responsible operations. | We consider this area to be material, given that we serve as a role model. | Impact within and outside the organisation<br>■ Impact on organisational set-up and staff working methods<br>■ Role model | Secretary-Director<br><br>Head of HR<br><br>Head of Facilities Management<br><br>Head of Finance<br><br>Head of Communications<br><br>Head of Security<br><br>Head of Compliance & Integrity<br><br>Head of Information Services<br><br>Head of Procurement | See text at the top of this table; Method of management and evaluation.<br><br>Moreover, we apply a number of specific measures and/or facilities for specific elements of business operations:<br>■ We use a Risk Inventory and Analysis (RI&E) for the theme of occupational health.<br>■ In terms of the environment, we use the DNB Environmental Management System.<br>■ With respect to renovations, we launched our accommodation programme.<br>■ We launched a dedicated programme related to sourcing.<br>■ With regard to the theme of diversity, we focused on increasing the number of women participating in the in-house leadership programme, and we launched our Diversity Board in 2017.<br>■ With respect to the theme of integrity, the Compliance & Integrity department provides support relating to awareness and risk management, and provides advice in the areas of compliance, integrity and privacy. The department also investigates reports of integrity incidents and monitors compliance with the integrity policy. In addition, we have confidential contact persons, a whistle-blower scheme and a complaints commission that handles internal and external complaints. |

## Structure of annual report



As explained in Section 5.3, corporate social responsibility follows on directly from our mission, and we have integrated it in all our core tasks. This is because DNB is an organisation under public law that is dedicated to the public interest that is served by financial stability and sustainable prosperity.

The introduction by the President and chapters 1 to 4 of the Annual Report describe the main developments relating to, and outlook for, our core tasks. In these chapters, we take a look ahead and describe how we are responding to the most important risks and challenges, also in the area of CSR where relevant. Chapter 5 reflects on the activities performed and results achieved in 2017. 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.

We have strengthened and further integrated our vision on, and approach to, CSR since the previous annual report. The further development of the CSR Committee helps us give substance to our CSR priorities in a more structural manner. Moreover, by integrating CSR into our primary tasks, we 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 and measurement methods, with the exception of the factor used to calculate natural gas consumption, which changed slightly between 2016 and 2017. The current parameters as used for the year under review can be found in Annex 3.

Moreover, many of our results in the area of CSR are difficult to measure and quantify. Financial stability and sustainable economic growth are outcomes that are difficult to express in terms of money. 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 external auditor in order to enhance the reliability of the reported data.

## Definitions

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

$CO_2$ neutrality: the offsetting of all of our $CO_2$ emissions as shown in Table 5.6.

Sustainable investment: the policy through which we consider social and economic aspects, in addition to financial and economic aspects, when making and implementing decisions.

Sustainable cotton: cotton produced under sustainable conditions and/or organically, and which has been awarded a verified certification mark (e.g. Fairtrade).

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.

National Forum on the Payment System: (in Dutch: Maatschappelijk Overleg Betalingsverkeer, MOB) a group of 15 organisations, chaired by DNB, which focuses on improving the efficiency of the retail payment system.

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 oversee its implementation.

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.

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

Study Group on the Fiscal Margin: (in Dutch: Studiegroep Begrotingsruimte) an independent, official advisory group that issues recommendations on the fiscal policy to be followed by the next government prior to elections.



Study Group on Sustainable Growth: (in Dutch: Studiegroep Duurzame Groei) an independent, official advisory group that issues recommendations on potential policy measures to support sustainable growth in prosperity.

Sustainable Banking Network: a network made up of 28 banking supervisors from emerging economies that promote sustainable funding.

## Scope and aspect boundaries

Reported CSR data relate to the 2017 reporting year (1 January to 31 December 2017), with the exception of the environmental data, for which the reporting period is the fourth quarter of 2016 to the third quarter of 2017. Chapter 5 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 aspect boundaries and the internal safeguards relating to the CSR aspects.

## Benchmark

We take part in the Ministry of Economic Affairs' Transparency Benchmark on CSR reporting. The Ministry defines the benchmark criteria and arranges the annual benchmarking (biennial effective 2018) in order to learn about the transparency of CSR reporting by the Netherlands' largest enterprises. Table 5.15 below shows our score in the transparency benchmark and our ranking compared to other organisations.

## Table 5.15 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 Governing Board, the Supervisory Board and the General Meeting of De Nederlandsche Bank N.V. and other stakeholders.

**Our conclusion**

We have reviewed the CSR information as presented in Chapter 5 of the 2017 Annual Report of De Nederlandsche Bank N.V. in Amsterdam, examining the CSR information set out in Annex 4 "GRI G4 table" to Chapter 5 of DNB's 2017 Annual Report (the CSR information). The CSR information reflects the policy, operational management, events and performance of De Nederlandsche Bank N.V. relating to corporate social responsibility during the reporting year.

Based on our activities, 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 of De Nederlandsche Bank N.V. relating to corporate social responsibility; and
- the events and performance in this area in 2017

in accordance with the GRI G4 Sustainability Reporting Guidelines (In Accordance – Core option).

The CSR information contains forward-looking information such as ambitions, strategies, plans, expectations, projections and risk estimations. This information is inherently uncertain as the actual results in the future may differ from the prospects. We do not provide any assurance on the assumptions or the feasibility of forward-looking information in the CSR information.

**Basis for our conclusion**

We conducted our review in accordance with Dutch law, including Dutch Standard 3810N "Assurance engagements relating to corporate social responsibility reports". This review engagement is focused on obtaining limited assurance. Our responsibilities under those standards are further described in the section "Our responsibilities for the review of the CSR information" 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. 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 audit opinion.

### Governing Board's responsibilities

The Governing Board of De Nederlandsche Bank N.V. is responsible for preparing the CSR information in accordance with the G4 Sustainability Reporting Guidelines (In Accordance – Core option) of the Global Reporting Initiative (GRI), including the identification of stakeholders and the determination of material issues. Section 5.3. sets out the decisions 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.

### Our responsibilities for the review of the CSR information

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

We comply with the "Further rules for audit firms governing assurance engagements (RA/AA)", 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.

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 decisions of users taken on the basis of this 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.

A review is focused on obtaining limited assurance. The activities performed to obtain limited assurance are aimed at establishing the plausibility of information and are less thorough than those performed to obtain reasonable assurance. The activities performed in this context mainly involved obtaining information from the entity's staff and performing quantitative analyses on the CSR information. Consequently, the degree of assurance obtained in the context of a review engagement is substantially less than that obtained in the context of an audit engagement.

Among other procedures, our review included the following:

- Performing an environmental analysis and gaining insight into relevant social themes and issues, relevant laws and regulations and the characteristics of the organisation.
- Evaluating the acceptability of the reporting policy and its consistent application, including an evaluation of the stakeholder dialogue outcomes and of the reasonableness of the Governing Board's projections.
- Evaluating whether the report is in accordance with the GRI G4 Sustainability Reporting Guidelines (In Accordance – Core option).

- Evaluating the set-up and implementation of the systems and processes for gathering and processing CSR information.
- Evaluating internal and external documentation supplied in addition to interviews to establish whether the CSR information is adequately substantiated.

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

Amsterdam, 28 March2018

Deloitte Accountants B.V.

Ronald Spijker RA

# Report of the Supervisory Board

# 6 Report of the Supervisory Board



## 6.1 Introduction

In 2017, the Supervisory Board continued to pay attention to a wide variety of subjects, including the risks on the balance sheet of De Nederlandsche Bank (DNB) and DNB's supervision of supervised sectors. DNB's supervision in 2017 continued to focus on the process of assessing policymakers and co-policymakers. Attention was also devoted to the impact of rapidly emerging new technologies and the much greater significance of cybersecurity. The Supervisory Board and the Governing Board deliberated further on implementing the amended corporate governance code at DNB and on the resulting changes to DNB's governance. The Supervisory Board welcomed DNB's efforts, within the framework of performing its core tasks, to highlight themes such as the energy transition and the role of the financial sector in sustainable development, contributing to progress in long-term value creation. The Supervisory Board will continue to discuss these topics with the Governing Board in the years ahead, precisely because of DNB's mission and social remit by virtue of the tasks assigned to it. These and other subjects caused the Supervisory Board to remain closely involved with DNB throughout 2017.

## 6.2 Composition and appointments

The Governing and Supervisory Board composition remained unchanged in 2017. The Supervisory Board is pleased about the appointment of Else Bos as Chairman of the Prudential Supervision Council for Financial Institutions as of 1 July 2018 and welcomes Tom de Swaan to its ranks as of 1 June 2018. They will reinforce DNB's Governing Board and Supervisory Board, respectively, with their wide management experience in the financial sector.

As there were no appointments or reappointments to the Governing Board in the year under review, the Governing and Supervisory Board diversity remained unchanged. 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.

In conformity with Section 13(1) of the Bank Act 1998, the Supervisory Board consists of at least seven and at most ten members. At the adoption of the 2017 financial statements, the Supervisory Board consisted of seven members: Wim Kuijken (Chair), Jaap van Manen (Vice-Chair), Annemieke Nijhof (government-appointed member), Feike Sijbesma, Kees Goudswaard, Margot Scheltema and Marry de Gaay Fortman.

The participation of Supervisory Board members in the Bank Council remained unchanged in 2017. Annemieke Nijhof continued her membership of the Bank Council in her capacity as government-appointed Supervisory Board member throughout 2017. Kees Goudswaard stayed on as Bank Council member appointed by the Supervisory Board throughout 2017.

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 that they hold can be found on DNB's website.

## 6.3 Activities

During the year under review, the Supervisory Board held nine plenary meetings. A part of each of these meetings was held without the Governing Board being present. The average attendance rate of its members was 95%. None of the members were regularly absent.
The Chair of the Supervisory Board and the President were in frequent contact about issues concerning the Supervisory Board's work and developments at DNB and in its vicinity.
The activities of the three Supervisory Board committees are described in Sections 6.4 to 6.6 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 2017 in the Audit Committee and it discussed the financial results for 2017 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 principal issues in 2017 was the size of the balance sheet items related to the monetary operations and associated risks. The Eurosystem pursued an unchanged accommodative monetary policy in 2017. These and earlier decisions result in an increase in DNB's balance sheet risk exposure of such a magnitude and persistence that the Governing Board – supported by the Supervisory Board – decided for the 2017 financial year to add another EUR 500 million to the provision for credit and interest rate risk formed in 2015. The net profit for 2017 came to EUR 121 million (2016: EUR 43 million), and the distribution to the Dutch State amounted to EUR 115 million. DNB again refrained from distributing an interim dividend for the 2017 financial year. No gold sales took place in 2017. From time to time or whenever there is reason to do so, the Supervisory Board discusses the Governing Board's considerations concerning the gold stock.

The Supervisory Board discussed the 2017 financial statements with the Governing Board, where appropriate 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. On 28 March 2018, the latter approved the financial statements and discharged the members of the Governing Board from liability in respect of their management and the members of the Supervisory Board in respect of their supervision.

The Supervisory Board discussed the budget for 2018, including the Independent Public Body Budget, on 10 November 2017 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, operate effectively.

After it had been discussed by the Supervisory Board, the Governing Board and Supervisory Board reviewed the Independent Public Body Budget in the annual budget meeting with the Ministry of Finance and the Ministry of Social Affairs and Employment. The Supervisory Board welcomes the fact that the Governing Board practises transparency in the budgeting process. The Supervisory Board is pleased to see that DNB exercises its supervision decisively and intrusively, formulating unambiguous priorities, and that whenever resources are scarce the Governing Board makes an effort 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 2017. The year under review 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). In this context, the Governing Board and Supervisory Board discussed the provision of state-of-the-art and cost-effective ICT services and an information provision and security policy appropriate to DNB. Recurring items on the agenda included the importance of cybersecurity and the measures DNB is taking in that respect. The Supervisory Board endorsed the decision by the National Coordinator for Security and Counterterrorism to deploy the Royal Netherlands Marechaussee to protect Westeinde 1 and discussed its consequences for DNB's internal organisation with the Governing Board. The Supervisory Board and Governing Board also discussed the new HR strategy, in which context the Supervisory Board highlighted talent management at DNB. The Supervisory Board was regularly updated on the progress made in DNB's programme on accommodation, including the relocation of the gold vaults and banknote activities to a newly built Cash Centre, the refurbishment of the office premises at Westeinde 1, and DNB's temporary alternative accommodation during the renovations. Lastly, the Governing Board and Supervisory Board discussed Compass, the internal document detailing the priorities for 2018 by division. 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 and the performance of DNB's core tasks. 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 maintaining and reinforcing DNB's corporate culture.

At each of its meetings, the Supervisory Board addressed a wide range of subjects 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 the context of various continuing professional training sessions in 2017, the Supervisory Board engaged in dialogue with CEOs from the banking, insurance and pension sectors, discussing their experiences with supervision. At a separate meeting with the Governing Board, the Supervisory Board discussed DNB's strategic challenges, zooming in on DNB's fit and proper assessments and the lessons learned in this regard from the report of the Ottow Committee and on central bank independence and the European system. The two Boards also reflected on the Supervisory Board's role since the entry into force of the Act strengthening the governance of financial supervisors DNB and AFM (Wet versterking governance DNB en AFM) in 2012.

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 meet with the Head of the Compliance & Integrity Department at regular intervals, and the Chair of the Audit Committee regularly meets with the Head of the IAD and the external auditor. The Supervisory Board met with the supervisory board of the Netherlands Authority for the Financial Markets (AFM) in mid-2017. The Supervisory Board assessed its own performance in 2017 and discussed the results at a plenary meeting without the Governing Board being present. At this meeting, the Supervisory Board also discussed its cooperation with the Governing Board and the latter's performance.

## 6.4 Audit Committee

In the year under review, the Audit Committee consisted of Kees Goudswaard (Chair) and Margot Scheltema. The Audit Committee met four times in 2017. Each meeting was attended by all members. The meetings were held in the presence of the Secretary-Director, the external auditor, the Head of IAD, and a number of internal officers from the relevant areas.

The Audit Committee discussed the financial statements, including the relevant IAD reports and the external auditor's findings, considering the ratio of DNB's 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 2017 financial statements and to approve the Independent Public Body Report for 2017. When discussing the 2018 budget, the Audit Committee concluded that the budget is transparent and sound. It therefore advised the Board to approve the 2018 DNB budget and the 2018 Independent Public Body Budget. In 2017, 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.

With effect from 2016, the Audit Committee discusses current affairs relating to DNB's internal operations with the Secretary-Director 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 2017 the Audit Committee was regularly updated on the progress made in DNB's programme on accommodation and it advised the Supervisory Board on the Governing Board's intention to outsource specific ICT services. The Audit Committee regularly meets with relevant lines of defence within DNB and with the external auditor without the Governing Board being present.

## 6.5 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 Remuneration and Appointments Committee met nine times in 2017. Each meeting was attended by all members. The President was present at part of each meeting.

The Remuneration and Appointments Committee paid a great deal of attention to the composition of the Supervisory Board, resulting in the appointment of Tom de Swaan as of 1 June 2018, and to the composition of the Governing Board as of 1 July 2018, resulting in the appointment of Else Bos as Chairman for Prudential Supervision as of 1 July 2018. DNB needs a further Executive Director to join the Governing Board as of 1 July 2018, owing to the mandatory segregation of its resolution and supervision tasks, the new portfolio allocation following Else Bos' appointment and the expected expansion of DNB's resolution remit. 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. The Remuneration and Appointments Committee also advised the Supervisory Board on DNB's talent management.

## 6.6 Supervision Committee

In the year under review, the Supervision Committee consisted of Jaap van Manen (Chair), Marry de Gaay Fortman, Annemieke Nijhof and Margot Scheltema. The Supervision Committee met four times in 2017. Barring one instance of a member's inability to attend, each meeting was attended by all members. The meetings were held in the presence of DNB's two Executive Directors of Supervision and a number of internal 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 2017, the meetings again focused on a combination of practical cases, current policy issues and building a deeper understanding of various supervisory topics including adoption of the Ottow Committee's recommendations for DNB's fit and proper assessments,

DNB's vision on the health insurance sector, the exploration of climate-related financial risks, and the Basel 3.5 Accord. The Supervision Committee was also updated on the experiences with the Single Supervisory Mechanism (SSM), including in relation to on-site inspections. As part of the Supervisory Board's monitoring of DNB's policy in respect of its prudential supervision, the Supervision Committee exchanged views with the Governing Board about institution-specific supervision cases, to the extent relevant to safeguard 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 Budget for 2018 and the Independent Public Body Report for 2017. In preparation for the Independent Public Body Budget for 2018, 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.

## 6.7 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.

## 6.8 Concluding words

DNB's activities continued to place high demands on the organisation in 2017. This was driven not only by external developments, such as rampant cyber risks and trends in the Dutch and European financial sectors and politics. The internal organisation was confronted with changes as well, including the operational reconfiguration ensuing from the implementation of the dedicated strategic plan for 2016-2020. The Supervisory Board would like to thank DNB's staff and its Governing Board for their contribution to sustainable prosperity in the Netherlands and looks forward to its continued cooperation with the Governing Board in 2018.

Amsterdam, 28 March 2018

The Supervisory Board of
De Nederlandsche Bank N.V.

Wim Kuijken, Chair

# Financial statements

# Balance sheet as at 31 December 2017
## (before appropriation of profit)

Millions



| | | 31 December 2017 | 31 December 2016 |
|---|---|---|---|
| | **Assets** | EUR | EUR |
| 1 | Gold and gold receivables | 21,303 | 21,622 |
| 2 | Claims on non-euro area residents denominated in foreign currency | 10,499 | 12,872 |
| 2.1 | Receivables from the International Monetary Fund (IMF) | 6,628 | 7,235 |
| 2.2 | Balances with banks and security investments, external loans and other external assets | 3,871 | 5,637 |
| 3 | Claims on euro area residents denominated in foreign currency | 1,690 | 672 |
| 4 | Claims on non-euro area residents denominated in euro | 760 | 1,013 |
| 5 | Lending to euro area credit institutions related to monetary policy operations denominated in euro | 28,167 | 16,552 |
| 5.1 | Main refinancing operations | 0 | 20 |
| 5.2 | Longer-term refinancing operations | 28,167 | 16,532 |
| 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 | 100 | 302 |
| 7 | Securities of euro area residents denominated in euro | 119,196 | 97,100 |
| 7.1 | Securities held for monetary policy purposes | 109,052 | 77,891 |
| 7.2 | Other securities | 10,144 | 19,209 |
| 8 | Intra-Eurosystem claims | 124,119 | 136,801 |
| 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 | 50,843 | 47,449 |
| 8.5 | Other intra-Eurosystem claims (net) | 70,474 | 86,550 |
| 9 | Other assets | 4,158 | 3,392 |
| 9.1 | Euro area coins | 0 | 0 |
| 9.2 | Tangible and intangible fixed assets | 205 | 238 |
| 9.3 | Other financial assets | 2,204 | 1,713 |
| 9.4 | Off-balance sheet instruments revaluation differences | 131 | 0 |
| 9.5 | Accruals and prepaid expenses | 1,608 | 1,424 |
| 9.6 | Sundry | 10 | 17 |
| | **Total assets** | **309,992** | **290,326** |

Amsterdam, 28 March 2018
The Governing Board of De Nederlandsche Bank N.V.

Klaas Knot, *President*
Jan Sijbrand
Frank Elderson
Job Swank

| | | 31 december 2017 | 31 december 2016 |
|---|---|---|---|
| | **Liabilities** | EUR | EUR |
| 1 | Banknotes in circulation | 61,258 | 58,929 |
| 2 | Liabilities to euro area credit institutions related to monetary policy operations denominated in euro | 170,327 | 170,959 |
| 2.1 | Current accounts (covering the minimum reserve system) | 129,031 | 143,171 |
| 2.2 | Deposit facility | 41,296 | 27,788 |
| 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 | 49 | 145 |
| 4 | Liabilities to other euro area residents denominated in euro | 3,954 | 1,898 |
| 4.1 | General government | 3,330 | 1,366 |
| 4.2 | Other liabilities | 624 | 532 |
| 5 | Liabilities to non-euro area residents denominated in euro | 37,560 | 21,172 |
| 6 | Liabilities to euro area residents denominated in foreign currency | 0 | 0 |
| 7 | Liabilities to non-euro area residents denominated in foreign currency | 0 | 107 |
| 8 | Counterpart of special drawing rights allocated by the IMF | 5,744 | 6,165 |
| 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 | 499 | 618 |
| 10.1 | Off-balance sheet instruments revaluation differences | 0 | 313 |
| 10.2 | Accruals and income collected in advance | 203 | 81 |
| 10.3 | Sundry | 296 | 224 |
| 11 | Provisions | 1,516 | 1,016 |
| 12 | Revaluation accounts | 21,035 | 21,347 |
| 13 | Capital and reserves | 7,929 | 7,927 |
| 13.1 | Issued capital | 500 | 500 |
| 13.2 | General reserve | 7,399 | 7,392 |
| 13.3 | Statutory reserve | 30 | 35 |
| 14 | Profit for the year | 121 | 43 |
| | **Total liabilities** | **309,992** | **290,326** |

Amsterdam, 28 March 2018

Adopted by the Supervisory Board of De Nederlandsche Bank N.V.

Wim Kuijken, *Chair*
Jaap van Manen, *Vice-Chair*
Feike Sijbesma
Kees Goudswaard

Annemieke Nijhof
Margot Scheltema
Marry de Gaay Fortman

# Profit and loss account for the year ending 31 December 2017



Millions

| | | 2017 | 2016 |
|---|---|---|---|
| | | EUR | EUR |
| 1 | Interest income | 1,478 | 1,253 |
| 2 | Interest expense | (246) | (139) |
| | Net interest income | 1,232 | 1,114 |
| 3 | Realised gains/(losses) from financial operations | 52 | 102 |
| 4 | Write-downs on financial assets and positions | (14) | (20) |
| 5 | Transfer to/from provision for credit and interest rate risks | (496) | (500) |
| | Net result from financial operations and write-downs | (458) | (418) |
| 6 | Fees and commissions income | 10 | 8 |
| 7 | Fees and commissions expense | (8) | (8) |
| | Net fees and commissions income/(expense) | 2 | 0 |
| 8 | Income from equity shares and participating interests | 79 | 79 |
| 9 | Net result of monetary income pooling | (541) | (505) |
| 10 | Other income | 189 | 152 |
| | Total net income | 503 | 422 |
| 11 | Staff costs | (216) | (204) |
| 12 | Other administrative expenses | (100) | (92) |
| 13 | Depreciation and amortisation of tangible and intangible fixed assets | (49) | (49) |
| 14 | Banknote production costs | (17) | (39) |
| 15 | Other costs | 0 | 0 |
| 16 | Capitalised software costs | 3 | 5 |
| 17 | Corporate income tax | (3) | 0 |
| | **Profit for the year** | **121** | **43** |

Amsterdam, 28 March 2018
The Governing Board of De Nederlandsche Bank N.V.

Klaas Knot, *President*
Jan Sijbrand
Frank Elderson
Job Swank

Amsterdam, 28 March 2018
Adopted by the Supervisory Board of De Nederlandsche Bank N.V.

Wim Kuijken, *Chair*
Jaap van Manen, *Vice-Chair*
Feike Sijbesma
Kees Goudswaard
Annemieke Nijhof
Margot Scheltema
Marry de Gaay Fortman

# Notes to the balance sheet as at 31 December 2017 and the profit and loss account for the year 2017

## 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 results 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[1] may be included.

**Comparison with preceding year**
The accounting policies have not changed compared with the preceding year. The presentation of the figures has changed in one respect. Interest income from liabilities to other euro area residents and non-euro area residents denominated in euro is no longer presented under 'Other income'. With a view to their nature, they are presented under 'Interest income' in the profit and loss account from the 2017 financial year onwards (see 'Net interest income' in the notes to the profit and loss account). Comparative figures have been restated to facilitate comparison.

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1 This provision may be included pursuant to Article 8 of the accounting policies that apply to the ECB and the ESCB (Guideline ECB/2016/34 on the legal framework for accounting and financial reporting in the European System of Central Banks).

## General

Gold and gold receivables and on- and off-balance sheet rights and obligations 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 at the end of the reporting period. 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 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 obligations, is performed on a portfolio basis and subsequently on a currency basis.

### Private loans
Private loans are valued at nominal value.

### 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. They are valued at their forward rates. 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[2] 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 and 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 and 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 under 'Net claims/liabilities related to the allocation of euro banknotes within the Eurosystem' (see below under 'Banknotes in circulation'). Intra-Eurosystem positions ensuing 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'.

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

### 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 adjusted every five years. The most recent Eurosystem capital key adjustments were made on 1 January 2014.

### 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 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. Land is not depreciated. Retired tangible fixed assets are valued at the lower of book value or expected realisable value.

### Banknotes in circulation

The ECB and the euro area NCBs, which together comprise the Eurosystem, issue euro banknotes[3]. 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[4].

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'.

3 Decision of the ECB of 13 December 2010 on the issue of euro banknotes (recast) (ECB/2010/29), OJ L 35 of 9 February 2011, p. 26, as amended.

4 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.

For the five years following the year of the cash changeover[5], 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[6] 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.

### 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 euro area 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 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. The profit distribution made by the ECB in 2017 has been recognised in the profit and loss account under 'Income from equity shares and participating interests'.

5 The year of cash changeover is the year in which the Member State concerned introduced euro banknotes as legal tender.
6 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.
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, as amended.

### 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 recognised in the profit and loss account according to the average cost method, except those concerning 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.

### 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 (Pensioen- & Verzekeringskamer – 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 to the DNB Pension Fund, subject to conditions agreed for the purpose, such amounts as to ensure the pensions under the 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.

## 2. Notes to the balance sheet



### Assets

**1. Gold and gold receivables**

In the year under review, 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 2017 stood at EUR 1,081.88 (31 December 2016: EUR 1,098.05) per fine troy ounce. The euro value of this item was lower at year-end 2017 compared with year-end 2016 due to a decrease in the euro market price of gold.

Millions

| | EUR |
|---|---|
| Balance as at 31 December 2015 | 19,164 |
| Revaluation 2016 | 2,458 |
| Balance as at 31 December 2016 | 21,622 |
| Revaluation 2017 | (319) |
| **Balance as at 31 December 2017** | **21,303** |

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

As at 31 December 2017, these claims totalled EUR 10,499 million (31 December 2016: EUR 12,872 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 6,628 million (31 December 2016: EUR 7,235 million). The EUR/SDR exchange rate as at 31 December 2017 stood at EUR 0.8420 (31 December 2016: EUR/SDR 0.7846).

Millions

| | 31 December 2017 | | 31 December 2016 | |
|---|---|---|---|---|
| | SDR | EUR | SDR | EUR |
| Special drawing rights | 4,481 | 5,321 | 4,486 | 5,718 |
| Reserve tranche position | 517 | 614 | 476 | 607 |
| Loans | 583 | 693 | 714 | 910 |
| **Total** | **5,581** | **6,628** | **5,676** | **7,235** |

### Special drawing rights

As at 31 December 2017, DNB's special drawing rights amounted to EUR 5,321 million (31 December 2016: EUR 5,718 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 5,744 million (31 December 2016: EUR 6,165 million).

### Reserve tranche position

The reserve tranche position stood at EUR 614 million as at 31 December 2017 (31 December 2016: EUR 607 million). This concerns the funds provided by DNB to the IMF for lending by the IMF through the General Resources Account (GRA). IMF members are required to make at least 25% of the quotas available in the form of gold or convertible currencies. The Dutch quota, for which DNB acts as manager/agent, equals SDR 8,737 million. Member countries may draw on this position, which causes it to drop below the 25% mandatory contribution level. This gives rise to a claim denominated in euros or foreign currencies.

### Loans

The loans, standing at EUR 693 million as at 31 December 2017 (31 December 2016: EUR 910 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 in 2017 under the 2016 Borrowing Agreement, under which no amounts have been drawn as yet.

Millions

| | 31 December 2017 | | 31 December 2016 | |
|---|---|---|---|---|
| | SDR | EUR | SDR | EUR |
| PRGT | 75 | 89 | 124 | 158 |
| NAB | 508 | 604 | 590 | 752 |
| **Total** | **583** | **693** | **714** | **910** |

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 Extended Credit Facility (ECF) of EUR 79 million (31 December 2016: EUR 147 million) and the General Loan Account (GLA) of EUR 10 million (31 December 2016: EUR 11 million). The Netherlands pledged SDR 1,000 million to the GLA and made available SDR 450 million for the ECF, which amount has been fully expended and largely repaid.

The NAB is an 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. 

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.

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

As at 31 December 2017, this item stood at EUR 3,871 million (31 December 2016: EUR 5,637 million).

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

Millions

| | 31 December 2017 | | | 31 December 2016 | | |
|---|---|---|---|---|---|---|
| | Foreign currency | EUR | Exchange rate | Foreign currency | EUR | Exchange rate |
| USD | 2,721 | 2,269 | 1.1993 | 4,641 | 4,403 | 1.0541 |
| JPY | 194,391 | 1,440 | 135.01 | 152,152 | 1,233 | 123.40 |
| DKK | 1,201 | 161 | 7.4449 | 0 | 0 | 7.4344 |
| Other currencies | | 1 | | | 1 | |
| **Total** | | **3,871** | | | **5,637** | |

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

Millions

| | 31 December 2017 | 31 December 2016 |
|---|---|---|
| | EUR | EUR |
| Fixed-income securities | 3,302 | 5,412 |
| Other corporate bonds | 456 | - |
| Reverse repos | 109 | 222 |
| Nostro accounts | 4 | 3 |
| **Total** | **3,871** | **5,637** |

DNB scaled back this portfolio because of the prolonged negative interest rate environment. In addition, from 2017 onwards DNB also partly invests this portfolio in bond funds to increase diversification.

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

Millions

| | Residual maturity* 31 December 2017 | | | | Residual maturity* 31 December 2016 | | | |
|---|---|---|---|---|---|---|---|---|
| | 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 | **1,701** | 892 | 376 | 433 | **4,179** | 1,843 | 1,176 | 1,160 |
| JPY | **1,440** | 1,440 | - | - | **1,233** | 1,233 | - | - |
| DKK | **161** | 161 | - | - | **-** | - | - | - |
| **Total** | **3,302** | **2,493** | **376** | **433** | **5,412** | **3,076** | **1,176** | **1,160** |

* 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 2017, this item stood at EUR 1,690 million (31 December 2016: EUR 672 million). It comprises EUR 971 million (31 December 2016: nil) in liquidity-providing operations in USD and EUR 719 million in USD-denominated fixed-income securities (31 December 2016: EUR 482 million).

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

Millions

| | Residual maturity* 31 December 2017 | | | | Residual maturity* 31 December 2016 | | | |
|---|---|---|---|---|---|---|---|---|
| | Totaal | 0-1 year | 1-2 years | > 2 years | Totaal | 0-1 year | 1-2 years | > 2 years |
| | EUR | EUR | EUR | EUR | EUR | EUR | EUR | EUR |
| USD | **719** | 398 | 227 | 94 | **482** | 360 | 122 | 0 |

* 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 2017, this item stood at EUR 760 million (31 December 2016: EUR 1,013 million), consisting of EUR 493 million in fixed-income securities (31 December 2016: EUR 371 million), a total of EUR 147 million in nostro accounts (31 December 2016: EUR 58 million) and EUR 120 million in reverse repos (31 December 2016: EUR 584 million).

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

Millions

| | Residual maturity* 31 December 2017 | | | | Residual maturity* 31 December 2016 | | | |
|---|---|---|---|---|---|---|---|---|
| | Total | 0-1 year | 1-2 years | > 2 years | Total | 0-1 year | 1-2 years | > 2 years |
| EUR | **493** | 252 | 141 | 100 | **371** | 150 | - | 221 |

* 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 2017, the Eurosystem's claim arising from the item 'Lending to euro area credit institutions related to monetary policy operations denominated in euro' totalled EUR 764,310 million (31 December 2016: EUR 595,873 million). Of this total, lending by DNB to Dutch-based credit institutions amounted to EUR 28,167 million (31 December 2016: EUR 16,552 million). In accordance with Article 32.4 of the ESCB and ECB Statute, all risks relating to such lending will, if materialised, be borne in full by the Eurosystem NCBs in proportion to the ECB 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 set 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 2016 DNB did not have reason to accept supplementary collateral in 2017.

The main refinancing rate stood at 0.00% in 2017, while the deposit rate was -0.40% throughout the reporting period.

### - 5.1 Main refinancing operations

No credit is outstanding under main refinancing operations as at 31 December 2017 (31 December 2016: EUR 20 million). 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 28,167 million as at 31 December 2017 (31 December 2016: EUR 16,532 million), provide longer-term liquidity. They are usually conducted on a monthly basis, with maturities of 3 to 48 months.

A new series of targeted longer-term refinancing operations (TLTRO II) was introduced in March 2016. Their maturity is four years, with the option of redemption after two years. Interest rates on the TLTRO II loans will depend on the volume of a credit institution's actual loans granted and will be between the main refinancing rate and the deposit rate prevailing at the time of granting. The actual rates will be known over the course of 2018. In keeping with the principle of prudence, they have been calculated on the basis of the deposit rate for now.

- 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, to mitigate the impact of unexpected market fluctuations on interest rates. They are conducted on an ad-hoc basis but, as in 2016, they were not conducted in 2017.

- 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 2016, no such operations were conducted in 2017.

- 5.5 Marginal lending facility

Counterparties may use this facility (amount outstanding nil at both year-end 2017 and 2016), to obtain overnight liquidity from NCBs at the marginal lending rate against the usual collateral. In 2017, as in 2016, recourse to this facility remained very limited.

- 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 2017, as in 2016, no credits related to margin calls were extended.

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

As at 31 December 2017, this item stood at EUR 100 million (31 December 2016: EUR 302 million) and, as in 2016, it consisted entirely of short-term reverse repos.

## 7. Securities of euro area residents denominated in euro

As at 31 December 2017, this item stood at EUR 119,196 million (31 December 2016: EUR 97,100 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 )[9,10], and the public sector purchase programme (PSPP)[11]. 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 2017 the Eurosystem continued its securities purchases under the expanded asset purchase programme (APP), which includes the third covered bond purchase programme (CBPP3), the asset-backed security purchase programme (ABSPP) , the PSPP and the CSPP. The monthly pace of combined net APP purchases by the NCBs and the ECB was EUR 80 billion on average until March 2017 and EUR 60 billion from April 2017 until the end of the year. Based on the Governing Council decision taken in October 2017, these purchases are intended to continue at a monthly pace of EUR 30 billion from January to September 2018 or beyond, if necessary, and, in any case, until the Governing Council sees a sustained adjustment in the path of inflation that is consistent with its inflation aim. The net purchases will be made alongside reinvestments of the principal payments from maturing securities purchased under the APP.

As at 31 December 2017, the amounts held by the Eurosystem NCBs under these programmes totalled EUR 2,386,012 million (31 December 2016: EUR 1,654,026 million). Of this amount, DNB held EUR 109,052 million (31 December 2016: EUR 77,891 million).

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 To hedge against credit risks related to the principal sum and interest payments, the Dutch State has extended a guarantee (see: 'Buffers to absorb balance sheet-wide risks' on page 211).
11 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.
12 Decision of the European Central Bank of 19 November 2014 on the implementation of the asset-backed securities purchase programme (ECB/2014/45), as amended.

The amortised cost and market value[13] of the securities held by DNB are as follows:

Millions

| | 31 December 2017 | | 31 December 2016 | |
|---|---|---|---|---|
| | Amortised cost | Market value | Amortised cost | Market value |
| | EUR | EUR | EUR | EUR |
| Covered bond purchase programme | 233 | 244 | 650 | 675 |
| Covered bond purchase programme 2 | 114 | 121 | 258 | 270 |
| Covered bond purchase programme 3 | 13,439 | 13,622 | 10,692 | 10,862 |
| Securities markets programme | 5,443 | 6,018 | 6,087 | 6,855 |
| Public sector purchase programme | 89,823 | 89,766 | 60,204 | 60,755 |
| **Total** | **109,052** | **109,771** | **77,891** | **79,417** |

13 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 listed here for comparison purposes.

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



Millions

| | Residual maturity* 31 December 2017 | | | | Residual maturity* 31 December 2016 | | | |
|---|---|---|---|---|---|---|---|---|
| | 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 | **233** | 127 | 52 | 54 | **650** | 415 | 128 | 107 |
| Covered bond purchase programme 2 | **114** | 29 | 39 | 46 | **258** | 145 | 29 | 84 |
| Covered bond purchase programme 3 | **13,439** | 1,008 | 1,093 | 11,338 | **10,692** | 1,099 | 1,022 | 8,571 |
| Securities markets programme | **5,443** | 1,500 | 1,567 | 2,376 | **6,087** | 690 | 1,487 | 3,910 |
| Public sector purchase programme | **89,823** | 6,450 | 7,646 | 75,727 | **60,204** | 1,762 | 3,248 | 55,194 |
| **Total** | **109,052** | **9,114** | **10,397** | **89,541** | **77,891** | **4,111** | **5,914** | **67,866** |

* 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 in this respect follows the decision by the ECB's Governing Council.

In accordance with Article 32.4 of the ESCB Statute, losses materialising from securities holdings purchased under the CBPP, SMP, PSPP (in respect of the international or supranational portion), CSPP and ABSPP are shared in full by the Eurosystem NCBs, in proportion to their prevailing ECB capital key shares. As a result of an impairment test conducted on the CSPP portfolio, it was concluded that the holding of one security is impaired. In accordance with the principle of prudence, the Governing Council has deemed it appropriate to establish a provision against losses in monetary policy operations. The affected security was sold in January 2018.

Section 5.8 of the Annual Report provides a more detailed discussion of the various risks to which the monetary programmes are exposed.

### - 7.2 Other securities

As at 31 December 2017, this item stood at EUR 10,144 million (31 December 2016: EUR 19,209 million) and, as in 2016, it consisted entirely of fixed-income securities valued at market value. DNB scaled back this portfolio because of the prolonged negative interest rate environment.

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

Millions

| | Residual maturity* 31 December 2017 | | | | Residual maturity* 31 December 2016 | | | |
|---|---|---|---|---|---|---|---|---|
| | Total | 0-1 year | 1-2 years | > 2 years | Total | 0-1 year | 1-2 years | > 2 years |
| EUR | **10,144** | 5,782 | 2,241 | 2,121 | **19,209** | 9,904 | 4,880 | 4,425 |

* 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 2017, this item stood at EUR 124,119 million (31 December 2016: EUR 136,801 million).

### - 8.1 Participating interest in the ECB

This item represents DNB's participating interest in the ECB of EUR 482 million (unchanged from 2016), 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.

Millions



| | Eurosystem capital key % | Capital key % | Authorised and subscribed capital since EUR | Paid-up capital EUR |
|---|---|---|---|---|
| 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 Natională 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 2017, these claims – arising from the transfer of foreign reserve assets to the ECB – totalled EUR 2,320 million (unchanged from 31 December 2016). 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, of EUR 50,843 million (31 December 2016: EUR 47,449 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)

Millions

| | 31 December 2017 | 31 December 2016 |
|---|---|---|
| | EUR | EUR |
| Claims on ECB in respect of TARGET2 | 70,955 | 87,000 |
| Due to/from ECB in respect of monetary income | (537) | (505) |
| Due from ECB in respect of the ECB interim profit distribution | 56 | 55 |
| **Total** | **70,474** | **86,550** |

As at 31 December 2017, this net claim amounts to EUR 70,474 million (31 December 2016: EUR 86,550 million), comprising three components.

The first component is a TARGET2 claim on the ECB of EUR 70,955 million (31 December 2016: EUR 87,000 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 (537) million at the end of the year (31 December 2016: EUR (505) million).

The third component is DNB's position vis-à-vis the ECB arising from other amounts received or paid, including DNB's share in the interim profit distribution by the ECB. For 2017, the Governing Council of the ECB decided to distribute interim profits of EUR 988 million to the euro area NCBs. As at 31 December 2017, the amount allocated to DNB totalled EUR 56 million (31 December 2016: EUR 55 million).

## 9. Other assets

As at 31 December 2017, this item stood at EUR 4,158 million (31 December 2016: EUR 3,392 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 | Develop-ment costs (software) |
|---|---|---|---|---|---|---|---|
| | EUR | EUR | EUR | EUR | EUR | EUR | EUR |
| Book value as at 1 January 2017 | **238** | 203 | 147 | 46 | 10 | 35 | 35 |
| Movements: | | | | | | | |
| Reclassification | **0** | 0 | 7 | 2 | (9) | 0 | 0 |
| Additions | **21** | 13 | 0 | 4 | 9 | 8 | 8 |
| Disposals | **(5)** | (5) | (5) | 0 | 0 | 0 | 0 |
| Depreciation and amortisation | **(49)** | (36) | (19) | (17) | 0 | (13) | (13) |
| Impairment losses | **0** | 0 | 0 | 0 | 0 | 0 | 0 |
| Book value as at 31 December 2017 | **205** | 175 | 130 | 35 | 10 | 30 | 30 |
| Cost | **602** | 517 | 357 | 150 | 10 | 85 | 85 |
| Accumulated depreciation and amortisation | **(397)** | (342) | (227) | (115) | 0 | (55) | (55) |
| **Book value as at 31 December 2017** | **205** | **175** | **130** | **35** | **10** | **30** | **30** |

The activities undertaken at the Wassenaar location will be transferred to a newly built location in Zeist in mid-2022. Accordingly, accelerated depreciation will be applied to the Wassenaar location until mid-2022.

### - 9.3 Other financial assets

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

Millions

| | 31 December 2017 | 31 December 2016 |
|---|---|---|
| | EUR | EUR |
| EUR | 752 | 365 |
| USD | 1,452 | 1,348 |
| **Total** | **2,204** | **1,713** |

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

Millions

| | 31 December 2017 | 31 December 2016 |
|---|---|---|
| | EUR | EUR |
| Participating interests | 61 | 61 |
| Equities | 1,455 | 1,438 |
| Other corporate bonds | 499 | - |
| Other receivables | 189 | 214 |
| **Total** | **2,204** | **1,713** |

## Participating interests

The participating interests concern shares in the Bank for International Settlements (BIS), the Society for Worldwide Interbank Financial Telecommunications SCRL (SWIFT), and N.V. Settlement Bank of the Netherlands (SBN). The shareholding percentages for the BIS, SWIFT and SBN are unchanged from 2016. The BIS shares are 25% paid-up. As in 2016, the contingent liability for the uncalled part of the shares stood at SDR 64.9 million as at 31 December 2016. 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 significant policy-making influence over SBN, which is entirely controlled by external parties.

Millions

| Participating interests | Participation share | Location | Shareholders' equity* | 31 December 2017 | 31 December 2016 |
|---|---|---|---|---|---|
| | | | EUR | EUR | EUR |
| BIS | 3.10 | Basel (Switzerland) | 24,253 | 52 | 52 |
| SWIFT | 0.04 | La Hulpe (Belgium) | 415 | 0 | 0 |
| SBN | 100 | Amsterdam | 9 | 9 | 9 |
| **Totaal** | | | | **61** | **61** |

* Shareholders' equity of SWIFT and SBN is based on the 2016 annual financial statements.
Shareholders' equity of the BIS is based on the 2016/2017 annual financial statements (financial year from 1 April 2016 through 31 March 2017).

## Equities

Equities consist of equity index investments. As at 31 December 2017, they stood at EUR 1,455 million (31 December 2016: EUR 1,438 million).

## Other corporate bonds

From 2017 onwards, this portfolio also includes bond fund investments to increase diversification. Other corporate bonds amounted to EUR 499 million at 31 December 2017.

## 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 2017, the currency revaluation differences stood at EUR 131 million (31 December 2016: EUR (313) million). The breakdown of the revaluation differences can be found in the table of off-balance sheet positions relating to currency swaps and currency forwards on page 210.

### - 9.5 Accruals and prepaid expenses

As at 31 December 2017, this item stood at EUR 1,608 million (31 December 2016: EUR 1,424 million), consisting predominantly of accrued interest and unamortised forward results. The table below provides a breakdown of the unamortised results.

Millions

| | 31 December 2017 | 31 December 2016 |
|---|---|---|
| | EUR | EUR |
| Currency swaps | 82 | 94 |
| Currency forwards | 1 | (1) |
| **Total** | **83** | **93** |

# 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 2017 | | 31 December 2016 | |
|---|---|---|---|---|
| | Number | EUR | Number | EUR |
| EUR 5 | (155) | (775) | (138) | (690) |
| EUR 10 | (163) | (1,631) | (143) | (1,432) |
| EUR 20 | (543) | (10,851) | (514) | (10,287) |
| EUR 50 | 524 | 26,217 | 482 | 24,075 |
| EUR 100 | (27) | (2,662) | (16) | (1,596) |
| EUR 200 | 30 | 6.087 | 32 | 6,308 |
| EUR 500 | (12) | (5,970) | (10) | (4,898) |
| Total euro banknotes circulated by DNB | | 10,415 | | 11,480 |
| Reallocation of euro banknotes in circulation | 56,170 | | 52,573 | |
| Euro banknotes allocated to the ECB (8% of the sum of 10,415 + 56,170) | (5,327) | | (5,124) | |
| | | 50,843 | | 47,449 |
| **Total** | | **61,258** | | **58,929** |

In 2017 the total value of the banknotes in circulation within the Eurosystem rose by 4%. As a result of the reallocation of banknotes, DNB's banknotes in circulation totalled EUR 61,258 million at year-end 2017 (31 December 2016: EUR 58,929 million). The value of the banknotes actually put into circulation by DNB decreased by 9%, from EUR 11,480 million to EUR 10,415 million. The difference of EUR 50,843 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 191 million (31 December 2016: EUR 460 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 2017, it stood at EUR 170,327 million (31 December 2016: EUR 170,959 million).

As at 31 December 2017, 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 129,031 million as at 31 December 2017 (31 December 2016: EUR 143,171 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 higher of 0% and the deposit rate.

#### - 2.2 Deposit facility

This permanent facility, amounting to EUR 41,296 million as at 31 December 2017 (31 December 2016: EUR 27,788 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 2016, no bids were made in 2017.

#### - 2.4 Fine-tuning reverse operations

These are monetary policy operations intended to tighten liquidity. As in 2016, no such operations were conducted in 2017.

#### - 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 2017, as in 2016, no deposits related to margin calls were held.

**3. Other liabilities to euro area credit institutions denominated in euro**
This item, amounting to EUR 49 million (31 December 2016: EUR 145 million), consists entirely of euro-denominated repos.

**4. Liabilities to other euro area residents denominated in euro**
This item, amounting to EUR 3,954 million (31 December 2016: EUR 1,898 million), consists mainly of liabilities payable on demand to financial institutions.

**5. Liabilities to non-euro area residents denominated in euro**
This item, amounting to EUR 37,560 million (31 December 2016: EUR 21,172 million), consists mainly of liabilities to non-euro area financial institutions amounting to EUR 33,796 million (31 December 2016: EUR 19,381 million) and repo transactions amounting to EUR 1,874 million (31 December 2016: EUR 681 million).

**7. Liabilities to non-euro area residents denominated in foreign currency**
At 31 December 2017, this item stood at nil (31 December 2016: EUR 107 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 2017, this item stood at EUR 499 million (31 December 2016: EUR 618 million), consisting predominantly of collateral provided by counterparties of EUR 280 million (31 December 2016: EUR 213 million) and accrued interest related to lending of EUR 125 million (31 December 2016: EUR 23 million).

## 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 2015 | **516** | 500 | - | 12 | 4 |
| Withdrawal | **(3)** | 0 | - | (1) | (2) |
| Release | **(1)** | 0 | - | 0 | (1) |
| Addition | **504** | 500 | - | 2 | 2 |
| 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** |

### Provision for credit and interest rate risks

Due to the crisis, the balance sheet items related to the monetary operations and associated risks have substantially increased. In January 2015, the ECB's Governing Council decided that bonds were to be purchased on a large scale under the expanded asset purchase programme. In connection with the continuation of the expanded programme, DNB's Governing Board deems it necessary to strengthen the buffers. Since 2015, DNB has therefore built a provision for credit and interest rate risks. The expected shortfall method (ES99%) and scenario analyses were used to measure the risks. Section 5.8 of the Annual Report provides a more detailed discussion on the risks to which these portfolios are exposed.

As in 2016, EUR 500 million was added to the 'Provision for credit and interest rate risks' in 2017. EUR 4 million was charged to the provision in 2017 due to the impairment of a security held by a Eurosystem NCB under the CSPP. As at 31 December 2017, this item stood at EUR 1,496 million (31 December 2016: EUR 1,000 million).

### Provision for monetary policy operations

As a result of the impairment test conducted on its CSPP portfolio, the Governing Council has deemed it appropriate to establish a provision against losses in monetary policy operations, in relation to a security held by an NCB of the Eurosystem. The size of this provision has been calculated taking into account the information regarding the security sale in January 2018.

In accordance with Article 32.4 of the ESCB Statute, this provision is funded by all the NCBs in proportion to their subscribed capital key shares in the ECB prevailing in 2017. DNB accordingly created a provision for EUR 4 million.

### 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; and
- 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 121.6% at 31 December 2017, which means it was not underfunded as at 31 December 2017. Accordingly, partial indexation was applied in the year under review. The pension premium 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 and 40 years' service, for bonuses payable to staff upon retirement and payments made to surviving dependants.

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



| | 31 December 2017 | 31 December 2016 |
|---|---|---|
| Discount rate for other employee benefits | Scheme-dependent (anniversaries: 1.40% other: 1.30%) | Scheme-dependent (anniversaries: 1.30% 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 retirement age | Assumption for all participants: 67 years | Assumption for all participants: 66 years |
| Mortality outlook | AG 2016 mortality table + mortality experience | AG 2016 mortality table + mortality experience |

## 12. Revaluation accounts

As at 31 December 2017, this item totalled EUR 21,035 million (31 December 2016: EUR 21,347 million). The table below sets out the components of and net movements in the revaluation accounts.

Millions

| | Total EUR | Gold EUR | Foreign currency EUR | Securities and other financial instruments EUR |
|---|---|---|---|---|
| Balance as at 31 December 2015 | **18,804** | 18,038 | 133 | 633 |
| Net revaluation movements | **2,543** | 2,458 | 25 | 60 |
| 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** |

The decrease in the aggregate amount for the revaluation accounts of EUR 312 million can be largely ascribed to the lower euro-denominated market price of gold seen in 2017.

## 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 2015 | **7,918** | 500 | 7,381 | 37 |
| Profit for the year 2015 | **183** | | | |
| Dividend | **(174)** | | | |
| Addition of 2015 net profit | **9** | | 9 | |
| Movement in statutory reserve | **0** | | 2 | (2) |
| 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 | **0** | | 5 | (5) |
| **Balance as at 31 December 2017** | **7,929** | **500** | **7,399** | **30** |

## 14. Profit for the year and appropriation of profit

The profit for the 2017 financial year was EUR 121 million (31 December 2016: EUR 43 million).

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

Millions

| | 2017 | 2016 |
|---|---|---|
| | EUR | EUR |
| Addition to the general reserve | 6 | 2 |
| Distribution to the State | 115 | 41 |
| **Profit for the year** | **121** | **43** |

# Other notes to the balance sheet

## Foreign currency position

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

As at 31 December 2017, 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 13,641 million (31 December 2016: EUR 14,892 million). As at 31 December 2017, the euro equivalent of the total sum of liabilities denominated in foreign currency (included in liability items 6, 7 and 8) amounted to EUR 5,744 million (31 December 2016: EUR 6,272 million).

The off-balance sheet positions in respect of foreign currencies are shown below.

Millions

| | 31 December 2017 | | | | | | | | 31 December 2016 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | EUR | USD | JPY | GBP | CNH | DKK | SDR | Total | EUR | USD | JPY | GBP | CNH | DKK | SDR |
| **Currency swaps** | | | | | | | | | | | | | | | | |
| Receiv-ables | **9,447** | 7,311 | 2,136 | - | - | - | - | - | **8,501** | 7,122 | 1,379 | - | - | - | - | - |
| Payables | **(9,317)** | (728) | (6,185) | (1,448) | (10) | (13) | (161) | (772) | **(8,807)** | - | (6,428) | (1,232) | - | - | - | (1,147) |
| | **130** | 6,583 | (4,049) | (1,448) | (10) | (13) | (161) | (772) | **(306)** | 7,122 | (5,049) | (1,232) | - | - | - | (1,147) |
| **Currency forwards** | | | | | | | | | | | | | | | | |
| Receiv-ables | **3,569** | 1,831 | 1,738 | - | - | - | - | - | **2,839** | 1,360 | 1,224 | - | - | - | - | 255 |
| Payables | **(3,568)** | (1,777) | (1,791) | - | - | - | - | - | **(2,846)** | (1,371) | (1,284) | - | - | - | - | (191) |
| | **1** | 54 | (53) | - | - | - | - | - | **(7)** | (11) | (60) | - | - | - | - | 64 |
| **Total** | 131 | **6,637** | **(4,102)** | **(1,448)** | **(10)** | **(13)** | **(161)** | **(772)** | (313) | **7,111** | **(5,109)** | **(1,232)** | **-** | **-** | **-** | **(1,083)** |

The above instruments are used to hedge currency risks. The total of EUR 131 million (31 December 2016: EUR (313) million) represents the net balance of currency revaluation differences on these instruments, reported as an asset and a liability, respectively, in 'Off-balance sheet instruments revaluation differences'.

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.

**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 inherent in the measures taken by the Eurosystem to stabilise the functioning of the euro area were still at a high level in 2017. The financial risk as at 31 December 2017 was determined at EUR 8.4 billion (31 December 2016: EUR 10.5 billion). The resulting risk exceeds DNB's total capital and reserves of EUR 7.9 billion. Of the total EUR 8.4 billion risk amount, EUR 3.6 billion relates to specific risks under the APP. As in 2016, EUR 500 million was added to the 'Provision for credit and interest rate risks' in 2017 with a view to these risks. As at 31 December 2017, this provision stood at EUR 1,496 million (31 December 2016: EUR 1,000 million), following a EUR 4 million impairment charge. Furthermore, in March 2013, the Minister of Finance issued an unconditional guarantee of up to EUR 5.7 billion on the basis of the scenario risks as at 31 December 2012. The guarantee relates to DNB's share in possible losses on crisis-related exposures in the monetary portfolios[14], specifically exposures to non-investment grade countries from 2012 and the SMP programme. It expired on 1 March 2018.

14 More information on DNB's financial risks can be found in Section 5.8 of the Annual Report.

The table below provides a breakdown of the buffers for balance sheet-wide risks, including those of crisis-related assets and monetary policy operations:

Millions

| | 31 December 2017 | 31 December 2016 |
|---|---|---|
| | EUR | EUR |
| Capital and reserves (excluding statutory reserve) | 7,899 | 7,892 |
| Provision for credit and interest rate risks | 1,496 | 1,000 |
| Provision for monetary policy operations | 4 | - |
| **Total** | **9,399** | **8,892** |

### Events after the balance sheet date

The unconditional guarantee of up to EUR 5.7 billion which the Minister of Finance issued in March 2013 expired on 1 March 2018.

## 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 cases are discussed in more detail below.

### GSFS Asset Management B.V., Stichting GSFS Pensionfund and some individual pension scheme participants

GSFS Asset Management B.V., Stichting GSFS Pensionfund and thirteen individual pension scheme members instituted legal proceedings against DNB in February 2014. Among other things, they asserted that DNB acted unlawfully towards the pension fund, the asset manager and the pension fund members by deciding that the pension fund did not qualify as a pension fund within the meaning of the Pensions Act (Pensioenwet), and that its pension fund registration would be revoked. In line with the ruling issued by the Amsterdam District Court in early 2015, the Amsterdam Court of Appeal dismissed the claimants' claims in June 2016. The claimants appealed from the ruling. The Supreme Court's decision is expected to be issued in 2018.

### Foundation and its managing director/DNB

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. Appeal can be made from the decision.

### 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 185–187.

# 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[15]:

Millions

| | 2017 | 2016 |
|---|---|---|
| | EUR | EUR |
| Investments | 123 | 105 |
| Lending | 0 | 0 |
| Liabilities to euro area credit institutions | 861 | 650 |
| Other liabilities | 81 | 23 |
| Monetary portfolios | 413 | 462 |
| Eurosystem claims/liabilities | 0 | 13 |
| **Total** | **1,478** | **1,253** |

Interest income went up primarily because on average banks held larger funds in current accounts and deposit facilities than in 2016. Negative interest rates prompted more financial institutions, such as non-euro area central banks, to maintain funds with DNB. This drove up interest income on other liabilities in 2017.

The table below sets out the components of interest expense.

Millions

| | 2017 | 2016 |
|---|---|---|
| | EUR | EUR |
| Lending | (102) | (16) |
| Other | (144) | (123) |
| **Total** | **(246)** | **(139)** |

15 Comparative figures have been restated to facilitate comparison. More details are provided under 'Comparison with preceding year' in the 'Accounting policies' section.

### 3. Realised gains/(losses) from financial operations



Millions

| | 2017 | 2016 |
|---|---|---|
| | EUR | EUR |
| Net realised exchange rate gains/(losses) | (2) | 0 |
| Net realised price gains on fixed-income securities | 18 | 101 |
| Net realised price gains on equities | 36 | 1 |
| **Total** | **52** | **102** |

### 4. Write-downs on financial assets and positions

The write-downs of EUR 14 million (2016: EUR 20 million) consist mainly of price revaluation losses on fixed-income securities that could not be recognised under 'Revaluation accounts'.

### 5. Reclassified to and from provision for credit and interest rate risks

Further to the outcome of the risk assessment, an amount of EUR 500 million was added to the provision for credit and interest rate risks (2016: EUR 500 million). In addition, 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

As at 31 December 2017, this item amounted to EUR 79 million (2016: EUR 79 million) and mainly included income from DNB's participating interest in the ECB.

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

Millions

| | 2017 | 2016 |
|---|---|---|
| | EUR | EUR |
| Interim profit distribution in the financial year | 56 | 55 |
| Final profit distribution for the preceding financial year | 13 | 15 |
| **Total** | **69** | **70** |

## 9. Net result of 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[16], which include securities issued by central governments and agencies[17], 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.

The net result of monetary income pooling can be broken down as follows:

Millions

| | 2017 | 2016 |
|---|---|---|
| | EUR | EUR |
| Monetary income accruing to DNB | 614 | 563 |
| Monetary income earned by DNB | (1,151) | (1,068) |
| Result of monetary income pooling | (537) | (505) |
| Adjustment of monetary income pooling from preceding years | 0 | 0 |
| Provision for monetary policy operations | (4) | - |
| **Net result of monetary income pooling** | **(541)** | **(505)** |

16 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.
17 Decision ECB/2015/10 of 4 March 2015 on a secondary markets public sector asset purchase programme.

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 of monetary income pooling of EUR (537) million (2016: EUR (505) million) arises from the difference between the monetary income pooled by DNB, amounting to EUR 1,151 million, and the monetary income reallocated to DNB based on the capital key, amounting to EUR 614 million. The net result of monetary income pooling includes DNB's share in the provision for losses from monetary policy operations, the amount of which was set in relation to the security held in the CSPP portfolio by an NCB in the Eurosystem.

## 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. The increase is caused mainly by real estate sales.

Other income can be broken down as follows[18].

Millions

| | 2017 | 2016 |
|---|---|---|
| | EUR | EUR |
| Fees from supervised institutions | 156 | 149 |
| Government contribution | 4 | 2 |
| Other | 29 | 1 |
| **Total** | **189** | **152** |

18 Comparative figures have been restated to facilitate comparison. More details are provided under 'Comparison with preceding year' in the 'Accounting policies' section.

## Operating costs

The table below sets out the components of the operating costs.

Millions

| | 2017 | 2016 |
| --- | --- | --- |
| | EUR | EUR |
| Staff costs | (216) | (204) |
| Other administrative costs | (100) | (92) |
| Depreciation and amortisation of tangible and intangible fixed assets | (49) | (49) |
| Banknote production costs | (17) | (39) |
| Other costs | 0 | 0 |
| Capitalised software costs | 3 | 5 |
| **Total** | **(379)** | **(379)** |

## 11. Staff costs

The average number of employees, expressed as full-time equivalents (FTEs), amounted to 1,762 in 2017, versus 1,703 in 2016.

The table below provides a breakdown of 'Staff costs' in 2017 and 2016.

Millions

| | 2017 | 2016 |
| --- | --- | --- |
| | EUR | EUR |
| Wages and salaries | (149) | (143) |
| Social insurance contributions | (17) | (16) |
| Pension costs | (32) | (32) |
| Other staff costs | (18) | (13) |
| **Total** | **(216)** | **(204)** |

The annual pension scheme costs of EUR 32 million for 2017 are included under 'Pension costs'. They equal total pension contributions paid (EUR 38 million) less employee-paid contributions (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 ceiling referred to in the Act. In 2014, the Ministry of Finance decided not to adjust the remuneration of DNB's incumbent Governing Board members during their current tenures. The remuneration ceiling under the WNT for the financial year 2017 amounts to EUR 181,000 (2016: EUR 179,000). Unless stated otherwise, all officials mentioned worked in full-time employment throughout the year.

### Governing Board

The annual salaries of the Governing Board members in 2017, as set by the Minister of Finance, include holiday allowance and an extra month's pay, but do not have a variable remuneration 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.

Until 2016, DNB disclosed the remuneration of the Governing Board members in a table ensuring compliance with both Section 2:383(1) of the Dutch Civil Code and Section 4.1(1) of the WNT (as it read until 1 January 2018). Pursuant to the WNT Assessment Act, which took effect on 1 July 2017, institutions under the scope of the WNT may choose to omit disclosure in accordance with the Dutch Civil Code. To achieve consistent disclosure, DNB has chosen to disclose the remuneration of the Governing Board members on the same basis as that of non-senior executives whose remuneration exceeds the maximum, therefore omitting disclosure in accordance with the Dutch Civil Code. As a result, the 2017 financial statements show lower amounts for the 2016 remuneration of the Governing Board members because employers' social insurance contributions and untaxed variable expense allowance is no longer included in the amounts in the 'total remuneration' column. The comparative figures have been restated accordingly.

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

| Position | Total remuneration | | Compensation | | Taxable fixed and variable expense allowances | | Deferred remuneration | |
|---|---|---|---|---|---|---|---|---|
| | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 |
| | EUR | EUR | EUR | EUR | EUR | EUR | EUR | EUR |
| Klaas Knot | 423,288 | 426,673 | 389,298 | 393,128 | 8,745 | 8,736 | 25,245 | 24,809 |
| Jan Sijbrand | 382,715 | 382,844 | 346,919 | 347,286 | 10,551 | 10,749 | 25,245 | 24,809 |
| Frank Elderson | 352,984 | 353,228 | 320,461 | 321,149 | 7,278 | 7,270 | 25,245 | 24,809 |
| Job Swank | 353,982 | 351,989 | 321,459 | 319,910 | 7,278 | 7,270 | 25,245 | 24,809 |
| **Total** | **1,512,969** | **1,514,734** | **1,378,137** | **1,381,473** | **33,852** | **34,025** | **100,980** | **99,236** |

The table below presents the mortgage loans extended to Governing Board members at staff terms.

| | Principal outstanding 31 December 2017 |
|---|---|
| | EUR |
| Klaas Knot | 728,373 |
| Frank Elderson | 290,695 |

### Remuneration paid to the members of the Supervisory Board

Members appointed or reappointed to the Supervisory Board since 1 January 2013 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. Under the WNT's transitional regime, the remuneration previously approved by the shareholder is paid to members appointed or reappointed before 1 January 2013. All Supervisory Board members have been paid the maximum fees as stipulated in the WNT since 1 November 2016.

In 2017 and 2016, the members of the Supervisory Board were paid the following fees.

| | 2017 | 2016 |
|---|---|---|
| | EUR | EUR |
| Wim Kuijken (Chair) | 27,150 | 26,850 |
| Jaap van Manen (Vice-Chair) | 18,100 | 17,900 |
| Bert van Delden[1, 5] | - | 26,939 |
| Annemieke Nijhof[5] | 18,100 | 17,900 |
| Feike Sijbesma[2] | 18,100 | 27,518 |
| Kees Goudswaard[3, 5] | 18,100 | 28,720 |
| Margot Scheltema | 18,100 | 17,900 |
| Marry de Gaay Fortman[4] | 18,100 | 8,950 |
| **Total** | **135,750** | **172,677** |

These amounts are disclosed pursuant to the WNT.
1 Bert van Delden's term expired on 30 October 2016.
2 WNT-compliant since his reappointment with effect from 1 September 2016.
3 WNT-compliant since his reappointment with effect from 1 October 2016.
4 Marry de Gaay Fortman was appointed with effect from 1 July 2016.
5 They are also members of the Bank Council, for which they were each paid a fee of EUR 3,140 on an annual basis (2016: 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 43 to 37 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.

| | Remuneration | | Average number of hours a week | | Compensation | | Taxable fixed and variable expense allowances | | Deferred remuneration | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 |
| Position | EUR | EUR | | | EUR | EUR | EUR | EUR | EUR | EUR |
| Division Director[1] | 316,251 | 306,629 | 38.5 | 38.5 | 288,542 | 279,013 | 2,418 | 2,414 | 25,291 | 25,201 |
| Division Director | 281,076 | 277,927 | 38.5 | 38.5 | 253,385 | 250,326 | 2,400 | 2,400 | 25,291 | 25,201 |
| Division Director | 263,340 | 260,199 | 38.5 | 38.5 | 235,649 | 232,597 | 2,400 | 2,400 | 25,291 | 25,201 |
| Division Director | 256,428 | 253,487 | 38.5 | 38.5 | 228,737 | 225,885 | 2,400 | 2,400 | 25,291 | 25,201 |
| Division Director | 255,917 | 248,924 | 38.5 | 38.5 | 228,166 | 221,251 | 2,460 | 2,472 | 25,291 | 25,201 |
| Division Director | 251,059 | 240,424 | 38.5 | 38.5 | 223,141 | 212,371 | 2,627 | 2,852 | 25,291 | 25,201 |
| Division Director | 249,576 | 249,078 | 38.5 | 38.5 | 221,885 | 220,415 | 2,400 | 3,462 | 25,291 | 25,201 |
| Division Director | 247,860 | 245,350 | 38.5 | 38.5 | 220,169 | 217,748 | 2,400 | 2,400 | 25,291 | 25,201 |
| Division Director | 226,356 | 222,960 | 36.0 | 36.0 | 198,711 | 195,459 | 2,400 | 2,693 | 25,245 | 24,809 |
| Division Director | 205,445 | 202,799 | 36.0 | 36.0 | 177,766 | 175,536 | 2,434 | 2,453 | 25,245 | 24,809 |
| Division Director | 204,791 | 204,994 | 36.0 | 36.0 | 177,146 | 177,513 | 2,400 | 2,672 | 25,245 | 24,809 |
| Division Director | 204,495 | 32,806 | 36.0 | 36.0 | 177,797 | 28,402 | 2,445 | 418 | 24,253 | 3,986 |
| Division Director | 198,927 | 188,423 | 36.0 | 36.0 | 172,274 | 161,858 | 2,400 | 2,730 | 24,253 | 23,835 |
| Division Director | 194,461 | 182,047 | 36.0 | 36.0 | 166,810 | 155,322 | 2,406 | 1,917 | 25,245 | 24,809 |
| Division Director | 193,304 | 187,628 | 36.0 | 36.0 | 165,844 | 160,987 | 2,215 | 1,833 | 25,245 | 24,809 |
| Head of Department | 201,923 | 206,070 | 37.8 | 38.8 | 174,846 | 178,890 | 1,800 | 1,800 | 25,277 | 25,379 |
| Head of Department | 201,194 | 204,635 | 38.5 | 38.5 | 174,103 | 177,634 | 1,800 | 1,800 | 25,291 | 25,201 |
| Head of Department | 243,754 | 253,590 | 37.2 | 38.5 | 216,386 | 225,989 | 2,100 | 2,400 | 25,268 | 25,201 |
| Head of Department | 221,902 | 210,534 | 36.0 | 36.0 | 192,729 | 182,188 | 3,928 | 3,536 | 25,245 | 24,809 |
| Head of Department | 214,882 | 214,262 | 40.0 | 40.0 | 187,764 | 186,986 | 1,800 | 1,839 | 25,318 | 25,437 |
| Head of Department | 196,986 | 192,556 | 36.8 | 37.8 | 169,926 | 165,520 | 1,800 | 1,800 | 25,260 | 25,236 |
| Head of Department | 194,934 | 192,803 | 38.5 | 38.5 | 167,843 | 165,802 | 1,800 | 1,800 | 25,291 | 25,201 |
| Head of Department | 194,808 | 195,135 | 40.0 | 40.0 | 167,690 | 167,898 | 1,800 | 1,800 | 25,318 | 25,437 |
| Head of Department | 193,669 | 191,348 | 36.0 | 36.0 | 166,624 | 164,739 | 1,800 | 1,800 | 25,245 | 24,809 |
| Head of Department | 193,233 | 189,953 | 36.0 | 36.0 | 166,188 | 163,344 | 1,800 | 1,800 | 25,245 | 24,809 |
| Head of Department | 192,772 | 190,254 | 36.0 | 36.0 | 165,727 | 163,168 | 1,800 | 1,999 | 25,245 | 25,087 |
| Head of Department | 191,242 | 192,071 | 36.0 | 36.0 | 164,197 | 165,430 | 1,800 | 1,833 | 25,245 | 24,809 |
| Head of Department | 190,030 | 193,843 | 36.0 | 36.0 | 162,830 | 167,234 | 1,955 | 1,800 | 25,245 | 24,809 |
| Head of Department | 186,170 | 183,642 | 36.0 | 36.0 | 159,058 | 156,714 | 1,867 | 2,119 | 25,245 | 24,809 |
| Head of Department | 183,088 | 181,041 | 36.0 | 36.0 | 156,043 | 154,023 | 1,800 | 2,210 | 25,245 | 24,809 |
| Head of Department[2] | 162,088 | 177,328 | 36.0 | 36.0 | 148,565 | 150,459 | 900 | 2,060 | 12,623 | 24,809 |
| Expert[3] | 206,521 | 172,088 | 36.0 | 37.8 | 179,366 | 145,168 | 1,910 | 1,800 | 25,245 | 25,120 |
| Expert[1] | 206,447 | 200,980 | 38.5 | 38.5 | 179,250 | 173,591 | 1,906 | 2,188 | 25,291 | 25,201 |
| Expert[3] | 199,482 | 171,940 | 38.5 | 38.5 | 172,991 | 145,342 | 1,200 | 1,397 | 25,291 | 25,201 |
| Expert | 196,251 | 200,036 | 37.9 | 38.5 | 169,322 | 173,019 | 1,650 | 1,816 | 25,279 | 25,201 |
| Expert | 182,343 | 194,689 | 38.5 | 38.5 | 155,852 | 168,287 | 1,200 | 1,200 | 25,291 | 25,201 |
| Expert[4] | 181,245 | 74,196 | 36.0 | 36.0 | 154,200 | 67,358 | 1,800 | 783 | 25,245 | 6,055 |

1 Including one-off conversion of holiday hours.
2 Resigned effective 1 July 2017.
3 Including one-off conversion of lease car entitlement.
4 Average number of hours a week following secondment abroad until 1 September 2016.

## 12. Other administrative expenses



The table below specifies 'Other administrative expenses'.

Millions

| | 2017 | 2016 |
|---|---|---|
| | EUR | EUR |
| Temporary staff and outsourcing | (50) | (42) |
| Travel and accommodation expenses | (5) | (5) |
| Housing | (10) | (8) |
| Office equipment, software and office expenses | (25) | (27) |
| General expenses | (10) | (10) |
| **Total** | **(100)** | **(92)** |

'General expenses' include the fees paid to the external auditor. The table below provides a breakdown of the fees into categories.

| | 2017 | 2016 |
|---|---|---|
| | EUR | EUR |
| Audit of the financial statements | 526,927 | 521,087 |
| Other audit services | 90,750 | 106,178 |
| Other non-audit services | 97,031 | - |
| **Total** | **714,708** | **627,265** |

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 has been liable to pay corporate income tax since 1 January 2016 due to the introduction of the corporate income tax liability for public-sector enterprises. DNB's corporate income tax liability is limited to duties not assigned to it by law. As at 31 December 2017, the corporate income tax liability amounted to EUR 3 million (31 December 2016: nil). This expense item relates to the gain achieved on the sale of real estate.

## 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 2017 | Budget 2017 | Actual 2016 |
|---|---|---|---|
| | EUR | EUR | EUR |
| Banks* | 61 | 69 | 61 |
| Pension funds | 27 | 29 | 28 |
| Insurers** | 40 | 40 | 41 |
| Other institutions and Sanctions Act | 16 | 16 | 15 |
| **Total costs of supervision** | **144** | **154** | **145** |
| Resolution | 5 | 7 | 5 |
| DGS for the European part of the Netherlands | 8 | 9 | - |
| DGS for the Caribbean Netherlands | 1 | - | - |
| **Total costs of resolution and DGS** | **13** | **16** | **5** |
| **Total costs of duties as a ZBO** | **157** | **170** | **150** |
| **Interest compensation settlement** | **1** | **-** | **-** |

Totals may not add up owing to rounding. Presentation is in line with that in the ZBO report for 2017.
* Banks including other credit institutions.
** Including the costs for health care insurers totalling EUR 4.6 million (budgeted at EUR 4.7 million).

For detailed notes, please consult DNB's (Dutch-language) ZBO report on its public duties in 2017.



Amsterdam, 28 March 2018
Governing Board of De Nederlandsche Bank N.V.

Klaas Knot, *President*
Jan Sijbrand
Frank Elderson
Job Swank

Amsterdam, 28 March 2018
Adopted by the Supervisory Board of
De Nederlandsche Bank N.V.

Wim Kuijken, *Chair*
Jaap van Manen, *Vice-Chair*
Feike Sijbesma
Kees Goudswaard
Annemieke Nijhof
Margot Scheltema
Marry de Gaay Fortman

# 4 Other information

**Independent auditor's report**
To the Governing Board, the Supervisory Board and the general meeting of De Nederlandsche Bank N.V.

## Report on the financial statements for 2017 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 2017 as set out in this Annual Report on pages 175 to 225.

In our opinion, the 2017 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/2010/20, 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 2017;
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). Our responsibilities under those standards are further described in the "Our responsibilities for the audit of the financial statements" 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. 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 174; and
- Other information as required by Part 9 of Book 2 of the Dutch Civil Code.

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 174 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/2010/20, 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 e.g.:

- 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; and
- Evaluating whether the financial statements have been compiled in accordance with the accounting principles as set out in Guideline ECB/2010/20, 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, 28 March 2018

Deloitte Accountants B.V.

Signed by: 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.